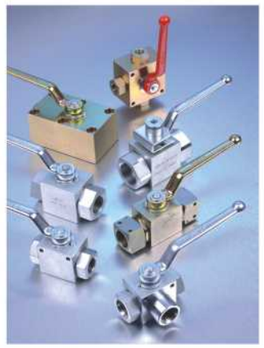
KHB

HYDRAULIC COMPONENT FACTORY

Products Contents



www.hidropaks.com.tr ISO9001:2008

1. General

The safety and shut-off block is used to shut off and discharge hydraulic accumulators or user units.

2. How to order

SAF	20	M	1	2	N	210	A	—	S13
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)		(9)

1) SAF = SAF series safety and shut-off block

2) Safety and Shut-off Block Size: 10 = DN 10
20 = DN 20
32 = DN 32

3) Discharge: M = Manual discharge

4) Block material: 1 = Carbon steel

5) Seal material: 2 = NBR (Perbunan)
6 = FPM (Viton)

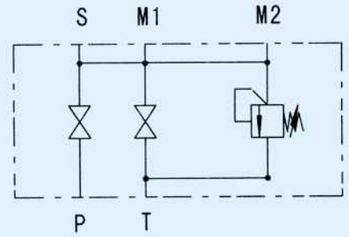
6) Pressure relief valve: N = Adjustable using spanner

7) Pressure setting: e.g. 210 bar (max. pressure 315 bar)

8) Thread connection to: A = IS0 228 (BSP)
B = DIN 13 (Metric IS0 965/1)

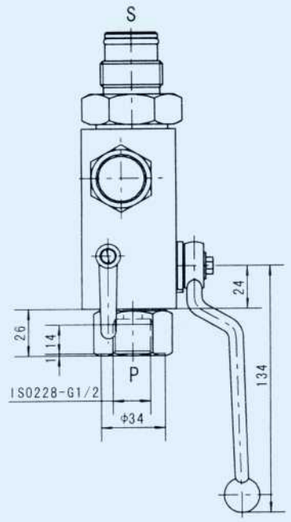
9) Adaptor: To accumulator (see point 5), e.g. S13 = IS0 228-G2A

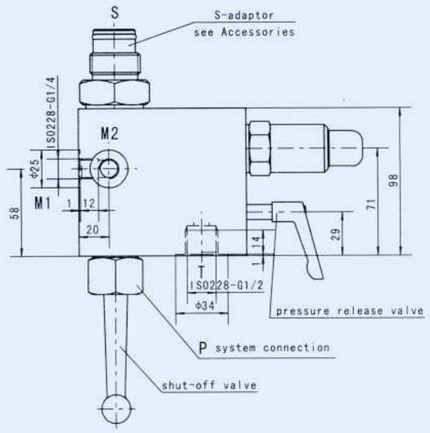
3. Principle Chart

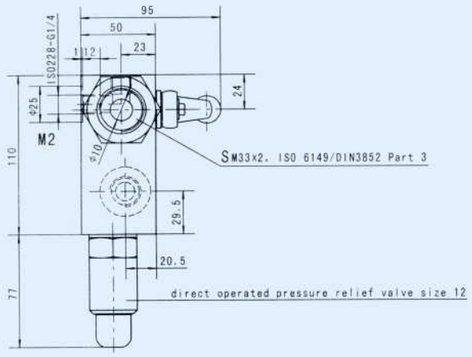


4.Dimensions

4.1 Safety and Shut-off Block Size 10

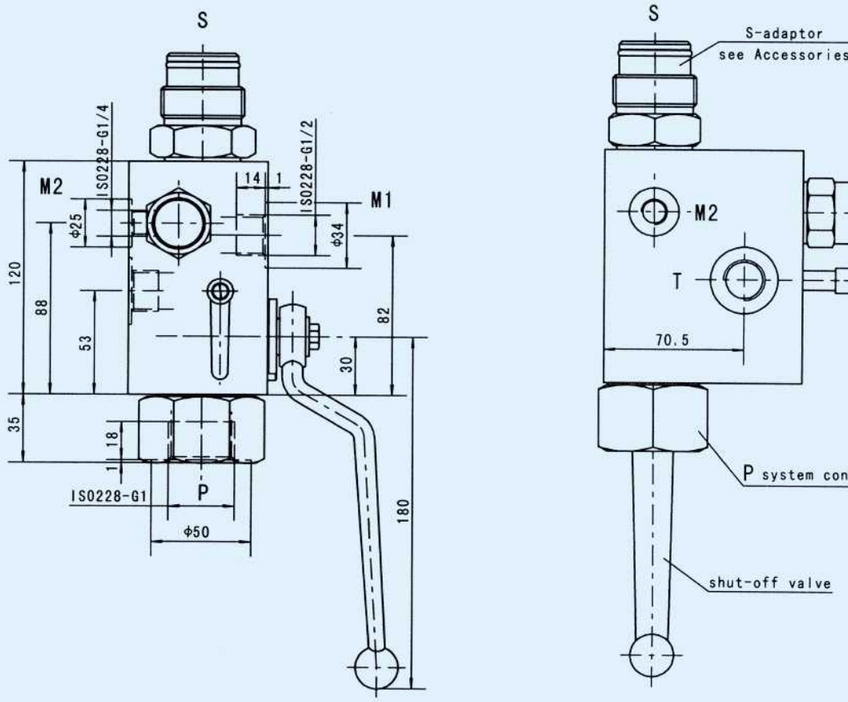


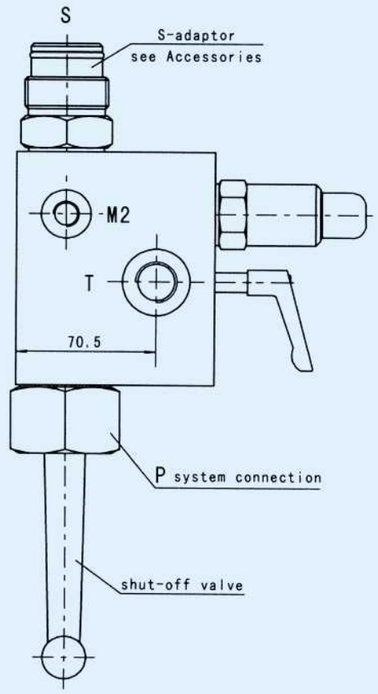


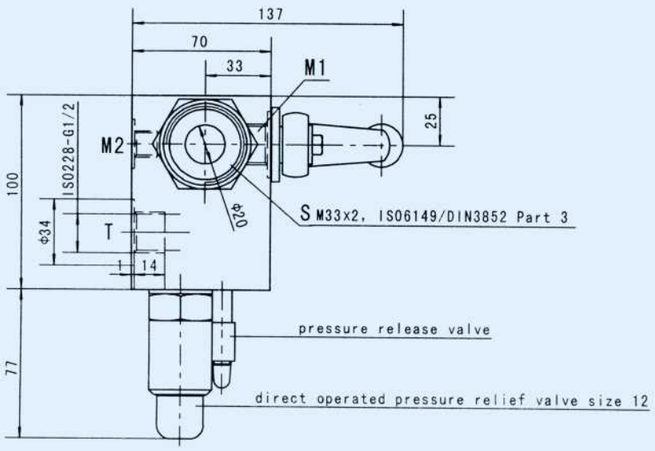


4.Dimensions

4.2 Safety and Shut-off Block Size 20

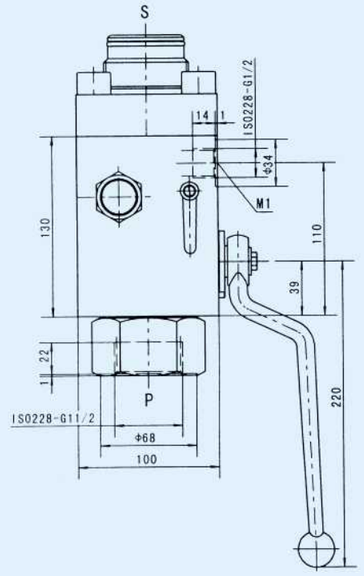


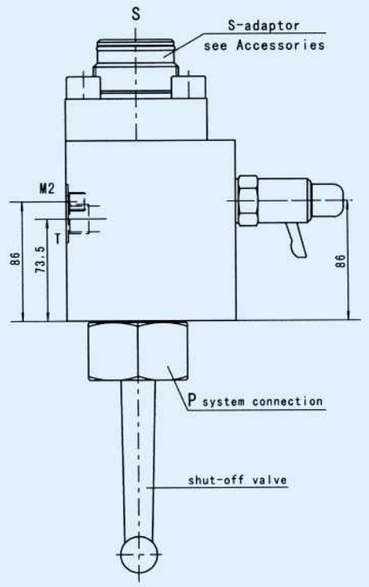


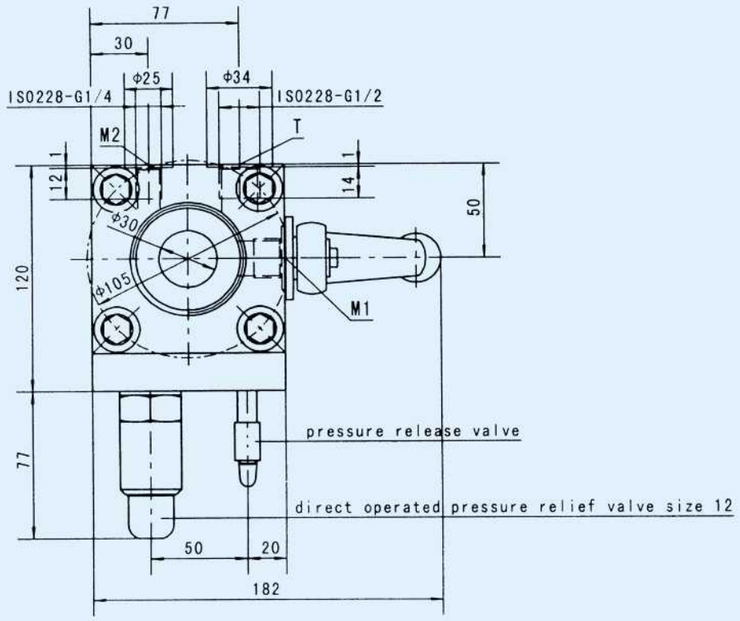


4.Dimensions

4.3 Safety and Shut-off Block Size 32







5.Accessories

Adaptor for SAF to connect the safety and shut-off block with the accumulator

5.1 Adaptor for standard bladder accumulator

Diagram 1

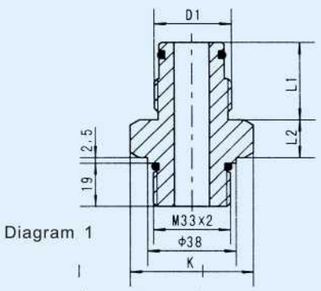
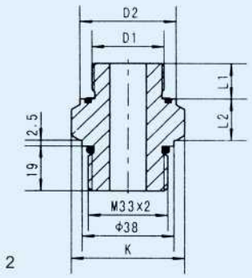


Diagram 2



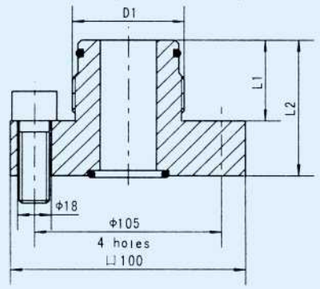


Diagram 3

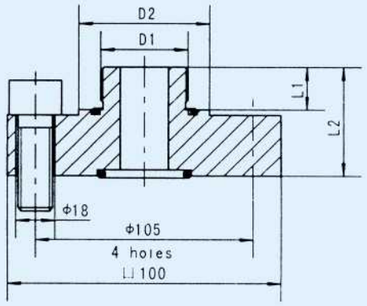
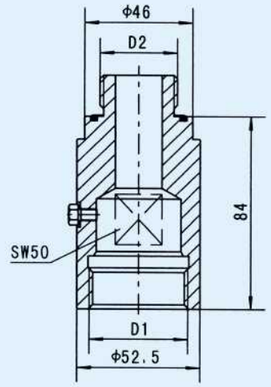


