

EXITFLEX®

Swiss Technology



RUBBER HYDRAULIC

THERMOPLASTIC - PTFE - UHP

SS FLEXIBLE - HYDRAULIC FITTINGS

REV 1 2017

EXITFLEX®

ABOUT US

The Exitflex group of companies was founded in the late 1970's as a manufacturing centre of excellence and worldwide distribution network for thermoplastic hoses, tungsten carbide spray nozzles, swivel connections, fluid control, filtration equipment and accessories targeted to the niche market of spray applied surface coatings.

The surface finishing industry remains one of our key target business sectors today due to the extensive range of quality products and the ever present specialised knowledge and experience.

Since the acquisition of the Exitflex Group by Polyhose in 2009 Exitflex branches have been incorporating products from the broad Polyhose product range and distributing to an ever widening customer base. Today Exitflex, or Polyhose branches as many have now become, have grown in size and experience and operating as wholesale distribution platforms for Polyhose are offering hose and associated products serving hydraulic, gas, water jetting, sewer cleaning and many other industries besides.

Polyhose, a world class manufacturer of thermoplastic, rubber hydraulic, PTFE and industrial hose with an annual capacity of 100 million meters, is highly focused on the design, development, manufacturing and distribution of fluid conveyance products. The manufacturing plants are modern, sophisticated facilities operated with skilled expertise to deliver premium quality, reliable, high performing products whilst in Switzerland, Exitflex continues, through a continual program of R&D, to stay one step ahead in world of fluid control and atomisation making the Exitflex brand a firm favourite for leading OEM's and professional coating applicators alike.

The state of art Polyhose facilities in Chennai, India are accredited with ISO 9001-2008 & TS16949 as well as being EMS Certified operations, managed by skilled and talented industry



managers, building competitive advantage through robust processes and operational excellence, to deliver world class products.

Exitflex, alongside Polyhose look forward to an increasing association with dynamic organisations in search of new developments in the field of Industrial, Automobile, Hydraulic, Surface Finishing and Pneumatic applications with the aim of establishing cost effective and high quality products for fluid transmission, control & atomisation.



Our mantra to success is to redefining **Innovation**, redefining **Customer Support** and redefining **Polymer Engineering**

INDEX

RUBBER HYDRAULIC HOSE RANGE

LOW & MEDIUM PRESSURE HYDRAULIC HOSE		Pg No.
EF253	MEDIUM PRESSURE HYDRAULIC HOSE - 1W	5
EF254	HIGH PRESSURE HYDRAULIC HOSE - 2W	5
EF176	TRIFLEX HOSE - 3W	6
EF257	MEDIUM PRESSURE COMPACT HYDRAULIC HOSE - 1W	6
EF258	HIGH PRESSURE COMPACT HYDRAULIC HOSE - 2W	7
EF293	ISO-BARIC MEDIUM PRESSURE COMPACT HYDRAULIC HOSE	7
EF213	ISO-BARIC 3K - 3000PSI	8
EF214	ISO-BARIC 4K - 4000PSI	8
EF215	ISO-BARIC 5K - 5000PSI	9
EF216	ISO-BARIC 6K - 6000PSI	9
EF296	MEDIUM PRESSURE COMPACT HYDRAULIC HOSE - 1W	10
EF297	HIGH PRESSURE COMPACT HYDRAULIC HOSE - 2W	10
EF190	MEDIUM PRESSURE SLIM PILOT HOSE - 1W	11
EF142	HIGH PRESSURE HYDRAULIC HOSE - 2W	11
EF143	MEDIUM PRESSURE HYDRAULIC HOSE - 1W	11
EF144	HIGH PRESSURE HYDRAULIC HOSE - 2W	12
EF145	LOW PRESSURE & SUCTION HYDRAULIC HOSE	12
EF146	MEDIUM PRESSURE HYDRAULIC HOSE	13
EF186	MEDIUM PRESSURE HI-TEMP HYDRAULIC HOSE - 1W	13
EF150	MEDIUM PRESSURE HYDRAULIC HOSE	14
EF147	LOW PRESSURE HYDRAULIC HOSE	14
EF161	LOW PRESSURE HYDRAULIC HOSE	15
EF162	MEDIUM PRESSURE HYDRAULIC HOSE	15
EF163	MEDIUM PRESSURE HYDRAULIC HOSE	16
EF175	HIGH PRESSURE HYDRAULIC HOSE - JACK HOSE - 2W	16

PRESSURE WASHER HOSE

EF513	PW - 3K - 3000PSI	17
EF514	PW - 4K - 4000PSI	17
EF516	PW - 6K - 6000PSI	18
EF521	SUPER SERVICE HOSE - 1W	18
EF522	SUPER SERVICE HOSE - 2W	18

HIGH PRESSURE SPIRAL HOSE

EF177	MEDIUM PRESSURE HYDRAULIC HOSE - 4 WIRE SPIRAL	19
EF178	HIGH PRESSURE HYDRAULIC HOSE - 4 OR 6 WIRE SPIRAL	19
EF279	HIGH PRESSURE HYDRAULIC HOSE - 4 OR 6 WIRE SPIRAL	20
EF277	MEDIUM PRESSURE HYDRAULIC HOSE - 4 WIRE SPIRAL	20
EF278	EXTRA HIGH PRESSURE HYDRAULIC HOSE - 4 WIRE SPIRAL	21

WATER BLAST HOSE

EF280	WATER BLAST 30K - 4 WIRE SPIRAL	21
EF281	WATER BLAST 40K - 4 WIRE SPIRAL	22
EF282	WATER BLAST 45K - 4 WIRE SPIRAL	22
EF283	WATER BLAST 50K - 6 WIRE SPIRAL	22

MINING HOSE

EF174	MINING HYDRAULIC HOSE - 2W	23
-------	----------------------------	----

FUEL HOSE

EF442	HARD WALL FUEL DISPENSING HOSE - 1W	23
EF443	SOFT WALL FUEL DISPENSING HOSE	24
EF531	FUEL HOSE	24
EF532	FUEL HOSE	25
EF533	LPG HOSE - 1W	25
EF534	LPG HOSE - 1W	26
EF535	LPG HOSE - 1W	26
EF536	CNG HOSE	27

AUTOMOBILE & AIR CONDITIONING HOSE

EF140	HI TEMP BRAKE HOSE	27
EF503	AIR CONDITIONING HOSE - 1W	27
EF540	AIR BRAKE HOSE	28

RUBBER INDUSTRIAL HOSE RANGE

INDUSTRIAL HOSE		Pg No.
EF440	COMPRESSED AIR HOSE - 40 BAR	28
EF471	STEAM HOSE - 1W - 10 BAR	29
EF472	STEAM HOSE - 2W - 20 BAR	29
EF475	STEAM HOSE WITH HELICAL WIRE - 20 BAR	30
EF555	NON CONDUCTIVE HOSE - 20 BAR	30
EF601	WATER SUCTION & DISCHARGE - 10 BAR	31
EF602	WATER DISCHARGE - 10 BAR	31
EF604	WATER SUCTION & DISCHARGE - 20 BAR	32
EF606	STEEL MILL WATER DELIVERY WITH FIBER GLASS COVER - 10 BAR	32
EF607	STEEL MILL WATER SUCTION & DELIVERY WITH FIBER GLASS COVER - 10 BAR	33
EF609	THERMOPLASTIC LINED PAINT SUCTION & DISCHARGE HOSE - 10 BAR	33
EF610	WATER DISCHARGE HOSE - 20 BAR	34
EF611	OIL / FUEL SUCTION & DISCHARGE HOSE - 10 BAR	34
EF613	OIL / FUEL DELIVERY HOSE - 10 BAR	35
EF614	OIL SUCTION & DISCHARGE HOSE - 20 BAR	35
EF615	OIL SUCTION & DISCHARGE HOSE - 40 BAR	36
EF617	OIL / FUEL DELIVERY HOSE - 20 BAR	36
EF620	AIR & WATER DISCHARGE HOSE - 10 BAR	37
EF621	CEMENT / PLASTER PLACEMENT HOSE - 10 BAR	37
EF622	HIGH PRESSURE PLASTER SPRAY HOSE - 40 BAR	38
EF623	BULK MATERIAL SUCTION & DISCHARGE HOSE - 10 BAR	38
EF624	SHOT BLASTING HOSE - 12 BAR	39
EF625	BUNKER TRUCK HOT AIR BLOWER HOSE - 10 BAR	39
EF626	DRY CEMENT DELIVERY / SILO HOSE - 10 BAR	40
EF628	ABRASIVE BULK MATERIAL SUCTION & DISCHARGE HOSE - 20 BAR	40
EF629	ABRASIVE BULK MATERIAL DISCHARGE HOSE - 10 BAR	41
EF630	AIR & WATER DISCHARGE HOSE - 20 BAR	41
EF631	INDUSTRIAL DUTY AIR HOSE - 20 BAR	42
EF639	BULK MATERIAL DISCHARGE HOSE - 20 BAR	42
EF642	XLPE CHEMICAL SUCTION & DISCHARGE HOSE - 17 BAR	43
EF645	UHMPE CHEMICAL SUCTION & DISCHARGE HOSE - 17 BAR	43
EF646	EPDM CHEMICAL SUCTION & DISCHARGE HOSE - 17 BAR	44
EF647	SLURRY & MUD WATER SUCTION & DISCHARGE HOSE - 10 BAR	44
EF648	UHMWPE SUCTION & DISCHARGE FOOD HOSE - 17 BAR	45
EF649	CONCRETE DELIVERY HOSE	45
EF651	RADIATOR HOSE - 3 BAR	46
EF657	OIL / FUEL DELIVERY HOSE - 20 BAR FRAS	46
EF661	MINE BLAST HANDLING HOSE - 20 BAR	47
EF663	AIR & WATER DISCHARGE HOSE - 20 BAR FRAS	47
EF681	SATURATED STEAM & HOT WATER DELIVERY HOSE - 7 BAR	47

THERMOPLASTIC PRODUCT RANGE

HYDRAULIC HOSE

EF148	MEDIUM PRESSURE HYDRAULIC HOSE - R7	48
EF149	HIGH PRESSURE HYDRAULIC HOSE -R8	48
EF353	HIGH PRESSURE HYDRAULIC HOSE - R8	49
EF194	LOW TEMPERATURE HOSE - R18	49
EF348	MEDIUM PRESSURE HYDRAULIC HOSE - 1W	50
EF349	HIGH PRESSURE HYDRAULIC HOSE - 2W	50
EF358	COMPACT HOSE - R7	51
EF761	HYBRID HOSE - 1W	51
EF762	HYBRID HOSE - 2W	51

SEWER JETTING HOSE

EF301	SEWER JET - 2500 PSI	52
EF302	SEWER JET - 3000 PSI	52
EF303	SEWER JET - 3600 PSI	53
EF304	SEWER JET - 4000 PSI	53
EF305	SEWER JET - 2800 PSI	54
EF306	SEWER JET - 3000 PSI	54
EF307	SEWER JET - 3600 PSI	55
EF308	SEWER JET - 3600 / 4000 PSI	55

PAINT SPRAY HOSE		Pg No.
EF342	PAINT SPRAY - 1W	56
EF343	PAINT SPRAY - 2W	56
EF344 / EF345	HIGH PRESSURE PAINT SPRAY	57
EF346	VERY HIGH PRESSURE PAINT SPRAY	57
EF347	SUPER HIGH PRESSURE PAINT SPRAY	58
EF341	PAINT & AGGRESSIVE CHEMICAL SPRAY - 1W	58
EF340	PAINT & AGGRESSIVE CHEMICAL SPRAY - 2W	59
EF721/ EF722	FLUOROPOLYMER - LOW PRESSURE CONDUCTIVE / NON - CONDUCTIVE	59
EF727/ EF728	LOW PRESSURE CONDUCTIVE / NON - CONDUCTIVE	60
EF729/ EF730	LOW PRESSURE CONDUCTIVE / NON - CONDUCTIVE	60

HIGH PRESSURE HOSE		
EF350 / EF351	VERY HIGH PRESSURE JACK HOSE	61
EF352	VERY HIGH PRESSURE JACK HOSE - NON CONDUCTIVE	61
EF751	COMPACT JACK HOSE	62

AIR BREATHING HOSE		
EF395	AIR BREATHING HOSE - 6000 PSI	62
EF396	AIR BREATHING HOSE - 7000 PSI	62

LUBRICATION HOSE		
EF320 / EF321/ EF322	LUBRICATION GREASE HOSE	63
EF734	GREASE HOSE - LOW PRESSURE	63

CNG HOSE		
EF324	ELECTRICALLY CONDUCTIVE CNG HOSE	64
EF325	ELECTRICALLY CONDUCTIVE CNG HOSE	64

REFRIGERATION HOSE		
EF334	REFRIGERATION HOSE	65
EF326 / EF327 / EF328	BEVERAGE DISPENSING HOSE	65

MICRO BORE HOSE		
EF354 / EF355	MICRO BORE HOSE	66

PILOT LINE HOSE		
EF392	PILOT LINE HOSE	66

MOISTURE BLOK HOSE		
EF758	MOISTURE BLOK HOSE	67

AUTOMOTIVE HOSE		
EF771	CAB TILT HOSE	67
EF772	CLUTCH HOSE	67

PU DUCTING			
POLYURETHANE DUCTING - STANDARD	STANDARD WALL THICKNESS		69
POLYURETHANE DUCTING - STANDARD C	STANDARD CONSTANT WALL THICKNESS		70
POLYURETHANE DUCTING - MEDIUM	MEDIUM WALL THICKNESS		71
POLYURETHANE DUCTING - MEDIUM C	MEDIUM CONSTANT WALL THICKNESS		72
POLYURETHANE DUCTING - HEAVY	HEAVY WALL THICKNESS		73
POLYURETHANE DUCTING - HEAVY C	HEAVY CONSTANT WALL THICKNESS		74

INDUSTRIAL & AUTOMOTIVE TUBINGS		Pg No.
POLYAMIDE TUBING	PA6 , PA11, PA12 TUBE	75-76
POLYURETHANE TUBING	PU TUBE	77
SPATTER TUBES	PU TUBE WITH SPATTER RESISTANT COVER	78
PTFE TUBING	PTFE TUBE	79-81

PTFE HOSE		
EF179	PTFE HOSE - R14	82
EF311	PTFE HOSE - R14 - ELECTRICAL CONDUCTIVE	82
EF313	PTFE HOSE - R14 - INCREASED WALL	83
EF381	PTFE HOSE - R14 - 2 WIRE	83
EF382	PTFE - GAS HOSE	84
EF370	PTFE -CONVOLUTED HOSE	84
EF371	PTFE - ELECTRICAL CONDUCTIVE CONVOLUTED HOSE	85
EF782	PTFE - CONVOLUTED HOSE WITH HELIX WIRE AND STAINLESS STEEL - STANDARD WALL	85
EF783	PTFE - CONVOLUTED HOSE WITH HELIX WIRE AND POLYPROPYLENE YARN -STANDARD WALL	86
EF785	PTFE - CONVOLUTED HOSE WITH POLYPROPYLENE YARN - STANDARD WALL	86
EF775	PTFE - GAS HOSE - ARAMID	86
EF776	PTFE - GAS HOSE - 1W	87
EF777	PTFE - BRAKE FLUID HOSE	87
EF778	PTFE - NITROGEN GAS HOSE	87

UHP HOSE		
EF902	2 SPIRALS OF HIGH TENSILE STEEL WIRE	89
EF902P	2 SPIRALS OF HIGH TENSILE STEEL WIRE, 1 BRAID OF STEEL WIRE	89
EF902Q	4 SPIRALS OF HIGH TENSILE STEEL WIRE, 2 DENSE AND 2 OPEN LAYERS	90
EF902QZ		
EF903	2 SPIRALS OF HIGH TENSILE STEEL WIRE, 1 BRAID OF G.I STEEL WIRE	90
EF904	4 SPIRALS OF HIGH TENSILE STEEL WIRE	91
EF904R	4 SPIRALS OF HIGH TENSILE STEEL WIRE	91
EF906	6 SPIRALS OF HIGH TENSILE STEEL WIRE	92
EF906R	6 SPIRALS OF HIGH TENSILE STEEL WIRE	92
EF908	8 SPIRALS OF HIGH TENSILE STEEL WIRE	93

PVC HOSE		
EF360	PNEUMATIC TOOL HOSE	94
EF361	SUPER SPRAY HOSE	94
EF362	WELDING HOSE	94
EF365	AIR / WATER HOSE	95
EF365L	AIR / WATER HOSE - LIGHT DUTY	95
EF367	PVC BRAIDED HOSE	96
EF367L	PVC BRAIDED HOSE - LIGHT DUTY	96
EF368	MULTIPURPOSE HOSE	96

COMPOSITE HOSE		
EF801	POLY - TANKER HOSE - 7 BAR	97
EF802	POLY - OIL HOSE - 10 BAR	97
EF803	POLY - AVIATION FUEL HOSE - 7 BAR	97
EF804	POLY - FUEL HOSE - 7 BAR	98
EF805	POLY - PTFE CHEMICAL HOSE - 10 BAR	98
EF806	POLY - CHEMICAL HOSE SS - 10 BAR	98
EF807	POLY - CHEMICAL HOSE PP - 10 BAR	99
EF808	POLY - CHEMICAL DOCK HOSE - 14 BAR	99
EF809	POLY - DOCK PTFE HOSE - 14 BAR	99
EF810	POLY - DOCK PG HOSE - 14 BAR	99
EF811	POLY - OIL DOCK HOSE - 14 AR	100

COMPOSITE HOSE - FITTINGS	101-103
---------------------------	---------

SS FLEXIBLE HOSE		
CORRUGATED FLEXIBLE HOSES - 304 / 321 / 316L	104 -105	

HYDRAULIC FITTING		
CODIFICATION / REFERENCE / INSERT AND FERRULE CHART	106-122	

ACCESSORIES - SPIRAL HOSE GUARD	123
---------------------------------	-----

ASSEMBLY MANUAL	124-130
-----------------	---------

CHEMICAL RESISTANCE CHART	131-137
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RUBBER - HYDRAULIC - LOW & MEDIUM PRESSURE HOSE

EF 253 - R1AT / 1 SN

Applicable Standard : SAEJ517-100R1AT / EN 853-1SN / ISO 1436



Construction

Core Black colour, Synthetic rubber resistant to oil and water

Reinforcement Single steel wire braid

Cover Black colour, Synthetic rubber resistant to abrasion and weather, oil & ozone

Application Medium Pressure Hydraulic Lines 10 to 250 bar. For use with petroleum, synthetic or water based fluids in Hydraulic systems. Suitable for Agricultural, Earthmoving & Material handling equipments and machineries/systems

Note: Use Item Code EF553 for low temp (-55°C to +100°C);

EF255 for high temp MSHA Cover (-40°C to +135°C); EF291 for ultra high temp MSHA Cover (-40°C to +150°C)

EF298 for UHMWPE cover; Sizes 2-1/2" to 4" are not covered under SAEJ517-100R1AT/EN 853-1SN

Item Code	Dash Size	DN	ID		OD		WP		BP		BR/r		W
			inch	mm	inch	mm	psi	bar	psi	bar	inch	mm	kg/m
EF253-03	-03	05	3/16	5.1	0.45	11.5	3625	250	14500	1000	3.5	90	0.205
EF253-04	-04	06	1/4	6.7	0.52	13.1	3265	225	13050	900	3.9	100	0.262
EF253-05	-05	08	5/16	8.2	0.58	14.7	3120	215	12470	860	4.5	115	0.283
EF253-06	-06	10	3/8	9.8	0.67	17.1	2610	180	10440	720	4.9	125	0.383
EF253-08	-08	12	1/2	13.1	0.80	20.2	2320	160	9280	640	7.1	180	0.438
EF253-10	-10	16	5/8	16.2	0.92	23.3	1885	130	7540	520	7.9	200	0.536
EF253-12	-12	19	3/4	19.3	1.07	27.3	1525	105	6090	420	9.4	240	0.675
EF253-16	-16	25	1	25.9	1.39	35.3	1305	90	5150	355	11.8	300	1.008
EF253-20	-20	31	1.1/4	32.4	1.69	43.0	945	65	3700	255	16.5	420	1.443
EF253-24	-24	38	1.1/2	38.7	1.97	50.1	725	50	2900	200	19.7	500	1.735
EF253-32	-32	51	2	51.3	2.50	63.4	580	40	2320	160	24.8	630	2.352
EF253-40	-40	63	2.1/2	63.5	2.99	76.0	580	40	2105	145	29.9	760	2.640
EF253-48	-48	76	3	76.2	3.56	90.5	510	35	2030	140	35.4	900	3.798
EF253-64	-64	100	4	101.6	4.61	117.0	145	10	580	40	46.1	1170	4.928



Temperature Range: Continuous: -40°C to +100°C Intermittent: +120°C

Impulse Cycles: 150,000; Tested upto 300,000 cycles, upto 1" I.D

EF 254 - R2 AT / 2SN

Applicable Standard : SAE J517-100 R2AT / EN 853-2SN / ISO 1436



Construction

Core Black colour, Synthetic rubber resistant to oil and water

Reinforcement Double steel wire braids

Cover Black colour, Synthetic rubber resistant to abrasion and weather, oil & ozone

Application High Pressure Hydraulic Lines 50 to 415 bar. For use with petroleum, synthetic or water based fluids in Hydraulic systems. Suitable for Agricultural, Earthmoving & Material handling equipments and machineries/systems

Note: Use Item Code EF554 for low temp (-55°C to +100°C) ; EF256 for high temp MSHA Cover (-40°C to +135°C);

EF292 for ultra high temp (-40°C to +150°C); EF299 for UHMWPE cover;

3" & 4" are not covered under SAEJ517-100R1AT/EN 853

Item Code	Dash Size	DN	ID		OD		WP		BP		BR/r		W
			inch	mm	inch	mm	psi	bar	psi	bar	inch	mm	kg/m
EF254-03	-03	05	3/16	5.1	0.52	13.1	6020	415	24070	1660	3.5	90	0.319
EF254-04	-04	06	1/4	6.7	0.58	14.7	5800	400	23200	1600	3.9	100	0.386
EF254-05	-05	08	5/16	8.2	0.64	16.3	5075	350	20300	1400	4.5	115	0.458
EF254-06	-06	10	3/8	9.8	0.74	18.7	4785	330	19140	1320	4.9	125	0.590
EF254-08	-08	12	1/2	13.1	0.86	21.8	3990	275	15950	1100	7.1	180	0.679
EF254-10	-10	16	5/8	16.2	0.98	25.0	3625	250	14500	1000	7.9	200	0.825
EF254-12	-12	19	3/4	19.3	1.14	28.9	3120	215	12470	860	9.4	240	1.009
EF254-16	-16	25	1	25.9	1.48	37.5	2395	165	9570	660	11.8	300	1.457
EF254-20	-20	31	1.1/4	32.4	1.87	47.6	1815	125	7250	500	16.5	420	2.272
EF254-24	-24	38	1.1/2	38.7	2.13	54.0	1305	90	5220	360	19.7	500	2.620
EF254-32	-32	51	2	51.3	2.63	66.7	1160	80	4640	320	24.8	630	3.381
EF254-40	-40	63	2.1/2	63.5	3.15	80.0	1015	70	4060	280	29.9	760	4.443
EF254-48	-48	76	3	76.2	3.68	93.4	800	55	3190	220	35.4	900	5.459
EF254-64	-64	100	4	101.6	4.67	118.5	725	50	2900	200	46.5	1180	5.887



Temperature Range: Continuous: -40°C to +100°C Intermittent: +120°C

Impulse Cycles: 2,00,000; Tested upto 4,00,000 cycles, upto 1" I.D

EF 176 - TRIFLEX



Construction

- Core** Black colour, synthetic rubber resistant to oil
- Reinforcement** Three high tensile steel braids
- Cover** Black colour, Synthetic rubber resistant to abrasion and weather, oil & ozone
- Application** High Pressure for forest industry. Compatible with mineral, vegetable oils, glycol, polyglycol based, synthetic ester based oils, oils in water emulsion

Item Code	Dash Size	DN	ID		RI OD		OD		WP		BP		BR/r		W
			inch	mm	inch	mm	inch	mm	psi	bar	psi	bar	inch	mm	kg/m
EF176-06	-06	10	3/8	9.5	0.70	17.7	0.84	21.3	7250	500	29000	2000	7.09	180	0.832
EF176-08	-08	12	1/2	12.7	0.81	20.5	0.96	24.3	6815	470	27260	1880	9.06	230	1.017
EF176-10	-10	16	5/8	16.0	0.96	24.4	1.10	28.0	5945	410	23780	1640	9.84	250	1.199
EF176-12	-12	19	3/4	19.0	1.09	27.8	1.24	31.5	5440	375	21750	1500	11.81	300	1.457
EF176-16	-16	25	1	25.4	1.37	34.7	1.52	38.7	4570	315	18270	1260	13.39	340	1.902



Temperature Range: Continuous: -40°C to +100°C

EF 257 - 1SC

Applicable Standard : EN 857 - 1SC / ISO 11237-1



Construction

- Core** Black colour, synthetic rubber resistant to oil & water
- Reinforcement** Single steel wire braid
- Cover** Black colour, Synthetic rubber resistant to abrasion and weather, oil & ozone
- Application** Medium Pressure Hydraulic Lines 75 to 225 bar requiring compact outer dia, and high flexibility for use with petroleum, synthetic or water based fluids in Hydraulic systems. Suitable for Agricultural, Construction & Material handling equipments and machineries/systems

Note: Use Item Code EF167 for high temp (-40°C to + 135°C); EF557 for low temp (-55°C to + 100°C); EF169 for ultra high temp (-40°C to + 150°C); EF157 for non MSHA cover (-40°C to + 100°C); 1-1/4" 1SC not covered under EN 857

Item Code	Dash Size	DN	ID		OD		WP		BP		BR/r		W
			inch	mm	inch	mm	psi	bar	psi	bar	inch	mm	kg/m
EF257-04	-04	06	1/4	6.7	0.51	13.0	3265	225	13050	900	3.0	75	0.216
EF257-05	-05	08	5/16	8.2	0.56	14.1	3120	215	12470	860	3.3	85	0.242
EF257-06	-06	10	3/8	9.8	0.64	16.3	2610	180	10440	720	3.5	90	0.308
EF257-08	-08	12	1/2	13.1	0.79	20.1	2320	160	9280	640	5.1	130	0.442
EF257-10	-10	16	5/8	16.2	0.89	22.5	1885	130	7540	520	5.9	150	0.481
EF257-12	-12	19	3/4	19.3	1.03	26.2	1525	105	6090	420	7.1	180	0.596
EF257-16	-16	25	1	25.9	1.35	34.2	1305	90	5150	355	9.1	230	0.885
EF257-20	-20	31	1.1/4	32.1	1.65	42.0	1090	75	4350	300	11.8	300	1.087



Temperature Range: Continuous: -40°C to +100°C Intermittent: +120°C

EF 258 - 2SC

Applicable Standard : EN 857 - 2SC / SAE 100 R16 / ISO 11237-1



Construction

Core Black colour, Synthetic rubber resistant to oil and water

Reinforcement Double steel wire braids

Cover Black colour, Synthetic rubber resistant to abrasion and weather, oil & ozone

Application High Pressure Hydraulic Lines 125 to 400 bar and requiring compact outer dia, and high flexibility for use with petroleum, synthetic or water based fluids in Hydraulic systems. Suitable for Agricultural, Earthmoving & Material handling equipments/machineries and systems

Note: Use Item Code EF158 for non MSHA cover (-40°C to + 100°C);
EF168 for high temp(-40°C to + 135°C);EF170 Ultra for extra high temp(-40°C to + 150°C);
EF558 for low temp (-55°C to + 100°C); EF260 for UHMWPE cover

Item Code	Dash Size	DN	ID		OD		WP		BP		BR/r		W
			inch	mm	inch	mm	psi	bar	psi	bar	inch	mm	kg/m
EF258-04	-04	06	1/4	6.7	0.55	13.9	5800	400	23200	1600	2.0	50	0.323
EF258-05	-05	08	5/16	8.2	0.60	15.2	5075	350	20300	1400	2.2	55	0.366
EF258-06	-06	10	3/8	9.8	0.70	17.9	4785	330	19140	1320	2.6	65	0.466
EF258-08	-08	12	1/2	13.1	0.83	21.1	3990	275	15950	1100	3.5	90	0.624
EF258-10	-10	16	5/8	16.3	0.96	24.4	3625	250	14500	1000	3.9	100	0.736
EF258-12	-12	19	3/4	19.3	1.11	28.3	3120	215	12470	860	4.7	120	0.932
EF258-16	-16	25	1	25.9	1.42	36.1	2395	165	9570	660	5.9	150	1.324
EF258-20	-20	31	1.1/4	32.2	1.73	43.9	1815	125	7250	500	8.3	210	1.750



Temperature Range: Continuous: -40°C to +100°C Intermittent: +120°C
Impulse Cycles: 200,000 cycles

EF 293 -R17

Applicable Standard : SAE J517 - 100 R17



Construction

Core Black colour, Synthetic rubber resistant to oil and water

Reinforcement Single or Double steel wire braids

Cover Black colour, Synthetic rubber resistant to abrasion and weather, oil & ozone

Application Constant Pressure Hydraulic Lines 210 bar and requires half bend radius for use with petroleum, synthetic or water based fluids in Hydraulic systems. Suitable for Agricultural, Construction & Material handling equipments/machineries and systems

Note: Use Item Code EF294 MSHA AX UHMWPE

Item Code	Dash Size	DN	ID		OD		WP		BP		BR/r		W
			inch	mm	inch	mm	psi	bar	psi	bar	inch	mm	kg/m
EF293-04	-04	06	1/4	6.6	0.50	12.8	3045	210	12180	840	2.0	50	0.218
EF293-05	-05	08	5/16	8.1	0.56	14.3	3045	210	12180	840	2.2	55	0.253
EF293-06	-06	10	3/8	9.7	0.64	16.3	3045	210	12180	840	2.6	65	0.303
EF293-08	-08	12	1/2	12.9	0.80	20.3	3045	210	12180	840	3.5	90	0.446
EF293-10	-10	16	5/8	16.1	0.99	25.1	3045	210	12180	840	3.9	100	0.791
EF293-12	-12	19	3/4	19.2	1.16	29.4	3045	210	12180	840	4.7	120	0.994
EF293-16	-16	25	1	25.7	1.48	37.5	3045	210	12180	840	5.9	150	1.614



Temperature Range: Continuous: -40°C to +100°C Intermittent: Max.+120°C
Impulse Cycles: 200,000 cycles

EF 213 - 3000 PSI



Construction

- Core** Black colour, synthetic rubber resistant to oil & weather
- Reinforcement** Single or double steel wire braids
- Cover** Black colour, synthetic rubber resistant to abrasion and weather, oil & ozone
- Application** Constant pressure hydraulic lines 210 bar for use with petroleum, synthetic or water based fluids in hydraulic systems. Suitable for Agricultural, Construction & material handling equipments/systems

Item Code	Dash Size	DN	ID		OD		WP		BP		BR/r		W
			inch	mm	inch	mm	psi	bar	psi	bar	inch	mm	kg/m
EF213 -04	-04	06	1/4	6.7	0.48	12.2	3000	210	12000	830	2.17	55	0.216
EF213 -05	-05	08	5/16	8.2	0.55	14.0	3000	210	12000	830	2.17	55	0.242
EF213 -06	-06	10	3/8	9.8	0.63	16.1	3000	210	12000	830	2.56	65	0.303
EF213 -08	-08	12	1/2	13.1	0.80	20.2	3000	210	12000	830	3.54	90	0.446
EF213 -10	-10	16	5/8	16.2	0.94	23.8	3000	210	12000	830	3.94	100	0.736
EF213 -12	-12	19	3/4	19.3	1.00	25.3	3000	210	12000	830	4.72	120	0.994
EF213 -16	-16	25	1	25.9	1.47	37.3	3000	210	12000	830	5.91	150	1.449



Temperature Range: Continuous: -40°C to +100°C Intermittent: +120°C

EF 214 - 4000 PSI



Construction

- Core** Black colour, synthetic rubber resistant to oil & weather
- Reinforcement** Single or double steel wire braids
- Cover** Black Colour, Synthetic rubber resistant to abrasion and weather, oil & ozone
- Application** Constant pressure hydraulic lines 280 bar for use with petroleum, synthetic or water based fluids in hydraulic systems. Suitable for Agricultural, Construction & material handling equipments/systems

Item Code	Dash Size	DN	ID		OD		WP		BP		BR/r		W
			inch	mm	inch	mm	psi	bar	psi	bar	inch	mm	kg/m
EF214 -04	-04	06	1/4	6.7	0.57	14.5	4000	280	16000	1105	3.94	100	0.186
EF214 -05	-05	08	5/16	8.2	0.59	14.9	4000	280	16000	1105	3.35	85	0.366
EF214 -06	-06	10	3/8	9.8	0.67	17.0	4000	280	16000	1105	3.54	90	0.466
EF214 -08	-08	12	1/2	13.1	0.80	20.4	4000	280	16000	1105	5.12	130	0.624
EF214 -10	-10	16	5/8	16.2	0.92	23.4	4000	280	16000	1105	9.84	250	0.736
EF214 -12	-12	19	3/4	19.3	1.10	28.0	4000	280	16000	1105	11.81	300	0.901



Temperature Range: Continuous: -40°C to +100°C Intermittent: +120°C

EF 215 - 5000 PSI



Construction

Core Black colour, synthetic rubber resistant to oil & water

Reinforcement Double steel wire braids

Cover Black colour, Synthetic rubber resistant to abrasion and weather, oil & ozone

Application Constant pressure hydraulic lines 345 bar for use with petroleum, synthetic or water based fluids in hydraulic systems. Suitable for agricultural, construction & material handling equipments/systems

1

Item Code	Dash Size	DN	ID		OD		WP		BP		BR/r		W
			inch	mm	inch	mm	psi	bar	psi	bar	inch	mm	kg/m
EF215 -04	-04	06	1/4	6.7	0.52	13.2	5000	345	20000	1380	3.94	100	0.323
EF215 -05	-05	08	5/16	8.2	0.59	14.9	5000	345	20000	1380	4.53	115	0.366
EF215 -06	-06	10	3/8	9.8	0.67	17.1	5000	345	20000	1380	5.12	130	0.466
EF215 -08	-08	12	1/2	13.1	0.80	20.4	5000	345	20000	1380	7.09	180	0.624



Temperature Range: Continuous: -40°C to +100°C Intermittent: +120°C

EF 216 - 6000 PSI



Construction

Core Black colour, synthetic rubber resistant to oil & water

Reinforcement Double steel wire braids

Cover Black colour, Synthetic rubber resistant to abrasion and weather, oil & ozone

Application Constant pressure hydraulic lines 415 bar for use with petroleum, synthetic or water based fluids in hydraulic systems. Suitable for agricultural, construction & material handling equipments/systems

Item Code	Dash Size	DN	ID		OD		WP		BP		BR/r		W
			inch	mm	inch	mm	psi	bar	psi	bar	inch	mm	kg/m
EF216 -04	-04	06	1/4	6.7	0.52	13.2	6000	415	24000	1660	2.95	75	0.323
EF216 -05	-05	08	5/16	8.2	0.61	15.5	6000	415	24000	1660	2.36	60	0.367
EF216 -06	-06	10	3/8	9.8	0.69	17.6	6000	415	24000	1660	3.54	90	0.540



Temperature Range: Continuous: -40°C to +100°C Intermittent: +120°C

EF 296 - 1SNX - HP

Applicable Standard : Exceeds EN 857



Construction

Core Black colour, Synthetic rubber resistant to oil and water

Reinforcement Single steel wire braid

Cover Black colour, Synthetic rubber resistant to abrasion and weather, oil & ozone

Application Medium Pressure Hydraulic Lines 110 to 290 bar and requires compact outer dia, and high flexibility for use with petroleum, synthetic or water based fluids in Hydraulic systems. Suitable for Agricultural, Construction & Material handling equipments and machineries/systems

Item Code	Dash Size	DN	ID		OD		WP		BP		BR/r		W
			inch	mm	inch	mm	psi	bar	psi	bar	inch	mm	kg/m
EF296-04	-04	06	1/4	6.7	0.47	12.0	4205	290	16820	1160	1.6	40	0.186
EF296-05	-05	08	5/16	8.2	0.55	14.0	3625	250	14500	1000	2.2	55	0.235
EF296-06	-06	10	3/8	9.8	0.63	16.0	3335	230	13340	920	2.6	65	0.295
EF296-08	-08	12	1/2	13.1	0.75	19.0	2900	200	11600	800	3.1	80	0.377
EF296-10	-10	16	5/8	16.2	0.87	22.0	2175	150	8700	600	4.1	105	0.454
EF296-12	-12	19	3/4	19.3	1.02	26.0	1815	125	7250	500	4.7	120	0.582
EF296-16	-16	25	1	25.9	1.30	33.0	1595	110	6380	440	6.3	160	0.804
EF296-20	-20	31	1.1/4	32.0	1.73	44.0	1450	100	5800	400	11.8	300	1.516



Temperature Range: Continuous: -40°C to +100°C

Impulse Cycles: 150,000 cycles

EF 297 - 2SNX - HP

Applicable Standard : Exceeds SAE100R16/EN 857



Construction

Core Black colour, Synthetic rubber resistant to oil and water

Reinforcement Double steel wire braids

Cover Black colour, Synthetic rubber resistant to abrasion and weather, oil & ozone

Application High Pressure Hydraulic Lines 175 to 450 bar and requires compact outer dia, and high flexibility for use with petroleum, synthetic or water based fluids in Hydraulic systems. Suitable for Agricultural, Earthmoving & Material handling equipments and machineries/systems

Item Code	Dash Size	DN	ID		OD		WP		BP		BR/r		W
			inch	mm	inch	mm	psi	bar	psi	bar	inch	mm	kg/m
EF297-04	-04	06	1/4	6.7	0.53	13.4	6525	450	26100	1800	1.8	45	0.299
EF297-05	-05	08	5/16	8.2	0.59	15.0	6090	420	24360	1680	2.4	60	0.367
EF297-06	-06	10	3/8	9.8	0.69	17.4	5585	385	22330	1540	2.8	70	0.472
EF297-08	-08	12	1/2	13.1	0.81	20.6	5005	345	20010	1380	3.5	90	0.618
EF297-10	-10	16	5/8	16.2	0.94	24.0	4205	290	16820	1160	5.1	130	0.745
EF297-12	-12	19	3/4	19.3	1.09	27.7	4060	280	16240	1120	6.3	160	0.901
EF297-16	-16	25	1	25.9	1.40	35.6	2900	200	11600	800	8.3	210	1.261
EF297-20	-20	31	1.1/4	32.0	1.73	44.0	2540	175	10150	700	11.8	300	1.960



Temperature Range: Continuous: -40°C to +100°C

Impulse Cycles: 200,000 cycles

EF 190 - SLIM PILOT



Construction

Core Black colour, synthetic rubber resistant to oil & water

Reinforcement Single steel wire braid

Cover Black colour, Synthetic rubber resistant to abrasion and weather, oil & ozone

Application Medium Pressure hydraulic lines 105 bar and requires compact outer dia. For use with petroleum based fluids, water based fluids in Hydraulic systems. Suitable for Agricultural, Earth Moving & Material handling equipments and machineries/systems

Note: Use Item Code EF 290 for MSHA Cover

Item Code	Dash Size	DN	ID		OD		WP		BP		BR/r		W
			inch	mm	inch	mm	psi	bar	psi	bar	inch	mm	kg/m
EF190-04	-04	06	1/4	6.4	0.44	11.2	1525	105	6020	415	1.2	30	0.169
EF190-05	-05	08	5/16	8.0	0.50	12.8	1525	105	6020	415	1.4	35	0.193
EF190-06	-06	10	3/8	9.5	0.56	14.3	1525	105	6020	415	2.0	50	0.272
EF190-08	-08	12	1/2	12.7	0.69	17.4	1525	105	6020	415	2.4	60	0.294



Temperature Range: Continuous: -40°C to +100°C

EF 142 - 2 WB - 09 Series



Construction

Core Black colour, synthetic rubber resistant to oil & water

Reinforcement Double high tensile wire braids

Cover Black colour, Synthetic rubber resistant to abrasion and weather, oil & ozone

Application High Pressure Hydraulic Lines 210 Bar to 400 Bar. For High pressure hydraulic systems

Item Code	Dash Size	DN	ID		OD		WP		BP		BR/r		W
			inch	mm	inch	mm	psi	bar	psi	bar	inch	mm	kg/m
EF142-06	-06	10	3/8	9.5	0.75	19.1	5800	400	23200	1600	5.1	130	0.571
EF142-08	-08	12	1/2	12.7	0.87	22.2	5005	345	20010	1380	7.1	180	0.689
EF142-10	-10	16	5/8	16.0	1.00	25.4	4350	300	17400	1200	7.9	200	0.811
EF142-12	-12	19	3/4	19.0	1.16	29.4	3845	265	15370	1060	9.4	240	1.029
EF142-16	-16	25	1	25.4	1.48	37.5	3045	210	12180	840	11.8	300	1.503



Temperature Range: Continuous: -40°C to +100°C

EF 143 - R1A/1ST

Applicable Standard : SAEJ517 - 100 R1A



Construction

Core Black colour, synthetic rubber resistant to oil & water

Reinforcement Single steel wire braid

Cover Black colour, Synthetic rubber resistant to abrasion and weather, oil & ozone

Application Medium Pressure Hydraulic Lines 35 to 40 bar. For use with petroleum, synthetic or water based fluids in Hydraulic systems. Suitable for Agricultural, Earthmoving & Material handling equipments and machineries/systems

Item Code	Dash Size	DN	ID		OD		WP		BP		BR/r		W
			inch	mm	inch	mm	psi	bar	psi	bar	inch	mm	kg/m
EF143-32	-32	51	2	51	2.64	67.0	580	40	2320	160	24.8	630	2.801
EF143-48	-48	76	3	76	3.62	92.0	510	35	2030	140	35.4	900	3.936



Temperature Range: Continuous: -40°C to +100°C

EF 144 - R2A/2ST

Applicable Standard : SAEJ517 - 100 R2A



Construction

Core Black colour, Synthetic rubber resistant to oil and water

Reinforcement Double steel wire braids

Cover Black colour, Synthetic rubber resistant to abrasion and weather, oil & ozone

Application Medium Pressure Hydraulic Lines 55 to 80 bar. For use with petroleum, synthetic or water based fluids in Hydraulic systems. Suitable for Agricultural, Earthmoving & Material handling equipments and machineries/systems

Item Code	Dash Size	DN	ID		OD		WP		BP		BR/r		W
			inch	mm	inch	mm	psi	bar	psi	bar	inch	mm	kg/m
EF144-32	-32	51	2	51.0	2.76	70.0	1160	80	4640	320	24.8	630	3.729
EF144-48	-48	76	3	76.0	3.66	93.0	800	55	3190	220	35.4	900	5.167



Temperature Range: Continuous: -40°C to +100°C

EF 145 – HYDRAULIC OIL S & D HOSE

Applicable Standard : SAE J517 - 100 R4



Construction

Core Black colour, synthetic rubber resistant to oil

Reinforcement Synthetic Yarn fabric with Steel Wire Helix

Cover Black colour, Synthetic rubber resistant to abrasion and weather, oil & ozone

Application For suction return line of Hydraulic Oil in Industrial and Earthmoving Equipments

Note: 1.3/4" not covered under SAE 100 R4

Item Code	Dash Size	DN	ID		OD		WP		BP		BR/r		W
			inch	mm	inch	mm	psi	bar	psi	bar	inch	mm	kg/m
EF145-12	-12	19	3/4	19.0	1.18	30.0	365	25	1235	85	2.56	65	0.605
EF145-16	-16	25	1	25.0	1.50	38.0	290	20	1015	70	2.95	75	0.820
EF145-20	-20	31	1.1/4	32.0	1.77	45.0	220	15	870	60	4.13	105	1.100
EF145-24	-24	38	1.1/2	38.0	2.05	52.0	220	15	655	45	4.92	125	1.310
EF145-28	-28	44	1.3/4	45.0	2.20	56.0	145	10	435	30	5.91	150	1.420
EF145-32	-32	51	2	51.0	2.50	63.6	145	10	435	30	5.91	150	1.590
EF145-40	-40	63	2.1/2	64.0	3.00	76.2	75	5	290	20	7.09	180	2.400
EF145-48	-48	76	3	76.0	3.54	90.0	75	5	290	20	9.45	240	2.830
EF145-56	-56	89	3.1/2	89.0	4.05	103.0	75	5	290	20	10.24	260	3.500
EF145-64	-64	100	4	102.0	4.57	116.0	75	5	145	10	11.81	300	4.120



Temperature Range: Continuous: -40°C to +100°C

Vacuum: -0.17 bar

RUBBER - HYDRAULIC - LOW & MEDIUM PRESSURE HOSE

EF 146 - R5

Applicable Standard : SAE J517 - 100 R5



Construction

Core Black colour, Synthetic rubber resistant to oil and water

Reinforcement Single steel wire braid

Cover Black Colour, single braid of textile fiber

Application Medium Pressure Hydraulic Lines 25 to 210 bar for use with fluids in Hydraulic systems can also be used in air and water. Suitable for Agricultural, Earthmoving & Material handling equipments and machineries/systems

Note: Use Item Code EF141 for rubber cover; 2", 2-1/2", 3" are not covered under SAE 100R5

Item Code	Dash Size	DN	ID		OD		WP		BP		BR/r		W
			inch	mm	inch	mm	psi	bar	psi	bar	inch	mm	kg/m
EF146-04	-04	05	3/16	5.1	0.52	13.2	3045	210	12180	840	3.0	75	0.228
EF146-05	-05	06	1/4	6.8	0.58	14.8	3045	210	12180	840	3.3	85	0.281
EF146-06	-06	08	5/16	8.3	0.68	17.15	2320	160	9135	630	3.9	100	0.343
EF146-08	-08	10	13/32	10.7	0.77	19.45	2030	140	8120	560	4.5	115	0.405
EF146-10	-10	12	1/2	13.2	0.92	23.4	1815	125	7105	490	5.5	140	0.549
EF146-12	-12	16	5/8	16.4	1.08	27.4	1525	105	6090	420	6.5	165	0.702
EF146-16	-16	22	7/8	22.7	1.24	31.4	870	60	3265	225	7.3	185	0.702
EF146-20	-20	30	1.1/8	29.2	1.50	38.1	655	45	2540	175	9.1	230	0.905
EF146-24	-24	35	1.3/8	35.5	1.75	44.45	510	35	2030	140	10.4	265	1.295
EF146-32	-32	45	1.13/16	46.6	2.22	56.4	365	25	1450	100	13.2	335	1.572
EF146-32	-32	51	2	51.0	2.48	63.0	365	25	1450	100	24.0	610	1.819
EF146-40	-40	60	2.3/8	61.1	2.87	73.0	365	25	1450	100	24.0	610	2.320
EF146-40	-40	63	2.1/2	63.5	2.95	75.0	510	35	2030	140	29.5	750	2.220
EF146-48	-48	76	3	76.0	3.50	89.0	510	35	2030	140	35.4	900	2.745



Temperature Range: Continuous: -40°C to +100°C for air application temp should be max +80°C and for water +90°C

EF 186 - R5C XT

Construction

Core Black colour, Synthetic rubber resistant to oil

Reinforcement Single steel wire braid

Cover Blue polyester braid cover

Application Medium pressure hydraulic lines 25 bar to 210 bar use with Hydraulics handling petroleum based fluids and air, gasoline, fuel and lubricating oils, fire resistant hydraulic fluids & other industrial fluids



Item Code	Dash Size	DN	ID		OD		WP		BP		BR/r		W
			inch	mm	inch	mm	psi	bar	psi	bar	inch	mm	kg/m
EF186 -04	-04	05	3/16	4.8	0.52	13.2	3045	210	12180	840	2.99	76	0.209
EF186 -05	-05	06	1/4	6.4	0.58	14.7	3045	210	12180	840	3.39	86	0.264
EF186 -06	-06	08	5/16	7.9	0.68	17.3	2320	160	9280	640	4.02	102	0.297
EF186 -08	-08	10	13/32	10.4	0.77	19.6	2030	140	8120	560	4.61	117	0.352
EF186 -10	-10	12	1/2	12.7	0.92	23.4	1815	125	7250	500	5.51	140	0.539
EF186 -12	-12	16	5/8	16.0	1.08	27.4	1525	105	6090	420	6.50	165	0.638
EF186 -16	-16	22	7/8	22.4	1.23	31.2	870	60	3480	240	7.36	187	0.605
EF186 -20	-20	30	1.1/8	28.4	1.50	38.1	655	45	2610	180	8.98	228	0.748
EF186 -24	-24	35	1.3/8	35.1	1.75	44.5	510	35	2030	140	10.47	266	1.012
EF186 -32	-32	45	1.13/16	46.0	2.22	56.4	365	25	1450	100	13.23	336	1.408
EF186 -40	-40	60	2.3/8	60.1	2.88	73.2	365	25	1450	100	23.98	609	2.321



Temperature Range: Continuous: -49°C to +150°C Air not to exceed: +121°C
Use with biodiesel not to exceed +100°C

EF 150 - R3

Applicable Standard : SAE J517 - 100 R3



Construction

Core Black colour, Synthetic rubber resistant to oil and weather

Reinforcement Double fiber braids

Cover Black colour, Synthetic rubber resistant to abrasion and weather, oil & ozone

Application Low pressure and impulse hydraulic lines 20 to 105 bar for use with petroleum, synthetic or water based fluids in Hydraulic systems. Suitable for Agricultural, Construction & Material handling equipments and machineries/systems

Note: Use Item Code EF250 for MSHA cover; 1-1/2" R3 not covered under SAE100R3

Item Code	Dash Size	DN	ID		OD		WP		BP		BR/r		W
			inch	mm	inch	mm	psi	bar	psi	bar	inch	mm	kg/m
EF150-03	-03	05	3/16	4.9	0.50	12.7	1525	105	6090	420	3.0	75	0.171
EF150-04	-04	06	1/4	6.5	0.56	14.3	1305	90	5075	350	3.0	75	0.186
EF150-05	-05	08	5/16	8.0	0.69	17.5	1235	85	4930	340	3.9	100	0.272
EF150-06	-06	10	3/8	9.6	0.75	19.0	1160	80	4570	315	3.9	100	0.326
EF150-08	-08	12	1/2	12.9	0.94	23.8	1015	70	4060	280	4.9	125	0.456
EF150-10	-10	16	5/8	16.1	1.06	27.0	945	65	3560	245	5.5	140	0.677
EF150-12	-12	19	3/4	19.2	1.25	31.8	800	55	3045	210	5.9	150	0.734
EF150-16	-16	25	1	25.6	1.50	38.1	580	40	2320	160	8.1	205	0.921
EF150-20	-20	31	1.1/4	32.1	1.75	44.5	435	30	1525	105	9.8	250	0.734
EF150-24	-24	38	1.1/2	38.5	2.00	50.8	290	20	1015	70	15.7	400	1.394



Temperature Range: Continuous: -40°C to +100°C

Impulse cycles: 200,000 cycles

EF 147 - R6

Applicable Standard : SAE J517 - 100 R6



Construction

Core Black colour, Synthetic rubber resistant to oil and water

Reinforcement Textile reinforcement

Cover Black colour, Synthetic rubber resistant to abrasion and weather, oil & ozone

Application Very low pressure hydraulic lines 15 to 35 bar for use with petroleum, synthetic or water based fluids in Hydraulic systems. Suitable for Agricultural, Stationary equipments and hydraulic systems

Note: 7/8", 1.1/4", 1.1/2" are not covered under SAE 100 R6

Use Item Code EF164 for high temperature (-40°C to +135°C); EF264 for MSHA high temperature (-40°C to +135°C)

Item Code	Dash Size	DN	ID		OD		WP		BP		BR/r		W
			inch	mm	inch	mm	psi	bar	psi	bar	inch	mm	kg/m
EF147-03	-03	05	3/16	4.8	0.44	11.1	510	35	2030	140	2.0	50	0.119
EF147-04	-04	06	1/4	6.4	0.50	12.7	435	30	1670	115	2.6	65	0.141
EF147-05	-05	08	5/16	8.0	0.56	14.3	435	30	1670	115	3.0	75	0.164
EF147-06	-06	10	3/8	9.5	0.63	15.9	435	30	1670	115	3.0	75	0.175
EF147-08	-08	12	1/2	12.7	0.78	19.8	435	30	1670	115	3.9	100	0.285
EF147-10	-10	16	5/8	15.9	0.91	23.0	365	25	1450	100	4.9	125	0.336
EF147-12	-12	19	3/4	19.1	1.05	26.6	365	25	1235	85	5.9	150	0.413
EF147-14	-14	22	7/8	22	1.22	31.0	290	20	1160	80	7.9	200	0.558
EF147-16	-16	25	1	25.6	1.33	33.8	220	15	870	60	7.9	200	0.605
EF147-20	-20	31	1.1/4	32.2	1.58	40.2	290	20	1160	80	9.8	250	0.739
EF147-24	-24	38	1.1/2	38.0	2.01	51.0	220	15	870	60	15.7	400	1.430



Temperature Range: Continuous: -40°C to +100°C

EF 161 - 1TE

Applicable Standard : EN 854 - 1TE



Construction

Core Black colour, Synthetic rubber resistant to oil and water

Reinforcement Single Textile Braid

Cover Black colour, Synthetic rubber resistant to abrasion and weather, oil & ozone

Application Very low pressure hydraulic lines 15 to 25 bar for use with petroleum, synthetic or water based fluids in Hydraulic systems. Suitable for Agricultural, Stationary equipments and hydraulic systems

Note: Use Item Code EF261 for MSHA Cover; EF171 for high temp (-40°C to +135°C); EF271 for high temp MSHA Cover (-40°C to +135°C); 3/4" not covered under EN 854

Item Code	Dash Size	DN	ID		OD		WP		BP		BR/r		W
			inch	mm	inch	mm	psi	bar	psi	bar	inch	mm	kg/m
EF161-04	-04	06	1/4	6.6	0.49	12.4	365	25	1450	100	1.8	45	0.131
EF161-05	-05	08	5/16	8.1	0.55	13.9	290	20	1160	80	2.6	65	0.150
EF161-06	-06	10	3/8	9.0	0.61	15.5	290	20	1160	80	3.0	75	0.181
EF161-08	-08	12	1/2	13.0	0.74	18.7	290	20	945	65	3.5	90	0.222
EF161-10	-10	16	5/8	16.1	0.90	22.9	290	20	945	65	4.5	115	0.327
EF161-12	-12	19	3/4	19.3	1.04	26.3	220	15	725	50	5.3	135	0.381
EF161-16	-16	25	1	25.8	1.34	34.0	220	15	725	50	5.9	150	0.643



Temperature Range: Continuous: -40°C to +100°C

EF 162 - 2TE

Applicable Standard : EN 854 -2TE



Construction

Core Black colour, Synthetic rubber resistant to oil and water

Reinforcement Single Textile braid

Cover Black colour, Synthetic rubber resistant to abrasion and weather, oil & ozone

Application Very low pressure hydraulic lines 40 to 75 bar for use with petroleum, synthetic or water based fluids in Hydraulic systems. Suitable for Agricultural, Stationary equipments and hydraulic systems

Note: Use Item Code EF262 for MSHA Cover; EF172 for high temp (-40°C to +135°C); EF272 for high temp MSHA Cover (-40°C to +135°C)

Item Code	Dash Size	DN	ID		OD		WP		BP		BR/r		W
			inch	mm	inch	mm	psi	bar	psi	bar	inch	mm	kg/m
EF162-04	-04	06	1/4	6.6	0.53	13.4	1090	75	4350	300	1.6	40	0.172
EF162-05	-05	08	5/16	8.1	0.59	14.9	1015	70	3990	275	2.0	50	0.199
EF162-06	-06	10	3/8	9.7	0.65	16.5	945	65	3700	255	2.4	60	0.230
EF162-08	-08	12	1/2	13.0	0.78	19.7	870	60	3410	235	2.8	70	0.298
EF162-10	-10	16	5/8	16.1	0.94	23.9	725	50	2900	200	3.5	90	0.409
EF162-12	-12	19	3/4	19.3	1.06	27.0	655	45	2610	180	4.3	110	0.494
EF162-16	-16	25	1	25.8	1.35	34.4	580	40	2320	160	5.9	150	0.694



Temperature Range: Continuous: -40°C to +100°C

EF 163 - 3TE

Applicable Standard : EN 854 - 3TE



Construction

Core Black colour, Synthetic rubber resistant to oil and water

Reinforcement Double Textile Braid

Cover Black colour, Synthetic rubber resistant to abrasion and weather, oil & ozone

Application Medium pressure and low impulse hydraulic lines 40 to 145 bar for use with petroleum, synthetic or water based fluids in Hydraulic systems. Suitable for Agricultural, Construction & Material handling equipments and machineries/systems

Note: Use Item Code EF263 for MSHA Cover; EF173 for high temp (-40°C to +135°C);
EF273 for high temp MSHA Cover (-40°C to +135°C)

