

FORWARD

An Effort has been made to compile the entire range of hose and hose assemblies, along with other allied items that we can effectively manufacture and offer at competitive terms.

We have adequate infrastructure to even cater to specific needs which may have not been covered in this catalogue.

Products can be developed by us as per your drawings or samples / items currently used by you.

Do call on us with your specific requirements or drop a letter or telephone. Our representative shall visit you to ascertain your needs.

HOW TO ORDER

For best performance, a Hose should be selected to meet the service conditions under which it is to be used. Before deciding on the size, type & quality of Hose, complete information of the actual service requirements should be examined, as follows :

1. Inner Diameter of Hose
2. Working Pressure of Hose
3. Temperature of Hose
4. Length
5. End connection of both sides of Hose.
6. Type of Hose presently in use.
7. Quantity required.

WARRANTY

Each Hose Assembly is tested of required test pressure ratings. Besides the Raw Material for end connections are procured from select and reliable sources only. Samples are also sent for chemical analysis in certain applications of major and critical areas to ensure quality of raw Material

We GUARANTEE FREE REPLACEMENT in case of any Manufacturing defect is observed at any stage of storage or application.

Material Test report from the government approved test laboratories can be had if required.

In addition, we have our own test certificate for Hydrotest of each assembly. These will be furnished if called for.

INDEX

Sr. No.	Description	Page No.
1.	1SN R1 & R2	2
2.	4SP, 4SH	3
3.	R13, 2HBT	4
4.	MH-174 & SERIES 800	5
5.	R3, R4, R6	6
6.	BM6K, STEAM HOSE	7
7.	OTHER RANGE HOSE & PIPE CLAMPS	8
8.	HIGH TEMPERATURE HOSES	10
9.	S.S. CORRUGATED FLEXIBLE HOSE	11
10.	THREMOPLASTIC R7, R8	12
11.	CRIMP (SWAGE) END FITTINGS	13
12.	SAE FLANGES CODE 61 & 62	14
13.	BITE - TYPE FITTINGS	15
14.	G-UNION	16
15.	COPPERWASHER & BONDED SEAL	17
16.	NOMOGRAMM FOR DETERMINATION OF NOMINAL HOSE DIAMTER	18
17.	TECHNICAL INFORMATION OF FITTINGS	19
18.	CAM LOCKS	20
19.	QUICK RELEASE COUPLINGS	23

1SN - R1AT

EM 8453 1SN (UP TO 2") - SAE 100 R1AT

Single wire braid thin cover



ID		ID		OD		Max WP		Min BP		Min Bend Radius	
mm	inch	Dash	DN	mm	inch	MPa	PSI	MPa	PSI	mm	inch
4.8	3/16	-03	05	11.8	0.46	25	3,630	100	14,520	90	3.6
6.4	1/4	-04	06	13.4	0.53	22.5	3,270	90	13,080	100	4
7.9	5/16	-05	08	15.0	0.59	21.5	3,120	86	12,480	115	4.6
9.5	3/8	-06	10	17.4	0.69	18	2,610	72	10,440	130	5.2
12.7	1/2	-08	12	20.6	0.81	16	2,320	64	9,280	180	7.2
15.9	5/8	-10	16	23.7	0.93	13	1,890	52	7,560	200	8
19.0	3/4	-12	20	27.7	1.09	10.5	1,530	42	6,120	240	9.6
25.4	1	-16	25	35.6	1.40	8.8	1,280	35.2	2,120	300	12
31.8	1 1/4	-20	32	43.5	1.71	6.3	920	25.2	3,680	420	16.8
38.1	1 1/2	-24	38	50.6	1.99	5	730	20	2,920	500	20
50.8	2	-32	51	64.0	2.52	4	580	16	2,320	630	25.2
63.5	2 1/2	-40	63	79.0	3.11	5	730	20	2,920	760	30
76.2	3	-48	76	92.00	3.62	3.5	500	14	2,000	900	35

MSHA cover available : Code 836AA

Tube : Oil resistant synthetic rubber

Reinforcement: One high tensile steel wire braid

Cove : Abrasion, ozone and hydrocarbon resistant synthetic rubber

Application : High pressure hydraulic lines, fuel oil, antifreeze solutions, air and water

Safety Factor : 4:1

Temperature Range :

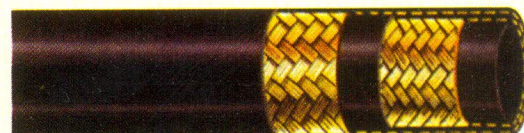
-40°C to + 100°C

Intermittent up to 121° C

2SN - R2AT

EM 853 2SN - SAE 100 R2AT

Double wire braid thin cover



ID		ID		OD		Max WP		Min BP		Min Bend Radius	
mm	inch	Dash	DN	mm	inch	MPa	PSI	MPa	PSI	mm	inch
4.8	3/16	-03	05	13.4	0.53	41.5	6,000	168	24,000	90	3.6
6.4	1/4	-04	06	15.0	0.59	40	5,800	160	23,200	100	4
7.9	5/16	-05	08	16.7	0.66	35	5,000	140	20,000	115	4.6
9.5	3/8	-06	10	19.1	0.75	33	4,800	132	19,200	125	5
12.7	1/2	-08	12	22.2	0.87	28	4,000	112	16,000	175	7
15.9	5/8	-10	16	25.4	1.00	25	3,120	100	14,520	200	8
19.0	3/4	-12	20	29.3	1.15	21.5	3,630	86	12,480	240	9.6
25.4	1	-16	25	38.1	1.50	16.5	2,400	66	9,600	300	12
31.8	1 1/4	-20	32	48.3	1.90	12.5	1,820	50	7,280	420	16.8
38.1	1 1/2	-24	38	54.6	2.15	9	1,310	36	5,240	500	20
50.8	2	-32	51	67.4	2.65	8	1,160	32	4,640	630	25.2

MSHA cover available : Code 846AA

Tube : Oil resistant synthetic rubber

Reinforcement: One high tensile steel wire braids

Cove : Abrasion, ozone and hydrocarbon resistant synthetic rubber

Application : High pressure hydraulic lines, fuel oil, antifreeze solutions, air and water

Safety Factor : 4:1

Temperature Range :

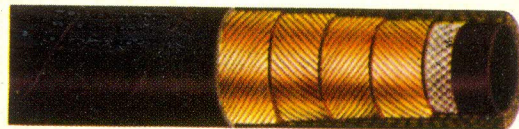
-40°C to + 100°C



4SP - MSHA

EM 856 4SP

Four Spirals



ID		ID		OD		Max WP		Min BP		Min Bend Radius	
mm	inch	Dash	DN	mm	inch	MPa	PSI	MPa	PSI	mm	inch
6.4	1/4	-04	06	17.9	0.70	45	6,550	180	26,200	150	6
9.5	3/8	-06	10	21.4	0.84	44.5	6,450	178	25,800	180	7.2
12.7	1/2	-08	12	24.6	0.97	41.5	6,000	166	24,000	230	9.2
15.9	5/8	-10	16	28.2	1.11	35	5,000	140	20,000	250	10
19.0	3/4	-12	20	32.2	1.27	35	5,000	140	20,000	300	12
25.4	1	-16	25	39.7	1.56	28	4,000	112	16,000	340	13.6

Tube : Oil resistant synthetic rubber

Reinforcement: Four high tensile steel wire spirals

Cove : Abrasion, ozone and hydrocarbon resistant synthetic rubber

Application : Very high pressure hydraulic lines, fuel oil, antifreeze solutions, air and water

Safety Factor : 4:1

Temperature Range :

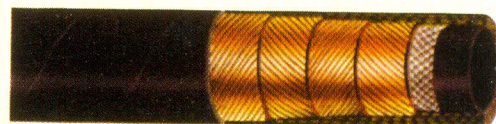
-40° C to + 100° C

Intermittent up to 121° C

4SH-MSHA

EM 856 4SH

Four Spirals



ID		ID		OD		Max WP		Min BP		Min Bend Radius	
mm	inch	Dash	DN	mm	inch	MPa	PSI	MPa	PSI	mm	inch
19.0	3/4	-12	20	32.2	1.27	42	6,000	168	24,000	280	11.2
25.4	1	-16	25	38.7	1.52	38	5,500	152	22,000	340	13.6
31.8	1 1/4	-20	32	45.5	1.79	32.5	4,700	130	18,800	460	18.4
38.1	1 1/2	-24	38	53.5	2.11	29	4,200	116	16,800	560	22.4
50.8	2	-32	50	68.1	2.68	25	3,650	100	14,600	700	28

Temperature Range :

-40°C to + 100° C

Intermittent up to 121° C

Tube : Oil resistant synthetic rubber

Reinforcement: Four high tensile steel wire spirals

Cover : Abrasion, ozone and hydrocarbon resistant synthetic rubber

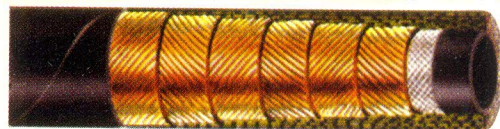
Application : Very high pressure hydraulic lines, fuel oil, antifreeze solutions, air and water

Safety Factor : 4:1

VE-LOCK

SAE 100 R13

Four or Six Spirals



ID		ID		OD		Max WP		Min BP		Min Bend Radius	
mm	inch	Dash	DN	mm	inch	MPa	PSI	MPa	PSI	mm	inch
6.4	1/4	-4	6	20.6	0.817	78	11,250	310	45,000	127	5
9.5	3/8	-6	8	23.8	0.937	69	10,000	276	40,000	152	6
12.7	1/2	-8	10	27.0	1.063	51.7	7,500	207	30,000	200	8
19.0	3/4	-12	19	32.1	1.26	35	5,000	140	20,000	241	9.64
25.4	1	-16	25	38.7	1.52	35	5,000	140	20,000	305	12.2
31.8	1 1/4	-20	31	49.8	2.26	35	5,000	140	20,000	419	16.76
38.1	1 1/2	-24	38	57.3	2.96	35	5,000	140	20,000	508	20.32
50.8	2	-32	51	70.9	2.79	35	5,000	140	20,000	635	25.4

Tube : Oil resistant synthetic rubber

Reinforcement: Six high tensile wire spirals

Cover : Abrasion, ozone and hydrocarbon resistant synthetic rubber

Application : Very high pressure hydraulic lines, fuel oil, antifreeze solutions, air and water

Safety Factor : 4:1

Temperature Range :

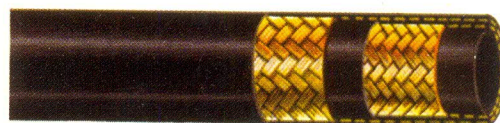
-40 C to + 121° C

2HBT

Double wire braid thin cover high burst

Meets or exceeds the requirements of

EN 853 2SN - SAE 100 R2AT



ID		ID		OD		Max WP		Min BP		Min Bend Radius	
mm	inch	Dash	DN	mm	inch	MPa	PSI	MPa	PSI	mm	inch
9.5	3/8	-06	10	19.0	0.75	35	5,000	140	20,000	125	5
12.7	1/2	-08	12	22.2	0.87	35	5,000	140	20,000	150	6
15.9	5/8	-10	16	25.4	1.00	35	5,000	140	20,000	190	7.6
19.0	3/4	-12	19	29.3	1.15	28	4,000	112	16,000	230	9.2
25.4	1	-16	25	38.1	1.50	21	3,000	84	12,000	300	12

Tube : Oil resistant synthetic rubber

Reinforcement: Two high tensile steel wire braid

Cover : Abrasion, ozone and hydrocarbon resistant synthetic rubber

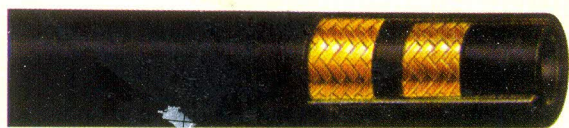
Application : Very high pressure hydraulic lines, fuel oil, antifreeze solutions, air and water

Safety Factor : 4:1

Temperature Range :

-40° C to + 100° C

MH-174 UNDERGROUND MINING HOSE
Conforms to British Coal 174 -1992 and
supersedes NCB 174 - 1973



Application : Underground mining requiring very stringent
safety standards like Longwall mining and roof
support systems.

