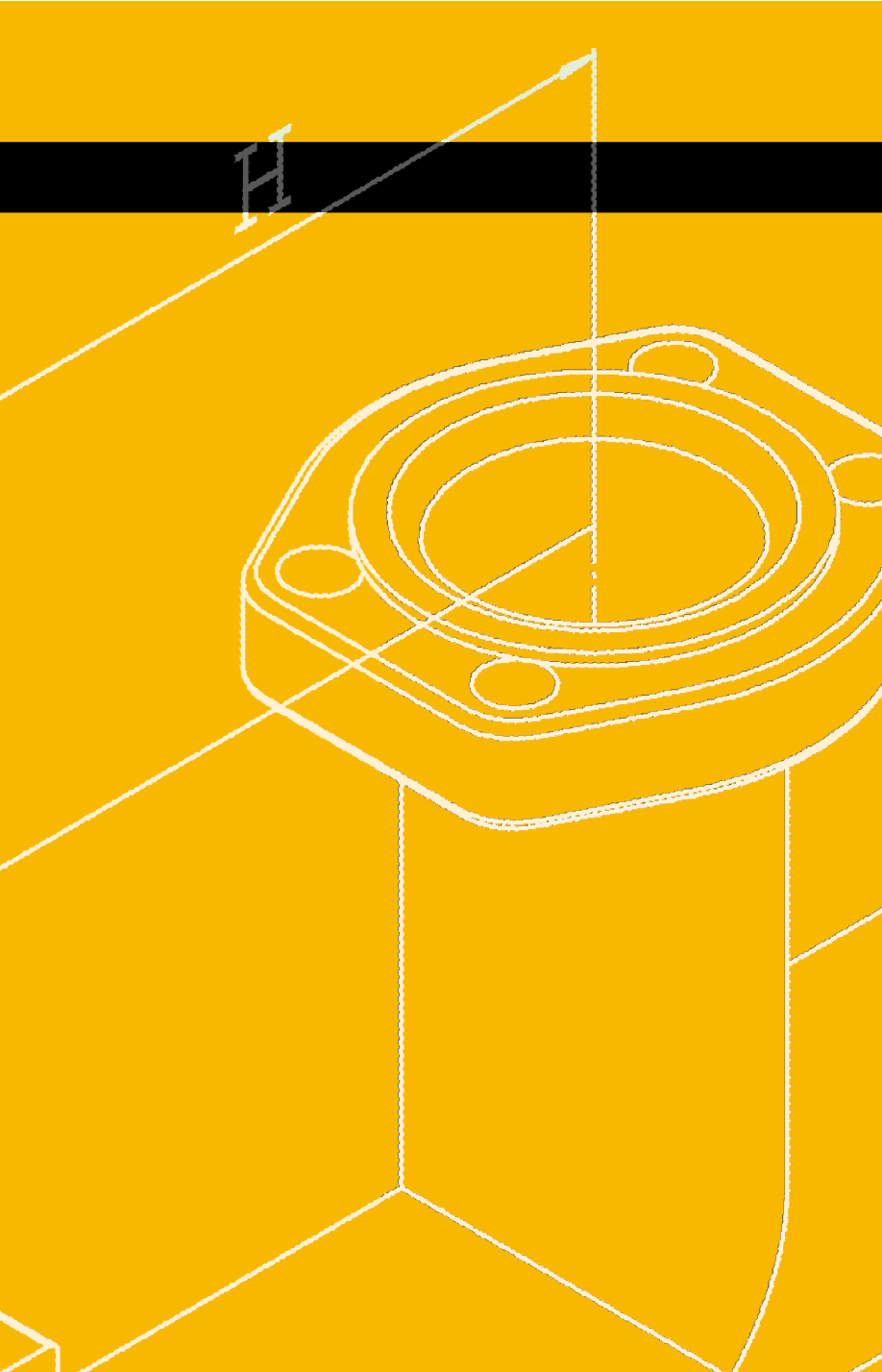


VALVES



Product

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VALVES

GS-Hydro's ball valves and non-return valves are designed and manufactured according to the highest standards.

Those products are used in many fields of application all over the world, e.g.

- **Offshore and offshore industry**
- **Marine industry**
- **Landbased industry (test stations, steel works etc.)**

Up-to-date technology guarantees quality and precision without compromises.

List of Standard Materials Used With Valve Products

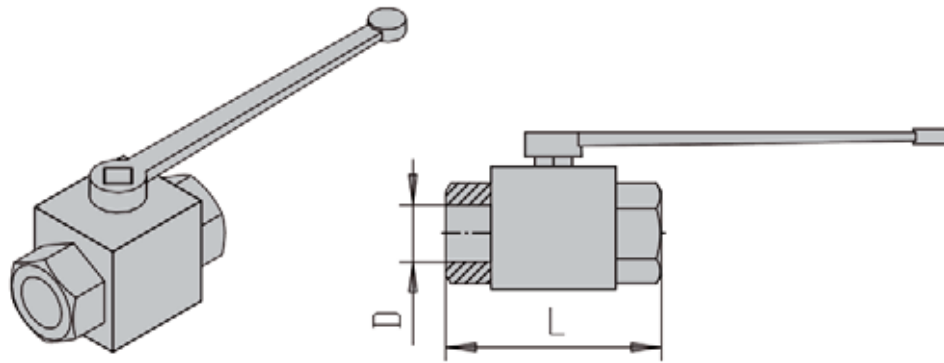
Body, adapters, stem and ball			
Material Description	Norm	Temperature range	Application
Free cutting steel 11SMn30 (9SMn28K)	1.0715/DIN EN 10277-3 (SAE 1213)	-20°C to +120°C	General of hydraulics without special requirements on material.
Low alloy steel S355J2G3 (St52-3)	1.0570/DIN EN 10025	-40°C to +120°C	General oil and water hydraulics as well as gas applications with special requirements to the yield stress.
Stainless steel X6CrNiMoTi17-12-2 X5CrNiMo17-12-2 X2CrNiMo17-13-2	DIN EN 10088 1.4571 (AISI 316 Ti) 1.4401 (AISI 316) 1.4404 (AISI 316 L)	-200°C to +200°C	Especial application in the chemical and power industries with specific requirements on the material and corrosion protection.
Brass CuZn40Pb2 (Ms58)	2.0402 / CW617N EN 12164	-40°C to +100°C	Ball material for oil hydraulics.

Ball seats			
Material Description	Trade name	Temperature range	Application
Polyacetal POM	Delrin, Hostaform C, Ultraform	-30°C to +100°C	High pressure and wear resistance, low water absorption, particularly suitable for hydraulic oils, other oils and water based hydraulic fluids.
Polytetrafluorethylene PTFE	Teflon, Hostflon, Fluon	-200°C to +220°C Pressure/Temperature curve must be observed	Excellent chemical resistance to almost all fluids, no water absorption, low surface friction. Higher characteristic compounds available.
PolyVinylideneFluoride PVDF	Dyflor, Kynar, Solef	-40°C to +150°C Pressure/Temperature curve must be observed	Mechanical properties like Teflon, but higher rigidity and lower thermal stability, resistant to ketones and esters at higher temperatures.
Polyetheretherketone PEEK	Arlon, Victrex	-40°C to +250°C	Good chemical resistance to many mediums, suitable for steam, high temperature resistance, high wearability.
Cast iron GG25	0.60257 DIN 1651	-40°C to +250°C	Applications for abrasive fluids.

Stem and adapter sealing materials			
Material Description	Trade name	Temperature range	Application
Acrylonitrile-butadiene -rubber NBR	Perbunan, Buna N, Hycar, Chemicum	-30°C to +100°C	Good technical properties, therefore especially suitable for oils and gaseous mediums.
Fluor-rubber FPM	Viton, Fuorel, Tecnoflon	-20°C to +200°C	High chemical resistance to various mediums, in particular mineral oils, fuels and concentrated acids.
Ethylen-Propylen-Dien -rubber EPDM	Buna AP, Nordel	-50°C to +130°C	Good ageing stability, low wear, especially suitable for actylene, brake fluids, hot water, superheated steam, cooling gases, low-flammable liquids based upon Phosphoric acid.
Polytetrafluorethylene PTFE	Teflon, Hostflon, Fluon	-200°C to +220°C Pressure/Temperature curve must be observed	Excellent chemical resistance to almost all fluids, no water absorption, low surface friction.

VALVES

Ball Valves



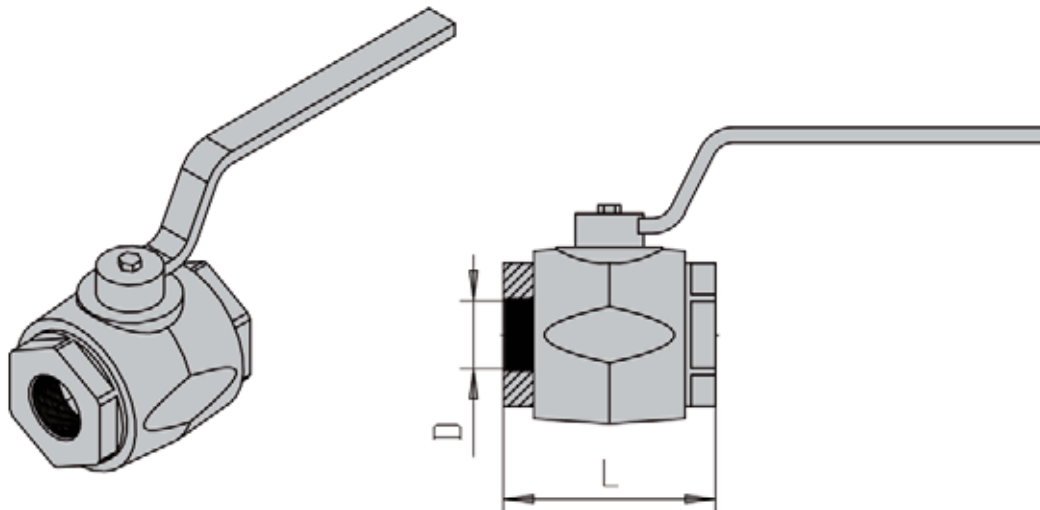
Ball Valve

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Part No	ID Code	W.P. bar	L	D	Weight (kg)
BKH 1/8"R	26030008	500	69	5	0.3
BKH 1/4"R	26030010	500	69	6	0.4
BKH 3/8"R	26030012	500	72	10	0.6
BKH 1/2"R	26030014	500	83	13	0.7
BKH 3/4"R	26030016	315	95	20	1.6
BKH 1"R	26030018	315	113	25	2.3
BKH 1 1/4"R	26030030	315	120	25	2.4
BKH 1 1/2"R	26030040	315	130	25	2.6

Materials Body: Steel, Yellow Chromated
Ball: Steel, hard chromium plated
Ball seals: Delrin +MoS₂
O-rings: Buna N

(Can be supplied as fire safe to BS6755)



Ball Valve 420 bar

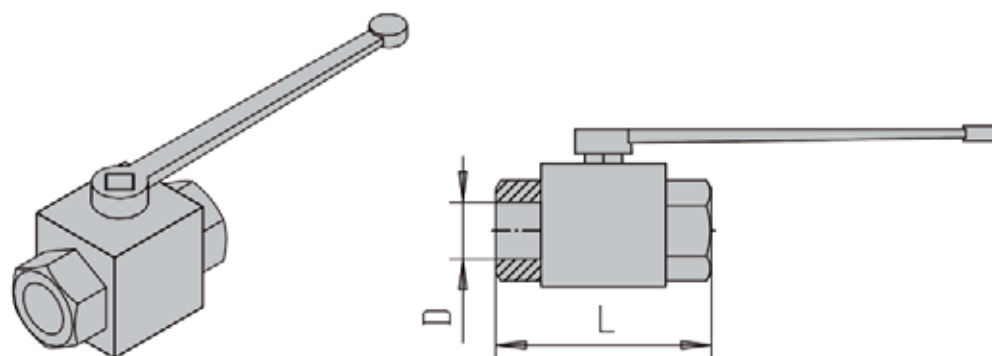
Part No	ID Code	W.P. bar	L	D	Weight (kg)
MKH 1 1/4"R	26030060	420	111	32	3.5
MKH 1 1/2"R	26030062	420	130	38	5.8
MKH 2"R	26030064	420	140	48	7.9