Item Code	Dash Size	DN	ID		OD		WP		BP		BR/r		W kg/m
			inch	mm	inch	mm	psi	bar	psi	bar	inch	mm	
EF163-04	-04	06	1/4	6.6	0.57	14.4	2105	145	8410	580	1.8	45	0.207
EF163-05	-05	08	5/16	8.1	0.67	16.9	1885	130	7540	520	2.2	55	0.278
EF163-06	-06	10	3/8	9.7	0.73	18.5	1595	110	6380	440	2.8	70	0.321
EF163-08	-08	12	1/2	13.0	0.85	21.7	1380	95	5440	375	3.3	85	0.389
EF163-10	-10	16	5/8	16.1	1.02	25.9	1160	80	4640	320	4.1	105	0.528
EF163-12	-12	19	3/4	19.3	1.14	29.0	1015	70	4060	280	5.1	130	0.604
EF163-16	-16	25	1	25.8	1.41	35.9	800	55	3190	220	5.9	150	0.812
EF163-20	-20	31	1.1/4	32.3	1.67	42.3	655	45	2610	180	7.5	190	0.819
EF163-24	-24	38	1.1/2	38.6	1.95	49.6	580	40	2320	160	9.4	240	1.178



Temperature Range: Continuous: -40°C to +100°C Temp for water based fluids: +90°C

EF 175 - JACK HOSE



Construction

Core Black colour, synthetic rubber resistant to oil & water

Reinforcement Double wire Braids

Cover Black colour, Synthetic rubber resistant to abrasion and weather, oil & ozone

Application Hydraulic jacking system with petroleum and water based fluids. 10,000 PSI Static Pressure Only

Item Code	Dash Size	DN	ID		OD		WP		BP		BR/r		W kg/m
			inch	mm	inch	mm	psi	bar	psi	bar	inch	mm	
EF175-04	-04	06	1/4	6.4	0.58	14.7	10150	700	20300	1400	3.9	100	0.377
EF175-06	-06	10	3/8	9.5	0.74	18.8	10150	700	20300	1400	5.1	130	0.602
EF175-08	-08	12	1/2	13.0	0.86	21.8	10150	700	20300	1400	7.1	180	0.695



Temperature Range: Continuous: -40°C to +100°C

EF 513 - PW 3K - 1 WB



Construction

Core Black colour, Synthetic rubber resistant to hot water

Reinforcement Single steel wire braid

Cover Black colour, Synthetic rubber resistant to abrasion and weather, oil & ozone

Application For pressure washer applications with a maximum pressure of 210 Bar. For cold and hot water up to 155 °C

Note: Also Available in Blue and Grey colour Covers on request, Not suitable for steam and oil applications

Item Code	Dash Size	DN	ID		OD		WP		BP		BR/r		W
			inch	mm	inch	mm	psi	bar	psi	bar	inch	mm	kg/m
EF513-04	-04	06	1/4	6.7	0.47	12.0	3000	210	9000	630	1.4	35	0.194
EF513-05	-05	08	5/16	8.2	0.55	13.6	3000	210	9000	630	2.6	65	0.231
EF513-06	-06	10	3/8	9.8	0.63	16.0	3000	210	9000	630	3.0	75	0.297
EF513-08	-08	12	1/2	13.1	0.79	19.6	3000	210	9000	630	3.9	100	0.411



Temperature Range: Continuous: -10°C to +155°C

EF 514 - PW 4K - 1 WB



Construction

Core Black colour, Synthetic rubber resistant to hot water

Reinforcement Single steel wire braid

Cover Black colour, Synthetic rubber resistant to abrasion and weather, oil & ozone

Application For pressure washer applications with a maximum pressure of 280 Bar. For cold and hot water up to 155 °C

Note: Also Available in Blue and Grey colour Covers on request, Not suitable for steam and oil applications

Item Code	Dash Size	DN	ID		OD		WP		BP		BR/r		W
			inch	mm	inch	mm	psi	bar	psi	bar	inch	mm	kg/m
EF514-04	-04	06	1/4	6.7	0.47	12.0	4000	280	12000	830	1.4	35	0.194
EF514-05	-05	08	5/16	8.2	0.54	13.7	4000	280	12000	830	2.6	65	0.235
EF514-06	-06	10	3/8	9.8	0.63	16.0	4000	280	12000	830	3.0	75	0.305
EF514-08	-08	12	1/2	13.1	0.77	19.6	4000	280	12000	830	3.9	100	0.425



Temperature Range: Continuous: -10°C to +155°C

EF 516 - PW 6K - 2 WB



Construction

- Core** Black colour, Synthetic rubber resistant to hot water
- Reinforcement** Double steel wire braids
- Cover** Black colour, Synthetic rubber resistant to abrasion and weather, oil & ozone
- Application** For pressure washer applications with a maximum pressure of 415 Bar. For cold and hot water up to 155 °C

Note: Also Available in Blue and Grey colour Covers on request, Not suitable for steam and oil applications

Item Code	Dash Size	DN	ID		OD		WP		BP		BR/r		W
			inch	mm	inch	mm	psi	bar	psi	bar	inch	mm	kg/m
EF516-04	-04	06	1/4	6.7	0.53	13.6	6000	415	18000	1245	3.0	75	0.360
EF516-05	-05	08	5/16	8.2	0.60	15.3	6000	415	18000	1245	3.3	85	0.372
EF516-06	-06	10	3/8	9.8	0.68	17.4	6000	415	18000	1245	3.5	90	0.449



Temperature Range: Continuous: -10°C to +155°C

EF 521 - SUPER SERVICE HOSE

Applicable Standard : Exceeds EN 857 - 1 SC / EN 1829-2



Construction

- Core** Black colour, Synthetic rubber resistant to hot water
- Reinforcement** Single steel wire braid
- Cover** Black colour, Synthetic rubber resistant to abrasion and weather, oil & ozone. Also available Grey, Blue on request
- Application** Cleaning lines for lobby, and semi professional machines. High flexibility for use with minerals, glycols, polyglycols oils, synthetic ester oils, oils in water emulsion

Item Code	Dash Size	DN	ID		OD		WP		BP		BR/r		W
			inch	mm	inch	mm	psi	bar	psi	bar	inch	mm	kg/m
EF521-04	-04	06	1/4	6.7	0.47	12.0	5220	360	13050	900	3.0	75	0.195
EF521-05	-05	08	5/16	8.2	0.54	13.6	4930	340	12325	850	3.3	85	0.232
EF521-06	-06	10	3/8	9.8	0.63	16.0	4350	300	10875	750	3.5	90	0.312
EF521-08	-08	12	1/2	13.1	0.78	19.6	3625	250	9065	625	5.1	130	0.428



Temperature Range: Continuous: -40°C to +155°C

EF 522 - SUPER SERVICE HOSE

Applicable Standard : Exceeds EN 857 - 2 SC / EN 1829-2



Construction

- Core** Black colour, Synthetic rubber resistant to hot water
- Reinforcement** Two high tensile steel wire braid
- Cover** Black colour, Synthetic rubber resistant to abrasion and weather, oil & ozone. Also available Grey, Blue on request
- Application** Cleaning lines for lobby, and semi professional machines. High flexibility for use with minerals, glycols, polyglycols oils, synthetic ester oils, oils in water emulsion

Item Code	Dash Size	DN	ID		OD		WP		BP		BR/r		W
			inch	mm	inch	mm	psi	bar	psi	bar	inch	mm	kg/m
EF522-04	-04	06	1/4	6.7	0.52	13.2	9425	650	23200	1600	3.0	75	0.326
EF522-05	-05	08	5/16	8.2	0.59	14.9	7975	550	20300	1400	3.3	85	0.369
EF522-06	-06	10	3/8	9.8	0.67	17.0	7615	525	19140	1320	3.5	90	0.459
EF522-08	-08	12	1/2	13.1	0.80	20.4	6380	440	15950	1100	5.1	130	0.626



Temperature Range: Continuous: -40°C to +155°C

EF 177 - SAE 100 R12

Applicable Standard : SAE J517 - 100 R12 / EN 856 - R12 / ISO 3862



Construction

Core Black colour, Synthetic rubber resistant to oil and water

Reinforcement Four high tensile steel wire spiral

Cover Black colour, Synthetic rubber resistant to abrasion and weather, oil & ozone

Application Heavy duty high temperature medium pressure hydraulic lines 175 to 280 bar and hydrostatic transmission lines for use with petroleum, synthetic or water based fluids in Hydraulic systems. Suitable for Earthmoving, Material handling equipments and machineries/systems

Item Code	Dash Size	DN	ID		RI OD		OD		WP		BP		BR/r		W
			inch	mm	inch	mm	inch	mm	psi	bar	psi	bar	inch	mm	kg/m
EF177-06	-06	10	3/8	9.7	0.68	17.2	0.80	20.3	4060	280	16240	1120	2.52	64	0.660
EF177-08	-08	12	1/2	12.9	0.82	20.9	0.94	23.8	4060	280	16240	1120	3.50	89	0.852
EF177-10	-10	16	5/8	16.1	0.96	24.5	1.08	27.4	4060	280	16240	1120	7.87	200	1.134
EF177-12	-12	19	3/4	19.2	1.10	28.0	1.21	30.7	4060	280	16240	1120	4.76	121	1.059
EF177-16	-16	25	1	25.7	1.37	34.9	1.50	38.0	4060	280	16240	1120	6.02	153	1.980
EF177-20	-20	31	1.1/4	32.2	1.73	43.9	1.85	47.0	3045	210	12180	840	8.27	210	2.822
EF177-24	-24	38	1.1/2	38.5	1.98	50.4	2.11	53.5	2540	175	10150	700	10.00	254	3.229
EF177-32	-32	51	2	51.4	2.50	63.6	2.63	66.7	2540	175	10150	700	12.52	318	4.622



Temperature Range: Continuous: -40°C to +121°C

Impulse cycles: 500,000 cycles

EF 178 - R13

Applicable Standard : SAE J 517 - 100 R13 / EN 856 - R13 / ISO 3862



Construction

Core Black colour, Synthetic rubber resistant to oil and water

Reinforcement Four or Six high tensile steel wire spirals

Cover Black colour, Synthetic rubber resistant to abrasion and weather, oil & ozone

Application 350 bar super high pressure Hydraulic Lines and hydrostatic transmission lines. Also, suitable for impulse surge lines with more life cycles for use with petroleum, synthetic or water based fluids in Hydraulic systems. Suitable for Earthmoving equipments and machineries/systems

Item Code	Dash Size	DN	ID		RI OD		OD		WP		BP		BR/r		W
			inch	mm	inch	mm	inch	mm	psi	bar	psi	bar	inch	mm	kg/m
EF178-12	-12	19	3/4	19.2	1.14	29.0	1.26	32.1	5075	350	20300	1400	9.45	240	1.814
EF178-16	-16	25	1	25.7	1.40	35.6	1.52	38.7	5075	350	20300	1400	11.81	300	2.277
EF178-20	-20	31	1.1/4	32.2	1.85	47.0	1.96	49.8	5075	350	20300	1400	16.54	420	4.269
EF178-24	-24	38	1.1/2	38.5	2.17	55.1	2.26	57.3	5075	350	20300	1400	19.69	500	5.747
EF178-32	-32	51	2	51.4	2.67	67.7	2.80	71.1	5075	350	20300	1400	25.20	640	7.852



Temperature Range: Continuous: -40°C to +121°C

Impulse cycles: 500,000 cycles

EF 279 - R15

Applicable Standard : SAE J517 -100 R15 / ISO 3862



Construction

Core Black colour, Synthetic rubber resistant to oil and water

Reinforcement Four or Six high tensile steel wire spirals

Cover Black colour, Synthetic rubber resistant to abrasion and weather, oil & ozone

Application 420 bar super high pressure Hydraulic Lines and hydrostatic transmission lines. Also, suitable for impulse surge lines with more life cycles for use with petroleum, synthetic or water based fluids in Hydraulic systems. Suitable for Earthmoving equipments and machineries/systems

Note: 2" Not covered under SAE 100R15

Item Code	Dash Size	DN	ID		RI OD		OD		WP		BP		BR/r		W
			inch	mm	inch	mm	inch	mm	psi	bar	psi	bar	inch	mm	kg/m
EF279-12	-12	19	3/4	19.2	1.14	29.0	1.27	32.2	6090	420	24360	1680	10.43	265	1.814
EF279-16	-16	25	1	25.7	1.40	35.6	1.53	38.9	6090	420	24360	1680	12.99	330	2.277
EF279-20	-20	31	1.1/4	32.2	1.85	47.0	1.96	49.8	6090	420	24360	1680	17.52	445	4.269
EF279-24	-24	38	1.1/2	38.5	2.17	55.1	2.28	58.0	6090	420	24360	1680	20.87	530	5.747
EF279-32	-32	51	2	51.2	2.68	68.0	2.80	71.2	6090	420	24360	1680	23.62	600	8.217



Temperature Range: Continuous: -40°C to +121°C

Impulse cycles: 500,000 cycles

EF 277 - 4SP

Applicable Standard : EN 856 - 4SP / ISO 3862



Construction

Core Black colour, Synthetic rubber resistant to oil and water

Reinforcement Four high tensile steel wire spirals

Cover Black colour, Synthetic rubber resistant to abrasion and weather, oil & ozone

Application Medium pressure Hydraulic Lines 165 to 450 bar and hydrostatic transmission lines for use with petroleum, synthetic or water based fluids in Hydraulic systems. Suitable for Earthmoving & Material handling equipments and machineries/systems

Item Code	Dash Size	DN	ID		RI OD		OD		WP		BP		BR/r		W
			inch	mm	inch	mm	inch	mm	psi	bar	psi	bar	inch	mm	kg/m
EF277-04	-04	06	1/4	6.6	0.58	14.7	0.70	17.9	6525	450	26100	1800	5.91	150	0.627
EF277-06	-06	10	3/8	9.7	0.69	17.5	0.84	21.4	6455	445	25810	1780	7.09	180	0.822
EF277-08	-08	12	1/2	13.0	0.80	20.4	0.97	24.6	6020	415	24070	1660	9.06	230	0.994
EF277-10	-10	16	5/8	16.2	0.94	23.8	1.11	28.2	5075	350	20300	1400	9.84	250	1.222
EF277-12	-12	19	3/4	19.3	1.12	28.4	1.27	32.2	5075	350	20300	1400	11.81	300	1.605
EF277-16	-16	25	1	25.9	1.40	35.5	1.56	39.7	4060	280	16240	1120	13.39	340	2.277
EF277-20	-20	31	1.1/4	32.4	1.81	46.0	2.00	50.8	3045	210	12180	840	18.11	460	3.368
EF277-24	-24	38	1.1/2	38.6	2.06	52.4	2.25	57.2	2685	185	10730	740	22.05	560	3.911
EF277-32	-32	51	2	51.3	2.57	65.3	2.75	69.8	2395	165	9570	660	25.98	660	5.185



Temperature Range: Continuous: -40°C to +100°C Intermittent: +120°C

Impulse cycles: 400,000 cycles

RUBBER - HYDRAULIC - HIGH PRESSURE SPIRAL HOSE

EF 278 - 4SH

Applicable Standard : EN 856 - 4SH / ISO 3862



Construction

Core Black colour, Synthetic rubber resistant to oil and water

Reinforcement Four high tensile steel wire spirals

Cover Black colour, Synthetic rubber resistant to abrasion and weather, oil & ozone

Application Extra high pressure Hydraulic Lines 250 to 420 bar and hydrostatic transmission lines for use with petroleum, synthetic or water based fluids in Hydraulic systems. Suitable for Earthmoving & Material handling equipments and machineries/systems

1

Item Code	Dash Size	DN	ID		RI OD		OD		WP		BP		BR/r		W
			inch	mm	inch	mm	inch	mm	psi	bar	psi	bar	inch	mm	kg/m
EF278-12	-12	19	3/4	19.4	1.12	28.4	1.27	32.2	6090	420	24360	1680	11.02	280	1.605
EF278-16	-16	25	1	25.9	1.40	35.5	1.52	38.7	5510	380	22040	1520	13.39	340	2.277
EF278-20	-20	31	1.1/4	32.5	1.65	41.9	1.79	45.5	4715	325	18850	1300	18.11	460	2.671
EF278-24	-24	38	1.1/2	38.7	1.92	48.8	2.11	53.5	4205	290	16820	1160	22.05	560	3.566
EF278-32	-32	51	2	51.3	2.49	63.2	2.68	68.1	3625	250	14500	1000	27.56	700	5.132



Temperature Range: Continuous: -40°C to +100°C Intermittent: +120°C

Impulse cycles: 400,000 cycles

RUBBER - HYDRAULIC - WATER BLAST HOSE

EF 280 - WATER BLAST 30

Applicable Standard : EN 1829 -2



Construction

Core Black colour, Synthetic rubber resistant to oil and water

Reinforcement Four high tensile steel wire spirals

Cover Black colour, Synthetic rubber resistant to abrasion and weather, oil & ozone

Application Water blasting, Water jetting, cleaning equipment. Delivery of water and water emulsions

Item Code	Dash Size	DN	ID		RI OD		OD		WP		BP		BR/r		W
			inch	mm	inch	mm	inch	mm	psi	bar	psi	bar	inch	mm	kg/m
EF280-04	-04	06	1/4	6.4	0.58	14.7	0.70	17.9	12325	850	30815	2125	5.12	130	0.627
EF280-06	-06	10	3/8	9.5	0.69	17.5	0.83	21.1	12325	850	30815	2125	6.10	155	0.838
EF280-08	-08	12	1/2	12.7	0.84	21.3	0.97	24.6	12325	850	30815	2125	7.87	200	1.184
EF280-12	-12	19	3/4	19.0	1.17	29.8	1.29	32.8	12325	850	30815	2125	9.84	250	2.024
EF280-16	-16	25	1	25.4	1.38	35.1	1.51	38.3	12325	850	30815	2125	11.81	300	2.447



Temperature Range: Continuous: -40°C to +90°C

EF 281 - WATER BLAST 40

Applicable Standard : EN1829-2

Construction

- Core** Black colour, Synthetic rubber resistant to oil and water
- Reinforcement** Four high tensile steel wire spirals
- Cover** Black colour, Synthetic rubber resistant to abrasion and weather, oil & ozone
- Application** Water blasting, Water jetting, cleaning equipment. Delivery of water and water emulsions



Item Code	Dash Size	DN	ID		RI OD		OD		WP		BP		BR/r		W
			inch	mm	inch	mm	inch	mm	psi	bar	psi	bar	inch	mm	kg/m
EF281-06	-06	10	3/8	9.5	0.70	17.8	0.81	20.6	15950	1100	39875	2750	6.10	155	0.821
EF281-08	-08	12	1/2	12.7	0.91	23.0	1.06	27.0	15950	1100	39875	2750	7.87	200	1.525
EF281-12	-12	19	3/4	19.0	1.13	28.7	1.26	32.0	15950	1100	39875	2750	12.20	310	2.068

 **Temperature Range:** Continuous: -40°C to +90°C

EF 282 - WATER BLAST 45

Applicable Standard : EN1829-2

Construction

- Core** Black colour, Synthetic rubber resistant to oil and water
- Reinforcement** Four high tensile steel wire spirals
- Cover** Black colour, Synthetic rubber resistant to abrasion and weather, oil & ozone
- Application** Water blasting, Water jetting, cleaning equipment. Delivery of water and water emulsions



Item Code	Dash Size	DN	ID		RI OD		OD		WP		BP		BR/r		W
			inch	mm	inch	mm	inch	mm	psi	bar	psi	bar	inch	mm	kg/m
EF282-06	-06	10	3/8	9.5	0.71	18.0	0.81	20.6	18125	1250	45315	3125	6.10	155	0.967
EF282-08	-08	12	1/2	12.7	0.63	16.0	1.14	29.0	18125	1250	45315	3125	9.06	230	2.048

 **Temperature Range:** Continuous: -40°C to +90°C

EF 283 - WATER BLAST 50

Applicable Standard : EN1829-2

Construction

- Core** Black colour, Synthetic rubber resistant to oil and water
- Reinforcement** Six high tensile steel wire spirals
- Cover** Black colour, Synthetic rubber resistant to abrasion and weather, oil & ozone
- Application** Water blasting, Water jetting, cleaning equipment. Delivery of water and water emulsions



Item Code	Dash Size	DN	ID		RI OD		OD		WP		BP		BR/r		W
			inch	mm	inch	mm	inch	mm	psi	bar	psi	bar	inch	mm	kg/m
EF283-08	-08	12	1/2	12.7	1.02	26.0	1.13	28.6	20010	1380	50025	3450	9.06	230	2.02

 **Temperature Range:** Continuous: -40°C to +90°C

RUBBER - HYDRAULIC - MINING HOSE

EF 174 - BCS

Applicable Standard : BCS 174 - 1992



Construction

Core Black colour, Synthetic rubber resistant to oil and water

Reinforcement Double high tensile steel wire braids

Cover Black colour, Synthetic rubber resistant to abrasion and weather, oil & ozone

Application High Pressure Hydraulic Lines 115 to 450 bar for use with petroleum, synthetic or water based fluids in Hydraulic systems. Specially made as per British coal 174 specification and to be used in underground mining equipments machines and roof support systems. Also, in long wall mining applications

Note: 5/8" not covered under BCS 174. DGMS approved

Item Code	Dash Size	DN	ID		OD		WP		BP		BR/r		W
			inch	mm	inch	mm	psi	bar	psi	bar	inch	mm	kg/m
EF174-04	-04	06	1/4	6.3	0.67	17.0	6525	450	26100	1800	3.9	100	0.504
EF174-06	-06	10	3/8	9.5	0.84	21.4	5510	380	22040	1520	5.1	130	0.712
EF174-08	-08	12	1/2	12.7	1.04	26.4	5295	365	21025	1450	5.9	150	0.977
EF174-10	-10	16	5/8	16.0	1.18	30.0	4060	280	16240	1120	7.5	190	1.300
EF174-12	-12	20	3/4	19.0	1.32	33.6	4060	280	16025	1105	9.1	230	1.514
EF174-16	-16	25	1	25.4	1.60	40.6	3120	215	12470	860	11.8	300	1.756
EF174-20	-20	31	1.1/4	31.7	1.87	47.5	2540	175	10005	690	15.0	380	2.090
EF174-24	-24	38	1.1/2	38.4	2.13	54.1	2175	150	8485	585	17.7	450	2.763
EF174-32	-32	51	2	51.1	2.63	66.8	1670	115	6525	450	23.6	600	3.541



Temperature Range: Continuous: -40°C to +100°C Intermittent: +120°C

RUBBER - HYDRAULIC - FUEL HOSE

EF 442 FUEL DISPENSING HOSE - HARD WALL

Applicable Standard : EN 1360 Type 3



Construction

Core Black colour, Synthetic rubber resistant to petrol and diesel fuel

Reinforcement Single steel wire braid

Cover Black Colour, synthetic rubber resistant to fuel and weather. Also available in Blue and Green on request

Application Petrol and diesel fuel dispensing lines of pressure 290 psi

Item Code	Dash Size	DN	ID		OD		WP		BP		BR/r		W
			inch	mm	inch	mm	psi	bar	psi	bar	inch	mm	kg/m
EF442-10	-10	16	5/8	16.0	1.00	25.3	290	20	725	50	3.1	80	0.590
EF442-12	-12	19	3/4	19.0	1.12	28.5	290	20	725	50	3.9	100	0.697
EF442-16	-16	25	1	25.0	1.30	33.0	290	20	725	50	5.9	150	0.651



Temperature Range: Continuous: -30°C to +55°C

Electrical resistance max: 1 X 10²ohms

EF 443 - FUEL DISPENSING - SOFT WALL

Applicable Standard : EN 1360 Type 1



Construction

- Core** Black colour, Synthetic rubber resistant to petrol and diesel fuel
- Reinforcement** Double Textile braid
- Cover** Black colour, synthetic rubber resistant to fuel and weather. Also available in Blue and Green on request
- Application** Petrol and diesel fuel dispensing lines of pressure 290 psi

Item Code	Dash Size	DN	ID		OD		WP		BP		BR/r		W kg/m
			inch	mm	inch	mm	psi	bar	psi	bar	inch	mm	
EF443-08	-08	12	1/2	12.5	0.91	23.0	290	20	725	50	2.4	60	0.385
EF443-10	-10	16	5/8	16.0	1.02	26.0	290	20	725	50	3.1	80	0.396
EF443-12	-12	19	3/4	19.0	1.14	29.0	290	20	725	50	3.9	100	0.450
EF443-13	-13	21	7/8	22.0	1.22	31.0	290	20	725	50	5.1	130	0.565
EF443-16	-16	25	1	25.0	1.38	35.0	290	20	725	50	5.9	150	0.571



Temperature Range: Continuous: -30°C to +55°C
 Electrical resistance max: 1×10^2 ohms

EF 531 - FUEL HOSE

Applicable Standard : SAE J 30 R2 TYPE 2



Construction

- Core** Black colour, Synthetic rubber resistant to oil and fuel
- Reinforcement** Textile reinforcement
- Cover** Black Colour, Synthetic rubber resistant to oil, ozone
- Application** Low Pressure coupled and uncoupled low-permeation Fuel hose for Automotive and allied application, Physical, Extrac table and fuel permeation properties as specified in SAE J 30 - R2 - Type 2 standard for use with gasoline, diesel fuel, lubrication oil, or the vapour present in either fuel system or in crank case of internalcombustion engines

Item Code	Dash Size	DN	ID		OD		WP		BP		BR/r		W kg/m
			inch	mm	inch	mm	psi	bar	psi	bar	inch	mm	
EF531-03	-03	05	3/16	4.76	0.50	12.7	145	10	725	50	2.0	50	0.131
EF531-04	-04	06	1/4	6.35	0.56	14.3	145	10	725	50	2.6	65	0.155
EF531-05	-05	08	5/16	7.94	0.63	15.9	145	10	725	50	3.0	75	0.180
EF531-06	-06	10	3/8	9.53	0.69	17.5	145	10	725	50	3.0	75	0.193
EF531-08	-08	12	1/2	12.7	0.81	20.6	145	10	725	50	3.9	100	0.314
EF531-10	-10	16	5/8	15.88	0.94	23.8	145	10	510	35	4.9	125	0.370
EF531-12	-12	19	3/4	19.05	1.06	27.0	145	10	510	35	5.9	150	0.454



Temperature Range: Continuous: -40°C to +100°C

EF 532 - FUEL HOSE

Applicable Standard : SAE J 30 R2 TYPE 3



Construction

Core Black colour, Synthetic rubber resistant to oil and fuel

Reinforcement Single Braid Textile reinforcement

Cover Black Colour, Synthetic rubber resistant to oil, ozone

Application Low Pressure coupled and uncoupled low-permeation Fuel hose for Automotive and allied application, Physical, Extractable and fuel permeation properties as specified in SAE J 30 - R2 Type 3 Standard for use with gasoline, diesel fuel, lubrication oil, or the vapour present in either fuel system or in crank case of internal combustion engines

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Item Code	Dash Size	DN	ID		OD		WP		BP		BR/r		W
			inch	mm	inch	mm	psi	bar	psi	bar	inch	mm	kg/m
EF532-03	-03	05	3/16	4.8	0.41	10.3	510	35	2030	140	2.0	50	0.094
EF532-04	-04	06	1/4	6.4	0.50	12.7	435	30	1670	115	2.6	65	0.130
EF532-05	-05	08	5/16	8.0	0.56	14.3	435	30	1670	115	3.0	75	0.155
EF532-06	-06	10	3/8	9.5	0.62	15.8	435	30	1670	115	3.0	75	0.183
EF532-08	-08	12	1/2	12.7	0.78	19.8	435	30	1670	115	3.9	100	0.264
EF532-10	-10	16	5/8	16.0	0.94	23.8	365	25	1235	85	4.9	125	0.302
EF532-12	-12	19	3/4	19.0	1.12	28.5	365	25	1235	85	5.9	150	0.372



Temperature Range: Continuous: -40°C to +100°C

EF 533 - LPG HOSE AS PER IS 9573: 2012 - TYPE -2

Applicable Standard : IS 9573: 2012 - Type 2



Construction

Core Black colour, Synthetic rubber resistant to n-pentane

Reinforcement Single wire braid

Cover Perforated orange colour, Synthetic rubber excellent resistant to fire & ozone

Application Designed for use in motor vehicles with Liquefied Petroleum Gas (LPG) installations, designed for domestic/commercial installation

Item Code	Dash Size	DN	ID		OD		WP		BP		BR/r		W
			inch	mm	inch	mm	psi	bar	psi	bar	inch	mm	kg/m
EF533-05	-05	08	5/16	8.3	0.59	14.9	145	10	580	40	3.7	95	0.229
EF533-06	-06	10	3/8	10.8	0.68	17.3	145	10	580	40	4.7	120	0.280
EF533-08	-08	12	1/2	13.2	0.89	22.7	145	10	580	40	5.9	150	0.450



Temperature Range: Continuous: -40°C to +70°C

EF 534 - LPG HOSE AS PER EN 1762 : TYPE -D

Applicable Standard : EN 1762 - Type D



Construction

- Core** Low Permeation Synthetic rubber tube resistant to n-pentane
- Reinforcement** Single wire braid
- Cover** Perforated black colour, Synthetic rubber resistant to abrasion and weather
- Application** Designed for transfer of LPG in liquid or gaseous phase and natural gas

Item Code	Dash Size	DN	ID		OD		WP		BP		BR/r		W
			inch	mm	inch	mm	psi	bar	psi	bar	inch	mm	kg/m
EF534-06	-06	10	3/8	9.7	0.74	18.8	365	25	1450	100	3.5	90	0.351
EF534-08	-08	12	1/2	12.7	0.89	22.7	365	25	1450	100	3.9	100	0.474
EF534-10	-10	16	5/8	15.9	1.02	25.9	365	25	1450	100	4.9	125	0.566
EF534-12	-12	19	3/4	19.0	1.22	31.0	365	25	1450	100	6.3	160	0.793
EF534-16	-16	25	1	25.0	1.50	38.0	365	25	1450	100	7.9	200	1.103
EF534-20	-20	31	1.1/4	32.0	1.77	45.0	365	25	1450	100	9.8	250	1.414
EF534-24	-24	38	1.1/2	38.0	2.05	52.0	365	25	1450	100	12.6	320	1.963
EF534-32	-32	51	2	51.0	2.60	66.0	365	25	1450	100	15.7	400	2.643
EF534-48	-48	76	3	76.0	3.70	94.0	365	25	1450	100	25.6	650	4.275



Temperature Range: Continuous: -30°C to +70°C

EF 535 - LPG Hose As Per IS 9573 :2012 Type -1

Applicable Standard : IS 9573 :2012 TYPE -1



Construction

- Core** Black colour, Synthetic rubber resistant to n-pentane
- Reinforcement** Single Synthetic Yarn with electrically bonded wire optional
- Cover** Perforated black colour, Synthetic rubber resistant to abrasion and weather
- Application** Designed for use in motor vehicles with liquified petroleum Gas (LPG) installations, designed for industrial application

Item Code	Dash Size	DN	ID		OD		WP		BP		BR/r		W
			inch	mm	inch	mm	psi	bar	psi	bar	inch	mm	kg/m
EF535-04	-04	06	1/4	6.5	0.50	12.7	365	25	1450	100	2.8	70	0.165
EF535-05	-05	08	5/16	8.3	0.59	14.9	365	25	1450	100	3.7	95	0.185
EF535-06	-06	10	3/8	10.7	0.68	17.3	365	25	1450	100	4.7	120	0.224
EF535-08	-08	12	1/2	13.2	0.89	22.7	365	25	1450	100	5.9	150	0.405
EF535-10	-10	16	5/8	16.4	1.02	25.9	365	25	1450	100	7.3	185	0.481
EF535-12	-12	19	3/4	19.2	1.13	28.7	365	25	1450	100	8.9	225	0.545
EF535-16	-16	25	1	25.5	1.50	38.0	365	25	1450	100	11.8	300	0.925



Temperature Range: Continuous: -40°C to +70°C

EF 536 - CNG HOSE FOR AUTOMOTIVE APPLICATION

Applicable Standard : SAE J30 - R6

Construction

- Core** Black colour, Synthetic rubber resistant to oil and fuel
- Reinforcement** Textile reinforcement
- Cover** Black colour, Synthetic rubber resistant to abrasion and weather
- Application** Designed for use in motor vehicles with CNG installations



Item Code	Dash Size	DN	ID		OD		WP		BP		BR/r		W
			inch	mm	inch	mm	psi	bar	psi	bar	inch	mm	kg/m
EF536-03	-03	05	3/16	4.7	0.41	10.3	75	5	220	15	2.0	50	0.094
EF536-04	-04	06	1/4	6.4	0.50	12.7	75	5	220	15	2.6	65	0.130
EF536-05	-05	08	5/16	8.0	0.56	14.3	75	5	220	15	3.0	75	0.155
EF536-06	-06	10	3/8	9.5	0.63	15.9	75	5	220	15	3.0	75	0.183
EF536-08	-08	12	1/2	12.7	0.78	19.8	75	5	145	10	3.9	100	0.264
EF536-10	-10	16	5/8	15.9	0.94	23.8	75	5	145	10	4.9	125	0.302
EF536-12	-12	19	3/4	19.0	1.13	28.6	75	5	145	10	5.9	150	0.372
EF150-16	-16	25	1	25.4	1.37	34.9	75	5	145	10	7.9	200	0.545



Temperature Range: Continuous: -40°C to +100°C

AUTOMOBILE & AIR CONDITIONING

EF 140 - LOW SMOKE HI-TEMP BRAKE HOSE

Construction

- Core** Black colour, AEM rubber with low smoke property
- Reinforcement** Double textile braids
- Cover** Black colour, AEM rubber with low smoke property
- Application** Very low pressure hydraulic lines 15 bar for use with Hydrocarbon lubricants, hydraulic fluids and wide range temperature resistance



Item Code	Dash Size	DN	ID		OD		WP		BP		BR/r		W
			inch	mm	inch	mm	psi	bar	psi	bar	inch	mm	kg/m
EF140-04	-04	06	1/4	6.4	0.61	15.6	220	15	870	60	2.36	60	0.255
EF140-05	-05	08	5/16	8.0	0.69	17.4	220	15	870	60	3.15	80	0.314
EF140-06	-06	10	3/8	9.5	0.74	18.8	220	15	870	60	3.94	100	0.340
EF140-08	-08	12	1/2	12.7	0.87	22.0	220	15	870	60	5.12	130	0.420
EF140-12	-12	19	3/4	19.1	1.13	28.8	220	15	870	60	7.48	190	0.590
EF140-16	-16	25	1	25.6	1.50	38.1	220	15	870	60	10.04	255	1.020
EF140-20	-20	31	1.1/4	31.7	1.87	47.5	220	15	870	60	13.78	350	1.500



Temperature Range: Continuous: -38°C to +150°C

EF 503 / 134 A NON- BARRIER TYPE AIR CONDITIONING HOSE

Applicable Standard : SAE J 2064 Type B

Construction

- Core** Black colour, Synthetic Rubber resistant to R134a with PEG oil
- Reinforcement** Single Steel Wire Braid
- Cover** Black Colour, Synthetic rubber resistant to weather
- Application** Car, Truck and Agricultural Machine Air Conditioning System Recommended Fluids: Freon R 134a and PEG lubricant oils



Item Code	Dash Size	DN	ID		OD		WP		BP		BR/r		W
			inch	mm	inch	mm	psi	bar	psi	bar	inch	mm	kg/m
EF503-16	16	22	7/8	22.0	1.26	32.0	365	25	1235	85	9.8	250	0.972
EF503-20	20	30	1.1/8	28.6	1.52	38.7	365	25	1235	85	11.8	300	1.069



Temperature Range: Continuous: -30°C to +125°C Intermittent: Max. +135°C

EF 540 - AIR BRAKE HOSE

Applicable Standard : SAE J 1402 Type A



Construction

- Core** Black colour, Synthetic Rubber Tube
- Reinforcement** Textile reinforcement
- Cover** Black Colour, Synthetic rubber resistant to oil, ozone
- Application** Automotive Air Brake System; Tractor - Trailer Air Brake connections

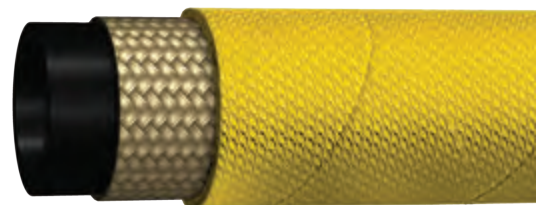
Item Code	Dash Size	DN	ID		OD		WP		BP		BR/r		W
			inch	mm	inch	mm	psi	bar	psi	bar	inch	mm	kg/m
EF540-04	-04	06	1/4	6.4	0.63	15.9	145	10	870	60	2.6	65	0.260
EF540-05	-05	08	5/16	7.9	0.69	17.5	145	10	870	60	3.0	75	0.330
EF540-06	-06	10	3/8	9.5	0.75	19.05	145	10	870	60	3.5	90	0.377
EF540-07	-07	11	7/16	11.1	0.81	20.6	145	10	870	60	3.9	100	0.379
EF540-08	-08	12	1/2	12.7	0.87	22.2	145	10	870	60	3.9	100	0.486
EF540-10	-10	16	5/8	15.9	1.06	27.0	145	10	870	60	4.5	115	0.530



Temperature Range: Continuous: -40°C to +100°C

RUBBER - INDUSTRIAL HOSE

EF 440 - COMPRESSED AIR WIRE BRAIDED HOSE



Construction

- Core** Black colour, Synthetic rubber resistant to air
- Reinforcement** Single steel wire braid
- Cover** Yellow colour, Synthetic rubber resistant to water. Also available in Black cover on request
- Application** Compressed air service in severe working conditions in mines, quarries and industrial applications

Note: 1/2" to 2" - one wire braid, 2 1/2" to 4" - two wire braided. Use part number EF441 for high temperature

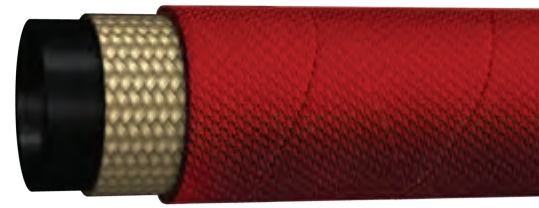
Item Code	Dash Size	DN	ID		OD		WP		BP		BR/r		W
			inch	mm	inch	mm	psi	bar	psi	bar	inch	mm	kg/m
EF440-08	-08	12	1/2	13.1	0.79	20.0	580	40	1740	120	7.9	200	0.365
EF440-12	-12	19	3/4	19.3	1.14	29.0	580	40	1740	120	9.4	240	0.520
EF440-16	-16	25	1	25.9	1.40	35.5	580	40	1740	120	11.8	300	0.821
EF440-20	-20	32	1.1/4	32.4	1.65	42.0	580	40	1740	120	16.5	420	1.114
EF440-24	-24	38	1.1/2	38.7	2.04	51.7	580	40	1740	120	19.7	500	1.529
EF440-32	-32	51	2	51.3	2.48	63.0	580	40	1740	120	24.8	630	2.058
EF440-40	-40	63	2.1/2	63.5	3.15	80.0	580	40	1740	120	30.0	762	4.196
EF440-48	-48	76	3	76.2	3.74	95.0	580	40	1740	120	36.0	915	5.394
EF440-64	-64	100	4	101.6	4.67	118.5	580	40	1740	120	48.0	1220	6.110



Temperature Range: Continuous: -40°C to +90°C

EF 471 - STEAM 1 W/B

Applicable Standard : IS 10655 Type 2 / BS 5342



Construction

- Core** Black colour, EPDM rubber resistant to high temperature steam
- Reinforcement** Single steel wire Braid
- Cover** Red Colour, EPDM rubber resistant to abrasion, heat and weather
- Application** High temperature steam Lines at constant pressure of 145 psi

Note: Black Colour Cover also available

Item Code	Dash Size	DN	ID		OD		WP		BP		BR/r		W
			inch	mm	inch	mm	psi	bar	psi	bar	inch	mm	kg/m
EF471-06	-06	10	3/8	10.0	0.69	17.5	145	10	1450	100	5.1	130	0.399
EF471-08	-08	12	1/2	12.5	0.87	22.0	145	10	1450	100	5.9	150	0.496
EF471-12	-12	19	3/4	19.0	1.14	29.0	145	10	1450	100	9.1	230	0.727
EF471-16	-16	25	1	25.4	1.37	34.8	145	10	1450	100	11.8	300	0.800
EF471-20	-20	32	1.1/4	31.5	1.65	42.0	145	10	1450	100	14.8	375	1.281



Temperature Range: Continuous: Up to +185°C Steam

EF 472 - STEAM 2 W/B

Applicable Standard : IS10655 Type 3 Exceeds



Construction

- Core** Black colour, EPDM rubber resistant to high temperature steam
- Reinforcement** Double steel wire Braids
- Cover** Red Colour, EPDM rubber resistant to heat and weather
- Application** High temperature steam Lines at constant pressure of 290 psi

Note: Black Colour Cover also available

Item Code	Dash Size	DN	ID		OD		WP		BP		BR/r		W
			inch	mm	inch	mm	psi	bar	psi	bar	inch	mm	kg/m
EF472-06	-06	10	3/8	10.0	0.77	19.5	290	20	2610	180	5.1	130	0.421
EF472-08	-08	12	1/2	12.5	0.91	23.0	290	20	2610	180	5.9	150	0.589
EF472-12	-12	19	3/4	19.0	1.18	30.0	290	20	2610	180	9.1	230	0.846
EF472-16	-16	25	1	25.4	1.45	36.8	290	20	2610	180	11.8	300	1.095
EF472-20	-20	32	1.1/4	31.5	1.71	43.5	290	20	2610	180	14.8	375	1.505
EF472-24	-24	38	1.1/2	38.0	1.95	49.5	290	20	2610	180	17.9	455	1.780
EF472-32	-32	51	2	51.0	2.52	64.0	290	20	2610	180	23.6	600	2.261
EF472-40	-40	63	2.1/2	63.0	3.27	83.0	290	20	2610	180	26.6	675	4.214
EF472-48	-48	76	3	76.0	3.86	98.0	290	20	2610	180	28.5	725	4.962



Temperature Range: Continuous: Up to +210°C Steam

EF 475 - STEAM HOSE WITH HELICAL WIRE



Construction

Core Black colour, EPDM rubber resistant to high temperature steam

Reinforcement Double steel wire braids with helical wire

Cover Red Colour, EPDM rubber resistant to heat and weather

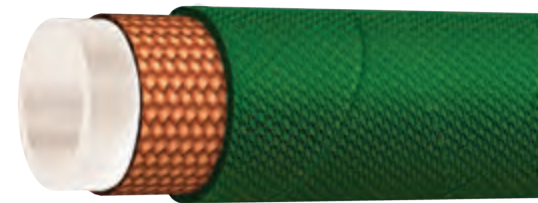
Application Hardwall hose with steel cord reinforcement for steam at a maximum working pressure of 20 bar, used in chemical industries and industrial application in general , where a particular bending radius is necessary

Item Code	Dash Size	DN	ID		OD		WP		BP		BR/r		W
			inch	mm	inch	mm	psi	bar	psi	bar	inch	mm	kg/m
EF475-32	-32	51	2	51.0	2.72	69.0	290	20	2610	180	27.6	700	2.971
EF475-40	-40	63	2.1/2	63.0	3.39	86.0	290	20	2610	180	33.5	850	4.574
EF475-48	-48	76	3	76.0	3.86	98.0	290	20	2610	180	38.6	980	5.335



Temperature Range: Continuous: -40°C to +210°C Steam

EF 555 - NON CONDUCTIVE CARBON FREE HOSE



Construction

Core Cream colour, Synthetic rubber

Reinforcement High Tensile Fiber Yarn Braid

Cover Red or Green Colour, Synthetic Rubber Cover resistant to oil, weather and abrasion

Application Electrical Coolant application; Conveying coolants in Furnace, specially designed for Low Leakage Current, leakage current levels less than 15 Micro Amps at 5000V DC

Item Code	Dash Size	DN	ID		OD		WP		BP		BR/r		W
			inch	mm	inch	mm	psi	bar	psi	bar	inch	mm	kg/m
EF555-06	-06	10	3/8	9.7	0.75	19.0	290	20	1015	70	3.9	100	0.339
EF555-08	-08	12	1/2	12.7	0.85	21.5	290	20	1015	70	3.9	100	0.367
EF555-10	- 10	16	5/8	16.0	1.02	26.0	290	20	1015	70	4.5	115	0.534
EF555-12	- 12	19	3/4	20.0	1.22	31.0	290	20	1015	70	4.9	125	0.731
EF555-16	- 16	25	1	26.0	1.50	38.0	290	20	1015	70	5.9	150	0.941
EF555-20	- 20	31	1.1/4	32.5	1.77	45.0	290	20	1015	70	7.9	200	1.355
EF555-24	- 24	38	1.1/2	39.0	2.09	53.0	290	20	1015	70	8.9	225	1.816
EF555-32	- 32	51	2	52.0	2.56	65.0	290	20	1015	70	11.8	300	2.476
EF555-48	- 48	76	3	76.0	3.39	86.0	290	20	1015	70	17.7	450	3.229
EF555-64	- 64	100	4	100.0	4.53	115.0	290	20	1015	70	23.6	600	3.305



Temperature Range: Continuous: -40°C to +100°C

EF 601 - WATER SUCTION & DISCHARGE HOSE W.P. 10 BAR



Construction

- Core** Black colour, Synthetic rubber resistant to water
- Reinforcement** Plies of synthetic cords with helix wire
- Cover** Black colour, Synthetic rubber, wrapped type, abrasion water resistant
- Application** Mandrel built heavy duty suction and discharge hose for handling of water, inert fluid, sewerages and waste water, where optimum flexibility is required

2

Item Code	Dash Size	ID		OD		WP		BP		V	W
		inch	mm	inch	mm	psi	bar	psi	bar		
EF601-12	-12	3/4	19.0	1.14	29.0	150	10	435	30	0.90	0.69
EF601-16	-16	1	25.0	1.38	35.0	150	10	435	30	0.90	0.80
EF601-20	-20	1.1/4	32.0	1.65	42.0	150	10	435	30	0.90	0.96
EF601-24	-24	1.1/2	38.0	1.89	48.0	150	10	435	30	0.90	1.11
EF601-32	-32	2	51.0	2.44	62.0	150	10	435	30	0.90	1.50
EF601-40	-40	2.1/2	63.0	2.95	75.0	150	10	435	30	0.90	1.96
EF601-48	-48	3	76.0	3.46	88.0	150	10	435	30	0.90	2.40
EF601-56	-56	3.1/2	89.0	4.02	102.0	150	10	435	30	0.90	2.90
EF601-64	-64	4	102.0	4.57	116.0	150	10	435	30	0.90	3.30
EF601-80	-80	5	127.0	5.55	141.0	150	10	435	30	0.90	5.20
EF601-96	-96	6	152.0	6.73	171.0	150	10	435	30	0.80	6.70
EF601-128	-128	8	203.0	8.78	223.0	150	10	435	30	0.70	11.20



Temperature Range: Continuous: -25°C to +70°C

EF 602 - WATER DISCHARGE HOSE W.P. 10 BAR - LAY FLAT



Construction

- Core** Black colour, Synthetic rubber resistant to water
- Reinforcement** Plies of synthetic cords
- Cover** Black colour, Synthetic rubber, wrapped type, abrasion water resistant
- Application** Light weight rubber hose design for water, natural liquid fertilizer, waste water, for submerged pump and irrigation systems

Item Code	Dash Size	ID		OD		WP		BP		W
		inch	mm	inch	mm	psi	bar	psi	bar	
EF602-16	-16	1	25.0	1.26	32.0	150	10	435	30	0.48
EF602-20	-20	1.1/4	32.0	1.54	39.0	150	10	435	30	0.62
EF602-24	-24	1.1/2	38.0	1.77	45.0	150	10	435	30	0.80
EF602-32	-32	2	51.0	2.28	58.0	150	10	435	30	0.94
EF602-40	-40	2.1/2	63.0	2.76	70.0	150	10	435	30	1.20
EF602-48	-48	3	76.0	3.27	83.0	150	10	435	30	1.50
EF602-56	-56	3.1/2	89.0	3.82	97.0	150	10	435	30	1.70
EF602-64	-64	4	102.0	4.29	109.0	150	10	435	30	2.20
EF602-80	-80	5	127.0	5.39	137.0	150	10	435	30	3.80
EF602-96	-96	6	152.0	6.38	162.0	150	10	435	30	4.50
EF602-128	-128	8	203.0	8.54	217.0	150	10	435	30	6.10



Temperature Range: Continuous: -25°C to +70°C

EF 604 - WATER SUCTION & DISCHARGE HOSE W.P. 20 BAR



Construction

- Core** Black colour, Synthetic rubber resistant to water
- Reinforcement** Synthetic textile cord with steel wire helix
- Cover** Black colour, Synthetic rubber, wrapped type, abrasion water resistant
- Application** Mandrel built heavy duty water suction and discharge hose for handling of water, inert fluid, sewerages, waste water, where optimum flexibility is required

Item Code	Dash Size	ID		OD		WP		BP		W kg/m
		inch	mm	inch	mm	psi	bar	psi	bar	
EF604-12	-12	3/4	19.0	1.14	29.0	300	20	900	60	0.70
EF604-16	-16	1	25.0	1.38	35.0	300	20	900	60	0.85
EF604-20	-20	1.1/4	32.0	1.65	42.0	300	20	900	60	0.99
EF604-24	-24	1.1/2	38.0	1.97	50.0	300	20	900	60	1.42
EF604-32	-32	2	51.0	2.56	65.0	300	20	900	60	2.04
EF604-40	-40	2.1/2	64.0	3.07	78.0	300	20	900	60	2.65
EF604-48	48	3	76.0	3.54	90.0	300	20	900	60	3.11
EF604-56	56	3.1/2	89.0	4.09	104.0	300	20	900	60	3.90
EF604-64	-64	4	102.0	4.65	118.0	300	20	900	60	4.57
EF604-80	-80	5	127.0	5.63	143.0	300	20	900	60	6.29
EF604-96	-96	6	152.0	6.89	175.0	300	20	900	60	9.40
EF604-128	-128	8	203.0	9.17	233.0	300	20	900	60	14.40



Temperature Range: Continuous: -25°C to +70°C

EF 606 - STEEL MILL WATER DELIVERY HOSE WITH FIBER GLASS COVER



Construction

- Core** White colour, EPDM Rubber resistant to hot water
- Reinforcement** High tensile synthetic textile cord
- Cover** Fiber glass cloth cover
- Application** Water Delivery Hose for application in Steel Mills and Glass industries. The Fiber Glass cover resists occasional contact of molten particles and protection against flame

Item Code	Dash Size	ID		OD		WP		BP		W kg/m
		inch	mm	inch	mm	psi	bar	psi	bar	
EF606-16	-16	1	25.0	1.54	39.0	150	10	435	30	0.75
EF606-20	-20	1.1/4	32.0	1.81	46.0	150	10	435	30	1.10
EF606-24	-24	1.1/2	38.0	2.13	54.0	150	10	435	30	1.55
EF606-32	-32	2	51.0	2.72	69.0	150	10	435	30	1.71
EF606-40	-40	2.1/2	64.0	3.39	86.0	150	10	435	30	2.90
EF606-48	-48	3	76.0	3.86	98.0	150	10	435	30	3.40
EF606-64	-64	4	102.0	4.88	124.0	150	10	435	30	4.87



Temperature Range: Continuous: -40°C to +130°C Outside Temperature: Up to 500°C

EF 607 - STEEL MILL WATER SUCTION AND DELIVERY HOSE WITH FIBER GLASS COVER



Construction

- Core** White colour, EPDM Rubber resistant to hot water
- Reinforcement** High tensile synthetic textile cord with wire helix and two cross anti static copper wire
- Cover** Fiber glass cloth cover
- Application** Water suction and delivery hose for application in Steel Mills and Glass industries. The Fiber glass cover resists occasional contact of molten particles and protection against flame

2

Item Code	Dash Size	ID		OD		WP		BP		W kg/m
		inch	mm	inch	mm	psi	bar	psi	bar	
EF607-16	-16	1	25.0	1.54	39.0	150	10	435	30	0.90
EF607-20	-20	1.1/4	32.0	1.81	46.0	150	10	435	30	1.40
EF607-24	-24	1.1/2	38.0	2.13	54.0	150	10	435	30	1.70
EF607-32	-32	2	51.0	2.72	69.0	150	10	435	30	1.98
EF607-40	-40	2.1/2	64.0	3.39	86.0	150	10	435	30	3.20
EF607-48	-48	3	76.0	3.86	98.0	150	10	435	30	3.80
EF607-64	-64	4	102.0	4.88	124.0	150	10	435	30	5.20



Temperature Range: Continuous: -40°C to +130°C Outside Temperature: Up to 500°C

EF 609 - THERMOPLASTIC LINED PAINT S & D HOSE 10 BAR



Construction

- Core** Black colour, Synthetic rubber with Thermoplastic liner
- Reinforcement** Synthetic textile cord with helical wire and two cross antistatic copper wire
- Cover** Black synthetic rubber resistant to ozone, weather and abrasion
- Application** For suction and conveying paint and allied chemicals

Item Code	Dash Size	ID		OD		WP		BP		V bar	W kg/m
		inch	mm	inch	mm	psi	bar	psi	bar		
EF609-08	-08	1/2	12.0	0.87	22.0	150	10	450	30	0.90	0.45
EF609-12	-12	3/4	19.0	1.22	31.0	150	10	450	30	0.90	0.69
EF609-16	-16	1	25.0	1.46	37.0	150	10	450	30	0.90	0.85
EF609-20	-20	1.1/4	32.0	1.73	44.0	150	10	450	30	0.90	1.10
EF609-24	-24	1.1/2	38.0	1.97	50.0	150	10	450	30	0.90	1.20
EF609-32	-32	2	51.0	2.48	63.0	150	10	450	30	0.90	1.60



Temperature Range: Continuous: -40°C to +80°C

EF 610 - WATER DISCHARGE HOSE - W.P. 20 BAR



Construction

- Core** Black colour, Synthetic rubber resistant to water
- Reinforcement** Plies of synthetic textile cords
- Cover** Black colour, Synthetic rubber, wrapped type, abrasion water resistant
- Application** Light weight rubber collapsible hose design for water, natural liquid fertilizers, waste water, for submerged pump and irrigation system

Item Code	Dash Size	ID		OD		WP		BP		W
		inch	mm	inch	mm	psi	bar	psi	bar	
EF610-16	-16	1	25.0	1.34	34.0	300	20	900	60	0.53
EF610-20	-20	1.1/4	32.0	1.65	42.0	300	20	900	60	0.84
EF610-24	-24	1.1/2	38.0	1.89	48.0	300	20	900	60	0.98
EF610-32	-32	2	51.0	2.44	62.0	300	20	900	60	1.10
EF610-40	-40	2.1/2	63.0	2.99	76.0	300	20	900	60	1.50
EF610-48	-48	3	76.0	3.50	89.0	300	20	900	60	1.72
EF610-56	-56	3.1/2	89.0	4.06	103.0	300	20	900	60	2.10
EF610-64	-64	4	102.0	4.57	116.0	300	20	900	60	2.40
EF610-80	-80	5	127.0	5.59	142.0	300	20	900	60	3.00
EF610-96	-96	6	152.0	6.57	167.0	300	20	900	60	5.00
EF610-128	-128	8	203.0	8.62	219.0	300	20	900	60	7.20



Temperature Range: Continuous: -25°C to +70°C

EF 611 - OIL / FUEL SUCTION & DISCHARGE HOSE W.P. 10 BAR



Construction

- Core** Black colour, Synthetic rubber resistant to oil
- Reinforcement** Plies of synthetic textile cords with steel helix and two cross anti static copper wire
- Cover** Black colour, Synthetic rubber resistant to oil, ozone and abrasion
- Application** Mandrel built heavy duty oil suction and discharge hose for handling grades of gasoline or petroleum oils of aromatic content upto 50% from tank truck, in dispensing station etc, during winter/summer seasons and withstands full vacuum

Item Code	Dash Size	ID		OD		WP		BP		V	W
		inch	mm	inch	mm	psi	bar	psi	bar	bar	
EF611-12	-12	3/4	19.0	1.14	29.0	150	10	435	30	0.90	0.60
EF611-16	-16	1	25.0	1.38	35.0	150	10	435	30	0.90	0.74
EF611-20	-20	1.1/4	32.0	1.65	42.0	150	10	435	30	0.90	0.90
EF611-24	-24	1.1/2	38.0	1.89	48.0	150	10	435	30	0.90	1.10
EF611-32	-32	2	51.0	2.44	62.0	150	10	435	30	0.90	1.40
EF611-40	-40	2.1/2	63.0	2.95	75.0	150	10	435	30	0.90	2.10
EF611-48	-48	3	76.0	3.54	90.0	150	10	435	30	0.90	2.70
EF611-56	-56	3.1/2	89.0	4.09	104.0	150	10	435	30	0.90	3.10
EF611-64	-64	4	102.0	4.61	117.0	150	10	435	30	0.90	3.80
EF611-80	-80	5	127.0	5.63	143.0	150	10	435	30	0.90	6.00
EF611-96	-96	6	152.0	6.61	168.0	150	10	435	30	0.80	7.40
EF611-128	-128	8	203.0	8.82	224.0	150	10	435	30	0.70	12.20