Construction

Tube : Synthetic oil resistant rubber
Reinforcement : 2 high tensile steel wire braids
Cover : Synthetic rubber - abrasion, ozone, weather
and flame resistant

Temp. Range : - 40° C to + 120° C

Impulse Cycles : 100,000

Dash	DN	Inside Diameter		Mean Diameter Over wire		Mean Outer Cover Diameter		Maximum Working Pressure		Minimum Burst Maximum		Minimum Bend Radius	
		inch	mm	inch	mm	inch	mm	psi	bar	psi	bar	psi	bar
-	6	1/4	6.4	0.500	12.7	0.669	17.0	6525	450	26100	1800	4.0	100
-	10	3/8	9.5	0.669	17.0	0.858	21.8	5510	380	22040	1520	5.1	130
-	12	1/2	12.7	0.850	21.6	1.039	26.4	5250	362	21000	1448	5.9	150
-	16	5/8	15.9	0.965	24.5	1.173	29.8	4060	280	16240	1120	7.5	190
-	20	3/4	19.0	1.114	28.3	1.327	33.7	4000	276	16000	1103	9.0	230
-	25	1	25.4	1.390	35.3	1.602	40.7	3120	215	12480	860	11.8	300
-	32	1 1/4	31.8	1.630	41.4	1.870	47.5	2495	172	9975	688	15.0	380
-	40	1 1/2	38.1	1.890	48.0	2.130	54.1	2120	146	8470	584	17.7	450
-	50	2	50.8	2.390	60.7	2.630	66.8	1625	112	6500	448	23.6	600

SERIES 800 HEAVY DUTY



Application : High pressure hydraulic oils, air and water

Construction

Tube : Synthetic oil resistant rubber
Reinforcement : 2 high tensile steel wire braids
Cover : Synthetic rubber - abrasion, ozone and weather
resistant

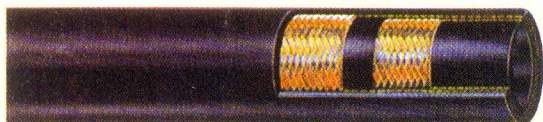
Temp. Range : - 40° C to + 120° C

Impulse Cycles : 200,000

Dash	DN	Inside Diameter		Mean Diameter Over wire		Mean Outer Cover Diameter		Maximum Working Pressure		Minimum Burst Maximum		Minimum Bend Radius	
		inch	mm	inch	mm	inch	mm	psi	bar	psi	bar	psi	bar
-	4	1/4	6.4	0.570	14.5	0.665	16.9	6750	465	27000	1860	4.5	114
-	5	5/16	7.9	0.650	16.5	0.744	18.9	6000	405	24000	1654	5.5	140
-	6	3/8	9.5	0.748	19.00	0.843	21.4	5600	386	22400	1543	6.0	152
-	8	1/2	12.7	0.854	21.7	0.949	24.1	5100	352	20400	1406	8.0	203
-	10	5/8	15.9	0.984	25.0	1.079	27.4	4600	317	18400	1268	9.0	229
-	12	3/4	19.0	1.200	30.5	1.236	31.4	3800	262	15200	1047	10.5	267
-	16	1	25.4	1.437	36.5	1.571	39.9	3450	238	13800	951	13.0	330
-	20	1 1/4	31.8	1.748	44.4	2.000	50.8	2700	186	10800	744	17.0	432
-	24	1 1/2	38.1	2.207	51.5	2.264	57.5	2150	148	8600	592	21.0	534
-	32	2	50.8	2.622	66.6	2.783	70.7	2150	148	8600	592	26.5	673

VE-LOCK

SERIES 300 MEDIUM PRESSURE SAE 100 R3



Application : Medium pressure hydraulic oils, air, and water
Construction
 Tube : Synthetic oil resistant rubber
 Reinforcement : 2 rayon braids
 Cover : Synthetic rubber - abrasion, ozone and weather resistant
 Temp. Range : - 40° C to + 120° C

Dash	Dn	Inside Diameter		Mean Outer Cover Diameter		Maximum Working Pressure		Minimum Burst Maximum		Minimum Bend Radius	
		inch	mm	inch	mm	inch	mm	psi	bar	psi	bar
- 4	6	1/4	6.4	0.563	14.3	1250	86	5000	345	3.0	76
- 5	8	5/16	7.9	0.689	17.5	1200	83	4800	331	4.0	102
- 6	10	3/8	9.5	0.748	19.0	1125	78	4500	310	4.0	102
- 8	12	1/2	12.7	0.937	23.8	1000	69	4000	276	5.0	127
- 10	16	5/8	15.9	1.063	27.0	875	60	3500	241	5.0	127
- 12	20	3/4	19.0	1.252	31.8	750	52	3000	207	6.0	152
- 16	25	1	25.4	1.500	38.1	565	39	2250	155	8.0	203
- 20	32	1 1/4	31.8	1.752	44.5	375	26	1500	103	10.0	254
- 24	40	1 1/2	38.1	2.000	50.8	250	17	1000	69	12.0	306
- 32	50	2	50.8	2.520	64.0	215	15	860	60	16.1	410

Not covered under SAE specifications

SERIES 400 DELIVERY/SUCTION HOSE SAE 100 R4



APPLICATION : Low pressure hydraulic and fuel oils, gasoline and water

CONSTRUCTION

Tube : Synthetic oil resistant rubber with supporting wire helix
Reinforcement : 2 rayon braids
Cover : Synthetic rubber - abrasion, ozone and weather resistant
 Temp. Range : - 40° C to + 120° C

Dash	Dn	Inside Diameter		Mean Outer Cover Diameter		Maximum Working Pressure		Minimum Burst Maximum		Minimum Bend Radius	
		inch	mm	inch	mm	inch	mm	psi	bar	psi	bar
- 12	20	3/4	19.0	1.374	34.9	300	20.7	1200	82.8	5.0	127
- 16	25	1	25.4	1.626	41.3	250	17.2	1000	68.8	6.0	152
- 20	32	1 1/4	31.8	2.000	50.8	200	13.8	800	55.2	8.0	203
- 24	40	1 1/2	38.1	2.252	57.2	150	10.3	600	41.2	10.0	254
- 32	50	2	50.8	2.752	69.9	100	6.9	400	27.6	12.0	305
- 40	64	2 1/2	63.5	3.228	82.0	62	4.3	250	17.2	14.0	356
- 48	76	3	76.2	3.740	95.0	56	3.8	225	15.5	18.0	457

SERIES 600 LOW PRESSURE SAE 100 R6



Application : Low pressure hydraulic oils, air and water

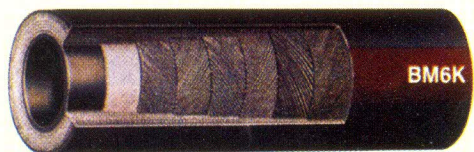
Construction

Tube : Synthetic oil resistant rubber
Reinforcement : 1 rayon braid
Cover : Synthetic rubber - abrasion, ozone and weather resistant
 Temp. Range : - 40° C to + 120° C

Dash	Dn	Inside Diameter		Mean Outer Cover Diameter		Maximum Working Pressure		Minimum Burst Maximum		Minimum Bend Radius	
		inch	mm	inch	mm	inch	mm	psi	bar	psi	bar
- 4	6	1/4	6.4	0.500	12.7	400	28	1600	110	2.5	64
- 5	8	5/16	7.9	0.563	14.3	400	28	1600	110	3.0	76
- 6	10	3/8	9.5	0.626	15.9	400	28	1600	110	3.0	76
- 8	12	1/2	12.7	0.780	19.8	400	28	1600	110	4.0	102
- 10	16	5/8	15.9	0.945	24.0	350	24	1400	96	5.0	127
- 12	20	3/4	19.0	1.024	26.0	250	17	1000	69	7.0	177
- 16	25	1	25.4	1.279	32.5	190	13	760	52	9.1	230

BM6K Mega Spiral Puls

Meets performance requirements of DIN 20023 4SH/EN, SAE 100 R13



Application : Ultra high-pressure and high-impulse hydraulic applications. Designed for hydrostatics transmissions and other severe operating conditions. Recommended for use with Gates GS Couplings.

Tube : CR (Neoprene)

Reinforcement : Four layers of alternated, spiralled, high tensile steel wire on -10, -12 and -16 sizes; six layers of alternated spiralled, high tensile steel wire on - 20, -24, and -31 sizes.

Cover : CR (Neoprene)

Temp. Range : - 40° C to + 120° C. For water emulsions etc.,

Standards : Gates proprietary, meets or exceeds pressure requirements of DIN 20023 4SH; SAE 100R13.

Characteristics / : Extremely flexible and improved impulse life. benefits

DESCRIPTION	Hose I.D.		Hose O.D.		Working Pressure		Minimum Burst Pressure		Minimum Bend Pressure
	in.	mm	in.	mm.	psi.	bar	psi	bar	in.
10BM6K	5/8	15.9	1.10	28	6,100	420	24,400	1,680	10.0
12BM6K	3/4	19.0	1.22	31	6,100	420	24,400	1,680	13.0
16BM6K	1	25.4	1.53	39	6,100	420	24,400	1,680	13.5
20BM6K	1 1/4	31.8	1.97	50	5,800	400	23,200	1,600	18.0
24BM6K	1 1/2	38.1	2.26	57	5,075	350	20,300	1,400	22.0
32BM6K	2	50.8	2.80	71	5,075	350	20,300	1,400	25.4

STEAM HOSE - 1 WIRE

Exceeds IS : 10655 Type 2 & BS : 5342 Type 1

NOMINAL I.D.		MEAN O.D.		WORKING PRESSURE			MIN. BURST PRESSURE			SERVICE TEMP. RANGE	CONSTRUCTION
mm	inch	mm	inch	Kg/cm ²	MPa	psi	Kg/cm ²	MPa	psi	Centigrade	
12.5	1/2	24.7	0.97	10.0	1.0	150	100.0	10.0	1500	-40°C to +185°C	TUBE : EPDM - Black COVER EPDM - Black All sizes are periorated REINFORCEMENT : Single Braid of High Tensile Brass Coated Steel Wire
20.0	3/4	31.0	1.22	10.0	1.0	150	100.0	10.0	1500		
25.0	1	36.6	1.44	10.0	1.0	150	100.0	10.0	1500		
31.5	1 1/4	43.5	1.71	10.0	1.0	150	100.0	10.0	1500		
38.0	1 1/2	50.6	1.99	10.0	1.0	150	100.0	10.0	1500		
50.0	2	63.5	2.50	10.0	1.0	150	100.0	10.0	1500		

MEGASTEAM HOSE - 2 WIRE

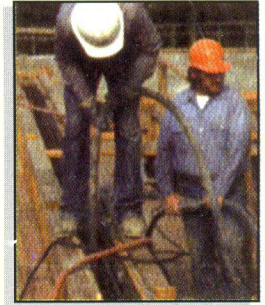
Exceeds IS : 10655 Type 3 & BS : 5342 Type 2

NOMINAL I.D.		MEAN O.D.		WORKING PRESSURE			MIN. BURST PRESSURE			SERVICE TEMP. RANGE	CONSTRUCTION
mm	inch	mm	inch	Kg/cm ²	MPa	psi	Kg/cm ²	MPa	psi	Centigrade	
12.5	1/2	26.2	1.03	17.0	1.7	250	170.0	17.0	2500	-40°C to +232° C	TUBE : EPDM - Black COVER EPDM - Black All sizes are periorated REINFORCEMENT : Two Braids of High Tensile Brass Coated Steel Wire
20.0	3/4	33.5	1.32	17.0	1.7	250	170.0	17.0	2500		
25.0	1	40.7	1.60	17.0	1.7	250	170.0	17.0	2500		
31.5	1 1/4	48.0	1.89	17.0	1.7	250	170.0	17.0	2500		
38.0	1 1/2	54.8	2.16	17.0	1.7	250	170.0	17.0	2500		
50.0	2	67.5	2.66	17.0	1.7	250	170.0	17.0	2500		

Sandblasting Delivery Hose :

(With copper wire for antistatic purpose)

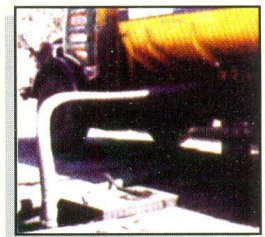
Specification : Generally confirming to ISS 5894
 Inner diameter of Hoses : 3/4" to 4"
 Working Pressure : Type : 1-7 kgs/cm.sq., Type II - 10 kgs/cm.sq.
 Bursting Pressure : 35 kgs/cm.sq. (type I) & 51 kgs/cm.sq. (type II)
 Material : Rubber suitable for high abrasion resistance.
 Applications : For passing high abrasive material like sand, steel shots, gravel, wet & dry concrete mixture etc.