Materials Body: Steel or Stainless Steel
Ball: Steel, hard chromium plated or Stainless Steel
Ball seals: Delrin +MoS₂
O-rings: Buna N

(Can be supplied as fire safe to BS6755)

VALVES

Ball Valves



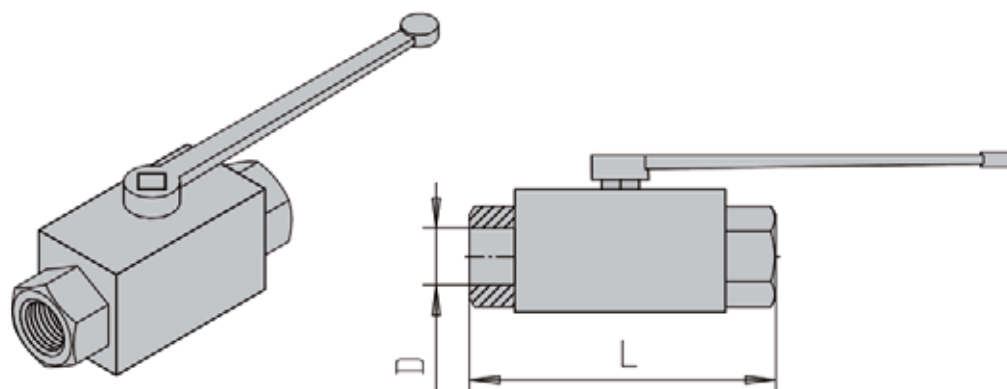
236

Ball Valve Stainless Steel

Part No	ID Code	W.P. bar	L	D	Weight (kg)
BKH 1/8" R-316	26010009	500	69	5	0.3
BKH 1/4" R-316	26010010	500	69	6	0.4
BKH 3/8" R-316	26010012	500	72	10	0.6
BKH 1/2" R-316	26010014	500	83	13	0.7
BKH 3/4" R-316	26010016	315	95	20	1.6
BKH 1" R-316	26010018	315	113	25	2.3
BKH11/4" R-316	26010050	315	120	25	2.4
BKH 11/2" R-316	26010024	315	128	25	2.6

Materials Body: Stainless Steel
Ball: Stainless Steel
Ball seals: Delrin +MoS₂
O-rings: Buna N

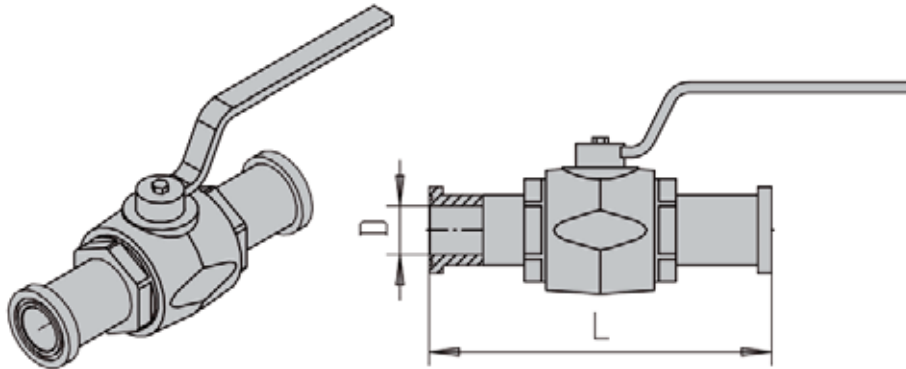
(Can be supplied as fire safe to BS6755)
The valve can be supplied with NPT threads.



Ball Valve 800 bar

Part No	ID Code	W.P. bar	L	D	Weight (kg)
BKHP-800-1/4"NPT	26030210	800	130	6	1.3
BKHP-800-3/8"NPT	26030312	800	130	13	1.3
BKHP-800-1/2"NPT	26030314	800	130	13	1.3
BKHP 800-3/4"NPT	26030316	800	161	20	5.2
BKHP-800-1"NPT	26030318	800	164	25	5.6

Materials Body: Steel or Stainless Steel
Ball: Steel, hard chromium plated or Stainless Steel
Ball seals: Delrin +MoS₂
O-rings: Buna N
(Can be supplied as fire safe to BS6755)

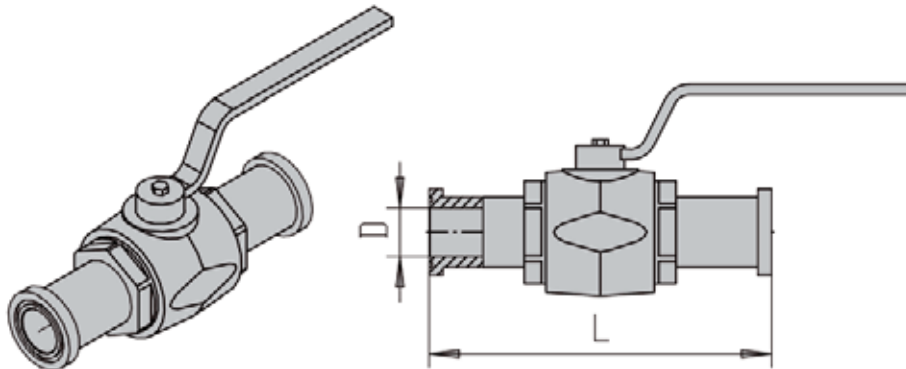


Ball Valve to fit SAE Split Flanges 210 bar

Size	Part No	ID Code	W.P. bar	L	D	Weight (kg)
1/2"	1/2BKH-SAE-FS-210		210	151	13	0.8
3/4"	3/4BKH-SAE-FS-210		210	162	19	1.9
1"	1BKH-SAE-FS-210		210	178	25	2.8
1 1/4"	11/4MKH-SAE-FS-210		210	191	30	4.0
1 1/2"	11/2MKH-SAE-FS-210		210	231	36	6.2
2"	2MKH-SAE-FS-210		210	232	48	9.1

Materials Body: Steel or Stainless Steel
Ball: Steel, hard chromium plated or Stainless Steel
Ball seals: Delrin +MoS₂
O-rings: Buna N

(Can be supplied as fire safe to BS 6755)



Ball Valve to fit SAE Split Flanges 315 to 420 bar

Size	Part No	ID Code	W.P. bar	L	D	Weight (kg)
1/2"	1/2BKH-SAE-FS-420		420	151	13	0.9
3/4"	3/4BKH-SAE-FS-420		315	174	19	2.0
1"	1BKH-SAE-FS-420		315	198	22	3.0
1 1/4"	11/4MKH-SAE-FS-420		350	223	27	4.5
1 1/2"	11/2MKH-SAE-FS-420		350	281	32	7.2
2"	2MKH-SAE-FS-420		350	312	45	10.8

Materials Body: Steel or Stainless Steel
Ball: Steel, hard chromium plated or Stainless Steel
Ball seals: Delrin +MoS₂
O-rings: Buna N

(Can be supplied as fire safe to BS 6755)

VALVES

Ball Valves

GS-FLANGE SYSTEM

TUBES & PIPES

CLAMPS

VALVES

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BITE TYPE FITTINGS

SAE J514 JIC FLARE FITTINGS

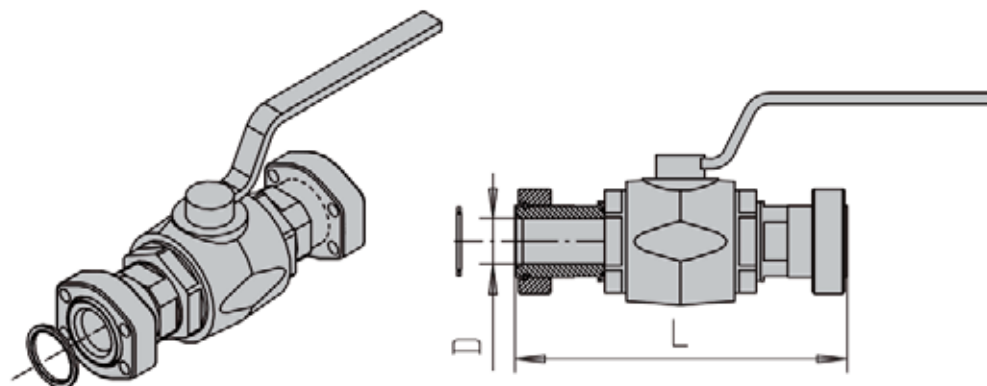
HOSES & HOSE COUPLINGS

ADAPTORS

SPECIAL SOLUTIONS

MACHINES

TECHNICAL INFORMATION

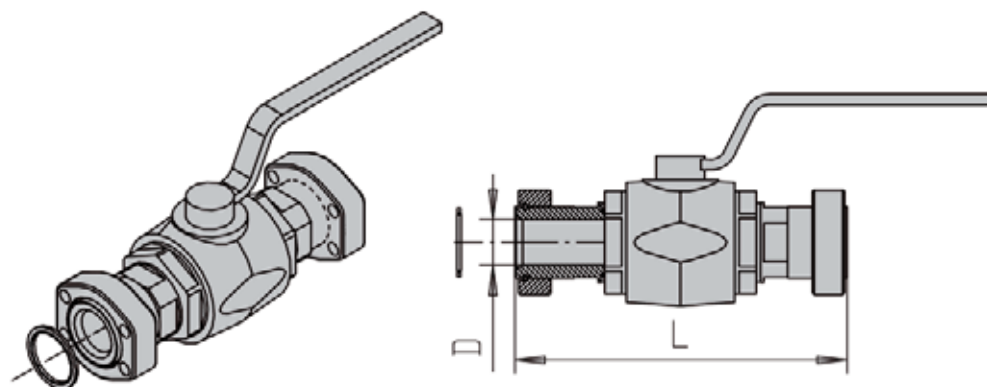


Ball Valve with GS-Hydro 3000 psi Flanges

Size	Part No	ID Code	W.P. bar	L	D	Weight (kg)
1/2"	BKH 308-129	26030100	350	184	13	1.5
3/4"	BKH 312-129	26030104	315	218	20	2.6
1"	BKH 316-129	26030108	315	243	25	3.7
1 1/4"	MKH 320-129	26030112	280	247	32	5.5
1 1/2"	MKH 324-129	26030116	280	286	38	9.0
2"	MKH 332-129	26030120	280	306	48	12.9

Materials Body: Steel or Stainless Steel
Ball: Steel, hard chromium plated or Stainless Steel
Ball seals: Delrin +MoS₂
O-rings: Buna N

(Can be supplied as fire safe to BS6755)



Ball Valve with GS-Hydro 6000 psi Flanges

Size	Part No	ID Code	W.P. bar	L	D	Weight (kg)
1/2"	BKH 608-129	26030150	420	184	13	1.7
3/4"	BKH 612-129	26030154	315	218	20	3.0
1"	BKH 616-129	26030158	315	243	25	4.1
1 1/4"	MKH 620-129	26030162	350	247	32	6.3
1 1/2"	MKH 624-129	26030166	350	286	38	10.4
2"	MKH 632-129	26030170	350	306	48	15.1

Materials Body: Steel or Stainless Steel
Ball: Steel, hard chromium plated or Stainless Steel
Ball seals: Delrin +MoS₂
O-rings: Buna N

(Can be supplied as fire safe to BS6755)