Diagram 4

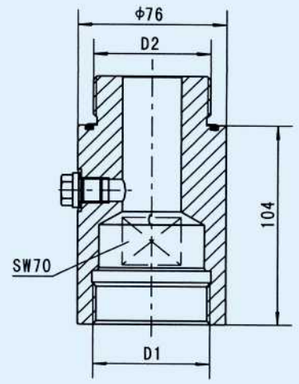
Model	Accumulator Model	D1 Thread	Adaptor	Diag.no	K(sw)	L1(mm)	L2(mm)	D2(mm)
SAF10/20	SB330/400-0.5 to 1L	G3/4A	S10	1	41	28	15.5	
	SB550/600-1 to 5L	G1A	S11		46	34	16.5	
	SB330/400-2.5 to 5L	G1 1/4A	S12			37		
	SB330/400-10 to 50L	G2A	S13		65	44	20.5	
	SB440/500/600-10 to 50L							
	Connection with metric fine thread	M30x1.5	S20	2	41	15	17.5	40
		M40x1.5	S21		55	20	20.5	54
		M50x1.5	S22		65	20	20.5	64
SAF32	SB330/400-0.5 t0 1L	G3/4A	S305	3		28	58	
	SB550/600-1 to 5L	G1A	S306			34	64	
	SB330/400-2.5 to 5L	G1 1/4A	S307			37	67	
	SB330/400/600-10 to 50L	G2A	S309			44	74	
	SB440/500-10 to 50L		S308				115	
	Connection with metric fine thread	M30x1.5	S330	4		15	47	45
		M40x1.5	S340			20	51	60
		M50x1.5	S350					75

Note:Adaptor in Diag.3 & Diag .4 supplied with 4 off int.hex.screw M16x45 including O-ring

5.2 Adaptor for piston accumulator



Diag.5

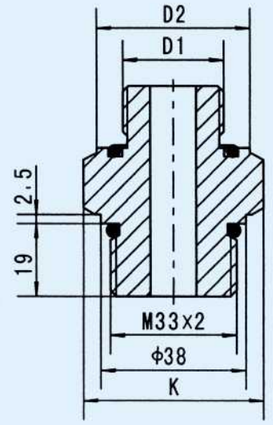


Diag.6

Model	Accumulator Model	Adaptor	Diag.no	D2 Thread	D1 Thread	Corresponding S-adaptor
SAF10/20	SK10/350-2.5 t0 7.5L	K406	5	G1 1/4	G1 A	S12
	SK210/350-10 t0 45L	K408	6	G2	G1 1/2A	S13
SAF32	SK21/350-50 t0 120L	K409			G2A	S309

O-ring supplied as part of adaptor

3.Adaptor for diaphragm accumulator



Model	Accumulator Model	Adaptor	S-adaptor	K(SW)	L1(mm)	L2(mm)	D2(mm)
SAF10/20	SBOE-0.075 to 1.4L	G1/2A	S30	41	14	17.5	33
	SBOA6-0.1 to 210-1.3L						
	SBOE2.0 to 3.5L	G3/4A	S31	41	16	18.5	40
	SBOA6-400-1.3 to 4L						

O-ring supplied as part of adaptor

2-way Ball Valves with Threaded Connections

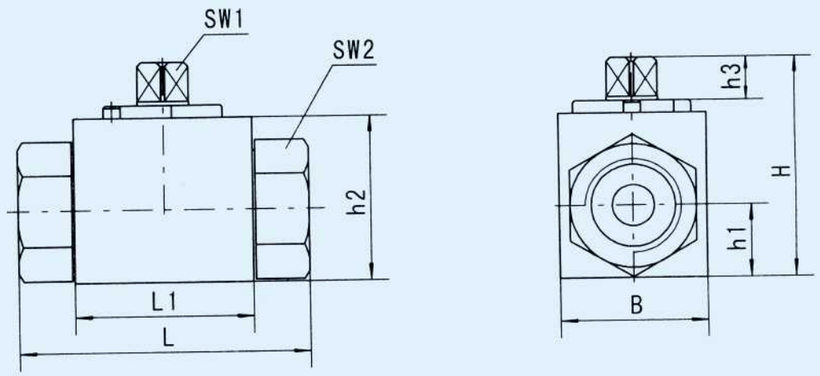
1. How to order

KHB	–	G1/2	–	1	1	1	2
(1)		(2)		(3)	(4)	(5)	(6)

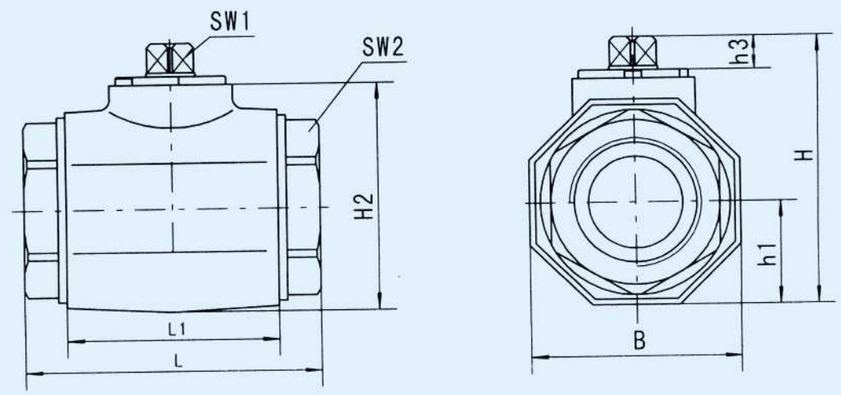
(1) Model: KHB:Square body DN 04 - DN 25
KHM: Eight-square body DN 32 - DN 50
(2) Thread size: e.g. G1/2
(3) Block and connection material: 1 = Carbon steel
4 = Stainless steel 304
(4) Ball & stem material: 1 = Carbon steel
4 = Stainless steel 304
(5) Ball seat material: 1 = POM 4 = PTFE 5 =PEEK
(6) Gonnection & stem seal: 2 = NBR 4 = FPM(Viton)
6 =EPDM

2.Accessories

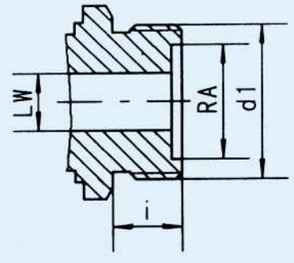
KHB



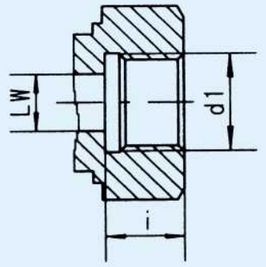
KHM



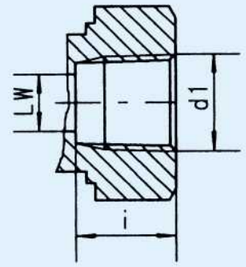
2-way Ball Valves with Threaded Connections



JB984-77



IS0 228



ANSI B1.20.1

JB984-77 Male Face Seal

Model	DN	PN	LW	RA	d1	i	L	L1	B	H	h1	h2	h3	SW1	SW2
KHB-M12x1.25	4	500	4	8	M12 x1.25	9	61	37	28	44.5	13	32	8	9	22
KHB-M16x1.5	6	500	6	11	M16x1.5	11	69	37	28	44.5	13	32	8	9	22
KHB-M22x1.5	8	500	8	16	M22x1.5	12	76	42	32	52.5	17	40	8	9	27
KHB-M27x1.5	10	500	10	20	M27x1.5	12	76	42	32	52.5	17	40	8	9	30
KHB-M30x1.5	16	400	15	24	M30x1.5	13	84	47	38	63.5	19	46	11	12	32
KHB-M36x2	20	315	20	30	M36x2	15	103	60	48	75	24	57	12	14	41
KHB-M42x2	25	315	25	35	M42x2	18	116	65	57	82	28.5	64	12	14	50
KHM-M52x2	32	315	30	40	M52x2	20	149	84	75	104.5	37.5	84	14	17	60
KHM-M60x2	40	315	38	50	M60x2	22	174	91	85	115.5	42.5	95	14	17	70
KHM-M72x2	50	315	48	60	M72x2	24	178	100	105	133	52.5	112.5	14	17	80

ISO 228 Female

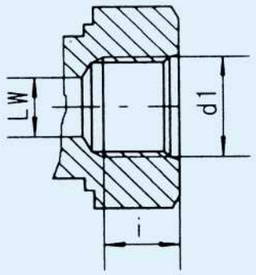
Model	DN	PN	LW	d1	i	L	L1	B	H	h1	h2	h3	SW1	SW2
KHB-G1/8	4	500	6	G1/8	10	69	37	28	44.5	13	32	8	9	22
KHB-G1/4	6	500	6	G1/4	14	69	37	28	44.5	13	32	8	9	22
KHB-G3/8	10	500	10	G3/8	14	72	42	32	52.5	17	40	8	9	27
LHB-G1/2	13	500	13	G1/2	16	83	48	35	52.5	17	40	8	9	30
KHB-G1/2	16	400	15	G1/2	16	83	47	38	63.5	19	46	11	12	32
KHB-G3/4	20	315	20	G3/4	18	95	60	48	75	24	57	12	14	41
KHB-G1	25	315	25	G1	20.5	113	65	57	82	28.5	64	12	14	50
KHB-G1^1/4	25/32	315	25	G1^1/4	22	120	65	60	82	28.5	64	12	14	55
KHB-G1^1/2	25/40	315	25	G1^1/2	24	130	65	60	82	28.5	64	12	14	60
KHM-G1^1/4	32	315	30	G1^1/4	22	110	84	75	104.5	37.5	84	14	17	60
KHM-G1^1/2	40	315	38	G1^1/2	24	130	91	85	115.5	42.5	95	14	17	70
KHM-G2	50	315	48	G2	26	140	100	105	133	52.5	112.5	14	17	80

ANSI B1 20、INPT Female

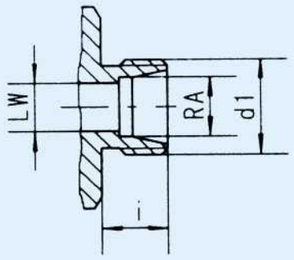
Model	DN	PN	LW	d1	i	L	L1	B	H	h1	h2	h3	SW1	SW2
KHB-1/8NPT	4	500	6	1/8NPT	10.5	69	37	28	44.5	13	32	8	9	22
KHB-1/4NPT	6	500	6	1/4NPT	14	69	37	28	44.5	13	32	8	9	22
KHB-3/8NPT	10	500	10	3/8NPT	14	72	42	32	52.5	17	40	8	9	27
KHB-1/2NPT	13	500	13	1/2NPT	17	83	48	35	52.5	17	40	8	9	30
KHB-3/4NPT	20	315	20	3/4NPT	19	95	60	48	75	24	57	12	14	41
KHB-1 NPT	25	315	25	1NPT	22.5	113	65	57	82	28.5	64	12	14	50
KHB-1^1/4NPT	25/32	315	25	1^1/4NPT	22.5	120	65	60	82	28.5	64	12	14	55
KHB-1^1/2NPT	25/40	315	25	1^1/2NPT	25	130	65	60	82	28.5	64	12	14	60
KHM-1^1/4NPT	32	315	30	1^1/4NPT	25	120	84	75	104.5	37.5	84	14	17	60
KHM-1^1/2NPT	40	315	38	1^1/2NPT	25	130	91	85	115.5	42.5	95	14	17	70
KHN-2 NPT	50	315	48	2NPT	30	140	100	105	133	52.5	112.5	14	17	80

