HOSE ASSEMBLIES

Gem Engineering Industries (India) Pvt. Ltd.

Manufacturer of Hydraulic Tube Fittings, Hose Fittings & Hose Assemblies

ISO 9001:2008 and ISO 14000:2004 Certified

ISO 9001 - ISO14001

BUREAU VERITAS
Certification

IND.11.6650N/Q/E

INTRODUCTION

Gem Engineering Industries India Pvt. Ltd., manufacturer of Hydraulic Fittings (6mm to 42mm) as per global standard DIN 2353, Hose Fitting up-to 3 inches and Hose Assemblies. New designs of products added into production continuously. Founded in 2008; over the years has acquired a reputation for in-depth industry and product knowledge, quality of its products and efficiency of its manufacturing facilities. Quality (Lean Six Sigma, Kan-Ban System), Research, Qualified, Energetic, Cost Effective and Dedicated team to always provide products with aligned service and support with client specific and centered action.

INFRASTRUCTURE:

Own Premises (Quality Machineries with regular required up gradation) 20 CNC Turning Centres (To be 40 by December 2014) 130+ Employees PAN India footprint with ever increasing Dealer / Distributor network. Working with Original Equipment Manufacturers (OEM) and premium public limited / Navratna Companies in India. Ever expanding global foot print with established presence in UAE, Oman, Qatar & Europe targetting new countries across Africa, North & South America.

OFFICE, PLANT, MACHINERY AND EQUIPMENT DETAILS

Office:

The administrative function / departments are operated within the corporate facility in the factory premises of 10,000 square feet located on the 2nd Floor, the work area is divided into world-class ergonomically designed cubicles with quality desk and seating facilities; following are the department / functions which are operational:

Reception, Visitor Lounge, Conference Room, Meeting Room, Design, Quality, Finance and Accounts, Purchase, Administration, Human Resource and Management, Server, Console and EPBAX Room, System and IT Support.

INDUSTRIAL FACILITY

Power installed capacity	250 KVA + Generator Capacity 250 KVA
Factory area – Size of establishment	2000 Sq.Yards
Factory location	Plot No: 154/B & 165/C, IDA, Cherlapally, Phase III, Hyderabad – 500051, Andhra Pradesh, India
Administration office	4-2-254, Old Bhoiguda, Secunderabad – 500003, Andhra Pradesh, India

ROUTING / INSTALLATION / ENVIRONMENTAL INCLUENCES

Rubber Hoses

Tube:
Syntetic Rubber, resistant against hydraulic fluids.

Reinforcement:
One braid of high tensile steel wire.

Cover:
Abrasion and ozone resitant synthetic rubber.

Temperature range (Medium):
-40°C to 120°C.

DIN EN 853 1 SN / SAE 100 R 1

Nominal Bore Dia		Maximum Dia Over Cover		Working Pressure		Minimum Burst Pressure		Minimum Bend Radius	
Inch	mm	Inch	mm	PSI	BAR	PSI	BAR	Inch	mm
3/16	4.8	0.47	12	3625	250	14500	1000	3.6	90
1/4	6.4	0.52	13.2	3263	225	13050	900	3.9	100
5/16	8	0.59	15.1	3118	215	12470	860	4.5	105
3/8	9.5	0.68	17.2	2610	180	10440	720	5.1	130
1/2	12.7	0.80	20.2	2320	160	1980	640	7.1	180
5/8	16	0.93	23.6	1885	130	7540	520	759	200
3/4	19	1.08	27.5	1523	105	6090	520	9.5	240
1	25.4	1.39	35.3	1276	88	5104	352	11.8	300
1.1/4	31.8	1.70	43.2	914	63	3654	252	16.5	420
1.1/2	38.1	1.95	49.6	725	50	2900	200	19.7	500
2	50.8	2.50	63.5	580	40	2320	160	24.8	630
2.1/2	63.5	3.11	79	522	36	2088	144	30	760
3	76.2	3.62	92	508	35	2030	140	36	900
3.1/2	90.0	4.15	105.5	218	15	870	60	42	1067
4	101.6	4.61	117	145	10	580	40	43.5	1105

Tube:
Oil resistant synthetic rubber.

Reinforcement:
Double Textile Braid.

Cover:
Black Color, Synthetic rubber.

Temperature range (Medium):
-40°C to 120°C.