Temperature Range: Continuous: -20°C to +80°C

EF 613 - OIL / FUEL DELIVERY HOSE W.P. 10 BAR



Construction

- Core** Black colour, Synthetic rubber resistant to oil
- Reinforcement** Plies of synthetic textile cords with two cross anti static copper wires
- Cover** Black colour, Synthetic rubber resistant to oil, ozone and abrasion

Application Mandrel built heavy duty oil suction and discharge hose for handling grades of gasoline or petroleum oils of aromatic content upto 50% from tank truck, in dispensing station etc, during winter/summer seasons and withstands full vacuum

Item Code	Dash Size	ID		OD		WP		BP		W kg/m
		inch	mm	inch	mm	psi	bar	psi	bar	
EF613-12	-12	3/4	19.0	1.06	27.0	150	10	435	30	0.52
EF613-16	-16	1	25.0	1.38	35.0	150	10	435	30	0.65
EF613-20	-20	1.1/4	32.0	1.65	42.0	150	10	435	30	0.80
EF613-24	-24	1.1/2	38.0	1.89	48.0	150	10	435	30	0.94
EF613-32	-32	2	51.0	2.44	62.0	150	10	435	30	1.26
EF613-40	-40	2.1/2	63.0	2.95	75.0	150	10	435	30	1.90
EF613-48	-48	3	76.0	3.46	88.0	150	10	435	30	2.20
EF613-56	-56	3.1/2	89.0	4.09	104.0	150	10	435	30	2.60
EF613-64	-64	4	102.0	4.57	116.0	150	10	435	30	2.85
EF613-80	-80	5	127.0	5.59	142.0	150	10	435	30	4.20
EF613-96	-96	6	152.0	6.54	166.0	150	10	435	30	5.30



Temperature Range: Continuous: -20°C to +80°C

EF 614 - OIL SUCTION & DISCHARGE HOSE W.P. 20 BAR



Construction

- Core** Black colour, Synthetic rubber resistant to oil
- Reinforcement** Plies of synthetic textile cords with steel helix and two cross anti static copper wire
- Cover** Black colour, Synthetic rubber resistant to oil, ozone and abrasion

Application Mandrel built heavy duty oil suction and discharge hose for handling grades of gasoline or petroleum oils of aromatic content upto 50% from tank truck, in dispensing station etc, during winter/summer seasons and withstands full vacuum

Item Code	Dash Size	ID		OD		WP		BP		V bar	W kg/m
		inch	mm	inch	mm	psi	bar	psi	bar		
EF614-12	-12	3/4	19.0	1.14	29.0	300	20	870	60	0.90	0.60
EF614-16	-16	1	25.0	1.38	35.0	300	20	870	60	0.90	0.86
EF614-20	-20	1.1/4	32.0	1.65	42.0	300	20	870	60	0.90	1.03
EF614-24	-24	1.1/2	38.0	1.93	49.0	300	20	870	60	0.90	1.20
EF614-32	-32	2	51.0	2.48	63.0	300	20	870	60	0.90	1.80
EF614-40	-40	2.1/2	63.0	3.03	77.0	300	20	870	60	0.90	2.40
EF614-48	-48	3	76.0	3.54	90.0	300	20	870	60	0.90	2.90
EF614-56	-56	3.1/2	89.0	4.09	104.0	300	20	870	60	0.90	3.60
EF614-64	-64	4	102.0	4.65	118.0	300	20	870	60	0.90	4.10
EF614-80	-80	5	127.0	5.63	143.0	300	20	870	60	0.90	6.80
EF614-96	-96	6	152.0	6.77	172.0	300	20	870	60	0.90	9.00
EF614-128	-128	8	203.0	8.94	227.0	300	20	870	60	0.90	14.00



Temperature Range: Continuous: -20°C to +80°C

EF 615 - OIL S&D HOSE - 40 BAR



Construction

Core Black colour, Synthetic rubber resistant to oil

Reinforcement Plies of synthetic textile cords with steel helix and two cross anti static copper wire

Cover Black colour, Synthetic rubber resistant to oil, ozone and abrasion

Application Mandrel built heavy duty oil suction and discharge hose for handling grades of gasoline or petroleum oils of aromatic content upto 50% from tank truck, in dispensing station etc, during winter/summer seasons and withstands full vacuum

Item Code	Dash Size	ID		OD		WP		BP		V	W
		inch	mm	inch	mm	psi	bar	psi	bar		
EF615-32	-32	2	51.0	2.99	76.0	600	40	1200	80	0.90	3.41
EF615-48	-48	3	76.0	3.90	99.0	600	40	1200	80	0.90	5.20
EF615-64	-64	4	102.0	5.04	128.0	600	40	1200	80	0.90	6.80
EF615-96	-96	6	152.0	7.01	178.0	600	40	1200	80	0.90	11.00



Temperature Range: Continuous: -20°C to +80°C

EF 617 - OIL FUEL DELIVERY HOSE - 20 BAR



Construction

Core Black colour, Synthetic rubber resistant to oil

Reinforcement Plies of synthetic textile cords with steel helix and two cross anti static copper wire

Cover Black colour, Synthetic rubber resistant to oil, ozone and abrasion

Application Mandrel built heavy duty oil suction and discharge hose for handling grades of gasoline or petroleum oils of aromatic content upto 50% from tank truck, in dispensing station etc, during winter/summer seasons and withstands full vacuum

Item Code	Dash Size	ID		OD		WP		BP		W
		inch	mm	inch	mm	psi	bar	psi	bar	
EF617-12	-12	3/4	19.0	1.06	27.0	300	20	870	60	0.68
EF617-16	-16	1	25.0	1.38	35.0	300	20	870	60	0.81
EF617-20	-20	1.1/4	32.0	1.65	42.0	300	20	870	60	1.22
EF617-24	-24	1.1/2	38.0	1.89	48.0	300	20	870	60	1.35
EF617-32	-32	2	51.0	2.44	62.0	300	20	870	60	2.04
EF617-40	-40	2.1/2	63.0	2.95	75.0	300	20	870	60	2.65
EF617-48	-48	3	76.0	3.46	88.0	300	20	870	60	3.08
EF617-56	-56	3.1/2	89.0	4.09	104.0	300	20	870	60	3.60
EF617-64	-64	4	102.0	4.57	116.0	300	20	870	60	4.87
EF617-80	-80	5	127.0	5.59	142.0	300	20	870	60	5.60
EF617-96	-96	6	152.0	6.54	166.0	300	20	870	60	7.00



Temperature Range: Continuous: -20°C to +80°C

EF 620 - AIR & WATER DISCHARGE HOSE - 10 BAR



Construction

- Core** Black colour, Synthetic rubber resistant to oil
- Reinforcement** Plies of synthetic textile cords
- Cover** Black colour, Synthetic rubber resistant to oil, ozone and abrasion
- Application** Light weight hose designed for air, water & dust delivery in underground mines

Item Code	Dash Size	ID		OD		WP		BP		W kg/m
		inch	mm	inch	mm	psi	bar	psi	bar	
EF620-16	-16	1	25.0	1.26	32.0	150	10	435	30	0.48
EF620-20	-20	1.1/4	32.0	1.54	39.0	150	10	435	30	0.62
EF620-24	-24	1.1/2	38.0	1.77	45.0	150	10	435	30	0.80
EF620-32	-32	2	51.0	2.28	58.0	150	10	435	30	0.94
EF620-40	-40	2.1/2	63.0	2.76	70.0	150	10	435	30	1.20
EF620-48	-48	3	76.0	3.27	83.0	150	10	435	30	1.50
EF620-56	-56	3.1/2	89.0	3.82	97.0	150	10	435	30	1.70
EF620-64	-64	4	102.0	4.29	109.0	150	10	435	30	2.20
EF620-80	-80	5	127.0	5.39	137.0	150	10	435	30	3.80
EF620-96	-96	6	152.0	6.38	162.0	150	10	435	30	4.50
EF620-128	-128	8	203.0	8.54	217.0	150	10	435	30	6.10



Temperature Range: Continuous: -25°C to +70°C

EF 621 - CEMENT / PLASTER PLACEMENT HOSE



Construction

- Core** Black colour, Synthetic and natural rubber blend resistant to abrasion
- Reinforcement** High Tensile Synthetic Textile cord
- Cover** Black colour, Synthetic rubber resistant to ozone, weather and abrasion
- Application** For Cement/ Plaster/ Sand placement in construction industry

Item Code	Dash Size	ID		OD		WP		BP		W kg/m
		inch	mm	inch	mm	psi	bar	psi	bar	
EF621-16	-16	1	25.0	1.46	37.0	150	10	435	30	0.70
EF621-20	-20	1.1/4	32.0	1.81	46.0	150	10	435	30	0.99
EF621-24	-24	1.1/2	38.0	2.05	52.0	150	10	435	30	1.42
EF621-32	-32	2	51.0	2.56	65.0	150	10	435	30	2.04
EF621-40	-40	2.1/2	64.0	3.15	80.0	150	10	435	30	2.65
EF621-48	-48	3	76.0	3.62	92.0	150	10	435	30	3.11
EF621-64	-64	4	102.0	4.65	118.0	150	10	435	30	4.57
EF621-80	-80	5	127.0	5.79	147.0	150	10	435	30	6.29
EF621-96	-96	6	152.0	6.93	176.0	150	10	435	30	9.40
EF621-128	-128	8	203.0	9.09	231.0	150	10	435	30	14.40



Temperature Range: Continuous: -30°C to +70°C

EF 622 - HIGH PRESSURE PLASTER SPRAY HOSE



Construction

- Core** Black colour, Synthetic and natural rubber blend resistant to abrasion
- Reinforcement** High Tensile Synthetic Textile Cord
- Cover** Black colour, Synthetic rubber resistant to ozone, weather and abrasion
- Application** For High Pressure Cement/ Plaster Spraying in construction industry

Item Code	Dash Size	ID		OD		WP		BP		W kg/m
		inch	mm	inch	mm	psi	bar	psi	bar	
EF622-16	-16	1	25.0	1.54	39.0	580	40	1740	120	0.93
EF622-20	-20	1.1/4	32.0	1.81	46.0	580	40	1740	120	1.15
EF622-24	-24	1.1/2	38.0	2.13	54.0	580	40	1740	120	1.60
EF622-32	-32	2	51.0	2.72	69.0	580	40	1740	120	2.50
EF622-40	-40	2.1/2	64.0	3.39	86.0	580	40	1740	120	3.00
EF622-48	-48	3	76.0	3.86	98.0	580	40	1740	120	4.20
EF622-64	-64	4	102.0	5.12	130.0	580	40	1740	120	5.60
EF622-80	-80	5	127.0	6.18	157.0	580	40	1740	120	6.00



Temperature Range: Continuous: -30°C to +70°C

EF 623 - BULK MATERIAL SUCTION AND DISCHARGE HOSE W.P. 10 BAR



Construction

- Core** Black colour, Synthetic and natural rubber blend resistant to abrasion
- Reinforcement** High Tensile Synthetic Textile Cord with steel helix and 2 cross anti static wire
- Cover** Black colour, Synthetic rubber resistant to ozone, weather and abrasion
- Application** For Suction and Discharge of bulk material dry cement, gravel, sand, etc., construction industry

Item Code	Dash Size	ID		OD		WP		BP		V bar	W kg/m
		inch	mm	inch	mm	psi	bar	psi	bar		
EF623-16	-16	1	25.0	1.54	39.0	150	10	435	30	0.9	1.15
EF623-20	-20	1.1/4	32.0	1.77	45.0	150	10	435	30	0.9	1.40
EF623-24	-24	1.1/2	38.0	2.05	52.0	150	10	435	30	0.9	1.70
EF623-32	-32	2	51.0	2.56	65.0	150	10	435	30	0.9	1.80
EF623-40	-40	2.1/2	64.0	3.11	79.0	150	10	435	30	0.9	2.00
EF623-48	-48	3	76.0	3.62	92.0	150	10	435	30	0.9	3.15
EF623-64	-64	4	102.0	4.72	120.0	150	10	435	30	0.9	5.00
EF623-80	-80	5	127.0	5.79	147.0	150	10	435	30	0.9	6.70
EF623-96	-96	6	152.0	6.85	174.0	150	10	435	30	0.9	8.90



Temperature Range: Continuous: -30°C to +70°C

EF 624 - SHOT BLASTING HOSE W.P. 12 BAR



Construction

Core Black colour, Synthetic and natural rubber blend resistant to abrasion

Reinforcement High Tensile Synthetic Textile Cord with 2 cross anti static wire

Cover Black colour, Synthetic rubber resistant to ozone, weather and abrasion

Application Suitably designed long lasting heavy duty hose for use in sand, metal grits and foundry waste with conductive rubber compound to ensure static electricity dissipation abrasion loss of the tube according to ISO 4649: 50±5mm³

2

Item Code	Dash Size	ID		OD		WP		BP		W kg/m
		inch	mm	inch	mm	psi	bar	psi	bar	
EF624-08	-08	1/2	12.7	1.06	27.0	175	12	525	36	0.61
EF624-12	-12	3/4	19.0	1.34	34.0	175	12	525	36	0.80
EF624-16	-16	1	25.0	1.57	40.0	175	12	525	36	0.97
EF624-20	-20	1.1/4	32.0	1.89	48.0	175	12	525	36	1.32
EF624-24	-24	1.1/2	38.0	2.13	54.0	175	12	525	36	1.45
EF624-32	-32	2	51.0	2.87	73.0	175	12	525	36	2.20
EF624-40	-40	2.1/2	64.0	3.35	85.0	175	12	525	36	3.26
EF624-48	-48	3	76.0	3.94	100.0	175	12	525	36	3.90
EF624-64	-64	4	102.0	4.96	126.0	175	12	525	36	4.40



Temperature Range: Continuous: -30°C to +70°C

EF 625 - BUNKER TRUCK HOT AIR BLOWER HOSE W.P. 10 BAR



Construction

Core Black colour, Synthetic rubber to withstand high temperature blower air

Reinforcement High Tensile Synthetic Textile Cord

Cover Black colour, Synthetic rubber resistant to ozone, weather and abrasion

Application For Hot dry oilness air feeding to bunker trucks for discharge of bulk material like Dry Cement, Fly Ash, Quarry Dust, Sand, etc., in construction industry

Item Code	Dash Size	ID		OD		WP		BP		W kg/m
		inch	mm	inch	mm	psi	bar	psi	bar	
EF625-32	-32	2	51.0	2.56	65.0	150	10	435	30	1.60
EF625-48	-48	3	76.0	3.62	92.0	150	10	435	30	2.80
EF625-64	-64	4	102.0	4.65	118.0	150	10	435	30	3.60



Temperature Range: Continuous: -30°C to +180°C

EF 626 - DRY CEMENT DELIVERY / SILO HOSE



Construction

- Core** Black colour, Synthetic and natural rubber blend resistant to abrasion
- Reinforcement** Synthetic textile cord yarn fabric with antistatic copper wire
- Cover** Black colour, Synthetic rubber resistant to ozone, weather and abrasion
- Application** For transfer of Dry Cement, Sand, Crusher Dust from Silo/ Tanker

Item Code	Dash Size	ID		OD		WP		BP		W kg/m
		inch	mm	inch	mm	psi	bar	psi	bar	
EF626-16	-16	1	25.0	1.46	37.0	150	10	450	30	0.83
EF626-20	-20	1.1/4	32.0	1.73	44.0	150	10	450	30	1.01
EF626-24	-24	1.1/2	38.0	1.97	50.0	150	10	450	30	1.30
EF626-32	-32	2	51.0	2.56	65.0	150	10	450	30	1.70
EF626-40	-40	2.1/2	64.0	3.07	78.0	150	10	450	30	2.10
EF626-48	-48	3	76.0	3.54	90.0	150	10	450	30	2.70
EF626-64	-64	4	102.0	4.65	118.0	150	10	450	30	4.40
EF626-80	-80	5	127.0	5.79	147.0	150	10	450	30	5.70
EF626-96	-96	6	152.0	6.77	172.0	150	10	450	30	7.00
EF626-128	-128	8	203.0	8.94	227.0	150	10	450	30	9.00



Temperature Range: Continuous: -30°C to +70°C

EF 628 - ABRASIVE BULK MATERIAL SUCTION AND DISCHARGE HOSE W.P 20 BAR



Construction

- Core** Black colour, Synthetic and natural rubber blend resistant to abrasion
- Reinforcement** High Tensile Synthetic Textile Cord with steel helix and 2 cross anti static wire
- Cover** Black colour, Synthetic rubber resistant to ozone, weather and abrasion
- Application** For suction and discharge of bulk material Dry Cement, Gravel, Sand in Construction Industry

Item Code	Dash Size	ID		OD		WP		BP		V bar	W kg/m
		inch	mm	inch	mm	psi	bar	psi	bar		
EF628-16	-16	1	25.0	1.57	40.0	300	20	870	60	0.9	1.20
EF628-20	-20	1.1/4	32.0	1.81	46.0	300	20	870	60	0.9	1.60
EF628-24	-24	1.1/2	38.0	2.13	54.0	300	20	870	60	0.9	2.00
EF628-32	-32	2	51.0	2.64	67.0	300	20	870	60	0.9	2.40
EF628-40	-40	2.1/2	64.0	3.11	79.0	300	20	870	60	0.9	2.80
EF628-48	-48	3	76.0	3.82	97.0	300	20	870	60	0.9	3.80
EF628-64	-64	4	102.0	4.88	124.0	300	20	870	60	0.9	5.80
EF628-80	-80	5	127.0	5.83	148.0	300	20	870	60	0.9	7.40
EF628-96	-96	6	152.0	6.85	174.0	300	20	870	60	0.9	9.20



Temperature Range: Continuous: -30°C to +70°C

EF 629 - ABRASIVE BULK MATERIAL DISCHARGE HOSE W.P 10 BAR



Construction

- Core** Black colour, Synthetic and natural rubber blend resistant to abrasion
- Reinforcement** High tensile synthetic textile cord and two cross anti static copper wire
- Cover** Black colour, Synthetic rubber resistant to ozone, weather and abrasion
- Application** For discharge of bulk material Dry Cement, Gravel, Sand etc., in Construction Industry

Item Code	Dash Size	ID		OD		WP		BP		W kg/m
		inch	mm	inch	mm	psi	bar	psi	bar	
EF629-32	-32	2	51.0	2.52	64.0	150	10	435	30	1.71
EF629-40	-40	2.1/2	64.0	2.99	76.0	150	10	435	30	2.10
EF629-48	-48	3	76.0	3.62	92.0	150	10	435	30	2.60
EF629-64	-64	4	102.0	4.65	118.0	150	10	435	30	4.40
EF629-80	-80	5	127.0	5.63	143.0	150	10	435	30	5.60
EF629-96	-96	6	152.0	6.69	170.0	150	10	435	30	7.00
EF629-128	-128	8	203.0	8.94	227.0	150	10	435	30	9.80

 **Temperature Range:** Continuous: -30°C to +75°C

EF 630 - AIR & WATER DISCHARGE HOSE - 20 BAR



Construction

- Core** Black colour, Synthetic rubber resistant to water
- Reinforcement** Plies of synthetic textile cords with helix wire
- Cover** Black colour, Synthetic rubber, wrapped type, abrasion water resistant
- Application** Hose designed for Air, water & stone dust delivery in underground mines

Item Code	Dash Size	ID		OD		WP		BP		W kg/m
		inch	mm	inch	mm	psi	bar	psi	bar	
EF630-16	-16	1	25.0	1.34	34.0	300	20	900	60	0.67
EF630-20	-20	1.1/4	32.0	1.65	42.0	300	20	900	60	0.80
EF630-24	-24	1.1/2	38.0	1.89	48.0	300	20	900	60	0.94
EF630-32	-32	2	51.0	2.44	62.0	300	20	900	60	2.20
EF630-40	-40	2.1/2	63.0	2.99	76.0	300	20	900	60	2.60
EF630-48	-48	3	76.0	3.50	89.0	300	20	900	60	3.10
EF630-56	-56	3.1/2	89.0	4.06	103.0	300	20	900	60	3.70
EF630-64	-64	4	102.0	4.57	116.0	300	20	900	60	4.12
EF630-80	-80	5	127.0	5.59	142.0	300	20	900	60	4.90
EF630-96	-96	6	152.0	6.57	167.0	300	20	900	60	6.70
EF630-128	-128	8	203.0	8.62	219.0	300	20	900	60	8.20

 **Temperature Range:** Continuous: -25°C to +70°C

EF 631- INDUSTRIAL DUTY AIR HOSE W.P. 20 BAR



Construction

- Core** Black colour, Synthetic rubber resistant to high temperature and oil mist
- Reinforcement** High Tensile Synthetic Textile Cord
- Cover** Black colour, Synthetic rubber resistant to ozone, weather and abrasion
- Application** For conveying air from compressors and blowers

Item Code	Dash Size	ID		OD		WP		BP		W kg/m
		inch	mm	inch	mm	psi	bar	psi	bar	
EF631-16	-16	1	25.0	1.42	36.0	300	20	870	60	0.72
EF631-24	-24	1.1/2	38.0	2.01	51.0	300	20	870	60	1.85
EF631-32	-32	2	51.0	2.56	65.0	300	20	870	60	2.00
EF631-40	-40	2.1/2	64.0	3.15	80.0	300	20	870	60	2.58
EF631-48	-48	3	76.0	3.62	92.0	300	20	870	60	3.20
EF631-64	-64	4	102.0	4.72	120.0	300	20	870	60	4.50



Temperature Range: Continuous: -20°C to +85°C

EF 639 - BULK MATERIAL DISCHARGE - 20 BAR



Construction

- Core** Black colour, Synthetic and natural rubber blend resistant to abrasion
- Reinforcement** High Tensile Synthetic Textile Cord
- Cover** Black colour, Synthetic Rubber resistant to Ozone, weather and abrasion
- Application** For Discharge of Bulk Material dry cement, gravel, sand etc in Construction Industry

Item Code	Dash Size	ID		OD		WP		BP		W kg/m
		inch	mm	inch	mm	psi	bar	psi	bar	
EF639-32	-32	2	51.0	2.64	67.0	300	20	870	60	1.70
EF639-40	-40	2.1/2	64.0	3.11	79.0	300	20	870	60	2.10
EF639-48	-48	3	76.0	3.70	94.0	300	20	870	60	2.60
EF639-64	-64	4	102.0	4.80	122.0	300	20	870	60	4.40
EF639-80	-80	5	127.0	5.75	146.0	300	20	870	60	5.70
EF639-96	-96	6	152.0	6.77	172.0	300	20	870	60	7.00
EF639-128	-128	8	203.0	9.05	230.0	300	20	870	60	9.00



Temperature Range: Continuous: -30°C to +70°C

EF 642 - XLPE CHEMICAL SUCTION AND DISCHARGE HOSE W.P. 17 BAR



Construction

Core White colour, Synthetic rubber with XLPE liner
Reinforcement High Tensile Synthetic Textile Cord with steel helix and 2 cross anti static wire
Cover Green colour EPDM, wrapped type, abrasion and weather resistant

Application Excellent in handling petroleum based products, hydrocarbon solvents, oxidising chemicals, major strong acid and alkali as well as organic fluid etc.,

2

Item Code	Dash Size	ID		OD		WP		BP		V	W
		inch	mm	inch	mm	psi	bar	psi	bar		
EF642-12	-12	3/4	19.0	1.18	30.0	250	17	750	51	0.9	0.80
EF642-16	-16	1	25.0	1.38	35.0	250	17	750	51	0.9	1.39
EF642-20	-20	1.1/4	32.0	1.73	44.0	250	17	750	51	0.9	1.52
EF642-24	-24	1.1/2	38.0	1.97	50.0	250	17	750	51	0.9	2.00
EF642-32	-32	2	51.0	2.64	67.0	250	17	750	51	0.9	2.70
EF642-40	-40	2.1/2	63.0	3.11	79.0	250	17	750	51	0.9	3.20
EF642-48	-48	3	76.0	3.70	94.0	250	17	750	51	0.9	4.50
EF642-64	-64	4	102.0	4.72	120.0	250	17	750	51	0.9	4.80

 **Temperature Range:** Continuous: -20°C to +120°C

EF 645 - UHMPE CHEMICAL S & D HOSE



Construction

Core White colour, Synthetic rubber with transparent UHMPE liner FDA approved
Reinforcement Synthetic Textile cord with Helical wire
Cover Blue colour EPDM rubber resistant to ozone, weather and abrasion
Application Conveying acids and chemical with corrugated finish

Item Code	Dash Size	ID		OD		WP		BP		V	W
		inch	mm	inch	mm	psi	bar	psi	bar		
EF645-12	-12	3/4	19.0	1.22	31.0	250	17	750	51	0.9	0.70
EF645-16	-16	1	25.0	1.46	37.0	250	17	750	51	0.9	1.29
EF645-20	-20	1.1/4	32.0	1.73	44.0	250	17	750	51	0.9	1.49
EF645-24	-24	1.1/2	38.0	1.97	50.0	250	17	750	51	0.9	1.90
EF645-32	-32	2	51.0	2.48	63.0	250	17	750	51	0.9	2.50
EF645-40	-40	2.1/2	63.0	3.07	78.0	250	17	750	51	0.9	3.20
EF645-48	-48	3	76.0	3.70	94.0	250	17	750	51	0.9	4.30
EF645-64	-64	4	102.0	4.65	118.0	250	17	750	51	0.9	4.80

 **Temperature Range:** Continuous: -20°C to +120°C

EF 646 - EPDM CHEMICAL S & D HOSE



Construction

- Core** Black colour, EPDM synthetic rubber resistant to wide range of industrial chemicals
- Reinforcement** High Tensile Synthetic Textile Cord with 2 cross anti static wire
- Cover** Black colour, Synthetic rubber resistant to ozone, weather and abrasion
- Application** For conveying wide range of light chemicals

Item Code	Dash Size	ID		OD		WP		BP		W kg/m
		inch	mm	inch	mm	psi	bar	psi	bar	
EF646-08	-08	1/2	12.7	0.97	24.7	250	17	750	51	0.56
EF646-12	-12	3/4	19.0	1.22	31.0	250	17	750	51	0.68
EF646-16	-16	1	25.0	1.46	37.0	250	17	750	51	0.80
EF646-20	-20	1.1/4	32.0	1.73	44.0	250	17	750	51	0.99
EF646-24	-24	1.1/2	38.0	2.05	52.0	250	17	750	51	1.50
EF646-32	-32	2	51.0	2.64	67.0	250	17	750	51	2.04
EF646-40	-40	2.1/2	64.0	3.15	80.0	250	17	750	51	2.70
EF646-48	-48	3	76.0	3.62	92.0	250	17	750	51	3.12
EF646-64	-64	4	102.0	4.65	118.0	250	17	750	51	4.60

 **Temperature Range:** Continuous: -30°C to +120°C

EF 647 - SLURRY & MUD WATER SUCTION AND DISCHARGE HOSE



Construction

- Core** Black colour, Synthetic and natural rubber blend resistant to abrasion
- Reinforcement** High Tensile Synthetic Textile Cord with 2 cross anti static wire
- Cover** Black colour, Synthetic rubber resistant to ozone, weather and abrasion
- Application** For suction and discharge of slurry, mud and waste water

Item Code	Dash Size	ID		OD		WP		BP		W kg/m
		inch	mm	inch	mm	psi	bar	psi	bar	
EF647-32	-32	2	51.0	2.64	67.0	150	10	450	30	2.80
EF647-48	-48	3	76.0	3.66	93.0	150	10	450	30	4.70
EF647-64	-64	4	102.0	4.80	122.0	150	10	450	30	5.40
EF647-80	-80	5	127.0	5.79	147.0	150	10	450	30	6.20
EF647-96	-96	6	152.0	6.85	174.0	150	10	450	30	12.60
EF647-128	-128	8	203.0	9.33	237.0	150	10	450	30	19.70

 **Temperature Range:** Continuous: -30°C to +70°C

EF 648 - UHMWPE S & D HOSE FOOD



Construction

- Core** White colour, Synthetic rubber with transparent UHMWPE liner
- Reinforcement** High Tensile Synthetic Textile Cord with steel helix and 2 cross anti static wire
- Cover** Blue colour EPDM rubber resistant to ozone, weather and abrasion
- Application** Food & Potable water

Item Code	Dash Size	ID		OD		WP		BP		V	W
		inch	mm	inch	mm	psi	bar	psi	bar	bar	kg/m
EF648-12	-12	3/4	19.0	1.22	31.0	250	17	750	51	0.9	0.70
EF648-16	-16	1	25.0	1.46	37.0	250	17	750	51	0.9	1.29
EF648-20	-20	1.1/4	32.0	1.73	44.0	250	17	750	51	0.9	1.49
EF648-24	-24	1.1/2	38.0	1.97	50.0	250	17	750	51	0.9	1.90
EF648-32	-32	2	51.0	2.48	63.0	250	17	750	51	0.9	2.50
EF648-40	-40	2.1/2	63.0	3.07	78.0	250	17	750	51	0.9	3.20
EF648-48	-48	3	76.0	3.62	92.0	250	17	750	51	0.9	4.30
EF648-64	-64	4	102.0	4.65	118.0	250	17	750	51	0.9	4.80

 **Temperature Range:** Continuous: -30°C to +120°C

EF 649 - CONCRETE DELIVERY HOSE



Construction

- Core** Black colour, Synthetic and natural rubber blend resistant to abrasion
- Reinforcement** High Tensile Synthetic Textile Cord with 2 cross anti static wire
- Cover** Black colour, Synthetic rubber resistant to ozone, weather and abrasion
- Application** Designed for concrete pumping in construction industry

Item Code	Dash Size	ID		OD		WP		BP		W
		inch	mm	inch	mm	psi	bar	psi	bar	kg/m
EF649-20	-20	1.1/4	32.0	1.93	49.0	1200	80	2400	165	1.60
EF649-24	-24	1.1/2	38.0	2.20	56.0	1200	80	2400	165	1.80
EF649-32	-32	2	51.0	2.80	71.0	1200	80	2400	165	3.00
EF649-40	-40	2.1/2	64.0	3.39	86.0	1200	80	2400	165	3.40
EF649-48	-48	3	76.0	4.02	102.0	1000	70	2200	150	4.90
EF649-64	-64	4	102.0	5.16	131.0	1000	70	2200	150	6.90

 **Temperature Range:** Continuous: -30°C to +70°C

EF 651 - RADIATOR HOSE



Construction

- Core** Black Colour, EPDM rubber resistant to wide range of Industrial Chemicals
- Reinforcement** Synthetic Textile cord
- Cover** Black colour, EPDM Rubber resistant to Ozone, weather and abrasion
- Application** For conveying hot water mixed with anti- freeze liquids in cooling systems

Item Code	Dash Size	ID		OD		WP		BP		W kg/m
		inch	mm	inch	mm	psi	bar	psi	bar	
EF651-08	-08	1/2	12.7	0.83	21.0	45	3	135	9	0.30
EF651-12	-12	3/4	19.0	1.10	28.0	45	3	135	9	0.45
EF651-16	-16	1	25.0	1.34	34.0	45	3	135	9	0.50
EF651-20	-20	1.1/4	32.0	1.65	42.0	45	3	135	9	0.60
EF651-24	-24	1.1/2	38.0	1.89	48.0	45	3	135	9	0.80
EF651-32	-32	2	51.0	2.44	62.0	45	3	135	9	1.20
EF651-40	-40	2.1/2	64.0	2.99	76.0	45	3	135	9	1.40
EF651-48	-48	3	76.0	3.50	89.0	45	3	135	9	1.65
EF651-64	-64	4	102.0	4.57	116.0	45	3	135	9	2.60
EF651-80	-80	5	127.0	5.59	142.0	45	3	135	9	4.60
EF651-96	-96	6	152.0	6.57	167.0	45	3	135	9	6.80

 **Temperature Range:** Continuous: -40°C to +120°C

EF 657 - OIL FUEL DELIVERY HOSE FRAS - 20 BAR



Construction

- Core** Black colour, Conductive Synthetic Rubber resistant to oil
- Reinforcement** Piles of synthetic textile cords
- Cover** Black colour, Conductive Synthetic rubber resistant to weather and abrasion
- Application** Mandrel built heavy duty oil delivery hose for handling a wide range of gasoline or petroleum oils of aromatic content up to 50% from tank truck, in dispensing station, refineries, etc.

Item Code	Dash Size	ID		OD		WP		BP		W kg/m
		inch	mm	inch	mm	psi	bar	psi	bar	
EF657-12	-12	3/4	19.0	1.22	31.0	300	20	870	60	0.68
EF657-16	-16	1	25.0	1.46	37.0	300	20	870	60	0.81
EF657-20	-20	1.1/4	32.0	1.73	44.0	300	20	870	60	1.22
EF657-24	-24	1.1/2	38.0	2.01	51.0	300	20	870	60	1.35
EF657-32	-32	2	51.0	2.60	66.0	300	20	870	60	2.04
EF657-40	-40	2.1/2	63.0	3.11	79.0	300	20	870	60	2.65
EF657-48	-48	3	76.0	3.58	91.0	300	20	870	60	3.08
EF657-56	-56	3.1/2	89.0	4.17	106.0	300	20	870	60	3.60
EF657-64	-64	4	102.0	4.72	120.0	300	20	870	60	4.87
EF657-80	-80	5	127.0	5.75	146.0	300	20	870	60	5.60
EF657-96	-96	6	152.0	6.69	170.0	300	20	870	60	7.00

 **Temperature Range:** Continuous: -20°C to +80°C

EF 661 - MINE BLAST HANDLING HOSE - W.P. 20 BAR

Construction

- Core** Black colour, Conductive synthetic rubber abrasion resistance
- Reinforcement** Plies of synthetic textile cord with steel helix
- Cover** Black colour, Conductive Synthetic rubber resistant to abrasion, Ozone and fire resistance
- Application** Mandrel built heavy duty Suction & Discharge hose for handling explosive materials in Mining applications



Item Code	Dash Size	ID		OD		WP		BP		V	W
		inch	mm	inch	mm	psi	bar	psi	bar	bar	kg/m
EF661-32	-32	2	51.0	2.79	71.0	300	20	900	60	0.9	2.50
EF661-40	-40	2.1/2	63.0	3.27	83.0	300	20	900	60	0.9	3.00



Temperature Range: Continuous: -30°C to +80°C

EF 663 - AIR & WATER DISCHARGE HOSE FRAS - 20 BAR

Construction

- Core** Black colour, Conductive synthetic rubber resistant to air and water
- Reinforcement** Piles of synthetic textile cord
- Cover** Black colour, Conductive Synthetic rubber resistant to air and water
- Application** Hose designed for Air, water & stone dust delivery in underground mines



Item Code	Dash Size	ID		OD		WP		BP		W
		inch	mm	inch	mm	psi	bar	psi	bar	kg/m
EF663-16	-16	1	25.0	1.34	34.0	300	20	900	60	0.53
EF663-20	-20	1.1/4	32.0	1.65	42.0	300	20	900	60	0.84
EF663-24	-24	1.1/2	38.0	1.89	48.0	300	20	900	60	0.98
EF663-32	-32	2	51.0	2.44	62.0	300	20	900	60	1.10
EF663-40	-40	2.1/2	63.0	2.99	76.0	300	20	900	60	1.50
EF663-48	-48	3	76.0	3.50	89.0	300	20	900	60	1.72
EF663-56	-56	3.1/2	89.0	4.06	103.0	300	20	900	60	2.10
EF663-64	-64	4	102.0	4.57	116.0	300	20	900	60	2.40
EF663-80	-80	5	127.0	5.59	142.0	300	20	900	60	3.00
EF663-96	-96	6	152.0	6.57	167.0	300	20	900	60	5.00
EF663-128	128	8	203.0	8.62	219.0	300	20	900	60	7.20



Temperature Range: Continuous: -20°C to +85°C

EF 681 - SATURATED STEAM & HOT WATER HOSE

Construction

- Core** Black colour, EPDM rubber resistant to saturated steam
- Reinforcement** Synthetic Textile cord
- Cover** Red colour, EPDM resistant to ozone and weather
- Application** Saturated steam and hot water delivery



Item Code	Dash Size	ID		OD		WP		BP		W
		inch	mm	inch	mm	psi	bar	psi	bar	kg/m
EF681-08	-08	1/2	12.7	0.91	23.0	100	7	300	21	0.43
EF681-12	-12	3/4	19.0	1.22	31.0	100	7	300	21	0.60
EF681-16	-16	1	25.0	1.46	37.0	100	7	300	21	0.74
EF681-20	-20	1.1/4	32.0	1.81	46.0	100	7	300	21	1.10
EF681-24	-24	1.1/2	38.0	2.05	52.0	100	7	300	21	1.30
EF681-32	-32	2	51.0	2.64	67.0	100	7	300	21	1.80



Temperature Range: Continuous: -40°C to +165°C

EF 148 - MEDIUM PRESSURE HYDRAULIC HOSE - R7

Applicable Standard: SAE 100 R7 / DIN EN ISO 3949



Construction

- Core** Thermoplastic Elastomer
- Reinforcement** Single Braid of Synthetic Fiber
- Cover** Polyurethane, Black Colour, Pin pricked
- Application** Medium Pressure Hydraulic Lines 70 to 210 bar. Suitable for hydraulic application with increased resistance to abrasion for use with petroleum, synthetic or water based fluids in Hydraulic systems. Suitable for Agricultural machinery, Earthmoving, Articulating & Telescopic booms and Material handling equipments. Can be used for industrial gases and other applications

Note: Available Twin & Multi lines with different Hose combination and Size. Also special colours available on request.
Please specify our part nos. as EF151 for electrical non - conductive application - Orange colour cover

Item Code	Dash Size	DN	ID		OD		WP		BP		BR/r		W
			inch	mm	inch	mm	psi	bar	psi	bar	inch	mm	g/m
EF148-02	-02	03	1/8	3.2	0.320	8.1	3,000	210	12,000	840	1.0	25	57.0
EF148-03	-03	05	3/16	4.8	0.405	10.3	3,000	210	12,000	840	1.0	25	80.0
EF148-04	-04	06	1/4	6.4	0.490	12.4	2,750	190	11,000	760	1.3	32	114.0
EF148-05	-05	08	5/16	8.0	0.560	14.2	2,500	175	10,000	700	1.8	45	142.0
EF148-06	-06	10	3/8	9.5	0.620	15.7	2,250	155	9,000	620	2.2	55	164.0
EF148-08	-08	12	1/2	12.7	0.760	19.3	2,050	140	8,200	560	3.0	77	229.0
EF148-10	-10	16	5/8	16.0	0.910	23.1	1,500	105	6,000	420	4.3	110	295.0
EF148-12	-12	20	3/4	19.0	1.040	26.4	1,300	90	5,200	360	5.5	140	356.0
EF148-16	-16	25	1	25.4	1.310	33.3	1,000	70	4,000	280	8.0	200	504.0
EF148-20	-20	32	1.1/4	31.8	1.654	42.0	1,000	70	4,000	280	12.0	300	737.0



Temperature Range: Continuous: -40°C to +100°C Temp. not to exceed +70°C for Air and Water based fluids

EF 149 - HIGH PRESSURE HYDRAULIC HOSE - R8

Applicable Standard: SAE 100 R8 / DIN EN ISO 3949



Construction

- Core** Thermoplastic Elastomer
- Reinforcement** One or more Braids of Aramid Fiber
- Cover** Polyurethane, Black Colour, Pin pricked
- Application** High Pressure Hydraulic Lines 100 to 420 bar compact, high pressure, light weight and low change in length. Suitable for hydraulic application with increased resistance to abrasion for use with petroleum, synthetic or water based fluids in Hydraulic systems. Suitable for Agricultural machinery, Earthmoving, Safety, Rescue and Material handling equipments Can be used for industrial gases and other applications. Please consult manufacturer

Note: Available Twin & Multi lines with different Hose combination and Size. Also special colours available on request.
Please specify our part nos. as EF152 for electrical non - conductive application - Orange colour cover

Item Code	Dash Size	DN	ID		OD		WP		BP		BR/r		W
			inch	mm	inch	mm	psi	bar	psi	bar	inch	mm	g/m
EF149-02	-02	03	1/8	3.2	0.320	8.1	6,000	420	24,000	1,680	1.0	25	57.0
EF149-03	-03	05	3/16	4.8	0.405	10.3	5,000	350	20,000	1,400	1.0	25	87.0
EF149-04	-04	06	1/4	6.4	0.490	12.4	5,000	350	20,000	1,400	1.3	32	118.0
EF149-05	-05	08	5/16	8.0	0.560	14.2	4,350	300	17,400	1,200	1.8	45	147.0
EF149-06	-06	10	3/8	9.5	0.620	15.7	4,000	280	16,000	1,120	2.2	55	170.0
EF149-08	-08	12	1/2	12.7	0.760	19.3	3,500	245	14,000	980	3.0	77	219.0
EF149-10	-10	16	5/8	16.0	0.910	23.1	2,900	200	11,600	800	4.3	110	295.0
EF149-12	-12	20	3/4	19.0	1.040	26.4	2,300	165	9,200	660	5.5	140	372.0
EF149-16	-16	25	1	25.4	1.310	33.3	2,000	140	8,000	560	8.0	200	511.0
EF149-20	-20	32	1.1/4	31.8	1.654	42.0	1,500	100	6,000	400	14.0	350	750.0



Temperature Range: Continuous: -40°C to +100°C Temp. not to exceed +70°C for Air and Water based fluids

EF 353 - HIGH PRESSURE HYDRAULIC HOSE - R8 (2PB)

Applicable Standard: SAE 100 R8 / DIN EN ISO 3949



Construction

- Core** Thermoplastic Elastomer
- Reinforcement** Double Braids of Synthetic Fiber
- Cover** Polyurethane, Black Colour, Pin pricked

Application High Pressure Hydraulic Lines 140 to 350 bar high pressure, light weight and low change in length. Suitable for hydraulic application with increased resistance to abrasion for use with petroleum, synthetic or water based fluids in Hydraulic systems. Suitable for Agricultural machinery, Earthmoving, Safety, Rescue and Material handling equipments. Can be used for industrial gases and other applications. Please consult manufacturer

Note: Available Twin & Multi lines with different Hose combination and Size. Also special colours available on request. Please specify our part nos. as EF357 for electrical non - conductive application - Orange colour cover

Item Code	Dash Size	DN	ID		OD		WP		BP		BR/r		W
			inch	mm	inch	mm	psi	bar	psi	bar	inch	mm	g/m
EF353-03	-03	05	3/16	4.8	0.490	12.4	5,000	350	20,000	1,400	1.6	40	136.0
EF353-04	-04	06	1/4	6.4	0.635	16.1	5,000	350	20,000	1,400	1.8	45	220.0
EF353-05	-05	08	5/16	8.0	0.660	16.8	4,250	290	17,000	1,160	2.2	55	232.0
EF353-06	-06	10	3/8	9.5	0.730	18.5	4,000	280	16,000	1,120	2.6	65	260.0
EF353-08	-08	12	1/2	12.7	0.890	22.6	3,500	245	14,000	980	3.0	77	356.0
EF353-10	-10	16	5/8	16.0	1.020	25.9	2,750	190	11,000	760	4.0	100	405.0
EF353-12	-12	20	3/4	19.0	1.140	29.0	2,250	155	9,000	620	5.5	140	476.0
EF353-16	-16	25	1	25.4	1.420	36.1	2,000	140	8,000	560	8.0	200	637.0



Temperature Range: Continuous: -40°C to +100°C Temp. not to exceed +70°C for Air and Water based fluids

EF 194 -LOW TEMPERATURE - R18

Applicable Standard: Exceeds SAE 100 R18 / DIN EN ISO 3949



Construction

- Core** Thermoplastic Elastomer
- Reinforcement** One or more Braids of Synthetic Fiber
- Cover** Special Polyester Elastomer, Black Colour, Pin pricked.

Application Constant Pressure Hydraulic Lines 210bar. Suitable for hydraulic application with low temperature requirements and abrasion resistance for use with petroleum, synthetic or water based fluids in hydraulic systems. Suitable for agricultural machinery, earthmoving, cold storage material handling equipments and systems. Can be used for industrial gases and other applications. Please consult manufacturer

Note: Available Twin & Multi lines with different Hose combination and Size. Also special colours available on request. Please specify our part nos. as EF195 for electrical non - conductive application - Orange colour cover

Item Code	Dash Size	DN	ID		OD		WP		BP		BR/r		W
			inch	mm	inch	mm	psi	bar	psi	bar	inch	mm	g/m
EF194-03	-03	05	3/16	4.8	0.405	10.3	3,000	210	12,000	840	1.2	30	80.0
EF194-04	-04	06	1/4	6.4	0.490	12.4	3,000	210	12,000	840	1.8	45	120.0
EF194-05	-05	08	5/16	8.0	0.560	14.2	3,000	210	12,000	840	2.0	50	153.0
EF194-06	-06	10	3/8	9.5	0.650	16.6	3,000	210	12,000	840	3.0	75	188.0
EF194-08	-08	12	1/2	12.7	0.890	22.5	3,000	210	12,000	840	3.5	90	298.0
EF194-10	-10	16	5/8	16.0	1.060	25.4	3,000	210	12,000	840	4.7	120	370.0
EF194-12	-12	20	3/4	19.0	1.170	29.7	3,000	210	12,000	840	6.0	150	435.0
EF194-16	-16	25	1	25.4	1.560	39.6	3,000	210	12,000	840	10.0	250	600.0



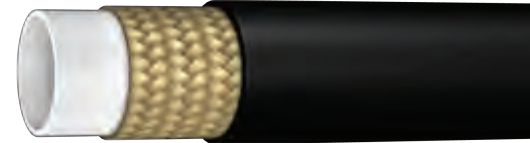
Temperature Range: Continuous: -55°C to +100°C Temp. not to exceed +70°C for Air and Water based fluids

EF 348 - MEDIUM PRESSURE HYDRAULIC HOSE - 1WB

Applicable Standard: EN One wire braid hose specification

Construction

- Core** Thermoplastic Elastomer
- Reinforcement** Single Braid of Steel Wire
- Cover** Polyurethane, Black Colour, Pin pricked (Optional)
- Application** Medium Pressure Hydraulic Lines 100 to 350 bar. Suitable for hydraulic application with increased resistance to abrasion for use with petroleum, synthetic or water based fluids in Hydraulic systems. Suitable for Agricultural machinery, Earthmoving, Articulating & Telescopic booms and Material handling equipments. Can be used for industrial gases and other applications. Please consult manufacturer. Compact Construction compared to conventional single steel wire braid rubber hoses



Note: Available Twin & Multi lines with different Hose combination and Size. Also special colours available on request

Item Code	Dash Size	DN	ID		OD		WP		BP		BR/r		W
			inch	mm	inch	mm	psi	bar	psi	bar	inch	mm	g/m
EF348-02	-02	03	1/8	3.2	0.280	7.1	5,000	350	20,000	1,400	1.0	25	84.0
EF348-03	-03	05	3/16	4.8	0.380	9.7	5,000	350	17,400	1,200	1.2	30	141.0
EF348-04	-04	06	1/4	6.4	0.460	11.7	4,350	300	15,600	1,100	1.6	40	182.0
EF348-05	-05	08	5/16	8.0	0.535	13.6	3,500	240	14,000	960	2.0	50	222.0
EF348-06	-06	10	3/8	9.5	0.600	15.2	3,265	225	12,800	880	2.4	60	263.0
EF348-08	-08	12	1/2	12.7	0.725	18.4	2,750	190	10,000	700	3.0	75	350.0
EF348-10	-10	16	5/8	16.0	0.875	22.2	2,175	150	8,000	560	4.3	110	461.0
EF348-12	-12	20	3/4	19.0	1.020	25.9	1,890	130	6,400	460	6.0	150	550.0
EF348-16	-16	25	1	25.4	1.275	32.4	1,525	105	5,800	400	9.1	230	692.0



Temperature Range: Continuous: -40°C to +100°C Temp. not to exceed +70°C for Air and Water based fluids

EF 349 - HIGH PRESSURE HYDRAULIC HOSE - 2WB

Applicable Standard: Exceeds SAE / EN two wire braid hose specification

Construction

- Core** Thermoplastic Elastomer
- Reinforcement** Double Braids of Steel Wire
- Cover** Polyurethane, Black Colour, Pin pricked (Optional)
- Application** High Pressure Hydraulic Lines 150 to 450 bar compact, high pressure, light weight and low change in length. Suitable for hydraulic application with increased resistance to abrasion for use with petroleum, synthetic or water based fluids in Hydraulic systems. Suitable for Agricultural machinery, Earthmoving, Safety, Rescue and Material handling equipments. Can be used for industrial gases and other applications. Please consult manufacturer. Compact Construction compared to conventional double steel wire braid rubber hoses



Note: Available Twin & Multi lines with different Hose combination and Size. Also special colours available on request

Item Code	Dash Size	DN	ID		OD		WP		BP		BR/r		W
			inch	mm	inch	mm	psi	bar	psi	bar	inch	mm	g/m
EF349-03	-03	05	3/16	4.8	0.460	11.7	6,500	450	26,000	1,800	3.1	80	267.0
EF349-04	-04	06	1/4	6.4	0.540	13.7	6,250	430	25,000	1,720	4.0	100	318.0
EF349-05	-05	08	5/16	8.0	0.600	15.2	5,500	380	22,000	1,520	4.3	110	391.0
EF349-06	-06	10	3/8	9.5	0.690	17.5	4,800	330	19,200	1,320	5.0	127	473.0
EF349-08	-08	12	1/2	12.7	0.830	21.1	3,900	270	15,600	1,080	7.0	178	613.0
EF349-10	-10	16	5/8	16.0	0.975	24.8	3,625	250	12,000	840	8.0	203	818.0
EF349-12	-12	20	3/4	19.0	1.120	28.4	3,120	215	10,000	700	10.0	250	934.0
EF349-16	-16	25	1	25.4	1.360	34.5	2,400	165	8,800	600	12.0	305	1114.0



Temperature Range: Continuous: -40°C to +100°C Temp. not to exceed +70°C for Air and Water based fluids

EF 358 - R7 COMPACT HOSE



Construction

Core Polyamide (Composite tube)
Reinforcement One or more Braids of Synthetic Fiber
Cover Polyurethane, Black Colour, Pin pricked

Application Medium Pressure Hydraulic Lines 70 to 210 bar. Suitable for hydraulic application with increased resistance to abrasion for use with petroleum, synthetic or water based fluids in Hydraulic systems. Suitable for Agricultural machinery, Earthmoving, Articulating & Telescopic booms and Material handling equipments

Note: Available Twin & Multi lines with different Hose combination and size. Also special colours available on request

Item Code	Dash Size	DN	ID		OD		WP		BP		BR/r		W
			inch	mm	inch	mm	psi	bar	psi	bar	inch	mm	g/m
EF358-03	-03	05	3/16	4.8	0.409	10.4	3,000	210	12,000	840	0.8	20	80.0
EF358-04	-04	06	1/4	6.4	0.500	12.7	2,800	195	11,200	780	1.0	25	120.0
EF358-06	-06	10	3/8	9.5	0.645	16.4	2,300	160	9,200	640	1.8	45	170.0
EF358-08	-08	12	1/2	12.7	0.805	20.4	2,000	140	8,000	560	2.6	65	250.0



Temperature Range: Continuous: -40°C to +100°C Temp. not to exceed +70°C for Air and Water based fluids

3

EF 761 - HYBRID HOSE - 1W

Applicable Standard: Exceeds SAE / EN One wire braid hose specification



Construction

Core Thermoplastic Elastomer
Reinforcement Single Braid of Steel Wire
Cover Synthetic Rubber, Black Colour

Application Medium Pressure Hydraulic Lines 88 to 225 bar. For use with petroleum, synthetic or water based fluids in Hydraulic systems. Suitable for Agricultural machinery, Earthmoving, material handling equipments and machineries / systems

Item Code	Dash Size	DN	ID		OD		WP		BP		BR/r		W
			inch	mm	inch	mm	psi	bar	psi	bar	inch	mm	g/m
EF761-04	-04	06	1/4	6.4	0.500	12.7	3,260	225	13,100	900	2.0	50	197.0
EF761-06	-06	10	3/8	9.5	0.660	16.8	2,610	180	10,500	720	2.5	64	281.0
EF761-08	-08	12	1/2	12.7	0.770	19.6	2,320	160	9,300	640	3.5	90	367.0
EF761-12	-12	20	3/4	19.0	1.050	26.7	1,520	105	6,100	420	5.0	125	579.0
EF761-16	-16	25	1	25.4	1.250	31.8	1,270	88	5,100	352	10.0	250	720.0



Temperature Range: Continuous: -40°C to +100°C Temp. not to exceed +70°C for Air and Water based fluids

EF 762 - HYBRID HOSE - 2W

Applicable Standard: Exceeds SAE / EN two wire braid hose specification



Construction

Core Thermoplastic Elastomer
Reinforcement Two Braids of Steel Wire
Cover Synthetic Rubber, Black Colour

Application High Pressure Hydraulic Lines 165 to 400 bar. For use with petroleum, synthetic or water based fluids in Hydraulic systems. Suitable for Agricultural machinery, Earthmoving, material handling equipments and machineries / systems

Item Code	Dash Size	DN	ID		OD		WP		BP		BR/r		W
			inch	mm	inch	mm	psi	bar	psi	bar	inch	mm	g/m
EF762-04	-04	06	1/4	6.4	0.570	14.5	5,800	400	23,200	1,600	2.0	50	366.0
EF762-06	-06	10	3/8	9.5	0.680	17.3	4,780	330	19,200	1,320	2.5	64	527.0
EF762-08	-08	12	1/2	12.7	0.820	20.8	4,000	275	16,000	1,104	3.5	90	660.0
EF762-10	-10	16	5/8	16.0	0.970	24.6	3,620	250	14,500	1,000	4.0	100	876.0
EF762-12	-12	20	3/4	19.0	1.100	27.9	3,110	215	12,440	860	4.8	120	1006.0
EF762-16	-16	25	1	25.4	1.450	36.8	2,390	165	9,600	660	6.0	150	1192.0



Temperature Range: Continuous: -40°C to +100°C Temp. not to exceed +70°C for Air and Water based fluids

EF 301 - SEWER JET - 2500 PSI



Construction

- Core** Thermoplastic Elastomer
- Reinforcement** One or more Braids of Synthetic Fiber
- Cover** Polyurethane, Orange Colour
- Application** Standard Sewer cleaning vehicles and cleaning equipments. Special construction for optimum cut and wear resistance with bonded tube and cover. Available in long lengths with a special cover resistant to microbiological degradation light weight compared to conventional rubber alternatives and increased lifetime

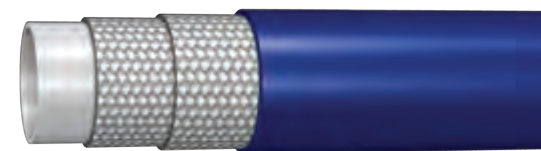
Note: Special colours available on request

Item Code	Dash Size	DN	ID		OD		WP		BP		BR/r		W
			inch	mm	inch	mm	psi	bar	psi	bar	inch	mm	g/m
EF301-03	-03	05	3/16	4.8	0.413	10.5	2,500	175	6,250	438	1.6	40	83.0
EF301-04	-04	06	1/4	6.4	0.505	12.8	2,500	175	6,250	438	1.6	40	118.0
EF301-06	-06	10	3/8	9.5	0.640	16.3	2,500	175	6,250	438	2.4	60	167.0
EF301-08	-08	12	1/2	12.7	0.810	20.6	2,500	175	6,250	438	4.0	100	248.0
EF301-10	-10	16	5/8	16.0	1.030	26.2	2,500	175	6,250	438	4.3	110	417.0
EF301-12	-12	20	3/4	19.0	1.150	29.2	2,500	175	6,250	438	5.0	125	496.0
EF301-16	-16	25	1	25.4	1.450	36.8	2,500	175	6,250	438	6.3	160	714.0
EF301-20	-20	32	1.1/4	31.8	1.800	45.7	2,500	175	6,250	438	10.0	250	1106.0



Temperature Range: Continuous: -40°C to +60°C

EF 302 - SEWER JET - 3000 PSI



Construction

- Core** Thermoplastic Elastomer
- Reinforcement** One or more Braids of Synthetic Fiber
- Cover** Polyurethane, Blue Colour
- Application** Standard Sewer cleaning vehicles and cleaning equipments. Heavy duty construction for optimum cut and wear resistance with bonded tube and cover. Available in long lengths with a special cover, resistant to microbiological degradation light weight compared to conventional rubber alternatives and increased lifetime

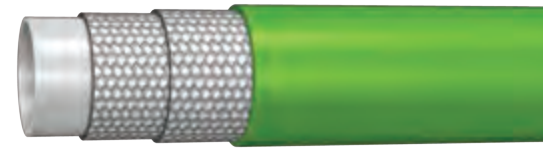
Note: Special colours available on request