VALVES

Ball Valves

GS-FLANGE
SYSTEM

TUBES & PIPES

CLAMPS

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VALVES

BITE TYPE
FITTINGS

SAE J514 JIC
FLARE FITTINGS

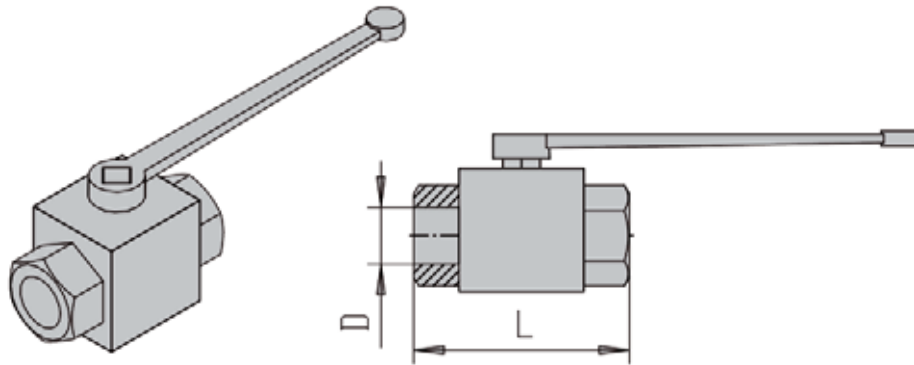
HOSES &
HOSE COUPLINGS

ADAPTORS

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SOLUTIONS

MACHINES

TECHNICAL
INFORMATION

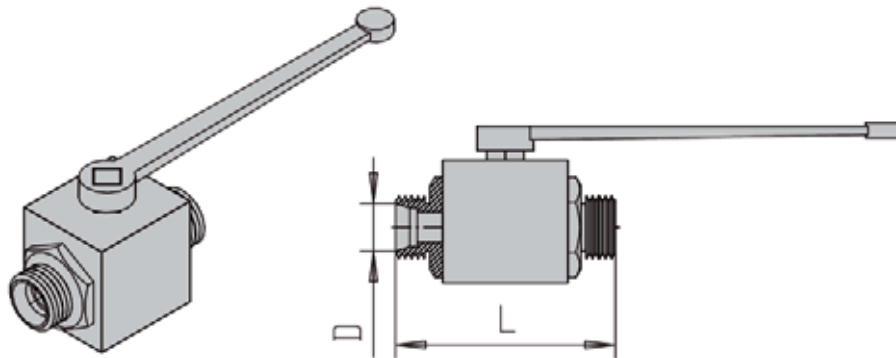


Ball Valve

Part No	ID Code	W.P. bar	L	D	Weight (kg)
BKH-1/4"NPT	26030220	500	69	6	0.4
BKH-3/8"NPT	26030222	500	78	10	0.6
BKH-1/2"NPT	26030224	500	104	13	0.7
BKH-3/4"NPT	26030226	315	102	20	1.6
BKH-1"NPT	26030228	315	119	25	2.3
BKH-1 1/4"NPT	26030230	315	130	25	2.4

Materials Body: Steel, Yellow Cromated
Ball: Steel, hard chromium plated
Ball seals: Delrin +MoS₂
O-rings: Buna N

(Can be supplied as fire safe to BS6755)



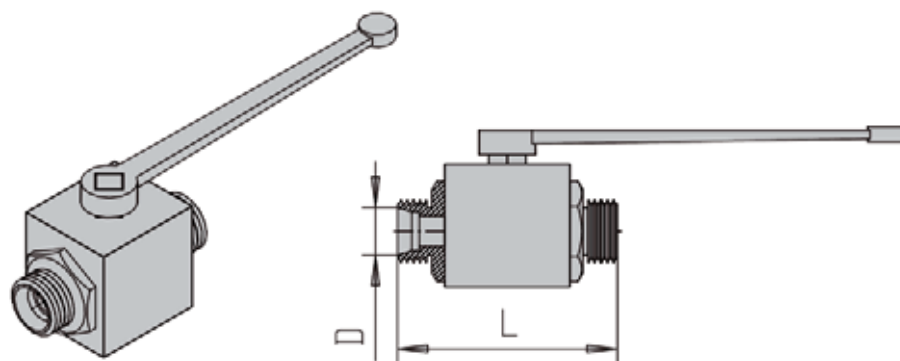
Ball Valve

Part No	ID Code	W.P. bar	L	D	Weight (kg)
BKH 06L	26034000	500	67	5	0.3
BKH 08L	26034005	500	67	6	0.4
BKH 10L	26034015	500	74	8	0.5
BKH 12L	26034025	500	74	10	0.6
BKH 15L	26034035	500	82	13	0.7
BKH 18L	26034045	400	82	15	0.8
BKH 22L	26034055	315	101	20	1.6
BKH 28L	26034065	315	108	25	2.3
BKH 35L	26034075	315	112	25	2.4
BKH 42L	26034085	315	112	25	2.6

Materials Body: Steel, Yellow Cromated
Ball: Steel, hard chromium plated
Ball seals: Delrin +MoS₂
O-rings: Buna N

VALVES

Ball Valves

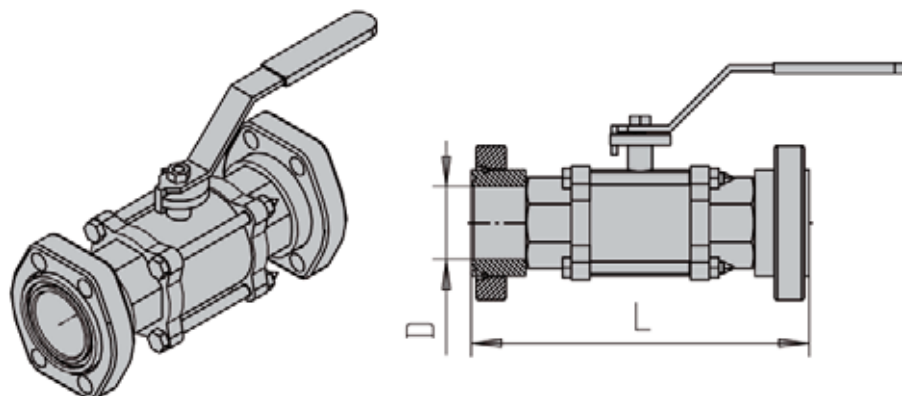


Ball Valve

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Part No	ID Code	W.P. bar	L	D	Weight (kg)
BKH 06S	26034002	500	73	5	0.3
BKH 08S	26034010	500	73	5	0.4
BKH 10S	26034020	500	73	6	0.5
BKH 12S	26034030	500	76	8	0.6
BKH 14S	26034033	500	80	10	0.7
BKH 16S	26034040	500	86	13	0.8
BKH 20S	26034050	400	90	15	1.6
BKH 25S	26034060	315	109	20	2.3
BKH 30S	26034070	315	120	25	2.4
BKH 38S	26034080	315	124	25	2.6

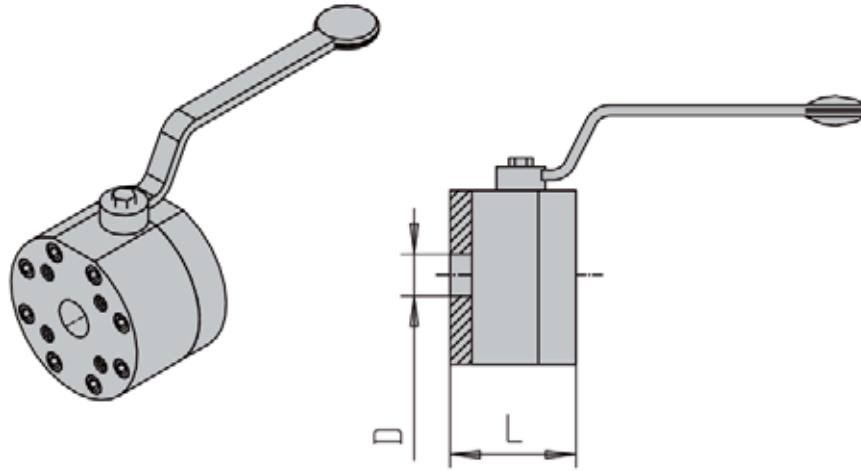
Materials Body: Steel or Stainless Steel
 Ball: Steel, hard chromium plated
 Ball seals: Delrin +MoS₂
 O-rings: Buna N



Ball Valve Stainless Steel with SAE-Flanges

Size	Part No	ID Code	W.P. bar	L	D	Weight (kg)
1 1/2"	124 GS3		50	202.4	38	4.60
2"	132 GS3		50	223.4	51	5.40
2 1/2"	140 GS3		50	257.4	65	10.20
3"	148 GS3		50	302.0	80	16.20

Materials Flanges: St 52., Stainless Steel
 Body: Stainless Steel
 Seal: Teflon PTFE



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GS-FLANGE SYSTEM

TUBES & PIPES

CLAMPS

VALVES

BITE TYPE FITTINGS

SAE J514 JIC FLARE FITTINGS

HOSES & HOSE COUPLINGS

ADAPTORS

SPECIAL SOLUTIONS

MACHINES

TECHNICAL INFORMATION

Metric

Rating Size	ISO 6164 Part No	ID Code	W.P. bar	Flange Part No	Pipe Size	L	D	Weight (kg)
2"	432-050	26030302	400	432	66x8.5	110	48	17
2 1/2"	440-050	26030304	400	440	80x10	116	48	25
3"	448-065	26030306	350	448	97x12	150	63	34
4"	456-080	26030308	350	456	115x15	140	76	40
4"	456-090	26030310	350	456	115x15	170	88	62
4 1/2"	860-100	26030312	350	860	130x15	170	100	56
5"	864-125	26030314	350	864	150x15	210	118	62
6"	880-150	26030318	350	880	190x20	260	150	173
8"	896-200	26030320	350	896	250x25	310	200	292

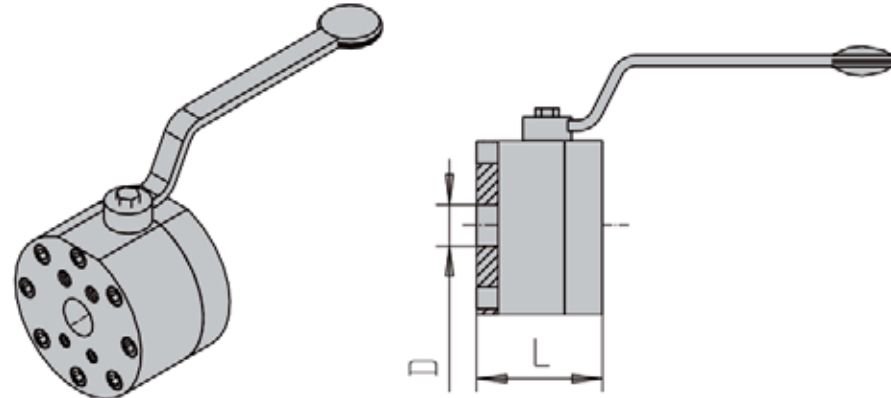
ANSI 36.19

Rating Size	ISO 6164 Part No	ID Code	W.P. bar	Flange Part No	Pipe Size	L	D	Weight (kg)
2"	432-040	26030300	400	432	60.3x11.1	110	38	20
2"	432-050	26030302	400	432	60.3x11.1	110	48	17
2 1/2"	440-050	26030304	400	440	73.0x14.0	116	48	25
3"	448-065	26030306	350	448	88.9x15.2	150	63	34
4"	456-080	26030308	350	456	114.3x17.1	140	76	40
4"	456-090	26030310	350	456	114.3x13.1	170	88	62
5"	864-125	26030314	350	864	141.3x15.1	210	118	62
6"	880-132	26030316	350	880/168.3	168.3x18.3	260	132	182

Materials Body: Steel or Stainless Steel
 Ball: Steel, hard chromium plated or Stainless Steel
 Ball seals: Delrin +MoS₂
 O-rings: Buna N (Can be supplied as fire safe to BS6755)