DIN EN 854 / SAE 100 R3

Nominal Bore Dia		Maximum Dia Over Cover		Working Pressure		Minimum Burst Pressure		Minimum Bend Radius	
Inch	mm	Inch	mm	PSI	BAR	PSI	BAR	Inch	mm
3/16	4.8	0.47	12	1595	110	6380	440	3.0	75
1/4	6.4	0.55	14	1305	90	5220	360	3.0	75
5/16	8	0.67	17	1233	85	4930	340	3.9	100
3/8	9.5	0.75	19	1160	80	4640	320	3.9	100
1/2	12.7	0.92	23.4	1015	70	4060	280	4.9	125
5/8	16	1.06	27	870	60	3480	240	5.5	140
3/4	19	1.24	31.5	798	55	3190	220	5.9	150
1	52.4	1.49	37.8	580	40	2320	160	7.9	200
1.1/4	31.8	1.73	44	435	30	1740	120	9.8	250

Tube:
Syntetic Rubber, resistant against hydraulic fluids.

Reinforcement:
Two braids of high tensile steel wire.

Cover:
Abrasion and ozone resitant synthetic rubber.

Temperature range (Medium):
-40°C to 120°C.

DIN EN 853 2 SN / SAE 100 R 2

Nominal Bore Dia		Maximum Dia Over Cover		Working Pressure		Minimum Burst Pressure		Minimum Bend Radius	
Inch	mm	Inch	mm	PSI	BAR	PSI	BAR	Inch	mm
3/16	4.8	0.55	14	6018	415	24070	1660	3.5	90
1/4	6.4	0.59	15	5800	400	23200	1600	3.9	100
5/16	8	0.65	16.5	5075	350	20300	1400	4.5	115
3/8	9.5	0.74	18.8	4785	330	19140	1320	5.1	130
1/2	12.7	0.85	22	4002	276	16008	1104	7.1	180
5/8	16	0.99	25.2	3625	250	14500	1000	7.9	200
3/4	19	1.15	29.2	3118	215	12470	860	9.4	240
1	25.4	1.48	37.6	2393	165	9570	660	11.8	300
1.1/4	31.8	1.87	47.5	1813	125	7250	500	16.5	420
1.1/2	38.1	2.14	54.3	1305	90	5220	360	19.7	500
2	50.8	2.64	67	1160	80	4640	320	24.8	630
2.1/2	63.5	3.27	83	1015	70	4060	280	30.0	762
3	76.2	3.78	96	798	55	3190	220	36.0	915
3.1/2	90.0	4.23	107.5	406	28	1624	112	42.0	1067
4	101.6	4.67	118.5	363	25	1450	100	43.5	1105

Tube:
Oil resistant synthetic rubber.

Reinforcement:
Single Textile Braid.

Cover:
Black Color, Synthetic Rubber.

Temperature range (Medium):
-40°C to 120°C.

DIN EN 854 / SAE 100 R6

Nominal Bore Dia		Maximum Dia Over Cover		Working Pressure		Minimum Burst Pressure		Minimum Bend Radius	
Inch	mm	Inch	mm	PSI	BAR	PSI	BAR	Inch	mm
3/16	4.8	0.44	11.1	493	34	1972	136	2.0	50
1/4	6.5	0.50	12.6	406	28	1624	112	2.6	65
3/8	9.5	0.63	16	406	28	1624	112	3.0	75
1/2	13	0.78	19.8	406	28	1624	112	3.9	100
5/8	16	0.91	23.2	348	24	1392	96	4.9	125
3/4	19	1.06	27	305	21	1218	84	5.9	150
1	25.4	1.28	32.5	189	13	754	52	9.1	230

Tube:
Syntetic Rubber, resistant against hydraulic fluids.

Reinforcement:
Four high tensile steel wire spiral lalyers.

Cover:
Abrasion and ozone resitant synthetic rubber.

Temperature range (Medium):
-40°C to 100°C
(max 120°C intermittent).

DIN EN 856 4 SP

Nominal Bore Dia		Maximum Dia Over Cover		Working Pressure		Minimum Burst Pressure		Minimum Bend Radius	
Inch	mm	Inch	mm	PSI	BAR	PSI	BAR	Inch	mm
1/2	12.7	0.96	24.3	6018	415	24070	1660	9.1	230
5/8	16	1.10	27.9	5075	350	20300	1400	9.8	250
3/4	19	1.26	31.9	5075	350	20300	1400	11.8	300
1	25.4	1.54	39.2	4060	280	16240	1120	13.4	340
1.1/4	31.8	1.98	50.2	3045	210	12180	840	18.1	460
11/2	38.1	2.23	56.6	2683	185	10730	740	22.0	560
2	50.8	2.72	69.2	2393	165	9570	660	26.0	660

Tube:
Synthetic rubber, resistant against hydraulic fluids.

Reinforcement:
Four high tensile steel wire spiral layers.