Oil Suction & Discharge Hose (Light Duty)

(with or without end fittings)

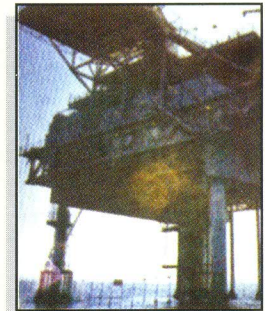
Specification : Generally confirming to ISS 10733 Smooth Bore - Type 1B, 2B & 3, Rough Bore - Type 1A, & 2A.
 (Type 3 Hoses is without embedded spiral wire)
 Inner diameter of Hoses : 1" to 4"
 Working Pressure : 3.5 kgs/cm.sq. for Type 1A & 1B.
 7.0 kgs/cm.sq. for Type 2A & 2B & 3.
 Bursting Pressure : 14 kgs/cm.sq. for Type 1A & 1B.
 28 kgs/cm.sq. for Type 2A & 2B & 3.
 Resistance to Vacuum : 500mm Hg.
 Material : Synthetic Rubber with spiral wire embedded.
 Applications : For conveying of Petroleum Products from Road & Rail Tankers.



Oil Suction & Discharge Hose (Heavy Duty) :

(with or without end fittings)

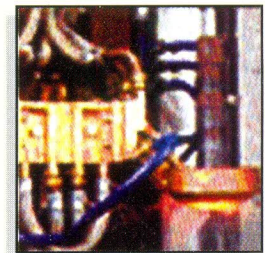
Specification : Generally confirming to ISS 8189 Smooth Bore & Rough Bore
 (Type 3 Hoses is without embedded spiral wire)
 Inner diameter of Hoses : 3" to 12"
 Working Pressure : 7,10 & 15 kgs/cm.sq.
 Bursting Pressure : Four Times the working pressure for Dock & Off Shore Hoses & five times of working pressure for Offshore marine hoses.
 Material : Synthetic Rubber with double spiral wire embedded
 Applications : For conveying of Petroleum Products for dock & Offshore.



Cable Coolant Delivery Hose :

Cable Coolant Hose with fabric or braided reinforcement.
 (with outside asbestos covered)

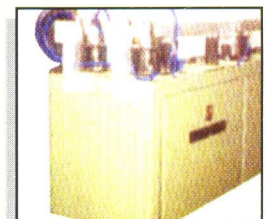
Inner diameter of Hoses : 1/2" to 5"
 Working Pressure : 10 kgs/cm.sq.
 Bursting Pressure : 30 kgs/cm.sq.min.
 Material : Synthetic Rubber & outside asbestos covered.
 Applications : For cooling of induction furnaces at high temperatures in Oil, Coal & Lignite Units.



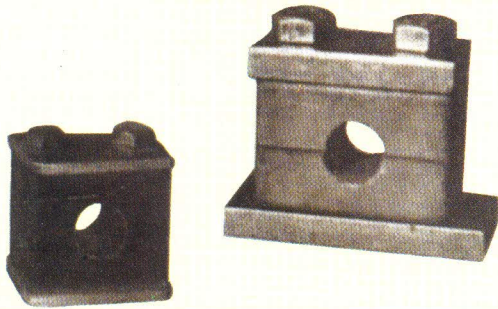
Carbon free Induction Delivery Hose :

Carbon free hose with fabric or braided reinforcement. (with outside asbestos covered)
 (with outside asbestos covered)

Inner diameter of Hoses : 1/4" to 4"
 Working Pressure : 10 kgs/cm.sq.
 Bursting Pressure : 30 kgs/cm.sq.min.
 Material : Synthetic Rubber & outside asbestos covered.
 Applications : For resistance of high electric voltage and temperatures in induction furnaces.



**OTHER RANGE
PIPE CLAMPS & HOSE**



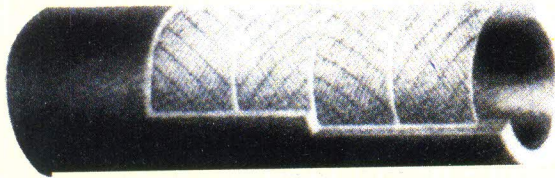
Pipe Clamps

Stuff equivalent

STANDARD : 6mm to 50mm, 1/4" to 2" OD & NB
HEAVYDUTY: 6mm to 150mm, 1/4" to 6" OD & NB

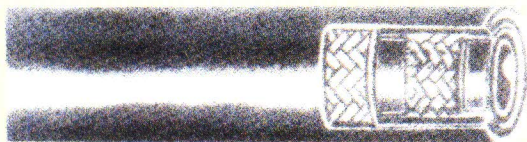
MATERIAL : Top & Bottom coverplate weldable
galvanised M.S.

JAWS : Polypropelene, Polyamide and Aluminium



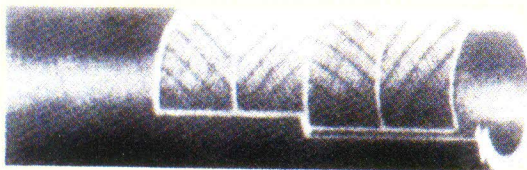
Asbestos Covered / Braided Hose

These are specially recommended for use in steel plants, furnaces and are suitable for pressure 15 Kg/Cm² and temperature 100° C



Air Hose, Pneumatic Hose, Rock Drill Hose

For use in general applications in construction Road, Building etc. and made to IS specification with textile woven and braided construction Pressure ranging from 28Kg/cm² to 56 Kg/cm²



Steam Hose with Textile Reinforcement

These are for low working pressure ranging 2 to 5 Kg/cm² made to British standard.
Temperature upto 200°C

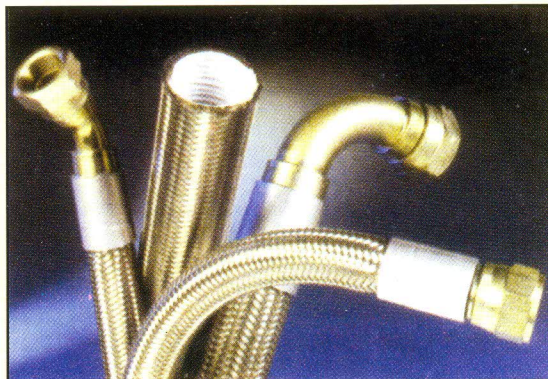


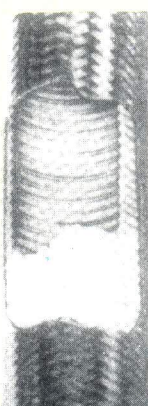
Suction & Discharge Hose

These are made generally to BSS 924 / 1955 with inner tube of smooth blende black synthetic polymer with reinforcement of synthetic fabric or Canvas with helix wire, covered with black synthetic polymer

HIGH TEMPERATURE (TEFLON) HOSES

AITP - Teflon (PTFF)		HIGH SIZE				Working Pressure	Testing Pressure	Min Bend Radius
 Application : Dilute or concentrated acids, solvents, caustics, hot-lacquers, oxidising agents, fuels, oils steam, gases, drugs, foods. Unaffected by Most chemicals except molten alkali Metals. Construction : Inner Teflon (PTFE) tube with one braid of high tensile stainless steel (SS 304) wire. Also available in two or three braid for higher pressure application. Temperature Range : -73°C to + 260°C		I.D		O.D		LBS / Psi	LBS / Psi	
		IN	MM	IN	MM	IN	MM	IN
		3/16	4.8	5/16	7.9	2500	5000	1
		1/4	6.4	3/8	9.5	2300	4600	3
		5/16	7.9	15/32	11.9	2000	4000	4
		3/8	9.5	19/32	15.0	1400	2800	5.1
		1/2	12.7	21/32	16.6	1300	2600	6.5
		5/8	15.9	3/4	19.0	1200	2400	7.8
		3/8	19.0	31/32	24.6	1000	2000	10.8
		1	25.4	1.1/4	31.8	700	1400	15.5



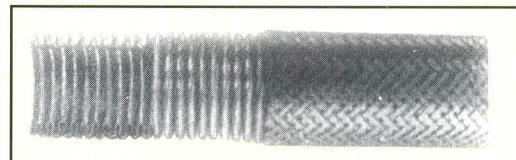
AITC - Teflon (PTFF)	I.D. MM	WORKING PRESSURE KG/CM2	TESTING PRESSURE	BRUST PRESSURE	MINIMUM BEND RADIUS MM
 Construction : Innercore of virgin corrugated Teflon (PTEF) and overbraid of high tensile stainless steel wire (SS 304) designed to yield. maximumb pressure ratings. Each Corrugation has a low-profile shape to promote easy cleaning Temperature Range: --70°C to + 260°C	12	102	204	408	75
	20	85	170	340	95
	25	85	170	340	127
	32	68	136	272	155
	38	51	102	204	190
	50	34	68	136	255
	75	17	34	68	380

S. S. CORRUGATE FLEXIBLE HOSES

STAINLESS STEEL ANNULAR CORRUGATED HOSES

STANDARD WEIGHT, sizes 6 mm (1/4") through 350 mm (14") I.D.