VALVES

Ball Valves

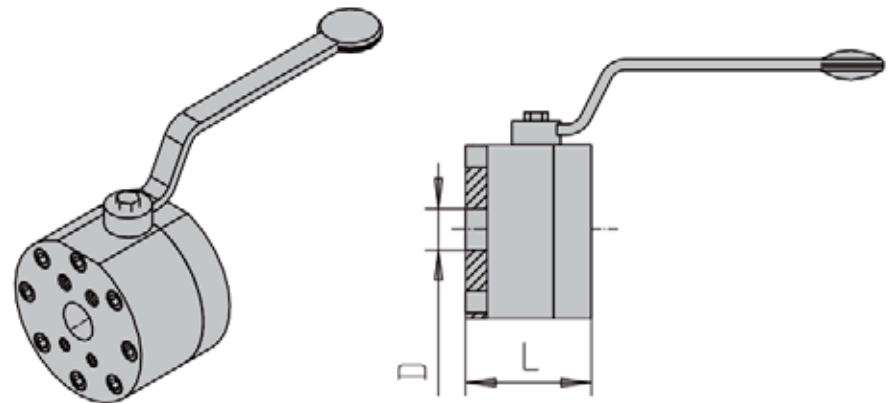


Ball valve drilled and tapped for SAE 3000-Flanges

Rating Size	Part No	ID Code	W.P. bar	L	D	Weight (kg)
1/2"	SAE 210-15	26030340	210	75	15	2.5
3/4"	SAE 210-20	26030342	210	80	20	3.9
1"	SAE 210-25	26030344	210	88	25	6.0
1 1/4"	SAE 210-32	26030346	210	100	32	11.6
1 1/2"	SAE 210-40	26030348	210	110	38	16.2
2"	SAE 210-50	26030350	210	116	48	24.9
2 1/2"	SAE 210-65	26030352	210	150	63	33.3
3"	SAE 210-80	26030354	210	140	76	40.0
4"	SAE 210-100	26030356	210	170	100	59.5
5"	SAE 210-125	26030358	210	210	118	88.0

Materials Body: Steel or Stainless Steel
 Ball: Steel, hard chromium plated or stainless steel
 Ball seals: Delrin +MoS₂
 O-rings: Buna N

(Can be supplied as fire safe to BS6755)

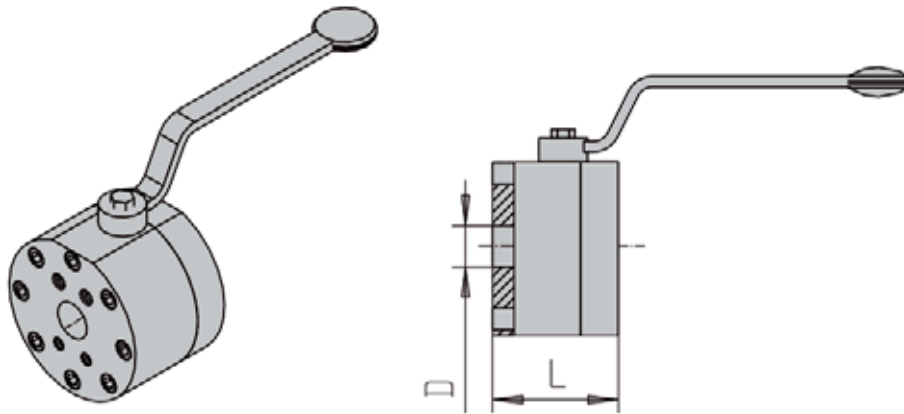


Ball valve drilled and tapped for SAE 6000-Flanges

Rating Size	Part No	ID Code	W.P. bar	L	D	Weight (kg)
1/2"	SAE 420-15	26030360	420	75	15	2.5
3/4"	SAE 420-20	26030362	420	80	20	3.9
1"	SAE 420-25	26030364	420	88	25	6.0
1 1/4"	SAE 420-32	26030366	420	100	32	11.6
1 1/2"	SAE 420-40	26030368	420	110	38	16.2
2"	SAE 420-50	26030370	420	116	48	24.9

Materials Body: Steel or Stainless Steel
 Ball: Steel, hard chromium plated or stainless steel
 Ball seals: Delrin +MoS₂
 O-rings: Buna N

(Can be supplied as fire safe to BS6755)

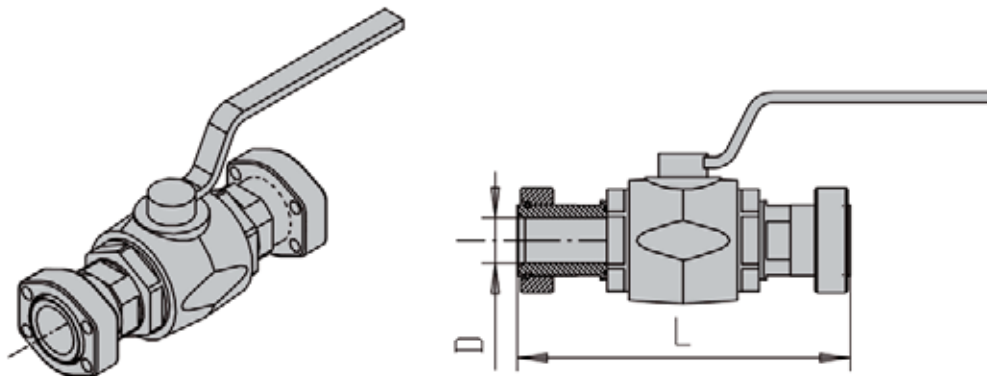


Ball Valve drilled and tapped for SAE 6000 psi, WP 690 bar

Size	Part No	ID Code	W.P. bar	L	D	I.D.
1/2"	1/2"-10.000		690	100	100	11
3/4"	3/4"-10.000		690	105	110	14
1"	1"-10.000		690	130	125	19
1 1/2"	1 1/2"-10.000		690	185	180	26
2"	2"-10.000		690	200	200	36

Materials Body: 1.4462
Ball: 1.4462
Ball Seal: NBR
Stem seal: POM

For 1" to 2" the valve are trunion mounted and with Gear box.
(Can be supplied as fire safe to BS 6755)



Ball Valves with SAE -flanges tapped and drilled for metric bolts. Flat face seal, WP 210 bar

Size	Part No	ID Code	W.P. bar	L	D	Weight
1/2"	1/2BKH-SAE-210		210	120	13	1.5
3/4"	3/4BKH-SAE-210		210	136	20	3.0
1"	1BKH-SAE-210		210	148	28	4.5
1 1/4"	1 1/4MKH-SAE-210		210	172	32	7.3
1 1/2"	1 1/2MKH-SAE-210		210	177	38	10.8
2"	2MKH-SAE-210		210	196	48	18.8

Materials Body: Steel or Stainless Steel
Ball: Steel, hard chromium plated or stainless steel
Ball seals: Delrin +MoS₂
O-rings: Buna N

(Can be supplied as fire safe to BS6755)

VALVES

Ball Valves

GS-FLANGE
SYSTEM

TUBES & PIPES

CLAMPS

VALVES

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BITE TYPE
FITTINGS

SAE J514 JIC
FLARE FITTINGS

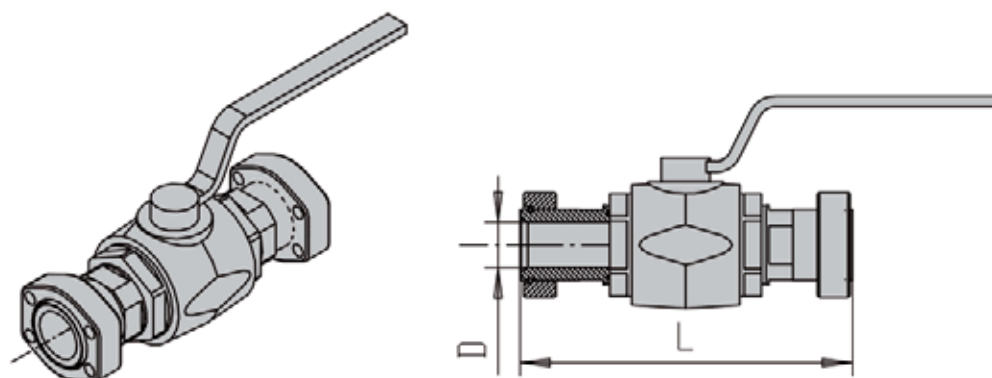
HOSES &
HOSE COUPLINGS

ADAPTORS

SPECIAL
SOLUTIONS

MACHINES

TECHNICAL
INFORMATION



Ball Valves with SAE -flanges tapped and drilled for metric bolts. Flat face seal, WP 420 bar

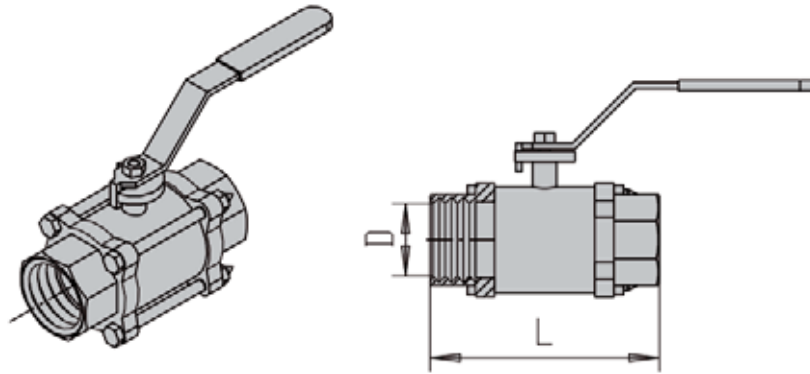
Size	Part No	ID Code	W.P. bar	L	D	Weight
1/2"	1/2BKH-SAE-420		420	120	13	1.5
3/4"	3/4BKH-SAE-420		315	136	20	3.0
1"	1BKH-SAE-420		315	148	28	4.5
1 1/4"	1 1/4MKH-SAE-420		350	172	32	7.3
1 1/2"	1 1/2MKH-SAE-420		350	177	38	10.8
2"	2MKH-SAE-420		350	196	48	18.8

Materials Body: Steel or Stainless Steel
Ball: Steel, hard chromium plated or stainless steel
Ball seals: Delrin +MoS₂
O-rings: Buna N

(Can be supplied as fire safe to BS6755)

VALVES

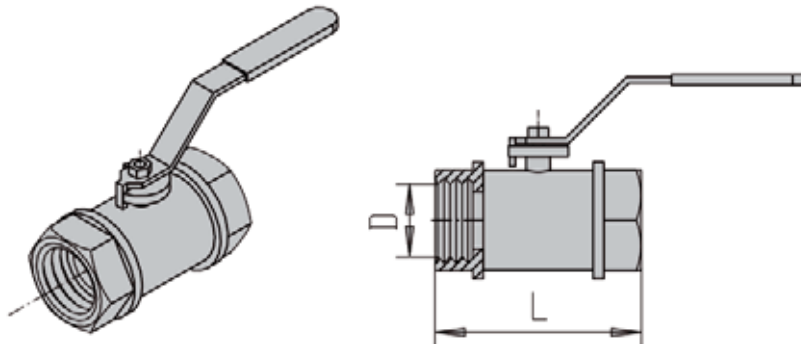
Ball Valves



Ball Valve, Stainless Steel

Part No	ID Code	W.P. bar	L	D	Weight
GS3- 1/4"R		85	65	12	0.40
GS3- 3/8"R		85	65	13	0.38
GS3- 1/2"R		85	66	15	0.56
GS3- 3/4"R		85	83	20	0.57
GS3- 1"R		70	95	25	1.08
GS3- 1 1/4"R		70	111	31	1.73
GS3- 1 1/2"R		70	130	38	2.56
GS3- 2"R		62	151	51	3.20
GS3- 2 1/2"R		62	185	65	7.35
GS3- 3"R		62	212	80	11.21

Materials Seal: Teflon PTFE
GS3 can be delivered with actuator, on request.