Cover:
Abrasion and ozone resistant synthetic rubber.

Temperature range (Medium):
-40°C to 120°C.

DIN EN 853 / SAE 100 R 12

Nominal Bore Dia		Maximum Dia Over Cover		Working Pressure		Minimum Burst Pressure		Minimum Bend Radius	
Inch	mm	Inch	mm	PSI	BAR	PSI	BAR	Inch	mm
3/8	9.5	0.78	19.9	4060	280	16240	1120	2.4	62
1/2	12.7	0.93	23.5	4060	280	16240	1120	3.5	90
5/8	15.9	1.07	27.2	4060	280	16240	1120	3.9	100
3/4	19.0	1.20	30.4	4060	280	16240	1120	4.7	120
1	25.4	1.50	38	4060	280	16240	1120	5.9	150
1.1/4	31.8	1.85	47	3045	210	12180	840	8.3	210
1.1/2	38.1	2.08	52.8	2538	175	10150	700	9.8	250
2	50.8	2.60	66.1	2538	175	10150	700	12.6	320

Tube:
Syntetic Rubber, resistant against hydraulic fluids.

Reinforcement:
Four high tensile steel wire spiral layers.

Cover:
Abrasion and ozone resitant synthetic rubber.

Temperature range (Medium):
-40°C to 120°C.

DIN EN 856 4 SH

Nominal Bore Dia		Maximum Dia Over Cover		Working Pressure		Minimum Burst Pressure		Minimum Bend Radius	
Inch	mm	Inch	mm	PSI	BAR	PSI	BAR	Inch	mm
3/4	19	1.26	31.9	6090	420	24360	1680	11.0	280
1	25.4	1.51	38.3	5510	380	22040	1520	13.4	340
1.1/4	31.8	1.77	44.9	4713	325	18850	1300	18.1	460
1.1/2	38.1	2.08	52.9	4205	290	16820	1160	22.0	560
2	50.8	2.66	67.5	3625	250	14500	1000	27.6	700

Tube:
Synthetic rubber, resitant against hydraulic fluids.

Reinforcement:
Four spiral layers DN 19-DN 25 and six spiral layers DN 32 - DN 51 of high tensile steel wire.

Cover:
Abrasion and ozone resistant synthetic rubber.

Temperature range (Medium):
-40°C to 121°C.

DIN EN 853 / SAE 100 R 13

Nominal Bore Dia		Maximum Dia Over Cover		Working Pressure		Minimum Burst Pressure		Minimum Bend Radius	
Inch	mm	Inch	mm	PSI	BAR	PSI	BAR	Inch	mm
3/4	19	1.25	31.7	5075	350	20300	1400	9.4	240
1	25.4	1.51	38.3	5075	350	20300	1400	11.8	300
1.1/4	31.8	1.94	49.4	5075	350	20300	1400	16.5	420
1.1/2	38.1	2.23	56.7	5075	350	20300	1400	19.7	500
2	50.8	2.78	70.5	5075	350	20300	1400	24.8	630

Thermoplastic Hoses

Tube:

Syntetic Rubber, resistant against hydraulic fluids.

Reinforcement:

Four spiral layers DN 19-DN 25 and six spiral layers DN 32 - DN38 of high tensile steel wire.

Cover:

Abrasion and ozone resitant synthetic rubber.

Temperature range (Medium):

-40°C to 121°C.

SAE 100 R 15

Nominal Bore Dia		Maximum Dia Over Cover		Working Pressure		Minimum Burst Pressure		Minimum Bend Radius	
Inch	mm	Inch	mm	PSI	BAR	PSI	BAR	Inch	mm
3/4	19	1.27	32.2	6090	420	24360	1680	10.4	265
1	25.4	1.53	38.9	6090	420	24360	1680	13.0	330
1.1/4	31.8	1.96	49.8	6090	420	24360	1680	17.5	445
1.1/2	38.1	2.26	57.4	6090	420	24360	1680	20.9	530

Construction:

Core: Thermoplastic Elastomer.
Reinforcement: Single steel wire braid .
Cover: Black Color Polyurethane and optional pin pricked.

Available twin & Multi lines with different Hose combination and Size. Also speical colors up on request.