PN=bar

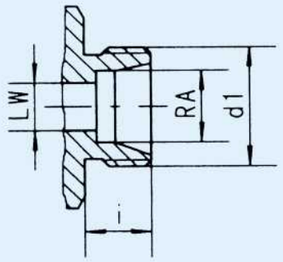
2-way Ball Valves with Threaded Connections



SAE J 514



DIN 2353 LR



DIN 2353 SR

SAE J 514 UN/UNF Female

Model	DN	PN	LW	d1	i	L	L1	B	H	h1	h2	h3	SW1	SW2
KHB-SAE4	6	500	6	SAE4	12	69	37	28	44.5	13	32	8	9	22
KHB-SAE6	10	500	10	SAE6	13	72	42	32	52.5	17	40	8	9	27
KHB-SAE8	13	500	13	SAE8	15	83	48	35	52.5	17	40	8	9	30
KHB-SAE12	20	315	20	SAE12	20	95	60	48	75	24	57	12	14	41
KHB-SAE16	25	315	25	SAE16	20	113	65	57	82	28.5	64	12	14	50
KHB-SAE20	25/32	315	25	SAE20	20	120	65	60	82	28.5	64	12	14	55
KHB-SAE24	25/40	315	25	SAE24	20	130	65	60	82	28.5	64	12	14	60
KHM-SAE20	32	315	30	SAE20	20	120	84	75	104.5	37.5	84	14	17	60
KHM-SAE24	40	315	38	SAE24	20	130	91	85	115.5	42.5	95.5	14	17	70
KHM-SAF32	50	315	40	SAE32	20	140	100	105	133	52.5	112.5	14	17	80

DIN 2353 Light series

Model	DN	PN	LW	RA	d1	i	L	L1	B	H	h1	h2	h3	SW1	SW2
KHB-06LR	4	500	4	6	M12x1.5	10	67	37	28	44.5	13	32	8	9	22
KHB-08LR	6	500	6	8	M14x1.5	10	67	37	28	44.5	13	32	8	9	22
KHB-10LR	8	500	8	10	M16x1.5	11	74	42	32	52.5	17	40	8	9	27
KHB-12LR	10	500	10	12	M18x1.5	11	74	42	32	52.5	17	40	8	9	27
KHB-15LR	13	500	13	15	M22x1.5	12	82	48	35	52.5	17	40	8	9	30
KHB-15LR	13	400	13	15	M22x1.5	12	82	47	38	63.5	19	46	11	12	32
KHB-18LR	13	500	13	18	M26x1.5	12	82	48	35	52.5	17	40	8	9	30
KHB-18LR	16	400	15	18	M26x1.5	12	82	47	38	63.5	19	46	11	12	32
KHB-22LR	20	315	19	22	M30x2	14	101	60	48	75	24	57	12	14	41
KHB-28LR	25	315	25	28	M36x2	14	108	65	57	82	28.5	64	12	14	50
KHB-35LR	25/32	315	25	35	M45x2	16	112	65	60	82	28.5	64	12	14	50
KHM-35LR	32	315	30	35	M45x2	16	141	84	75	104.5	37.5	84	14	17	60
KHM-42LR	40	315	38	42	M52x2	16	162	91	85	115.5	42.5	95	14	17	70

DIN 2353 Heavy series

Model	DN	PN	LW	RA	d1	i	L	L1	B	H	h1	h2	h3	SW1	SW2
KHB-08SR	4	500	5	8	M16x1.5	12	73	37	28	44.5	13	32	8	9	22
KHB-10SR	6	500	6	10	M18x1.5	12	73	37	28	44.5	13	32	8	9	22
KHB-12SR	8	500	8	12	M20x1.5	12	76	42	32	52.5	17	40	8	9	27
KHB-14SR	10	500	10	14	M22x1.5	14	80	42	32	52.5	17	40	8	9	27
KHB-16SR	13	500	13	16	M24x1.5	14	86	48	35	52.5	17	40	8	9	30
KHB-16SR	13	400	13	16	M24x1.5	14	86	47	38	63.5	19	46	11	12	32
KHB-20SR	13	500	13	20	M30x2	16	90	48	35	52.5	17	40	8	9	32
KHB-20SR	16	400	15	20	M30x2	16	90	47	38	63.5	19	46	11	12	32
KHB-25SR	20	315	20	25	M36x2	18	109	60	48	75	24	57	12	14	41
KHB-30SR	25	315	25	30	M42x2	20	120	65	57	82	28.5	64	12	14	50
KHB-38SR	25/32	315	25	38	M52x2	22	124	65	60	82	28.5	64	12	14	55
KHM-38SR	32	315	30	38	M52x2	22	153	84	75	104.5	37.5	84	14	17	60

PN=bar

3-way Ball Valves with Threaded Connections

1. How to order

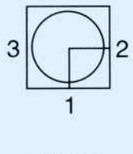
KHB3K	–	G1/2	–	L	–	1	1	1	2
(1)		(2)		(3)		(4)	(5)	(6)	(7)

(1) Model: KHB3K: Square body DN 04 - DN 50
(2) Thread size: e.g. G1/2
(3) Porting pattern: See chart of porting pattern
(4) Block and connections material: 1 = Carbon steel
4 = Stainless steel 304
(5) Ball & stem material: 1 = Garbon steel
4 = Stainless steel 304
(6) Ball seat material: 1 = POM 4 = PTFE 5=PEEK
(7) Connection & stem seal: 2 = NBR 4 = FPM(Viton)
6 =EPDM

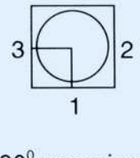
2.Porting pattern (See chart)

Hydraulic oil just can flow into valve through port "1", and the valve only can be sealed under the two situations:
(1) Pressure at the closed port is zero;
(2) Pressure at the closed port is lower than at the two open ports.

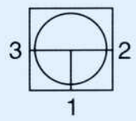
L type



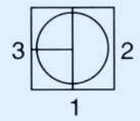
90° reversing



T type

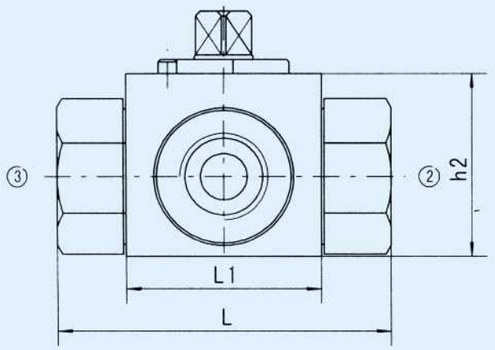


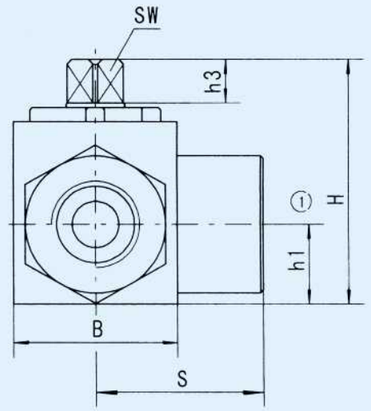
90° reversing



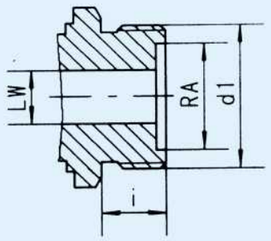
3.Dimensions

KHB3K

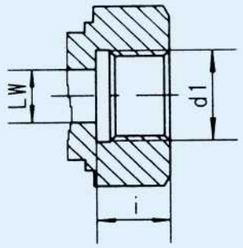




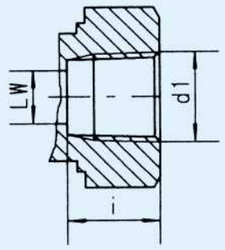
3-way Ball Valves with Threaded Connections



JB984-77



ISO 228



ANSI B1, 20, 1

JB984–77 Male Face SealK

Model	DN	PN	LW	RA	d1	i	L	L1	B	H	h1	h2	h3	SW	S
KHB3K- M12x1.25	4	315	4	8	M12x1.25	9	61	37	28	44.5	13	32	8	9	35
KHB3K- M16x1.5	6	315	6	11	M16x1.5	11	69	37	28	44.5	13	32	8	9	35
KHB3K- M22x1.5	8	315	8	16	M22x1.5	12	76	42	32	52.5	17	40	8	9	38
KHB3K- M27x1.5	10	315	10	20	M27x1.5	12	76	42	32	52.5	17	40	8	9	38
KHB3K- M30x1.5	16	315	15	24	M30x1.5	13	84	47	38	63.5	19	46	11	12	42
KHB3K- M36x2	20	315	20	30	M36x2	15	103	60	48	75	24	57	12	14	52
KHB3K- M42x2	25	315	25	35	M42x2	18	116	65	57	82	28.5	64	12	14	60
KHB3K- M52x2	32	315	30	40	M52x2	20	149	84	75	104.5	37.5	84	14	17	72
KHB3K- M60x2	40	315	38	50	M60x2	22	174	91	85	115.5	42.5	95	14	17	79.5
KHB3K- M72x2	50	315	48	60	M72x2	24	178	100	105	133	52.5	112.5	14	17	89

ISO 228 Female

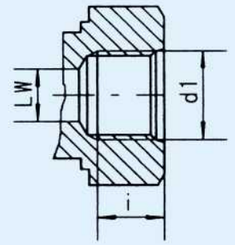
Model	DN	PN	LW	d1	i	L	L1	B	H	h1	h2	h3	SW	S
KHB3K-G1/8	4	315	6	G1/8	10	69	37	28	44.5	13	32	8	9	35
KHB3K-G1/4	6	315	6	G1/4	14	69	37	28	44.5	13	32	8	9	35
KHB3K-G3/8	10	315	10	G3/8	14	72	42	32	52.5	17	40	8	9	36
KHB3K-G1/2	13	315	13	G1/2	16	83	48	35	52.5	17	40	8	9	40
KHB3K-G1/2	16	315	15	G1/2	16	83	47	38	63.5	19	46	11	12	42
KHB3K-G3/4	20	315	20	G3/4	18	95	60	48	75	24	57	12	14	49
KHB3K-G1	25	315	25	G1	20.5	113	65	57	82	28.5	64	12	14	56.5
KHB3K-G1 1/4	25/32	315	25	G1 1/4	22	120	65	60	82	28.5	64	12	14	60
KHB3K-G1 1/4	32	315	30	G1 1/4	22	110	84	75	104.5	37.5	84	14	17	55
KHB3K-G1 1/2	40	315	38	G1 1/2	24	130	91	85	115.5	42.5	95	14	17	65
KHB3K-G2	50	315	48	G2	26	140	100	105	133	52.5	112.5	14	17	70