Annular corrugated stainless steel hose
close pitch for conveying chemicals,
gases, steam, etc. Suitable for high pressure
Temperature range from - 273 C to + 800 C



Construction :

Made with annular corrugations from butt - welded pipe (type BW 21 and BWA 21) or lap-welded pipe (type LW 21) Hoses are manufactured from type AISI 321 stainless steel. Braiding will be of AISI 304 constructions are also available in type AISI 316 stainless steel to be specified when ordering as BW 16, BWA 16 or LW 16

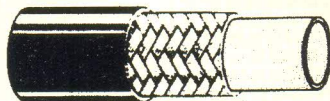
Type	Unbraided	with one wire braid	with one light wire braid	with one wire braid and protective casing
	BW21-0 BWA21-0 LW21-0	BW21-1 BWA21-1 LW21-1	BWA21-IL	BW21-1-C LW21-1-C

nominal I.D.	Designation	Maximum O.D.	min.c./lbend radius for		Minimum exposed length for normal vibration	Rated burst pressure bar	Maximum working pressure bar	Maximum test pressure bar	weight kg/m
			Constant flexure	Permanent bend					
mm inch		mm	mm	mm	mm		bar	bar	
6 1/4	BW21-0 BW21-1	11.6 12.7	100	25	115	310	18 17	155	0.13 0.21
10 3/8	BW21-0 BW21-1	16.4 12.7	150	30	125	241	18 60	120	0.27 0.36
13 1/2	LW21-0 LW21-1	20.1 12.7	180	40	140	241	5 60	120	0.25 0.42
19 3/4	LW21-0 LW21-1	27.4 29.0	190	30	150	165	3 41	82	0.37 0.58
25 1	LW21-0 LW21-1	35.3 37.3	215	50	180	138	3 34	69	0.55 0.91
32 1.1/4	LW21-1 LW21-1	42.9 45.0	230	75	200	110	2 27	55	0.71 1.10
38 1.1/2	LW21-0 LW21-1	51.1 53.9	255	90	215	104	1 26	48	1.18 1.77
50 2	LW21-0 LW21-1	68.5 71.3	280	125	230	97	0.7 24	31	1.34 2.13
65 2 1/2	LW21-0 LW21-1	82.8 85.6	330	140	225	69	0.7 17	31	1.73 2.75
75 3	LW21-0 LW21-1	98.6 102.9	380	150	280	69	0.7 17	31	2.11 3.65
90 3 1/2	LW21-0 LW21-1	112.3 116.6	485	205	305	60	0.7 15	24	2.68 4.51
100 4	LW21-0 LW21-1	130.7 135.0	585	280	305	56	0.2 14	21	3.36 5.64
125 5	BWA21-0 BWA21-1L BWA21-1	149.4 155.3 155.3	965	455	330 330	48 76	0.3 10 17	14 17	4.52 6.75 7.62
150 6	BWA21-0 BWA21-1L BWA21-1	176.5 182.1 182.1	990	510	370 370	34 56	0.2 7 14	10 16	5.43 7.75 8.71
200 8	BWA21-0 BWA21-1	231.8 238.4	1040	610	420	56	0.09 14	14	8.36 14.17
250 10	BWA21-0 BWA21-1	286.9 293.5	1090	710	445	41	0.07 10	10	8.87 15.15
300 12	BWA21-0 BWA21-1	342.1 351.3	1140	785	495	41	0.05 9	9	11.91 18.69
350 14	BWA21-0 BWA21-1	375.3 384.4	1220	840	535	34	0.04 7	7	14.39 22.31

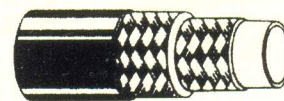
- It is recommendable to increase the minimum bend radius with 25% when high pressure and temperatures are involved
- We suggest that the maximum working pressure be no more than 25% (4:1) of the rated burst pressure of the hose assembly after correcting service temperature.

TYPE

1P



2P



Construction :

- Core / Seele
- Pressure Support / Druktrager
- Cover / Oberdecke
- Working Temperature / Arbeitstemp
- Colour / Farbe

Polyester Elastomer (PE-E) or / oder Nylon (PA) / wire
 1 or / oder 2 Braids / Kloppeiligen Polyester Yarn / Garn / Wite
 Polyurethane (PUR)
 - 40° C to / bis 100° C (-40°F to bis 212° F)
 Black, others upon request

TECHNICAL SPECIFICATION : TYPE 1P - One Braid - Exceeds SAE 100R7 Specification

TYPE TYP	INNER Ø (INCH) (MM)	OUTER Ø (INCH) (MM)	WORKING PRES- SURE (PSI)/(BAR)	BRUST PRESSURE (PSI)/(BAR)	BEND RADIUS (INCH) / (MM)
1P02	1/8 3.0	0.0312 7.9	3000 207	12000 827	2 50
1P03	3/16 4.7	0.415 10.5	3000 207	12000 827	3.50 75
1P04	1/4 6.4	0.500 12.7	2750 190	11000 190	4 100
1P05	5/16 8.0	0.587 14.9	2500 172	10000 689	4.5 114
1P06	3/8 9.6	0.640 16.3	2250 155	9000 620	5.0 127
1P08	1/2 12.7	0.790 20.1	2000 138	8000 552	7.0 178
1P10	5/8 15.9	0.960 24.4	1500 103	6000 412	8.0 203
1P12	3/4 19.0	1.040 26.4	1250 86	5000 345	10.0 254
1P16	1 25.4	1.310 33.3	1000 69	4000 276	12.0 305

TECHNICAL SPECIFICATION : TYPE 2P - One Braids - Exceeds SAE 100R8 Specification

2P03	3/16 4.7	0.415 10.5	5000 345	20,000 1379	3.0 75
2P03	1/4 6.7	0.625 15.9	5000 345	20,000 1379	4.0 100
2P05	5/16 8.0	0.660 16.7	4250 293	17000 1172	4.5 114
2P06	3/8 9.6	0.760 19.3	4000 276	16000 1103	5.0 127
2P08	1/2 12.7	0.890 22.0	3500 241	14000 965	7.0 128
2P10	5/8 16.0	1.020 25.9	2750 190	11000 758	8.0 200
2P12	3/4 19.0	1.140 28.9	2250 155	9000 620	9.5 240
2P16	1 25.4	1.460 37.1	2000 138	8000 552	12.0 300

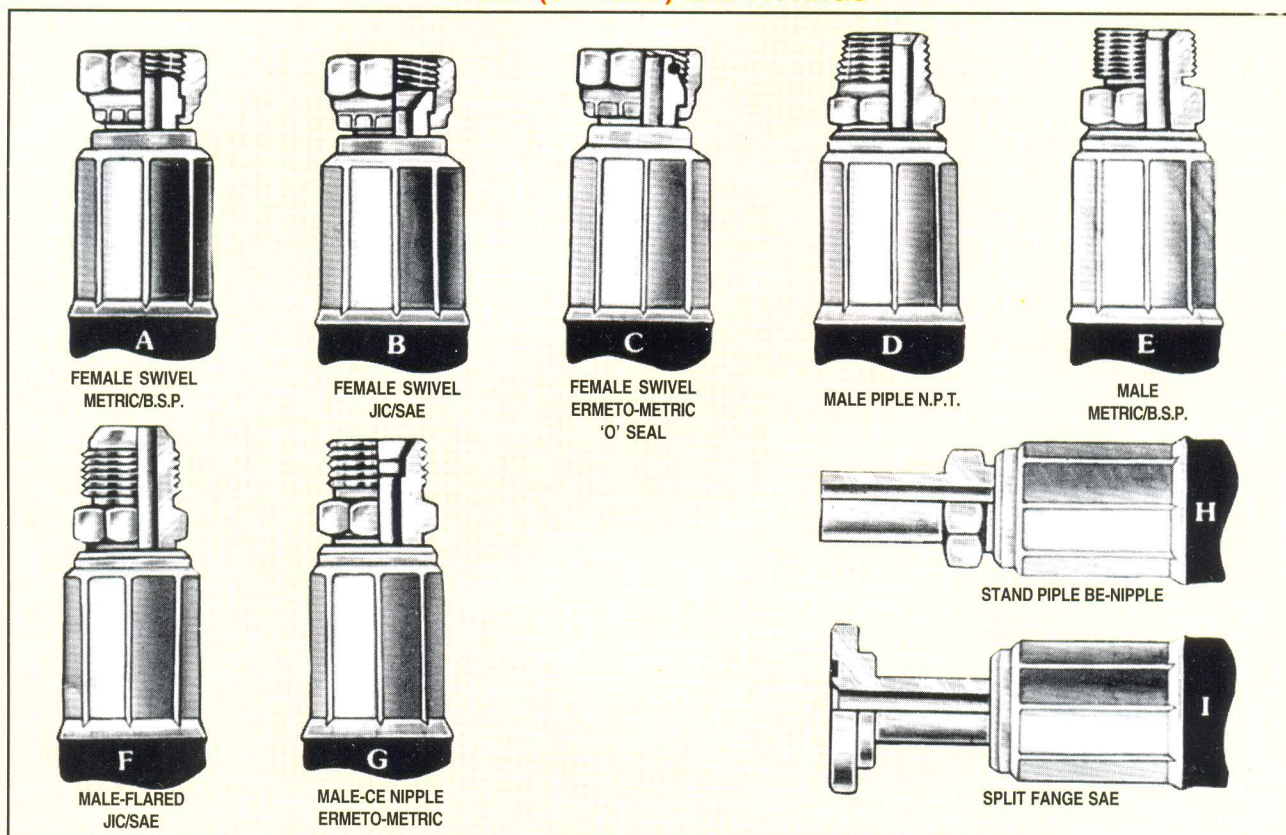
TYPE 1AW

- Core
- Pressure Support
- Cover
- Working Temperature / Arbeitstemp

SUPER HIGH PRESSURE HOSE

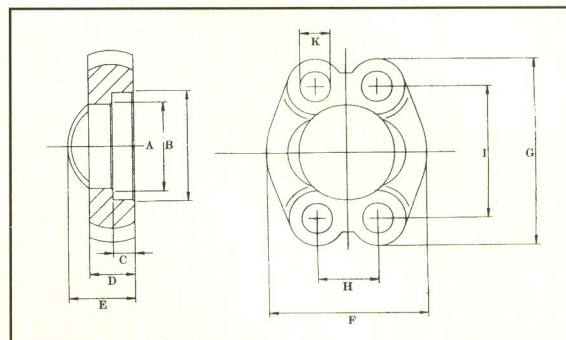
Thermoplastic Technopolymer
 1 Aramid fibre and 1 High Tensile Wire Braid
 Polyurethane
 -40° to 100° C

TYPE TYP	INNER Ø (INCH) (MM)	OUTER Ø (INCH) (M'M)	WORKING PRES- SURE (PSI)/(BAR)	BRUST PRESSURE (PSI)/(BAR)	BEND RADIUS (INCH) / (MM)
1AW-04	1/4 6.4	0.535 13.60	10000 690	40000 2760	6 152
1AW-06	3/8 9.6	0.665 16.90	10000 690	40000 2760	7 178
1AW-08	1/2 12.7	0.500 20.30	2750 690	11000 2070	8 200

CRIMP (SWAGED) END FITTINGS

STANDARD END FITTINGS (THREADS/SIZE) ON DIFFERENT SIZES (I.D.) OF HOSES

HOSE DASH SIZE	HOSE I.D.	METRIC ASSY REF A, E, G	ERMETO METRIC 'O' SEAL REF,C	B.S.P. ASSY REF. A, E	N.P.T. ASSY REF.D	U.N.F JIC/SAE REF. B, F	B.E.NIPPLE REF.H	FLANGES REF.I	
								3000 PSI	6000 PSI
-3	3/16"	M.12x1.5	M.16x1.5	1/4"	1/8"	7/16"-20	6Øx20MML 8Øx20MML	-	-
-4	1/4"	M.14x1.5	M.18x1.5	1/4"	1/4"	1/2"-20	8Øx20MML 10Øx24MML	-	-
-5	5/16"	M.16x1.5	M.20x1.5	3/8"	3/8"	9/16"-18	10Øx24MML 12Øx25MML	-	-
-6	3/8"	M.18x1.5	M.22x1.5	3/8"/1/2"	3/8"	9/16"-18 5/8"-18	12Øx25MML 14Øx27MML	30.2mm	31.7mm
-8	1/2"	M.22x1.5 M24x1.5	M.24x1.5	1/2"/5/8"	1/2"	3/4"-16 7/8"-14	15Øx25MML 16Øx30MML	-	-
-10	5/8"	M.26x1.5 M30x2	M.30x2	3/4"	3/4"	11/16"-12	18Øx25MML 20Øx32MML		
-12	3/4"	M.30x1.5 M36x2	M.36x2	3/4"/1"	3/4"	11/16"-12 15/16"-12	22Øx25MML 25Øx34MML	38.1mm	41.3mm
-16	1"	M.36x2 M38x1.5 M42x2	M.42x2	1"/1 1/4"	1"	15/16"-12 15/8"-12	28Øx25MML 30Øx36MML	44.5mm	47.6mm
-20	1 1/4"	M.45x2 M52x1.5	M.52x2	1 1/4"/1 1/2"	1 1/4"	17/8"-12	35Øx30MML 38Øx38MML	50.8mm	54.0mm
-24	1 1/2"	M.52x2	M.52x2	1 1/2" / 2"	1 1/2"	2 1/4"-12	42Øx36MML 50Øx70MML	60.3mm	63.5mm
-32	1"	M.65x2	M.65x2	2"/2 1/2"	2"	2 1/2"-12		71.4mm	79.4mm