Ball Valve, Stainless Steel

Part No	ID Code	W.P. bar	L	D	Weight
GS2- 1/4"R		140	54	10.6	0.35
GS2- 3/8"R		140	54	12.7	0.30
GS2- 1/2"R		140	57	12.7	0.40
GS2- 3/4"R		140	76	15.0	0.45
GS2- 1"R		140	86	20.0	0.65
GS2- 1 1/4"R		140	102	25.0	1.10
GS2- 1 1/2"R		140	111	32.0	1.65
GS2- 2"R		140	137	38.0	2.70

Materials Seal: Teflon PTFE

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GS-FLANGE
SYSTEM

TUBES & PIPES

CLAMPS

VALVES

BITE TYPE
FITTINGS

SAE J514 JIC
FLARE FITTINGS

HOSES &
HOSE COUPLINGS

ADAPTORS

SPECIAL
SOLUTIONS

MACHINES

TECHNICAL
INFORMATION

VALVES

Ball Valves

GS-FLANGE SYSTEM

TUBES & PIPES

CLAMPS

VALVES

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BITE TYPE FITTINGS

SAE J514 JIC FLARE FITTINGS

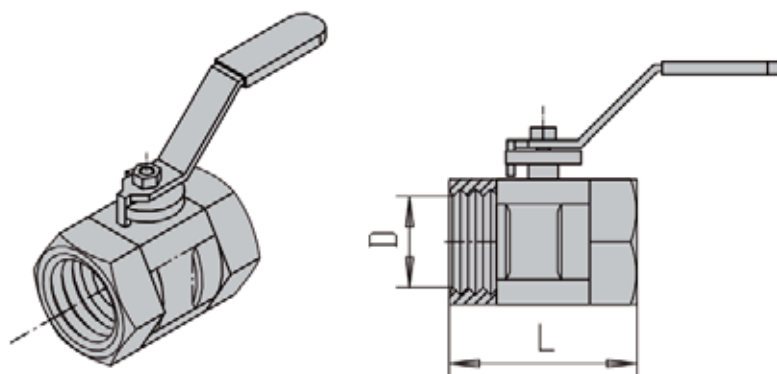
HOSES & HOSE COUPLINGS

ADAPTORS

SPECIAL SOLUTIONS

MACHINES

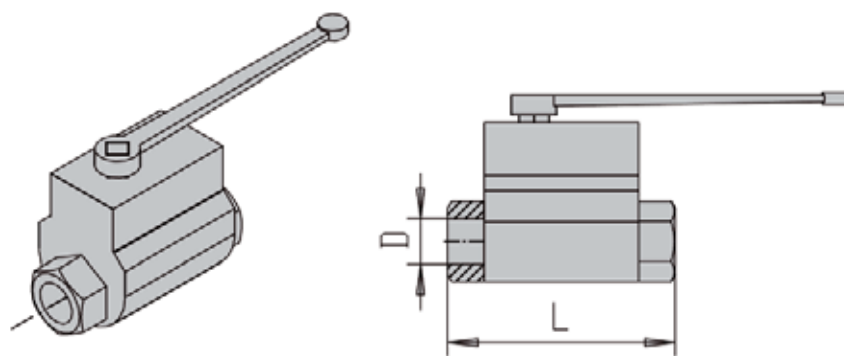
TECHNICAL INFORMATION



Ball Valve, Stainless Steel

Part No	ID Code	W.P. bar	L	D	Weight
GS1- 1/4"R		56	39	5	0.07
GS1- 3/8"R		56	44	7	0.10
GS1- 1/2"R		56	56	9	0.16

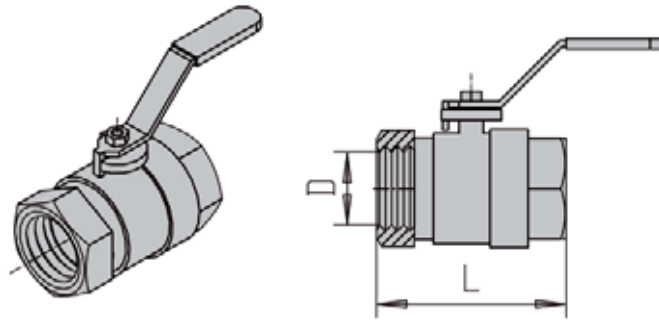
Materials Body: AISI316
Ball: AISI316
Seal: Teflon PTFE



Ball Valve for temperature -200°C to 500°C, Stainless Steel

Part No	ID Code	W.P. bar	L	D
MKHT-500-G 1/8		160	90	5
MKHT-500-G 1/4		160	90	5
MKHT-500-G 3/8		160	95	10
MKHT-500-G 1/2		160	110	15
MKHT-500-G 3/4		160	125	20
MKHT-500-G 1		160	140	25
MKHT-500-G 1 1/4		160	170	32
MKHT-500-G 1 1/2		160	180	38
MKHT-500- G 2		160	190	48

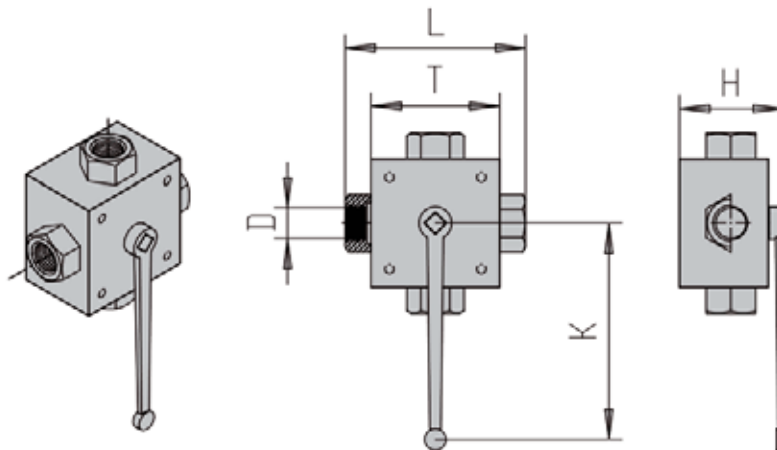
Materials Seals: Graphite-hard coat steel



Ball Valve, Material Brass

Part No	ID Code	W.P. bar	L	D	Weight
51- 1/4"R		40	45	10	0.20
51-3/8"R		40	47	10	0.18
51-1/2"R		40	61	15	0.24
51-3/4"R		40	66	20	0.36
51-1"R		40	75	25	0.57
51-1 1/4"R		40	85	32	0.94
51-1 1/2"R		40	97	39	1.28
51-2"R		40	110	48	1.89
51-2 1/2"R		40	141	64	3.80
51-3"R		40	157	78	5.40
51-4"R		40	195	97	8.40

Temp +40°C to +200°C
Materials Ball Seals: Teflon PTFE



3-Way Ball Valve, Steel or Stainless Steel

Part No	ID Code	W.P. bar	L	T	H	K	D	Weight
3 KH-1/8"R		500	100	70	58	110	5	1.75
3 KH-1/4"R		500	100	70	58	160	5	1.75
3 KH-3/8"R		500	115	80	68	200	8	2.50
3 KH-1/2"R		400	136	100	78	200	13	4.00
3 KH-3/4"R		315	154	112	88	320	18	4.50
3 KH-1"R		315	172	119	96	320	23	5.60
3 KH-1 1/4"R		315	180	119	96	320	23	5.60
3 KH-1 1/2"R		250	180	119	96	320	23	5.60

Materials Body: Steel or stainless steel
 Ball: Steel, hard chromium plated
 Ball Seals: Delrin + MoS₂

Can be supplied with L, T og X port

VALVES

Ball Valves

GS-FLANGE SYSTEM

TUBES & PIPES

CLAMPS

VALVES

BITE TYPE FITTINGS

SAE J514 JIC FLARE FITTINGS

HOSES & HOSE COUPLINGS

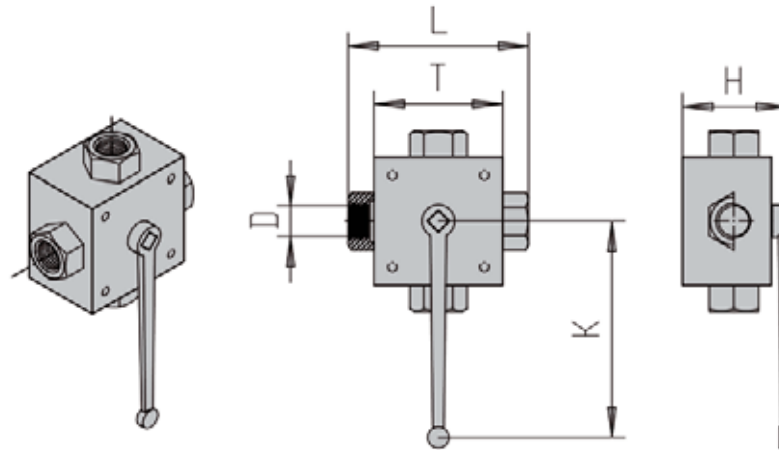
ADAPTORS

SPECIAL SOLUTIONS

MACHINES

TECHNICAL INFORMATION

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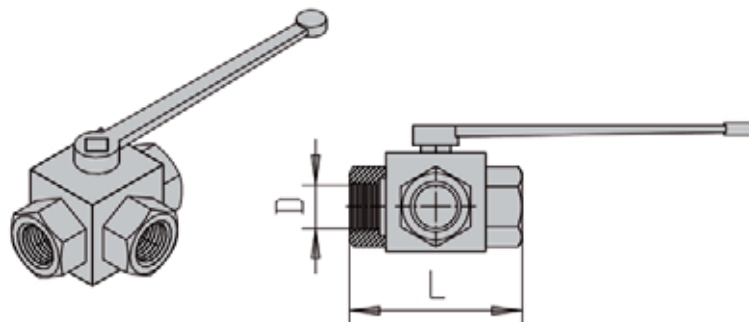


4-Way Ball Valve, Steel or Stainless Steel

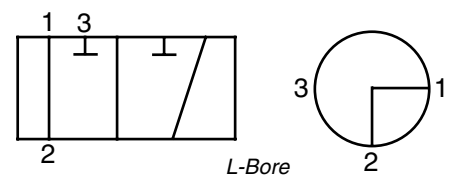
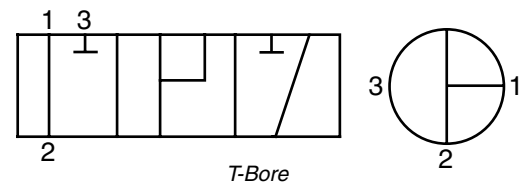
Part No	ID Code	W.P. bar	L	T	H	K	D	Weight
4 KH-1/8"R		500	100	70	58	110	5	1.75
4 KH-1/4"R		500	100	70	58	160	5	1.75
4 KH-3/8"R		500	115	80	68	200	8	2.50
4 KH-1/2"R		400	136	100	78	200	13	4.00
4 KH-3/4"R		315	154	112	88	320	18	4.50
4 KH-1"R		315	172	119	96	320	23	5.60
4 KH-1 1/4"R		315	180	119	96	320	23	5.60
4 KH-1 1/2"R		250	180	119	96	320	23	5.60

Materials Body: Steel or stainless steel
Ball: Steel, hard chromium plated
Ball Seals: Delrin + MoS₂

Can be supplied with L, T og X port



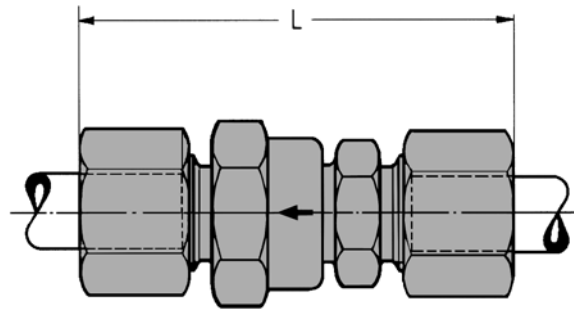
NOTE: Pressure inlet number 2 port only



3-Way Ball Valve, L- or T-bore

Part No	ID Code	W.P. bar	L	D	Weight
BK3-1/8"R		315	69	5	0.30
BK3-1/4"R		315	69	6	0.30
BK3-3/8"R		315	72	10	0.50
BK3-1/2"R		315	83	13	0.60
BK3-3/4"R		315	95	20	1.50
BK3-1"R		315	113	25	2.20
BK3-1 1/4"R		315	120	25	2.50

Materials Body: Steel or stainless steel
Ball: Steel, hard chromium plated
Ball Seals: Delrin + MoS₂
O-Rings: Buna N



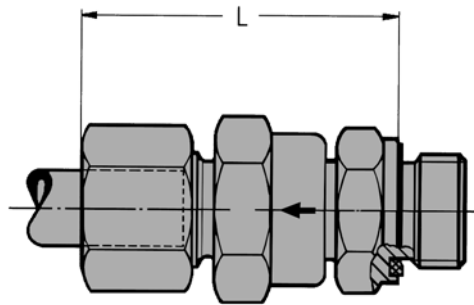
Non Return Valve TYPE RHD L-Series, DIN 2353 Tube connection both ends

Part No	ID Code	W.P. bar	L	D	Weight
RHD 6 L	220162001	400	67	4	0.13
RHD 8 L	220162041	400	67	6	0.15
RHD 10 L	220162281	400	67	8	0.15
RHD 12 L	220162421	400	68	10	0.19
RHD 15 L	220162641	400	74	12	0.27
RHD 18 L	220162781	400	80	16	0.36
RHD 22 L	220162921	250	92	20	0.62
RHD 28 L	220163061	250	99	25	0.77
RHD 35 L	220163201	250	114	32	1.70
RHD 42 L	220163341	250	101	32	2.25

Material: Steel, can be supplied in AISI 316 upon request

Non return valves type RHD, RHV og RHZ, L-series, supplied with 1 bar opening pressure as standard.