Item Code	Dash Size	DN	ID		OD		WP		BP		BR/r		W
			inch	mm	inch	mm	psi	bar	psi	bar	inch	mm	g/m
EF302-02	-02	03	1/8	3.2	0.335	8.5	3,000	210	7,500	525	1.2	30	57.0
EF302-03	-03	05	3/16	4.8	0.413	10.5	3,000	210	7,500	525	1.4	35	83.0
EF302-04	-04	06	1/4	6.4	0.505	12.8	3,000	210	7,500	525	1.6	40	117.0
EF302-06	-06	10	3/8	9.5	0.640	16.3	3,000	210	7,500	525	3.0	75	170.0
EF302-08	-08	12	1/2	12.7	0.880	22.4	3,000	210	7,500	525	4.0	100	318.0
EF302-10	-10	16	5/8	16.0	1.030	26.2	3,000	210	7,500	525	4.3	110	430.0
EF302-12	-12	20	3/4	19.0	1.150	29.2	3,000	210	7,500	525	4.9	125	496.0
EF302-16	-16	25	1	25.4	1.470	37.3	3,000	210	7,500	525	6.3	160	759.0
EF302-20	-20	32	1.1/4	31.8	1.830	46.5	3,000	210	7,500	525	9.8	250	1159.0



Temperature Range: Continuous: -40°C to +60°C

EF 303 - SEWER JET - 3600 PSI



Construction

- Core** Thermoplastic Elastomer
- Reinforcement** Two or more Braids of Synthetic Fiber
- Cover** Polyurethane, Green Colour
- Application** Compact Sewer cleaning vehicles and lateral sewer line equipments. Heavy duty construction for optimum cut and wear resistance with bonded tube and cover. Available in long lengths with a special cover, resistant to microbiological degradation. High pressure performance and flexible hose for cleaning smaller sized sewer ducts

Note: Special colours available on request

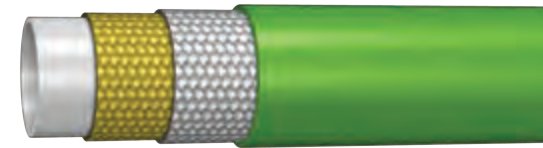
Item Code	Dash Size	DN	ID		OD		WP		BP		BR/r		W
			inch	mm	inch	mm	psi	bar	psi	bar	inch	mm	g/m
EF303-03	-03	05	3/16	4.8	0.413	10.5	4,000	280	12,000	840	1.6	40	94.0
EF303-04	-04	06	1/4	6.4	0.510	13.0	4,000	280	12,000	840	1.6	40	124.0
EF303-06	-06	10	3/8	9.5	0.690	17.5	4,000	280	12,000	840	3.0	75	217.0
EF303-08	-08	12	1/2	12.7	0.880	22.4	4,000	280	10,000	690	4.0	100	316.0
EF303-12	-12	20	3/4	19.0	1.180	30.0	3,600	250	9,000	625	5.0	125	521.0
EF303-16	-16	25	1	25.4	1.500	38.1	3,600	250	9,000	625	6.3	160	811.0



Temperature Range: Continuous: -40°C to +60°C

4

EF 304 - SEWER JET - 4000 PSI



Construction

- Core** Thermoplastic Elastomer
- Reinforcement** One or more Braids of Aramid Fiber and one braid of synthetic fiber
- Cover** Polyurethane, Green Colour
- Application** Particularly suitable for use with compact vehicles and lateral sewer line cleaning equipment. High pressure capability combined with high safety factor, flexibility and small profile. Abrasion and cut resistant cover designed for long life. Ideal for use in small pipes and ducts. Bonded construction to resist kinking. Available in long lengths

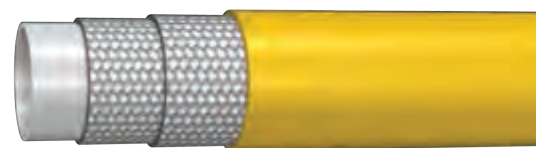
Note: Special colours available on request

Item Code	Dash Size	DN	ID		OD		WP		BP		BR/r		W
			inch	mm	inch	mm	psi	bar	psi	bar	inch	mm	g/m
EF304-04	-04	06	1/4	6.4	0.510	13.0	5,000	345	20,000	1,380	1.6	40	129.0
EF304-06	-06	10	3/8	9.5	0.640	16.2	4,000	280	16,240	1,120	2.4	60	158.0
EF304-08	-08	12	1/2	12.7	0.805	20.4	4,000	280	16,240	1,120	4.0	100	256.0
EF304-10	-10	16	5/8	16.0	0.970	24.6	4,000	280	16,240	1,120	4.5	115	356.0
EF304-12	-12	20	3/4	19.0	1.150	29.2	4,000	280	12,000	840	5.0	125	514.0
EF304-16	-16	25	1	25.4	1.450	36.8	4,000	280	10,000	690	6.3	160	734.0
EF304-20	-20	32	1.1/4	31.8	1.800	45.7	3,600	250	9,000	625	10.0	250	1136.0



Temperature Range: Continuous: -40°C to +60°C

EF 305 - SEWER JET - 2800 PSI



Construction

- Core** Thermoplastic Elastomer
- Reinforcement** One Braid of Synthetic Fiber and one special braid of synthetic fiber armoring
- Cover** Polyurethane, Yellow Colour
- Application** Ideal for those tough jobs with tight bends. Abrasion and cut resistant cover. Bonded construction to resist kinking. Design includes "armoring", enhancing flexibility and wear life. Cover material specially compounded to resist microbiological degradation. Available in long lengths

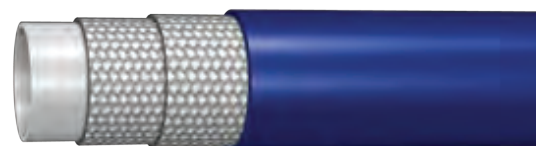
Note: Special colours available on request

Item Code	Dash Size	DN	ID		OD		WP		BP		BR/r		W
			inch	mm	inch	mm	psi	bar	psi	bar	inch	mm	g/m
EF305-08	-08	12	1/2	12.7	0.805	20.4	2,800	190	6,900	475	4.0	100	277.0
EF305-12	-12	20	3/4	19.0	1.160	29.5	2,800	190	6,900	475	4.7	120	495.0
EF305-16	-16	25	1	25.4	1.460	37.1	2,800	190	6,900	475	6.0	150	717.0



Temperature Range: Continuous: -40°C to +60°C

PH 306 - SEWER JET - 3000 PSI



Construction

- Core** Thermoplastic Elastomer
- Reinforcement** One or more braids of Synthetic Fiber and one special braid of synthetic fiber armoring
- Cover** Polyurethane, Blue Colour
- Application** Ideal for those tough jobs with tight bends. Abrasion and cut resistant cover. Bonded construction to resist kinking. Design includes "armoring", enhancing flexibility and wear life. Cover material specially compounded to resist microbiological degradation. Available in long lengths

Note: Special colours available on request

Item Code	Dash Size	DN	ID		OD		WP		BP		BR/r		W
			inch	mm	inch	mm	psi	bar	psi	bar	inch	mm	g/m
EF306-12	-12	20	3/4	19.0	1.160	29.5	3,000	210	7,500	525	4.7	120	495.0
EF306-16	-16	25	1	25.4	1.480	37.6	3,000	210	7,500	525	6.3	160	752.0



Temperature Range: Continuous: -40°C to +60°C

EF 307 - SEWER JET - 3600 PSI



Construction

Core Thermoplastic Elastomer

Reinforcement Two Braids of Synthetic Fiber and one special braid of synthetic fiber armoring

Cover Polyurethane, Blue Colour

Application Ideal for those tough jobs with tight bends. Abrasion and cut resistant cover. Bonded construction to resist kinking. Design includes "armoring", enhancing flexibility and wear life. Cover material specially compounded to resist microbiological degradation. Available in long lengths

Note: Special colours available on request

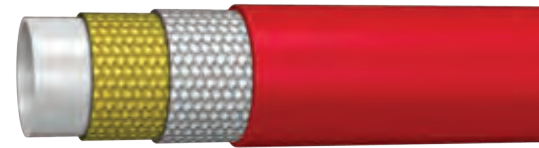
Item Code	Dash Size	DN	ID		OD		WP		BP		BR/r		W
			inch	mm	inch	mm	psi	bar	psi	bar	inch	mm	g/m
EF307-10	-10	16	5/8	16.0	1.060	26.9	3,600	250	9,000	625	4.5	115	420.0
EF307-12	-12	20	3/4	19.0	1.180	30.0	3,600	250	9,000	625	5.0	125	510.0



Temperature Range: Continuous: -40°C to +60°C

4

EF 308 - SEWER JET - 3600 / 4000 PSI



Construction

Core Special Polyurethane

Reinforcement One or more braids of Aramid Fiber and one special braid of synthetic fiber armoring

Cover Polyurethane, Red Colour

Application Extreme flexibility at low temperature owing to special inner tube material and light weight reinforcement. Bonded construction to resist kinking. Resists cuts, abrasion and microbiological degradation. Available in long lengths

Note: Special colours available on request

Item Code	Dash Size	DN	ID		OD		WP		BP		BR/r		W
			inch	mm	inch	mm	psi	bar	psi	bar	inch	mm	g/m
EF308-08	-08	12	1/2	12.7	0.810	20.6	4,000	275	16,000	1,100	3.1	80	260.0
EF308-12	-12	20	3/4	19.0	1.150	29.2	3,600	250	9,000	625	4.5	115	435.0
EF308-16	-16	25	1	25.4	1.440	36.6	3,600	250	9,000	625	5.3	135	700.0
EF308-20	-20	32	1.1/4	31.8	1.800	45.7	3,600	250	9,000	625	8.3	210	975.0



Temperature Range: Continuous: -40°C to +60°C

EF 342 - PAINT SPRAY - 1W



Construction

- Core** Polyamide
- Reinforcement** Single braid of steel wire
- Cover** Polyurethane, Blue Colour, Pin pricking (Optional)
- Application** Airless paint spray systems for 100 to 350 bar. Suitable for applications requiring chemical resistance to solvents and aggressive fluids. Due to low permeation value of polyamide, the hose is also suitable for industrial gases

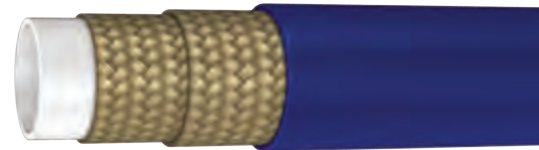
Note: Available Twin & Multi lines with different Hose combination and Size; WP at 1:2.5 ratio also available

Item Code	Dash Size	DN	ID		OD		WP		BP		BR/r		W
			inch	mm	inch	mm	psi	bar	psi	bar	inch	mm	g/m
EF342-03	-03	05	3/16	4.8	0.380	9.7	5,000	350	20,000	1,400	1.2	30	138
EF342-04	-04	06	1/4	6.4	0.460	11.7	4,650	320	18,600	1,280	1.6	40	180
EF342-05	-05	08	5/16	8.0	0.535	13.6	4,000	275	16,000	1,100	2.0	50	220
EF342-06	-06	10	3/8	9.5	0.600	15.2	3,600	250	14,400	1,000	2.4	60	257
EF342-08	-08	12	1/2	12.7	0.725	18.4	2,750	190	11,000	760	3.0	75	337
EF342-10	-10	16	5/8	16.0	0.875	22.2	2,300	160	9,200	640	4.3	110	450
EF342-12	-12	20	3/4	19.0	1.010	25.7	1,750	120	7,000	480	6.0	150	531
EF342-16	-16	25	1	25.4	1.275	32.4	1,450	100	5,800	400	9.1	230	660



Temperature Range: Continuous: -40°C to +100°C Temp. not to exceed +70°C for Air and Water based fluids

EF 343 - PAINT SPRAY - 2W



Construction

- Core** Polyamide
- Reinforcement** Double braids of steel wire
- Cover** Polyurethane, Blue Colour, pin pricking (Optional)
- Application** High pressure airless paint spray systems for 150 to 450 bar. Suitable for applications requiring chemical resistance to solvents and aggressive fluids. Due to low permeation value of polyamide, the hose is also suitable for industrial gases

Note: Available Twin & Multi lines with different Hose combination and Size

Item Code	Dash Size	DN	ID		OD		WP		BP		BR/r		W
			inch	mm	inch	mm	psi	bar	psi	bar	inch	mm	g/m
EF343-04	-04	06	1/4	6.4	0.540	13.7	6,500	450	26,000	1,800	4.0	100	336
EF343-05	-05	08	5/16	8.0	0.600	15.2	5,800	400	23,200	1,600	4.3	110	388
EF343-06	-06	10	3/8	9.5	0.690	17.5	5,500	380	22,000	1,520	5.0	127	483
EF343-08	-08	12	1/2	12.7	0.830	21.1	4,350	300	17,400	1,200	7.0	178	605
EF343-10	-10	16	5/8	16.0	0.975	24.8	3,000	210	12,000	840	8.0	203	803
EF343-12	-12	20	3/4	19.0	1.125	28.6	2,300	160	9,200	640	10.0	250	922
EF343-16	-16	25	1	25.4	1.360	34.5	2,175	150	8,700	600	12.0	305	1092



Temperature Range: Continuous: -40°C to +100°C Temp. not to exceed +70°C for Air and Water based fluids

EF 344 / EF 345 - HIGH PRESSURE PAINT SPRAY



Construction

- Core** Polyamide
- Reinforcement** One or more braids of Synthetic Fiber with anti-static polymeric layer
- Cover** Polyurethane, Blue Colour
- Application** Airless paint spray systems for 228 to 360 bar. Suitable for applications requiring chemical resistance to solvents and aggressive fluids. Specially suitable for pulsating electric piston pumps

**Note: Factory made hose assemblies of EF344-4 available with UL mark. Approval can be seen @www.ul.com;
Special colours available on request**

Item Code	Dash Size	DN	ID		OD		WP		BP		BR/r		W
			inch	mm	inch	mm	psi	bar	psi	bar	inch	mm	g/m
EF344-03	-03	05	3/16	4.8	0.413	10.5	3,500	240	14,000	960	3.5	88	95
EF344-04	-04	06	1/4	6.4	0.520	13.2	3,300	228	13,200	912	4.0	100	131
EF344-06	-06	10	3/8	9.5	0.690	17.5	3,300	228	13,200	912	5.0	125	241
EF344-08	-08	12	1/2	12.7	0.890	22.6	3,300	228	13,200	912	7.0	175	351
EF345-03	-03	05	3/16	4.8	0.435	11.0	5,200	360	15,600	1,080	3.5	88	110
EF345-04	-04	06	1/4	6.4	0.520	13.2	5,200	360	15,600	1,080	4.1	104	145
EF345-06	-06	10	3/8	9.5	0.730	18.5	3,600	250	14,400	1,000	5.1	130	270



Temperature Range: Continuous: -40°C to +100°C Temp. not to exceed +70°C for Air and Water based fluids

4

EF 346 - VERY HIGH PRESSURE PAINT SPRAY



Construction

- Core** Polyamide
- Reinforcement** One or more braids of aramid fiber with anti-static polymeric layer
- Cover** Polyurethane, Blue Colour, pin pricked
- Application** High pressure Airless paint spray systems for 245 to 350 bar. Suitable for applications requiring chemical resistance to solvents and aggressive fluids

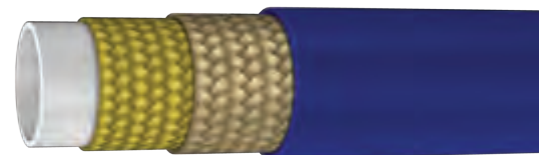
Note: Special colours available on request

Item Code	Dash Size	DN	ID		OD		WP		BP		BR/r		W
			inch	mm	inch	mm	psi	bar	psi	bar	inch	mm	g/m
EF346-03	-03	05	3/16	4.8	0.413	10.5	5,000	350	20,000	1,400	2.0	50	95.0
EF346-04	-04	06	1/4	6.4	0.490	12.4	5,000	350	20,000	1,400	3.0	75	125.0
EF346-06	-06	10	3/8	9.5	0.630	16.0	4,350	300	17,400	1,200	4.0	100	194.0
EF346-08	-08	12	1/2	12.7	0.760	19.3	3,500	245	14,000	980	4.7	120	250.0



Temperature Range: Continuous: -40°C to +100°C Temp. not to exceed +70°C for Air and Water based fluids

EF 347 - SUPER HIGH PRESSURE PAINT SPRAY



Construction

- Core** Polyamide
- Reinforcement** One or more Braids of Aramid fiber with single braid of steel wire
- Cover** Polyurethane, Blue Colour
- Application** Very high pressure Airless paint spray systems for 300 to 700 bar. Suitable for applications requiring chemical resistance to solvents and aggressive fluids

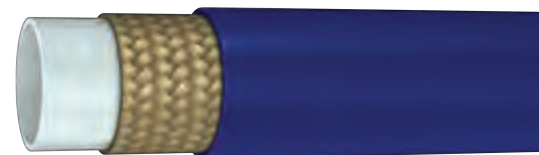
Note: Special colours available on request

Item Code	Dash Size	DN	ID		OD		WP		BP		BR/r		W
			inch	mm	inch	mm	psi	bar	psi	bar	inch	mm	g/m
EF347-04	-04	06	1/4	6.4	0.540	13.7	10,000	700	40,000	2,800	2.8	70	240
EF347-06	-06	10	3/8	9.5	0.740	18.8	10,000	700	40,000	2,800	4.0	100	381
EF347-08	-08	12	1/2	12.7	0.880	22.4	7,500	520	30,000	2,080	7.1	180	510
EF347-12	-12	20	3/4	19.0	1.150	29.2	5,000	345	20,000	1,380	7.5	191	760
EF347-16	-16	25	1	25.4	1.440	36.6	4,350	300	17,400	1,200	10.0	254	1405



Temperature Range: Continuous: -40°C to +100°C Temp. not to exceed +70°C for Air and Water based fluids

EF 341 - PAINT & AGGRESSIVE CHEMICAL SPRAY - 1W



Construction

- Core** PTFE (Polytetrafluoroethylene)
- Reinforcement** Single Braid of steel wire
- Cover** Polyurethane, Blue Colour, Pin pricked
- Application** Airless paint spray systems for 200 to 350 bar. Suitable for applications requiring chemical resistance to solvents and aggressive fluids. Specially suitable for moisture cure adhesives and two components chemicals transfer

Note: Special colours available on request

Item Code	Dash Size	DN	ID		OD		WP		BP		BR/r		W
			inch	mm	inch	mm	psi	bar	psi	bar	inch	mm	g/m
EF341-03	-03	05	3/16	4.8	0.380	9.7	5,000	350	20,000	1,400	1.2	30	138
EF341-04	-04	06	1/4	6.4	0.460	11.7	4,650	320	18,600	1,280	1.6	40	180
EF341-05	-05	08	5/16	8.0	0.535	13.6	4,000	275	16,000	1,100	2.0	50	220
EF341-06	-06	10	3/8	9.5	0.595	15.1	3,600	250	14,400	1,000	2.4	60	257
EF341-08	-08	12	1/2	12.7	0.725	18.4	2,900	200	11,600	800	3.0	75	337



Temperature Range: Continuous: -40°C to +100°C Temp. not to exceed +70°C for Air and Water based fluids

EF 340 - PAINT & AGGRESSIVE CHEMICAL SPRAY - 2W

Applicable Standard: Exceeds SAE/EN two wire braid hose specifications



Construction

- Core** PTFE (Polytetrafluoroethylene)
- Reinforcement** Double steel wire Braids
- Cover** Polyurethane, Black Colour, Pin pricked (Optional)
- Application** High Pressure Hydraulic Lines 150 to 450 bar, Compact, high pressure, Light weight and low change in length. Suitable for hydraulic application with increased resistance to abrasion for use with petroleum, synthetic or water based fluids in Hydraulic systems. Suitable for Agricultural machinery, Earthmoving, safety, rescue and material handling equipments. Can be used for industrial gases and other applications. Please consult manufacturer. Compact construction compared to conventional double steel wire braid rubber hoses

Note: Special colours available on request

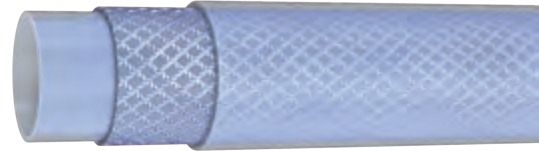
Item Code	Dash Size	DN	ID		OD		WP		BP		BR/r		W
			inch	mm	inch	mm	psi	bar	psi	bar	inch	mm	g/m
EF340-04	-04	06	1/4	6.4	0.520	13.2	5,000	350	20,000	1,400	4.0	100	336
EF340-06	-06	10	3/8	9.5	0.675	17.1	5,000	350	20,000	1,400	5.0	127	483
EF340-08	-08	12	1/2	12.7	0.830	21.1	5,000	350	20,000	1,400	7.0	178	605
EF340-12	-12	20	3/4	19.0	1.150	29.2	2,900	200	11,600	800	10.0	250	922



Temperature Range: Continuous: -40°C to +100°C Temp. not to exceed +70°C for Air and Water based fluids

4

EF 721 / EF 722 - FLUOROPOLYMER - LOW PRESSURE CONDUCTIVE / NON - CONDUCTIVE



Construction

- Core** FEP (Fluorinated ethylene propylene)
- Reinforcement** Single braid of synthetic fiber
- Cover** Polyurethane, Transparent
- Application** Conventional paint Spraying, Low pressure paint circulation and supply, Low pressure electrostatic lacquer system, Low pressure chemical product supply systems

Item Code	Dash Size	DN	ID		OD		WP		BP		BR/r		W
			inch	mm	inch	mm	psi	bar	psi	bar	inch	mm	g/m
EF721 / EF722-04	-04	06	1/4	6.4	0.472	12.0	290	20	1,160	80	3.5	90	117
EF721 / EF722-06	-06	10	3/8	9.5	0.600	15.2	220	15	880	60	5.1	130	175
EF721 / EF722-08	-08	12	1/2	12.7	0.827	21.0	145	10	580	40	7.1	180	275



Temperature Range: Continuous: -40°C to +95°C Temp. not to exceed +70°C for Air and Water based fluids

EF 727 / EF 728 - LOW PRESSURE CONDUCTIVE / NON - CONDUCTIVE

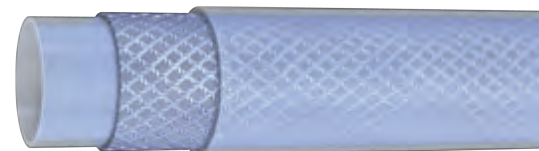


Construction
Core Polyamide
Reinforcement Single braid of synthetic fiber
Cover Polyurethane, Black
Application Conventional paint Spraying, Low pressure paint circulation and supply, Low pressure electrostatic lacquer system, Low pressure chemical product supply systems

Item Code	Dash Size	DN	ID		OD		WP		BP		BR/r		W
			inch	mm	inch	mm	psi	bar	psi	bar	inch	mm	g/m
EF727 / EF728-04	-04	06	1/4	6.4	0.472	12.0	290	20	1,170	80	1.0	25	113
EF727 / EF728-05	-05	08	5/16	8.0	0.550	14.0	250	17	1,015	70	1.2	30	140
EF727 / EF728-06	-06	10	3/8	9.5	0.605	15.4	220	15	880	60	1.4	35	156
EF727 / EF728-08	-08	12	1/2	12.7	0.755	19.2	175	12	730	50	1.8	45	200

 **Temperature Range:** Continuous: -40°C to +95°C Temp. not to exceed +70°C for Air and Water based fluids

EF 729 / EF 730 - LOW PRESSURE CONDUCTIVE / NON - CONDUCTIVE

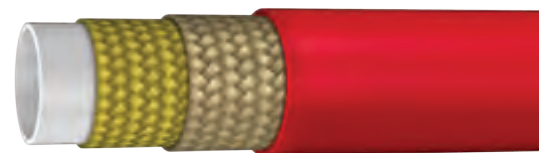


Construction
Core Polyamide
Reinforcement Single braid of synthetic fiber
Cover Polyurethane, Transparent
Application Conventional paint Spraying, Low pressure paint circulation and supply, Low pressure electrostatic lacquer system, Low pressure chemical product supply systems

Item Code	Dash Size	DN	ID		OD		WP		BP		BR/r		W
			inch	mm	inch	mm	psi	bar	psi	bar	inch	mm	g/m
EF729 / EF730-04	-04	06	1/4	6.4	0.413	10.5	290	20	1,170	80	1.0	25	72
EF729 / EF730-05	-05	08	5/16	8.0	0.472	12.0	250	17	1,015	70	1.2	30	85
EF729 / EF730-06	-06	10	3/8	9.5	0.555	14.1	220	15	880	60	1.4	35	113

 **Temperature Range:** Continuous: -40°C to +95°C Temp. not to exceed +70°C for Air and Water based fluids

EF 350 / PH351 - VERY HIGH PRESSURE JACK HOSE



Construction

Core Thermoplastic Elastomer

Reinforcement EF350 - Double braids of steel wire. EF351 - One or more braids of aramid fiber with one braid of steel wire.

Cover Polyurethane, Red Orange Colour

Application Very High Pressure hydraulic lines 300 to 700 bar compact, high pressure, light weight, high abrasion resistance and low change in length for use with petroleum, synthetic or water based fluid in hydraulic systems. Mainly used for rescue, safety equipments, bolt tensioning tools and jacking & re-railing equipments also, suitable for earthmoving and material handling equipments

Note: Available Twin & Multi lines with different Hose combination and size. Also special colours available on request

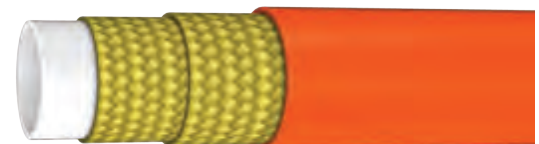
Item Code	Dash Size	DN	ID		OD		WP		BP		BR/r		W
			inch	mm	inch	mm	psi	bar	psi	bar	inch	mm	g/m
EF350-04	-04	06	1/4	6.4	0.555	14.1	10,000	700	25,000	1,750	4.0	100	356
EF350-06	-06	10	3/8	9.5	0.690	17.5	10,000	700	21,750	1,500	6.0	150	513
EF350-08	-08	12	1/2	12.7	0.830	21.1	7,250	500	18,125	1,250	8.0	200	678
EF351-03	-03	05	3/16	4.8	0.460	11.7	10,000	700	40,000	2,800	2.0	50	170
EF351-04	-04	06	1/4	6.4	0.540	13.7	10,000	700	40,000	2,800	2.8	70	242
EF351-06	-06	10	3/8	9.5	0.740	18.8	10,000	700	40,000	2,800	4.0	100	387
EF351-08	-08	12	1/2	12.7	0.875	22.2	10,000	700	30,000	2,080	7.0	180	514
EF351-12	-12	20	3/4	19.0	1.150	29.2	5,000	350	20,000	1,400	7.5	191	753
EF351-16	-16	25	1	25.4	1.440	36.6	4,350	300	17,400	1,200	10.0	254	961



Temperature Range: Continuous: -40°C to +100°C Temp. not to exceed +70°C for Air and Water based fluids

4

EF 352 - VERY HIGH PRESSURE JACK HOSE - NON CONDUCTIVE



Construction

Core Thermoplastic Elastomer

Reinforcement Two or more braids of aramid fiber

Cover Polyurethane, Orange Colour

Application Non conductive Hydraulic Lines 700 bar, Compact, high pressure, light weight, high abrasion resistance and low change in length for use with petroleum, synthetic or water based fluids in Hydraulic systems. Mainly used for rescue, safety equipments, bolt tensioning tools and jacking & re-railing equipments. Mainly used in applications requiring High electrical insulation or non-conductivity

Note: Available Twin & Multi lines with different Hose combination and size

Item Code	Dash Size	DN	ID		OD		WP		BP		BR/r		W
			inch	mm	inch	mm	psi	bar	psi	bar	inch	mm	g/m
EF352-02	-02	02	1/8	3.2	0.358	9.1	10,000	700	40,000	2,800	1.0	25	76
EF352-40	-	-	5/32	4.0	0.375	9.6	10,000	700	40,000	2,800	1.1	27	80
EF352-04	-04	06	1/4	6.4	0.590	15.0	10,000	700	40,000	2,800	1.4	35	195
EF352-06	-06	10	3/8	9.5	0.735	18.7	10,000	700	40,000	2,800	2.2	55	275
EF352-08	-08	12	1/2	12.7	0.920	23.4	8,000	550	32,000	2,200	4.3	110	310



Temperature Range: Continuous: -40°C to +100°C Temp. not to exceed +70°C for Air and Water based fluids

EF 751 - COMPACT JACK HOSE



Construction

- Core** Thermoplastic Elastomer
- Reinforcement** One or more Braids of Aramid Fiber with one braid of steel wire
- Cover** Polyurethane, Black Colour

Application Very High Pressure Hydraulic Lines 1034 bar, Compact, high pressure, Light weight, high abrasion resistance and low change in length for use with petroleum, synthetic or water based fluids in Hydraulic systems mainly used for Rescue & Safety equipments, torque and tension tools, jacking and re-railing equipments, high pressure pump. Also, suitable for earthmoving and material handling equipments

Note: Special colours available on request

Item Code	Dash Ssize	DN	ID		OD		WP		BP		BR/r		W
			inch	mm	inch	mm	psi	bar	psi	bar	inch	mm	g/m
EF751-04	-04	06	1/4	6.4	0.570	14.5	15,000	1,034	43,500	3,000	1.5	38	272
EF751-06	-06	10	3/8	9.5	0.775	19.7	15,000	1,034	43,500	3,000	4.0	100	447
EF751-08	-08	12	1/2	12.7	0.950	24.1	15,000	1,034	36,250	2,500	7.1	180	584



Temperature Range: Continuous: -30°C to +70°C Temp. not to exceed +70°C for Air and Water based fluids

THERMOPLASTIC - INDUSTRIAL - AIR BREATHING HOSE

EF 395 - AIR BREATHING HOSE - 6000PSI



Construction

- Core** Nylon
- Reinforcement** One or more Braids of Aramid Fiber
- Cover** Polyurethane, Black Colour, Pin pricked

Application Air Compressors, Mobile and stationary units used for breathing air cylinders, Cascade Systems

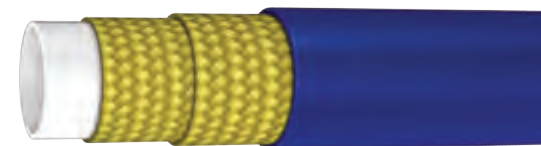
Note: Special colours available on request

Item Code	Dash Size	DN	ID		OD		WP		BP		BR/r		W
			inch	mm	inch	mm	psi	bar	psi	bar	inch	mm	g/m
EF395-03	-03	05	3/16	4.8	0.375	9.5	6,000	415	24,000	1,660	1.2	30	67
EF395-04	-04	06	1/4	6.4	0.488	12.4	6,000	415	24,000	1,660	2.0	50	118



Temperature Range: Continuous: -40°C to +80°C

EF 396 - AIR BREATHING HOSE - 7000PSI



Construction

- Core** Nylon
- Reinforcement** One or more Braids of Aramid Fiber
- Cover** Polyurethane, Blue Color, Pin pricked

Application Mobile & stationery systems, Mobile trailer / truck systems, Integrated Containment fill stations, Portable SCBA fill

Note: Hose should not be used with explosive gases such as pure oxygen and hydrogen. Special colours available on request

Item Code	Dash Size	DN	ID		OD		WP		BP		BR/r		W
			inch	mm	inch	mm	psi	bar	psi	bar	inch	mm	g/m
EF396-03	-03	05	3/16	4.8	0.413	10.5	7,000	483	28,000	1,932	1.5	38	80
EF396-04	-04	06	1/4	6.4	0.520	13.2	7,000	483	28,000	1,932	2.0	51	140



Temperature Range: Continuous: -40°C to +82°C

EF 320 / EF 321 / EF 322 - LUBRICATION GREASE HOSE



Construction

Core Thermoplastic Elastomer
Reinforcement EF320 & EF321: One or more braids of synthetic fiber
 EF322: One or more braids of Aramid Fiber
Cover Polyurethane, Black Colour

Application High pressure mini Hydraulic Lines 300 to 400 bar. Suitable for hydraulic application with increased resistance to abrasion for use with petroleum, synthetic or water based fluids Specifically designed for diverse greasing and lubrication applications of industrial, hand held or automatic (centralized) grease distribution equipments

Note: Please contact for different working pressure and dimensions

Item Code	ID		OD		WP		BP		BR/r		W
	inch	mm	inch	mm	psi	bar	psi	bar	inch	mm	g/m
EF320-3.6	9/64	3.6	0.335	8.5	5,800	400	14,500	1,000	1.4	35	57
EF320-4	5/32	4.0	0.315	8.0	4,350	300	10,875	750	1.6	40	54
EF320-4.2	5/32	4.2	0.346	8.8	5,800	400	14,500	1,000	2.0	50	65
EF321-4	5/32	4.0	0.335	8.5	5,800	400	14,500	1,000	1.8	45	64
EF321-4.2	5/32	4.2	0.402	10.2	5,800	400	14,500	1,000	2.4	60	75
EF322-3.3	1/8	3.3	0.353	9.0	5,800	400	23,200	1,600	1.2	30	75
EF322-4	5/32	4.0	0.354	9.0	5,800	400	23,200	1,600	2.0	50	92



Temperature Range: Continuous: -40°C to +60°C

4

EF 734 - GREASE HOSE - LOW PRESSURE



Construction

Core Thermoplastic Elastomer
Reinforcement Single Braid of Synthetic fiber
Cover Polyurethane, Black Colour

Application Specially designed for diverse greasing and lubrication applications of the industrial, hand held or automatic (centralized) grease distribution equipments.

Item Code	Dash Size	DN	ID		OD		WP		BP		BR/r		W
			inch	mm	inch	mm	psi	bar	psi	bar	inch	mm	g/m
EF734-04	-04	06	1/4	6.4	0.409	10.4	1,523	105	6,090	420	1.2	30	70.0
EF734-05	-05	08	5/16	8.0	0.510	13.0	1,523	105	6,090	420	1.6	40	112.0
EF734-06	-06	10	3/8	9.5	0.551	14.0	1,523	105	6,090	420	2.0	50	160.0
EF734-08	-08	12	1/2	12.7	0.690	17.5	1,523	105	6,090	420	3.0	75	200.0



Temperature Range: Continuous: -40°C to +82°C

EF 324 -ELECTRICALLY CONDUCTIVE COMPRESSED NATURAL GAS HOSE

Applicable Standard: Conforms to NFPA 52



Construction

- Core** Nylon
- Reinforcement** Two or more Braids of Synthetic fiber with electrically conductive layer
- Cover** Polyurethane, Red Colour, Pin pricked
- Application** Refueling hose specially designed for conveying compressed natural gas. Dissipates static build-up
Vaccum Rating : 28 inch Hg
Special Feature : Twin and multi-lines available

**Note: Wire spring guard must be used on ANSI/CSA design certified CNG dispenser fill hose assemblies.
Special colours available on request**

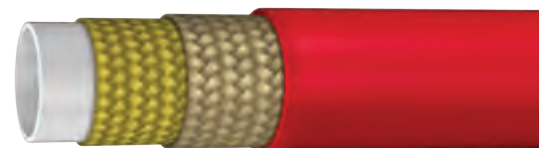
Item Code	Dash Size	DN	ID		OD		WP		BP		BR/r		W
			inch	mm	inch	mm	psi	bar	psi	bar	inch	mm	g/m
EF324-04	-04	06	1/4	6.4	0.630	16.0	5,000	345	20,000	1,380	2.0	51	175
EF324-06	-06	10	3/8	9.5	0.770	19.6	4,000	276	16,000	1,104	2.5	64	280



Temperature Range: Continuous: -40°C to +80°C

EF 325 -ELECTRICALLY CONDUCTIVE COMPRESSED NATURAL GAS

Applicable Standard: Conforms to NFPA 52



Construction

- Core** Nylon
- Reinforcement** Two or more Braids of Aramid fiber with single braid of steel wire
- Cover** Polyurethane, Red Colour, Pin pricked
- Application** Refueling hose specially designed for conveying compressed natural gas. Dissipates static build-up
Vaccum Rating : 28 inch Hg
Special Feature : Twin and multi-lines available

**Note: Wire spring guard must be used on ANSI/CSA design certified CNG dispenser fill hose assemblies.
Special colours available on request**

Item Code	Dash Size	DN	ID		OD		WP		BP		BR/r		W
			inch	mm	inch	mm	psi	bar	psi	bar	inch	mm	g/m
EF325-03	-03	05	3/16	4.8	0.460	11.7	7,250	500	29,000	2,000	1.5	38	200
EF325-04	-04	06	1/4	6.4	0.550	14.0	7,250	500	29,000	2,000	2.8	70	256
EF325-06	-06	10	3/8	9.5	0.708	18.0	5,000	345	20,000	1,380	4.0	100	376
EF325-08	-08	12	1/2	12.7	0.830	21.1	5,000	345	20,000	1,380	7.1	180	405
EF325-12	-12	19	3/4	19.0	1.150	29.2	5,000	345	20,000	1,380	9.8	250	770
EF325-16	-16	25	1	25.4	1.475	37.5	5,000	345	20,000	1,380	10.0	254	980



Temperature Range: Continuous: -40°C to +80°C

EF 334 - REFRIGERATION HOSE



Construction

Core Polyamide / Polyester elastomer

Reinforcement Single braid of synthetic fiber

Cover Polyester Elastomer / Polyurethane, Black Colour, Pin Pricked

Application Specially designed to replace capillary copper tubes in industrial refrigeration Lines 42 to 52 bar High savings and cost effective vis a vis copper tube better vibration dampening property compared to copper tube

Note: Special colours available on request

Item Code	ID		OD		WP		BP		BR/r		W
	inch	mm	inch	mm	psi	bar	psi	bar	inch	mm	g/m
EF334-20	5/64	2.0	0.236	6.0	600	42	3,000	210	0.4	10	30
EF334-40	5/32	4.0	0.317	8.1	600	42	3,000	210	1.0	25	55
EF334-05	5/16	8.0	0.540	13.7	1,523	105	6,090	420	1.8	45	120
EF334-06	3/8	9.5	0.600	15.2	1,523	105	6,090	420	2.2	55	140
EF334-08	1/2	12.7	0.740	18.8	1,450	100	5,800	400	3.0	77	200
EF334-10	5/8	16.0	0.940	23.9	1,160	80	4,650	320	4.3	110	300
EF334-12	3/4	19.0	1.075	27.3	1,160	80	4,650	320	5.5	140	345
EF334-16	1	25.0	1.350	34.3	1000	70	4,000	280	8.0	200	481



Temperature Range: Continuous: -45°C to +130°C

EF 326 / EF 327 / EF 328 - BEVERAGE DISPENSING HOSE



Construction

Core Thermoplastic Elastomer food quality and FDA approved

Reinforcement EF326 Single or double braid of synthetic fiber

EF327 Single braid of steel wire

EF328 Single braid of aramid fiber

Cover Polyurethane, Black Colour, Pin Pricked

Application High pressure beverage dispensing lines 210 to 420 bar Specifically designed for gases, also gas mixtures used in fixed and mobile beverage dispensing units. Special tube material flavour free eliminates contamination risks and conforms to FDA and EC regulations. Please contact for different dimensions and working pressure

Note: Grey Colour Cover also available

Item Code	Dash Size	DN	ID		OD		WP		BP		BR/r		W
			inch	mm	inch	mm	psi	bar	psi	bar	inch	mm	g/m
EF326-04	-04	06	1/4	6.4	0.490	12.4	3,000	210	12,000	840	1.4	35	114
EF326-06	-06	10	3/8	9.5	0.640	16.3	3,000	210	12,000	840	2.4	60	170
EF326-08	-08	12	1/2	12.7	0.855	21.7	3,000	210	12,000	840	3.9	100	300
EF327-03	-03	05	3/16	4.8	0.380	9.7	5,000	350	20,000	1,400	1.6	40	141
EF327-04	-04	06	1/4	6.4	0.460	11.7	4,650	320	18,600	1,280	1.8	45	182
EF328-02	-02	03	1/8	3.2	0.320	8.1	6,000	420	24,000	1,680	1.0	25	57
EF328-03	-03	05	3/16	4.8	0.405	10.3	5,000	350	20,000	1,400	1.0	25	87
EF328-04	-04	06	1/4	6.4	0.490	12.4	5,000	350	20,000	1,400	1.3	32	118
EF328-08	-08	12	1/2	12.7	0.770	19.6	5,000	350	20,000	1,400	3.0	77	225



Temperature Range: Continuous: -40°C to +80°C

EF 354 / EF 355 - MICRO BORE



Construction

- Core** Thermoplastic Elastomer
- Reinforcement** EF354 - Single braid of synthetic fiber
EF355 - Single braid of Aramid fiber
- Cover** Polyurethane, Black Colour, Pin pricked upon request

Application Very high pressure mini Hydraulic Lines 250 to 630 bar Suitable for hydraulic application , with increased resistance to abrasion for use with petroleum,synthetic or water based fluids in Hydraulic systems pressure test equipments and test points, general mini hydraulic equipments,Automotive roof and boot opening system and truck's cab lifting systems

Note: Available with polyamide 12 as core and cover

Item Code	DN	ID		OD		WP		BP		BR/r		W g/m
		inch	mm	inch	mm	psi	bar	psi	bar	inch	mm	
EF354-3	3	1/8	3.2	0.256	6.5	3,600	250	14,400	1,000	0.8	20	30
EF355-2	2	5/64	2.0	0.197	5.0	9,100	630	27,300	1,890	0.8	20	24
EF355-3	3	1/8	3.2	0.236	6.0	9,100	630	27,300	1,890	1.2	30	31
EF355-4	4	5/32	4.0	0.315	8.0	9,100	630	27,300	1,890	1.6	40	54



Temperature Range: Continuous: -40°C to +100°C Temp. not to exceed +70°C for Air and Water based fluids

THERMOPLASTIC - INDUSTRIAL- PILOT LINE

EF 392 - PILOT LINE HOSE



Construction

- Core** Oil and Water resistant thermoplastic elastomer
- Reinforcement** Single braid of synthetic fiber
- Cover** Special thermoplastic elastomer resistant to oil, weather and abrasion , Black colour, Pin Pricked

Application Specially designed for servo control pilot Lines 120 bar and requires very high flexibility Superior finish on cover surface to have a gliding effect on the other lines that are clustered together and very minimal outer cover damages Also, suitable for medium pressure and return lines for use with petroleum, synthetic or water based fluids in Hydraulic systems Suitable for Agricultural, Construction & Material handling equipments and machineries/systems

Note: Available twin & multi lines with different hose combination and size. Also, special colours available on request

Item Code	Dash Size	DN	ID		OD		WP		BP		BR/r		W g/m
			inch	mm	inch	mm	psi	bar	psi	bar	inch	mm	
EF392-03	-03	05	3/16	4.8	0.398	10.1	1,740	120	6,960	480	1.00	25	88
EF392-04	-04	06	1/4	6.4	0.453	11.5	1,740	120	6,960	480	1.20	30	92
EF392-05	-05	08	5/16	8.0	0.516	13.1	1,740	120	6,960	480	1.60	40	110
EF392-06	-06	10	3/8	9.5	0.583	14.8	1,740	120	6,960	480	2.00	50	132
EF392-08	-08	12	1/2	12.7	0.709	18.0	1,740	120	6,960	480	2.40	60	185



Temperature Range: Continuous: -40°C to +100°C Temp. not to exceed +70°C for Air and Water based fluids

EF 758 - MOISTURE BLOK HOSE



Construction

- Core** Polyolefin
- Reinforcement** Double braids of Synthetic Fiber
- Cover** Polyurethane ,Blue Colour, Pin Pricked
- Application** Conveying urethane foam components, Moisture sensitive chemicals

Note: Available Twin & Multi lines with different Hose combination and Size. Also special colours available on request

Item Code	Dash Size	DN	ID		OD		WP		BP		BR/r		W
			inch	mm	inch	mm	psi	bar	psi	bar	inch	mm	g/m
EF758-04	-04	06	1/4	6.4	0.490	12.4	3,000	210	12,000	840	1.4	35	114
EF758-06	-06	10	3/8	9.5	0.640	16.3	3,000	210	12,000	840	2.4	60	170
EF758-08	-08	12	1/2	12.7	0.800	20.3	2,000	140	8,000	560	3.0	77	270

 **Temperature Range:** Continuous: -40°C to +60°C

THERMOPLASTIC - AUTOMOTIVE HOSE

4 EF 771 - CAB TILT HOSE

Construction

- Core** Thermoplastic Elastomer
- Reinforcement** One Braid of Aramid Fiber with one braid of synthetic fiber
- Cover** Polyurethane, Black Colour
- Application** Cabin tilt application



Note: On request products are available for high temperature application with special cover

Item Code	Dash Size	DN	ID		OD		WP		BP		BR/r		W
			inch	mm	inch	mm	psi	bar	psi	bar	inch	mm	g/m
EF771-02	-02	03	1/8	3.45	0.291	7.4	5,800	400	23,200	1,600	1.0	25	43.5

 **Temperature Range:** Continuous: -40°C to +100°C

EF 772 - CLUTCH HOSE

Construction

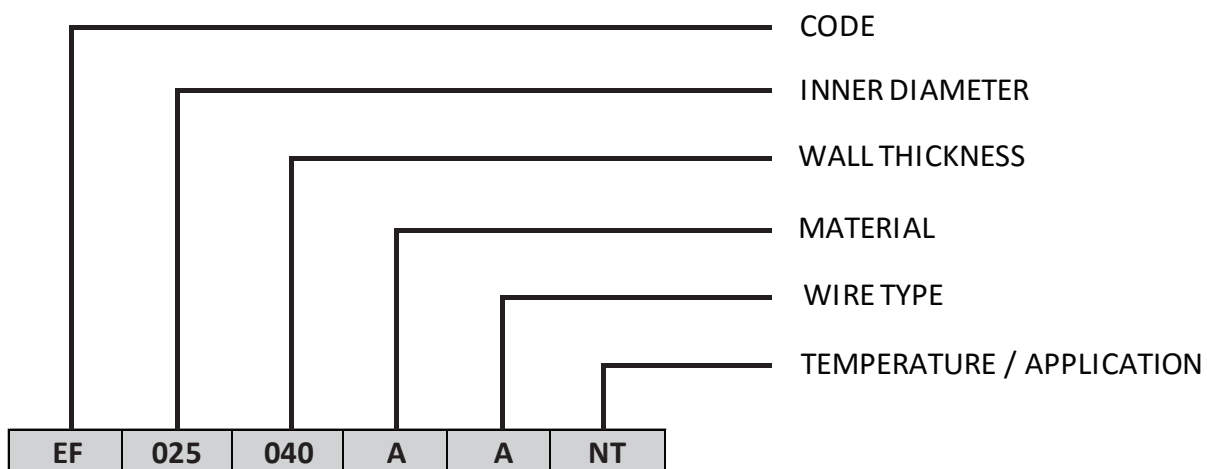
- Core** Polyamide (PA11)
- Reinforcement** Single Braid of Steel Wire
- Cover** Polyurethane, Black Colour
- Application** Return hose from brake fluid reservoir to clutch. Brake filling line



Item Code	Dash Size	DN	ID		OD		WP		BP		BR/r		W
			inch	mm	inch	mm	psi	bar	psi	bar	inch	mm	g/m
EF772-04	-04	06	1/4	6.4	0.441	11.2	2,900	200	11,600	800	2.0	50	153.5

 **Temperature Range:** Continuous: -40°C to +100°C

HOSE NOMENCLATURE

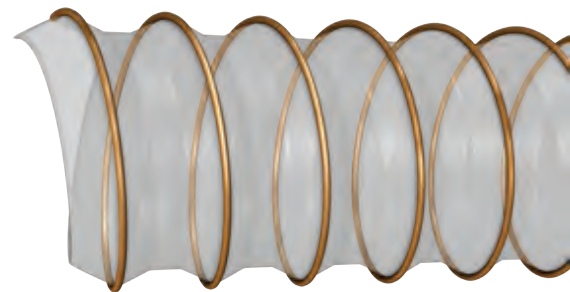


NT	NORMAL TEMPERATURE (-40°C to +90°C)
HT	HIGH TEMPERATURE (-40°C to +120°C)
FR	FIRE RETARDANT
AT	ANTISTATIC
FD	FOOD GRADE

A	COPPER
B	ZINC

A	POLYESTER
B	POLYETHER
C	PVC
D	TPE

POLYURETHANE DUCTING - STANDARD



Construction

Wall Polyester Polyurethane

Spiral Spring Steel Wire

Properties Extremely flexible, Light in weight, Microbe - resistance, Good chemical resistance, Good UV and ozone resistance, Anti static if connected with helical wire

Application Suction & transport of abrasive solids, liquids, fine grained particles, such as dust and powder. Used in extraction of oil mist, paper & textile fibers

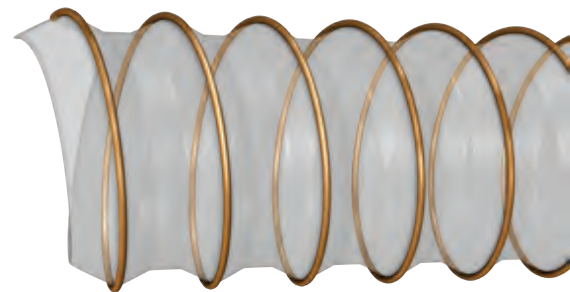
Note: Length upto 20 meters. Also special sizes are available on request

Item Code	ID		WT	VP	BR/r	W
	inch	mm	mm	bar	mm	kg/m
EF032035AANT	1.1/4	32	0.35	0.25	24	0.164
EF038035AANT	1.1/2	38	0.35	0.25	29	0.167
EF040035AANT		40	0.35	0.25	30	0.172
EF045035AANT		45	0.35	0.02	33	0.187
EF051035AANT	2	51	0.35	0.02	37	0.210
EF060035AANT		60	0.35	0.16	45	0.246
EF063035AANT	2.1/2	63	0.35	0.14	47	0.255
EF065035AANT		65	0.35	0.14	49	0.268
EF070035AANT	2.3/4	70	0.35	0.14	51	0.288
EF076035AANT	3	76	0.35	0.01	55	0.312
EF080035AANT		80	0.35	0.01	59	0.327
EF090035AANT	3.1/2	90	0.35	0.01	67	0.367
EF102040AANT	4	102	0.04	0.09	70	0.457
EF110040AANT		110	0.04	0.08	75	0.492
EF120040AANT		120	0.04	0.08	85	0.536
EF127040AANT	5	127	0.04	0.07	89	0.566
EF130040AANT		130	0.04	0.06	92	0.579
EF140040AANT	5.1/2	140	0.04	0.06	95	0.623
EF150040AANT		150	0.04	0.06	105	0.688
EF152040AANT	6	152	0.04	0.06	107	0.701
EF160045AANT		160	0.45	0.06	109	0.859
EF180045AANT	7	180	0.45	0.05	120	0.963
EF200045AANT	7.7/8	200	0.45	0.05	135	1.068
EF220045AANT		220	0.45	0.04	150	1.100
EF250050AANT	10	250	0.05	0.04	165	1.285
EF279050AANT	11	279	0.05	0.03	185	1.432
EF300050AANT	12	300	0.05	0.03	205	1.538
EF350050AANT	14	350	0.05	0.02	240	1.792
EF400050AANT	16	400	0.05	0.02	272	2.045
EF450050AANT	18	450	0.05	0.01	305	2.331
EF500050AANT	20	500	0.05	0.01	340	2.588
EF600050AANT	24	600	0.05	0.01	385	3.101



Temperature Range: Continuous: -40°C to +90°C

POLYURETHANE DUCTING - STANDARD C



Construction

Wall Polyester Polyurethane

Spiral Spring Steel Wire

Properties Extremely flexible, Light in Weight, High abrasion resistant, Microbe - resistance, Good chemical resistance, Good UV and ozone resistance, Oil / petroleum proof, Increased vacuum and pressure resistance, Anti static if connected with helical wire

Application Suction & transport of abrasive solids, liquids, fine grained particles, such as dust and powder. Used in extraction of oil mist, paper & textile fibers

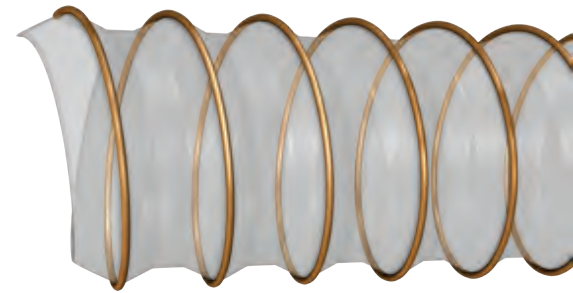
Note: Length upto 20 meters. Also special sizes are available on request

Item Code	ID		WT	VP	BR/r	W
	inch	mm	mm	bar	mm	kg/m
EF032040AANT	1.1/4	32	0.40	0.25	22	0.178
EF038040AANT	1.1/2	38	0.40	0.25	27	0.186
EF040040AANT		40	0.40	0.25	28	0.195
EF045040AANT		45	0.40	0.20	32	0.203
EF051040AANT	2	51	0.40	0.20	35	0.229
EF060040AANT		60	0.40	0.16	42	0.268
EF063040AANT	2.1/2	63	0.40	0.14	45	0.280
EF065040AANT		65	0.40	0.14	46	0.290
EF070040AANT		70	0.40	0.14	49	0.312
EF076040AANT	3	76	0.40	0.10	53	0.337
EF080040AANT		80	0.40	0.10	56	0.354
EF090040AANT	3.1/2	90	0.40	0.10	62	0.397
EF102040AANT	4	102	0.40	0.09	70	0.457
EF110040AANT		110	0.40	0.08	84	0.492
EF120040AANT		120	0.40	0.08	85	0.536
EF127040AANT	5	127	0.40	0.08	88	0.566
EF130040AANT		130	0.40	0.06	91	0.579
EF140040AANT	5.1/2	140	0.40	0.06	95	0.623
EF150040AANT		150	0.40	0.06	105	0.688
EF152040AANT	6	152	0.40	0.06	107	0.701
EF160040AANT		160	0.40	0.05	110	0.808
EF180040AANT	7	180	0.40	0.05	123	0.906
EF200040AANT	7.7/8	200	0.40	0.05	140	1.004
EF220040AANT		220	0.40	0.05	160	1.070
EF250040AANT	10	250	0.40	0.04	175	1.134
EF279040AANT	11	279	0.40	0.03	196	1.263
EF300040AANT	12	300	0.40	0.03	210	1.357
EF350040AANT	14	350	0.40	0.02	245	1.580
EF400040AANT	16	400	0.40	0.02	280	1.803
EF450040AANT	18	450	0.40	0.01	315	2.067
EF500040AANT	20	500	0.40	0.01	350	2.295
EF600040AANT	24	600	0.40	0.01	400	2.750



Temperature Range: Continuous: -40°C to +90°C

POLYURETHANE DUCTING - MEDIUM



Construction

Wall Polyester Polyurethane

Spiral Spring Steel Wire

Properties Extremely flexible, Light in Weight, High abrasion resistant, Microbe - resistance, Good chemical resistance, Good UV and ozone resistance, Oil / petroleum proof, Increased vacuum and pressure resistance, Anti static if connected with helical wire

Application Suction & transport of abrasive solids, liquids, fine grained particles, such as dust and powder. Used in extraction of oil mist, paper & textile fibers

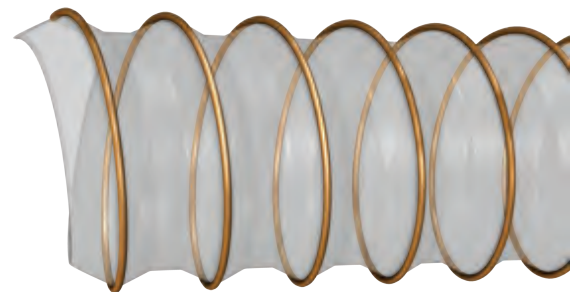
Note: Length upto 20 meters. Also special sizes are available on request

Item Code	ID		WT	VP	BR/r	W
	inch	mm	mm	bar	mm	kg/m
EF032050AANT	1.1/4	32	0.50	0.25	32	0.204
EF038050AANT	1.1/2	38	0.50	0.25	38	0.240
EF040050AANT		40	0.50	0.20	40	0.252
EF045050AANT		45	0.50	0.16	45	0.282
EF051050AANT	2	51	0.50	0.16	51	0.318
EF060050AANT		60	0.50	0.16	60	0.372
EF063050AANT	2.1/2	63	0.50	0.16	63	0.448
EF065050AANT		65	0.50	0.16	65	0.462
EF070050AANT		70	0.50	0.14	70	0.496
EF076050AANT	3	76	0.50	0.10	76	0.515
EF080050AANT		80	0.50	0.10	80	0.537
EF090050AANT	3.1/2	90	0.50	0.10	90	0.545
EF102060AANT	4	102	0.60	0.09	102	0.780
EF110060AANT		110	0.60	0.08	110	0.840
EF120060AANT		120	0.60	0.08	120	0.914
EF127060AANT	5	127	0.60	0.08	127	0.966
EF130060AANT		130	0.60	0.08	130	0.981
EF140060AANT	5.1/2	140	0.60	0.08	140	0.989
EF150060AANT		150	0.60	0.06	150	1.096
EF152060AANT	6	152	0.60	0.06	152	1.116
EF160060AANT		160	0.60	0.06	160	1.463
EF180085AANT	7	180	0.85	0.05	180	1.995
EF200085AANT	7.7/8	200	0.85	0.05	200	2.188
EF220085AANT		220	0.85	0.05	220	2.213
EF250085AANT	10	250	0.85	0.05	250	2.482
EF279085AANT	11	279	0.85	0.05	279	2.767
EF300085AANT	12	300	0.85	0.04	300	2.973
EF350085AANT	14	350	0.85	0.04	350	3.029
EF400085AANT	16	400	0.85	0.03	400	3.458
EF450085AANT	18	450	0.85	0.03	450	3.784
EF500085AANT	20	500	0.85	0.02	500	4.201
EF600085AANT	24	600	0.85	0.01	600	5.037