SAE-one-piece-flanges
2 Split Flanges



Standard Pressure (according to ISO 6162-1*) **LOAD - 61**

Nominal Flange size		Order Number										
DN	inch		A	B	C	D	E	F	G	H	I	K
13	1/2"	FC-3000-1/2"	24.3	31	6.2	13	19	46	54	17.5	38.1	8.7
19	3/4"	FC-3000-3/4"	32.2	38.9	6.2	14	22	52	65	22.3	47.6	10.5
25	1"	FC-3000-1"	38.5	45.3	7.5	16	24	59	70	26.2	52.4	10.5
32	1 1/4"	FC-3000-1"1/4-10,5										10.5
		FC-3000-1"1/4	43.7	51.6	7.5	14.	24	73	79.5	30.2	58.7	12
		FC-3000-1"1/4-12,5										12.5
38	1 1/2"	FC-3000-1"1/5	50.8	61.1	7.5	16	25	83	94	35.7	69.9	13.5
		FC-3000-1"1/2-14,5										14.5
51	2"	FC-3000-2"	62.8	72.3	9	16	26	97	102	42.9	77.8	13.5
		FC-3000-2"-14,5										14.5
64	2 1/2"	FC-3000-2"1/2	74.9	84.9	9	19	38	109	114.5	50.8	88.9	13.5
		FC-3000-2"1/2-14,5										14.5
76	3"	FC-3000-3"	90.9	102.4	9	22	41	131	135	61.9	106.4	17
89	3 1/2"	FC-3000-3"1/2	102.4	115.1	10.7	22	28	140	152	69.9	120.7	17
102	4"	FC-3000-4"	115	127.8	10.7	25	35	152	162	77.8	130.2	17
127	5"	FC-3000-5"	140.5	153.2	10.7	28	41	181	184	92.1	152.4	17

High Pressure (according to ISO 6162-1*) **LOAD - 62**

Nominal Flange size		Order Number	Dimensions (mm)									
DN	inch		A	B	C	D	E	F	G	H	I	K
13	1/2"	FC-6000-1/2"	24.6	32.5	7.2	16	22	48	56.5	18.2	40.5	8.7
19	3/4"	FC-6000-3/4"	32.5	42	8.2	19	28	60	71	23.8	50.8	10.5
25	1"	FC-6000-1"	38.8	48.4	9	24	33	70	81	27.8	57.2	13
32	1 1/4"	FC-6000-1"1/4	44.5	54.8	9.8	27	38	78	95	31.8	66.6	15
38	1 1/2"	FC-6000-1"1/2	51.6	64.3	12	30	43	95	113	36.5	79.3	17
51	2"	FC-6000-2"	67.6	80.2	12	37	52	114	133	44.5	96.8	21

BITE - TYPE FITTINGS

SPECIFICATION

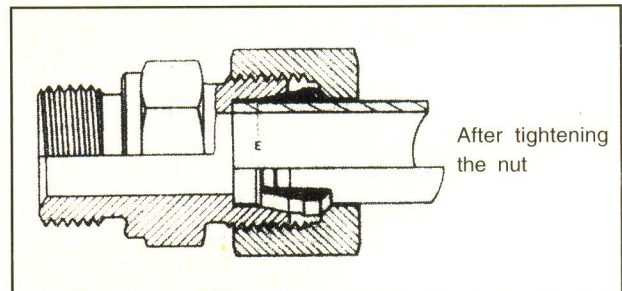
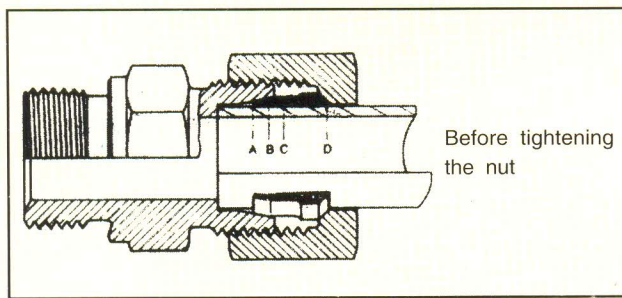
Standard :

High Pressure Steel Fitting are manufactured to DIN Standards Specifications 2353 and I.S. 8801 - 1978. They are manufactured to suit MM OD (DIN 2391) Pipes as well inch OD and N.B. Pipe Size (ASTM A 63-68 OR IS 1239 : BS 1387 : 1967)

Principle :

Fitting with Ferrule is a three piece design consisting of a body portion, a coupling nut and a ferrule. During the assembly of the Fitting on tube, the nut is progressively tightened causing the hardened ferrule to slide along the inner Conical seat of the body and grip. During the further tightening, force exerted make the ferrule's leading edge bite into the tube throwing up a visible collar of displaced metal which acts as a metallic interlock and makes the joint leak proof at high pressure and under vibrations.

On making of joint the ferrule is altered in shape and its leading edge bite the tube to the designed depth. When the assembly is disconnected, the ferrule remains permanently fixed to the tube end. This offers safety, Simplicity and reliability which can not be achieved with any other design of Fitting.



Material and Finish :

Fitting Nuts and ferrules are available in carbon steel, S.S. and brass. The C.S. fittings are phosphated and oiled for rust prevention and ferrules are heat treated and Cadmium plated.

Pressure :

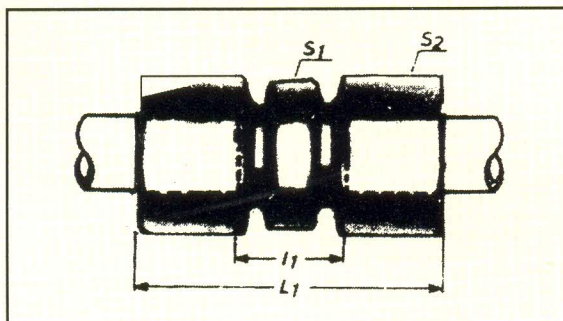
The Pressure stated in the catalogue are nominal pressure for steel fitting with a safety factor of atleast 4:1. These figures may be used as maximum working pressure under normal working conditions and temperatures upto 130 C. In case of high temperatures and instances where there are surge, pressure and high mechanical stresses (Vibration etc.) we recommend series "S".

General outlay of pressure ranges, tube sizes and threads :

Series	O.D. of Tube	Normal bore of tube MM	Working pressur Kg/CM ²	Threads size at ports/stud end Pipe threads
L	6	5	250	1/8"
	8	6		1/4"
	10	8		1/4"
	12	10		3/8"
	15	12		1/2"
	18	16	160	1/2"
	22	20		3/4"
	28	25		1"
	35	32	100	1.1/4"
	42	40		1.1/2"

Series	O.D. of Tube	Normal bore of tube MM	Working pressur Kg/CM ²	Threads size at ports/stud end Pipe threads
S	10	6	400	3/8"
	12	8		3/8"
	14	10		1/2"
	16	12		1/2"
	20	16		3/4"
	25	20	250	1"
	30	25		1.1/4"
	38	32		1.1/2"

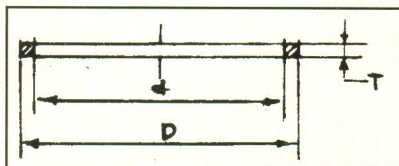
In general we recommend the use of pipe coupling for pneumatic systems, Hydraulic runback system, Oil Heating, Vehicle Industries. "S" Series are preferred for Ship Building, Mining, Chemical Industries, Pressure Piping etc.

G-UNION


Part No	Tube o.d.	Series	S1	S2	L1	I1
G 4-LL	4	LL Very light NP 100	9	10	31	12
G 6-LL	6		11	12	32	9
G 8-LL	8		12	14	35	12
G 10-LL	10		14	17	35	12
G 12-LL	12		17	19	35	11
G 6-PL	6	L light NP 250	12	14	39	10
G 8-PL	8		14	17	40	11
G 10-PL	10		17	19	42	13
G 12-PL	12		19	22	43	14
G 15-PL	15		24	27	46	16
G 18-PL	18	NP 160	27	32	48	16
G 22-PL	22		32	36	52	20
G 28-PL	28	NP 100	41	41	54	21
G 35-PL	35		46	50	63	20
G 42-PL	42		55	60	66	21
G 6-PS	6	S heavy NP 630	14	17	45	16
G 8-PS	8		17	19	47	18
G 10-PS	10		19	22	49	17
G 12-PS	12		22	24	51	19
G 14-PS	14		24	27	57	22
G 16-PS	16	NP 400	27	30	57	21
G 20-PS	20		32	36	66	23
G 25-PS	25		41	46	74	26
G 30-PS	30	NP 250	46	50	80	27
G 38-PS	38		55	60	90	29

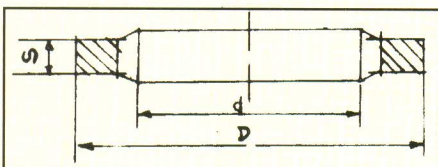
**NB : INCH O.D. AND NOMINAL BORE O.D FITTINGS ARE ALSO AVAILABLE.
ASK FOR DRG AND PRICES SEPARATELY.**

COPPER WASHER



B.S. P. THREAD	Id	OD	THICKNESS
1/8"	10.2 + 0.3	13.9 - 0.2	1 ± 0.1
1/4"	14.2 + 0.3	17.9 - 0.2	1.5 ± 0.15
3/8"	17.2 + 0.3	20.9 - 0.2	1.5 ± 0.15
1/2"	21.2 + 0.3	25.9 - 0.2	2 ± 0.2
5/8"	23.3 + 0.3	27.9 - 0.2	2 ± 0.2
3/4"	27.3 + 0.3	31.9 - 0.2	2 ± 0.2
1"	33.3 + 0.3	38.9 - 0.2	2 ± 0.2
1 1/4"	42.3 + 0.3	48.9 - 0.2	2 ± 0.2
1 1/2"	48.3 + 0.3	54.9 - 0.2	2 ± 0.2
2"	60.5 + 0.5	67.9 - 0.3	2.5 ± 0.2
2 1/2"	75.5 + 0.5	83.8 - 0.3	2.5 ± 0.2