ANSI B1 20、1 NPT Female

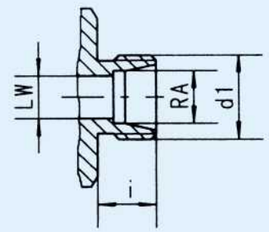
Model	DN	PN	LW	d1	i	L	L1	B	H	h1	h2	h3	SW	S
KHB3K-1/8NPT	4	315	6	1/8NPT	10.5	69	37	28	44.5	13	32	8	9	35
KHB3K-1/4NPT	6	315	6	1/4NPT	14	69	37	28	44.5	13	32	8	9	35
KHB3K-3/8NPT	10	315	10	3/8NPT	14	72	42	32	52.5	17	40	8	9	36
KHB3K-1/2NPT	13	315	13	1/2NPT	17	83	48	35	52.5	17	40	8	9	40
KHB3K-3/4NPT	20	315	20	3/4NPT	19	95	60	48	75	24	57	12	14	49
KHB3K-1 NPT	25	315	25	1 NPT	22.5	113	65	57	82	28.5	64	12	14	56.5
KHB3K-1 1/4NPT	25/32	315	25	1 1/4NPT	22.5	120	65	60	82	28.5	64	12	14	57.5
KHB3K-1 1/4NPT	32	315	30	1 1/4NPT	25	120	84	75	104.5	37.5	84	14	17	60
KHB3K-1 1/2NPT	40	315	38	1 1/2NPT	25	130	91	85	115.5	42.5	95	14	17	70
KHB3K-2 NPT	50	315	48	2 NPT	30	140	100	105	133	52.5	112.5	14	17	75

PN=bar

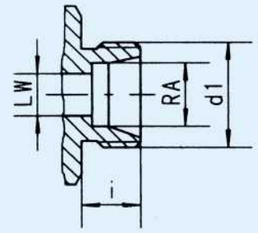
3-way Ball Valves with Threaded Connections



SAE J 514



DIN 2353 LR



DIN 2353 SR

SAE J 514 UN/UNF Female

Model	DN	PN	LW	d1	I	L	L1	B	H	h1	h2	h3	SW1	S
KHB3K-SAE4	6	315	6	SAE4	12	69	37	28	44.5	13	32	8	9	35
KHB3K-SAE6	10	315	10	SAE6	13	72	42	32	52.5	17	40	8	9	36
KHB3K-SAE8	13	315	13	SAE8	15	83	48	35	52.5	17	40	8	9	40
KHB3K-SAE12	20	315	20	SAE12	20	95	60	48	75	24	57	12	14	49
KHB3K-S Ae16	25	315	25	SAE16	20	113	65	57	82	28.5	64	12	14	56.5
KHB3K-SAE20	25/32	315	25	SAE20	20	120	65	60	82	28.5	64	12	14	60
KHB3K-SAE20	32	315	30	SAE20	20	120	84	75	104.5	37.5	84	14	17	60
KHB3K-SAE24	40	315	38	SAE24	20	130	91	85	115.5	42.5	95	14	17	70
KHB3K-SAE32	50	315	48	SAE32	20	140	100	105	133	52.5	112.5	14	17	75

DIN 2353 Light series

Model	DN	PN	LW	RA	d1	i	L	L1	B	H	h1	h2	h3	SW1	S
KHB3K-06LR	4	315	4	6	M12x1.5	10	67	37	28	44.5	13	32	8	9	34.5
KHB3K-08LR	6	315	6	8	M14x1.5	10	67	37	28	44.5	13	32	8	9	34.5
KHB3K-10LR	8	315	8	10	M16x1.5	11	74	42	32	52.5	17	40	8	9	37
KHB3K-12LR	10	315	10	12	M18x1.5	11	74	42	32	52.5	17	40	8	9	37
KHB3K-15LR	13	315	13	15	M22x1.5	12	82	48	35	52.5	17	40	8	9	40
KHB3K-15LR	13	315	13	15	M22x1.5	12	82	47	38	63.5	19	46	11	12	40
KHB3K-18LR	13	315	13	18	M26x1.5	12	82	48	35	52.5	17	40	8	9	42
KHB3K-18LR	16	315	15	18	M26x1.5	12	82	47	38	63.5	19	46	11	12	42
KHB3K-22LR	20	315	19	22	M30x2	14	101	60	48	75	24	57	12	14	52
KHB3K-28LR	25	315	25	28	M36x2	14	108	65	57	82	28.5	64	12	14	54
KHB3K-35LR	25/32	315	25	35	M45x2	16	112	65	60	82	28.5	64	12	14	56

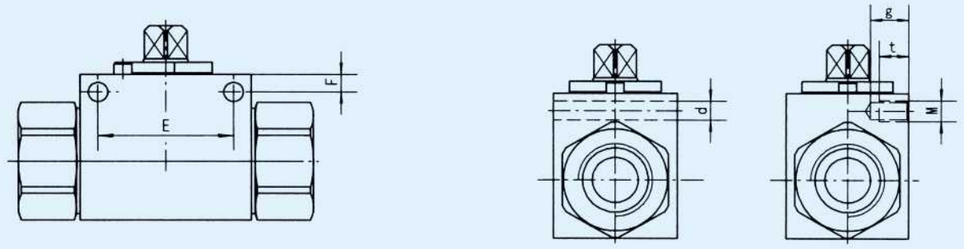
DIN 2353 Heavy series

Model	DN	PN	LW	RA	d1	i	L	L1	B	H	h1	h2	h3	SW1	S
KHB3K-08SR	4	315	5	8	M16x1.5	12	73	37	28	44.5	13	32	8	9	37
KHB3K-10SR	6	315	6	10	M18x1.5	12	73	37	28	44.5	13	32	8	9	37
KHB3K-12SR	8	315	8	12	M20x1.5	14	76	42	32	52.5	17	40	8	9	38
KHB3K-14SR	10	315	10	14	M22x1.5	14	80	42	32	52.5	17	40	8	9	40
KHB3K-16SR	13	315	13	16	M24x1.5	14	86	48	35	52.5	17	40	8	9	43.5
KHB3K-16SR	13	315	13	16	M24x1.5	14	86	47	38	63.5	19	46	11	12	43.5
KHB3K-20SR	13	315	13	20	M30x2	16	90	48	35	52.5	17	40	8	9	45.5
KHB3K-20SR	16	315	15	20	M30x2	16	90	47	38	63.5	19	46	11	12	45.5
KHB3K-25SR	20	315	20	25	M36x2	18	109	60	48	75	24	57	12	14	56
KHB3K-30SR	25	315	25	30	M42x2	20	120	65	57	82	28.5	64	12	14	60
KHB3K-38SR	25/32	315	25	38	M52x2	22	124	65	60	82	28.5	64	12	14	62

PN=bar

2-way &3-way Ball Valves with Mounting Holes

2-way Ball Valves with Mounting Holes



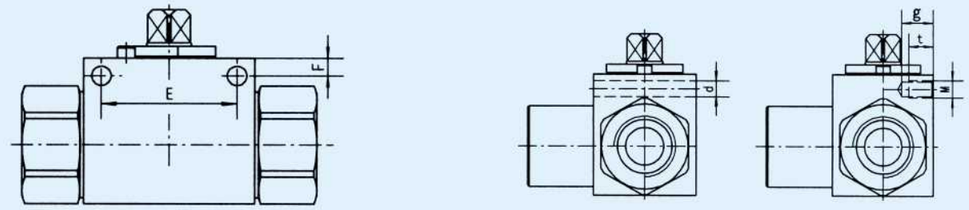
Full Holes Dimensions

DN	E	F	d
4	26	5	4.5
6	26	5	4.5
10	32	5	6.5
13	37.5	4.8	6.5
16	37.5	5	6.5
20	45	6.5	6.5
25	55	6	6.7
25/32	55	6	6.7

Thread Holes Dimensions

DN	E	F	t	g	M
4	24	6	6.5	9	M6
6	24	6	6.5	9	M6
10	32	5.5	7	10	M6
13	36	6	8.5	11	M6
16	32	8	7	10.5	M6
20	45	7.5	12	15	M10
25	45	7.5	12	15	M10
25/32	45	7.5	12	15	M10

3-way Ball Valves with Mounting Holes



Full Holes Dimensions

DN	E	F	d
4	26	5	4.5
6	26	5	4.5
10	32	5	6.5
13	37.5	4.8	6.5
16	37.5	5	6.5
20	45	6.5	6.5
25	55	6	6.7
25/32	55	6	6.7

Thread Holes Dimensions

DN	E	F	t	g	M
4	24	6	6.5	9	M6
6	24	6	6.5	9	M6
10	32	5.5	7	10	M6
13	36	6	8.5	11	M6
16	32	8	7	10.5	M6
20	45	7.5	12	15	M10
25	45	7.5	12	15	M10
25/32	45	7.5	12	15	M10

2-way &3-way Ball Valves with Locking Devices

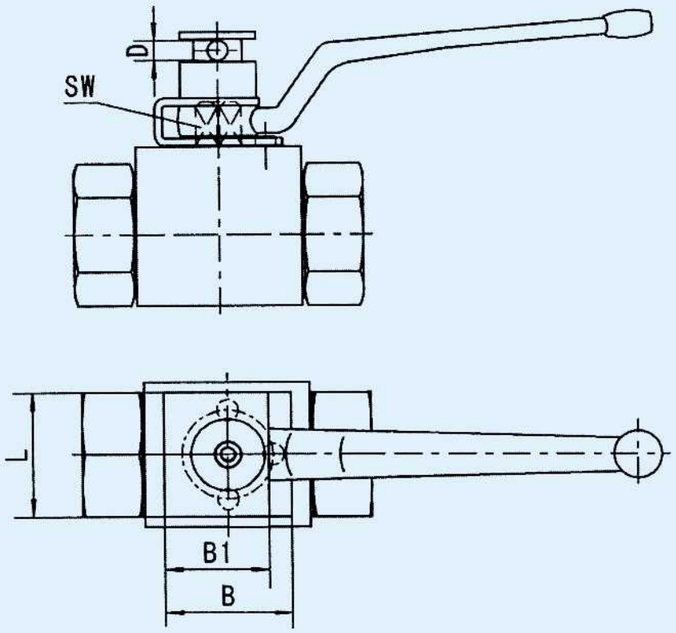
1. How to order

KHB - G1/2 - 1112	—	DS9
(1)		(2)

(1) Ball valve model: KHB = 2 way ball valve
KHB3K = 3 way ball valve

(2) Locking device size : DS9 = DN04 -DN13
DS14 = DN04-DN25
DS17 = DN32-DN50

2.Dimensions



Model	DN	SW	D	L	B1	B
DS9	4-13	9	6	32	28	34
DS14	20-25	14	8	50	41	50
DS17	32-50	17	8	58	46	55

2-way Ball Valves with Welding Connections

1.General

The ball valve can be connected with pipeline by welding.
Working temperature: -20℃- +100℃
Working pressure: PN = 160 bar

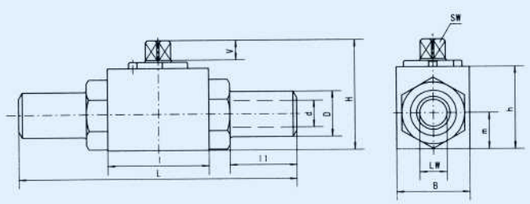
2.How to order

KHB-AS	160	–	20	–	1	1	1	2
(1)	(2)		(3)		(4)	(5)	(6)	(7)

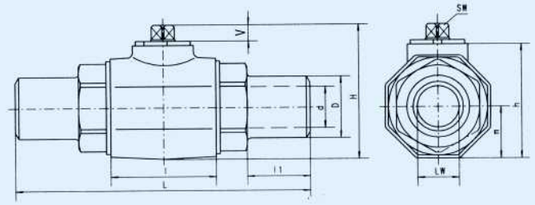
(1)Model:KHB—AS: Square body DN10 - DN 25
KHM—AS: Eight-square body DN32 - DN50/65
(2) Pressure setting: e.g. 160 bar
(3) Nominal diameter: e.g. 20 = DN 20
(4) Block and connection material: 1 = Carbon steel
4 = Stainless steel 304
(5) Ball & stem material: 1 = Carbon steel
4=Stainless steel 304
(6) Ball seat material: 1 = POM 4 = PTFE
(7) Connection & stem seal: 2 = NBR 4= FPM(Viton)