Temperature Range: Continuous: -40°C to +90°C

POLYURETHANE DUCTING - MEDIUM C



Construction

Wall Polyester Polyurethane

Spiral Spring Steel Wire

Properties Extremely flexible, Light in Weight, High abrasion resistant, Microbe - resistance, Good chemical resistance, Good UV and ozone resistance, Oil / petroleum proof, Increased vacuum and pressure resistance, Anti static if connected with helical wire

Application Suction & transport of abrasive solids, liquids, fine grained particles, such as dust and powder. Used in extraction of oil mist, paper & textile fibers

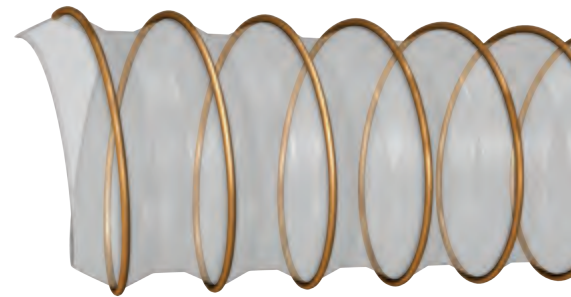
Note: Length upto 20 meters. Also special sizes are available on request

Item Code	ID		WT	VP	BR/r	W
	inch	mm	mm	bar	mm	kg/m
EF032060AANT	1.1/4	32	0.60	0.30	25	0.231
EF038060AANT	1.1/2	38	0.60	0.30	27	0.272
EF040060AANT		40	0.60	0.25	30	0.285
EF045060AANT		45	0.60	0.20	32	0.319
EF051060AANT	2	51	0.60	0.20	35	0.360
EF060060AANT		60	0.60	0.16	40	0.422
EF063060AANT	2.1/2	63	0.60	0.16	43	0.501
EF065060AANT		65	0.60	0.16	46	0.516
EF070060AANT		70	0.60	0.14	50	0.555
EF076060AANT	3	76	0.60	0.10	53	0.601
EF080060AANT		80	0.60	0.10	55	0.610
EF090060AANT	3.1/2	90	0.60	0.10	65	0.625
EF102060AANT	4	102	0.60	0.09	70	0.780
EF110060AANT		110	0.60	0.08	75	0.840
EF120060AANT		120	0.60	0.08	80	0.914
EF127060AANT	5	127	0.60	0.08	85	0.966
EF130060AANT		130	0.60	0.08	90	0.981
EF140060AANT	5.1/2	140	0.60	0.08	95	0.989
EF150060AANT		150	0.60	0.06	97	1.096
EF152060AANT	6	152	0.60	0.06	100	1.116
EF160060AANT		160	0.60	0.06	110	1.463
EF180060AANT	7	180	0.60	0.05	120	1.642
EF200060AANT	7.7/8	200	0.60	0.05	135	1.785
EF220060AANT		220	0.60	0.05	150	1.820
EF250060AANT	10	250	0.60	0.04	170	2.024
EF279060AANT	11	279	0.60	0.03	185	2.256
EF300060AANT	12	300	0.60	0.03	200	2.423
EF350060AANT	14	350	0.60	0.02	250	2.440
EF400060AANT	16	400	0.60	0.02	270	2.785
EF450060AANT	18	450	0.60	0.01	350	3.068
EF500060AANT	20	500	0.60	0.01	400	3.406
EF600060AANT	24	600	0.60	0.01	500	4.083



Temperature Range: Continuous: -40°C to +90°C

POLYURETHANE DUCTING - HEAVY



Construction

Wall Polyester Polyurethane

Spiral Spring Steel Wire

Properties Extremely flexible, Light in Weight, Microbe - resistance, Good chemical resistance, Good UV and ozone resistance

Application Suction & transport of abrasive solids, liquids, fine grained particles, such as dust and powder. Used in extraction of oil mist, paper & textile fibers

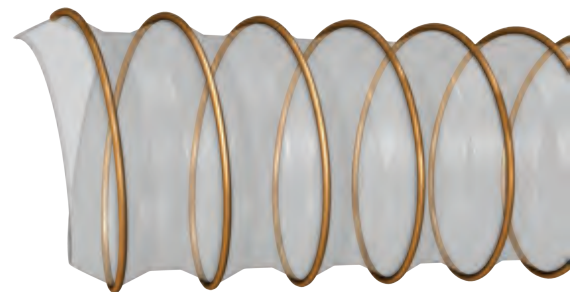
Note: Length upto 20 meters. Also special sizes are available on request

Item Code	ID		WT	VP	BR/r	W
	inch	mm	mm	bar	mm	kg/m
EF032080AANT	1.1/4	32	0.80	0.45	48	0.317
EF038090AANT	1.1/2	38	0.90	0.45	55	0.405
EF040090AANT		40	0.90	0.45	60	0.426
EF045090AANT		45	0.90	0.40	68	0.476
EF051090AANT	2	51	0.90	0.40	75	0.537
EF060090AANT		60	0.90	0.35	90	0.629
EF063090AANT	2.1/2	63	0.90	0.35	95	0.730
EF065090AANT		65	0.90	0.35	98	0.752
EF070090AANT		70	0.90	0.35	105	0.808
EF076090AANT	3	76	0.90	0.30	113	0.876
EF080090AANT		80	0.90	0.30	120	0.900
EF090090AANT	3.1/2	90	0.90	0.30	135	0.986
EF102110AANT	4	102	1.10	0.30	150	1.272
EF110110AANT		110	1.10	0.25	170	1.369
EF120110AANT		120	1.10	0.25	180	1.492
EF127110AANT	5	127	1.10	0.20	185	1.577
EF130110AANT		130	1.10	0.20	195	1.614
EF140110AANT	5.1/2	140	1.10	0.20	210	1.650
EF150110AANT		150	1.10	0.20	225	1.808
EF152110AANT	6	152	1.10	0.15	230	1.839
EF160110AANT		160	1.10	0.15	240	2.092
EF180110AANT	7	180	1.10	0.12	270	2.349
EF200110AANT	7.7/8	200	1.10	0.12	300	2.606
EF220130AANT		220	1.30	0.11	338	3.118
EF250130AANT	10	250	1.30	0.10	375	3.538
EF279130AANT	11	279	1.30	0.10	400	3.944
EF300130AANT	12	300	1.30	0.09	450	4.238
EF350130AANT	14	350	1.30	0.09	525	4.345
EF400130AANT	16	400	1.30	0.08	600	4.962
EF450130AANT	18	450	1.30	0.06	675	5.372
EF500130AANT	20	500	1.30	0.04	750	5.966
EF600130AANT	24	600	1.30	0.03	840	7.153



Temperature Range: Continuous: -40°C to +90°C

POLYURETHANE DUCTING - HEAVY C



Construction

Wall Polyester Polyurethane

Spiral Spring Steel Wire

Properties Extremely flexible, Light in Weight, Microbe - resistance, Good chemical resistance, Good UV and ozone resistance

Application Suction & transport of abrasive solids, liquids, fine grained particles, such as dust and powder. Used in extraction of oil mist, paper & textile fibers

Note: Length upto 20 meters. Also special sizes are available on request

Item Code	ID		WT	VP	BR/r	W
	inch	mm	mm	bar	mm	kg/m
EF032120AANT	1.1/4	32	1.20	0.45	48	0.426
EF038120AANT	1.1/2	38	1.20	0.45	55	0.501
EF040120AANT		40	1.20	0.45	60	0.527
EF045120AANT		45	1.20	0.40	68	0.590
EF051120AANT	2	51	1.20	0.40	75	0.667
EF060120AANT		60	1.20	0.35	90	0.780
EF063120AANT	2.1/2	63	1.20	0.35	95	0.890
EF065120AANT		65	1.20	0.35	98	0.917
EF070120AANT		70	1.20	0.35	105	0.986
EF076120AANT	3	76	1.20	0.30	113	1.069
EF080120AANT		80	1.20	0.30	120	1.140
EF090120AANT	3.1/2	90	1.20	0.30	135	1.194
EF102120AANT	4	102	1.20	0.30	150	1.350
EF110120AANT		110	1.20	0.25	170	1.454
EF120120AANT		120	1.20	0.25	180	1.584
EF127120AANT	5	127	1.20	0.20	185	1.675
EF130120AANT		130	1.20	0.20	195	1.714
EF140120AANT	5.1/2	140	1.20	0.20	210	1.800
EF150120AANT		150	1.20	0.20	225	1.926
EF152120AANT	6	152	1.20	0.15	230	1.958
EF160120AANT		160	1.20	0.15	240	2.218
EF180120AANT	7	180	1.20	0.12	270	2.490
EF200120AANT	7.7/8	200	1.20	0.12	300	2.763
EF220120AANT		220	1.20	0.11	338	2.956
EF250120AANT	10	250	1.20	0.10	375	3.353
EF279120AANT	11	279	1.20	0.10	400	3.738
EF300120AANT	12	300	1.20	0.09	450	4.017
EF350120AANT	14	350	1.20	0.09	525	4.109
EF400120AANT	16	400	1.20	0.08	600	4.691
EF450120AANT	18	450	1.20	0.06	675	5.085
EF500120AANT	20	500	1.20	0.04	750	5.646
EF600120AANT	24	600	1.20	0.03	840	6.770



Temperature Range: Continuous: -40°C to +90°C

PRODUCT CODE NOMENCLATURE

12 01250 01000 BK

Colour Codes

- BK - BLACK
- GY - GRAY
- LB - LIGHT BLUE
- NT - NATURAL
- RD - RED
- YW - YELLOW

Five digits represents Inner Diameter
 e.g. (10.00 mm Inner diameter)
 10 - Whole Number, 00 - Decimal value
 (110.00 mm Inner diameter)
 110 - Whole Number, 00 - Decimal value

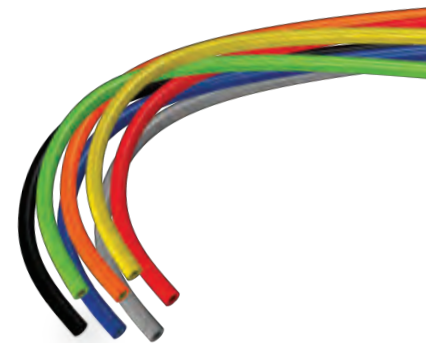
Five digits represents Outer Diameter
 e.g. (12.50 mm outer diameter)
 12 - Whole Number, 50 - Decimal value
 (122.00 mm outer diameter)
 122 - Whole Number, 00 - Decimal value

- | | |
|-----------------------------|--------------------------------------|
| 6 PA 6 TUBE | 14 SPATTER HOSE |
| 10 TPE TUBE | 18 PTFE PLAIN TUBE |
| 11 PA 11 TUBE | 19 PTFE CONVO TUBE |
| 12 PA 12 TUBE | 20 PTFE CONDUCTIVE PLAIN TUBE |
| 13 POLYURETHANE TUBE | 21 PTFE CONDUCTIVE CONVO TUBE |

POLYAMIDE TUBING







Applicable Standard : DIN73378, DIN74324







Application Automotive gasoline, High pressure lubricants, Refrigeration lines, Gasoline in various industries, Fuel lines for petrol engines, Beverage lines, For conveying hydrocarbon, For Conveying Vegetable oil, For Conveying Ester, etc., Air line on pneumatic controls systems, Lines for air compressors & vacuum pumps



Note: We also supply PA11 and TPE tubes. Kindly refer our part nomenclature before ordering. Also special sizes and colours are available on request. Multilayer upto 5 layers available on request

Technical Details

Item Code	 ID	 OD	 WT	 BP	 BR/r	 W
	mm	mm	mm	(Kg/cm ²)	mm	g/m
12-0030000150BK	1.50	3.00	0.75	200	20	7
12-0040000200BK	2.00	4.00	1.00	200	20	12
12-0040000250BK	2.50	4.00	0.75	135	20	10
12-0040000300BK	3.00	4.00	0.50	85	20	7
12-0047000270BK	2.70	4.70	1.00	160	25	14
12-0050000300BK	3.00	5.00	1.00	150	25	16
12-0050000400BK	4.00	5.00	0.50	120	30	9
12-0060000300BK	3.00	6.00	1.50	200	30	26
12-0060000400BK	4.00	6.00	1.00	120	30	20
12-0060000500BK	5.00	6.00	0.50	55	30	11
12-0080000600BK	6.00	8.00	1.00	85	40	27
12-0080000500BK	5.00	8.00	1.50	140	40	38
12-0095000750BK	7.50	9.50	1.00	70	50	33
12-0095000600BK	6.00	9.50	1.75	135	50	53
12-0100000800BK	8.00	10.00	1.00	65	50	35
12-0120001000BK	10.00	12.00	1.00	55	80	43
12-0125001000BK	10.00	12.50	1.25	65	85	55
12-0150001200BK	12.00	15.00	1.50	65	90	79
12-0160001400BK	14.00	16.00	1.00	40	110	59

Item Code	 ID	 OD	 WT	 BP	 BR/r	 W
	mm	mm	mm	(Kg/cm ²)	mm	g/m
06-0030000150NT	1.50	3.00	0.75	270	20	7
06-0040000200NT	2.00	4.00	1.00	270	20	12
06-0040000250NT	2.50	4.00	0.75	185	20	10
06-0040000300NT	3.00	4.00	0.50	115	20	7
06-0047000270NT	2.70	4.70	1.00	215	25	14
06-0050000300NT	3.00	5.00	1.00	200	35	16
06-0050000400NT	4.00	5.00	0.50	50	40	9
06-0060000300NT	3.00	6.00	1.50	270	40	26
06-0060000400NT	4.00	6.00	1.00	160	40	20
06-0060000500NT	5.00	6.00	0.50	75	40	11
06-0080000600NT	6.00	8.00	1.00	115	50	27
06-0080000500NT	5.00	8.00	1.50	185	60	38
06-0095000750NT	7.50	9.50	1.00	95	60	33
06-0095000600NT	6.00	9.50	1.75	180	70	53
06-0100000800NT	8.00	10.00	1.00	90	60	35
06-0120001000NT	10.00	12.00	1.00	70	80	43
06-0125001000NT	10.00	12.50	1.25	75	85	55
06-0150001200NT	12.00	15.00	1.50	90	100	79
06-0160001400NT	14.00	16.00	1.00	55	110	59

POLYURETHANE TUBING










- Properties**
- UV-Resistant
 - Silicone free
 - Good vibration absorption
 - Supreme abrasion resistance
 - Consistent tensile strength for long life
- Application**
- Pneumatics, Robotics, Automation, Cabling, Food processing








Note: Also special sizes and colours are available on request

Technical Details

Metric size

Item Code	 OD	 ID	 WT	 WP	 BP	 BR/r	 W
	mm	mm	mm	bar	bar	mm	g/m
13-0040000200LB	4.00	2.00	1.00	13	39	10	12
13-0040000250LB	4.00	2.50	0.75	13	39	10	10
13-0043000290LB	4.30	2.90	0.70	13	39	13	10
13-0050000300LB	5.00	3.00	1.00	13	39	15	17
13-0060000400LB	6.00	4.00	1.00	11	33	20	21
13-0080000500LB	8.00	5.00	1.50	12	36	30	40
13-0080000550LB	8.00	5.50	1.25	10	30	30	35
13-0080000600LB	8.00	6.00	1.00	8	24	35	29
13-0100000650LB	10.00	6.50	1.75	11	33	35	60
13-0100000700LB	10.00	7.00	1.50	9	27	50	53
13-0100000800LB	10.00	8.00	1.00	9	27	50	37
13-0120000800LB	12.00	8.00	2.00	10	30	40	83
13-0120000900LB	12.00	9.00	1.50	7	21	45	65
13-0120001000LB	12.00	10.00	1.00	7	21	45	46
13-0140000950LB	14.00	9.50	2.25	8	24	45	110
13-0140001000LB	14.00	10.00	2.00	8	24	45	99
13-0160001100LB	16.00	11.00	2.50	10	30	50	140
13-0160001200LB	16.00	12.00	2.00	10	30	50	116

Imperial size

Item Code	 OD		 ID		 WT		 WP	 BP	 BR/r		 W
	inch	mm	inch	mm	inch	mm	bar	bar	inch	mm	g/m
13-0040000240LB	5/32	4.0	0.094	2.4	0.031	0.79	10	30	3/8	10	11
13-0048000270LB	3/16	4.8	0.107	2.7	0.040	1.02	11	34	3/8	10	16
13-0064000410LB	1/4	6.4	0.160	4.1	0.045	1.14	10	30	1/2	13	25
13-0079000470LB	5/16	7.9	0.187	4.7	0.062	1.57	11	34	1/2	13	42
13-0095000640LB	3/8	9.5	0.250	6.4	0.062	1.57	9	27	1	25	51
13-0127000810LB	1/2	12.7	0.320	8.1	0.090	2.29	10	31	1 1/8	29	99
13-0143000950LB	9/16	14.3	0.375	9.5	0.094	2.39	9	27	2	51	118

Tolerance

Tube O.D Range	Tube O.D Tolerance
4 to 8 mm	+0.10 / -0.10
10 to 16 mm	+0.15 / -0.15

Packaging

Tube coil quantity (m)	Reel quantity (m)
50	100
100	
200	



Temperature Range: Continuous: -20°C to +70°C

SPATTER TUBES











Properties Weld Spatter Resistant
 Excellent Abrasion Resistant
 Extreme Flexibility
 Compact bend radius

Application Robotic welding application









Note: Also special sizes and colours are available on request

Technical Details

Metric size

Item Code								
	Outer cover OD mm	Inner Tube OD mm	Inner Tube ID mm	WT mm	WP bar	BP bar	BR/r mm	W g/m
14-0060000400GY	8.00	6.00	4.00	1.00	10	30	15	50
14-0080000500GY	10.00	8.00	5.00	1.50	11	33	20	78
14-0100000650GY	12.00	10.00	6.50	1.75	10	30	30	105
14-0120000800GY	14.00	12.00	8.00	2.00	9	36	35	137

Imperial size

Item Code													
	inch	mm	inch	mm	inch	mm	inch	mm	psi	psi	inch	mm	g/m
14-0040000240GY	0.236	6.00	5/32	4.00	0.094	2.40	0.031	0.80	176	528	3/8	10	31
14-0064000410GY	0.331	8.40	1/4	6.40	0.160	4.10	0.045	1.15	148	444	1/2	13	56
14-0095000640GY	0.453	11.50	3/8	9.50	0.250	6.40	0.062	1.55	147	441	7/8	22	95
14-0127000810GY	0.579	14.70	1/2	12.70	0.320	8.10	0.090	2.30	140	420	1 1/8	29	156

Tolerance

Tube O.D Range	Tube O.D Tolerance
4 to 8.4 mm	+0.1 / -0.1
9 to 15 mm	+0.15 / -0.15

Packaging

Tube coil quantity (m)	Reel quantity (m)
50	300
100	500
200	1000



Temperature Range: Continuous: -40°C to +70°C

PTFE TUBE








KEY PROPERTIES OF PTFE:






- Polytetrafluoroethylene (P.T.F.E) has the lowest coefficient of friction of all polymers
- Useful in high temperature applications
- Very good chemical resistance to all common solvents, acids and bases
- PTFE is virtually unaffected by oxygen, ozone and UV light
- Excellent dielectric insulation properties
- The working temperature of PTFE is extremely broad, ranging from 260° C (500° F) to -270° C (-454° F)

Note: We also supply Convoluted tubes, Conductive PTFE Plain and PTFE Conductive Convoluted tubes kindly refer our part nomenclature before ordering. Also special sizes are available on request






Property		Specification	Unit	Value
General	Continuous service temperature	Maximum	° C ° F	260 500
	Chemical resistance		-	Excellent
	Specific gravity	D 792	-	2.15
Electrical	Dielectric constant	D 150 at 10 ³ Hz D 150 at 10 ⁶ Hz	- -	2.1 2.1
	Dielectric dissipation factor	D 150 at 10 ³ Hz D 150 at 10 ⁶ Hz	- -	0.0002 0.0002
	Dielectric strength (short term) 10 mils film	D 149	Volt / mil	>1 400
	Volume resistivity	D 257	Ohm-cm	>10 ¹⁸
	Environmental	Water absorption	D 570	%
	Weather resistance	-	-	Excellent
	Oxygen index	D 2863	%	>95
	Flammability	UL 94	-	V-0
Mechanical	Tensile strength	D 1708, D 638	psi	3 500
	Elongation	D 1708, D 638	%	300
	Compressive strength	D 695	psi	3 500
	Impact strength	D 256 at +23°C	Ft-Lb / in	3.5
	Flexural Modulus	D 790 at +23°C	psi	90 000
	Tensile Modulus	D 638	psi	80 000
	Hardness	D 2240	-	D-60
Thermal	Melting point		° C ° F	327 620
	Thermal conductivity	C-177	BTU / hr / ft ² / °F. in	1.7
	Deflection temperature 66 psi	D 648	° C	122
	264 psi			55
	Deflection temperature 66 psi	D 648	° F	252
	264 psi			131

Metric size

Item Code					
	ID	OD	WT	BP	W
	mm	mm	mm	bar	g/m
18-0040000300NT	3.00	4.00	0.50	40	13
18-0045000300NT	3.00	4.50	0.75	56	21
18-0050000300NT	3.00	5.00	1.00	70	30
18-0045000350NT	3.50	4.50	0.50	35	15
18-0050000350NT	3.50	5.00	0.75	49	24
18-0055000350NT	3.50	5.50	1.00	62	34
18-0050000400NT	4.00	5.00	0.50	31	17
18-0055000400NT	4.00	5.50	0.75	44	27
18-0060000400NT	4.00	6.00	1.00	56	38
18-0070000400NT	4.00	7.00	1.50	76	63
18-0065000450NT	4.50	6.50	1.00	51	42
18-0060000500NT	5.00	6.00	0.50	25	21
18-0065000500NT	5.00	6.50	0.75	37	33
18-0070000500NT	5.00	7.00	1.00	47	46
18-0080000500NT	5.00	8.00	1.50	65	74
18-0090000500NT	5.00	9.00	2.00	80	106
18-0075000550NT	5.50	7.50	1.00	43	49
18-0070000600NT	6.00	7.00	0.50	22	25
18-0080000600NT	6.00	8.00	1.00	40	53
18-0090000600NT	6.00	9.00	1.50	56	85
18-0100000600NT	6.00	10.00	2.00	70	122
18-0080000650NT	6.50	8.00	0.75	29	41
18-0080000700NT	7.00	8.00	0.50	19	28
18-0090000700NT	7.00	9.00	1.00	35	61
18-0100000700NT	7.00	10.00	1.50	49	97
18-0095000750NT	7.50	9.50	1.00	33	65
18-0090000800NT	8.00	9.00	0.50	16	32
18-0095000800NT	8.00	9.50	0.75	24	50
18-0100000800NT	8.00	10.00	1.00	31	68
18-0120000800NT	8.00	12.00	2.00	56	152
18-0105000850NT	8.50	10.50	1.00	29	72
18-0100000900NT	9.00	10.00	0.50	15	36
18-0105000900NT	9.00	10.50	0.75	22	56
18-0110000900NT	9.00	11.00	1.00	28	76
18-0120000900NT	9.00	12.00	1.50	40	120
18-0110001000NT	10.00	11.00	0.50	13	40
18-0120001000NT	10.00	12.00	1.00	25	84
18-0130001000NT	10.00	13.00	1.50	37	131
18-0140001000NT	10.00	14.00	2.00	47	182
18-0150001000NT	10.00	15.00	2.50	56	237
18-0130001100NT	11.00	13.00	1.00	23	91
18-0140001200NT	12.00	14.00	1.00	22	99
18-0150001200NT	12.00	15.00	1.50	31	154
18-0160001200NT	12.00	16.00	2.00	40	213
18-0150001300NT	13.00	15.00	1.00	20	106
18-0160001300NT	13.00	16.00	1.50	29	165
18-0170001300NT	13.00	17.00	2.00	37	228
18-0160001400NT	14.00	16.00	1.00	19	114
18-0170001400NT	14.00	17.00	1.50	27	177
18-0180001400NT	14.00	18.00	2.00	35	243
18-0170001500NT	15.00	17.00	1.00	18	122
18-0180001500NT	15.00	18.00	1.50	25	188
18-0180001600NT	16.00	18.00	1.00	16	129
18-0190001600NT	16.00	19.00	1.50	24	199
18-0200001600NT	16.00	20.00	2.00	31	274
18-0195001650NT	16.50	19.50	1.50	23	205

Item Code	 ID	 OD	 WT	 BP	 W
	mm	mm	mm	bar	g/m
18-0200001700NT	17.00	20.00	1.50	23	211
18-0200001800NT	18.00	20.00	1.00	15	144
18-0210001800NT	18.00	21.00	1.50	22	222
18-0220001800NT	18.00	22.00	2.00	28	304
18-0210001900NT	19.00	21.00	1.00	14	152
18-0220001900NT	19.00	22.00	1.50	20	234

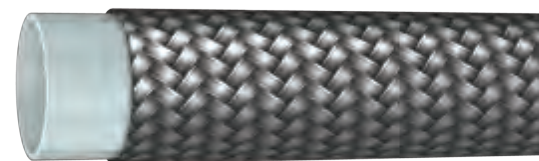
Imperial Size

Item Code	 ID		 OD		 WT	 BP	 W
	inch	mm	inch	mm	inch	bar	g/m
18-0048000320NT	1/8	3.20	3/16	4.80	1/32	56	24
18-0064000320NT	1/8	3.20	1/4	6.40	1/16	93	58
18-0064000400NT	5/32	4.00	1/4	6.40	3/64	65	47
18-0064000480NT	3/16	4.80	1/4	6.40	1/32	40	34
18-0079000480NT	3/16	4.80	5/16	7.90	1/16	70	75
18-0079000640NT	1/4	6.40	5/16	7.90	1/32	31	41
18-0095000640NT	1/4	6.40	3/8	9.50	1/16	56	94
18-0127000640NT	1/4	6.40	1/2	12.70	1/8	93	229
18-0095000790NT	5/16	7.90	3/8	9.50	1/16	25	53
18-0111000950NT	3/8	9.50	7/16	11.10	1/32	21	63
18-0127000950NT	3/8	9.50	1/2	12.70	1/16	40	135
18-0127001110NT	7/16	11.10	1/2	12.70	1/32	19	72
18-0143001270NT	1/2	12.70	9/16	14.30	1/32	16	82
18-0159001270NT	1/2	12.70	5/8	15.90	1/16	31	174
18-0159001430NT	9/16	14.30	5/8	15.90	1/32	15	92
18-0175001590NT	5/8	15.90	11/16	17.50	1/32	13	102
18-0191001590NT	5/8	15.90	3/4	19.10	1/16	25	213
18-0191001750NT	11/16	17.50	3/4	19.10	1/32	12	111
18-0222301910NT	3/4	19.10	7/8	22.23	1/16	22	246

Note: We also supply Convoluted tubes , Conductive PTFE Plain and PTFE Conductive Convoluted tubes kindly refer our part nomenclature before ordering. Also special sizes are available on request

EF 179 - R14

Applicable Standard: SAE J517 - 100R14



Construction

Core Sintered tube of polytetrafluoroethylene (P.T.F.E)

Reinforcement Single braid of 304 series of stainless steel wire

Application P.T.F.E hose has an excellent temperature characteristics both in high and low temperature, Excellent chemical resistance, non contamination properties, low coefficient of friction and resists deterioration. Therefore the hose is used generally in applications where all or one of the above properties is the main criteria

Note: Double braided available for higher performance, please check our part # EF381

Item Code	Dash Size	WT	ID		OD		WP		BP		BR/r		W
			inch	mm	inch	mm	psi	bar	psi	bar	inch	mm	g/m
EF179-3	-3	1.00	1/8	3.35	0.252	6.4	3,260	225	13,040	900	1.6	40	65
EF179-4	-4	0.75	3/16	4.83	0.300	7.6	3,000	210	12,000	840	2.0	50	84
EF179-5	-5	0.65	1/4	6.48	0.380	9.7	3,000	210	12,000	840	3.0	75	121
EF179-6	-6	0.75	5/16	8.00	0.440	11.2	2,500	175	10,000	700	4.0	100	163
EF179-7	-7	0.75	3/8	9.65	0.495	12.6	2,400	165	9,600	660	5.0	125	170
EF179-8	-8	0.75	13/32	10.41	0.543	13.8	2,000	140	8,000	560	5.3	135	185
EF179-10	-10	0.75	1/2	12.83	0.650	16.5	1,750	120	7,000	480	6.5	165	234
EF179-12	-12	0.90	5/8	16.00	0.780	19.8	1,270	88	5,080	352	8.0	200	318
EF179-14	-14	0.90	3/4	19.18	0.900	22.9	1,100	75	4,400	300	9.1	230	395
EF179-16	-16	1.00	7/8	22.23	1.030	26.2	900	62	3,600	248	9.1	230	462
EF179-18	-18	1.05	1	25.53	1.160	29.5	900	62	3,600	248	11.8	300	528
EF179-20	-20	1.20	1.1/8	28.58	1.300	33.0	630	44	2,520	176	16.1	410	585



Temperature Range: Continuous: -54°C to +260°C

EF 311- (ELECTRICAL CONDUCTIVE) - R14

Applicable Standard: SAE J517 - 100R14



Construction

Core Sintered tube of polytetrafluoroethylene (P.T.F.E) (Electrical Conductive)

Reinforcement Single braid of 304 series of stainless steel wire

Application P.T.F.E hose has an excellent temperature characteristics both in high and low temperature, Excellent chemical resistance, non contamination properties, low coefficient of friction and resists deterioration. Therefore the hose is used generally in applications where all or one of the above properties is the main criteria

Note: Double braided available for higher performance, please check our part # EF383

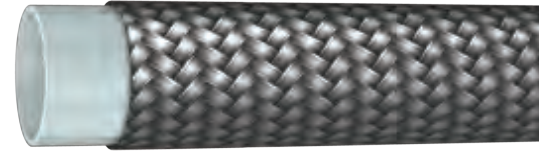
Item Code	Dash Size	WT	ID		OD		WP		BP		BR/r		W
			inch	mm	inch	mm	psi	bar	psi	bar	inch	mm	g/m
EF311-3	-3	1.00	1/8	3.35	0.252	6.4	3,260	225	13,040	900	1.6	40	65
EF311-4	-4	0.75	3/16	4.83	0.300	7.6	3,000	210	12,000	840	2.0	50	84
EF311-5	-5	0.65	1/4	6.48	0.380	9.7	3,000	210	12,000	840	3.0	75	121
EF311-6	-6	0.75	5/16	8.00	0.440	11.2	2,500	175	10,000	700	4.0	100	163
EF311-7	-7	0.75	3/8	9.65	0.495	12.6	2,400	165	9,600	660	5.0	125	170
EF311-8	-8	0.75	13/32	10.41	0.543	13.8	2,000	140	8,000	560	5.3	135	185
EF311-10	-10	0.75	1/2	12.83	0.650	16.5	1,750	120	7,000	480	6.5	165	234
EF311-12	-12	0.90	5/8	16.00	0.780	19.8	1,270	88	5,080	352	8.0	200	318
EF311-14	-14	0.90	3/4	19.18	0.900	22.9	1,100	75	4,400	300	9.1	230	395
EF311-16	-16	1.00	7/8	22.23	1.030	26.2	900	62	3,600	248	9.1	230	462
EF311-18	-18	1.05	1	25.53	1.160	29.5	900	62	3,600	248	11.8	300	528
EF311-20	-20	1.20	1.1/8	28.58	1.300	33.0	630	44	2,520	176	16.1	410	585



Temperature Range: Continuous: -54°C to +260°C

EF 313 - R14 INCREASED WALL

Applicable Standard: SAE J517 - 100R14



Construction

Core Sintered tube of polytetrafluoroethylene (P.T.F.E)

Reinforcement Single braid of 304 series of stainless steel wire

Application P.T.F.E hose has an excellent temperature characteristics both in high and low temperature, Excellent chemical resistance, non contamination properties, low coefficient of friction and resists deterioration. Therefore the hose is used generally in applications where all or one of the above properties is the main criteria

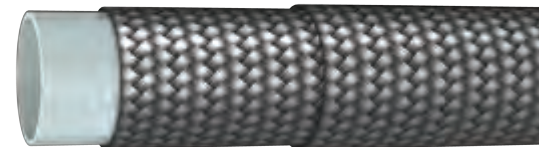
Note : Available in electrical conductive version and our part # shall be EF314

Item Code	Dash Size	WT	ID		OD		WP		BP		BR/r		W
			inch	mm	inch	mm	psi	bar	psi	bar	inch	mm	g/m
EF313-5	-5	1.00	1/4	6.4	0.380	9.7	2,610	180	10,440	720	3.7	95	127
EF313-7	-7	1.00	3/8	9.5	0.505	12.8	2,400	165	9,600	660	6.3	160	177
EF313-10	-10	1.00	1/2	12.7	0.645	16.4	1,750	120	7,000	480	8.3	210	245
EF313-12	-12	1.10	5/8	16.0	0.790	20.1	1,270	88	5,080	352	10.6	270	332
EF313-14	-14	1.10	3/4	19.0	0.925	23.5	1,000	70	4,000	280	11.8	300	412

 **Temperature Range:** Continuous: -54°C to +260°C

EF 381 - R14 2W

Applicable Standard: Exceeds SAE J517 - 100R14 pressure requirements



Construction

Core Sintered tube of polytetrafluoroethylene (P.T.F.E)

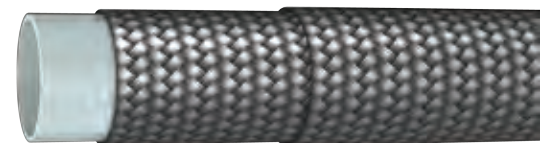
Reinforcement Double braids of 304 series of stainless steel wire

Application P.T.F.E hose has an excellent temperature characteristics both in high and low temperature, Excellent chemical resistance, non contamination properties, low coefficient of friction and resists deterioration. Therefore the hose is used generally in applications where all or one of the above properties is the main criteria

Item Code	Dash Size	WT	ID		OD		WP		BP		BR/r		W
			inch	mm	inch	mm	psi	bar	psi	bar	inch	mm	g/m
EF381-3	-3	1.00	1/8	3.0	0.300	7.6	4,495	310	17,980	1,240	2.0	50	140
EF381-4	-4	0.75	3/16	4.8	0.360	9.1	3,770	260	15,080	1,040	2.6	65	187
EF381-5	-5	0.65	1/4	6.4	0.410	10.4	3,600	250	14,400	1,000	3.8	95	225
EF381-6	-6	0.75	5/16	8.0	0.510	13.0	3,500	245	14,000	980	5.0	125	287
EF381-7	-7	0.75	3/8	9.5	0.565	14.4	3,330	230	13,320	920	6.4	160	336
EF381-8	-8	0.75	13/32	10.5	0.595	15.1	2,750	190	11,000	760	7.0	175	395
EF381-10	-10	0.75	1/2	12.7	0.700	17.8	2,300	160	9,200	640	8.4	210	444
EF381-12	-12	0.90	5/8	16.0	0.855	21.7	1,600	110	6,400	440	10.8	270	583
EF381-14	-14	0.90	3/4	19.0	0.970	24.6	1,380	95	5,520	380	12.0	300	742
EF381-16	-16	1.00	7/8	22.2	1.090	27.7	1,160	80	4,650	320	12.4	310	810
EF381-18	-18	1.05	1	25.4	1.220	31.0	1,080	75	4,320	300	16.8	420	920
EF381-20	-20	1.20	1.1/8	29.0	1.400	35.6	870	60	3,480	240	22.0	550	990

 **Temperature Range:** Continuous: -54°C to +260°C

EF 382 - PTFE GAS HOSE



Construction

Core Special quality of Sintered tube of polytetrafluoroethylene (P.T.F.E)

Reinforcement Double braids of 304 series of stainless steel wire

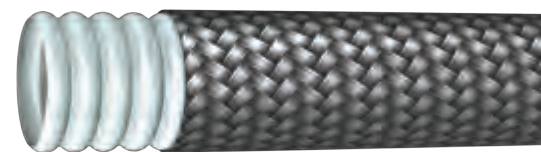
Application P.T.F.E hose has an excellent temperature characteristics both in high and low temperature. Excellent chemical resistance, non contamination properties, low coefficient of friction and resists deterioration. Therefore the hose is used generally in applications where all or one of the above properties is the main criteria Transport of cryogenic gases at high pressures

Item Code	Dash Size	WT	ID		OD		WP		BP		BR/r		W
			inch	mm	inch	mm	psi	bar	psi	bar	inch	mm	g/m
EF382-04	-4	1.00	1/4	6.4	0.470	11.9	5,300	365	15,900	1,095	1.6	40	236
EF382-05	-5	1.00	5/16	8.0	0.540	13.7	4,560	315	13,680	945	1.8	45	301
EF382-06	-6	1.00	3/8	9.5	0.580	14.7	4,350	300	13,050	900	2.6	65	353
EF382-08	-8	1.00	1/2	12.7	0.730	18.5	3,840	265	11,520	795	3.0	75	466
EF382-10	-10	1.10	5/8	16.0	0.880	22.4	3,400	235	10,200	705	4.5	115	612
EF382-12	-12	1.25	3/4	19.0	1.030	26.2	2,900	200	8,700	600	9.4	240	779
EF382-16	-16	1.40	1	25.4	1.260	32.0	2,200	150	6,600	450	12.6	320	966



Temperature Range: Continuous: -54°C to +204°C

EF 370 - PTFE - CONVOLUTED HOSE



Construction

Core Helically convoluted sintered tube of polytetrafluoroethylene (P.T.F.E)

Reinforcement Single braid of 304/316 series of stainless steel wire

Application P.T.F.E hose has an excellent temperature characteristics both in high and low temperature. Excellent chemical resistance, non contamination properties, low coefficient of friction and resists deterioration. Therefore the hose is used generally in applications where all or one of the above properties is the main criteria in automotive, chemical, pharmaceutical & food processing, plastic & rubber molding machines. Also for some applications the tube can also be made conductive to dissipate electro-static charges

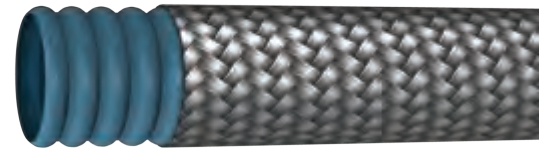
Note: Working and burst pressure are at 20°C Temperature

Item Code	Dash Size	WT	ID		OD		WP		BP		BR/r		W
			inch	mm	inch	mm	psi	bar	psi	bar	inch	mm	g/m
EF370-04	-4	0.75	1/4	6.60	0.410	10.4	2,500	175	10,000	700	0.8	20	149
EF370-05	-5	0.75	5/16	8.18	0.490	12.4	2,300	160	9,200	640	0.8	20	170
EF370-06	-6	0.75	3/8	9.65	0.540	13.7	2,200	150	8,800	600	0.8	20	182
EF370-08	-8	0.75	1/2	12.83	0.725	18.4	1,960	135	7,840	540	1.0	25	289
EF370-10	-10	0.80	5/8	16.00	0.827	21.0	1,450	100	5,800	400	2.0	50	349
EF370-12	-12	0.90	3/4	19.18	1.020	25.9	1,160	80	4,640	320	2.6	65	494
EF370-14	-14	1.00	7/8	22.23	1.170	29.7	870	60	3,480	240	3.1	80	565
EF370-16	-16	1.00	1	25.53	1.331	33.8	800	55	3,200	220	3.6	90	677
EF370-20	-20	1.00	1.1/4	31.88	1.680	42.7	665	45	2,660	180	4.4	110	891
EF370-24	-24	1.00	1.1/2	38.23	1.890	48.0	510	35	2,040	140	6.0	150	959
EF370-32	-32	1.10	2	50.93	2.420	61.5	365	25	1,460	100	8.0	200	1309



Temperature Range: Continuous: -54°C to +260°C

EF 371 - PTFE - ELECTRICAL CONDUCTIVE CONVOLUTED HOSE



Construction

Core Helically convoluted sintered tube of polytetrafluoroethylene (P.T.F.E) (Electrical Conductive)

Reinforcement Single braid of 304/316 series of stainless steel wire

Application P.T.F.E hose has an excellent temperature characteristics both in high and low temperature. Excellent chemical resistance, non contamination properties, low coefficient of friction and resists deterioration. Therefore the hose is used generally in applications where all or one of the above properties is the main criteria in automotive, chemical, pharmaceutical & food processing, plastic & rubber molding machines. Also for some applications the tube can also be made conductive to dissipate electro -static charges

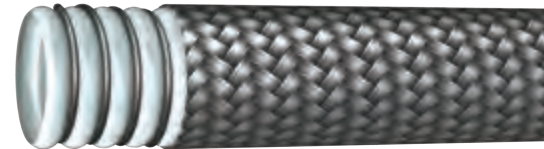
Item Code	Dash Size	WT	ID		OD		WP		BP		BR/r		W
			inch	mm	inch	mm	psi	bar	psi	bar	inch	mm	g/m
EF371-04	-4	0.75	1/4	6.60	0.410	10.4	2,500	175	10,000	700	0.8	20	149
EF371-05	-5	0.75	5/16	8.18	0.490	12.4	2,300	160	9,200	640	0.8	20	170
EF371-06	-6	0.75	3/8	9.65	0.540	13.7	2,200	150	8,800	600	0.8	20	182
EF371-08	-8	0.75	1/2	12.83	0.725	18.4	1,960	135	7,840	540	1.0	25	289
EF371-10	-10	0.80	5/8	16.00	0.827	21.0	1,450	100	5,800	400	2.0	50	349
EF371-12	-12	0.90	3/4	19.18	1.020	25.9	1,160	80	4,640	320	2.6	65	494
EF371-14	-14	1.00	7/8	22.23	1.170	29.7	870	60	3,480	240	3.1	80	565
EF371-16	-16	1.00	1	25.53	1.331	33.8	800	55	3,200	220	3.6	90	677
EF371-20	-20	1.00	1.1/4	31.88	1.680	42.7	665	45	2,660	180	4.4	110	891
EF371-24	-24	1.00	1.1/2	38.23	1.890	48.0	510	35	2,040	140	6.0	150	959
EF371-32	-32	1.10	2	50.93	2.420	61.5	365	25	1,460	100	8.0	200	1309



Temperature Range: Continuous: -54°C to +260°C

5

EF 782 - CONVOLUTED PTFE HOSE WITH HELIX WIRE AND STAINLESS STEEL STANDARD WALL



Construction

Core Helically convoluted sintered tube of polytetrafluoroethylene (P.T.F.E) External AISI 304 Wire Support

Reinforcement Single braid of 304 of stainless steel wire

Application High temperature steam lines. Very high vacuum lines

Note: Available in medium wall version and our part # shall be EF792

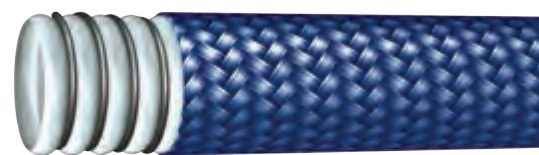
Item Code	Dash Size	WT	ID		OD		WP		BP		BR/r		W
			inch	mm	inch	mm	psi	bar	psi	bar	inch	mm	g/m
EF782-06	-6	0.75	3/8	9.65	0.570	14.5	1,305	90	5,220	360	1.4	35	208
EF782-08	-8	0.75	1/2	12.83	0.760	19.3	1,160	80	4,640	320	1.6	40	329
EF782-10	-10	0.80	5/8	16.00	0.857	21.8	1,088	75	4,350	300	1.8	45	423
EF782-12	-12	0.90	3/4	19.18	1.060	26.9	870	60	4,205	290	2.2	55	548
EF782-16	-16	1.00	1	25.53	1.370	34.8	580	40	3,045	210	2.4	60	703
EF782-20	-20	1.00	1.1/4	32.00	1.730	43.9	580	40	3,045	210	3.1	80	911
EF782-24	-24	1.00	1.1/2	38.50	1.940	49.3	508	35	2,538	175	3.9	100	1311
EF782-32	-32	1.10	2	51.00	2.470	62.7	363	25	1,958	135	4.9	125	1655



Temperature Range: Continuous: -54°C to +260°C

Intermittent: max. +220°C

EF 783 - CONVOLUTED PTFE HOSE WITH HELIX WIRE AND POLYPROPYLENE YARN STANDARD WALL



Construction

Core Helically convoluted sintered tube of polytetrafluoroethylene (P.T.F.E)
External AISI 304 Wire Support

Reinforcement Single braid of polypropylene yarn

Application High temperature lines where vibrations and frequent handling are involved

Note: Available in medium wall version and our part # shall be EF793. Available with PVDF yarn braid and our part # shall be EF784 and available in medium wall version and our part # shall be EF794

Item Code	Dash Size	WT	ID		OD		WP		V	BP		BR/r		W g/m
			inch	mm	inch	mm	psi	bar		psi	bar	inch	mm	
EF783-08	-8	0.75	1/2	12.70	0.866	22.0	290	20	899	1,160	80	1.3	32	361
EF783-10	-10	0.80	5/8	15.88	1.063	27.0	218	15	899	870	60	1.6	40	426
EF783-12	-12	0.90	3/4	19.05	1.252	31.8	218	15	899	870	60	2.0	50	548
EF783-16	-16	1.00	1	25.40	1.472	37.4	218	15	899	870	60	2.4	60	599
EF783-20	-20	1.00	1.1/4	31.75	1.776	45.1	145	10	899	580	40	3.1	80	830
EF783-24	-24	1.00	1.1/2	38.10	1.988	50.5	145	10	899	580	40	3.9	100	1162
EF783-32	-32	1.10	2	50.80	2.500	63.5	145	10	899	580	40	4.9	125	1433



Temperature Range: Continuous: -54°C to +180°C Intermittent: max. +160°C

EF 785 - CONVOLUTED PTFE HOSE WITH POLYPROPYLENE YARN - STANDARD WALL



Construction

Core Helically convoluted sintered tube of polytetrafluoroethylene (P.T.F.E)

Reinforcement Single braid of polypropylene yarn

Application High temperature lines where vibrations and frequent handling are involved. Reduced weight makes it suitable for easy handling

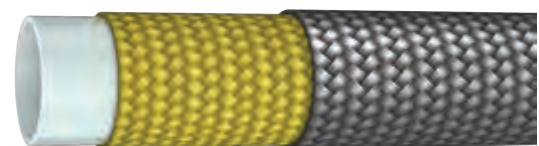
Note: Available in medium wall version and our part # shall be EF795. Available with PVDF yarn braid and our part # shall be EF786 and available in medium wall version and our part # shall be EF796

Item Code	Dash Size	WT	ID		OD		WP		V	BP		BR/r		W g/m
			inch	mm	inch	mm	psi	bar		psi	bar	inch	mm	
EF785-08	-8	0.75	1/2	12.70	0.866	22.0	290	20	899	1,160	80	1.6	40	321
EF785-10	-10	0.80	5/8	15.88	1.063	27.0	218	15	899	870	60	2.0	50	356
EF785-12	-12	0.90	3/4	19.05	1.252	31.8	218	15	899	870	60	2.2	55	473
EF785-16	-16	1.00	1	25.40	1.472	37.4	218	15	899	870	60	2.6	65	519
EF785-20	-20	1.00	1.1/4	31.75	1.776	45.1	145	10	899	580	40	4.1	105	715
EF785-24	-24	1.00	1.1/2	38.10	1.988	50.5	145	10	899	580	40	4.9	125	767
EF785-32	-32	1.10	2	50.80	2.500	63.5	145	10	899	580	40	5.9	150	988



Temperature Range: Continuous: -54°C to +180°C Intermittent: max. +160°C

EF 775 - GAS HOSE - ARAMID



Construction

Core Sintered tube of polytetrafluoroethylene (P.T.F.E)

Reinforcement One or more braids of aramid fiber with one braid of 304 stainless steel wire. Thicker wall in PTFE core guarantees minimum diffusion and making ideal for gas applications

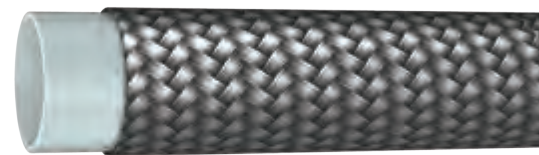
Application Very high pressure gas lines

Item Code	Dash Size	WT	ID		OD		WP		BP		BR/r		W g/m	
			inch	mm	inch	mm	psi	bar	psi	bar	inch	mm		
EF775-04	-4	1.00	1/4	6.35	0.485	12.3	6,018	415	24,070	1,660		2.0	51	205
EF775-06	-6	1.00	3/8	9.65	0.620	15.7	5,075	350	20,300	1,400		2.8	70	252



Temperature Range: Continuous: -54°C to +260°C Intermittent: max. +220°C

EF 776 - GAS HOSE - 1W



Construction

Core Sintered tube of polytetrafluoroethylene (P.T.F.E)

Reinforcement Single braid of 304 Stainless steel wire. Thicker wall in PTFE core guarantees minimum diffusion and making ideal for gas applications

Application High pressure gas lines like gas cylinders, breathing apparatus and aerosol charging lines.

Item Code	Dash Size	WT	ID		OD		WP		BP		BR/r		W
			inch	mm	inch	mm	psi	bar	psi	bar	inch	mm	g/m
EF776-02	-2	1.00	1/8	3.35	0.255	6.5	3379	233	13,514	932	1.5	38	65
EF776-03	-3	1.00	3/16	4.83	0.340	8.6	3002	207	11,992	827	2.0	51	90
EF776-04	-4	1.00	1/4	6.35	0.390	9.9	2755	190	11,020	760	2.5	64	140
EF776-05	-5	1.00	5/16	8.03	0.470	11.9	2465	170	9,860	680	3.0	76	168
EF776-06	-6	1.00	3/8	9.65	0.520	13.2	2248	155	8,990	620	3.5	89	200
EF776-07	-7	1.00	13/32	10.36	0.620	15.7	2030	140	8,120	560	4.0	102	210
EF776-08	-8	1.00	1/2	12.70	0.660	16.8	1813	125	7,250	500	5.1	130	265



Temperature Range: Continuous: -54°C to +260°C

Intermittent: max. +220°C

EF 777 - BRAKE FLUID HOSE

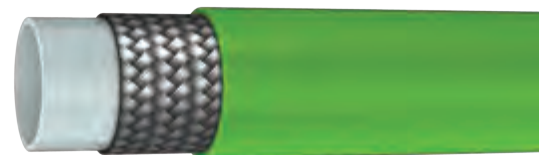
Construction

Core Sintered tube of polytetrafluoroethylene (P.T.F.E)

Reinforcement Single braid of 304 series of stainless steel wire

Cover PVC / PU (Polyurethane) neon green

Application For braking systems in mountain bikes and motorcycles



Note: Special colours available on request

Item Code	Dash Size	WT	ID		OD		WP		BP		BR/r		W
			inch	mm	inch	mm	psi	bar	psi	bar	inch	mm	g/m
EF777-02	-2	0.80	1/8	3.50	0.287	7.3	4655	321	14,007	966	1.5	38	93
EF777-03	-3	0.76	3/16	4.90	0.345	8.8	4000	276	12,006	828	2.0	51	122
EF777-04	-4	0.76	1/4	6.35	0.392	10.0	2973	205	8,918	615	2.8	70	164



Temperature Range: Continuous: -54°C to +260°C

Intermittent: max. +220°C

EF 778 - NITROGEN GAS HOSE

Construction

Core Sintered tube of polytetrafluoroethylene (P.T.F.E)

Reinforcement Double braids of 316L Stainless steel wire

Cover Neoprene, Black

Application Off shore nitrogen gas transfer lines



Note: Special colours available on request

Item Code	Dash Size	WT	ID		OD		WP		BP		BR/r		W
			inch	mm	inch	mm	psi	bar	psi	bar	inch	mm	g/m
EF778-04	-4	1.00	1/4	6.35	0.535	13.6	5293	365	15,878	1095	2.6	65	310
EF778-06	-6	1.00	3/8	9.65	0.645	16.4	4133	285	12,398	855	3.5	90	401
EF778-08	-8	1.10	1/2	12.70	0.790	20.1	3480	240	10,440	720	5.1	130	522
EF778-10	-10	1.20	5/8	15.88	0.950	24.1	3045	210	9,135	630	6.9	175	687
EF778-12	-12	1.20	3/4	19.05	1.120	28.4	2610	180	7,830	540	7.9	200	885
EF778-16	-16	1.25	1	25.40	1.320	33.5	1958	135	5,873	405	9.8	250	1042



Temperature Range: Continuous: -54°C to +260°C

Intermittent: max. +220°C

UHP HOSE FITTING CODIFICATION

020 A 01 03

HOSE SIZE
Digit 1, 2, 3 represents

CODE	DESCRIPTION
020	3 mm ID
025	4 mm ID
030	5 mm ID
040	6 mm ID
050	8 mm ID
060	10 mm ID
080	13 mm ID
100	16 mm ID
120	20 mm ID
160	25 mm ID
200	32 mm ID

FITTING SERIES
Digit 4 represents

CODE	DESCRIPTION
A	EF902-02, EF902-025, EF902-03, EF902Q-04, EF902QL-04, EF902-04, EF902-05, EF902-06, EF902-08
B	EF904-02, EF904-03, EF904-04, EF904-05, EF904-06
C	EF906-02, EF904-025, EF906-025, EF904R-08, EF906R-08, EF908-08, EF904-12
D	EF906-03, EF906R-03, EF908-03, EF906-05, EF906R-05, EF908-05
F	EF903 ALL HOSES
W	TUBE CLEANING FITTINGS FOR EF902 ALL HOSES
X	TUBE CLEANING FITTINGS FOR EF904 ALL HOSES
Y	TUBE CLEANING FITTINGS FOR EF904 ALL HOSES

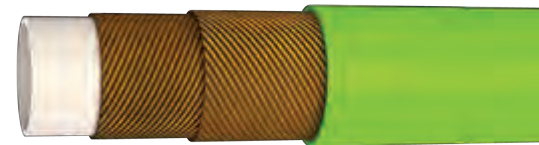
CONNECTION
Digit 5, 6 represents

CODE	DESCRIPTION
01	MALE FITTING
02	FEMALE FITTING
03	FEMALE SWIVEL
04	HP FITTING
05	HP FEMALE FITTING
06	FEMALE SWIVEL WITH O-RING
07	TYPE M FEMALE SWIVEL
10	MP FITTING
20	SONDERBAUFORM CEJN

THREAD TYPE
Digit 7, 8 represents

CODE	DESCRIPTION	CODE	DESCRIPTION	CODE	DESCRIPTION	CODE	DESCRIPTION
03	M14x1.5 LH	23	M18x1.5	33	M52x2	50	1/4"x18NPTF
04	M18x1.5 LH	24	M20x1.5	40	G1/8"	51	3/8"x18NPTF
10	1/4"x28UNF LH	25	M22x1.5	41	G1/4"	52	1/2"x14NPTF
11	3/8"x24UNF LH	26	M24x1.5	42	G3/8"	53	1"x11 1/2NPTF
12	9/16"x18UNF LH	27	M30x2	43	G1/2"	60	9/16"x18UNF
18	M8x1	28	M36x2	44	G3/4"	61	3/4"x16UNF
19	M10x1	29	M42x2	45	G1"	62	7/8"x14UNF
20	M12x1.5	30	M45x2	46	G1 1/4"	63	1"x12UNF
21	M14x1.5	31	M48x2	48	1/16"x27NPTF	64	1 1/16"x12UN
22	M16x1.5	32	M50x2	49	1/8"x27NPTF	65	1 5/16" X 12UN

EF 902 - 2 SPIRALS OF HIGH TENSILE STEEL WIRE



Construction

Core I.D 3mm - 8mm Polyoxymethylene (POM)
I.D 10mm - 25mm Polyamide (PA)

Reinforcement 2 Spirals of high tensile steel wire

Cover Polyamide (PA) - Green

Application Water blast: Heat exchanger tube cleaning
Hydraulics: Pressure test equipment (valves, tooling and control panels), hydraulic tools (instrumentation packages for gauges, control of service equipment, hydraulic jacks, hydraulic tools)

Item Code	DN	ID		OD	WP		BP		BR/r	W
		inch	mm	mm	psi	bar	psi	bar	mm	g/m
EF902-02	3	1/8	3.4	6.9	14,500	1,000	36,250	2,500	60	72
EF902-025	4	5/32	4.0	8.0	17,400	1,200	43,500	3,000	75	110
EF902-03	5	3/16	5.0	9.4	15,080	1,040	37,700	2,600	95	125
EF902-04	6	1/4	6.3	11.5	14,500	1,000	36,250	2,500	110	175
EF902-05	8	5/16	8.1	13.3	13,050	900	32,625	2,250	130	200
EF902-06	10	3/8	10.1	15.5	10,005	690	25,010	1,725	160	280
EF902-08	12	1/2	12.9	19.3	10,005	690	25,010	1,725	200	435
EF902-12	20	3/4	19.0	26.2	7,540	520	18,850	1,300	240	750
EF902-16	25	1	24.8	33.5	6,380	440	15,950	1,100	300	950

Temperature Range: Continuous: -30°C to +60°C

EF 902P - 2 SPIRALS OF HIGH TENSILE STEEL WIRE, 1 BRAID OF STEEL WIRE



Construction

Core Polyamide (PA)

Reinforcement 2 Spirals of high-tensile steel wire ,1 braid of steel wire

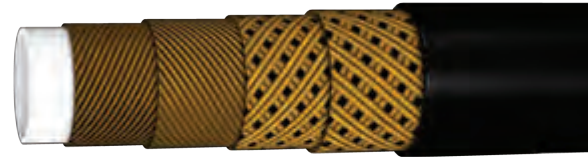
Cover Polyurethane (PUR) - Black

Application Hydraulics: Hydraulic tools (instrumentation packages for gauges, control of service equipment, hydraulic jacks, hydraulic tools)
Oil and Gas: Grease injection, control of subsea hydraulic components

Item Code	DN	ID		OD	WP		BP		BR/r	W
		inch	mm	mm	psi	bar	psi	bar	mm	g/m
EF902P-025	4	5/32	4.0	9.8	17,400	1,200	43,500	3,000	65	185
EF902P-04	6	1/4	6.2	12.9	16,240	1,120	40,600	2,800	95	300

Temperature Range: Continuous: -30°C to +60°C

EF 902Q / EF 902QL / EF 902QZ- 4 SPIRALS OF HIGH TENSILE STEEL WIRE, 2 DENSE AND 2 OPEN LAYERS



Construction

Core Polyamide (PA)

Reinforcement 4 Spirals of high-tensile steel wire, 2 dense and 2 open layers

Cover Polyurethane (PUR) -for EF902Q & EF902QL- Black Colour and for EF902QZ - Silver colour

Application Water Blast: Heat exchanger tube cleaning

Hydraulics: Pressure test equipment (valves, tooling and control panels), hydraulic tools (instrumentation packages for gauges, control of service equipment, hydraulic jacks, hydraulic tools)

Oil and Gas: Grease injection, control of subsea hydraulic components

Item Code	DN	ID		OD	WP		BP		BR/r	W
		inch	mm	mm	psi	bar	psi	bar	mm	g/m
EF902Q-025	4	5/32	4.0	9.8	20,300	1,400	50,750	3,500	65	160
EF902Q-04	6	1/4	6.0	12.0	18,560	1,280	46,400	3,200	95	230
EF902Q-05	8	5/16	8.0	14.3	15,080	1,040	37,700	2,600	110	314
EF902Q-06	10	3/8	10.0	17.2	15,950	1,100	40,020	2,760	125	430
EF902Q-08	12	1/2	12.8	20.8	15,080	1,040	37,700	2,600	150	590
EF902Q-12	20	3/4	18.8	29.5	11,020	760	27,550	1,900	220	1160
EF902Q-16	25	1	25.0	35.6	9,280	640	23,200	1,600	280	1490
EF902QL-04	6	1/4	5.9	12.0	17,400	1200	43,500	3,000	80	240
EF902QZ-05	8	5/16	8.0	16.0	15,080	1040	37,700	2,600	110	400
EF902QZ-08	12	1/2	12.8	22.2	15,080	1040	37,700	2,600	150	600



Temperature Range: Continuous: -30°C to +60°C

EF 903 - 2 SPIRALS OF HIGH TENSILE STEEL WIRE, 1 BRAID OF G.I STEEL WIRE



Construction

Core Polytetrafluoroethylene (PTFE)

Reinforcement 2 Spirals of high-tensile steel wire ,1 braid of G.I steel wire

Safety factors for higher temperatures up to 50 °C - 1,0 / up to 100°C - 0,95 / up to 150°C - 0,9 / up to 200°C - 0,83

Application Automotive: Hot Melt Adhesives / Hot Glue Dispensing, Injection Molding, Chemical Transfer / Paint Transfer, Robotic Systems, Compressed Gas

Item Code	DN	ID		OD	WP		BP		BR/r	W
		inch	mm	mm	psi	bar	psi	bar	mm	g/m
EF903-04	6	1/4	6.2	11.2	7,250	500	29,000	2,000	60	270
EF903-05	8	5/16	8.0	13.4	6,880	475	27,500	1,900	85	345
EF903-06	10	3/8	10.0	15.7	6,525	450	26,100	1,800	110	500
EF903-08	12	1/2	12.2	18.8	6,520	450	26,100	1,800	150	600
EF903-10	16	5/8	15.1	21.6	5,800	400	23,200	1,600	175	700
EF903-12	20	3/4	20.2	27.5	4,350	300	17,400	1,200	200	1055
EF903-16	25	1	24.2	31.4	3,980	275	15,950	1,100	240	1205
EF903-20	32	1 1/4	32.0	39.0	3,620	250	14,500	1,000	280	1600



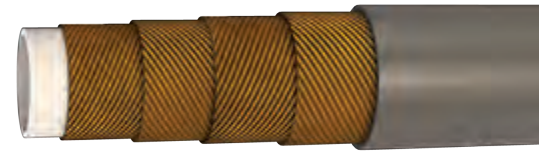
Temperature Range: Continuous: -70°C to +200°C

Important Information!