BONDED SEALS



B.S. P.	Id	OD	S	THREADS	
				METRIC	B.S.P.
U 10.7 X 18 X 1.5	10.7	18	1.5	M 10	R1/8"
U 13.7 X 22 X 1.5	13.7	22	1.5	M 13	
U 14.7 X 22 X 1.5	14.7	22	1.5	M 14	1/4"
U 16.7 X 24 X 1.5	16.7	24	1.5	M 16	
U 17.4 X 24 X 1.5	17.4	24	1.5		3/8"
U 18.4 X 26 X 1.5	18.7	26	1.5	M 18	
U 20.7 X 28 X 1.5	20.7	28	1.5	M 20	
U 22.7 X 30 X 2	22.7	30	2	M 22	1/2"
U 24.7 X 32 X 2	24.7	32	2	M 24	5/8"
U 26.7 X 35 X 2	26.7	35	2	M 26	
U 27.7 X 36 X 2	27.2	36	2		1/4"
U 31 X 39 X 2	31	39	2	M 30	7/8"
U 34.3 X 43 X 2	34.3	43	2		1"
U 36.7 X 46 X 2	36.7	46	2	M 36	
U 42.7 X 53 X 3	42.7	53	3	M 42	1 1/4"
U 48.7 X 59 X 3	48.7	59	3	M 48	1 1/2"
U 60.7 X 73 X 3	60.7	73	3	M 60	2"
U 76.08 X 90.3 X 3.38	76.08	90.3	3.38		2 1/2"

Nomogramm for determination of nominal hose diameter

This Nomogram provides a guide for the determination of the nominal diameter (DN) required for a hose (DIN)

Example ()

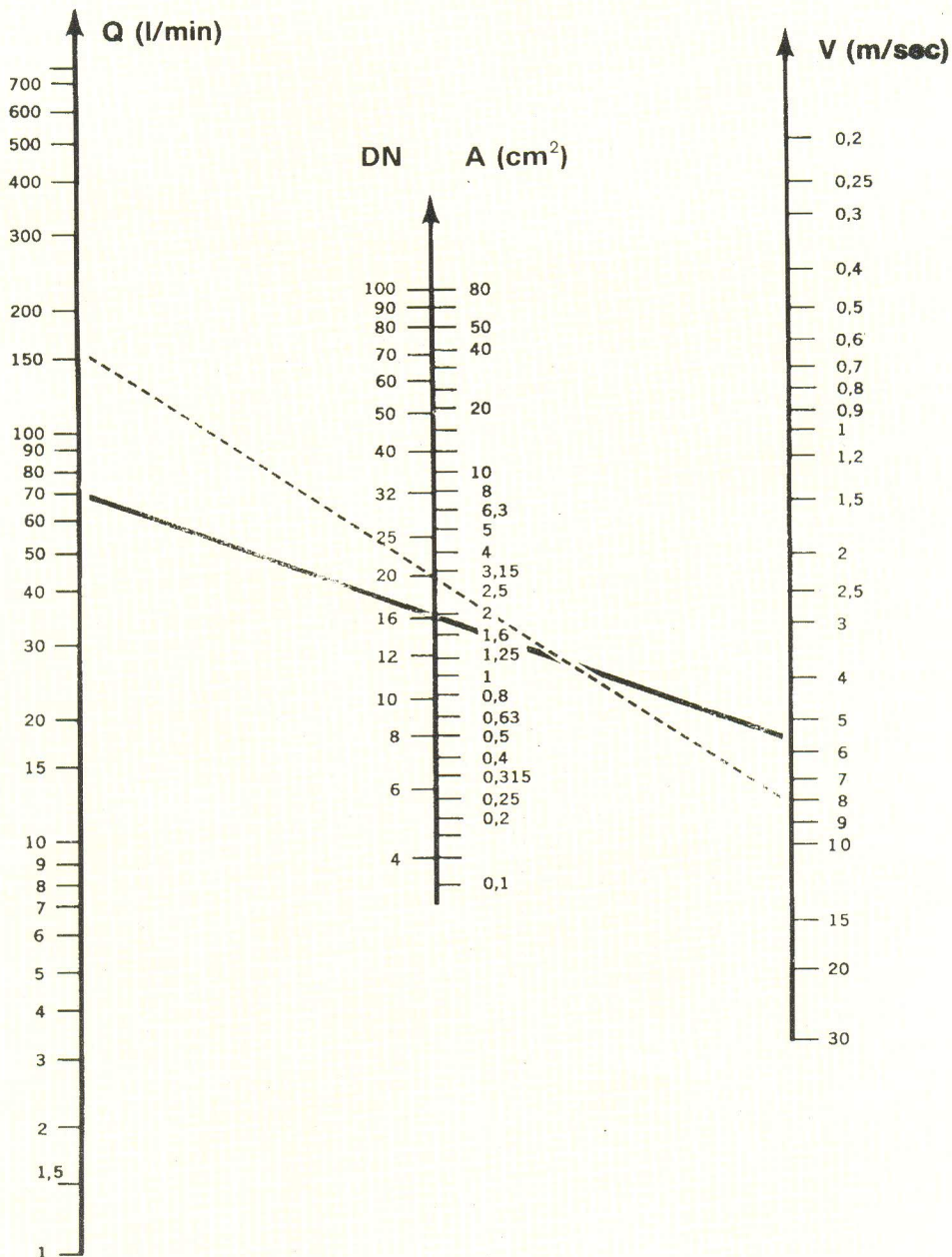
A velocity

$V = 5.5 \text{ m/s}$

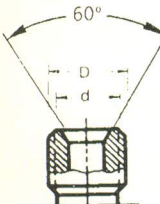
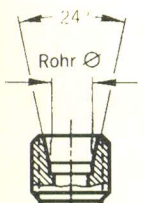
and a flow rate of

$Q = 66 \text{ l/min.}$ have been selected. The straight line linking these two values on the outer scales intersects the nominal hose diameter DN16 on the middle scale

No allowance is incorporated for the resistance of the pipes, elbows and valves, viscosity, the effect of temperature on viscosity and other factors.



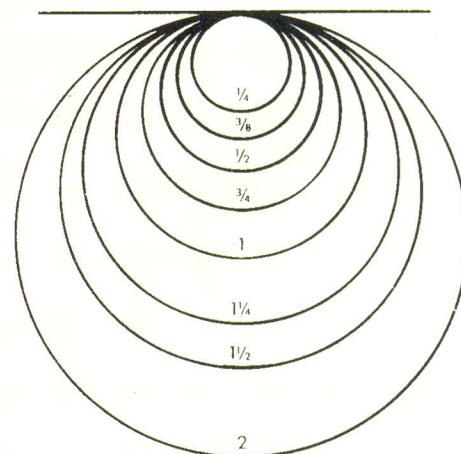
Technical Information

Metric Thread Informations	DIN 7631 60°	DIN I.Rh. 24°	DIN s.Rh. 24°	mm 24°	gaz 24°	Thread	D mm	D mm
	DN	Rohr / Pipe O.D.						
 Din - Globe Seal 60°	4	6		6		M 12 x 1	12,0	11,0
	6	8	6	8		M 12 x 1,5	12,0	10,5
	8	10	8	10		M 14 x 1,5	14,0	12,5
	10	12	10	12		M 16 x 1,5	16,0	14,5
 DIN and fresh standard and Globe Seal 24°	12	15	12	14	13,25	M 18 x 1,5	18,0	16,5
			12	14		M 20 x 1,5	20,0	18,5
			14	15		M 22 x 1,5	20,0	20,5
			16	16	16,75	M 24 x 1,5	24,0	22,5
	16	18		18		M 26 x 1,5	26,0	24,5
	20			22	21,25	M 27 x 1,5	27,0	25,5
		22	20			M 30 x 1,5	30,0	28,5
				25		M 30 x 2	30,0	27,9
				28	26,75	M 33 x 1,5	33,0	31,5
	25	28	25			M 36 x 1,5	36,0	34,5
				30		M 36 x 2	36,0	33,9
				32		M 38 x 1,5	38,0	36,5
				35		M 39 x 1,5	39,0	37,5
	32		30	35	33,50	M 42 x 1,5	42,0	40,5
		35		38		M 42 x 2	42,0	39,9
	40	42	38		42,25	M 45 x 1,5	45,0	43,0
				45		M 45 x 2	45,0	42,9
					48,25	M 48 x 1,5	48,0	46,5
						M 52 x 1,5	52,0	40,5
						M 52 x 2	52,0	49,9
	50					M 54 x 2	54,0	51,9
	60					M 58 x 2	58,0	55,9
						M 65 x 2	65,0	62,9
	70					M 78 x 2	78,0	75,9
	80					M 90 x 2	90,0	87,9
	90					M 100 x 2	100,0	97,9
	100					M 110 x 2	110,0	107,9
						M 120 x 2	120,0	117,9

American national standard taper pipe threads - NPTF and NPSM

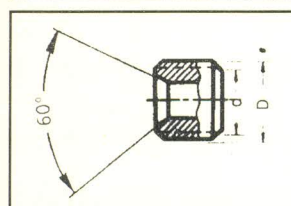
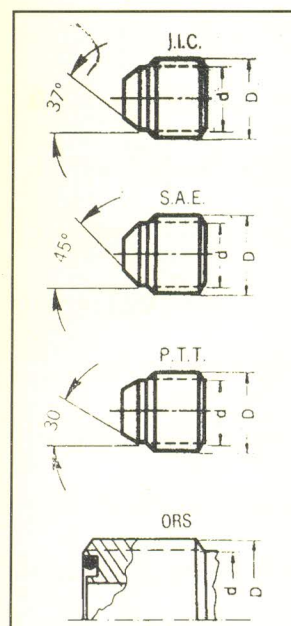
NPTF TYPE 1 Dryseal ANSI standard taper pipe thread for pressure tight joints.

NPSM American national standard straight pipe thread for free-fitting mechanical joints (nonsealing on threads).



NPTF-Thread

To obtain the nominal dimensions of an NPTF thread place the thread end on the appropriate circle and read the diameter.



UN-Thread	DN	JIC Size	Size	PTT Size	D mm	d mm
3/8 -24UNF	5	-3			9,52	8,6
7/16 -20UNF	6	-4	-4		11,07	10,00
1/2 -20UNF	8	-5	-5		12,70	11,60
9/16 -18UNF	10	-6			14,25	13,00
5/8 -18UNF			-6		15,85	14,70
3/4 -16UNF	12	-8	-8		19,00	17,60
7/8 -14UNF	16	-10	-10		22,17	20,50
1 1/16 -12UN	20	-12			26,95	25,00
1 1/16 -14UNS			-12		26,95	25,30
1 5/16 -12UN	25	-16			33,30	31,30
1 5/16 -12UNS				-16	33,30	31,60
1 7/8 -12UN	32	-20			41,22	39,20
1 7/8 -14UNS				-20	41,22	39,50
1 7/8 -12UN	40	-24			47,57	45,60
1 7/8 -12UNS				-24	47,57	45,90
2 1/2 -12UN	50	-32		-32	63,45	61,50
3 -12UN	60	-40			76,20	74,30
3 1/2 -12UN	80	-48			88,90	87,00

American end fittings

Thread data : U.S. threads have an angle of 60° and are identified by the "Diameter and the number of threads per inch" e.g. 1/2-20.