Can be supplied with opening pressures from 0.5 to 3 bar depending upon dimension.



Non Return Valve TYPE RHV L-Series, DIN 2353 Connection. Flow from male stud end.

Part No	ID Code	W.P. bar	L	D	Weight
RHV 6 LR	220196001	400	50.5	4	0.12
RHV 8 LR	220196211	400	50.5	6	0.14
RHV 10 LR	220196421	400	48.5	8	0.13
RHV 12 LR	220196751	400	52.5	10	0.17
RHV 15 LR	220197171	400	56.0	12	0.24
RHV 18 LR	220197451	400	61.5	16	0.29
RHV 22 LR	220197731	250	69.5	20	0.52
RHV 28 LR	220198011	250	77.0	25	0.86
RHV 35 LR	220198291	250	88.5	32	1.61
RHV 42 LR	220164951	250	87.5	32	1.71

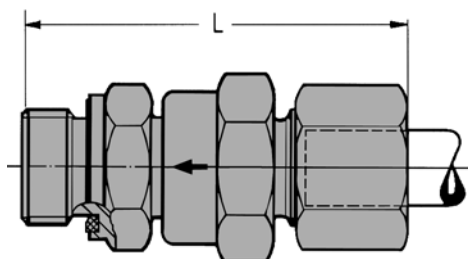
Material: Steel, can be supplied in AISI 316 upon request

Non return valves type RHD, RHV og RHZ, L-series, supplied with 1 bar opening pressure as standard.

Can be supplied with opening pressures from 0.5 to 3 bar depending upon dimension.

VALVES

Non Return Valves



Non Return Valve TYPE RHZ L-Series, DIN 2353 Connection. Flow toward male stud end.

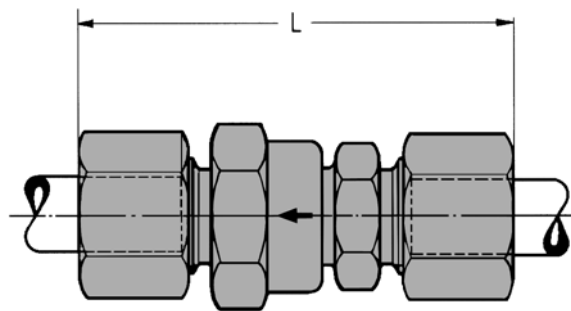
250

Part No	ID Code	W.P. bar	L	D	Weight
RHZ 6 LR	220167001	400	50.5	4	0.12
RHZ 8 LR	220167211	400	50.5	6	0.14
RHZ 10 LR	220167551	400	42.5	8	0.13
RHZ 12 LR	220167831	400	53.5	10	0.17
RHZ 15 LR	220168171	400	56.0	12	0.24
RHZ 18 LR	220168451	400	61.5	16	0.29
RHZ 22 LR	220168661	250	69.5	20	0.52
RHZ 28 LR	220169011	250	71.0	25	0.68
RHZ 35 LR	220169291	250	88.5	32	1.61
RHZ 42 LR	220168901	250	88.5	32	1.71

Material: Steel, can be supplied in AISI 316 upon request

Non return valves type RHD, RHV og RHZ, L-series, supplied with 1 bar opening pressure as standard.

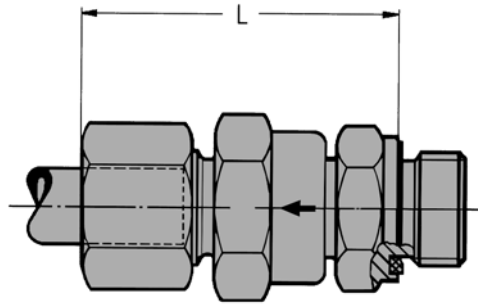
Can be supplied with opening pressures from 0.5 to 3 bar depending upon dimension.



Non Return Valve TYPE RHD S-Series, DIN 2353 Tube connection both ends

Part No	ID Code	W.P. bar	L	D	Weight
RHD 6 S	220162071	400	71	4	0.14
RHD 8 S	220162211	400	67	4	0.15
RHD 10 S	220162351	400	71	6	0.17
RHD 12 S	220162491	400	72	8	0.21
RHD 14 S	220162571	400	81	10	0.30
RHD 16 S	220162711	400	84	12	0.35
RHD 20 S	220162851	400	100	16	0.68
RHD 25 S	220162991	250	105	20	0.95
RHD 30 S	220163131	250	117	25	1.29
RHD 38 S	220163271	250	128	32	2.35

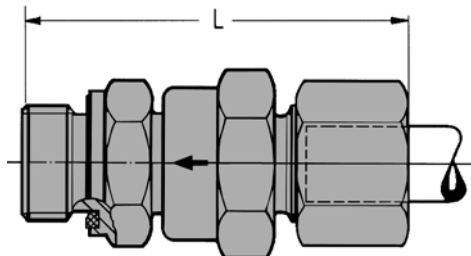
Material: Steel, can be supplied in AISI 316 upon request



Non Return Valve TYPE RHV S-Series, DIN 2353 Connection. Flow from male stud end.

Part No	ID Code	W.P. bar	L	D	Weight
RHV 6 SR	220195931	400	52.5	4	0.13
RHV 8 SR	220196981	400	50.5	4	0.14
RHV 10 SR	220196561	400	53.5	6	0.16
RHV 12 SR	220196911	400	55.5	8	0.18
RHV 14 SR	220197031	400	59.5	10	0.25
RHV 16 SR	220197311	400	62.5	12	0.28
RHV 20 SR	220197591	400	74.0	16	0.55
RHV 25 SR	220197871	250	77.0	20	0.74
RHV 30 SR	220198151	250	87.0	25	1.05
RHV 38 SR	220198431	250	96.0	32	2.00

Material: Steel, can be supplied in AISI 316 upon request



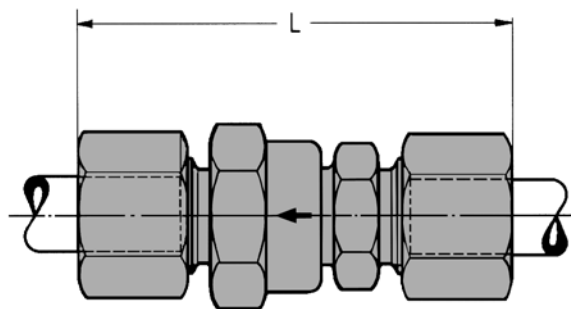
Non Return Valve TYPE RHZ S-Series, DIN 2353 Connection. Flow towards male stud end.

Part No	ID Code	W.P. bar	L	D	Weight
RHZ 6 SR	220167071	400	52.5	4	0.13
RHZ 8 SR	220167411	400	50.5	4	0.14
RHZ 10 SR	220167691	400	53.5	6	0.16
RHZ 12 SR	220167961	400	55.5	8	0.18
RHZ 14 SR	220168061	400	59.5	10	0.25
RHZ 16 SR	220168311	400	62.5	12	0.28
RHZ 20 SR	220168591	400	74.0	16	0.55
RHZ 25 SR	220168871	250	77.0	20	0.74
RHZ 30 SR	220169081	250	87.0	25	1.05
RHZ 38 SR	220169431	250	96.0	32	2.00

Material: Steel, can be supplied in AISI 316 upon request

VALVES

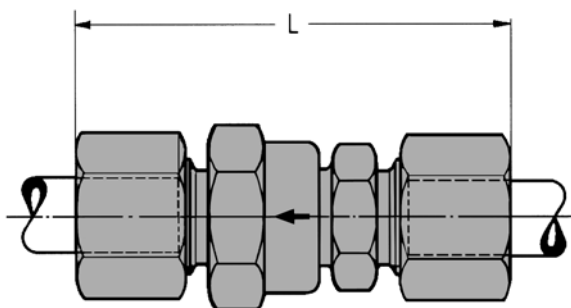
Non Return Valves



Non Return Valve type RHD L-Series, DIN 2353 Connection. Material AISI 316.

Part No	ID Code	W.P. bar	L	D	Weight
RHD 6 L-316	22026431	400	67	4	0.13
RHD 8 L-316	22026432	400	67	6	0.15
RHD 10 L-316	22026433	400	67	8	0.15
RHD 12 L-316	22026434	400	68	10	0.19
RHD 15 L-316	22026435	400	74	12	0.27
RHD 18 L-316	22026435	400	80	16	0.36
RHD 22 L-316	22026437	250	92	20	0.62
RHD 28 L-316	22026438	250	99	25	0.77

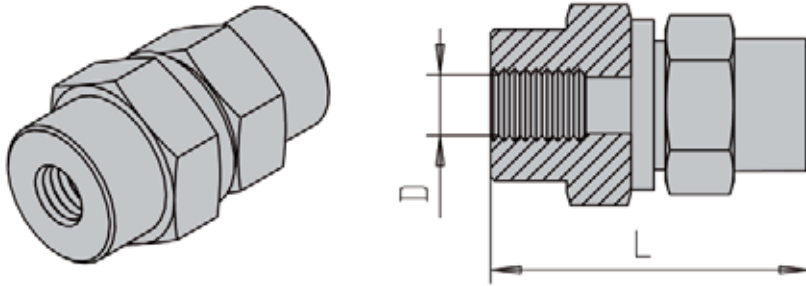
Materials Can be supplied in AISI 316 upon request



Non Return Valve type RHD S-Series, DIN 2353 Connection. Material AISI 316.

Part No	ID Code	W.P. bar	L	D	Weight
RHD 6 S-316	22026441	400	72	4	0.14
RHD 8 S-316	22026442	400	67	4	0.15
RHD 10 S-316	22026443	400	71	6	0.17
RHD 12 S-316	22026444	400	72	8	0.21
RHD 14 S-316	22026445	400	81	10	0.30
RHD 16 S-316	22026446	400	84	12	0.35
RHD 20 S-316	22026447	400	100	16	0.68
RHD 25 S-316	22026448	250	105	20	0.95
RHD 30 S-316	22026449	205	117	25	1.29
RHD 38 S-316	22026450	250	120	32	2.35

Materials Can be supplied in AISI 316 upon request



Non Return Valve, Female BSP Threads

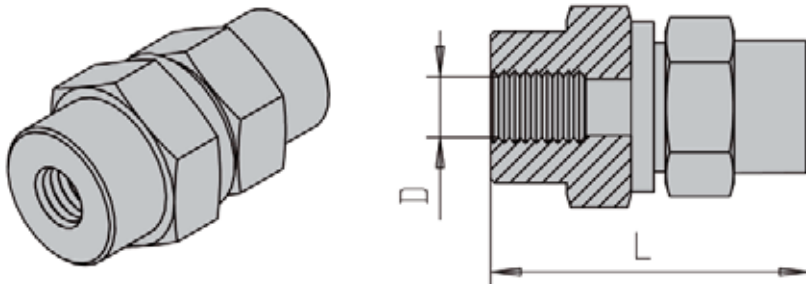
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Part No	ID Code	W.P. bar	L	D
NRSF-1/8"		400	43	4
NRSF-1/4"		400	51	6
NRSF-3/8"		400	60	8
NRSF-1/2"		400	73	12
NRSF-3/4"		400	84	15
NRSF-1"		360	95	19
NRSF-1 1/4"		250	110	24
NRSF-1 1/2"		250	114	30

Standard opening pressure 1 bar.

Can be supplied with opening pressure 2 and 3 bar upon request

Materials Yellow chromated steel.