Temperature Range

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

High Pressure Hydraulic 1 W/B

Hose I.D (Nom)		Hose O.D. (Nom)		Working Pressure		Min. Burst Pressure		Min. Bend Radius	
(In)	(mm)	(In)	(mm)	(psi)	(Bar)	(psi)	(Bar)	(mm)	(In)
1/8	3.2	0.270	6.9	5,000	350	20,000	1,400	25	1.0
3/16	4.8	0.380	9.7	4,300	300	17,200	1,200	30	1.2
1/4	6.4	0.460	11.7	3,900	275	15,600	1,100	40	1.6
5/16	8.0	0.535	13.6	3,500	240	14,000	960	50	2.0
3/8	9.5	0.600	15.2	3,200	220	12,800	880	60	2.4
1/2	12.7	0.725	18.4	2,500	175	10,000	700	75	3.0
5/8	16.0	0.875	22.2	2,000	140	8,000	560	110	4.4
3/4	19.0	1.010	25.7	1,600	115	6,400	460	150	6.0
I	25.4	1.275	32.4	1,450	100	5,800	400	230	9.2

Construction:

Core: Thermoplastic Elastomer.
Reinforcement: Double steel wire braid.
Cover: Black Color Polyurethane and optional pin pricked.

Available twin & Multi lines with different Hose combination and Size. Also speical colors up on request.

Temperature Range

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

HIGH Pressure Hydraulic 2 W/B

Hose I.D (Nom)		Hose O.D. (Nom)		Working Pressure		Min. Burst Pressure		Min. Bend Radius	
(In)	(mm)	(In)	(mm)	(psi)	(Bar)	(psi)	(Bar)	(mm)	(In)
3/16	4.8	0.460	11.7	6,500	450	26,000	1,800	80	3.2
1/4	6.4	0.540	13.7	6,250	430	25,000	1,720	100	4.0
5/16	8.0	0.600	15.2	5,500	380	22,000	1,520	110	4.4
3/8	9.5	0.690	17.5	4,800	330	19,200	1,320	127	5.1
1/2	12.7	0.830	21.1	3,900	270	15,600	1,080	178	7.1
5/8	16.0	0.975	24.8	3,000	210	12,000	840	203	8.1
3/4	19.0	1.120	28.4	2,500	175	10,000	700	250	10.0
1	25.4	1.360	34.5	2,200	150	8,800	600	305	12.2

Construction:

Core: Thermoplastic Elastomer.
Reinforcement: 1Braids of Synthetic Fibre.
Cover: Black Color, Pin Pricked - Polyurethane.

Available twin & Multi lines with different Hose combination and size. Also speical colors up on request.

Temperature Range

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

R7

Hose I.D (Nom)		Hose O.D. (Nom)		Working Pressure		Min. Burst Pressure		Min. Bend Radius	
(In)	(mm)	(In)	(mm)	(psi)	(Bar)	(psi)	(Bar)	(mm)	(In)
1/8	3.2	0.320	8.1	6,000	420	24,000	1,680	25	1.0
3/16	4.8	0.405	10.3	5,000	350	20,000	1,400	25	1.0
1/4	6.4	0.490	12.4	5,000	350	20,000	1,400	32	1.3
5/16	8.0	0.560	14.2	4,300	300	17,200	1,200	45	1.8
3/8	9.5	0.620	15.7	4,000	280	16,000	1,120	55	2.2
1/2	12.7	0.760	19.3	3,500	245	14,000	980	77	3.1
5/8	16.0	0.910	23.1	2,900	200	11,600	800	110	4.4
3/4	19.0	1.040	26.4	2,300	165	9,200	660	140	5.6
1	25.4	1.310	33.3	2,000	140	8,000	560	200	8.0
1.1/4	31.8	1.654	42.0	1,500	100	6,000	400	350	14.0

Construction:

Core: Thermoplastic Elastomer.
Reinforcement: 1 or 2 Braids of Aramid Fibre.
Cover: Black Color, Pin Pricked - Polyurethane.

Available twin & Multi lines with different Hose combination and size. Also speical colors up on request.

Temperature Range

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

R8

Hose I.D (Nom)		Hose O.D. (Nom)		Working Pressure		Min. Burst Pressure		Min. Bend Radius	
(In)	(mm)	(In)	(mm)	(psi)	(Bar)	(psi)	(Bar)	(mm)	(In)
1/8	3.2	0.320	8.1	3,000	210	12,000	840	25	1.0
3/16	4.8	0.405	10.3	3,000	210	12,000	840	25	1.0
1/4	6.4	0.490	12.4	2,750	190	11,000	760	32	1.3
5/16	8.0	0.560	14.2	2,500	175	10,000	700	45	1.8
3/8	9.5	0.620	15.7	2,250	155	9,000	620	55	2.2
1/2	12.7	0.760	19.3	2,050	140	8,200	560	77	3.0
5/8	16.0	0.910	23.1	1,500	105	6,000	420	110	4.4
3/4	19.0	1.040	26.4	1,300	90	5,200	360	140	5.5
1	25.4	1.310	33.3	1,000	70	4,000	280	200	8.0
1.1/4	31.8	1.654	42.0	1,000	70	4,000	280	300	12.0