3.Dimensions

KHB-AS



KHM-AS



Model	DN	PN	LW	L	l	H	B	h	m	V	l1	d	D	SW
KHB-AS 160-10	10	160	10	150	42	52.5	32	40	17	8	42	10	17.2	9
KHB-AS 160-13	13	160	13	180	48	52.5	35	40	17	8	51	13	21.3	9
KHB-AS 160-16	16	160	15	180	47	63.5	38	46	19	11	55	15	21.3	12
KHB-AS 160-20	20	160	20	200	60	75	48	57	24	12	50	20	26.9	14
KHB-AS 160-20/25	20/25	160	20	200	60	75	48	57	24	12	50	25	33.7	14
KHB-AS 160-25	25	160	25	210	65	82	57	64	28.5	12	51	25	33.7	14
KHB-AS 160-25/32	25/32	160	25	210	65	82	57	64	28.5	12	51	30	42.2	14
KHM-AS 160-32	32	160	30	260	84	104.5	75	84	37.5	14	70	30	42.2	17
KHM-AS 160-32/40	32/40	160	30	260	84	104.5	75	84	37.5	14	70	38	48.3	17
KHM-AS 160-40	40	160	38	270	91	115.5	85	95	42.5	14	72	38	48.3	17
KHM-AS 160-40/50	40/50	160	38	270	91	115.5	85	95	42.5	14	72	48	60.3	17
KHM-AS 160-50	50	160	48	300	100	133	105	112.5	52.5	14	72	48	60.3	17
KHM-AS 160-50/65	50/65	160	48	300	100	133	105	112.5	52.5	14	72	63	76.1	17

2- way Ball Valves with DIN-connections

1.How to order

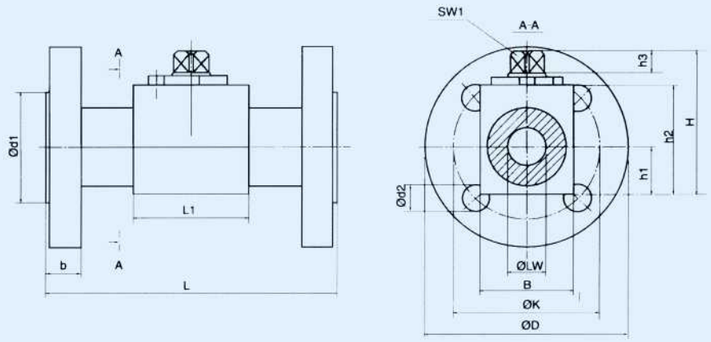
KHB	–	F	–	16	–	04	–	1	1	1	2	6
(1)		(2)		(3)		(4)		(5)	(6)	(7)	(8)	(9)

(1) Model: KHB: Square body DN 16 - DN 25
KHM: Eight-square body DN 32 - DN 50
(2) Flange & adaptor type:
F = DIN-EN558-1, FTF, basic range I, long type DIN 3202-F1
FF = DIN-EN558-1, FTF, basic range 14, short type DIN3202-F4
(3) Nominal diameter: e.g. 16 = DN 16
(4) Pressure setting: e.g. 40 = 40 bar
(5) Block and connection material: 1 = Carbon steel
4 = Stainless steel 304
(6) Ball & stem material: 1 = Carbon steel
4 = Stainless steel 304
(7) Ball seat material: 1 = POM
(8) Connection & stem seal: 2 = NBR
4 = FPM(Viton)
(9) Flange material: 6 = Carbon steel

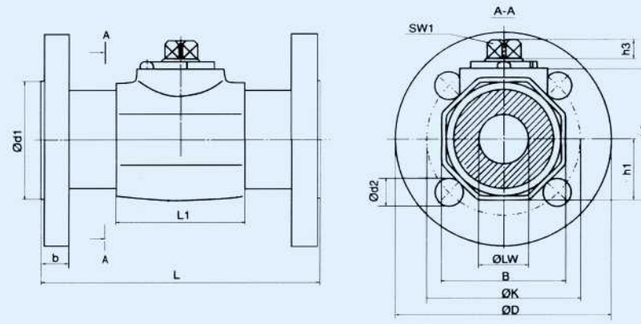
2- way Ball Valves with DIN-connections

3.Dimensions

KHBF



KHMF KHMFF



Model	PN(bar)	LW	L	L1	D	d1	d2	K	B	b	H	h1	h2	h3	SW1	Z*
KHBF-016	40	15	130	47	95	45	14	65	38	16	63.5	19	46	11	12	4
	160				105		14	75		20						
	315				128		18	90		26						
KHBF-020	40	20	150	60	105	55	14	75	48	18	75	24	57	12	14	
KHBF-025	40	25	160	65	115	65	14	85	57	18	82	28.5	64			
	160				138		18	100		24						
	250				148		22	105		28						
	315				158		22	115		34						
KHMF-032	40	30	180	84	138	78	18	100	75	18	104.5	37.5	84	14	17	
	160				155		22	110		26						
KHMF-040	40	38	200	91	148	88	18	110	85	18	115.5	42.5	95			
	160				168		22	125		28						
	250				185		26	135		34						
	315				195		26	145		38						
KHMF-050	40	48	230	100	165	102	18	125	105	20	133	52.5	112.5			
	63				178		22	135		26						
	160				195		26	145		30						
	250				198		26	150		38						8
	315				208		26	160		42						
KHMFF-032	40	30	130	84	138	78	18	100	75	18	104.5	37.5	84			4
KHMFF-040	40	38	140	91	148	88	18	110	85	18	115.5	42.5	95			
KHMFF-050	40	48	150	100	165	102	18	125	105	20	133	52.5	112.5			

KHB HYDRAULIC COMPONENT FACTORY

2-way& 3-way Board Type Ball Valves

1.How to order

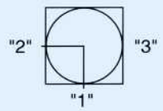
KHP3K	–	10	–	L	–	1	1	1	2
(1)		(2)		(3)		(4)	(5)	(6)	(7)

(1) Model: KHP = Board type 2 way ball valve
KHP3K = Board type 3 way ball valve
(2) Nominal diameter: e.g. 10 = DN 10
(3) Porting pattern for 3-way ball valve (see Porting pattern):
L=L type
T=T type
(4) Block & screw plug material: 1 = Carbon steel
(5) Ball & stem material: 1 = Carbon steel
(6) Ball seat material: 1 = POM
(7) Screw plug & stem seal: 2 = NBR .
4 = FPM(Viton)

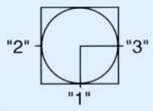
2.Porting pattern

Hydraulic oil just can flow into valve through port “1”, and the valveonly can be sealed under the two situations:
(1) Pressure at the closed port is zero;
(2) Pressure at the closed port is lower than at the two open ports.

L type



90° reversing

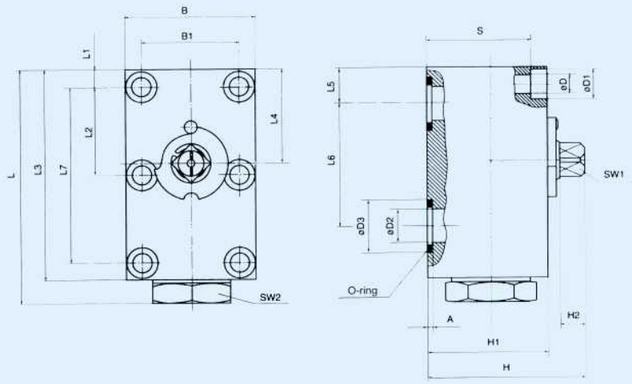


3.Specification

(1) Nominal Pressure : 315 bar
(2) Nominal Diameter: 6mm,10mm,...50mm

4.Dimensions

1、KHP(PKH)



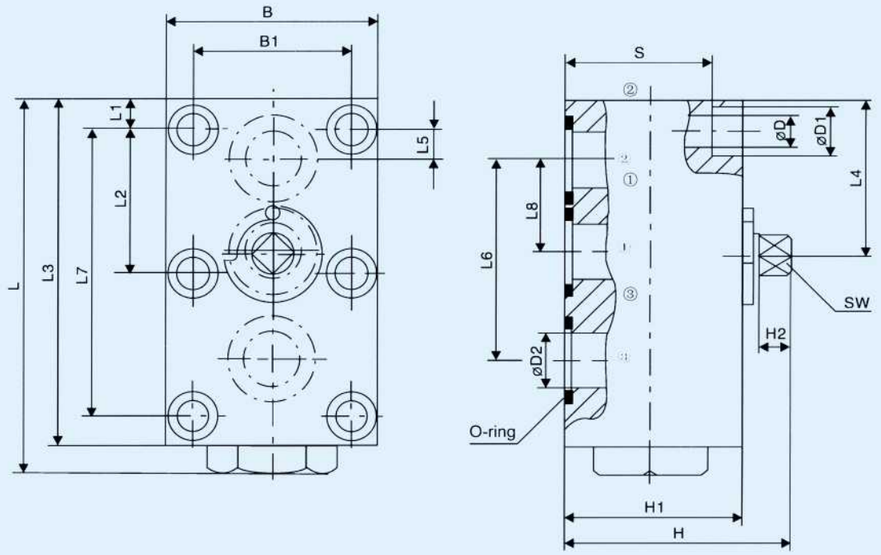
Model	DN	LW	L	L1	L2	L3	L4	L5	L6	L7	B	B1
KHP(PKH)-06	06	6	64	8.5	-	59	25	8.5	35	35	40	27
KHP(PKH)-10	10	9.5	80	8	27.5	71	29.5	10.5	44	55	56	40
KHP(PKH)-16	16	16	110	8.5	41.5	100	43.5	17	58	83	62	45
KHP(PKH)-20	20	20	127	10	48.5	117	51	20	69	97	70	51
KHP(PKH)-25	25	25	145	10	57.5	135	62	24	81	115	80	60
KHP(PKH)-32	32	30	177	12	68	165	75	29	96	136	100	78
KHP(PKH)-40	40	38	192	28.5	56	180	85.5	28.5	112	112	130	95
KHP(PKH)-50	50	40	245	38	68	220	106	38	136	136	149	112

Model	SW1	SW2	H	H1	H2	D	D1	D2	D3	A	S	O-ring
KHP(PKH)-06	9	22	39	30	6	6.6	11	6	12	1.4	23	12x1.9
KHP(PKH)-10	9	30	54.5	42	8	9	13.5	9.5	16	1.8	33	16x2.4
KHP(PKH)-16	12	36	67.5	50	11	9	13.5	16	25	1.8	41	25x2.4
KHP(PKH)-20	14	41	80	62	12	10.5	16.5	20	30	2.4	51	30x3.1
KHP(PKH)-25	14	50	86	67	12	10.5	16.5	25	35	2.4	56	35x3.1
KHP(PKH)-32	17	65	110	90	14	13	19	32	40	2.4	77	40x3.1
KHP(PKH)-40	17	75	120	100	14	17.5	26	38	50	2.4	82	50x 3.1
KHP(PKH)-50	17	75	130	110	14	22	33	48	56	2.7	88	56x3.5

Model	Int.Hex.screw DIN912	Torque MA(Nm)(Friction coefficient= μ 0.14)
KHP(PKH)-06	M 6 -10.9	13
KHP(PKH)-10	M8-10.9	30
KHP(PKH)-16	M8-12.9	35
KHP(PKH)-20	M10-12.9	60
KHP(PKH)-25	M10-12.9	60
KHP(PKH)-32	M12-12.9	110
KHP(PKH)-40	M16-12.9	300
KHP<PKH)-50	M20-12.9	600