Non Return Valve, Female BSP Threads AISI 316

Part No	ID Code	W.P. bar	L	D
RHDI-1/8"		400	43	4
RHDI-1/4"		400	51	6
RHDI-3/8"		400	60	8
RHDI-1/2"		400	73	12
RHDI-3/4"		400	84	15
RHDI-1"		360	95	19
RHDI-1 1/4"		250	110	24
RHDI-1 1/2"		250	114	30

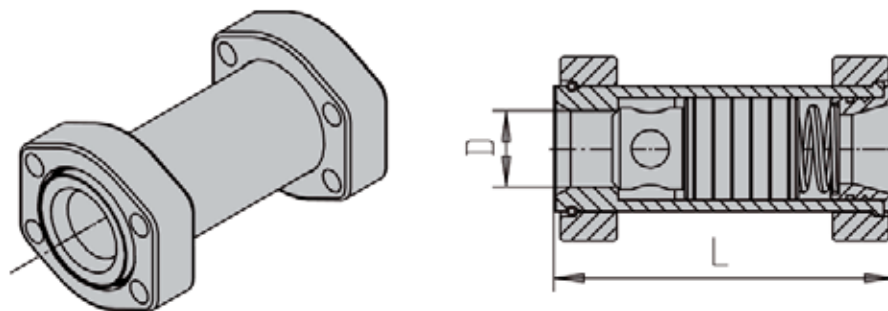
Standard opening pressure 1 bar.

Can be supplied with opening pressure 2 and 3 bar upon request

Materials Yellow chromated steel.

VALVES

Non Return Valves

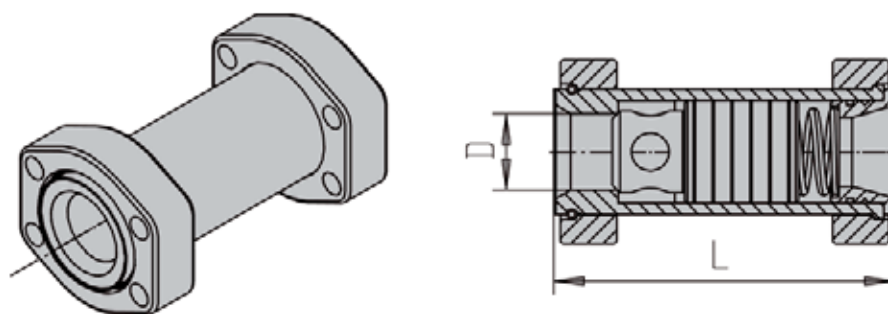


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Non Return Valve, GS-SAE 3000 psi Flanges

Size	Part No	ID Code	W.P. bar	L	D	Weight
3/4"	312135	19010100	350	100	20	1.3
1"	316135	19010110	350	120	23	1.3
1 1/4"	320135	19010120	280	140	30	2.0
1 1/2"	324135	19010130	280	155	39	3.5
2"	332135	19010140	280	180	49	4.4
2 1/2"	340135	19010142	210	190	60	6.6
3"	348135	19010144	210	200	73	9.6

Opening pressure 0.5 bar standard. On request 1.5 bar to 3 bar. St52.3

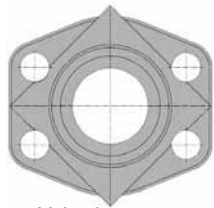


Non Return Valve, GS-SAE 6000 psi Flanges

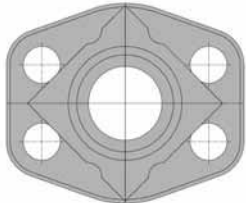
Size	Part No	ID Code	W.P. bar	L	D	Weight
3/4"	612135	19010160	420	100	20	1.3
1"	616135	19010170	420	120	23	1.7
1 1/4"	620135	19010180	420	140	30	2.7
1 1/2"	624135	19010190	420	155	39	4.0
2"	632135	19010200	420	180	49	6.7

Opening pressure 0.5 bar standard. On request 1.5 bar to 3 bar. St52.3

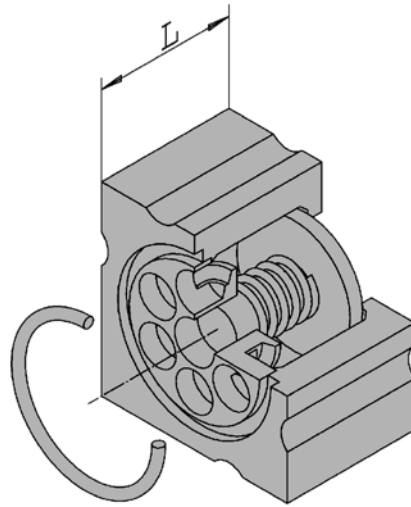
Non Return Valve Block, Pressure Drop in Non Return Valves



Valve between
SAE 3000 psi valves



Valve between
SAE 6000 psi valves



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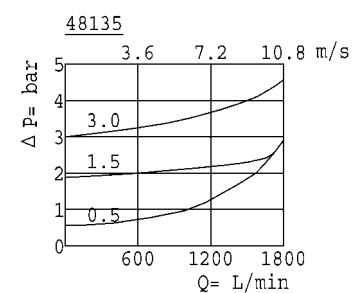
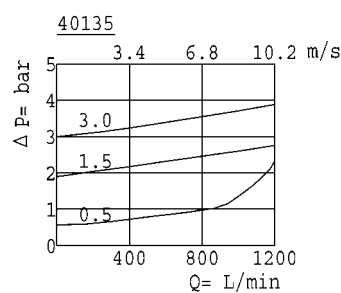
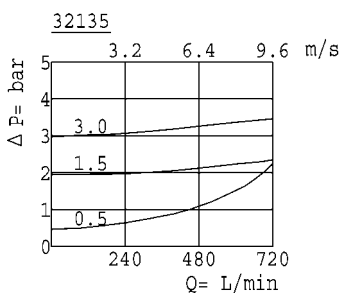
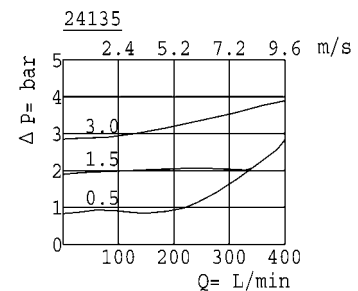
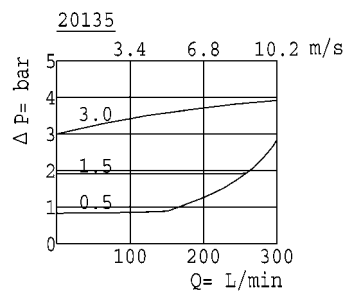
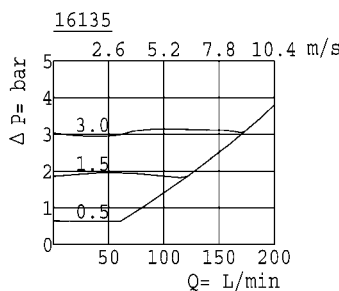
Non Return Valve Block for SAE 3000/6000 psi Flanges

Size	Part No	ID Code	L	SAE flange fitting	O-Ring
3/4"	RVSAE3/6-34	19010082	30	312/612	OR24.99X3.53
1"	RVSAE3/6-11	19010084	35	316/616	OR32.92X3.53
1 1/4"	RVSAE3/6-114	19010086	40	320/620	OR37.69X3.53
1 1/2"	RVSAE3/6-112	19010088	45	324/624	OR47.22X3.53
2"	RVSAE3/6-21	19010090	50	332/632	OR53.57X3.53

Opening pressure 0.5 bar standard. On request 0.2 bar to 4 bar. St52.3

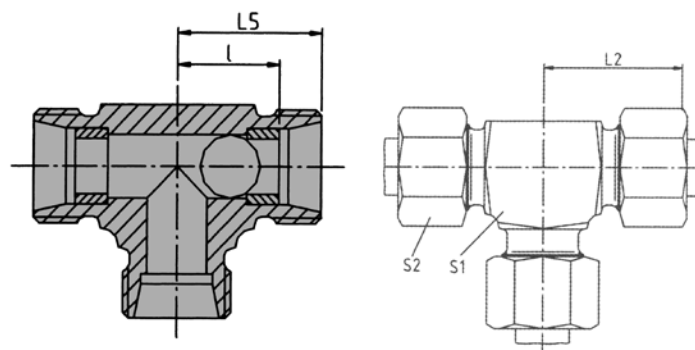
Pressure drop calculation is based on oil properties:

- Kinematic viscosity $\nu = 41 \text{ mm}^2/\text{s}$
- Oil temperature $t = 50^\circ\text{C}$



VALVES

Shuttle Valve, Needle Valve



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Shuttle Valve – Type TW

Serie	Tube O.D.	W.P. bar	Part No	ID Code	L5	L2	l	S1	S2
L	8	250	TW 8L		21	29	14	14	17
L	10	250	TW 10L		22	30	15	17	19
L	12	250	TW 12L		24	32	17	19	22

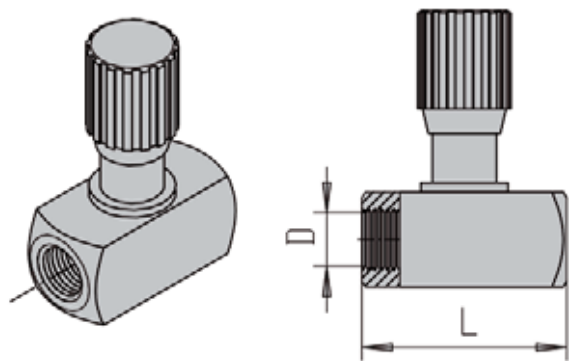
Opening pressure 0.5 Bar standard. On request 1.5 bar to 3 bar. St52.3

Instruction for ordering and key to materials:

NDV: flow control valve pipe assembly

Nominal sizes:
 6 = 1/8"
 8 = 1/4"
 10 = 3/8"
 12 = 1/2"
 16 = 3/4"
 20 = 1"
 25 = 1 1/4"
 30 = 1 1/2"

Materials:
 Body and spindle: 1 = steel
 4 = stainless steel
Seals:
 3 = buna
 5 = viton
 6 = EPDM
 7 = fluorosilicone



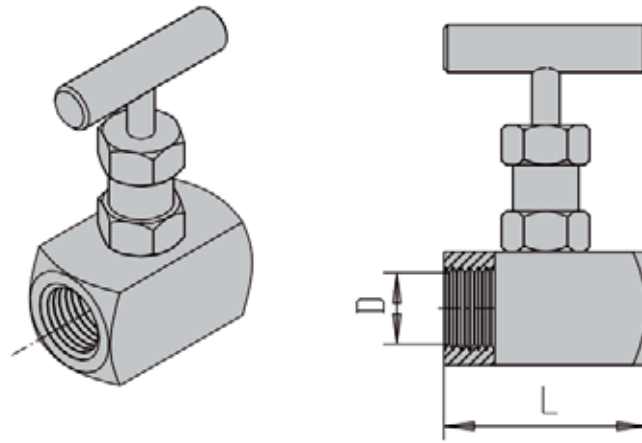
Needle Valve

Part No	ID Code	a	L	l	B	H2	H1	m	D	d	G	Weight
NDV-6		R 1/8"	38	19	16	60	55	8	24	13	Pg 7	0.12
NDV-8		R 1/4"	48	24	25	71	65	12.5	29	19	Pg 11	0.25
NDV-10		R 3/8"	58	29	30	75	68	15	29	19	Pg 11	0.40
NDV-12		R 1/2"	68	34	35	92	82	17.5	38	23	Pg 16	0.70
NDV-16		R 3/4"	78	39	45	106	96	22.5	38	23	Pg 16	1.20
NDV-20		R 1"	108	54	50	149	132	25	55	38	Pg 29	2.10
NDV-25		R 1 1/4"	108	54	60	154	137	30	55	38	Pg 29	2.80
NDV-30		R 1 1/2"	108	54	70	159	142	35	55	38	Pg 29	3.50

Working pressure: 350 bar for steel and stainless steel

VALVES

Needle Valve



High Pressure Needle Valve, Stainless Steel

Part No	ID Code	W.P. bar	L	D
NV-1/4"R-316		400	58	4.5
NV-3/8"R-316		400	59	5.3
NV-1/2"R-316		400	65	6.0
NV-3/4"R-316		300	75	9.5
NV-1"R-316		300	80	12.5