ORS Connector Thread

UN-Thread	DN	ORS Size	D mm	d mm
9/16 -18UNF	6	-4	14,2	12,5
1 1/16 -16UN	10	-6	17,4	15,4
1 3/16 -16UN	12	-8	20,5	18,6
1 -14UNS	16	-10	25,3	23,1
1 3/16 -12UN	20	-12	30,1	27,5
1 7/16 -12UN	25	-16	36,4	33,8
1 11/16 -12UN	32	-20	42,8	40,2
2 -12UN	40	-24	50,7	48,1

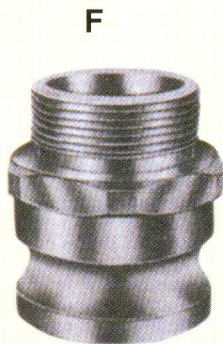
BSP (Whitworth) Threads

Thread	Threads per inch	D mm	d mm	Thread	Threads per inch	D mm	d mm	Thread	Threads per inch	D mm	d mm
G 1/8"	28	9,73	8,6	G 5/8"	14	22,91	20,6	G 1/2"	11	47,80	44,9
G 1/4"	19	13,16	11,5	G 3/4"	14	26,44	24,1	G 1 3/4"	11	53,75	50,8
G 1/8"	19	16,66	14,9	G 1"	11	33,25	30,3	G 2"	11	59,62	56,7
G 1/2"	14	20,96	18,6	G 1 1/4"	11	41,91	38,9	G 2 1/4"	11	65,72	62,8

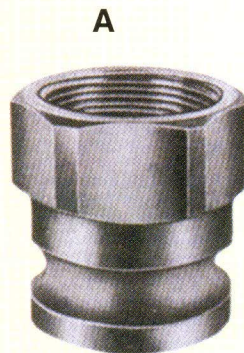
CAMLOCK



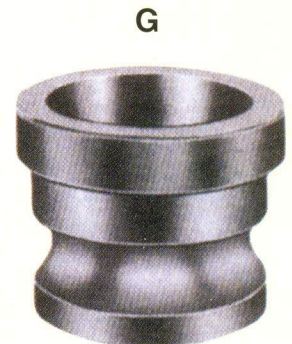
ADAPTOR



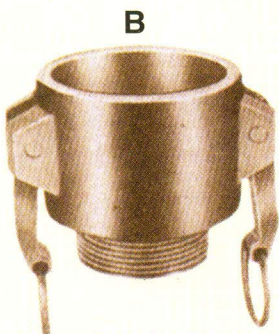
ADAPTOR



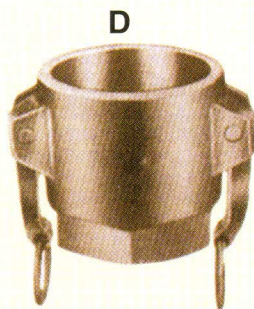
ADAPTOR



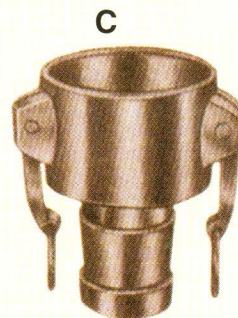
ADAPTOR



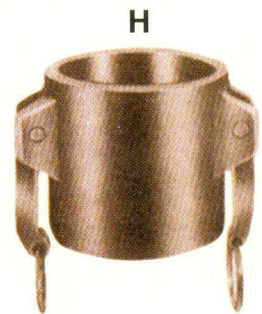
COUPLER



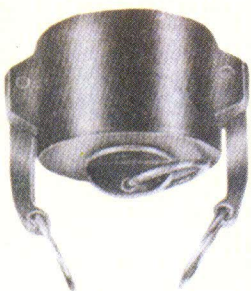
COUPLER



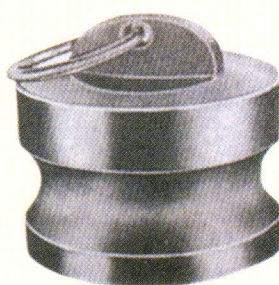
COUPLER



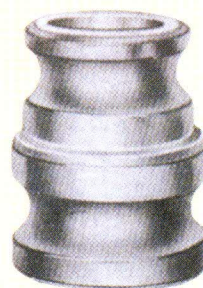
COUPLER



DUST CAP



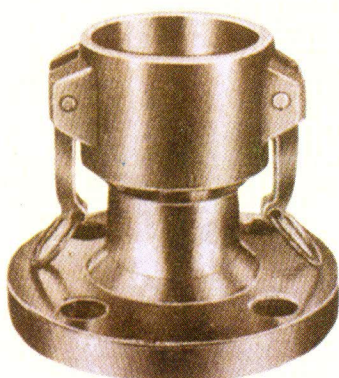
DUST PLUG



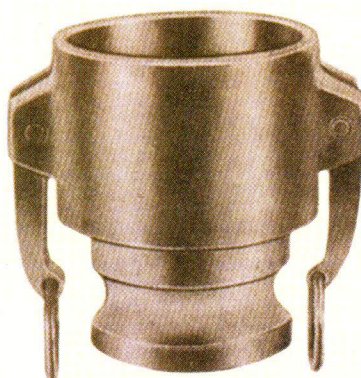
DOUBLE ADAPTOR



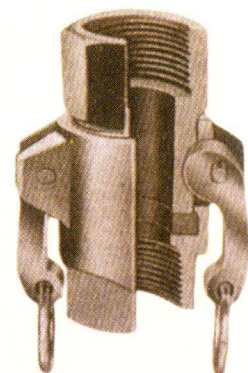
FLANGED COUPLER



FLANGED COUPLER



COUPLER ADAPTOR



SECTIONAL VIEW OF D&A ASSLY.

SPECIAL FEATURES

DESIGN PRINCIPLE : The principle behind the design of Camlock is simple Pivot pins for coupler cam arms which lock into the adaptor groove are located so that when line pressure attempts to force the camlock apart, the bottom edge of the adaptor grooves pushes with equal pressure against the under edge of the cam arm increasing the locking action, when properly connected, line pressure will not separate a camlock a camlock with recommended pressure limit.

Material : Camlock are manufactured from selected raw materials under strict quality control.
Body : (i) Available in Solid Bar stock of Aluminium, Mild steel, Brass SS 304 & SS 316.
(ii) Available in castings of carbon steel grade WCB or I.S. 1030, Gunmetal grade LG2G, **Aluminium Bronze AB2C, SS 304 with c.f. 0.08 & SS 316 with c.f. 0.08.**

Cam Arms : Available in casting of SS 304, with c.f. 0.08, S.S. 316 with c.f. 0.08 Gunmetal grade **LG2C & Aluminium Bronze grade AB2C.**

Seals : Available in - Nitrile, Viton, Neoprene, Silicon, Hypalon, etc.

END CONNECTIONS : Socket weld, Hose thread, Pipe thread, Hose shank and Flanged.

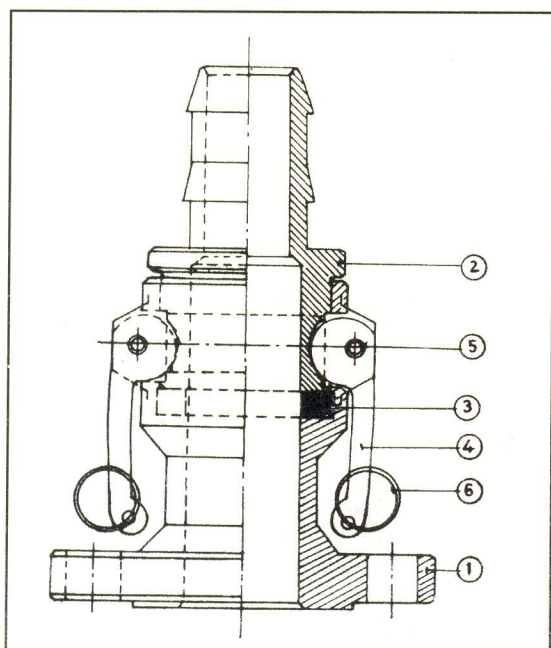
Size : 1/2" to 6" depending on Type and Material

Working Pressure : For 1/2" to 2 sizes - 500 p.s.i. for 3" to 4" sizes - 200 p.s.i. for 5" to 6" sizes - 100 p.s.i.

Temperature : The coupler can handle fluid from - 40° to 350° C with right selection of body material and seal.

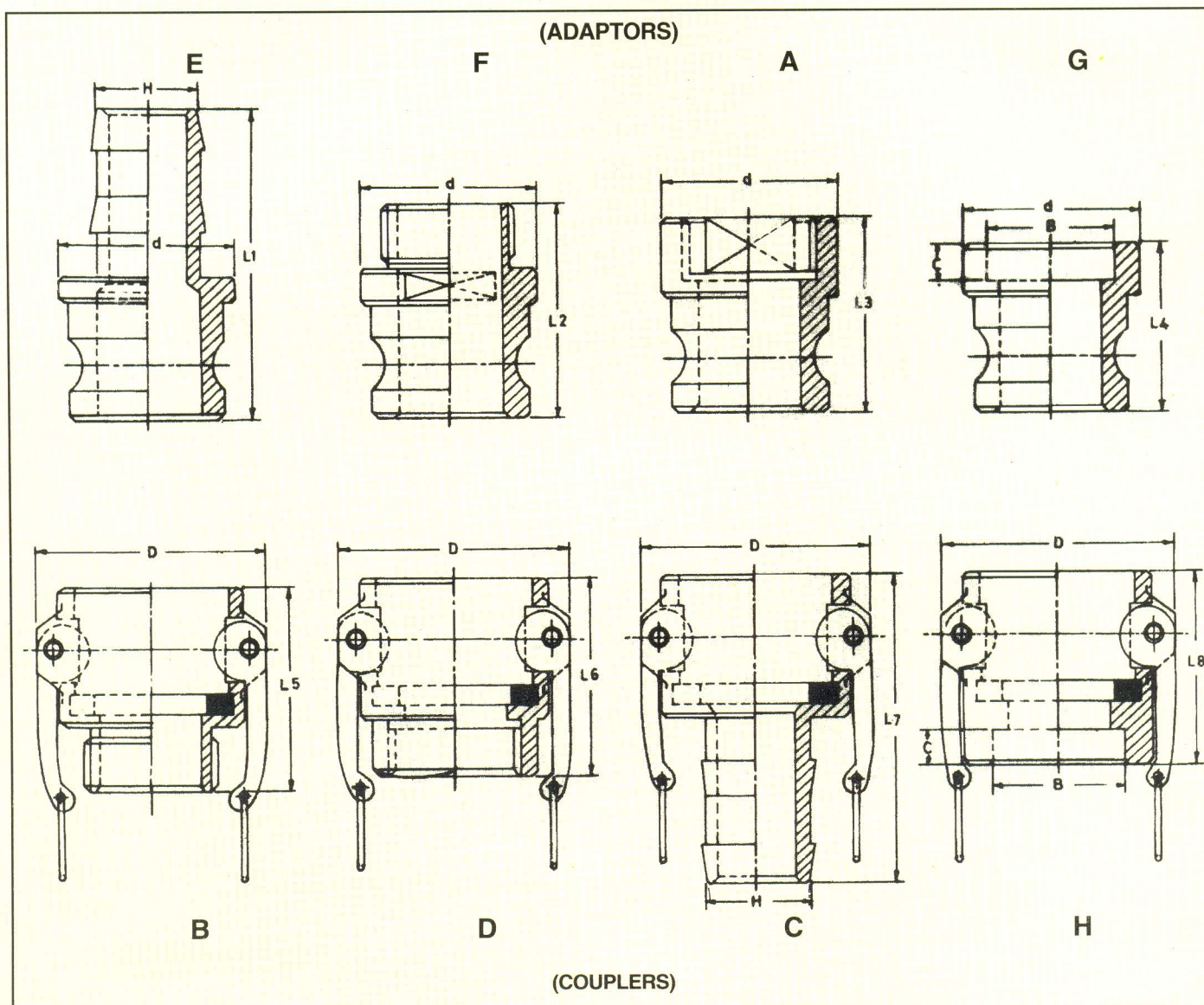
Application : Camlock finds usage in various Industries like FERTILIZERS, CHEMICALS PETROLEUMS, TEXTILES, MININGS, BREWINGS, INKS, DYES, PAPER MILLS, PROCESSING PLANTS ETC.