EF903 series hoses are intended for being used as basic hoses for heating hose systems. They do not have an outer cover and the wires are not protected against corrosion. It is not allowed to use these hoses in a “normal” hose assembly without taking the right steps to prevent the corrosion of the wires because there exists the risk of injury as well as the possibility of the failure of the hose assembly.

EF903 series hoses are available as a special execution with a plastic outer cover. For further information, please contact our Polyhose sales personnel

EF 904 - 4 SPIRALS OF HIGH TENSILE STEEL WIRE



Construction

Core I.D 3mm - 10mm Polyoxymethylene (POM)
I.D 13mm - 25mm Polyamide (PA)

Reinforcement 4 Spirals of high tensile steel wire

Cover Polyamide (PA) - Grey

Application Waterblast: Heat exchanger tube cleaning

Hydraulics: Bolt tensioning, pressure test equipment (valves, tooling and control panels), hydraulic tools (instrumentation packages for gauges, control of service equipment, hydraulic jacks, hydraulic tools)

Oil and Gas: Grease injection, chemical injection, control of subsea hydraulic components, nitrogen service, gaseous media handling

Item Code	DN	ID		OD	WP		BP		BR/r	W
		inch	mm	mm	psi	bar	psi	bar	mm	g/m
EF904-02	3	1/8	3.4	8.0	29,000	2,000	72,500	5,000	110	135
EF904-025	4	5/32	4.0	10.3	31,900	2,200	79,750	5,500	130	234
EF904-03	5	3/16	5.0	11.2	26,100	1,800	65,250	4,500	150	260
EF904-04	6	1/4	6.3	12.6	21,750	1,500	54,370	3,750	180	295
EF904-05	8	5/16	8.0	14.6	21,750	1,500	54,370	3,750	200	390
EF904-06	10	3/8	9.9	18.4	21,750	1,500	54,370	3,750	200	690
EF904-08	12	1/2	12.8	21.4	18,850	1,300	47,125	3,250	200	800
EF904-10	16	5/8	16.0	25.5	15,080	1,040	37,700	2,600	250	1002
EF904-12	20	3/4	18.8	28.8	15,080	1,040	37,700	2,600	250	1350
EF904-16	25	1	24.8	36.3	13,050	900	32,625	2,250	300	1715



Temperature Range: Continuous: -30°C to +60°C

6

EF 904R - 4 SPIRALS OF HIGH TENSILE STEEL WIRE



Construction

Core Polyamide (PA)

Reinforcement 4 Spirals of high tensile steel wire

Cover Polyamide (PA) - Red

Application Waterblast: Heat exchanger tube cleaning, surface preparation (Concrete removal, surface cleaning of buildings, paint removal), tank and vessel cleaning, ultra high pressure waterjet cutting and hydro demolition (cutting and demolition of armoured concrete, pipelines, paper or steel)

Hydraulics: Pressure test equipment (valves, tooling and control panels), hydraulic tools (instrumentation packages for gauges, control of service equipment, hydraulic jacks, hydraulic tools)

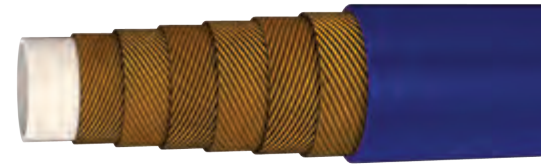
Oil and Gas: Grease injection, chemical injection, control of subsea hydraulic components, nitrogen service, gaseous media handling

Item Code	DN	ID		OD	WP		BP		BR/r	W
		inch	mm	mm	psi	bar	psi	bar	mm	g/m
EF904R-08	12	1/2	12.8	22	20,300	1,400	50,750	3,500	200	900



Temperature Range: Continuous: -30°C to +60°C

EF 906 - 6 SPIRALS OF HIGH TENSILE STEEL WIRE



Construction

Core I.D 3mm to 10mm Polyoxymethylene (POM)
I.D 13mm to 25mm Polyamide (PA)

Reinforcement 6 Spirals of high tensile steel wire

Cover Polyamide (PA) - Dark Blue

Application Water blast: Surface preparation (Concrete removal, surface cleaning of buildings, paint removal), tank and vessel cleaning, ultra high-pressure waterjet cutting and hydro demolition (cutting and demolition of armoured concrete, pipelines, paper or steel)
Hydraulics: Hydraulic tools (instrumentation packages for gauges, control of service equipment, hydraulic jacks, hydraulic tools)

Item Code	DN	ID		OD	WP		BP		BR/r	W
		inch	mm	mm	psi	bar	psi	bar	mm	g/m
EF906-02	3	1/8	3.0	9.1	40,600	2,800	101,500	7,000	150	222
EF906-025	4	5/32	4.0	11.5	40,600	2,800	101,500	7,000	175	365
EF906-03	5	3/16	4.8	13.2	36,250	2,500	90,625	6,250	200	450
EF906-05	8	5/16	8.0	16.4	30,450	2,100	76,125	5,250	250	640
EF906-06	10	3/8	9.8	20.4	27,840	1,920	69,600	4,800	250	1000
EF906-08	12	1/2	12.8	23.4	26,100	1,800	65,250	4,500	300	1160
EF906-10	16	5/8	15.9	27.7	22,040	1,520	55,100	3,800	320	1480
EF906-12	20	3/4	18.8	32.8	20,300	1,400	50,750	3,500	350	2170
EF906-16	25	1	24.8	39.8	20,300	1,400	43,500	3,000	600	2800



Temperature Range: Continuous: -30°C to +60°C

EF 906R - 6 SPIRALS OF HIGH TENSILE STEEL WIRE



Construction

Core Polyoxymethylene (POM)

Reinforcement 6 Spirals of high tensile steel wire

Cover Polyamide (PA) - Red

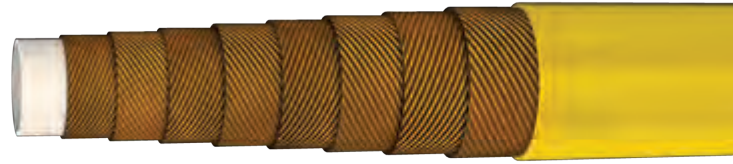
Application Water blast: Heat exchanger tube cleaning, surface preparation (concrete removal, surface cleaning of the buildings, paint removal), tank and vessel cleaning, ultra high-pressure water jet cutting and hydro demolition (cutting and demolition of armoured concrete, pipelines, paper or steel)
Hydraulics: Bolt tensioning, pressure test equipment (valves, tooling and control panels), hydraulic tools (instrumentation packages for gauges, control of service equipment, hydraulic jacks, hydraulic tools)
Oil and Gas: Grease injection, nitrogen service

Item Code	DN	ID		OD	WP		BP		BR/r	W
		inch	mm	mm	psi	bar	psi	bar	mm	g/m
EF906R-03	5	3/16	4.6	14.4	40,600	2,800	101,500	7,000	220	600
EF906R-04	6	1/4	5.9	16.4	40,600	2,800	101,500	7,000	250	800
EF906R-05	8	5/16	7.7	18.8	36,250	2,500	90,625	6,250	260	950
EF906R-08	12	1/2	12.7	24.8	29,000	2,000	72,500	5,000	300	1200



Temperature Range: Continuous: -30°C to +60°C

EF 908 - 8 SPIRALS OF HIGH TENSILE STEEL WIRE



Construction

Core Polyoxymethylene (POM)

Reinforcement 8 Spirals of high tensile steel wire

Cover Polyamide (PA) - Yellow

Application Water blast: Heat exchanger tube cleaning, surface preparation (Concrete removal, surface cleaning of buildings, paint removal), tank and vessel cleaning, ultra high - pressure waterjet cutting and hydro demolition (cutting and demolition of armoured concrete, pipelines, paper or steel)
 Hydraulics: Pressure test equipment (valves, tooling and control panels), hydraulic tools (instrumentation packages for gauges, control of service equipment, hydraulic jacks, hydraulic tools), hydroforming
 Oil and Gas: Gaseous media handling

Item Code	DN	ID		OD	WP		BP		BR/r	W
		inch	mm	mm	psi	bar	psi	bar	mm	g/m
EF908-025	4	5/32	4.0	12.8	46,400	3,200	116,000	8,000	175	540
EF908-03	5	3/16	4.5	15.3	46,400	3,200	116,000	8,000	250	700
EF908-04	6	1/4	5.8	18.6	46,400	3,200	116,000	8,000	280	1100
EF908-05	8	5/16	7.6	22.0	46,400	3,200	107,300	7,400	300	1500
EF908-08	12	1/2	12.8	27.7	40,600	2,800	87,000	6,000	350	2100
EF908-10	16	5/8	15.9	31.8	29,000	2,000	72,500	5,000	400	2600



Temperature Range: Continuous: -30°C to +60°C

EF 360 - PNEUMATIC TOOL HOSE

Applicable Standard: Exceeds IS 446 1987 Type - 2

Construction

Core Plasticized PVC, Black

Reinforcement Double braids of Synthetic fiber

Cover Thermo-compound, Black colour

Application Specially designed for various industrial machinery, under ground application, civil construction and others. Such as watering, airline connection, road building, pneumatic tools, etc.



Note : Special colours available on request

Item Code	Dash Size	DN	ID		OD		WP		BP		BR/r		W
			inch	mm	inch	mm	psi	bar	psi	bar	inch	mm	g/m
EF360-04	-04	06	1/4	6.5	0.510	13.0	290	20	1740	120	1.0	25	145.0
EF360-05	-05	08	5/16	8.0	0.590	15.0	290	20	1740	120	1.2	30	165.0
EF360-06	-06	10	3/8	9.5	0.650	16.5	290	20	1740	120	1.6	40	190.0
EF360-08	-08	12	1/2	12.7	0.827	21.0	290	20	1160	80	2.0	50	300.0
EF360-12	-12	19	3/4	19.0	1.122	28.5	290	20	1160	80	2.8	70	460.0
EF360-16	-16	25	1	25.4	1.358	34.5	290	20	870	60	5.0	125	620.0

Temperature Range: Continuous: -10°C to +60°C

EF 361 - SUPER SPRAY HOSE

Construction

Core Plasticized PVC, Black

Reinforcement Double braids of Synthetic fiber

Cover Thermo-compound, yellow colour

Application Specially designed for spraying various pesticides, high pressure watering and aerating, etc.



Note : Special colours available on request

Item Code	Dash Size	DN	ID		OD		WP		BP		BR/r		W
			inch	mm	inch	mm	psi	bar	psi	bar	inch	mm	g/m
EF361-05	-05	08	5/16	8.0	0.602	15.3	580	40	1450	100	1.2	30	153
EF361-06	-06	10	3/8	9.5	0.650	16.5	580	40	1450	100	1.6	40	165

Temperature Range: Continuous: -10°C to +60°C

EF 362- WELDING HOSE

Applicable Standard: Exceeds IS 447 1987 - Type 2

Construction

Core Plasticized PVC, Black

Reinforcement Single braid of Synthetic fiber

Cover Hyper Flame Retardant Thermo-compound, Red / Blue Colour

Application Specially designed for Oxy-acetylene welding and cutting equipments



Note : Special colours available on request

Item Code	Dash Size	DN	ID		OD		WP		BP		BR/r		W
			inch	mm	inch	mm	psi	bar	psi	bar	inch	mm	g/m
EF362-03	-03	05	3/16	4.8	0.413	10.5	220	15	800	55	0.9	23	105.0
EF362-04	-04	06	1/4	6.5	0.492	12.5	220	15	800	55	1.0	25	125.0
EF362-05	-05	08	5/16	8.0	0.571	14.5	220	15	800	55	1.1	28	155.0
EF362-06	-06	10	3/8	9.5	0.630	16.0	220	15	800	55	1.5	38	180.0
EF362-08	-08	12	1/2	12.7	0.827	21.0	220	15	800	55	2.0	50	250.0

Temperature Range: Continuous: -10°C to +60°C

EF 365 - AIR / WATER HOSE

Applicable Standard: Exceeds IS 446-1980 - Type 3 & IS 446-1980-Type 1



Construction

- Core** Plasticized PVC, Black
- Reinforcement** Single braid of Synthetic fiber
- Cover** Abrasion resistant thermo-compound, black Colour
- Application** Specially designed for Tyre inflation, light engineering industry and general purpose air line

Note: Special colours available on request

Item Code	Dash Size	DN	ID		OD		WP		BP		BR/r		W
			inch	mm	inch	mm	psi	bar	psi	bar	inch	mm	g/m
EF365-04	-04	06	1/4	6.5	0.492	12.5	230	16	920	64	2.0	50	125.0
EF365-05	-05	08	5/16	8.0	0.571	14.5	230	16	920	64	3.0	75	155.0
EF365-06	-06	10	3/8	9.5	0.630	16.0	230	16	920	64	4.0	100	180.0
EF365-08	-08	12	1/2	12.7	0.795	20.2	230	16	920	64	4.3	110	260.0
EF365-12	-12	19	3/4	19.0	1.067	27.1	145	10	580	40	5.0	125	400.0
EF365-16	-16	25	1	25.4	1.299	33.0	145	10	580	40	6.0	150	500.0



Temperature Range: Continuous: -10°C to +60°C

EF 365L - AIR / WATER - LIGHT DUTY



Construction

- Core** Plasticized PVC, Black
- Reinforcement** Single braid of Synthetic fiber
- Cover** Abrasion resistant thermo-compound, black Colour
- Application** Specially designed for Tyre inflation, light engineering industry and general purpose air line

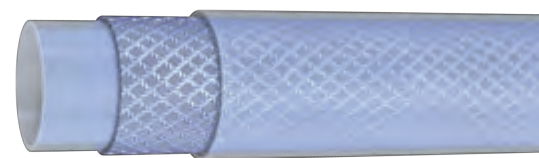
Note: Special colours available on request

Item Code	Dash Size	DN	ID		OD		WP		BP		BR/r		W
			inch	mm	inch	mm	psi	bar	psi	bar	inch	mm	g/m
EF365L-04	-04	06	1/4	6.5	0.453	11.5	230	16	920	64	2.4	60	90.0
EF365L-05	-05	08	5/16	8.0	0.530	13.5	230	16	920	64	3.3	85	130.0
EF365L-06	-06	10	3/8	9.5	0.590	15.0	230	16	920	64	4.3	110	150.0
EF365L-08	-08	12	1/2	12.7	0.736	18.7	230	16	920	64	5.1	130	220.0
EF365L-12	-12	19	3/4	19.0	1.024	26.0	145	10	580	40	5.7	145	330.0
EF365L-16	-16	25	1	25.4	1.240	31.5	145	10	580	40	6.7	170	450.0



Temperature Range: Continuous: -10°C to +60°C

EF 367 - P.V.C BRAIDED HOSE



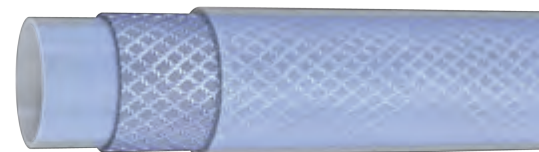
Construction

- Core** Plasticized PVC, Transparent
- Reinforcement** Single braid of Synthetic fiber
- Cover** Thermo-compound, Transparent
- Application** Factory water supply and drainage equipment. Air and water piping for industrial equipment. special rock drill hose available in regular & heavy duty type

Item Code	Dash Size	DN	ID		OD		WP		BP		BR/r		W
			inch	mm	inch	mm	psi	bar	psi	bar	inch	mm	g/m
EF367-04	-04	06	1/4	6.5	0.492	12.5	435	30	1740	120	1.2	30	125.0
EF367-05	-05	08	5/16	8.0	0.571	14.5	435	30	1300	90	1.4	35	150.0
EF367-06	-06	10	3/8	9.5	0.630	16.0	435	30	1300	90	1.8	45	180.0
EF367-08	-08	12	1/2	12.7	0.795	20.2	360	25	1090	75	2.2	55	230.0
EF367-10	-10	16	5/8	16.0	0.945	24.0	320	22	1090	75	3.3	85	320.0
EF367-12	-12	20	3/4	19.0	1.063	27.0	320	22	1090	75	4.3	110	380.0
EF367-16	-16	25	1	25.4	1.299	33.0	220	15	725	50	5.3	135	490.0

 **Temperature Range:** Continuous: -10°C to +60°C

EF 367L - P.V.C BRAIDED HOSE - LIGHT DUTY



Construction

- Core** Plasticized PVC, Transparent
- Reinforcement** Single braid of Synthetic fiber
- Cover** Thermo-compound, Transparent
- Application** Factory water supply and drainage equipment. Air and water piping for industrial equipment

Item Code	Dash Size	DN	ID		OD		WP		BP		BR/r		W
			inch	mm	inch	mm	psi	bar	psi	bar	inch	mm	g/m
EF367L-04	-04	06	1/4	6.5	0.433	11.0	435	30	920	64	1.6	40	87.0
EF367L-05	-05	08	5/16	8.0	0.512	13.0	435	30	920	64	1.8	45	126.0
EF367L-06	-06	10	3/8	9.5	0.571	14.5	435	30	920	64	2.2	55	146.0
EF367L-08	-08	12	1/2	12.7	0.728	18.5	360	25	920	64	2.6	65	213.0
EF367L-12	-12	19	3/4	19.0	1.004	25.5	320	22	580	40	5.1	130	320.0
EF367L-16	-16	25	1	25.4	1.220	31.0	220	15	580	40	6.1	155	437.0

 **Temperature Range:** Continuous: -10°C to +60°C

EF 368 - MUTIPURPOSE HOSE



Construction

- Core** Plasticized PVC, Black
- Reinforcement** Single braid of Synthetic fiber
- Cover** Abrasion Resistant Thermo-compound, Black Colour
- Application** Specially designed for spraying various pesticides, high pressure watering and aerating etc.,

Note : Special colours available on request

Item Code	Dash Size	DN	ID		OD		WP		BP		BR/r		W
			inch	mm	inch	mm	psi	bar	psi	bar	inch	mm	g/m
EF368-04	-04	06	1/4	6.5	0.492	12.5	290	20	870	60	25	1.0	115.0
EF368-05	-05	08	5/16	8.0	0.571	14.5	290	20	870	60	30	1.2	160.0
EF368-06	-06	10	3/8	9.5	0.630	16.0	290	20	870	60	40	1.6	185.0
EF368-08	-08	12	1/2	12.7	0.795	20.2	290	20	870	60	50	2.0	245.0
EF368-12	-12	19	3/4	19.0	1.067	27.1	290	20	870	60	70	2.8	400.0
EF368-16	-16	25	1	25.4	1.299	33.0	290	20	725	50	125	5.0	495.0

 **Temperature Range:** Continuous: -40°C to +60°C

EF 801 : POLY - TANKER HOSE

Applicable Standard: EN 13765 TYPE 2



Item Code	Nominal Bore	OD	WP		BR/r
	mm		psi	bar	
EF801-32	50	61	100	7	80
EF801-40	65	76	100	7	90
EF801-48	75	88	100	7	125
EF801-64	100	112	100	7	220



Temperature Range: Continuous: -20°C to +80°C

Construction

Hose made from Polypropylene fabric and films with PVC coated fabric cover, inner and outer wires are galvanised MS

Application

Suction and discharge hose specially designed for transfer of petroleum product by Road Tankers, rail Tankers and Loading Gantries

Colour

Black with white strip

EF 802 : POLY - OIL HOSE

Applicable Standard: EN 13765 TYPE 2 & AS 2117 TYPE 3 GRADE 1 & 2



Item Code	Nominal Bore	OD	WP		BR/r
	mm		psi	bar	
EF802-16	25	38	150	10	90
EF802-24	38	52	150	10	120
EF802-32	50	64	150	10	150
EF802-40	65	82	150	10	180
EF802-48	75	92	150	10	250
EF802-64	100	115	150	10	350



Temperature Range: Continuous: -30°C to +80°C

Construction

Hose made from Polypropylene fabric and films, films with PVC coated fabric cover, inner and outer wires are galvanised MS

Application

Suitable for the suction and discharge transfer of petroleum product in in-plant application

Colour

Blue with white strip

EF 803 : POLY - AVIATION FUEL COMPOSITE HOSE

8 Applicable Standard: EN 13765 TYPE 2 & AS 2683 TYPE 1 GRADE 1,2 & 3



Item Code	Nominal Bore	OD	WP		BR/r
	mm		psi	bar	
EF803-24	38	50	100	7	75
EF803-32	50	61	100	7	80
EF803-40	65	76	100	7	90
EF803-48	75	88	100	7	125
EF803-64	100	112	100	7	220



Temperature Range: Continuous: -30°C to +80°C

Construction

Hose made from Polypropylene fabric and films with PVC coated fabric cover, Outer wire is galvanised mild steel and the inner wire is SS or Galvanised MS

Application

Designed for transfer of fuel in the aviation industry

Colour

Yellow with white strip

EF 804 : POLY - FUEL HOSE

Applicable Standard: EN 13765 TYPE 2 & AS 2683 TYPE 1 GRADE 1,2 & 3



Item Code	Nominal Bore	OD	WP		BR/r
	mm		mm	psi	
EF804-16	25	32	100	7	50
EF804-24	38	50	100	7	75
EF804-32	50	61	100	7	80
EF804-40	65	76	100	7	90
EF804-48	75	88	100	7	125
EF804-64	100	112	100	7	220



Temperature Range: Continuous: -30°C to +80°C

Construction

Hose made from Polypropylene fabric and films with PVC coated fabric cover, Inner & Outer wire is galvanised mild steel

Application

Suction and discharge hose mainly for transfer of petroleum products by road, rail tankers and loading gantries

Colour

Yellow with white strip

EF 805 : POLY - PTFE CHEMICAL

Applicable Standard: EN 13765 TYPE 2



Item Code	Nominal Bore	OD	WP		BR/r
	mm		mm	psi	
EF805-16	25	38	150	10	90
EF805-24	38	52	150	10	120
EF805-32	50	64	150	10	150
EF805-40	65	80	150	10	180
EF805-48	75	92	150	10	210
EF805-64	100	120	150	10	340



Temperature Range: Continuous: -30°C to +140°C

Construction

Hose made from Polypropylene fabric and films with PVC coated fabric cover, Inner & outer SS 316 wire and lined with layer of PTFE Film

Application

Suitable for various Acids & Alkalines

Colour

Red with white strip

EF 806 : POLY - CHEMICAL-SS

Applicable Standard: EN 13765 TYPE 2



Item Code	Nominal Bore	OD	WP		BR/r
	mm		mm	psi	
EF806-16	25	38	150	10	90
EF806-24	38	52	150	10	120
EF806-32	50	64	150	10	150
EF806-40	65	80	150	10	180
EF806-48	75	92	150	10	210
EF806-64	100	120	150	10	340



Temperature Range: Continuous: -30°C to +80°C

Construction

Hose made from Polypropylene fabric and films with PVC coated fabric cover, inner wire is SS and outer wire of Galvanised MS

Application

Transfer of various acids and alkalines

Colour

Green with white strip

EF 807 : POLY - CHEMICAL HOSE - P P

Applicable Standard: EN 13765 TYPE 3

Item Code	Nominal Bore	OD	WP		BR/r
	mm		mm	psi	
EF807-16	25	38	150	10	90
EF807-24	38	52	150	10	125
EF807-32	50	64	150	10	160
EF807-40	65	80	150	10	180
EF807-48	75	92	150	10	220
EF807-64	100	120	150	10	350

 **Temperature Range:** Continuous: -30°C to +80°C



Construction

Hose made from Polypropylene fabric and films with PVC coated Fabric cover, inner wire of polypropylene coated steel wire, outer wire of Galvanised MS

Application

Transfer of various acids and alkalines

Colour

Grey with white strip

EF 808 : POLY - CHEMICAL DOCK HOSE

Applicable Standard: EN 13765 TYPE 3 AND AS 2117 TYPE 2 GRADE 1 AND 2

Item Code	Nominal Bore	OD	WP		BR/r
	mm		mm	psi	
EF808-64	100	120	200	14	430
EF808-64	150	175	200	14	550
EF808-64	200	240	200	14	750
EF808-64	250	325	200	14	950

 **Temperature Range:** Continuous: -30°C to +100°C



Construction

Hose made from heavy duty Polypropylene fabric and films with a double layer of PVC coated fabric cover, inner and outer wire of SS 316.

Application

Heavy duty Suction and discharge of bulk chemical in road and rail tanker, dockside and ship to shore


Colour

Royal Blue with white strip

EF 809 : POLY - DOCK PTFE

Applicable Standard: EN 13765 TYPE 3 AND AS 2117 TYPE 2 GRADE 1 AND 2

Item Code	Nominal Bore	OD	WP		BR/r
	mm		mm	psi	
EF809-64	100	120	200	14	430
EF809-96	150	175	200	14	550
EF809-128	200	240	200	14	750
EF809-166	250	325	200	14	950

 **Temperature Range:** Continuous: -30°C to +100°C



Construction

Heavy duty PP fabric and films with a double layer of PVC coated fabric cover with inner SS 316 and outer wire of galvanized MS and is lined with layer of PTFE Film

Application

Heavy duty Suction and discharge of bulk chemical in road and rail tanker, dockside and ship to shore

Colour

Red with white strip

EF 810 : POLY - DOCK PG HOSE

Applicable Standard: EN 13765 TYPE 3 AND AS 2117 TYPE 2 GRADE 1 AND 2

Item Code	Nominal Bore	OD	WP		BR/r
	mm		mm	psi	
EF810-64	100	120	200	14	440
EF810-96	150	175	200	14	560
EF810-128	200	240	200	14	760
EF810-166	250	325	200	14	960

 **Temperature Range:** Continuous: -30°C to +100°C



Construction

Heavy duty PP fabric and films with a double layer of PVC coated fabric cover with inner wire of PP coated Steel and outer wire of galvanized MS

Application

Heavy duty Suction and discharge of bulk chemical in road and rail tanker, dockside and ship to shore

Colour

Blue with white strip

EF 811 : POLY - OIL DOCK HOSE

Applicable Standard: EN 13765 TYPE 3 AND AS 2117 TYPE 2 GRADE 1 AND 2



Item Code	Nominal Bore	OD	WP		BR/r
	mm		psi	bar	
EF811-64	100	120	200	14	430
EF811-96	150	175	200	14	550
EF811-128	200	240	200	14	750
EF811-166	250	290	200	14	920

Temperature Range: Continuous: -30°C to +100°C

Construction
Heavy duty PP fabric and films with a double layer of PVC coated fabric cover with inner and outer wires are galvanised MS

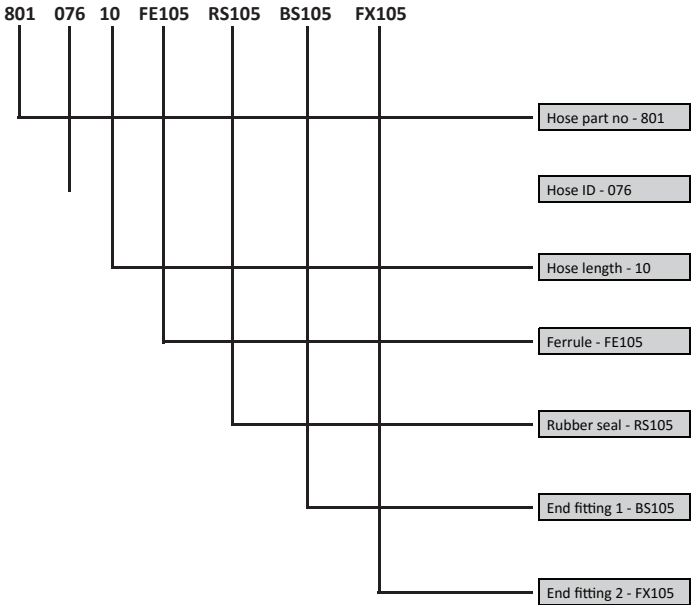
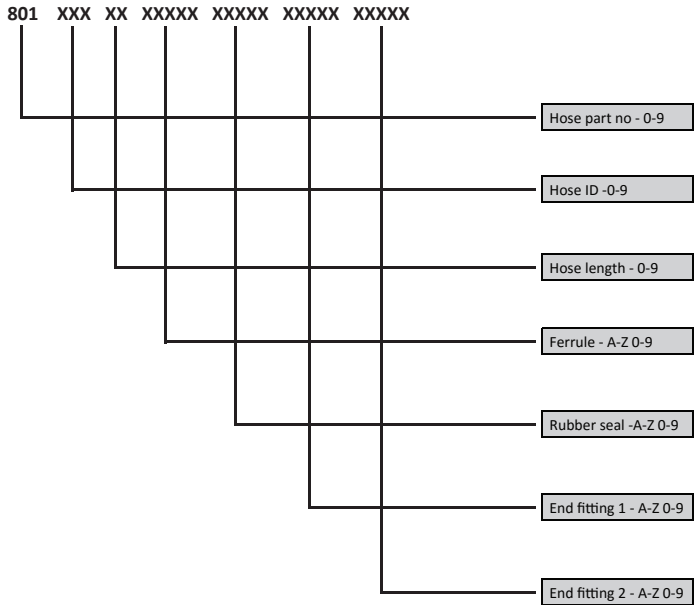
Application
Heavy duty Suction and discharge of petroleum products in road and rail tanker, dockside and ship

Colour
Black with white strip

COMPOSITE HOSE ASSEMBLY NOMENCLATURE

3" x 10 mtrs length Poly Tanker Hose (EF801) with one end 3" CS BSP nipple another End 3" CS fixed flange along with CS Ferrule and Nitrile seal

Item Code	ID	Length in mtr	Ferrule	Seal	End Fitting 1	End Fitting 2
Tanker Hose EF 801	3"-76	1-20	CS-EFFE105	Nitrile-EFRS105	CS Nipple BSP-EFBS 105	CS Fixed flange-EFFX 105
801	76	10	FE105	RS105	BS105	FX105



EXAMPLE

RUBBER SEAL



Size		Material	
inch	mm	Nitrile	Viton
1"	25	EFRS-101	EFRS-201
1.5"	38	EFRS-102	EFRS-202
2"	50	EFRS-103	EFRS-203
2.5"	63	EFRS-104	EFRS-204
3"	75	EFRS-105	EFRS-205
4"	100	EFRS-106	EFRS-206
6"	150	EFRS-107	EFRS-207
8"	200	EFRS-108	EFRS-208

FERRULE



Size		Material		
inch	mm	CS	SS 304	SS 316
1"	25	EFFE-101	EFFE-201	EFFE-301
1.5"	38	EFFE-102	EFFE-202	EFFE-302
2"	50	EFFE-103	EFFE-203	EFFE-303
2.5"	63	EFFE-104	EFFE-204	EFFE-304
3"	75	EFFE-105	EFFE-205	EFFE-305
4"	100	EFFE-106	EFFE-206	EFFE-306
6"	150	EFFE-107	EFFE-207	EFFE-307
8"	200	EFFE-108	EFFE-208	EFFE-308

TAIL END



Size		Material		
inch	mm	CS	SS 304	SS 316
1"	25	EFTL-101	EFTL-201	EFTL-301
1.5"	38	EFTL-102	EFTL-202	EFTL-302
2"	50	EFTL-103	EFTL-203	EFTL-303
2.5"	63	EFTL-104	EFTL-204	EFTL-304
3"	75	EFTL-105	EFTL-205	EFTL-305
4"	100	EFTL-106	EFTL-206	EFTL-306
6"	150	EFTL-107	EFTL-207	EFTL-307
8"	200	EFTL-108	EFTL-208	EFTL-308

NIPPLE BSPT



Size		Material		
inch	mm	CS	SS 304	SS 316
1"	25	EFBT-101	EFBT-201	EFBT-301
1.5"	38	EFBT-102	EFBT-202	EFBT-302
2"	50	EFBT-103	EFBT-203	EFBT-303
2.5"	63	EFBT-104	EFBT-204	EFBT-304
3"	75	EFBT-105	EFBT-205	EFBT-305
4"	100	EFBT-106	EFBT-206	EFBT-306
6"	150	EFBT-107	EFBT-207	EFBT-307
8"	200	EFBT-108	EFBT-208	EFBT-308

8

NIPPLE NPT



Size		Material		
inch	mm	CS	SS 304	SS 316
1"	25	EFNP-101	EFNP-201	EFNP-301
1.5"	38	EFNP-102	EFNP-202	EFNP-302
2"	50	EFNP-103	EFNP-203	EFNP-303
2.5"	63	EFNP-104	EFNP-204	EFNP-304
3"	75	EFNP-105	EFNP-205	EFNP-305
4"	100	EFNP-106	EFNP-206	EFNP-306
6"	150	EFNP-107	EFNP-207	EFNP-307
8"	200	EFNP-108	EFNP-208	EFNP-308

NIPPLE BSP



Size		Material		
inch	mm	CS	SS 304	SS 316
1"	25	EFBS-101	EFBS-201	EFBS-301
1.5"	38	EFBS-102	EFBS-202	EFBS-302
2"	50	EFBS-103	EFBS-203	EFBS-303
2.5"	63	EFBS-104	EFBS-204	EFBS-304
3"	75	EFBS-105	EFBS-205	EFBS-305
4"	100	EFBS-106	EFBS-206	EFBS-306
6"	150	EFBS-107	EFBS-207	EFBS-307
8"	200	EFBS-108	EFBS-208	EFBS-308

SWIVEL COUPLING



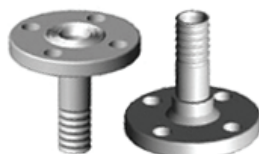
Size		HEXAGONAL NUT		SWIVEL NUT WITH LUG	
inch	mm	BRASS	GUN METAL	BRASS	GUN METAL
1"	25	EFSC-501	EFSC-401	EFSC-509	EFSC-409
1.5"	38	EFSC-502	EFSC-402	EFSC-510	EFSC-410
2"	50	EFSC-503	EFSC-403	EFSC-511	EFSC-411
2.5"	63	EFSC-504	EFSC-404	EFSC-512	EFSC-412
3"	75	EFSC-505	EFSC-405	EFSC-513	EFSC-413
4"	100	EFSC-506	EFSC-406	EFSC-514	EFSC-414
6"	150	EFSC-507	EFSC-407	EFSC-515	EFSC-415

FIXED FLANGE CS



Size		STANDARD			
inch	mm	ASA 150	ANSI	DIN	JIS
1"	25	EFFX-101	EFFX-111	EFFX-121	EFFX-131
1.5"	38	EFFX-102	EFFX-112	EFFX-122	EFFX-132
2"	50	EFFX-103	EFFX-113	EFFX-123	EFFX-133
2.5"	63	EFFX-104	EFFX-114	EFFX-124	EFFX-134
3"	75	EFFX-105	EFFX-115	EFFX-125	EFFX-135
4"	100	EFFX-106	EFFX-116	EFFX-126	EFFX-136
6"	150	EFFX-107	EFFX-117	EFFX-127	EFFX-137
8"	200	EFFX-108	EFFX-118	EFFX-128	EFFX-138

FIXED FLANGE SS 304



Size		STANDARD			
inch	mm	ASA 150	ANSI	DIN	JIS
1"	25	EFFX-201	EFFX-211	EFFX-221	EFFX-231
1.5"	38	EFFX-202	EFFX-212	EFFX-222	EFFX-232
2"	50	EFFX-203	EFFX-213	EFFX-223	EFFX-233
2.5"	63	EFFX-204	EFFX-214	EFFX-224	EFFX-234
3"	75	EFFX-205	EFFX-215	EFFX-225	EFFX-235
4"	100	EFFX-206	EFFX-216	EFFX-226	EFFX-236
6"	150	EFFX-207	EFFX-217	EFFX-227	EFFX-237
8"	200	EFFX-208	EFFX-218	EFFX-228	EFFX-238

FIXED FLANGE SS 316



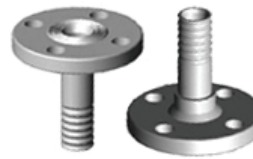
Size		STANDARD			
inch	mm	ASA 150	ANSI	DIN	JIS
1"	25	EFFX-301	EFFX-311	EFFX-321	EFFX-331
1.5"	38	EFFX-302	EFFX-312	EFFX-322	EFFX-332
2"	50	EFFX-303	EFFX-313	EFFX-323	EFFX-333
2.5"	63	EFFX-304	EFFX-314	EFFX-324	EFFX-334
3"	75	EFFX-305	EFFX-315	EFFX-325	EFFX-335
4"	100	EFFX-306	EFFX-316	EFFX-326	EFFX-336
6"	150	EFFX-307	EFFX-317	EFFX-327	EFFX-337
8"	200	EFFX-308	EFFX-318	EFFX-328	EFFX-338

FLOATING FLANGE CS



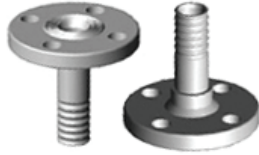
Size		STANDARD			
inch	mm	ASA 150	ANSI	DIN	JIS
1"	25	EFFL-101	EFFL-111	EFFL-121	EFFL-131
1.5"	38	EFFL-102	EFFL-112	EFFL-122	EFFL-132
2"	50	EFFL-103	EFFL-113	EFFL-123	EFFL-133
2.5"	63	EFFL-104	EFFL-114	EFFL-124	EFFL-134
3"	75	EFFL-105	EFFL-115	EFFL-125	EFFL-135
4"	100	EFFL-106	EFFL-116	EFFL-126	EFFL-136
6"	150	EFFL-107	EFFL-117	EFFL-127	EFFL-137
8"	200	EFFL-108	EFFL-118	EFFL-128	EFFL-138

FLOATING FLANGE SS 304



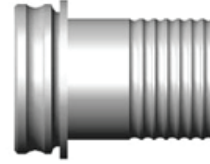
Size		STANDARD			
inch	mm	ASA 150	ANSI	DIN	JID
1"	25	EFFL-201	EFFL-211	EFFL-221	EFFL-231
1.5"	38	EFFL-202	EFFL-212	EFFL-222	EFFL-232
2"	50	EFFL-203	EFFL-213	EFFL-223	EFFL-233
2.5"	63	EFFL-204	EFFL-214	EFFL-224	EFFL-234
3"	75	EFFL-205	EFFL-215	EFFL-225	EFFL-235
4"	100	EFFL-206	EFFL-216	EFFL-226	EFFL-236
6"	150	EFFL-207	EFFL-217	EFFL-227	EFFL-237
8"	200	EFFL-208	EFFL-218	EFFL-228	EFFL-238

FLOATING FLANGE SS 316



Size		STANDARD			
inch	mm	ASA 150	ANSI	DIN	JID
1"	25	EFFL-301	EFFL-311	EFFL-321	EFFL-331
1.5"	38	EFFL-302	EFFL-312	EFFL-322	EFFL-332
2"	50	EFFL-303	EFFL-313	EFFL-323	EFFL-333
2.5"	63	EFFL-304	EFFL-314	EFFL-324	EFFL-334
3"	75	EFFL-305	EFFL-315	EFFL-325	EFFL-335
4"	100	EFFL-306	EFFL-316	EFFL-326	EFFL-336
6"	150	EFFL-307	EFFL-317	EFFL-327	EFFL-337
8"	200	EFFL-308	EFFL-318	EFFL-328	EFFL-338

MALE CAMLOCK



Size		STANDARD			
inch	mm	AL	CS	SS304	SS316
1"	25	EFCL-601	EFCL-101	EFCL-201	EFCL-301
1.5"	38	EFCL-602	EFCL-102	EFCL-202	EFCL-302
2"	50	EFCL-603	EFCL-103	EFCL-203	EFCL-303
2.5"	63	EFCL-604	EFCL-104	EFCL-204	EFCL-304
3"	75	EFCL-605	EFCL-105	EFCL-205	EFCL-305
4"	100	EFCL-606	EFCL-106	EFCL-206	EFCL-306
6"	150	EFCL-607	EFCL-107	EFCL-207	EFCL-307
8"	200	EFCL-608	EFCL-108	EFCL-208	EFCL-308

FEMALE CAMLOCK



Size		STANDARD			
inch	mm	AL	CS	SS304	SS316
1"	25	EFCL-609	EFCL-109	EFCL-209	EFCL-309
1.5"	38	EFCL-610	EFCL-110	EFCL-210	EFCL-310
2"	50	EFCL-611	EFCL-111	EFCL-211	EFCL-311
2.5"	63	EFCL-612	EFCL-112	EFCL-212	EFCL-312
3"	75	EFCL-613	EFCL-113	EFCL-213	EFCL-313
4"	100	EFCL-614	EFCL-114	EFCL-214	EFCL-314
6"	150	EFCL-615	EFCL-115	EFCL-215	EFCL-315
8"	200	EFCL-616	EFCL-116	EFCL-216	EFCL-316

PRODUCT NOMENCLATURE

R 006 000 X R 1 0 K

First digit: Grade of Tube

- R - SS 304
- G - SS 316L
- B - SS321
- W - Loose Braid without tube

Digit 2, 3, 4: ID of Tube

- 6.3mm ID DN 6 - 006
- 8.4mm ID DN8 - 008 and so on....

Digit 5, 6, 7: OD of Tube

Digit 8: Number of Weld

- X - Standard
- A - 1 Weld Joint
- B - 2 Weld Joint

Digit 9: Grade of Braid

- R - SS 304
- G - SS 316L
- B - SS321
- 0 - None

Digit 10: Number of Braids

- 0 - No Braid
- 1 - 1 Braid
- 2 - 2 Braid
- 3 - 3 Braid

Digit 11: Version

- 0 - Standard
- 1 - Special Wire

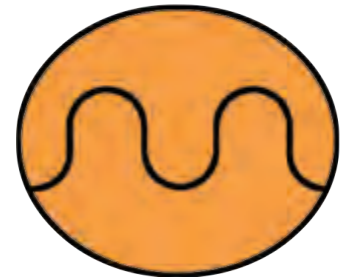
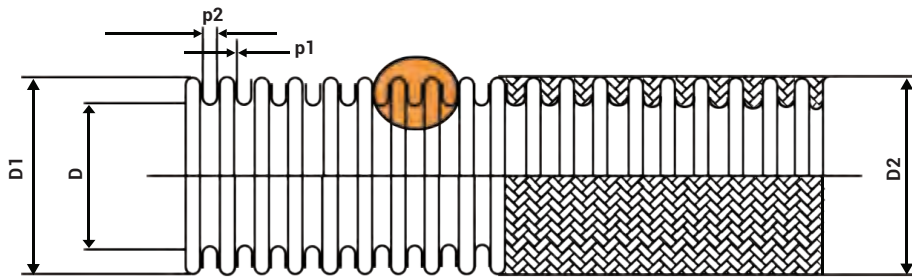
Digit 12: Length of hose









- K - 15m
- Q - 25m
- P - 30m
- T - 50m

STANDARD CORRUGATED FLEXIBLE METAL HOSE

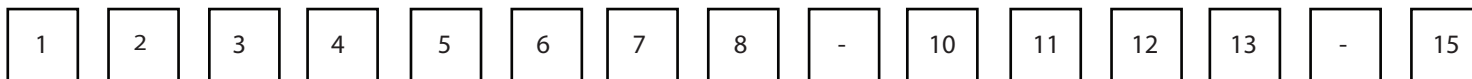
Structure	Annular corrugated flexible metal hoses can be produced from longitudinally welded tubes corrugated mechanically with or with out braiding
Standards	We are following EN ISO 10380 for stainless steel corrugated flexible hoses
Hose material	Stainless steel AISI 304, AISI 321 and AISI316L
Braiding material	Stainless steel AISI 304 and 316 L
Suitable fittings types	Threaded ends welded connections Flanges as per customer specifications
Product supplied Coils	DN6-25 -15m, 25m, 30m and 50m DN32-50 -15m, 25m,30m and 50m DN65-100 -25m

Note: Please contact our sales team for specific lengths



Item Code	DN									
		(D)	(D1)	(D2)	(Dx)	Static	Dynamic	bar	bar	Kg/m
		mm	mm	mm	mm	mm	mm	mm	bar	bar
R006000XR10K	6	6,3	9,6	10,6	±0,25	15	80	26	96	0.065
						25		153	652	0.125
R008000XR10K	8	8,5	12,3	13,2	±0,25	16	120	15	60	0.105
						32		120	483	0.170
R010000XR10K	10	10,0	14,2	15,4	±0,25	18	130	10	64	0.110
						38		109	438	0.210
R012000XR10K	12	12,1	16,8	17,7	±0,25	20	140	9	40	0.120
						45		80	300	0.235
R016000XR10K	16	16,4	21,1	23,3	±0,25	28	160	7	32	0.190
						58		60	260	0.300
R020000XR10K	20	20,3	26,7	28,2	±0,25	32	170	4	20	0.270
						70		71	284	0.485
R025000XR10K	25	25,4	32,3	33,6	±0,30	40	190	3	16	0.340
						85		45	260	0.610
R032000XR10K	32	33,8	41,2	43,4	±0,30	50	260	2.5	10	0.550
						105		50	203	1.040
R040000XR10K	40	39,9	49,4	51,3	±0,30	60	300	2.5	10	0.755
						130		44	177	1.385
R050000XR10K	50	50,2	60,7	62,0	±0,50	70	320	1.6	4	0.880
						160		30	120	1.590
R065000XR10K	65	62,1	76,6	80,0	±0,50	115	460	1	4	1.290
						200		30	124	2.330
R080000XR10K	80	78,5	95,1	98,0	±0,60	130	660	1.6	8	1.990
						240		27	110	3.210
R100000XR10K	100	97,8	114,5	118,0	±0,60	160	750	1.5	4	2.600
						290		19	78	3.995

HYDRAULIC FITTING CODIFICATION - INSERTS / 1 PIECE FITTINGS



1 COMPONENT TYPE

CODE	DESCR
1	INSERT - 1P/2P
2	FERRULE - 1P/2P
3	1P FITTING

2 **3** INSERT TYPE

CODE	DESCR
10	2P - MT-HH
15	2P - HH-PH
25	2P - HH-TP
28	2P - HH-TP-JACK
30	2P - MS
40	2P - IL
47	2P - IL-WB
50	1P - HHWB
55	1P - HHWS - 4SP-R12
60	1P - HHWS - 4SH-R13
65	1P - HHWS - 4SH-DN51
66	1P - HHWS - R13-DN51
97	RU-R18
98	RU-R5
99	RU-1SN/2SN

4 **5** TERMINATION CODE

CODE	DESCR
01	BSPP
02	BSPP ORING
03	BSPP FLAT F
04	BSPT
08	BSP BANJO
11	JIC 37
12	SAE ORB
13	SAE 45 FLARE
14	SAE 45 INV F
21	NPT
22	NPS
23	NPTF
24	NPSM
31	ORFS
32	ORFS SH
41	SAE FL61
42	SAE FL62
51	M-SP
52	M-FS
53	M-CEL
54	M-CES

CODE	DESCR
55	M-DKOL
56	M-DKOS
57	M BANJO
60	M-60 CONE
65	JIS-TYPE C
66	JIS-TYPE F
67	JIS-PF
68	JIS-PT
71	KOM-M
72	KOM-FL
73	CAT-FL
81	SL
82	SSL
91	PW
92	HH
93	BR
94	SW
95	BW

6 TOPOLOGY

CODE	DESCR
0	00.0 DEGREE
2	22.5 DEGREE
3	30.0 DEGREE
4	45.0 DEGREE
6	60.0 DEGREE
7	67.5 DEGREE
9	90.0 DEGREE
A	110 DEGREE
C	135 DEGREE

7 OTHER SPECIFICATION

CODE	DESCR
0	NORMAL
S	SHORT DROP
L	LONG DROP
B	BULKHEAD
K	KNOCKING COLLAR
H	DOUBLE HEX
C	COMPACT
1	4 BOLT FLANGE
2	SPLIT FLANGE

8 HEAD TYPE

CODE	DESCR
0	N/A
1	FS-CN
2	FS-SN
3	FS-TN
4	FF

CODE	DESCR
5	M
6	MCS
7	M OR-RR
8	MS
A	BJ
B	BJB

9 DASH

10 **11** HOSE SIZE

12 **13** THREAD SIZE

14 FINISH GOODS

CODE	DESCR
0	FINISHED GOODS

15 MATERIAL TYPE

CODE	DESCR
0	CARBON STEEL
1	SS304
2	SS316
3	SS304 INS - CS NUT
4	SS316 INS - CS NUT

HYDRAULIC FITTING CODIFICATION - INSERTS / 1 PIECE FITTINGS

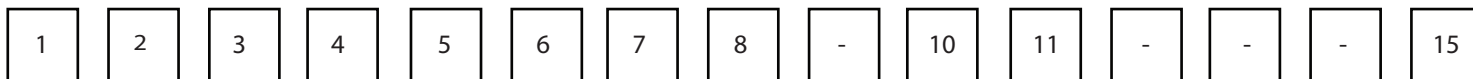
TERMINATION CODE

CODE	SHORT DESCR	DESCRIPTION
01	BSPP	BRITISH STANDARD PIPE
02	BSPP ORING	BRITISH STANDARD PIPE ORING
03	BSPP FLAT F	BRITISH STANDARD PIPE FLAT FACE
04	BSPT	BRITISH STANDARD PIPE TAPERED
08	BSP BANJO	BRITISH STANDARD PIPE BANJO
11	JIC 37	JIC 37° CONE
12	SAE ORB	SAE ORING BOSS
13	SAE 45 FLARE	SAE 45° FLARE
14	SAE 45 INV F	SAE 45° INVERTED FLARE
21	NPT	NATIONAL PIPE TAPER
22	NPS	NATIONAL PIPE STRAIGHT
23	NPTF	NATIONAL PIPE TAPER FUEL
24	NPSM	NATIONAL PIPE STRAIGHT MECHANICAL
31	ORFS	ORING FACE SEAL
32	ORFS SH	ORING FACE SEAL SINGLE HEXAGON
41	SAE FL61	SAE FLANGE 3000 PSI CODE 61
42	SAE FL62	SAE FLANGE 6000 PSI CODE 62
51	M-SP	METRIC STAND PIPE
52	M-FS	METRIC FLAT SEAT
53	M-CEL	METRIC - CEL
54	M-CES	METRIC - CES
55	M-DKOL	METRIC 24° CONE - ORING - LIGHT
56	M-DKOS	METRIC 24° CONE - ORING - HEAVY
57	M BANJO	METRIC BANJO
60	M-60 CONE	METRIC 60° CONE
65	JIS-TYPE C	JIS TYPE C
66	JIS-TYPE F	JIS TYPE F
67	JIS-PF	JIS PARALLEL PIPE THREAD
68	JIS-PT	JIS TAPER PIPE THREAD
71	KOM-M	KOMATSU METRIC
72	KOM-FL	KOMATSU FLANGE
73	CAT-FL	CAT FLANGE
81	SL	STAPLE LOCK
82	SSL	SUPER STAPLE LOCK
91	PW	POWER WASH
92	HH	HOSE TO HOSE - HOSE MENDER
93	BR	BRAZE ON
94	SW	SOCKET WELD
95	BW	BUTT WELD

HEAD TYPE

CODE	SHORT DESCR	DESCRIPTION
0	N/A	NOT APPLICABLE
1	FS-CN	FEMALE SWIVEL CRIMP NUT
2	FS-SN	FEMALE SWIVEL SLIP ON NUT
3	FS-TN	FEMALE SWIVEL THRUST WIRE NUT
4	FF	FEMALE FIXED
5	M	MALE
6	MCS	MALE CAPTIVE SEAL
7	M OR-RR	MALE ORING AND RETAINING RING
8	MS	MALE SWIVEL
A	BJ	BANJO
B	BJB	BANJO BOLT

HYDRAULIC FITTING CODIFICATION - FERRULES



CODE	DESCR
1	INSERT - 1P/2P
2	FERRULE - 1P/2P
3	1P FITTING

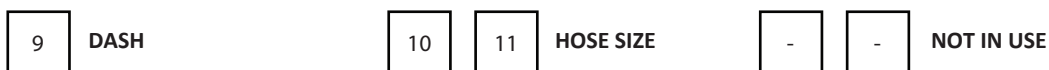
CODE	DESCR
10	2P - MT-HH
15	2P - HH-PH
25	2P - HH-TP
28	2P - HH-TP-JACK
30	2P - MS
40	2P - IL
47	2P - IL-WB
50	1P - HHWB
55	1P - HHWS - 4SP-R12
60	1P - HHWS - 4SH-R13
65	1P - HHWS - 4SH-DN51
66	1P - HHWS - R13-DN51
97	RU-R18
98	RU-R5
99	RU-1SN/2SN