4.Dimensions

2、KHP3K



Model	L	L1	L2	L3	L4	L5	L6	L7	L8	B
KHP3K-06	64	8.5	-	59	25	0	35	35	17.5	40
KHP3K-10	80	8	27.5	71	29.5	2.5	44	55	19	56
KHP3K-16	110	8.5	41.5	100	43.5	8.5	58	83	26.5	62
KHP3K-20	127	10	48.5	117	51	10	69	97	32	70
KHP3K-25	145	10	57.5	135	62	14	81	115	38	80
KHP3K-32	177	12	68	165	75	17	96	136	46	100
KHP3K-40	192	28.5	56	180	85.5	0	112	112	56	130
KHP3K-50	245	38	68	220	106	0	136	136	68	149

Model	B1	H	H1	H2	D	D1	D2	S	SW	O-ring
KHP3K-06	27	39	30	6	6.6	11	6	23	9	12x1.9
KHP3K-10	40	54.5	42	8	9.	13.5	9.5	33	9	16x2.4
KHP3K-16	45	67.5	50	11	9	13.5	16	41	12	25x2.4
KHP3K-20	51	80	62	12	10.5	16.5	20	51	14	30x3.1
KHP3K-25	60	85	67	12	10.5	16.5	25	56	14	35x3.1
KHP3K-32	78	110	90	14	13	19	32	77	17	40x3.1
KHP3K-40	95	120	100	14	17.5	26	38	82	17	50x3.1
KHP3K-50	112	130	110	14	22	33	48	88	17	56x3.5

Model	KHP3K-06	KHP3K-10	KHP3K-16	KHP3K-20	KHP3K-25	KHP3K-32	KHP3K-40	KHP3K-50
Screw Nail	M6x30	M8x45	M8x50	M10x65	M10x70	M10x90	M16x110	M20x110
Torque(Nm)	13	30	35	60	60	110	300	600

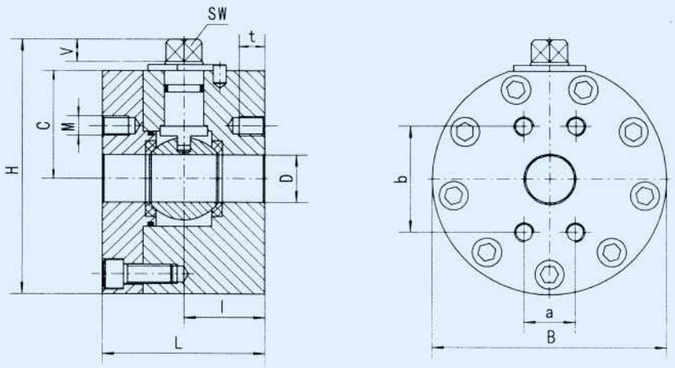
2-way Ball Valve with SAE-flange

1. How to order

KHSAE	210	–	32	2	1	2	A
(1)	(2)		(3)	(4)	(5)	(6)	(7)

1) Model:KHSAE=Fixed flange ball Valve
2) Pressure setting: e.g.210=210 bar
3) Nominal diameter:e.g.32=DN 32
4) Block and connection material:2=Carbon steel
5) Ball& stem material:1=Carbon steel
4=Stainless steel 304
6) Ball seat material:2=POM 4=PTFE
7) Connection & stem seal:A=NBR 8=FPM(Vtion)

2.Dimensions



210 bar (Observing flang's pressure setting)

Model	DN	D	L	l	B	C	H	V	SW	a	b	M	t
KHSAE210-15	15	15	75	33	78	31	83	11	12	17.5	38.1	M8	16
KHSAE210-20	20	20	80	35	98	37	100	12	14	22.2	47.6	M10	18
KHSAE210-25	25	25	88	38	117	39.5	113	12	14	26.2	52.4	M10	18
KHSAE210-32	32	30	100	50	145	68	160	14	17	30.2	58.7	M12	20
KHSAE210-40	40	38	110	55	165	78	180	14	17	35.7	69.8	M12	20
KHSAE210-50	50	48	116	58	197	94	213	14	17	42.9	77.8	M12	20
KHSAE210-65	65	60	150	75	197	94	209	14	17	50.8	88.9	M12	20
KHSAE210-80	80	70	140	70	207	98	225	24	20	61.9	106.4	M16	24
KHSAE210-100	100	95	170	85	257	121	275	26	24	77.8	130.2	M16	24
KHSAE210-125	125	118	210	105	295	140	323	36	36	92.1	152.4	M16	30

420 bar (Observing flang's pressure setting)

Model	DN	D	L	l	B	C	H	V	SW	a	b	M	t
KHSAE420-15	15	15	75	33	78	31	83	11	12	18.2	40.5	M8	16
KHSAE420-20	20	20	80	35	98	37	100	12	14	23.8	50.8	M10	18
KHSAE420-25	25	25	88	38	117	39.5	113	12	14	27.8	57.2	M12	20
KHSAE420-32	32	30	100	50	145	68	160	14	17	31.8	66.7	M14	22
KHSAE420-40	40	38	110	55	165	78	180	14	17	36.5	79.4	M16	24
KHSAE420-50	45	48	116	58	197	94	213	14	17	44.5	96.8	M20	28

KHB HYDRAULIC COMPONENT FACTORY

BKH&MKH Ball Valve with SAE-flange

1. How to order

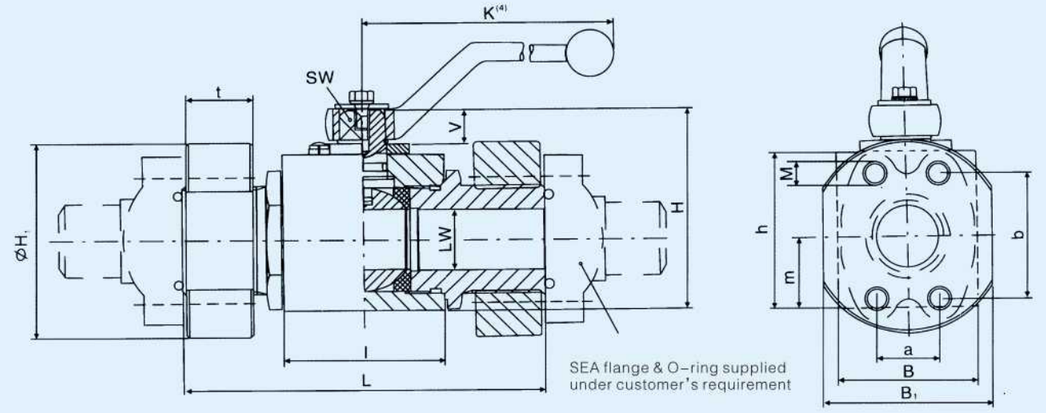
BKH-SAE	210	–	13	–	1	1	2	3
(1)	(2)		(3)		(4)	(5)	(6)	(7)

1) Model:BKH-SAE:Square body DN13-DN25
MKH-SAE:Eight -square body DN32-DN50
2) Pressure setting: e.g.210=210 bar
3) Nominal diameter:e.g.13=DN 13
4) Block and flange material:1=Carbon steel
5) Ball& stem material:1=Carbon steel
4=Stainless steel 304
6) Ball seat material:2=POM 4=PTFE
7) Connection & stem seal:3=NBR 5=FPM(Vtion)

BKH-SAE MKH-SAE

2.Dimensions

1.BKH-SAE



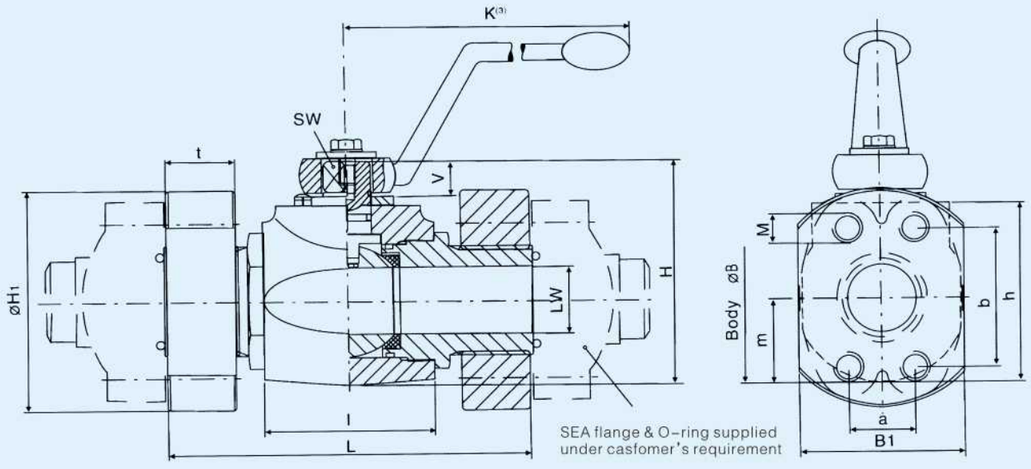
210 bar (3000psi)																			
Model	DN(1)	PN(2)	LW	L	l	B	H	h	m	v	sw	K(3)	B1	H1	t	a	b	M	Weiht(kg)
BKH-SAE210	13	210	13	120	48	35	52.5	40	17	8	9	135	48	56	22	17.5	38.1	M8	1.5
BKH-SAE210	20	210	20	136	60	48	72	57	24	12	14	181	60	72	23	22.2	47.6	M10	3
BKH-SAE210	25	210	25	148	65	57	81	64	28.5	12	14	181	70	81	27	26.2	52.4	M10	4.5

420 bar (6000psi)																			
Model	DN(1)	PN(2)	LW	L	l	B	H	h	m	v	sw	K(3)	B1	H1	t	a	b	M	Weiht(kg)
BKH-SAE420	13	210	13	120	48	35	52.5	40	17	8	9	135	48	56	22	18.2	40.5	M8	1.5
BKH-SAE420	20	210	20	136	60	48	72	57	24	12	14	181	60	72	23	23.8	50.8	M10	3
BKH-SAE420	25	210	25	148	65	57	81	64	28.5	12	14	181	70	81	27	27.8	57.2	M10	4.5

Note:(1) DN=mm
(2) PN=bar

2.Dimensions

2.2MKH-SAE



210 bar (3000psi)																			
Model	DN(1)	PN(2)	LW	L	l	B	H	h	m	v	sw	K	B_1	H_1	t	a	b	M	Weiht(kg)
MKH-SAE-210	32	210	30	172	84	75	104.5	84	37.5	14	17	225	78	105	32	30.2	58.7	M12	7.3
MKH-SAE-210	40	210	38	177	91	85	115.5	95	42.5	14	17	225	96	120	32	35.7	69.8	M12	10.8
MKH-SAE-210	50	210	48	196	100	105	133	112.5	52.5	14	17	225	114	145	34	42.9	77.8	M12	18.8
MKH-SAE-210	50/65	210	48	196	100	105	133	112.5	52.5	14	17	225	114	145	34	50.8	88.9	M12	18.8

420 bar (6000psi)																			
Model	DN(1)	PN(2)	LW	L	l	B	H	h	m	v	sw	K	B_1	H_1	t	a	b	M	Weiht(kg)
MKH-SAE-420	32	350	30	172	84	75	104.5	84	37.5	14	17	225	78	105	32	31.8	66.7	M14	7.3
MKH-SAE-420	40	350	38	177	91	85	115.5	95	42.5	14	17	225	96	120	32	36.5	79.4	M16	10.8
MKH-SAE-420	50	350	48	196	100	105	133	112.5	52.5	14	17	225	114	145	34	44.5	96.8	M20	18.8