SECTIONAL VIEW OF CAMLOCK WITH PARTS DETAILS



SR. NO.	DESCRIPTION	QTY
1	COUPLER	1 NO
2	ADAPTOR	1 NO
3	WASHER	1 NO
4	CAM ARM	2 NOS
5	CAM PIN	2 NOS
6	CAM RING	2 NOS

DIMENSIONAL DETAILS & SECTIONAL VIEW



Sr. No.	Size in mm	L1 in mm	L2 in mm	L3 in mm	L4 in mm	L5 in mm	L6 in mm	L7 in mm	L8 in mm	D in mm	d in mm	H in mm	C in mm	B in mm
1.	1/2"	73	54	48	42	53	53	77	46	58	35	14	9.5	21.0
2.	3/4"	81	57	51	42	56	56	89	49	58	35	22	12.7	27.3
3.	1"	88	62	57	48	60	60	90	51	60	38	28	12.7	34.0
4.	1 1/2"	109	75	68	59	72	72	110	63	85	65	41	12.7	48.9
5.	2"	131	81	80	69	79	80	131	70	95	72	52	16.0	61.3
6.	2 1/2"	139	88	81	69	85	85	138	73	110	90	66	16.0	74.2
7.	3"	160	91	87	75	87	87	160	75	135	105	79	16.0	90.2
8.	4"	169	104	95	76	101	101	164	82	155	135	106	19.0	115.8
9.	5"	191	104	95	76	101	101	188	82	194	162	130	--	--
10.	6"	201	122	110	92	111	111	196	93	222	196	155	--	--

SINGLE CHECK VALVE / DOUBLE CHECK VALVES QRC

FEATURES

PRINCIPLE :

ACCURATE QRC works on simple 'PUSH & PULL' Principle. The adaptor when pushed into coupler is securely held by the self locking arrangement resulting in a positive and leak proof connection. This action simultaneously opens the valve and the fluid flow starts. To disconnect, pull back the sleeve of the coupler, the adaptor eject out the valve shuts off automatically.

MATERIAL :

ACCURATE QRC are manufactured from selected raw materials under quality control.

- Body : (i) Available in Brass, Carbon Steel, (From Bar Stock & Chromium Plated)
 (ii) Available in Aluminium, S.S. 304, S.S. 316, S.S. 316L (From Bar Stock Only.)
 Spring : Available in Spring Steel S.S. 304 AND S.S. 316
 Ball : Available in Steel, S.S. 304, S.S. 316 and S.S. 316 L.
 Seal Material : Available in - Nitrile, Viton, Neoprene, Silicon, Hypalon, etc.

END CONNECTIONS : Socket welding, hose thread, pipe thread, hose shank and flanged.

Type : Type - W Double Check Valve QRC
 Type - T Without Check Valve QRC

Type-V Single Check Valve QRC

1/8" (3 mm) to 4" (100 mm) depending on types and materials.

TEMPERATURE :

ACCURATE QRC can handle fluids from - 25°C with + 250°C with right selection of body and seal materials.

DUTY CONDITION :

Accurate QRC are manufactured to suit six pressure limits as under :

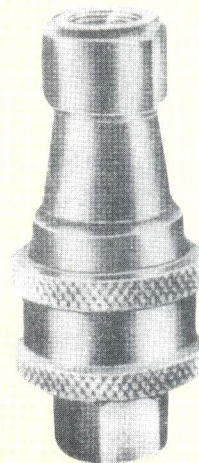
- | | |
|---|---|
| (i) 20 Kg./cm ² or 300 psi. | (ii) 35 Kg./cm ² or 300 psi. |
| (iii) 70 Kg./cm ² or 1000 psi. | (iv) 205 Kg./cm ² or 3000 psi. |
| (v) 275 Kg./cm ² or 4000 psi. | (vi) 350 Kg./cm ² or 5000 psi. |

Application :

Wide application on fluids line connections like air, steam, gases, liquids, oil, Used in [FERTILIZER, CHEMICAL, PETROLEUM, FURNACES, TEXTILE MACHINES, MACHINE TOOLS, REFRIGERATIONS & MANY MORE INDUSTRIES.]



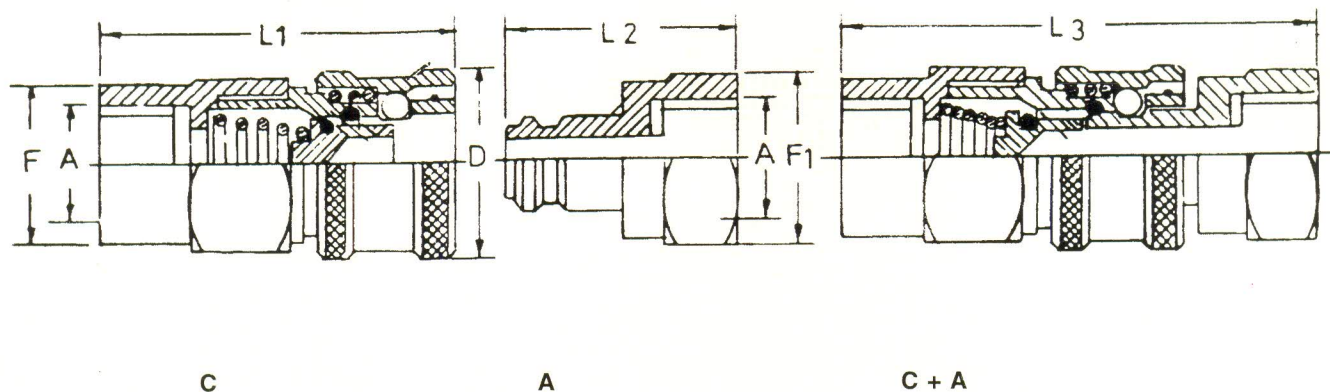
**DOUBLE CHECK VALVE
FOR TUBE CONNECTIONS**



**DOUBLE CHECK VALVE
FOR THREAD CONNECTIONS**

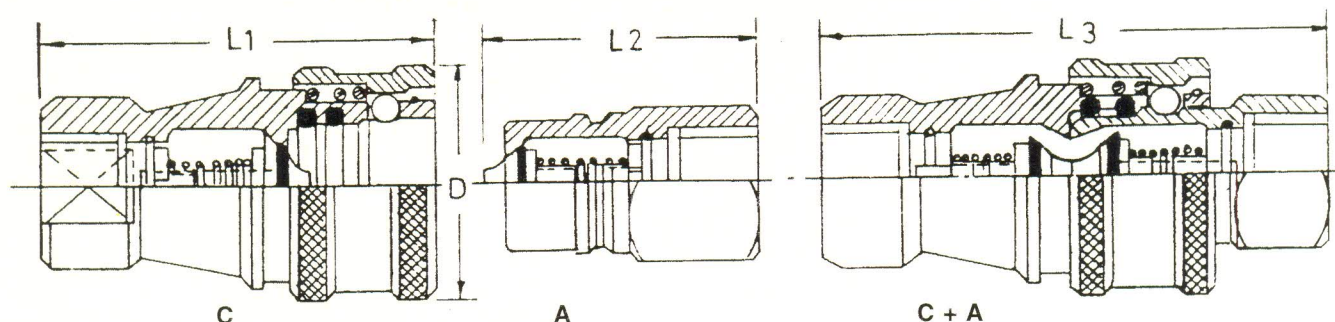


DIMENSIONAL DETAILS OF SINGLE CHECK VALVE QRC - V



S.R.	SIZE NO.	TYPE	A	D	F In mm	F1 In mm	L1 In mm	L2 In mm	L3 In mm	W.P PSI
1	1/8"	QRC-V 1	1/8" BSP	19	16	14	41	27	54	500
2	1/4"	QRC-V 2	1/4" BSP	24	21	19	53	33	70	500
3	3/8"	QRC-V 3	3/8" BSP	24	22	22	55	35	73	500
4	1/2"	QRC-V 4	1/2" BSP	34	28	28	68	42	89	500
5	3/4"	QRC-V 5	3/4" BSP	40	35	32	83	46	107	500
6	1"	QRC-V 6	1" BSP	42	50	40	84	50	111	500
7	1 1/4"	QRC-V 7	1 1/4" BSP	49	50	50	89	54	120	500

DIMENSIONAL DETAILS OF DOUBLE CHECK VALVE QRC - VV



S.R. NO.	SIZE	TYPE	C L1 In mm	A L2 In mm	C + A L1 In mm	MAXIMUM DIAMETER IN MM	WORKING PRESSURE PSI	TESTING PRESSURE PSI
1.	1/8" BSP	QRC-VV 1	44	33	58	23	4000	6000
2.	1/4" BSP	QRC-VV 2	58	40	72	32	4000	6000
3.	3/8" BSP	QRC-VV 3	66	46	80	38	4000	6000
4.	1/2" BSP	QRC-VV 4	71	50	90	44	3500	5000
5.	3/4" BSP	QRC-VV 5	77	55	98	48	3000	4500
6.	1" BSP	QRC-VV 6	85	63	112	58	3000	4500
7.	1 1/4" BSP	QRC-VV 7	94	65	120	72	2000	3000
8.	1 1/2" BSP	QRC-VV 8	113	80	144	89	2000	3000
9.	2" BSP	QRC-VV 9	127	88	152	105	1000	2000

GETTING THE BEST SERVICE LIFE FROM ACCURATE HYDRAULIC HOSE

Every hose has a finite life depending on the service conditions to which it is exposed. If a hose is subjected to conditions more severe than recommended limits then its life will be significantly reduced.

Variable factors, which can affect the actual service life, include :

1. WORKING PRESSURE

The fluid system pressure including surge pressure should not exceed the rated working pressure of the hose - usually one fourth of the hose maximum bursting pressure.

2. MINIMUM BURST PRESSURE

Burst pressure are reference values during in-house destructive tests, which are used to determine the strength of the hose and to establish design safety factors.

3. PRESSURE SURGES

Almost all fluid systems develop pressure surges which may exceed relief valve settings. Exposing the hose to surge pressures above the rated working pressure will shorten hose life and must be considered in selecting the proper hose. A surge which may not be indicated on many commonly used pressure gauges, can be measured using specialised electronic equipment. The safety factor in systems where severe pressure surges occur can be increased by selecting a hose with a higher rated working pressure.

4. TEMPERATURE RANGE

Hose should not be exposed to internal or external temperatures exceeding the recommended limits, as high heat degrading the Elastomer and reducing fitting retention. Continuous use at near maximum use at maximum temperatures together with maximum pressures should be avoided.

5. FLUID COMPATIBILITY

The Hose assembly (tube, cover, reinforcement and couplings) must be fluid compatible.

6. HOSE SIZE

The hose size must be capable of handling the required flow volume. Using the smaller than required diameter of hose for a given volume of flow would result in excessive fluid turbulence, pressure drop, heat generation and tube damage.

7. HOSE LENGTH AND ROUTING

Select the correct length of hose taking into account vibrations, flexing and hose assembly routing. To protect and guide hose to minimize risk of damage use clamps, bends, adapters, protective sleeves wherever required to prevent excessive flexing, pulling, kinking, whipping and contracting or corrosives.

8. MINIMUM BEND RADIUS

Do not bend or flex hose beyond the specified parameter as this would put excessive stress on the reinforcement and severely reduce the ability of the hose to withstand pressure.

9. HOSE ASSEMBLY INSPECTION

All hose assemblies in service should be frequently checked for leakage, kinking, corrosion, abrasion or any other signs of wear and damage. Any hose assembly worn or damaged must be removed from service and replaced immediately.

10. ENVIRONMENT

Hydraulic hoses are more resistant to certain degradation, e.g. ultraviolet light, ozone and many hydraulic fluids. Nevertheless due regards must be given to the working environment and the selection of hose best suited to operating conditions.

SAFETY WARNING :

Improper selection, installation or maintenance of hose may result in premature failures, property damage or bodily injury.