HOSE ASSEMBLY DETAILS

	1/4"	5/16"	3/8"	1/2"	5/8"	3/4"	1"	1 1/4"	1 1/2"	2"
BSP FEMALE SWIVEL	1/4"-19	3/8"-19	3/8"-19 1/2"-14	1/2"-14 5/8"-14	5/8"-14 3/4"-14	3/4"-14 1"-11	1"-11 11/4"-11	11/4"-11 11/2"-11	11/2"-11 2"-11	2"-11
BSP MALE FIXED	1/4"-19 3/8"-19	3/8"-19	3/8"-19 1/2"-14	1/2"-14 5/8"-14	5/8"-14 3/4"-14	3/4"-14 1"-11	1"-11 11/4"-11	11/4"-11	11/2"-11	2"-11
JIC FEMALE SWIVEL	7/16"20 1/2"-20 9/16"-18	9/16"-18 5/8"-18	9/16"-18 3/4"-16	3/4"-16 7/8"-14	7/8"-14 11/16"-12	11/16"-12	15/16"-12	15/8"-12	17/8"-12	21/2"-12
JIC MALE	7/16"20 1/2"-20 9/16"-18	1/16"-8 5/8"-18	9/16"-18 3/4"-16	3/4"-16 7/8"-14	7/8"-14 11/16"-12	11/16"-12 15/16"-12	15/16"-2	15/8"-12	17/8"-12	21/2"-12
METRIC FEMALE 'O' RING SEALINGS	Tube OD / Thread Size 6 / M12X1.5 8 / M14X1.5 10 / M16X1.5	Tube OD / Thread Size 10 / M16X1.5 10 / M18X1.5 12 / M20X1.5	Tube OD / Thread Size 12 / M18X1.5 12 / M20X1.5 14 / M22X1.5	Tube OD / Thread Size 15 / M22X1.5 16 / M24X1.5 18 / M26X1.5	Tube OD / Thread Size 18 / M26X1.5 20 / M30X2	Tube OD / Thread Size 20 / M30x2 22 / M30X2 25 / M36X2	Tube OD / Thread Size 25 / M36x2 28 / M36X2 30 / M42X2	Tube OD / Thread Size 35 / M45X2 38 / M52X2	Tube OD / Thread Size 38 / M52X2 42 / M52X2	
METRIC MALE FIXED	M12x1.5 Ml4x1.5 M16x1 .5	M16x1.5 M18x1 .5	Ml8x1 .5 M20x1.5	M22x1.5 M24x 1.5 M26x 1.5	M26x1.5 M30x2	M30x2 M36x2	M36x2 M42x2	M42x2 M45x2	M52x2	
NPTF MALE FIXED	1/4"-18 3/8"-18	3/8"-18	3/8"-18 1/2"-14*	1/2"-14" 3/4"-14*	3/4"-14"	3/4"-14" 1-11.1/2*	1-11.1/2" 11/4-11.1/2*	11/4-11.1/2" 11/2-11.1/2*	11/2-11.1/2 2-11.1/2*	2-11.1/2"
BSPT MALE FIXED	1/4"-19		3/8"-19	1/2"-14	5/8"-14	3/4"-14	1"-11	11/4"-11	11/2"-11	2"-11
SAE FLANGE (3000 P.S.I)				DIA 30.2 MM DIA 38.1 MM		DIA 38.1MM DIA 44.5 MM	DIA 44.5MM DIA 50.8 MM	DIA 50.8 MM DIA 60.3 MM	DIA 60.3MM DIA 71.4 MM	DIA 71.4MM
SAE FLANGE (6000 P.S.I)				DIA 31.8 MM DIA 41.3 MM		DIA 41.3 MM DIA 47.6 MM	DIA 47.6 MM DIA 54 MM	DIA 54 MM DIA 63.5 MM	DIA 63.5 MM DIA 79.4 MM	DIA 79.4MM

Note :- Bend's as per requirement available on all above sizes.

Please consult us for customised assemblies for Ultra High Pressure Hoses upto 60,000 PSI.

DEALER / STOCKIST / DISTRIBUTOR

Gem Engineering Industries (India) Pvt. Ltd.

Gem Engineering Industries (India) Pvt. Ltd.

Manufacturer of Hydraulic Tube Fittings, Hose Fittings & Hose Assemblies

ISO 9001:2008 and ISO 14000:2004 Certified

Concept, Design, Print
WILD IDEAS The Creative Nucleus
09246276786

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