Note:(1) DN=mm
(2) PN=bar

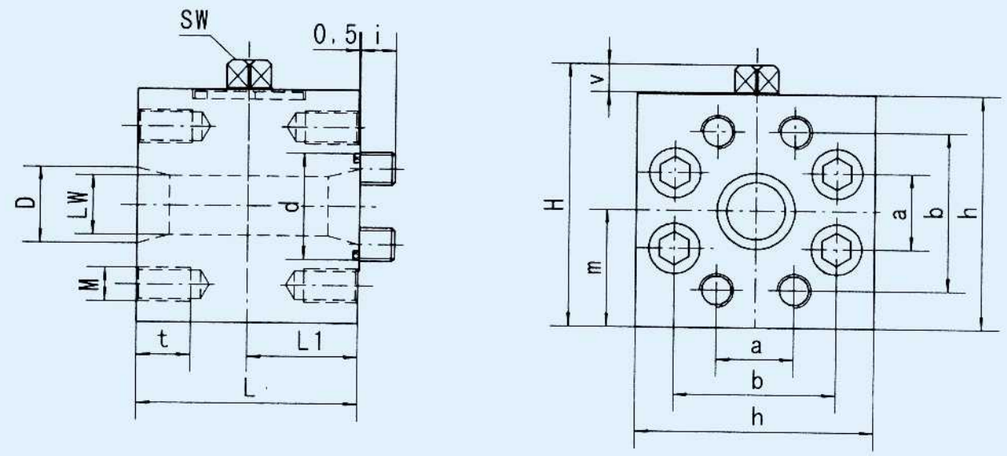
1. How to order

KHZ	DN13	–	SAE420	–	1	1	2	A
(1)	(2)		(3)		(4)	(5)	(6)	(7)

1) Model:KHZ=KHZ series SAE flange ball Valve
2) Nominal diameter:e.g.DN 13
3) Connetion standard & pressure setting:
e.g.SAE420=SAE standard flange,PN420 bar
4) Block and connection material:1=Carbon steel
4=Stainless steel 304
5) Ball & stem material:1=Carbon steel 4=Stainless steel 304
6) Ball seat material:2=POM 4=PTFE
7) Block & connection seal:A=NBR 8=FPM(Vtion)

PN=420bar Tmax.=100℃

2.Dimensions



Model	DN	PN	LW	D	d	L	L1	H	h	h1
KHZ-DN13-SAE-420	13	420	13	13	25	68	34	67	58	60
KHZ-DN20-SAE-420	20	420	20	20	32	70	35	88.5	75	75
KHZ-DN25-SAE-420	25	420	25	25	40	78	39	95.5	82	82
KHZ-DN32-SAE-420	32	420	25	32	45	90	45	110.5	98	98
KHZ-DN40-SAE-420	40	420	30	39	55	99	49.5	131.5	116	116
KHZ-DN50-SAE-420	50	420	38	49	65	120	60	153.5	138	138

Model	a	b	M	m	t	i	V	SW	Screw Nail
KHZ-DN13-SAE-420	18.2	40.5	M8	29	15	11	8	9	M8×70
KHZ-DN20-SAE-420	23.8	50.8	M10	37.5	17	12	12	14	M10×80
KHZ-DN25-SAE-420	27.8	57.2	M12	42	21	14.5	12	14	M12×80
KHZ-DN32-SAE-420	31.8	66.6	M14	49	22	14.5	12	14	M14×90
KHZ-DN40-SAE-420	36.5	79.3	M16	58	26	18	14	17	M16×100
KHZ-DN50-SAE-420	44.5	96.8	M20	69	34	21	14	17	M20×130

3-Way Ball Valves with SAE- flange

1. How to order

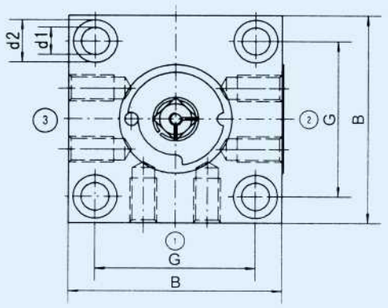
KH3K	DN13	–	SAE420	–	1	1	2	A	L
(1)	(2)		(3)		(4)	(5)	(6)	(7)	(8)

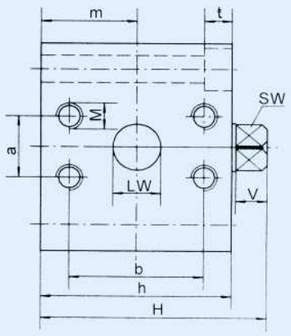
(1) Model: KH3K = KH3K series SAE flange 3 way ball valve
(2) Nominal diameter: e.g. DN 13
(3) Connection standard & pressure setting:
e.g. SAE420 = SAE standard flange, PN 420 bar
(4) Block and connection material: 1 = Carbon steel
4 = Stainless steel 304
(5) Ball 8c stem material: 1 = Carbon steel
4 = Stainless steel 304
(6) Ball seat material: 2 = POM 4 = PTFE
(7) Block 8c connection seal: A = NBR 8 = FPM (Viton)
(8) Porting pattern: L type (see left chart)

PN=420bar Tmax.=100℃

连接尺寸

2.Dimensions





Model	DN	PN	LW	B	H	h	m	SW
KH3K-DN13-SAE420	13	420	13	60	67	58	29	9
KH3K-DN20-SAE420	20	420	20	80	88.5	75	37.5	14
KH3K-DN25-SAE420	25	420	25	94	95.5	82	42	14
KH3K-DN32-SAE420	32	420	30	100	117	100	50.5	17
KH3K-DN40-SAE420	40	420	38	110	127.5	112	55	17
KH3K-DN50-SAE420	50	420	48	135	150.5	135	67.5	17

Model	v	a	b	M	G	d1	d2	t
KH3K-DN13-SAE420	8	18.2	40.5	M8	43	8.5	13.5	9
KH3K-DN20-SAE420	12	23.8	50.8	M10	60	10.5	16.5	11
KH3K-DN25-SAE420	12	27.8	57.2	M12	70	10.5	16.5	11
KH3K-DN32-SAE420	14	31.8	66.6	M14	76	13	19	13
KH3K-DN40-SAE420	14	36.5	79.4	M16	84	13	19	13
KH3K-DN50-SAE420	14	44.5	96.8	M20	108	13	19	13

Note: (1) DN=mm;
(7) PN=bar;

KHB HYDRAULIC COMPONENT FACTORY

BKH-SAE-FS & MKH-SAE-FS Ball Valves with SAE- flange

1. How to order

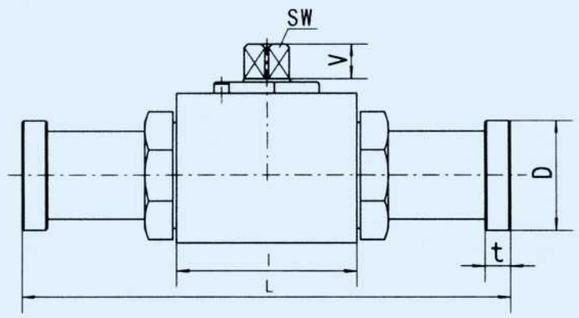
BKH–SAE–FS MKH–SAE–FS

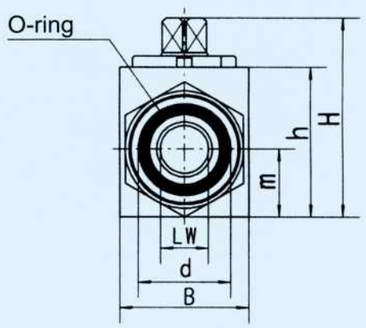
BKH-SAE-FS	–	210	13	–	1	1	2	3
(1)		(2)	(3)		(4)	(5)	(6)	(7)

(1) Model: BKH-SAE-FS = Square body DN 13 - DN 25
MKH-SAE-FS = Eight-square body DN 32 - DN 50
(2) Pressure setting: 210 = 210 bar
(3) Nominal diameter: 13 = DN 13
(4) Block and flange material: 1 = Carbon steel (BKH-SAE-FS)
2 = Carbon steel (MKH-SAE-FS)
(5) Ball & stem material: 1 = Carbon steel
4 = Stainless steel 304
(6) Ball seat material: 2 = POM 4 = PTFE
(7) Connection & stem seal: 3 = NBR 5 = FPM (viton)

2.Dimensions

1.BKH-SAE-FS





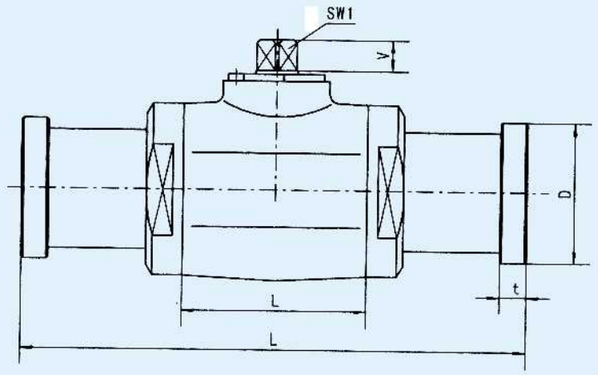
210bar(3000psi)														
Model	DN	PN	LW	L	l	B	H	h	m	V	SW	d	D	t
BKH-SAE-FS-210	13	210	13	151	48	35	52.5	40	17	8	9	25.5	30.2	6.8
BKH-SAE-FS-210	20	210	19	162	60	48	75	57	24	12	14	31.9	38.1	6.8
BKH-SAE-FS-210	25	210	25	178	64	57	82	64	28.5	12	14	39.8	44.4	8.1

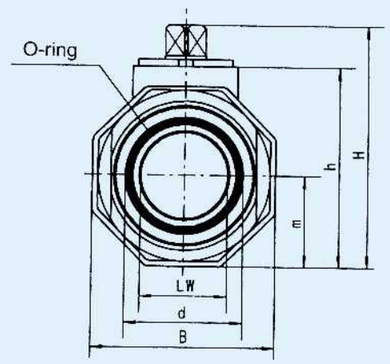
420bar(6000psi)														
Model	DN	PN	LW	L	l	B	H	h	m	V	SW	d	D	t
BKH-SAE-FS-420	13	420	13	151	48	35	52.5	40	17	8	9	25.5	31.8	7.9
8KH-SAE-FS-420	20	315	19	174	60	48	75	57	24	12	14	31.9	41.8	8.9
BKH-SAE-FS-420	25	315	25	198	64	57	82	64	28.5	12	14	39.8	47.6	9.6

Note:(1) DN=mm
(2) PN=bar

2.Dimensions

2.MKH-SAE-FS





210bar(3000psi)														
Model	DN	PN	LW	L	l	B	H	h	m	V	SW	d	D	t
MKH-SAE-FS-210	32	210	30	191	84	75	104.5	84	37.5	14	17	44.5	50.8	8.1
MKH-SAE-FS-210	40	210	38	231	91	85	115.5	95	42.5	14	17	54.1	60.3	8.1
MKH-SAE-FS-210	50	210	48	232	100	105	133	112.5	52.5	14	17	63.6	71.4	9.6

420bar(6000psi)														
Model	DN	PN	LW	L	l	B	H	h	m	V	SW	d	D	t
MKH-SAE-FS-420	32	350	30	223	84	75	104.5	84	37.5	14	17	44.5	54	10.4
MKH-SAE-FS-420	40	350	38	281	91	85	115.5	95	42.5	14	17	54.1	63.5	12.7
MKH-SAE-FS-420	50	350	48	316	100	105	133	112.5	52.5	14	17	63.6	79.4	12.7