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GS-FLANGE
SYSTEM

TUBES & PIPES

CLAMPS

VALVES

BITE TYPE
FITTINGS

SAE J514 JIC
FLARE FITTINGS

HOSES &
HOSE COUPLINGS

ADAPTORS

SPECIAL
SOLUTIONS

MACHINES

TECHNICAL
INFORMATION

VALVES

Flow Control Valve

GS-FLANGE SYSTEM

TUBES & PIPES

CLAMPS

VALVES

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BITE TYPE FITTINGS

SAE J514 JIC FLARE FITTINGS

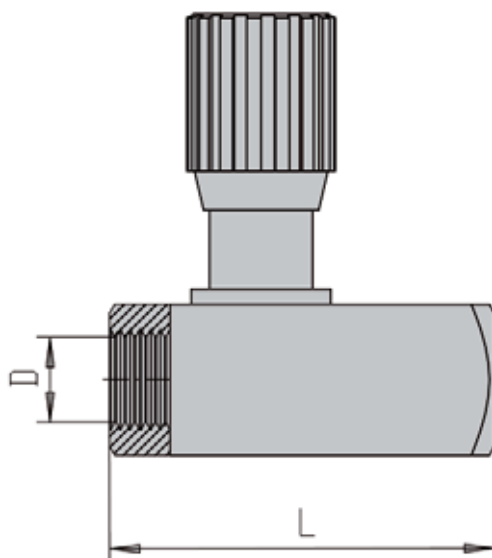
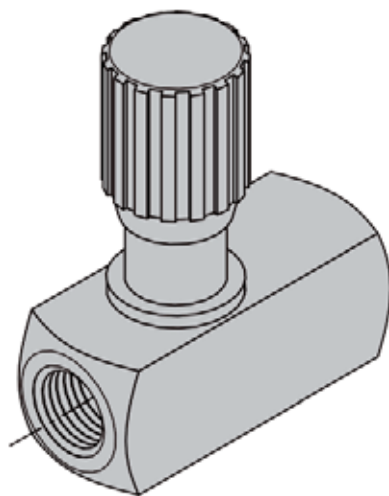
HOSES & HOSE COUPLINGS

ADAPTORS

SPECIAL SOLUTIONS

MACHINES

TECHNICAL INFORMATION



Instruction for ordering and key to materials:

NDRV: flow control check valve pipe assembly

Nominal sizes: 6 = 1/8"
8 = 1/4"
10 = 3/8"
12 = 1/2"
16 = 3/4"
20 = 1"
25 = 1 1/4"
30 = 1 1/2"

Materials:

Body and spindle: 1 = steel
4 = stainless steel

Seals: 3 = buna
5 = viton
6 = EPDM
7 = fluorosilicone

Cracking pressure of the check valve: 0.5 bar or 4.5 bar

Please complete the order number in your order by indicating the material as per key eg. NDRV-12-13.

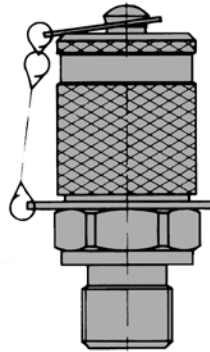
The first figure indicates the material for the body and spindle, the second figure indicates the seals.

i.e. NDRV-12-13 signifies: flow control valve, nominal size: 12, body and spindle: steel, seals: buna.

Flow control Valve – Piping Assembly

Part No	ID Code	DN	a	H2	H1	m	B	I	L	D	d	G	Weight
NDRV- 6-13		NDRV- 6	R 1/8"	60	55	8	16	26	45	24	13	Pg 7	0.13
NDRV- 8-13		NDRV- 8	R 1/4"	71	65	12.5	25	33.5	55	29	19	Pg 11	0.30
NDRV- 10-13		NDRV-10	R 3/8"	75	68	15	30	41	65	29	19	Pg 11	0.45
NDRV- 12-13		NDRV-12	R 1/2"	92	82	17.5	35	44	73	38	23	Pg 16	0.80
NDRV- 16-13		NDRV-16	R 3/4"	106	96	22.5	45	57	88	38	23	Pg 16	1.30
NDRV- 20-13		NDRV-20	R 1"	149	131	25	50	77	127	55	38	Pg 29	2.40
NDRV- 25-13		NDRV-25	R 1 1/4"	154	137	30	60	93	143	55	38	Pg 29	3.50
NDRV- 30-13		NDRV-30	R 1 1/2"	159	142	35	70	91	143	55	38	Pg 29	4.60
NDRV- 40-13		NDRV-40	R 2"	169	152	45	90	111	165	55	38	Pg 29	7.70

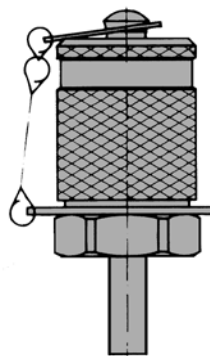
Materials Gland seal: PTFE or Graphite



Joining under pressure up to 400 bar max.
Seals: Nitril -20°C– 90°C

Testcoupling – Thread Connection

Part no	ID Code St	ID Code SS	Conn.	End Conn.	Max W.P.	
					St	SS
PA-09-R1/8"			M16x2	R 1/8"	630	400
PA-09-R1/4"			M16x2	R 1/4"	630	400
PA-09-R3/8"			M16x2	R 3/8"	630	400
PA-09-7/16"UNF			M16x2	UNF 7/16"	630	400
PA-09-9/16"UNF			M16x2	UNF 9/16"	630	400
PA-09-1/4"NPT			M16x2	NPT 1/4"	630	400

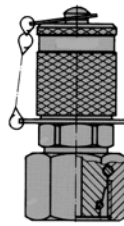


Testcoupling – Standpipe

Part no	ID Code St	ID Code SS	Conn.	End Conn.	Max W.P.	
					St	SS
PA-18-06 L/S			M16x2	Ø 6 mm	500	315
PA-18-08 L/S			M16x2	Ø 8 mm	500	315
PA-18-10 L/S			M16x2	Ø 10 mm	500	315
PA-18-12 L/S			M16x2	Ø 12 mm	400	315

VALVES

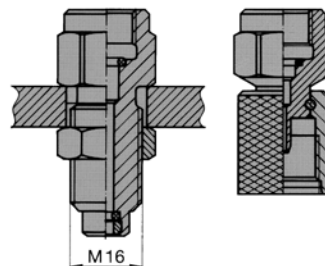
Test Couplings



Testcoupling – Coupling for 24° Cone Fittings

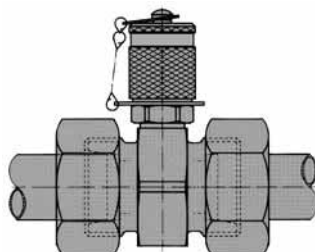
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Part no	ID Code St	ID Code SS	Conn.	End Conn.	Max W.P.	
					S	SS
PA18-08L			M16x2	08L	500	315
PA18-10L			M16x2	10L	500	315
PA18-12L			M16x2	12L	400	315
PA18-15L			M16x2	15L	400	315
PA18-18L			M16x2	18L	400	315
PA18-22L			M16x2	22L	630	400
PA18-08S			M16x2	08L	630	400
PA18-10S			M16x2	10S	630	400
PA18-12S			M16x2	12S	630	400
PA18-16S			M16x2	16S	630	400
PA18-20S			M16x2	20S	400	400



Testcoupling – Bulkhead

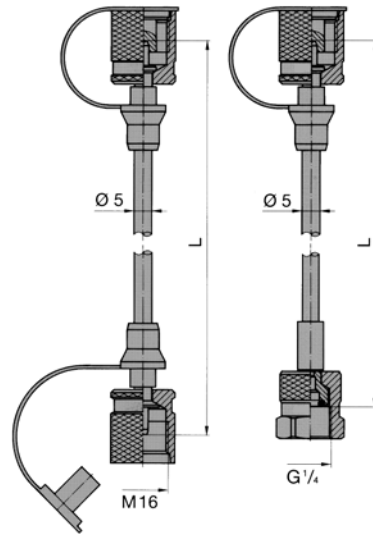
Part no	ID Code St	ID Code SS	Conn.	Mano Conn.	Max W.P.	
					St	SS
PA 12-R1/4"			M16x2	1/4"	630	400
PA 12-R1/2"			M16x2	1/2"	630	400



Testcoupling – Direct Gauge

Part no	ID Code St	ID Code SS	Conn.	Mano Conn.	Max W.P.	
					St	SS
813-024-00			M16x2	1/4"	630	400

Supplied on request:
Complete testcoupling with straight fittings.



Other lengths on request

Pressure/Temp. factor:

to 0°C 122%
 to 30°C 110%
 to 50°C 100%
 to 80°C 86%
 to 100°C 77%

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GS-FLANGE
SYSTEM

TUBES & PIPES

CLAMPS

VALVES

BITE TYPE
FITTINGS

SAE J514 JIC
FLARE FITTINGS

HOSES &
HOSE COUPLINGS

ADAPTORS

SPECIAL
SOLUTIONS

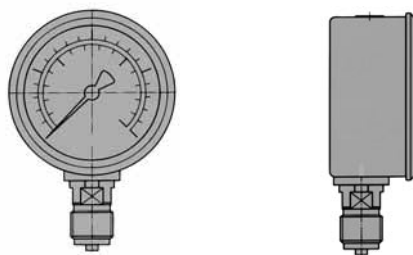
MACHINES

TECHNICAL
INFORMATION

Testhose — R1/4" – R1/2" — M16x2

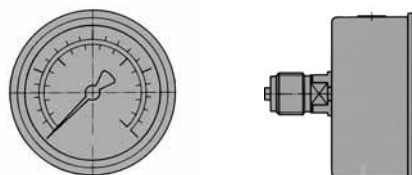
Part no	ID Code St	ID Code SS	Conn.	L-mm	Max press. bar
PA11-500-14			M16x2-R 1/4"	500	400
PA11-1000-14			M16x2-R 1/4"	1000	400
PA11-1500-14			M16x2-R 1/4"	1500	400
PA11-2000-14			M16x2-R 1/4"	2000	400
PA11-2500-14			M16x2-R 1/4"	2500	400
PA11-500-12			M16x2-R 1/2"	500	400
PA11-1000-12			M16x2-R 1/2"	1000	400
PA11-200			M16x2-M16x2	200	400
PA11-400			M16x2-M16x2	400	400
PA11-630			M16x2-M16x2	630	400
PA11-800			M16x2-M16x2	800	400
PA11-1000			M16x2-M16x2	1000	400
PA11-1500			M16x2-M16x2	1500	400
PA11-2000			M16x2-M16x2	2000	400
PA11-2500			M16x2-M16x2	2500	400

Hose: Polyamid, Reinforcement Syntetic fibre
 Temp: -100°C max
 Safety factor: 2.5:1
 Nominal bore 2 mm (nominal bore 4 mm upon request)
 Min. bending radius 20 mm



Gauge 63 mm – Glycerin Filled – conn. under

Part no	ID Code	Pressure rate	Conn.
PA 025 U		0 - 25 BAR	R 1/4"
PA 060 U		0 - 60 BAR	R 1/4"
PA 100 U		0 - 100 BAR	R 1/4"
PA 160 U		0 - 160 BAR	R 1/4"
PA 250 U		0 - 250 BAR	R 1/4"
PA 315 U		0 - 315 BAR	R 1/4"
PA 400 U		0 - 400 BAR	R 1/4"
PA 600 U		0 - 600 BAR	R 1/4"



Gauge 63 mm – Glycerin Filled – conn. back

Part no	ID Code	Pressure rate	Conn.
PA 025 B		0 - 25 BAR	R 1/4"
PA 060 B		0 - 60 BAR	R 1/4"
PA 100 B		0 - 100 BAR	R 1/4"
PA 160 B		0 - 160 BAR	R 1/4"
PA 250 B		0 - 250 BAR	R 1/4"
PA 315 B		0 - 315 BAR	R 1/4"
PA 400 B		0 - 400 BAR	R 1/4"
PA 600 B		0 - 600 BAR	R 1/4"