CODE	DESCR
10050	NS - 1SC (DN06, DN08, DN10)
10150	NS - 1SC (DN12, DN16, DN19, DN25)
	NS - 2SC/1SN
10200	NS - 2SN
10210	NS - 1SN/2SC/2SN
10300	NS - R3/3TE
10400	NS - R12
10700	NS - R18
10750	NS - R7
	NS - R8 (DN06, DN08, DN10, DN12)
10780	NS - JACK HOSE
10800	NS - PLT
10900	NS - PTFE

20100	SK - 1SN (DN31, DN38, DN51)
20250	SK - 1SN (DN06 to DN25)
	SK - 2SN/2SC
	SK - R12 (DN16, DN19, DN25)
20400	SK - 4SP (DN06, DN10, DN12, DN16, DN19)
	SK - R12 (DN10, DN12)
20410	SK - 4SH

30420	IL - 4SH/R13/R15 (DN19, DN25)
30430	IL - 4SH (DN31, DN38, DN50)
30600	IL - R13/R15 (DN31, DN38, DN51)
30650	IL - WATERBLAST

15150	NS - 1P - 1SC/1SN/2SC/2SN/R17
15400	NS - 1P - 4SP-R12
15500	NS - 1P - 4SH-R13



CODE	DESCR
0	FINISHED GOODS

CODE	DESCR
0	CARBON STEEL
1	SS304
2	SS316
3	SS304 INS - CS NUT
4	SS316 INS - CS NUT

FERRULES - MULTITYPE - 210 SERIES

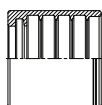
NO SKIVE - FE2P-MT



21010050
1SC



21010150
1SC/1SN/R1AT/
2SC/R16



21010200
2SN/R2AT



21010210
1SN/R1AT/2SC/
R16/2SN/R2AT



21020250
R6/2TE



21010300
R3/3TE/R4/R5



21010400
R12



21010750
R7/R8



21010800
PLT



21010900
PTFE

SKIVE - FE2P-MT



21020100
1SN/R1AT



21020250
1SN/R1AT/2SC/
R16/2SN/R2AT/R12



21020400
4SP/R12

INSERTS - MULTITYPE - 110 SERIES

BSP - HF2P-MT



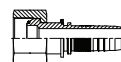
11004005
BSPT M



11001005
BSPP M



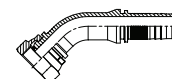
11002001
BSPP OR FS (CRN)



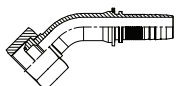
11002002
BSPP OR FS (SON)



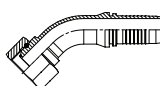
11002003
BSPP OR FS (TWN)



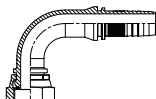
11002401
BSPP OR FS 45 (CRN)



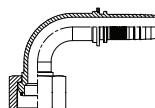
11002402
BSPP OR FS 45 (SON)



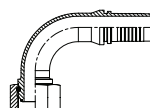
11002403
BSPP OR FS 45 (TWN)



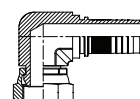
11002901
BSPP OR FS 90 (CRN)



11002902
BSPP OR FS 90 (SON)



11002903
BSPP OR FS 90 (TWN)



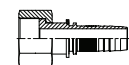
110029C1
BSPP FS 90 CP (CRN)



11003005
BSPP FSEAT M



11003001
BSPP FSEAT FS (CRN)



11003002
BSPP FSEAT FS (SON)

10

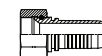
JIC 37° - HF2P-MT



11011005
JIC M



11011001
JIC FS (CRN)



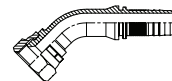
11011003
JIC FS (TWN)



110110H1
JIC FS DH (CRN)

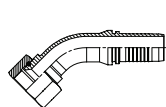


110110H3
JIC FS DH (TWN)

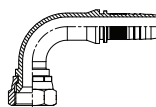


11011401
JIC FS 45 (CRN)

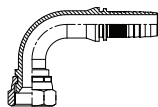
JIC 37°- HF2P-MT



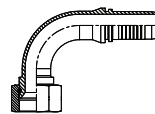
11011403
JIC FS 45 (TWN)



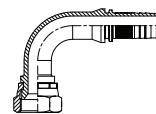
110119S1
JIC FS 90 SD (CRN)



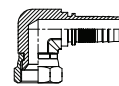
11011901
JIC FS 90 (CRN)



11011903
JIC FS 90 (TWN)



110119L1
JIC FS 90 LD (CRN)

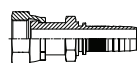


110119C1
JIC FS 90 CP (CRN)

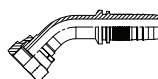
ORFS - HF2P-MT



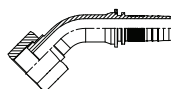
11031005
ORFS M



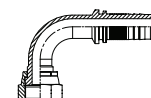
11031001
ORFS FS (CRN)



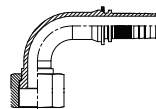
11031401
ORFS FS 45 (CRN)



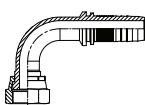
11031402
ORFS FS 45 (SON)



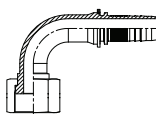
110319S1
ORFS FS 90 SD (CRN)



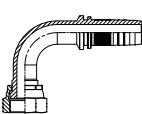
110319S2
ORFS FS 90 SD (SON)



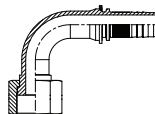
11031901
ORFS FS 90 (CRN)



11031902
ORFS FS 90 (SON)



110319L1
ORFS FS 90 LD (CRN)



110319L2
ORFS FS 90 LD (SON)

SAE - HF2P-MT



11012005
SAE ORB M

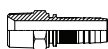


11013001
SAE 45 SEAT FS (CRN)



110130H1
SAE 45 SEAT DH FS (CRN)

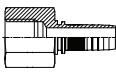
NPTF - HF2P-MT



11023005
NPTF M

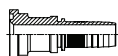


11023008
NPTF MS

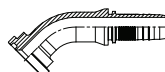


11023004
NPTF FF

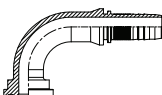
SAE FLANGE - HF2P-MT



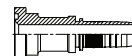
11041000
SAE 61 3K FL



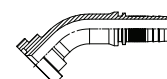
11041400
SAE 61 3K FL 45



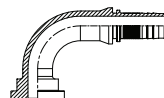
11041900
SAE 61 3K FL 90



11042000
SAE 62 6K FL

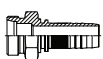


11042400
SAE 62 6K FL 45



11042900
SAE 62 6K FL 90

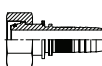
METRIC - HF2P-MT



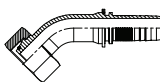
11053005
M24 CEL M



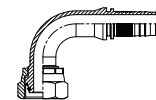
11055001
M24 DKOL FS (CRN)



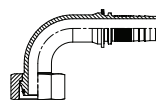
11055002
M24 DKOL FS (SON)



11055402
M24 DKOL FS 45 (SON)



11055901
M24 DKOL FS 90 (CRN)



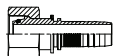
11055902
M24 DKOL FS 90 (SON)

HYDRAULIC FITTINGS - REFERENCE CHART

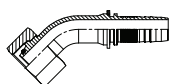
METRIC - HF2P-MT



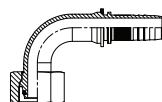
11054005
M24 CES M



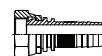
11056002
M24 DKOS FS (SON)



11056402
M24 DKOS FS 45 (SON)



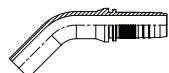
11056902
M24 DKOS FS 90 (SON)



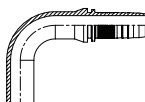
11060001
METRIC 60C FS (CRN)



11051000
MSP

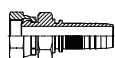


11051400
MSP 45



11051900
MSP 90

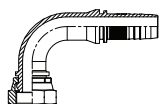
JIS - HF2P-MT



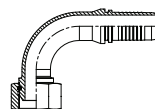
11065001
JIS C FS (CRN)



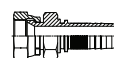
11065003
JIS C FS (TWN)



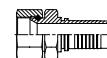
11065901
JIS C FS 90 (CRN)



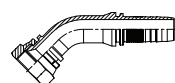
11065903
JIS C FS 90 (TWN)



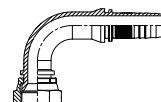
11066001
JIS F FS (CRN)



11066003
JIS F FS (TWN)



11066401
JIS F FS 45 (CRN)



11066901
JIS F FS 90 (CRN)

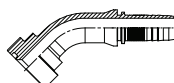


11071001
KOMATSU FS (CRN)

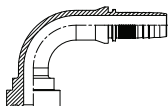
OEM - HF2P-MT



11073000
SCAT 9K FL



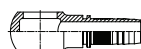
11073400
SCAT 9K FL 45



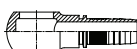
11073900
SCAT 9K FL 90

10

BANJO - HF2P-MT



110010A0
BSPP BANJO



110570A0
METRIC BANJO

ACCESSORIES - HF2P-MT



11092000
H-H



11093000
BRAZE TAIL



110010B0
BSP BANJO BOLT



110570B0
METRIC BANJO BOLT

FERRULES - MULTISPIRAL - 230 SERIES

SKIVE - FE2P-MS



23020410
4SH

INSERTS - MULTISPIRAL - 130 SERIES

BSP - HF2P-MS



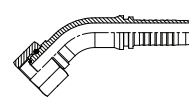
13004005
BSPT M



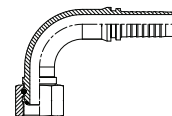
13001005
BSPP M



13002003
BSPP OR FS (TWN)



13002403
BSPP OR FS 45 (TWN)



13002903
BSPP OR FS 90 (TWN)

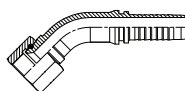
JIC 37° - HF2P-MS



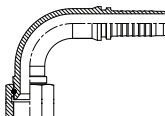
13011005
JIC M



13011003
JIC FS (TWN)

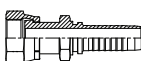


13011403
JIC FS 45 (TWN)

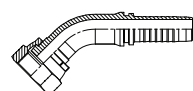


13011903
JIC FS 90 (TWN)

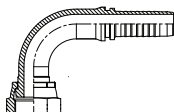
ORFS - HF2P-MS



13031001
ORFS FS (CRN)



13031401
ORFS FS 45 (CRN)



13031901
ORFS FS 90 (CRN)

NPTF - HF2P-MS

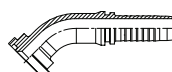


13023005
NPTF M

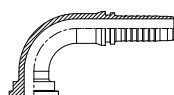
SAE FLANGE - HF2P-MS



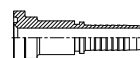
13041000
SAE 61 3K FL



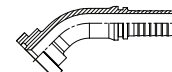
13041400
SAE 61 3K FL 45



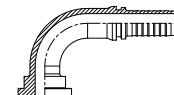
13041900
SAE 61 3K FL 90



13042000
SAE 62 6K FL



13042400
SAE 62 6K FL 45



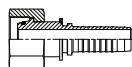
13042900
SAE 62 6K FL 90

HYDRAULIC FITTINGS - REFERENCE CHART

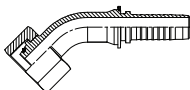
METRIC - HF2P-MS



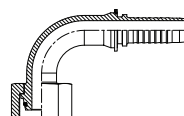
13054005
M24 CES M



13056002
M24 DKOS FS (SON)

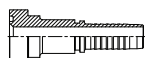


13056402
M24 DKOS FS 45 (SON)

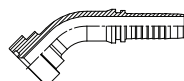


13056902
M24 DKOS FS 90 (SON)

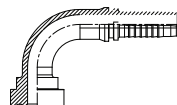
OEM - HF2P-MS



13073000
SCAT 9K FL



13073400
SCAT 9K FL 45



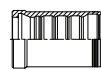
13073900
SCAT 9K FL 90

FERRULES - INTERLOCK - 240 SERIES

INTERLOCK - FE2P-IL



24030420
4SH/R13/R15



24030430
4SH



24030600
R13/R15

INSERTS - INTERLOCK - 140 SERIES

BSP - HF2P-IL



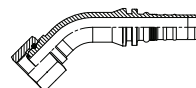
14004005
BSPT M



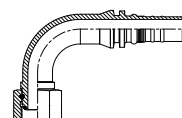
14001005
BSPP M



14002003
BSPP OR FS (TWN)



14002403
BSPP OR FS 45 (TWN)



14002903
BSPP OR FS 90 (TWN)

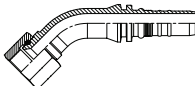
JIC 37° - HF2P-IL



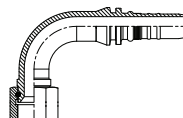
14011005
JIC M



14011003
JIC FS (TWN)



14011403
JIC FS 45 (TWN)



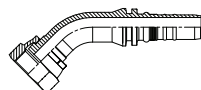
14011903
JIC FS 90 (TWN)

ORFS - HF2P-IL

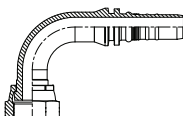
10



14031001
ORFS FS (CRN)



14031401
ORFS FS 45 (CRN)



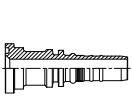
14031901
ORFS FS 90 (CRN)

NPTF - HF2P-IL

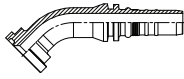


14023005
NPTF M

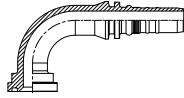
SAE FLANGE - HF2P-IL



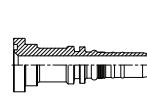
14041000
SAE 61 3K FL



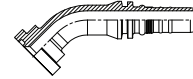
14041400
SAE 61 3K FL 45



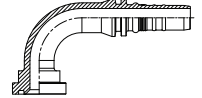
14041900
SAE 61 3K FL 90



14042000
SAE 62 6K FL

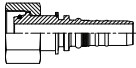


14042400
SAE 62 6K FL 45

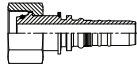


14042900
SAE 62 6K FL 90

METRIC- HF2P-IL



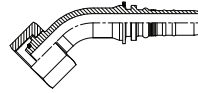
14054005
M24 CES M



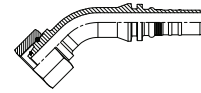
14056002
M24 DKOS FS (SON)



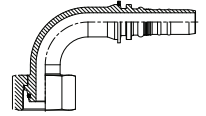
14056003
M24 DKOS FS (TWN)



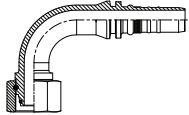
14056402
M24 DKOS FS 45 (SON)



14056403
M24 DKOS FS 45 (TWN)

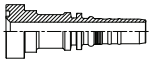


14056902
M24 DKOS FS 90 (SON)

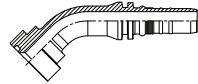


14056903
M24 DKOS FS 90 (TWN)

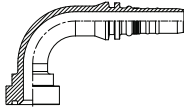
OEM - HF2P-IL



14073000
SCAT 9K FL



14073400
SCAT 9K FL 45



14073900
SCAT 9K FL 90

ACCESSORIES

FLANGE CLAMP



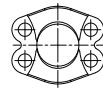
11041020
SAE 61 3K SFL



11042020
SAE 62 6K SFL



11041010
SAE 61 3K 4FL

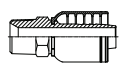


11042010
SAE 62 6K 4FL

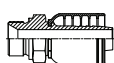
HYDRAULIC FITTINGS - REFERENCE CHART

ONE PIECE - WB - 1SC / 1SN / R1AT / 2SC / R16 / 2SN / R2AT / R17

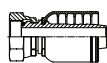
BSP - HF1P-WB



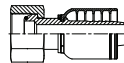
35004005
BSPT M



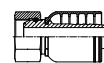
35001005
BSPP M



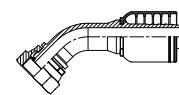
35002001
BSPP OR FS (CRN)



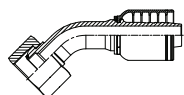
35002002
BSPP OR FS (SON)



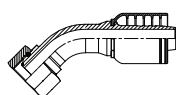
35002003
BSPP OR FS (TWN)



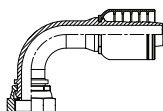
35002401
BSPP OR FS 45 (CRN)



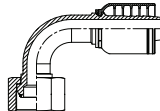
35002402
BSPP OR FS 45 (SON)



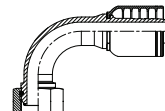
35002403
BSPP OR FS 45 (TWN)



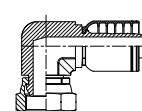
35002901
BSPP OR FS 90 (CRN)



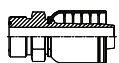
35002902
BSPP OR FS 90 (SON)



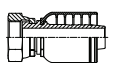
35002903
BSPP OR FS 90 (TWN)



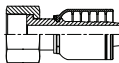
350029C1
BSPP OR FS 90 CP (CRN)



35003005
BSPP FSEAT M

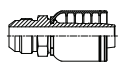


35003001
BSPP FSEAT FS (CRN)

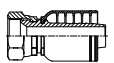


35003002
BSPP FSEAT FS (SON)

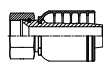
JIC 37° - HF1P-WB



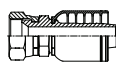
35011005
JIC M



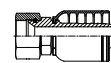
35011001
JIC FS (CRN)



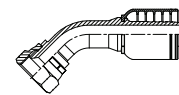
35011003
JIC FS (TWN)



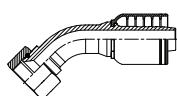
350110H1
JIC FS DH (CRN)



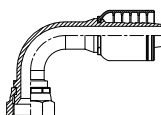
350110H3
JIC FS DH (TWN)



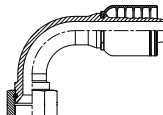
35011401
JIC FS 45 (CRN)



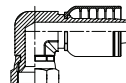
35011403
JIC FS 45 (TWN)



35011901
JIC FS 90 (CRN)



35011903
JIC FS 90 (TWN)

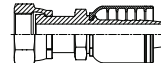


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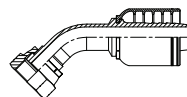
ORFS - HF1P-WB



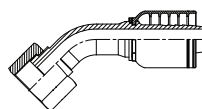
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ORFS M



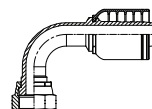
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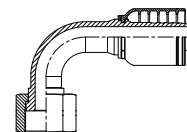
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ORFS FS 45 (CRN)



35031402
ORFS FS 45 (SON)

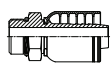


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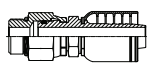


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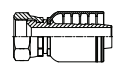
SAE - HF1P-WB



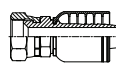
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35012008
SAE ORB MS

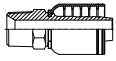


35013001
SAE 45 SEAT FS (CRN)

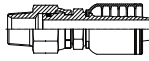


350130H1
SAE 45 SEAT DH FS (CRN)

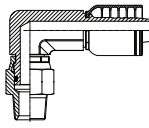
NPTF - HF1P-WB



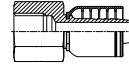
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NPTF M



35023008
NPTF MS

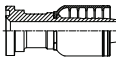


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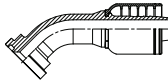


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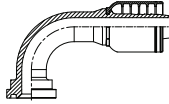
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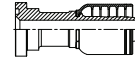
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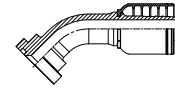
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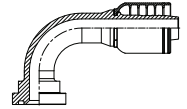
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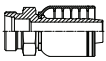


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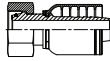


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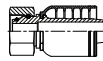
METRIC - HF1P-WB



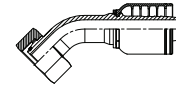
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M24 CEL M



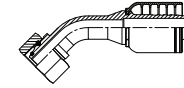
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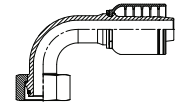
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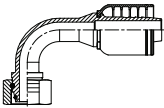
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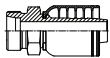
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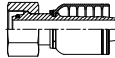
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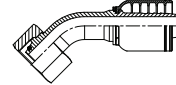
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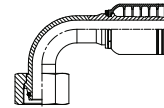
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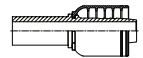
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35056402
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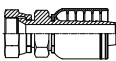


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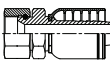


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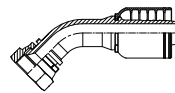
JIS - HF1P-WB



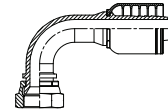
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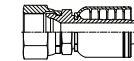
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JIS F FS (TWN)



35066401
JIS F FS 45 (CRN)

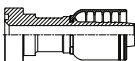


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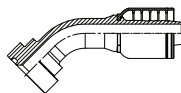


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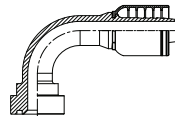
OEM - HF1P-WB



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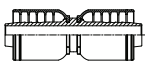


35073400
SCAT 9K FL 45



35073900
SCAT 9K FL 90

ACCESSORIES - HF1P-WB

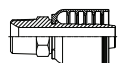


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H-H

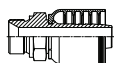
HYDRAULIC FITTINGS - REFERENCE CHART

ONE PIECE - WIRE SPIRAL - 4SP / R12 / 4SH -12 -16 - 355 SERIES

BSP - HF1P-WS 4SP-R12 - 4SH -12 -16



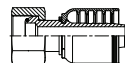
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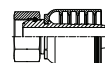
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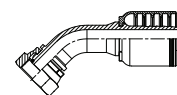
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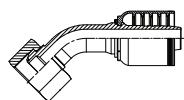
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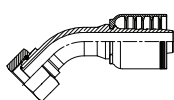
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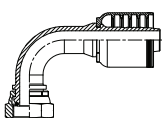
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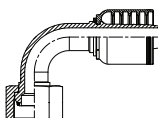
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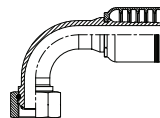
35502403
BSPP OR FS 45 (TWN)



35502901
BSPP OR FS 90 (CRN)



35502902
BSPP OR FS 90 (SON)



35502903
BSPP OR FS 90 (TWN)

JIC 37°- HF1P-WS 4SP-R12 - 4SH -12 -16



35511005
JIC M



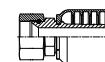
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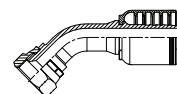
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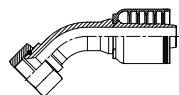
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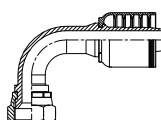
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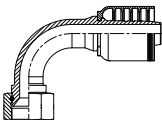
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35511403
JIC FS 45 (TWN)



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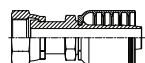


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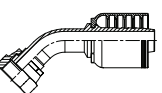
ORFS - HF1P-WS 4SP-R12 - 4SH -12 -16



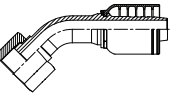
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ORFS M



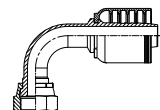
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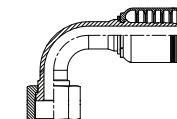
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35531402
ORFS FS 45 (SON)



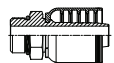
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35531902
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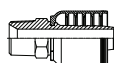
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10



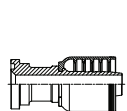
35512005
SAE ORB M

NPTF - HF1P-WS 4SP-R12 - 4SH -12 -16

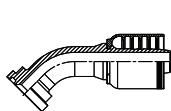


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NPTF M

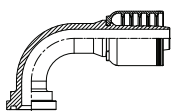
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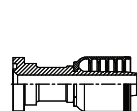
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SAE 61 3K FL



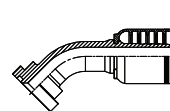
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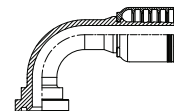
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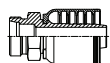


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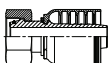


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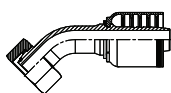
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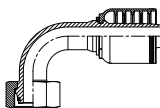
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M24 CEL M



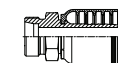
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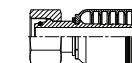
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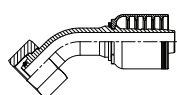
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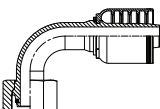
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M24 CES M



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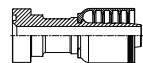


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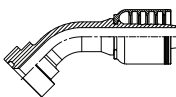


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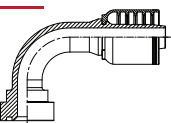
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SCAT 9K FL



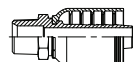
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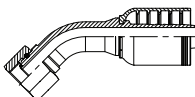
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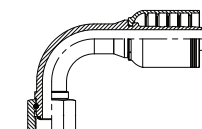
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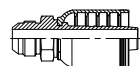


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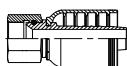


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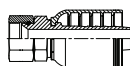
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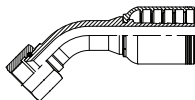
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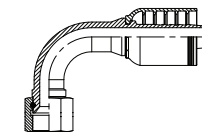
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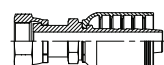


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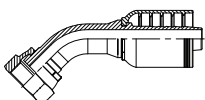


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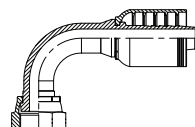
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ORFS FS (CRN)



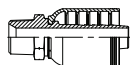
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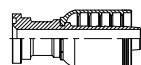
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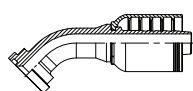


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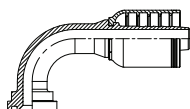
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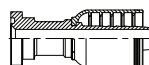
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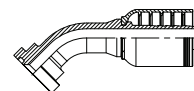
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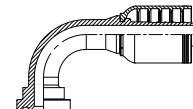
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SAE 62 6K FL



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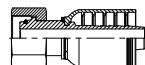


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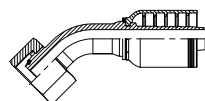
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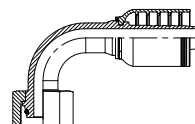
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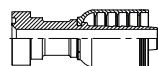


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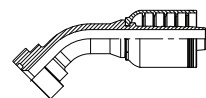


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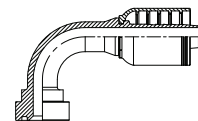
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36073000
SCAT 9K FL



36073400
SCAT 9K FL 45



36073900
SCAT 9K FL 90

TWO PIECE FITTINGS

HOSE TYPE				WIRE BRAID						
FITTING TYPE	INSERT SERIES	ASSEMBLY TYPE	FERRULE SERIES	EN 857 1SC	EN 853 1SN SAE 100 R1AT	EN 857 2SC SAE 100 R16	EN 853 2SN SAE 100 R2AT	SAE 100 R17	PILOT	SAE 100 R5
MT	110	NO SKIVE	21010050	-04 → -06 DN 06 → DN 10 1/4" → 3/8"				-04 → -06 DN 06 → DN 10 1/4" → 3/8"		
MT	110	NO SKIVE	21010150	-08 → -16 DN 12 → DN 25 1/2" → 1"	-03 → -32 DN 04 → DN 51 3/16" → 2"	-04 → -16 DN 06 → DN 25 1/4" → 1"		-08 → -16 DN 12 → DN 25 1/2" → 1"		
MT	110	NO SKIVE	21010200				-03 → -32 DN 04 → DN 51 3/16" → 2"			
MT	110	NO SKIVE	21010210		-03 → -32 DN 04 → DN 51 3/16" → 2"	-04 → -16 DN 06 → DN 25 1/4" → 1"	-03 → -32 DN 04 → DN 51 3/16" → 2"	-10 → -16 DN 16 → DN 25 5/8" → 1"		
MT	110	NO SKIVE	21020250							
MT	110	NO SKIVE	21010300							3/16" → 5/8"
MT	110	NO SKIVE	21010400							
MT	110	NO SKIVE	21010750							
MT	110	NO SKIVE	21010800						-04 → -08 DN 06 → DN 12 1/4" → 1/2"	
MT	110	NO SKIVE	21010900							
MT	110	SKIVE	21020100		-20 → -32 DN 31 → DN 51 1 1/4" → 2"					
MT	110	SKIVE	21020250		-03 → -16 DN 05 → DN 25 3/16" → 1"	-04 → -16 DN 06 → DN 25 1/4" → 1"	-03 → -32 DN 04 → DN 51 3/16" → 2"	-10 → -16 DN 16 → DN 25 5/8" → 1"		
MT	110	SKIVE	21020400							
MS	130	SKIVE	23020410							
IL	140	INTERLOCK	24030420							
IL	140	INTERLOCK	24030430							
IL	140	INTERLOCK	24030600							

ONE PIECE FITTINGS

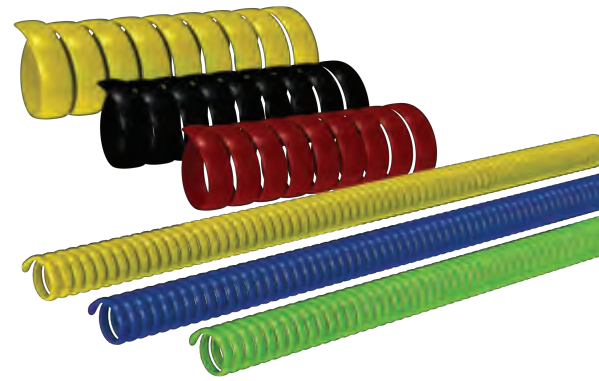
1P-WB	350	NO SKIVE		-04 → -16 DN 06 → DN 25 1/4" → 1"	-04 → -32 DN 06 → DN 51 1/4" → 2"	-04 → -16 DN 06 → DN 25 1/4" → 1"	-04 → -32 DN 06 → DN 51 1/4" → 2"	-04 → -16 DN 06 → DN 25 1/4" → 1"		
1P-WS 4SP-R12-4SH	355	NO SKIVE								
1P-WS 4SH-R13-R15	360	NO SKIVE								
1P-WS 4SH	365	NO SKIVE								
1P-WS R13	366	NO SKIVE								







TWO PIECE FITTINGS

HOSE TYPE				THERMOPLASTIC		PTFE
FITTING TYPE	INSERT SERIES	ASSEMBLY TYPE	FERRULE SERIES	EN 855 R7 SAE 100 R7	EN 855 R7 SAE 100 R7	PTFE
MT	110	NO SKIVE	21010050			
MT	110	NO SKIVE	21010150			
MT	110	NO SKIVE	21010200			
MT	110	NO SKIVE	21010210			
MT	110	NO SKIVE	21020250			
MT	110	NO SKIVE	21010300			
MT	110	NO SKIVE	21010400			
MT	110	NO SKIVE	21010750	-04 → -06 DN 06 → DN 10 1/4" → 3/8"	-04 → -06 DN 06 → DN 10 1/4" → 3/8"	
MT	110	NO SKIVE	21010800			
MT	110	NO SKIVE	21010900			-04 → -06 DN 06 → DN 10 1/4" → 3/8"
MT	110	SKIVE	21020100			
MT	110	SKIVE	21020250			
MT	110	SKIVE	21020400			
MS	130	SKIVE	23020410			
IL	140	INTERLOCK	24030420			
IL	140	INTERLOCK	24030430			
IL	140	INTERLOCK	24030600			

EF 368HG - Spiral Guard

Material High Density Polyethylene



Item Code	 Nom OD	 Nom ID	 WT	 Pitch	 Colour	 Std Length
	inch	mm	mm	mm		m
EF368HG-12	12	10	1.5	9.0	Black	50
EF368HG-16	16	13	1.6	12.0	Black	20/50
EF368HG-20	20	17	1.9	16.0	Black	20/50
EF368HG-25	25	21	2.0	20.0	Black	20/50
EF368HG-32	32	27	2.3	22.0	Black	20/50
EF368HG-40	40	35	2.7	24.0	Black	20/50
EF368HG-50	50	45	3.0	30.0	Black	20
EF368HG-63	63	58	3.5	37.0	Black	20
EF368HG-75	75	69	3.8	42.0	Black	20
EF368HG-90	90	82	5.0	45.0	Black	20
EF368HG-110	110	100	5.5	50.0	Black	12
EF368HG-125	125	116	6.0	55.0	Black	12

Recommended Practices for Hydraulic Hose Assemblies

Foreword

This SAE Recommended Practice is intended as a guide to consider when selecting, routing, fabricating, installing, replacing, maintaining and storing hose for fluid-power systems. It is subject to change to keep pace with experience and technical advances. For those new to hose use in fluid-power systems, this guide outlines practices to note during each phase of system design and use. Experienced designers and users skilled in achieving proper results, as well as the less experienced, can use this outline as a list of considerations to keep in mind. Fluid power systems are complex and require extensive knowledge of both the system requirements and the various types of hose. Therefore, all-inclusive, detailed, step-by-step instructions are not practical and are beyond the scope of this document. Less experienced designers and user's who need more information can consult specialists such as hose suppliers and manufacturers. This guide can improve the communication process. Safety Considerations — These recommended practices involve safety considerations; note these carefully during all phases of design and use of hose systems. Improper selection, fabrication, installation or maintenance of hose and hose assemblies for fluid-power systems may result in serious personal injury or property damage. These recommended practices can reduce the likelihood of component or system failure, thereby reducing the risk of injury or damage.

1. Scope

SAE J1273 provides guidelines for selection, routing, fabrication, installation, replacement, maintenance and storage of hose and hose assemblies for fluid-power systems. Many of these SAE Recommended Practices also may be suitable for other hose and systems.

2. References

2.1 Applicable Documents – The following publications form a part of this specification to the extent specified herein. Unless otherwise specified, the latest issue of SAE publications shall apply.

SAE J343 – Test and Procedures for SAE 100R Series Hydraulic Hose and Hose Assemblies.

SAE J516 – Hose Fittings

SAE J517 – Hydraulic Hose

SAE J1927 – Cumulative Damage Analysis for Hydraulic Hose Assemblies

3. Explanation of Terms

These explanations serve only to clarify this document and are not intended to stand alone. They are presented sequentially, with the former helping to explain the latter.

3.1 Fluid Power – Energy transmitted and controlled using pressurized hydraulic fluids or compressed air.

3.2 Hose – Flexible conductor. In this document, the term hose may also refer to a hose assembly with related accessories used in fluid power applications.

3.3 Hose Fitting or Fitting – Connector which can be attached to the end of a hose.

3.4 Hose Assembly – Hose with hose fittings attached.

3.5 Hose Failure – Occurrence in which a hose stops meeting system requirements.

3.6 Hose Service Life – Length of time a hose meets system requirements without needing replacement.

4. Safety Considerations

Listed in 4.1 to 4.7 are some potential conditions and situations that may lead to personal injury and/or property damage. The list is not necessarily all inclusive. Consider reasonable and feasible means, including those described in this section, to reduce the risk of injuries or property damage.

4.1 Fluid Injections – Fine streams of escaping pressurized fluid can penetrate skin and enter a human body. These fluid injections may cause severe tissue damage and loss of limb. Consider various means to reduce the risk of fluid injections, particularly in areas normally occupied by operators. Consider careful routing, adjacent components, warnings, guards, shields and training programs. Relieve pressure before disconnecting hydraulic or other lines. Tighten all connections before applying pressure. Avoid contact with escaping fluids. Treat all leaks as though pressurized and hot enough to burn skin. Never use any part of your body to check for hose leaks. If a fluid-injection accident occurs, see a doctor immediately. **DO NOT DELAY OR TREAT AS A SIMPLE CUT!** Any fluid injected into the skin must be surgically removed within a few hours or gangrene may result. Doctors unfamiliar with this type of injury should consult a knowledgeable medical source.

4.2 Whipping Hose – If a pressurized hose assembly blows apart, the fittings can be thrown off at high speed, and the loose hose can flail or whip with great force. This is especially true in compressible-fluid systems. When this risk exists, consider guards and restraints to protect against injury.

4.3 Burns from Conveyed Fluids – Fluid-power media may reach temperatures that can burn human skin. If there is risk of burns from escaping fluid, consider guards and shields to prevent injury, particularly in areas normally occupied by operators.

4.4 Fire and Explosion from Conveyed Fluids – Most fluid power media, including fire-resistant hydraulic fluids, will burn under certain conditions. Fluids which escape from pressurized systems may form a mist or fine spray which can flash or explode upon contact with an ignition source. Consider selecting, guarding, and routing hose to minimize the risk of combustion. (See Section 5 and ISO 3457).

4.5 Fire and Explosions from Static-Electric Discharge – Fluid passing through hose can generate static electricity, resulting in static-electric discharge. This may create sparks that can ignite system fluids or gases in the surrounding atmosphere. When this potential exists, select hose specifically designed to carry the static-electric charge to ground.

4.6 Electrical Shock – Electrocutation could occur if hose conducts electricity through a person. Most hoses are conductive. Many contain metal or have metal fittings. Even nonconductive hoses can be conduits for electricity if they carry conductive fluids. Be aware of routing or using hose near electrical sources. When this cannot be avoided, select appropriate hose. Nonconductive hoses should be considered. SAE J517–100R7 and 100R8 hoses, with orange covers marked “Nonconductive” are available for applications requiring nonconductive hose.

4.7 Mechanisms Controlled by Fluid Power – Mechanisms controlled by fluid in hoses can become hazardous when a hose fails. For example, when a hose bursts, objects supported by fluid pressure may fall, or vehicles or machines may lose their brakes or steering. If mechanisms are controlled by fluid power, consider safe modes of failure that minimize risks of injury or damage.

5. Hose Selection and Routing

A wide variety of interacting factors influence hose service life and the ability of each fluid-power system to operate satisfactorily, and the combined effects of these factors on service life are often unpredictable. Therefore, these documents should not be construed as design standards. For applications outside the specifications in SAE J517, SAE J516, or other relevant design standards, performance of hose assemblies should be determined by appropriate testing. Carefully analyze each system. Then design routings and select hose and related components to meet the system performance and hose service-life requirements, and to minimize the risks of personal injury and/or property damage. Consider the following factors:

5.1 System Pressures – Excessive pressure can accelerate hose assembly failure. Analyze the steady-state pressures, and the frequency and the amplitude of pressure surges, such as pulses and spikes. These are rapid and transient rises in pressure which may not be indicated on many common pressure gauges and can be identified best on high-frequency-response electronic measuring instruments. For maximum hose service life, hose selection should be based on a system pressure, including surges, that is less than the hose maximum working pressure. Hose may be used above its maximum working pressure where reduced life expectancy is acceptable. SAE J1927 provides a method to help predict wire-reinforced hose service for a given hydraulic application, where the surge pressure peaks vary, and/or the highest-pressure peaks occur infrequently.

5.2 Suction – For suction applications, such as inlet flow to pumps, select hose to withstand both the negative and positive pressures the system imposes on the hose.

5.3 External Pressure – In certain applications, such as in autoclaves or under water, the external environmental pressures may exceed the fluid pressure inside the hose. In these applications, consider the external pressures, and, if necessary, consult the manufacturers.

5.4 Temperature – Exceeding hose temperature ratings may significantly reduce hose life. Select hose so the fluid and ambient temperatures, both static and transient, fall within the hose ratings. The effects of external heat sources should not raise the temperature of the hose above its maximum operating temperature. Select hose, heat shields, sleeving, and other methods for these requirements, and route or shield hose to avoid hose damage from external heat sources.

5.5 Permeation – Permeation, or effusion, is seepage of fluid through the hose. Certain materials in hose construction are more permeable than others. Consider the effects of permeation when selecting hose, especially with gaseous fluids. Consult the hose and fluid manufacturers for permeability information.

5.6 Hose-Material Compatibility – Variables that can affect compatibility of system fluids with hose materials include, but are not limited to:

- A. Fluid Pressure
- B. Temperature
- C. Concentration
- D. Duration of exposure

Because of permeation (see 5.5), consider compatibility of system fluids with the hose, tube, cover, reinforcement, and fittings. Consult the fluid and hose manufacturers for compatibility information. NOTE—Many fluid/elastomer compatibility tables in manufacturers’ catalogs show ratings based on fluids at 21 C, room temperature. These ratings may change at other temperatures. Carefully read the notes on the compatibility tables, and if in doubt, consult the manufacturer. NOTE—Refer chemical resistance information.

5.7 Environment – Environmental conditions can cause hose and fitting degradation. Conditions to evaluate include, but are not limited to:

- A. Ultraviolet light
- B. Salt water
- C. Air pollutants
- D. Temperature
- E. Ozone
- F. Chemicals
- G. Electricity
- H. Abrasion

If necessary, consult the manufacturers for more information.

5.8 Static-Electric Discharge – Fluid passing through hose can generate static electricity resulting in static-electric discharge. This may create sparks that can puncture hose. If this potential exists, select hose with sufficient conductivity to carry the static electric charge to the ground.

5.9 Sizing – The power transmitted by pressurized fluid varies with pressure and rate of flow. Select hose with adequate size to minimize pressure loss, and to avoid hose damage from heat generation or excessive velocity. Conduct calculations, or consult the manufacturers for sizing at flow velocities.

5.10 Unintended Uses – Hose assemblies are designed for the internal forces of conducted fluids. Do not pull hose or use it for purposes that may apply external forces for which the hose or fittings were not designed.

5.11 Specifications and Standards – When selecting hose and fittings for specific applications, refer to applicable government, industry, and manufacturer’s specifications and standards.

5.12 Unusual Applications – Applications not addressed by the manufacturer or by industry standards may require special testing prior to selecting hose.

5.13 Hose Cleanliness – The cleanliness requirements of system components, other than hose, will determine the cleanliness requirements of the application. Consult the component manufacturers cleanliness information for all components in the system. Hose assemblies vary in cleanliness levels; therefore, specify hose assemblies with adequate cleanliness for the system.

5.14 Hose Fittings – Selection of the proper hose fittings for the hose and application is essential for proper operation and safe use of hose and related assembly equipment. Hose fittings are qualified with the hose. Therefore, select only hose fittings compatible with the hose for the applications. Improper selection of hose fittings or related assembly equipment for the application can result in injury or damage from leaks, or from hose assemblies blowing apart (see 4.2, 6.2, 6.3 and 6.4).

5.15 Vibration – Vibration can reduce hose service life. If required, conduct tests to evaluate the frequency and amplitude of system vibration. Clamps or other means may be used to reduce the effects of vibration. Consider the vibration requirements when selecting hose and predicting service life.

5.16 Hose Cover Protection – Protect the hose cover from abrasion, erosion, snagging and cutting. Special abrasion resistant hoses and hose guards are available for additional protection. Route hose to reduce abrasion from hose rubbing other hose or objects that may abrade it.

5.17 External Physical Abuse – Route hose to avoid:

- A. Tensile loads
- B. Side loads
- C. Flattening
- D. Thread damage
- E. Kinking
- F. Damage to sealing surfaces
- G. Abrasion
- H. Twisting

5.18 Swivel-Type Adapters – Swivel-type fittings or adapters do not transfer torque to hose while being tightened. Use these as needed to prevent twisting during installation.

5.19 Live Swivels – If two components in the system are rotating in relation to each other, live swivels may be necessary. These connectors reduce the torque transmitted to the hose.

5.20 Slings and Clamps – Use slings and clamps to support heavy or long hose and to keep it away from moving parts. Use clamps that prevent hose movement that will cause abrasion.

5.21 Minimum Bend Radius – The minimum bend radius is defined in SAE J343 and is specified in other SAE standards and hose manufacturer’s product literature. Routing at less than minimum bend radius may reduce hose life. Sharp bending at the hose/fitting juncture may result in leaking, hose rupturing, or the hose assembly blowing apart (see 4.2 and Figure 1).

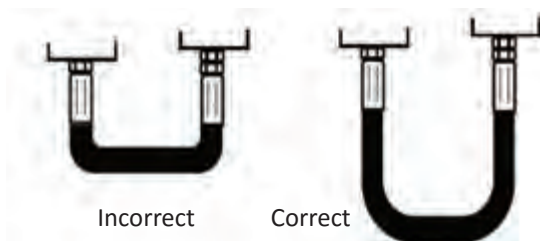


Figure 1. Minimum Bend Radius

5.22 Elbows and Adapters – In special cases, use elbows and adapters to relieve hose strain (see Figure 2).

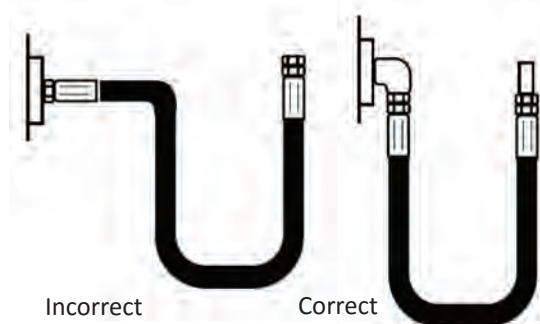


Figure 2. Elbows and Adapters

5.23 Lengths – Unnecessarily long hose can increase pressure drop and affect system performance. When pressurized, hose that is too short may pull loose from its fittings, or stress the fitting connections, causing premature metallic or seal failures. When establishing hose length, refer to Figures 3, 4, and 5; and use the following practices:

5.23.1 Motion Absorption – Provide adequate hose length to distribute movement and prevent bends smaller than the minimum bend radius.

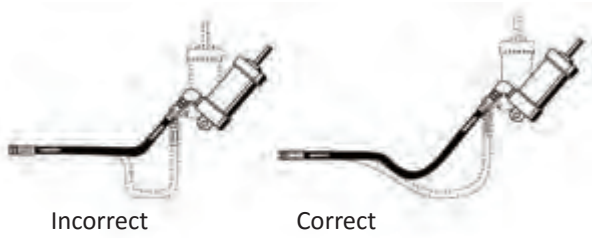


Figure 3. Motion Absorption

5.23.2 Hose and Machine Tolerances – Design hose to allow for changes in length due to machine motion and tolerances.

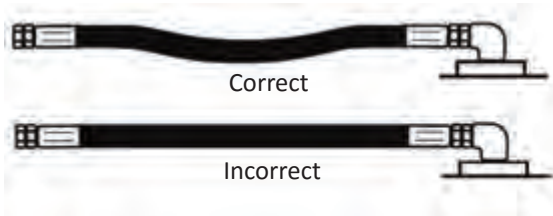


Figure 4. Hose and Machine Tolerances

5.23.3 Hose Length Due To Pressure – Design hose to accommodate length changes from changing pressures. Do not cross or clamp together high- and low-pressure hoses. The difference in length changes could wear the hose covers.



Figure 5. Hose Length Due To Pressure

5.24 Hose Movement and Bending – Hose allows relative motion between system components. Analyze this motion when designing hose systems. The number of cycles per day may significantly affect hose life. Also, avoid multiple planes of motion and twisting motion. Consider the motion of the hose when selecting hose and predicting service life. In applications that require hose to move or bend, refer to Figures 6 and 7; and use these practices:

5.24.1 Bend in Only One Plane to Avoid Twisting

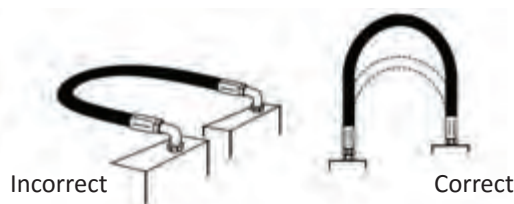


Figure 6. Bend in Only One Plane to Avoid Twisting

5.24.2 Prevent Hose Bending in More Than One Plane – If hose follows a compound bend, couple it into separate segments, or clamp into segments that flex in only one plane

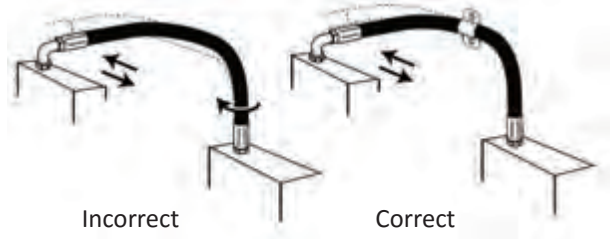


Figure 6. Prevent Hose Bending in More Than One Plane

6. Hose-Assembly Fabrication

Persons fabricating hose assemblies should be trained in the proper use of equipment and materials. The manufacturer’s instructions and the practices listed as follows must be followed. Properly assembled fittings are vital to the integrity of a hose assembly. Improperly assembled fittings can separate from the hose and may cause serious injury or property damage from whipping hose, or from fire or explosion of vapor expelled from the hose.

6.1 Component Inspection – Prior to assembly, examine components for:

- A. Style or type
- B. Cleanliness
- C. Loose covers
- D. Nicks
- E. Size
- F. Inside obstructions
- G. Visible defects
- H. Damage
- I. Length
- J. Blisters
- K. Burrs

6.2 Hose Fittings – Hose fitting components from one manufacturer are not usually compatible with fittings components supplied by another manufacturer. For example, do not use a hose fitting nipple from one manufacturer with a hose socket from another manufacturer. It is the responsibility of the fabricator to consult the manufacturer’s written instructions or the manufacturer directly for information on proper fitting components.

6.3 Hose and Fitting Compatibility – Care must be taken to determine proper compatibility between the hose and fitting. Base selection on the manufacturers’ recommendations substantiated by testing to industry standards such as SAE J517. Hose from one manufacturer is not usually compatible with fittings from another. Do not intermix hose and fittings from two manufacturers without approval from both manufacturers

6.4 Hose Assembly Equipment – Assembly equipment from one manufacturer is usually not interchangeable with that from another manufacturer. Hoses and fittings from one manufacturer should not generally be assembled with the equipment of another manufacturer.

6.5 Safety Equipment – During fabrication, use proper safety equipment, including eye protection, breathing apparatus, and adequate ventilation.

6.6 Reuse of Hose and Fittings – When fabricating hose assemblies, do not reuse:

- A. Field-attachable fittings that have blown or pulled off hose.
- B. Any part of hose fittings that were permanently crimped or swaged to hose.
- C. Hose that has been in service after system check out (see 7.7).

6.7 Cleanliness of Hose Assemblies – Hose assemblies may be contaminated during fabrication. Clean hoses to specified cleanliness levels

7. Hose Installation and Replacement

Use the following practices when installing hose assemblies in new systems or replacing hose assemblies in existing systems:

7.1 Pre-Installation Inspection – Before installing hose assemblies, examine:

- A. Hose length and routing for compliance with original design.
- B. Assemblies for correct style, size, length and visible nonconformities.
- C. Fitting sealing surfaces for burrs, nicks, or other damage.

NOTE: When replacing hose assemblies in existing systems, verify that the replacement is of equal quality to the original assembly.

7.2 Handling During Installation – Handle hose with care during installation. Kinking hose, or bending at less than minimum bend radius may reduce hose life. Avoid sharp bending at the hose/fitting juncture (see 5.21).

7.3 Twist Angle and Orientation – Pressure applied to a twisted hose may shorten the life of the hose or loosen the connections. To avoid twisting, use the hose lay line or marking as a reference (see Figure 8).

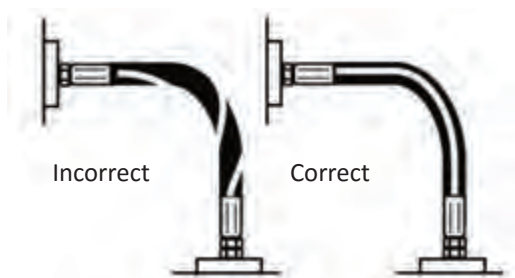


Figure 8. Twist Angle and Orientation

7.4 Securement and Protection – Install necessary restraints and protective devices. Determine that such devices do not create additional stress or wear points.

7.5 Routing – Review proper routing practices provided in Section 5 and make appropriate corrections to obtain optimum performance.

7.6 Assembly Torque – The connection end of a hose is normally threaded to obtain a tight pressure seal when attached to a port, an adapter, or another fitting. Sometimes bolts or screws provide the threaded connection. Each size and type of connection requires different torque values, and these may vary due to type of material or exterior coating.

7.7 System Checkouts – In hydraulic or other liquid systems, eliminate all air entrapment after completing the installation. Follow manufacturer's instructions to test the system for possible malfunctions and leaks.

7.7.1 To avoid injury during system checkouts:

- A. Do not touch any part of the system when checking for leaks (see 4.1).
- B. Stay out of potentially hazardous areas while testing hose systems (see Section 4).
- C. Relieve system pressure before tightening connections.

8. Maintenance Inspection

A hose and fitting maintenance program may reduce equipment downtime, maintain peak operating performance, and reduce the risk of personal injury and/or property damage. The user should design and implement a maintenance program that suits the specific application and each specific hose in that application.

8.1 Inspection Frequency – Evaluate factors such as the nature and severity of the application, past history, and manufacturers information to establish the frequency of visual inspections and functional tests.

8.2 Visual Inspection (Hose and Fittings) – Visually inspect hose and fittings for:

- A. Leaks at hose fitting or in hose.
- B. Damaged, cut or abraded cover.
- C. Exposed reinforcement.
- D. Kinked, crushed, flattened, or twisted hose.
- E. Hard, stiff, heat cracked, or charred hose.
- F. Blistered, soft, degraded, or loose cover.
- G. Cracked, damaged, or badly corroded fittings.

8.3 Visual Inspection (All Other Components) – When visually inspecting hose and fittings, inspect for related items including:

- A. Leaking ports.
- B. Damaged or missing hose clamps, guards or shields.
- C. Excessive dirt and debris around hose.
- D. System fluid: Level, type, contamination, condition and air entrainment. If any of these are found, address them appropriately.

8.4 Functional Test – Functional tests determine if systems are leak free and operating properly. Carry out functional tests per information from equipment manufacturers.

9. Hose Storage

Age control and the manner of storage can affect hose life. Use the following practices when storing hose.

9.1 Age Control – Maintain a system of age control to determine that hose is used before its shelf life has expired. Shelf life is the period of time when it is reasonable to expect the hose to retain full capabilities for rendering the intended service. Store hose in a manner that facilitates age control and first-in, first-out usage based on manufacturing date on hose or hose assembly. Per SAE J517:

- A. Shelf life of rubber hose in bulk form, or in hose assemblies passing visual inspection and proof test, is forty quarters (ten years) from the date of vulcanization.
- B. Shelf life of thermoplastic and polytetrafluoroethylene hose is considered to be unlimited.

9.2 Storage – Store hose and hose assemblies in a cool, dark, dry area with the ends capped. When storing hose, take care to avoid damage that could reduce hose life, and follow the manufacturers' information for storage and shelf life.

Examples of factors that can adversely affect hose product in storage are:

- A. Temperature
- B. Ozone
- C. Oils
- D. Corrosive liquids and fumes
- E. Rodents
- F. Humidity
- G. Ultraviolet light
- H. Solvents
- I. Insects
- J. Radioactive materials

If there are any questions regarding the quality or usability of hose or hose assemblies, evaluate appropriately:

- A. Flex the hose to the minimum bend radius and compare it with new hose. After flexing, examine the cover and tube for cracks. If any appear, no matter how small, reject the hose.
- B. If the hose is wire reinforced, and the hose is unusually stiff, or a cracking sound is heard during flexing, check for rust by cutting away a section of the cover from a sample. Rust would be another reason for rejection.
- C. If doubt still persists, contact hose assembler to conduct proof-pressure tests or any other tests needed to verify hose quality. Prepared by the SAE Fluid Conductors and Connectors Technical Committee SC3–Training and Education Subcommittee

Selection of Hose Diameter from Flow Rate and Velocity

The Fluid Velocity Nomogram gives the velocity of a liquid or gas as a function of flow rate and inside diameter of the fluid line. The commonly recommended maximum velocities for hydraulic oil systems at 200°F or less are indicated for guidance.

Example: At 10 gpm, what is the minimum size within the recommended velocity range for a hydraulic pressure line? The dashed line drawn from the 10 gpm mark on the left hand line to the maximum velocity of 20 fps intersects the middle line at .438 " (7/16" I. D. hose or tubing).

For a hose application, use 1/2" I. D., the nearest common standard size.

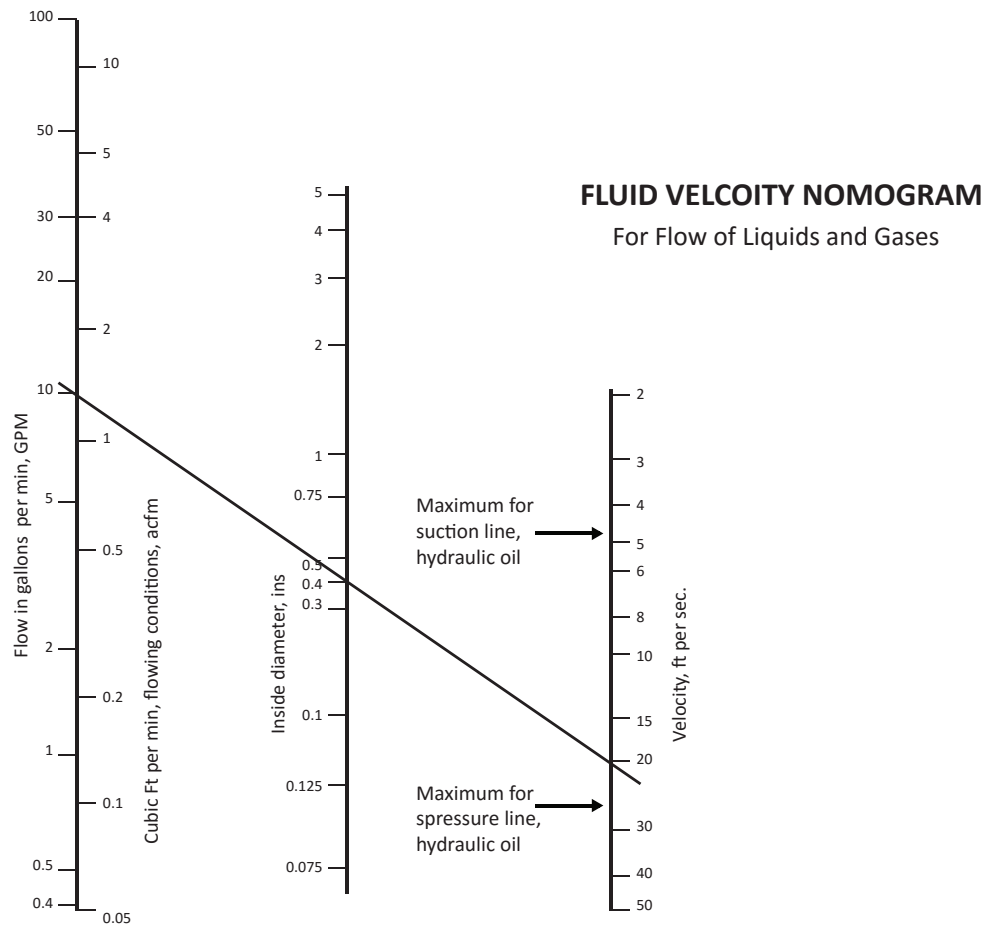
This chart is based on the following formulas: $V_{fps} = \frac{.321Q}{pd^2}$

$Q = \text{gal per min}$

$d = \text{hose or tube I. D. (inch)}$

$\text{cu. ft./min.} = .1337 Q$

The cu. ft. per min. value is the actual Volume flow rate under flowing conditions.
For air, standard cfm of free air = 7.81 actual cfm when the inlet air is at 100 PSig 68°F.



Determination of Pressure Drop in the Line

$$\text{Velocity: } v = 0.409 = \frac{Q}{d^2} = 0.0509 = \frac{w}{pd^2} = \frac{q}{.785d^2}$$

$$\text{Reynold's Number: } Re = 124 \frac{dvp}{\mu} = 6.31 \frac{w}{d\mu} = 378 \frac{qp}{d\mu}$$

Pressure Drop, Isothermal, Incompressible Flow (Liquids):

$$\Delta P = .001294 = \frac{fLpv^2}{d} = .00000336 = \frac{fLW^2}{pd^5} = .0121 \frac{fLq^2}{.d^5}$$

Pressure Drop, Isothermal, Compressible, Long Lines (Gases and Vapors):

$$\frac{\Delta P}{P_1} = 1 - \sqrt{1 - \frac{fLp1^2v^2}{12gdP_1}}$$

Symbols and Units for Listed Formulas

d = inside diameter of hose, inches

f = friction coefficient, dimensionless

g = gravitational constant, 32.2 ft./sec²

P₁ = input pressure, PSI

ΔP = pressure difference, PSI

q = rate of flow at working condition, cu. ft./min.

Q = rate of flow, gals./min.

Re = Reynolds number, dimensionless

v = flow velocity, ft./sec.

W = rate of flow, lbs./hr.

p = weight density of fluid, lbs./cu. ft.

μ = absolute (dynamic) viscosity, centipoises

CHEMICAL RESISTANCE CHART

Fluid or material conveyed	Chloroprene	EPDM	NBR	SBR	UHMWPE	XLPE	Polyamide	Polyester	PTFE	PU
Acetaldehyde	C	E	E	X	X	X	X	X	E	X
Acetic Acid, glacial	F	G	G	X	X	X	X	X	E	X
Acetic Acid 10%	E	E	E	F	F	F	F	F	E	X
Acetic Acid 50%	F	E	E	F	F	F	F	F	E	X
Acetic Anhydride	G	G	G	X	X	X	X	X	E	X
Acetone	C	E	E	C	C	C	C	C	E	X
Acetone cyanohidrin	G	E	E	-	-	-	-	-	-	-
Acetophenone	X	E	E	X	X	X	X	X	-	-
Acetyl Acetone	X	E	E	X	X	X	X	X	-	-
Acetyl chloride	X	X	X	X	X	X	X	X	-	-
Acetylene	E	E	E	F	F	F	F	F	E	F
Acetylene dichloride	X	C	C	X	X	X	X	X	-	-
Acrolein	G	E	E	F	F	F	F	F	-	-
Acrylonitrile	X	E	E	F	F	F	F	F	E	X
Adipic Acid	E	C	C	X	X	X	X	X	E	E
Air 60°C	E	E	E	E	E	E	E	E	-	-
Air 160°C	G	G	G	X	X	X	X	X	-	-
Allyl acetate	-	-	-	-	-	-	-	-	-	-
Allyl Alcohol	E	E	E	E	E	E	E	E	-	-
Allyl bromide	X	X	X	-	-	-	-	-	-	-
Allyl chloride	X	X	X	E	E	E	E	E	-	-
Aluminium acetate	C	E	E	X	X	X	X	X	-	-
Aluminium chloride	E	E	E	E	E	E	E	E	E	G
Aluminium fluoride	E	E	E	E	E	E	E	E	-	-
Aluminium hydroxide	E	E	E	G	G	G	G	G	-	-
Aluminium nitrate	E	E	E	E	E	E	E	E	-	-
Aluminium sulfate	G	E	E	G	G	G	G	G	E	G
Aminobenzene	X	C	C	X	X	X	X	X	-	-
Aminoethanol	-	E	E	F	F	F	F	F	-	-
Ammonia anhydrous	X	X	X	X	X	X	X	X	-	-
Ammonia sol. 10%	E	E	E	F	F	F	F	F	E	X
Ammonia sol. 50%	E	E	E	F	F	F	F	F	-	-
Ammonium chloride	E	E	E	E	E	E	E	E	E	G
Ammonium hidroxide	E	E	E	X	X	X	X	X	E	X
Ammonium nitrate	E	E	E	E	E	E	E	E	E	X
Ammonium phosphate	E	E	E	E	E	E	E	E	E	-
Ammonium sulphate	E	E	E	G	G	G	G	G	E	G
Ammonium sulphite	E	E	E	G	G	G	G	G	-	-
Ammonium thiosulph	E	E	E	-	-	-	-	-	-	-
Amyl acetate	X	C	C	X	X	X	X	X	E	X
Amyl acetone	X	G	G	-	-	-	-	-	-	-
Amyl alcohol	C	E	E	G	G	G	G	G	E	X
Amylamine	G	X	X	-	-	-	-	-	-	-
Amyl bromide	X	C	C	-	-	-	-	-	-	-
Amyl chloride	X	X	X	X	X	X	X	X	-	-
Amyl oleate	-	-	-	-	-	-	-	-	-	-
Amyl phenol	-	-	-	-	-	-	-	-	-	-
Amyl phthalate	-	G	G	-	-	-	-	-	-	-

C: CONDITIONAL E: EXCELLENT F: FAIR G : GOOD X: UNSATISFACTORY

Fluid or material conveyed	Chloroprene	EPDM	NBR	SBR	UHMWPE	XLPE	Polyamide	Polyester	PTFE	PU
Anethole	X	X	X	-	-	-	-	-	-	-
Aniline	X	C	X	X	E	E	F	X	E	X
Animal fats	C	C	E	X	E	E	G	-	E	-
Antimony pentachlorid	C	C	X	-	E	E	X	-	-	-
Acqua regia	X	C	X	X	X	X	X	X	E	X
Aromatic tar	-	-	G	-	G	E	-	-	-	-
Arsenic acid	E	E	E	E	E	E	-	-	-	-
Ascorbic acid	-	-	-	-	E	E	-	-	-	-
Asphalt 80°C	-	-	E	-	F	X	-	-	-	-
Asphalt 130°C	-	-	X	-	X	X	-	-	-	-
ASTM OIL n°1	E	X	E	X	E	E	E	E	E	E
ASTM OIL n°2	C	X	E	X	E	E	E	E	E	G
ASTM OIL n°3	C	X	E	X	E	E	E	G	E	E
ASTM FUEL A	C	X	E	X	-	-	E	E	E	G
ASTM FUEL B	X	X	C	X	-	-	E	E	E	G
ASTM FUEL C	X	X	C	X	-	-	E	G	E	F
Banana Oil	X	C	X	-	-	-	-	-	-	-
Barium carbonate	E	E	E	E	E	E	-	-	-	-
Barium chloride	E	E	E	E	E	E	G	F	E	E
Barium hydroxide	E	E	E	E	E	E	G	G	E	X
Barium sulfide	E	E	E	G	E	E	-	-	-	-
Beer	E	E	E	E	E	E	-	G	E	-
Beet sugar liquors	C	E	E	E	E	E	-	-	-	-
Benzal chloride	-	-	X	-	-	-	-	-	E	-
Benzaldehyde	X	E	X	X	E	E	E	G	E	X
Benzene	C	C	X	X	F	E	G	G	E	X
Benzene carboxylic ac	E	C	X	-	-	-	-	-	-	-
Benzene sulfon ac 10%	-	-	-	-	E	E	-	-	-	-
Benzine petrol ether	X	X	E	X	E	E	-	-	-	-
Benzine petrol naphtha	X	X	E	X	E	E	-	-	-	-
Benzoic acid	E	C	X	X	-	-	G	-	G	-
Benzoic aldehide	-	F	-	X	E	E	-	-	-	-
Benzotrighloride	X	E	X	X	-	-	-	-	-	-
Benzyl acetate	E	E	X	X	-	-	-	-	-	-
Benzyl alcohol	C	C	X	X	-	-	F	X	G	X
Benzyl chloride	X	X	X	X	-	-	-	-	-	-
Bichromate of soda	-	-	-	-	E	E	-	-	-	-
Black sulphate liquor	G	G	G	G	E	E	-	-	-	-
Bleach (2-12% chlorine)	-	-	-	-	F	E	-	-	-	-
Boric acid	E	E	E	E	E	E	F	G	E	E
Bordeaux mixture	-	E	-	-	E	E	-	-	-	-
Brine	E	E	E	-	E	E	-	-	-	-
Bromic acid	-	-	-	-	X	X	-	-	-	G
Bromine	X	X	X	X	X	X	X	X	E	X
Bromobenzene	X	X	X	X	X	X	-	-	-	-
Bromochloromethane	X	G	X	-	F	F	-	-	-	-
Bromoethane	X	X	C	X	E	E	-	-	-	-
Bromotoluene	-	-	X	-	-	-	-	-	-	-
Bunker oil	G	X	E	X	-	-	-	-	-	-

C: CONDITIONAL E: EXCELLENT F: FAIR G : GOOD X: UNSATISFACTORY

Fluid or material conveyed	Chloroprene	EPDM	NBR	SBR	UHMWPE	XLPE	Polyamide	Polyester	PTFE	PU
Butadiene	X	X	X	X	E	E	-	-	-	-
Butane	E	X	E	X	E	E	G	E	E	X
Butanoic acid	X	C	C	-	-	C	-	-	-	-
Butanol	E	C	E	E	E	E	F	G	E	X
Butanone	X	E	X	X	E	E	G	E	E	X
Butoxiethanol	X	E	C	-	-	E	-	-	-	-
Butyl acetate	X	C	X	X	E	E	G	G	E	X
Butyl acrylate	X	C	X	X	E	E	-	-	-	-
Butyl alcohol	E	C	E	E	E	E	X	X	E	G
Butyl aldehyde	X	C	X	X	E	E	-	-	-	-
Butyl amine	-	F	F	-	E	E	-	-	-	-
Butyl benzene	-	-	-	-	E	E	-	-	-	-
Butyl bromide	X	X	X	X	-	F	-	-	-	-
Butyl benzoate	-	-	-	-	-	E	-	-	-	-
Butyl butyrate	-	-	-	-	-	F	-	-	-	-
Butyl carbitol	X	E	X	X	-	-	-	-	-	-
Butyl cellosolve	X	C	C	X	E	E	-	-	-	-
Butyl chloride	X	X	X	-	-	-	-	-	-	-
Butyl ether	C	C	X	X	E	E	-	-	-	-
Butyl ether acetaldehy	X	X	X	-	-	E	-	-	-	-
Butyl ethil ether	X	F	G	-	-	-	-	-	-	-
Butyl glicol	-	F	-	-	E	E	-	-	-	-
Butyl oleate	X	C	X	X	-	-	-	-	-	-
Butyl phenol	-	-	-	-	E	E	-	-	-	-
Butyl phthalate	X	E	X	X	E	E	-	-	-	-
Butyl stearate	X	X	C	X	E	E	-	-	-	-
Butylene	C	X	C	X	-	-	-	-	-	-
Butyraldehyde	X	C	X	X	E	E	-	-	-	-
Butyric acid	X	C	C	X	E	E	-	-	-	-
Butyric anhydride	G	E	C	-	-	-	-	-	-	-
Cadmiun acetate	-	-	X	-	-	-	-	-	-	-
Calcium aluminate	-	-	E	-	-	-	-	-	-	-
Calcium Bichromate	E	E	C	-	-	-	-	-	-	-
Calcium bisulphite	E	E	C	G	-	-	-	-	-	-
Calcium carbonate	E	E	E	E	E	E	-	-	-	-
Calcium chloride	E	E	E	E	E	E	G	E	E	E
Calcium hydroxide	E	E	E	E	E	E	E	F	E	X
Calcium hypochlorite	C	E	C	X	E	E	E	F	E	F
Calcium nitrate	E	E	E	E	-	-	E	E	E	X
Calcium sulphate	E	E	E	X	-	-	-	G	E	-
Calcium sulfide	E	E	E	X	-	-	-	-	-	-
Calcium acetate	C	E	C	X	-	-	-	-	-	-
Caprylic acid	-	-	F	-	-	-	-	-	-	-
Carbamide	G	E	G	-	E	E	-	-	-	-
Carbitol	C	C	C	E	E	E	-	-	-	-
Carbolic acid phenol	-	-	-	-	-	-	-	-	-	-
Carbon dioxide	G	G	E	G	E	E	F	E	E	X
Carbon disulfide	X	X	X	-	C	C	F	F	E	X
Carbonic acid	E	E	C	G	E	E	F	E	E	X

C: CONDITIONAL E: EXCELLENT F: FAIR G: GOOD X: UNSATISFACTORY

Fluid or material conveyed	Chloroprene	EPDM	NBR	SBR	UHMWPE	XLPE	Polyamide	Polyester	PTFE	PU
Carbon tetrachloride	X	X	X	-	E	E	X	X	E	X
Carbon tetrafluoride	-	-	-	-	E	E	-	-	-	-
Castor oil	E	C	E	E	E	E	F	F	E	F
Caustic potash	F	E	F	F	E	E	-	-	-	-
Caustic soda	G	G	C	E	E	E	-	-	-	-
Cellosolve	-	F	F	-	E	E	-	-	-	-
Cellosolve acetate	X	G	X	X	E	E	-	-	-	-
Chlorinated solvents	X	X	X	X	E	E	-	-	-	-
Chlorine (dry)	X	X	X	X	F	F	-	-	E	-
Chlorine (wet)	X	X	X	X	F	F	-	-	E	-
Chlorine trifluoride	X	X	X	X	F	F	-	-	-	-
Chloroacetic acid	X	C	X	X	E	E	F	X	E	X
Chloroacetone	X	E	X	X	E	E	-	-	-	-
Chlorobenzene	X	X	X	X	E	E	E	X	E	F
Chlorobenzol	-	X	-	X	E	E	-	-	-	-
Chlorobromomethane	-	-	-	-	E	E	-	-	-	-
Chlorobutane	X	X	X	-	-	-	-	-	-	-
Chloroform	X	X	X	X	F	F	-	-	E	-
Chloropentane	X	X	X	-	-	-	-	-	-	-
Chlorosulfonic acid	X	X	X	X	X	F	X	X	E	X
Chlorotoluence	X	X	X	X	-	-	-	-	-	-
Chrome plating solutio	X	C	X	X	-	-	-	-	-	-
Chromic acid	X	C	X	X	E	E	X	X	E	X
Chromosulfuric acid	X	X	X	X	X	F	-	-	-	-
Citric acid	E	E	E	E	E	E	G	G	E	X
Coal oil	X	X	E	X	E	E	E	E	E	F
Coal tar	C	X	C	X	E	E	-	-	-	-
Coconut oil	C	C	E	X	E	E	-	-	-	-
Coke oven gas	X	X	X	X	E	E	-	-	-	-
Copper chloride	C	E	E	E	E	E	-	-	-	-
Copper cyanide	E	E	E	E	E	E	-	G	-	-
Copper hydrate	-	-	G	-	-	-	-	-	-	-
Copper hydroxide	-	-	G	-	-	-	-	-	-	-
Copper nitrate	E	E	-	E	E	E	-	G	-	-
Copper sulphate	E	E	E	G	E	E	-	G	-	-
Corn oil	C	C	E	X	E	E	-	-	-	-
Cottonseed oil	C	C	E	X	E	E	-	G	E	-
Creosote	C	X	C	X	E	E	X	G	E	X
Cresols	X	X	X	X	E	E	X	X	E	X
Cresylic acid	X	X	X	X	E	E	-	-	-	-
Crotonaldehyde	X	E	X	F	E	E	-	-	-	-
Crude oil	C	X	C	X	E	E	-	-	-	-
Cumene	X	X	X	X	-	-	-	-	-	-
Cupric carbonate	-	-	-	-	-	-	-	-	-	-
Cupric nitrate	E	C	C	-	E	E	-	-	-	-
Cupric sulphate	E	E	E	G	-	E	-	-	-	-
Cutting oil	C	X	E	X	-	-	-	-	E	-
Cyclohexane	E	X	C	X	E	E	F	E	E	F
Cyclohexanol	C	X	G	X	E	E	F	G	E	-

C: CONDITIONAL E: EXCELLENT F: FAIR G: GOOD X: UNSATISFACTORY

CHEMICAL RESISTANCE CHART

Fluid or material conveyed	Chloroprene	EPDM	NBR	SBR	UHMWPE	XLPE	Polyamide	Polyester	PTFE	PU
Cyclohexanone	X	C	X	E	E	E	F	F	E	X
Cyclopentane	C	X	G	-	E	-	G	F	-	-
Cyclopentanol	-	-	-	-	-	-	-	-	-	-
Cyclopentanone	-	-	X	-	E	-	-	-	-	-
Decahydronaphthalene	X	X	X	E	E	E	G	-	E	-
Decalin	X	X	X	E	-	E	G	-	E	-
Decanol	-	F	E	E	E	E	-	-	-	-
Decyl alcohol	X	X	E	-	E	-	-	-	-	-
Decyl aldehyde	-	X	X	-	E	-	-	-	-	-
Decyl butyl phthalate	-	-	X	-	E	-	-	-	-	-
Decyl carbinol	-	-	-	-	E	E	-	-	-	-
Denatured alcohol	E	E	-	E	E	E	G	-	E	-
Detergents (water)	F	E	E	E	-	E	-	-	-	-
Developer sol. (photo)	E	-	E	E	-	E	-	-	-	-
Diacetone alcohol	F	E	X	E	-	E	G	-	-	-
Diamylamine	C	E	G	-	-	-	-	-	-	-
Diamylene	X	X	-	-	E	-	-	-	-	-
Diamyl naphthalene	-	-	-	E	-	E	-	-	-	-
Diamyl Phenol	X	-	X	E	E	E	-	-	-	-
Dibenzyl ether	X	C	X	-	-	-	-	-	-	-
Dibromobenzene	X	X	X	X	-	X	-	-	-	-
Dibromoethane	X	C	X	-	E	-	-	-	-	-
Dibutyl ether	C	C	X	E	-	E	-	-	-	-
Dibutyl Phthalate	X	C	X	E	E	E	F	F	E	X
Dibutyl sebacate	X	C	X	E	E	E	-	-	-	-
Dibutyl amine	C	F	X	-	E	-	-	-	-	-
Dicalcium phosphate	E	E	E	-	-	-	-	-	-	-
Dichloroacetic acid	X	-	X	E	E	E	-	-	-	-
Dichlorobenzene	X	X	X	-	E	-	E	X	E	X
Dichlorobutane	X	X	C	-	-	-	-	-	-	-
Dichlorodifluorometh	C	C	C	G	-	E	-	-	-	-
Dichloroethane	X	X	X	-	-	-	-	-	-	-
Dichloroethylene	X	C	X	F	-	F	G	X	E	G
Dichloroethyl ether	X	X	X	-	-	-	-	-	-	-
Dichlorohexane	X	X	X	-	E	-	-	-	-	-
Dichloromethane	X	X	X	-	E	-	-	-	-	-
Dichloropentane	X	X	X	-	E	-	-	-	-	-
Dichloropropane	X	X	F	G	E	G	-	-	-	-
Dichloropropene	X	X	C	G	-	G	-	-	-	-
Diesel oil	C	X	E	E	-	E	G	X	E	G
Diethanolmine	G	G	C	-	-	-	G	-	E	-
Diethylamine	G	G	C	-	-	-	-	-	-	-
Diethyl Carbinol	-	E	-	E	E	E	-	-	-	-
Diethyl ether	X	X	X	E	E	E	-	-	-	-
Diethyl ketone	X	G	X	E	-	E	-	-	-	-
Diethyl oxalate	X	X	X	-	E	-	-	-	-	-
Diethyl phthalate	X	F	X	E	C	E	-	-	-	-
Diethyl sebacate	X	F	C	-	E	-	-	-	-	-

C: CONDITIONAL E: EXCELLENT F: FAIR G: GOOD X: UNSATISFACTORY

Fluid or material conveyed	Chloroprene	EPDM	NBR	SBR	UHMWPE	XLPE	Polyamide	Polyester	PTFE	PU
Diethyl sul fate	E	E	X	E	-	-	-	-	-	-
Diethylamine	C	C	C	G	E	E	-	-	-	-
Diethylene glycol	E	E	E	E	E	E	-	-	-	-
Dihydroxydiethylene	E	E	E	-	E	E	-	-	-	-
Diisobutyl ketone	X	E	X	X	E	E	-	-	-	-
Diisodecyl phthalate	X	E	X	-	E	E	-	-	-	-
Diisooctyl adipate	X	E	X	-	-	-	-	-	-	-
Diisooctyl phthalate	X	E	X	-	E	E	-	-	-	-
Diisopropyl amine	-	-	-	F	E	E	-	-	-	-
Dimethyl amine	X	E	F	X	E	E	-	-	-	-
Dimethyl benzene	X	X	X	X	-	-	-	-	-	-
Dimethyl carbinol	G	E	C	-	E	E	-	-	-	-
Dimethyl ether	-	-	-	X	E	E	-	-	-	-
Dimethyl formamide	-	-	-	-	E	E	G	X	X	X
Dimethyl ketone	C	E	X	F	E	E	-	-	-	-
Dimethyl phenol	X	X	X	X	-	-	-	-	-	-
Dimethyl phthalate	X	C	X	X	E	E	-	-	-	-
Dimethyl sul fate	X	X	X	-	E	E	G	X	X	X
Dimethyl sulfoxide	-	-	-	X	E	E	-	-	-	-
Dinitrobenzene	-	-	-	X	E	E	-	-	-	-
Diocetyl adipate	-	-	E	X	E	E	-	-	-	-
Diocetyl phthalate	-	-	-	X	E	E	-	-	-	-
Dioxane	X	C	X	X	E	E	G	-	E	-
Dioxolane	-	X	-	X	E	E	-	-	-	-
Dipentene	X	X	C	X	-	-	-	-	-	-
Diphenyl phthalate	-	-	-	X	E	E	-	-	-	-
Dipropylamine	-	F	F	F	E	E	-	-	-	-
Dipropylene glycol	E	E	E	-	-	-	-	-	-	-
Disodium phosphate	-	E	E	E	E	E	-	-	-	-
Divinyl benzene	X	X	X	X	E	E	-	-	-	-
Dodecyl benzene	X	X	X	X	E	E	-	-	-	-
Dowper	-	X	F	X	E	E	-	-	-	-
Dowtherm A and E	X	X	X	X	-	-	-	-	-	-
Dry cleaning fluids	X	X	C	X	-	-	-	-	-	-
Ethanol	E	E	C	E	E	E	E	G	E	X
Ethanol amine	C	E	C	X	-	-	-	-	-	-
Ethyl acetate	X	C	X	X	E	E	E	G	E	X
Ethyl acetoacetate	X	C	X	F	-	-	-	-	-	-
Ethyl acetone	X	G	X	-	-	-	-	-	-	-
Ethyl acrylate	X	C	X	X	-	-	-	-	-	-
Ethyl aldehyde	X	E	X	-	E	E	-	-	-	-
Ethyl Al dichloride	-	-	-	X	E	E	-	-	-	-
Ethyl amine	F	F	-	-	E	E	-	-	-	-
Ethyl benzene	X	X	X	X	E	E	G	-	-	-
Ethyl bromide	X	X	C	X	E	E	-	-	-	-
Ethyl butyl alcohol	-	-	X	-	-	-	-	-	-	-
Ethyl butyl amine	-	E	F	F	E	E	-	-	-	-
Ethyl butyl ketone	-	F	-	X	E	E	-	-	-	-

C: CONDITIONAL E: EXCELLENT F: FAIR G: GOOD X: UNSATISFACTORY

Fluid or material conveyed	Chloroprene	EPDM	NBR	SBR	UHMWPE	XLPE	Polyamide	Polyester	PTFE	PU
Ethylbutyraldehyde	-	-	-	X	E	E	-	-	-	-
Ethyl butyrate	-	-	-	X	E	E	-	-	-	-
Ethyl cellulose	C	C	-	G	E	E	-	-	-	-
Ethyl chloride	-	C	E	G	E	E	E	X	E	F
Ethyl dichloride	-	X	X	X	E	E	-	-	-	-
Ethyl ether	X	X	X	X	E	E	-	-	-	-
Ethyl formate	2	C	-	X	-	-	-	-	-	-
Ethyl iodide	X	F	X	-	E	E	-	-	-	-
Ethyl phthalate	X	F	X	-	E	E	-	-	-	-
Ethylene chlorohydrine	C	C	X	G	-	-	X	X	E	X
Ethylene diamine	E	E	C	G	E	E	-	-	-	-
Ethylene dibromide	X	C	X	X	F	F	-	-	-	-
Ethylene dichloride	X	X	X	X	F	F	F	X	E	X
Ethylene glycol	E	E	E	E	E	E	E	E	E	G
Ethylene oxide gas	-	X	-	-	E	E	-	-	-	-
Fatty acids	C	X	C	X	G	E	-	-	-	-
Ferric bromide	-	-	E	-	-	-	-	-	-	-
Ferric chloride	C	E	E	E	E	-	X	F	E	E
Ferric nitrate	E	E	E	E	E	-	E	G	E	E
Ferric sulfate	E	E	E	E	E	-	E	F	E	G
Ferrous acetate	X	G	X	-	-	-	-	-	-	-
Ferrous chloride	E	E	E	-	E	-	-	G	E	-
Ferrous hydroxide	-	X	-	X	E	E	-	-	-	-
Ferrous sulfate	E	E	E	E	E	-	E	E	E	G
Fluoboric acid	E	E	-	E	E	E	-	-	-	-
Fluorine gas	X	X	X	X	E	E	-	-	-	-
Fluorobenzene	-	-	-	-	E	E	-	-	-	-
Fluosilicic acid	E	E	E	G	E	E	-	-	-	-
Formaldehyde	C	C	C	G	E	E	F	F	E	X
Formalin	G	E	G	G	E	E	G	-	-	-
Formic acid	C	E	C	E	E	E	X	X	E	X
Freon SO2	F	-	-	-	E	E	-	-	-	-
Freon 12	C	C	C	E	G	F	E	E	E	G
Freon 22	X	C	X	E	E	F	E	X	E	X
Fuel B (ASTM)	X	X	C	X	-	-	-	-	-	-
Fuel C (ASTM)	X	X	E	X	E	E	-	-	-	-
Fuel oil	C	X	E	X	E	E	-	-	E	-
Furan	X	X	X	X	E	E	-	-	-	-
Furfural	X	C	X	X	E	E	F	G	E	X
Furfuryl alcohol	X	C	X	X	E	E	-	-	-	-
Gallic acid	C	C	C	G	E	E	E	G	E	X
Gas, coke	-	-	F	X	-	-	-	-	-	-
Gas, liquified petrol	X	X	F	X	E	E	-	-	-	-
Gasoline	-	X	E	X	E	E	E	E	E	E
Gluconic acid	E	-	C	-	-	-	-	-	-	-
Glucose	C	E	E	E	E	E	G	-	E	-
Glycerine	E	E	E	E	E	E	E	E	E	X
Glycols	E	E	E	E	E	E	G	-	E	-
Glycolic acid	E	E	F	-	G	G	-	-	-	-

C: CONDITIONAL E: EXCELLENT F: FAIR G: GOOD X: UNSATISFACTORY

Fluid or material conveyed	Chloroprene	EPDM	NBR	SBR	UHMWPE	XLPE	Polyamide	Polyester	PTFE	PU
Ethylglycil alcohol	-	-	-	-	E	E	-	-	-	-
Grease	F	X	E	X	E	E	E	E	E	E
Green sulphate liquor	F	E	E	G	E	E	-	-	-	-
Halon 1211	E	-	E	-	E	-	-	-	-	-
Helium	E	E	E	E	E	E	E	E	E	E
Heptanal	C	C	E	X	E	E	-	-	-	-
Heptane	C	X	E	X	E	E	E	G	E	G
Heptane carboxyl acid	-	-	-	X	E	E	-	-	-	-
Hexaldehyde	C	C	X	X	E	E	-	-	-	-
Hexane	C	X	E	X	E	E	G	E	E	G
Hexanol	C	C	C	E	E	E	-	-	-	-
Hexene	C	X	C	X	E	E	-	-	-	-
Hexyl alcohol	C	C	C	E	E	E	-	-	-	-
Hexylamine	G	G	F	G	E	E	-	-	-	-
Hexylene glycol	E	F	C	G	E	E	-	-	-	-
Hexyl methyl ketone	C	G	X	X	E	E	-	-	-	-
Hydraulic oil	-	X	E	X	E	E	G	-	E	G
Hydrazine	C	E	C	G	E	E	-	-	-	-
Hydrobromic acid	C	E	X	X	E	E	X	X	E	X
Hydrochloric acid 15%	-	E	-	X	E	E	G	G	E	X
Hydrocl.ac.37% (cold)	-	E	-	X	E	E	-	-	-	-
Hydrocl.ac.37% (hot)	-	X	-	X	E	E	-	-	-	-
Hydrocyanic acid	C	E	C	G	E	E	X	X	E	X
Hydrofluoric acid cold	-	X	-	X	E	E	-	-	-	-
Hydrofluoric acid hot	-	X	-	X	E	E	-	-	-	-
Hydrofluosilicic acid	C	E	X	G	E	E	-	-	-	-
Hydrogen dioxide 10%	-	-	-	X	E	E	-	-	-	-
Hydrogen gas	E	E	E	G	E	E	E	E	E	E
Hydrogen perox 10%	F	G	F	X	E	E	-	-	-	-
Hydrogen perox > 10%	-	-	-	X	E	E	-	-	-	-
Hydrogen sulfide	E	E	X	X	E	E	X	E	E	X
Iodine	C	C	C	G	E	E	-	C	-	-
Iron acetate	-	G	-	X	E	E	-	-	-	-
Iron salts	E	E	E	E	E	E	G	-	-	-
Isoamyl acetate	-	G	-	X	E	E	-	-	-	-
Isoamyl alcohol	-	E	E	E	E	E	-	-	-	-
Isoamyl bromide	-	X	-	X	E	E	-	-	-	-
Isobutane	-	X	E	X	E	E	G	-	-	C
Isobutyl acetate	X	-	-	X	E	E	-	-	E	X
Isobutyl aldehyde	-	G	X	X	E	E	-	-	-	-
Isobutyl amine	X	G	X	G	E	E	-	-	-	-
Isobutyl bromide	X	X	X	X	-	E	-	-	-	-
Isobutyl carbinol	E	E	E	E	E	E	-	-	-	-
Isobutyl chloride	X	X	X	X	-	E	-	-	-	-
Isobutylene	X	X	G	X	E	E	-	-	-	-
Isobutyl ether	X	X	G	X	E	E	-	-	E	G
Isooctane	C	X	E	X	E	E	E	E	E	E
Isopentane	X	X	E	X	E	E	-	-	-	-
Isopropanol amine	-	-	G	G	E	E	-	-	-	-

C: CONDITIONAL E: EXCELLENT F: FAIR G: GOOD X: UNSATISFACTORY

CHEMICAL RESISTANCE CHART

Fluid or material conveyed	Chloroprene	EPDM	NBR	SBR	UHMWPE	XLPE	Polyamide	Polyester	PTFE	PU
Isopropyl acetate	X	C	X	X	E	E	E	F	E	X
Isopropyl alcohol	C	E	C	E	E	E	E	F	E	X
Isopropyl amine	-	E	G	G	E	E	-	-	-	-
Isopropyl benzene	X	X	-	X	E	E	-	-	-	-
Isopropyl ether	X	X	G	X	E	E	-	-	E	G
Isopropyl toluene	X	X	X	X	E	E	-	-	-	-
Jet fuels	C	X	C	X	E	E	-	-	-	-
Kerosene	C	X	E	X	E	E	E	E	E	G
Ketones	C	E	C	E	E	E	E	X	E	X
Laquers solvents	X	X	X	X	E	E	E	X	E	X
Lactic acid (cold)	C	C	C	G	G	G	-	-	-	-
Lactic acid (hot)	C	C	E	X	E	E	E	G	E	F
Lard	C	C	E	X	E	G	E	G	E	F
Lauryl alcohol	-	E	E	E	E	E	-	-	-	-
Lead sulfate	E	E	E	E	E	E	-	-	-	-
Lime bleach	C	E	C	E	E	E	-	-	E	-
Lime sulfur	E	E	E	C	E	E	-	-	-	-
Linoleic acid	C	X	C	X	E	E	-	-	E	-
Linseed oil	E	C	E	X	E	E	G	-	E	-
Liquid Petroleum Gas	G	X	E	X	E	E	E	G	E	F
Lubricating oils	C	X	C	X	E	E	-	-	-	-
Lye solutions	G	G	C	G	E	E	-	-	-	-
Magnesium acetate	X	G	X	X	E	E	-	-	-	-
Magnesium chloride	E	E	E	E	E	E	E	G	E	E
Magnesium hydrate	C	E	C	G	E	E	G	F	E	X
Magnesium hydroxide	C	E	C	G	E	E	G	F	E	X
Magnesium sulfate	E	E	E	G	E	E	-	G	E	-
Maleic acid	X	C	X	X	E	E	F	-	E	X
Maleic anhydride	X	C	X	X	E	E	-	-	E	-
Malic acid	C	C	E	G	C	C	-	-	-	-
Manganese sulphate	-	E	-	G	E	E	-	-	-	-
Manganese sulphite	-	E	-	G	E	E	-	-	-	-
M.E.K	-	G	-	X	E	E	-	-	-	-
Mercury	E	E	E	E	E	E	G	-	E	-
Mesityl oxide	-	C	-	X	E	E	-	-	-	-
Methallyl alcohol	E	E	E	E	E	E	-	-	-	-
Methanecarboxylic acid	G	X	-	X	E	E	-	-	-	-
Methanoic acid	E	E	G	E	E	E	-	-	-	-
Methanol	E	E	C	E	E	E	E	G	E	X
Methoxy ethanol	-	E	X	X	E	E	-	-	-	-
Methyl acetate	C	C	X	X	E	E	E	G	E	X
Methyl acetone	X	E	X	X	E	E	-	-	-	-
Methyl alcohol	E	E	E	E	E	E	-	-	-	-
Methyl allyl alcohol	-	E	x	E	E	E	-	-	-	-
Methyl allyl acetate	-	-	-	X	E	E	-	-	-	-
Methyl allyl chloride	-	-	-	X	G	E	E	X	X	X
Methyl amyl acetate	X	-	-	X	G	E	-	-	-	-

C: CONDITIONAL E: EXCELLENT F: FAIR G : GOOD X: UNSATISFACTORY

Fluid or material conveyed	Chloroprene	EPDM	NBR	SBR	UHMWPE	XLPE	Polyamide	Polyester	PTFE	PU
Methyl amyl carbinol	G	E	G	E	E	E	-	-	-	-
Methyl benzene	X	X	X	X	G	G	-	-	-	-
Methyl bromide	X	X	C	X	E	E	E	X	E	X
Methyl butane	-	X	G	X	-	E	-	-	-	-
Methyl butanol	-	E	E	E	E	E	-	-	-	-
Methyl butyl ketone	-	G	-	X	E	E	-	-	-	-
Methyl carbitol	-	-	-	X	E	E	-	-	-	-
Methyl cellosolve	-	G	3	X	E	E	-	-	-	-
Methyl chloride	X	C	X	X	F	F	E	G	E	E
Methyl cyclohexane	X	X	X	X	E	E	-	-	-	-
Methylene bromide	X	X	C	X	E	E	E	X	E	X
Methylene chloride	X	C	X	X	F	F	E	X	E	X
Methyl ethyl ketone	X	E	X	X	E	E	E	G	E	X
Methyl hexanol	E	E	E	E	E	E	-	-	-	-
Methyl hexanone	X	G	X	X	E	E	-	-	-	-
Methyl isobut carbinol	X	C	X	G	E	E	-	-	-	-
Methyl methacrylate	-	X	-	X	E	E	F	-	E	X
Methyl n amyl chetone	-	-	-	X	E	E	-	-	-	-
Methyl propyl ether	X	X	X	X	E	E	-	-	-	-
Methyl salicylate	X	C	X	X	E	E	-	-	-	-
Methyl ter butyl ether	-	-	-	XX	E	E	-	-	-	-
Methyl 1,2-pentanediol	-	-	-	X	E	E	-	-	-	-
Methylene bromide	X	X	C	X	E	E	E	X	E	X
Methylene chloride	X	C	X	X	F	F	E	X	E	X
Methyl isobutyl cheton	3	X	X	X	E	E	-	-	-	-
Mineral Spirits	C	X	E	X	E	E	-	-	-	-
Molten sulphur	E	E	G	G	-	-	-	-	-	-
Monobutyl ether	C	C	G	X	E	E	-	-	-	-
Monochloroacetic acid	C	G	X	X	E	E	-	-	-	-
Monochlorobenzene	X	X	X	X	F	F	-	-	-	-
Monochlorodifluormet	X	X	-	X	E	E	-	-	-	-
Monoethanol amine	G	C	G	G	E	E	-	-	-	-
Monoethyl amine	G	C	G	G	E	E	-	-	-	-
MTBE (ter butyl metil Ether)	-	-	-	X	-	E	-	-	-	-
Muriatic acid	C	F	C	X	E	E	G	-	E	-
Naphta	G	X	C	X	E	E	-	-	-	-
Naphtalene	X	X	X	X	E	E	E	E	E	F
Naphtenic acid	C	X	C	X	E	E	-	-	-	-
Natural gas	E	X	E	F	E	E	E	G	E	F
Neohexane	G	X	E	X	E	E	-	-	-	-
Nickel acetate	G	E	C	X	E	E	-	-	E	X
Nickel chloride	C	E	E	E	E	E	X	X	E	X
Nickel nitrate	E	E	E	E	E	E	-	-	-	-
Nickel sulphate	E	E	E	G	E	E	-	-	-	-
Nitric acid 10%	G	E	X	X	E	E	X	X	E	X
Nitric acid 20%	X	E	X	X	E	E	-	-	-	-
Nitric acid 30%	X	F	X	X	G	G	-	-	-	-

C: CONDITIONAL E: EXCELLENT F: FAIR G : GOOD X: UNSATISFACTORY

Fluid or material conveyed	Chloroprene	EPDM	NBR	SBR	UHMWPE	XLPE	Polyamide	Polyester	PTFE	PU
Nitric acid 40%	X	X	-	X	E	E	-	-	-	-
Nitric acid 40-60%	X	X	-	X	G	G	-	-	-	-
Nitric acid - fuming	X	X	-	X	X	X	-	-	-	-
Nitrobenzene	X	C	X	X	E	E	X	X	E	X
Nitrogen gas	E	E	E	E	E	E	G	-	E	-
Nitromethane	C	C	X	C	E	E	-	-	E	X
Nitrous oxide gas	C	E	X	E	E	E	-	-	E	-
Nitrocellulose	-	-	-	-	E	E	-	-	-	-
Nitropropane	-	-	-	-	E	E	-	-	-	-
Nonenes	-	X	G	X	E	E	-	-	-	-
Octadecanoic acid	-	X	G	X	E	E	-	-	-	-
Octane	-	X	E	X	E	E	G	E	E	X
Octanol	C	C	C	E	E	E	-	-	-	-
Octyl acetate	C	G	C	X	E	E	-	-	-	-
Octyl alcohol	C	C	C	E	E	E	-	-	E	X
Octyl aldehyde	-	-	X	X	E	E	-	-	-	-
Octyl amine	G	G	F	G	E	E	-	-	-	-
Octyl carbinol	E	E	E	E	E	E	-	-	-	-
Octylene glycol	E	E	E	E	E	E	-	-	-	-
Oil - petroleum	G	X	E	X	G	G	-	-	-	-
Oleic acid	G	X	G	X	E	E	E	X	E	X
Oleum	X	X	X	X	X	X	G	-	-	-
Olive oil	G	G	E	X	E	E	-	-	-	-
Orthodichlorobenzene	E	X	E	X	G	G	X	-	-	-
Orthodichlorobenzol	X	X	X	X	E	E	-	-	-	-
Orthoxylene	X	X	X	X	E	E	-	-	-	-
Oxalic acid	G	E	G	G	E	E	G	-	E	-
Oxygen	-	E	G	G	E	E	E	G	E	E
Ozone	F	E	X	X	E	E	X	G	E	E
Paint	-	G	G	X	E	E	-	-	-	-
Palmitic acid	G	C	E	G	E	E	X	E	E	E
Papermakers alum	G	C	E	G	E	E	-	-	-	-
Paraffin	G	X	E	X	X	X	G	-	-	-
Paraldehyde	G	E	C	X	E	E	-	-	-	-
Paraxylene	X	X	X	X	E	E	-	-	-	-
Pelargonic acid	-	-	G	X	E	E	-	-	-	-
Pentachloroethene	X	X	X	X	E	E	G	X	E	X
Pentadione	-	-	-	X	E	E	-	-	-	-
Pentane	G	X	E	X	E	E	G	-	-	X
Pentanone	-	-	-	X	E	E	-	-	-	-
Pentasol	G	-	C	G	E	E	-	-	-	-
Perchloric acid	X	-	X	X	E	E	X	X	E	X
Perchloroethylene	X	X	X	X	E	E	G	X	E	X
Petroleum crude	X	X	E	X	E	E	-	-	-	-
Petroleum ether	X	X	G	X	E	E	G	-	-	-
Petroleum oils	-	X	E	X	E	E	-	-	-	-
Phenol	-	X	X	X	E	E	X	X	E	X
Phenolsulphonic acid	-	X	-	X	E	E	-	-	-	-
Phenylamine	-	-	-	X	E	E	-	-	-	-

C: CONDITIONAL E: EXCELLENT F: FAIR G: GOOD X: UNSATISFACTORY

Fluid or material conveyed	Chloroprene	EPDM	NBR	SBR	UHMWPE	XLPE	Polyamide	Polyester	PTFE	PU
Phenyl chloride	E	E	E	E	E	E	-	-	-	-
Phenylhydrazine	X	G	X	G	E	E	-	-	-	-
Phosphoric acid 10%	G	E	-	E	E	E	G	X	E	X
Phosphoric acid 10-85%	E	E	E	G	E	E	-	-	-	-
Picric acid (alcoholic)	-	G	-	G	E	E	-	-	G	-
Pine oil	X	X	E	X	E	E	G	-	E	-
Pinene	C	X	C	X	E	E	-	-	-	-
Polyethylene glycol	E	E	E	E	E	E	-	-	-	-
Polyol ester	X	X	G	X	E	E	-	-	-	-
Polypropylene glycol	E	E	E	E	E	E	-	-	E	G
Potassium acetate	E	E	E	G	E	E	G	G	G	-
Potassium bisulfate	E	E	E	G	E	E	-	-	-	-
Potassium carbonate	E	E	E	E	E	E	E	G	E	X
Potassium chloride	E	E	E	E	E	E	E	X	E	G
Potassium chromate	G	E	E	G	E	E	G	G	E	G
Potassium cyanide	E	E	E	E	E	E	E	E	G	E
Potassium dichromate	E	E	G	E	E	E	G	G	E	G
Potassium hydroxide	G	E	G	G	E	E	-	-	E	-
Potassium nitrate	E	E	E	E	E	E	G	-	E	-
Potassium permanganate	-	-	-	-	E	E	-	-	-	-
Potassium silicate	E	E	E	E	E	E	-	-	-	-
Propane	E	X	E	X	E	E	E	G	E	F
Propanediol	G	E	-	E	E	E	-	-	-	-
Propanol	-	E	-	E	E	E	-	-	-	-
Propanolamine	-	-	-	-	E	E	-	-	-	-
Propanone	X	E	X	G	E	E	-	-	-	-
Propenenitrile	X	X	X	X	X	E	-	-	-	-
Propionic acid	-	G	-	-	E	E	-	-	-	-
Propyl acetate	-	G	-	X	E	E	-	-	-	-
Propyl alcohol	-	E	E	E	E	E	-	X	E	E
Propyl aldehyde	X	X	X	X	X	X	-	-	-	-
Propyl benzene	X	3	X	X	E	E	-	-	-	-
Propyl chloride	F	F	X	X	E	E	-	-	-	-
Propyl ether	-	-	-	-	E	E	-	-	-	-
Propylene	X	X	X	X	E	E	-	-	-	-
Propylene dichloride	X	X	X	X	E	E	G	G	E	G
Propylene glycol	X	C	X	X	X	X	-	-	-	-
Red oil	F	F	1	X	E	E	-	-	-	-
Resorcinol	E	G	C	G	E	E	-	-	-	-
Richfield A, 100%	-	-	-	-	E	E	-	-	-	-
Richfield D, 33%	-	-	-	-	E	E	-	-	-	-
Sea water	E	E	E	E	E	E	E	E	E	X
Sewage	C	G	E	G	E	E	-	-	-	-
Silicate esters	E	X	G	C	E	E	G	F	E	E
Silicate of soda	E	E	E	E	E	E	-	-	-	-
Silicone grease	E	E	E	E	E	E	E	E	E	E
Silicone oil	E	E	E	E	E	E	G	G	E	E
Silver nitrate	E	E	E	X	E	E	G	G	E	X
Skydrol 500B	X	E	X	X	E	E	E	G	E	X

C: CONDITIONAL E: EXCELLENT F: FAIR G: GOOD X: UNSATISFACTORY

CHEMICAL RESISTANCE CHART

Fluid or material conveyed	Chloroprene	EPDM	NBR	SBR	UHMWPE	XLPE	Polyamide	Polyester	PTFE	PU
Soap solutions	G	E	E	X	E	E	G	E	E	F
Soda ash	E	E	E	X	E	E	-	-	-	-
Soda, caustic	-	G	-	G	E	E	-	-	-	-
Soda lime	G	-	G	E	E	E	-	-	-	-
Sodium acetate	C	E	G	X	E	E	G	-	E	X
Sodium aluminate	E	E	E	G	E	E	-	-	-	-
Sodium bicarbonate	E	E	E	E	E	E	G	-	E	-
Sodium bisulphate	E	E	E	G	E	E	-	-	-	-
Sodium bisulphite	E	E	E	G	E	E	-	-	-	-
Sodium borate	E	E	E	E	E	E	-	-	-	-
Sodium chloride	E	E	E	E	E	E	G	G	E	G
Sodium cyanide	E	E	E	E	E	E	-	-	-	-
Sodium dichromate	F	E	-	G	E	E	-	-	-	-
Sodium Hypochlorite	G	G	X	G	E	E	-	-	-	-
Sodium metaphosphate	E	E	E	E	E	E	-	-	-	-
Sodium nitrate	G	E	C	G	E	E	G	G	E	G
Sodium perborate	G	E	C	G	E	E	-	-	-	-
Sodium peroxide	G	E	C	G	E	E	X	G	E	X
Sodium silicate	E	E	E	E	E	E	-	-	-	-
Sodium Thiosulfate	E	E	E	-	E	E	G	-	-	-
Soybean oil	E	C	E	X	E	E	-	-	-	-
Stannic chloride	G	E	E	E	E	E	E	E	E	E
Steam, max 176°C	X	E	X	X	X	X	-	-	-	-
Stearic acid	G	G	G	G	E	E	E	G	E	E
Stoddarts solvent	X	X	X	X	F	F	-	-	-	-
Styrene	X	X	X	X	F	F	E	G	E	G
Sulphamic acid	G	E	C	G	E	E	-	-	-	-
Sulphonic acid	X	X	X	X	E	E	-	-	-	-
Sulphur	-	X	-	X	E	E	G	-	E	-
Sulphur dioxide	C	E	X	G	G	E	X	X	E	X
Sulphur trioxide	X	X	X	X	X	X	-	-	-	-
Sulphydic acid (H2S)	X	X	X	X	E	E	-	-	-	-
Sulphuric acid 25%	C	E	C	F	E	E	-	G	E	-
Sulphuric acid 50%	E	E	E	X	E	E	-	-	-	-
Sulphuric acid 75%	X	X	X	X	E	E	-	-	-	-
Sulphuric acid 96%	X	X	X	X	E	E	-	-	-	-
Sulphuric acid 98%	X	X	X	X	G	G	-	-	-	-
Sulphuric acid - fuming	X	X	X	X	X	X	-	-	-	-
Sulphurous acid 10%	C	E	E	G	E	E	X	E	E	X
Sulphurous acid 85%	-	E	-	X	E	E	-	-	-	-
Tall oil	C	E	E	E	E	E	-	-	-	-
Tallow	-	X	E	X	E	E	G	-	-	-
Tannic acid	E	E	E	G	E	E	E	E	E	E
Tar	X	X	X	X	X	X	G	G	E	G
Tartaric acid	X	G	G	G	E	E	E	G	E	E
Tertiary butyl alcohol	-	C	C	G	E	E	-	-	E	X
Tertiary butyl mercapt	-	X	X	X	X	X	-	-	E	X
Tetrachlorobenzene	X	X	X	X	G	G	-	-	-	-

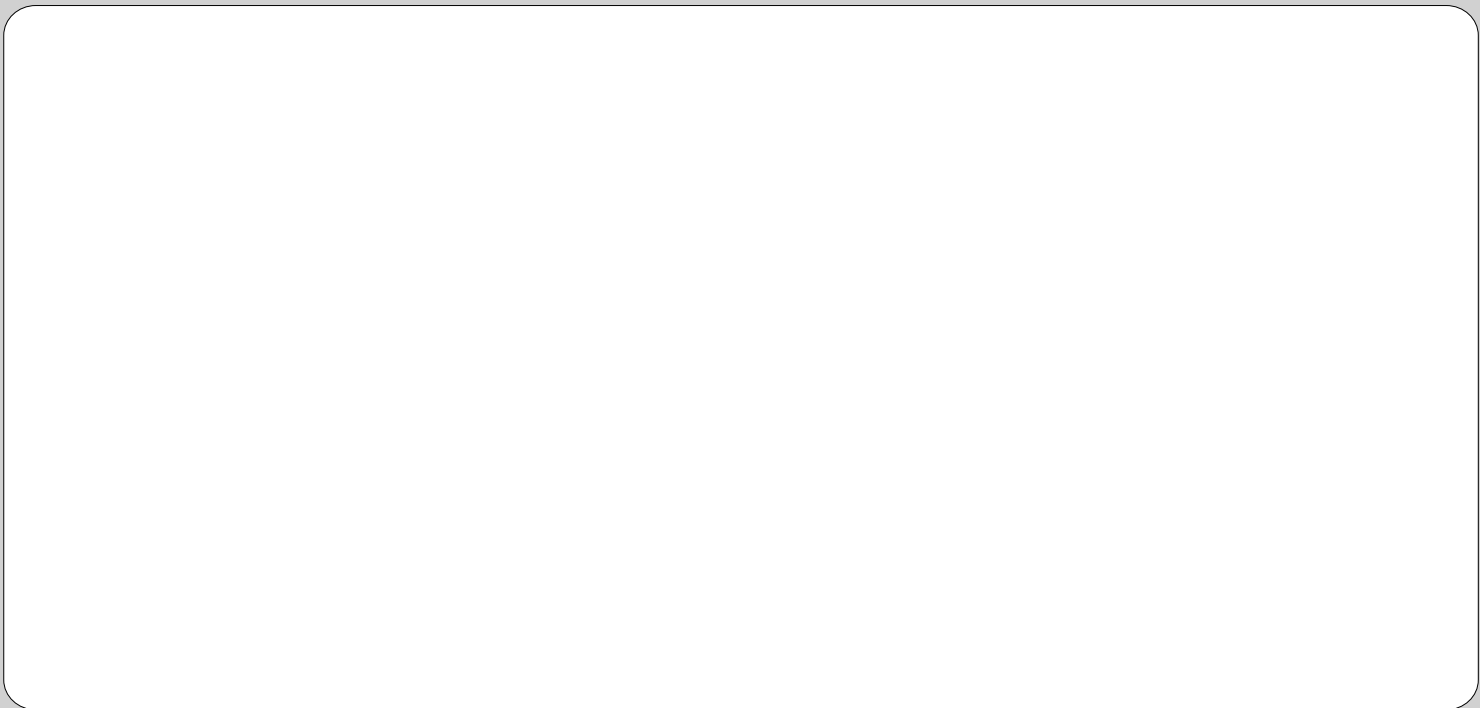
C: CONDITIONAL E: EXCELLENT F: FAIR G: GOOD X: UNSATISFACTORY

Fluid or material conveyed	Chloroprene	EPDM	NBR	SBR	UHMWPE	XLPE	Polyamide	Polyester	PTFE	PU
Tetrachloroetane	X	X	X	X	F	F	-	-	-	-
Tetrachloroethylene	X	X	C	X	F	F	F	-	E	X
Tetrachloromethane	X	X	X	X	E	E	G	X	E	X
Tetrachloronaphthalene	X	X	X	X	E	E	-	-	-	-
Tetrahydrofuran	X	X	X	X	X	X	G	-	-	C
Tin chloride	C	E	E	E	E	E	G	-	-	-
Toluene	-	X	X	X	E	E	G	C	E	C
Toluidine	X	X	C	X	F	X	-	-	-	-
Toluol	X	X	X	X	E	E	G	-	E	-
Transformer oil	X	X	X	X	E	E	G	-	E	G
Tributyl amine	G	-	G	G	E	E	-	-	-	-
Trichloroacetic acid	-	G	-	X	E	E	X	X	E	X
Trichlorobenzene	X	X	X	X	G	G	-	-	-	-
Trichloroethane	X	X	X	X	G	G	-	-	E	-
Trichloroethylene	X	X	X	X	F	F	G	X	E	X
Trichloropropane	X	X	X	X	F	F	G	X	E	X
Tricresyl phosphate	E	-	E	X	E	E	-	-	-	-
Triethanolamine	F	E	E	G	E	E	-	-	-	-
Triethylamine	G	G	F	X	E	E	-	-	-	-
Triethylene glycol	-	E	C	E	E	E	-	-	-	-
Trimethylamine	C	E	C	G	E	E	-	-	-	-
Trinitrotoluene	X	E	X	E	G	G	-	-	-	-
Trioctyl phosphate	-	-	-	X	E	E	-	-	-	-
Tung oil	C	X	E	X	E	E	G	G	E	F
Turpentine	X	X	X	X	E	E	E	G	E	X
Urea	G	E	G	E	E	E	E	G	E	G
Vegetable oils	C	F	F	E	E	E	G	-	E	G
Vinegar	G	E	G	G	E	E	E	F	E	X
Vinyl acetate	C	G	C	X	X	X	-	-	-	-
Vinyl benzene	X	X	C	X	X	F	-	-	-	-
Vinyl chloride	X	X	X	X	E	E	G	-	E	-
Vinyl cyanide	X	X	X	X	G	G	-	-	-	-
Vinyl ether	-	X	-	X	E	E	-	-	-	-
Vinyl Trichloride	-	X	-	X	G	G	-	-	-	-
Water	G	E	E	E	E	E	E	E	E	E
White oil	G	X	E	X	E	E	-	-	E	E
Wines	-	-	E	E	E	E	-	G	E	-
Wood oil	G	X	E	X	E	E	G	G	E	F
Xylene	X	X	X	X	G	G	G	F	E	X
Zinc acetate	E	E	E	E	E	E	-	-	-	-
Zinc chloride	E	E	E	E	E	E	G	F	E	G
Zinc chromate	E	E	E	-	E	E	-	-	-	-
Zinc sulphate	E	E	E	E	E	E	-	G	E	-

C: CONDITIONAL E: EXCELLENT F: FAIR G: GOOD X: UNSATISFACTORY



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