Note:(1) DN=mm
(2) PN=bar

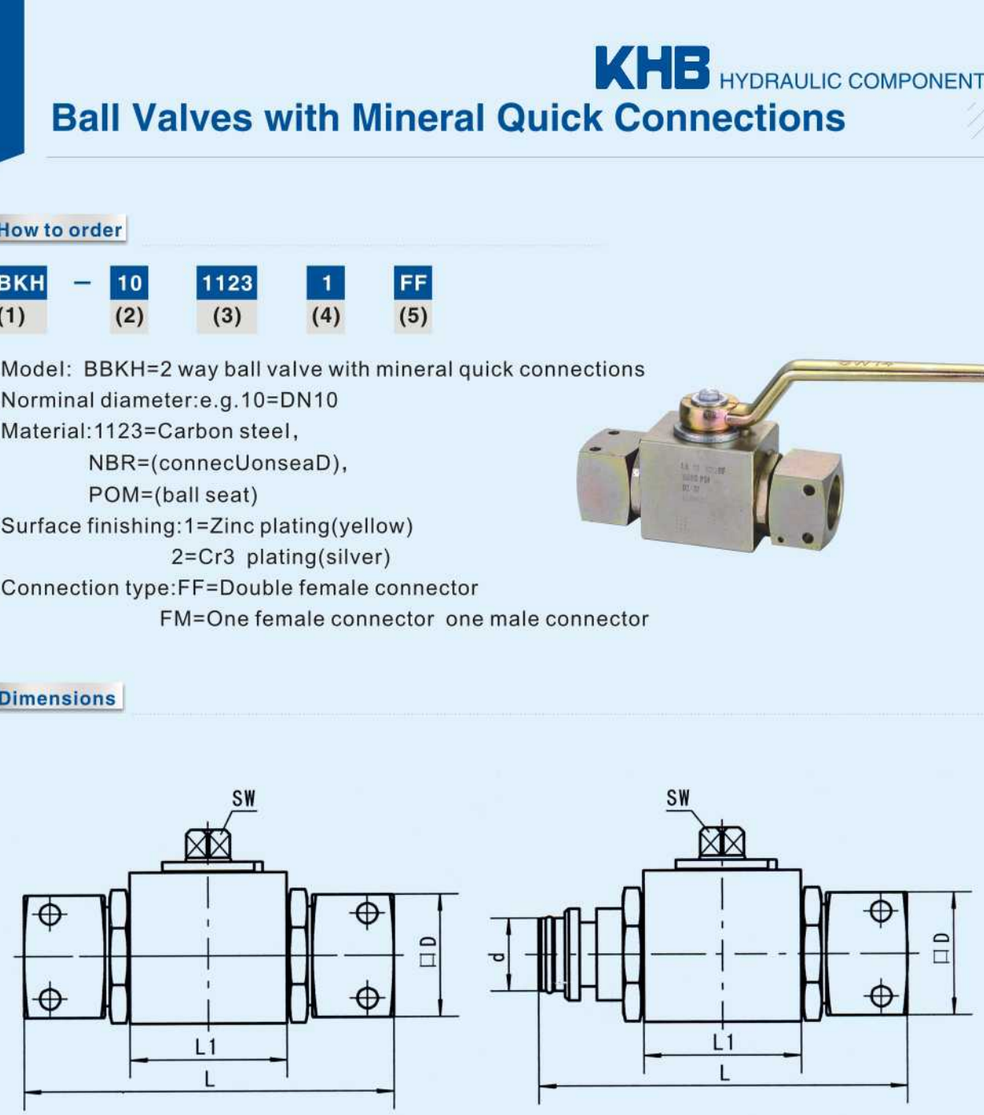
KHB HYDRAULIC COMPONENT FACTORY

1. How to order

BBKH	–	10	1123	1	FF
(1)		(2)	(3)	(4)	(5)

1) Model: BBKH=2 way ball valve with mineral quick connections
2) Norminal diameter:e.g.10=DN10
3) Material:1123=Carbon steel,
NBR=(connecUonseaD),
POM=(ball seat)
4) Surface finishing:1=Zinc plating(yellow)
2=Cr3 plating(silver)
5) Connection type:FF=Double female connector
FM=One female connector one male connector

2.Dimensions



Model	DN	PN(bar)	L	L1	D	d	SW
BBKH-10-1123-1-FF	10	500	113	42	30	-	9
BBKH-10-1123-1-FM						14	
BBKH-13-1123-1-FF	13	500	118	48	35	-	9
BBKH-13-1123-1-FM						18	
BBKH-20-1123-1-FF	20	315	138	60	40	-	14
BBKH-20-1123-1-FM						24	
BBKH-25-1123-1-FF	25	315	151	65	52	-	14
BBKH-25-1123-1-FM						31	

Connections complied with SAE J1467 and DIN 20043

1. How to order

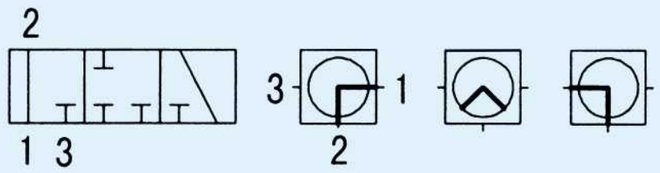
KH3	–	G1/2	–	L	–	1	1	1	2	–	SB01
(1)		(2)		(3)		(4)	(5)	(6)	(7)		(8)

1) MOdel:KH3=3way ball valve
KH4=4way ball valve
2) Thread size or pipe outside diameter:
A=Female thread ISO 228 (see Dimensions)
B=Male thread JB984-77 (see Dimensions)
C=Male thread DIN 2353 light series(see Dimensions)
D=Male thread DIN 2353 heavy series(see Dimensions)
3) Ball Symbol:KH3-L;KH3-T;KH4-L； KH4-T;KH4-X
4) Block & connection material: 1=Carbon Steel
4=Stainless steel
5) Ball & Stem material:1=Carbon steel
4=Stainless steel
6) Ball seat material:1=POM
7) Connection & Stem seal:2=NBR
4=FPM
8) Porting panern type:e.g.SB01(see Porting pattern)

2.Porting Pattern

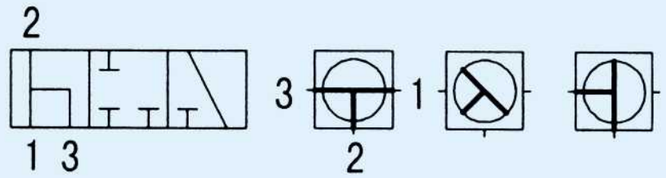
3 way ball valve L type 90° reversing , 45° closure

SB01



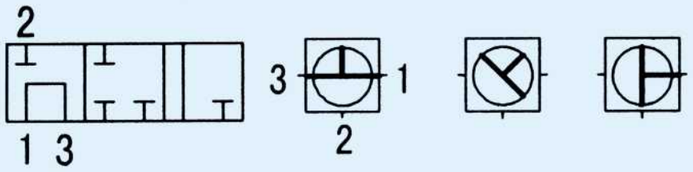
3 way ball valve L type 90° reversing , 45° closure

SB02



3 way ball valve T type 90° reversing

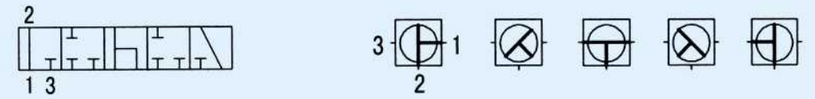
SB03



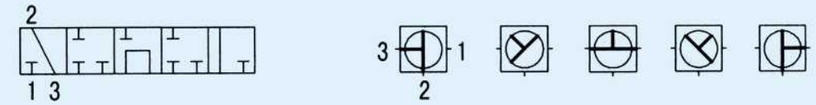
2.Porting Pattern

3 way ball valve T type 180° reversing

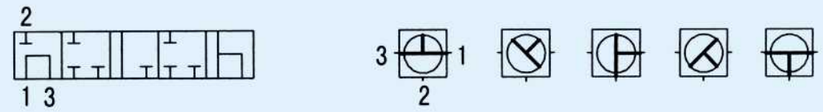
SB04



SB05

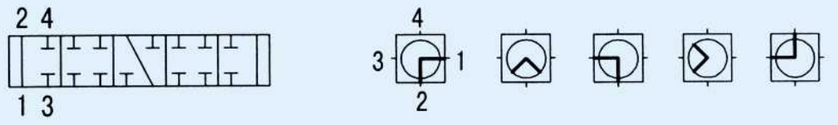


SB06



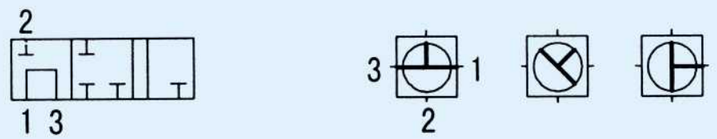
4 way ball valve T type 180° reversing

SB07



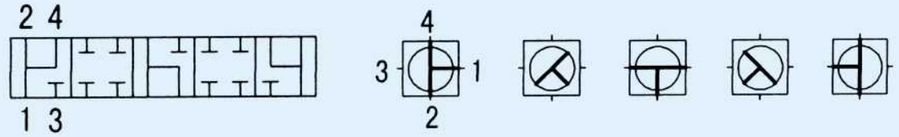
4 way ball valve T type 90° reversing

SB08



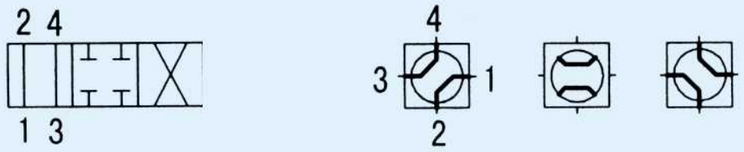
4 way ball valve T type 180° reversing

SB09

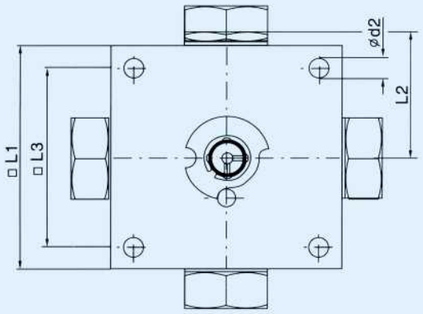


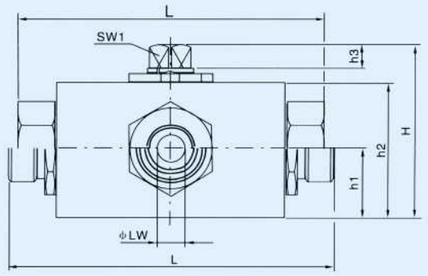
4 way ball valve X type 90° reversing

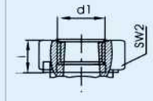
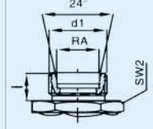
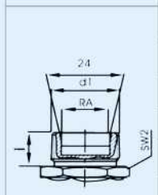
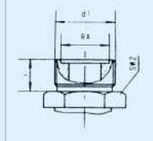
SB010



3.Dimensions





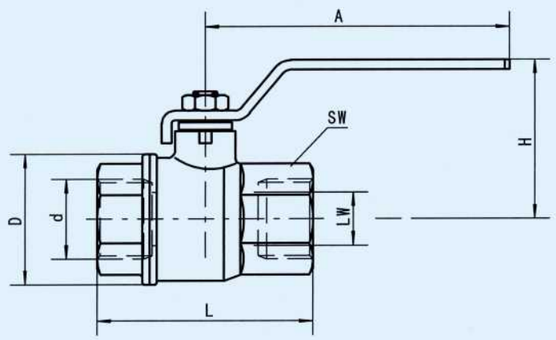
Connections	Model	DN	LW			RA	d1	l	L	L1	L2	L3	H	h1	h2	h3	d2	SW1	SW2
			L	T	X														
	KH3/4-G1/8	04	5	5	4.5	-	G1/8	10	100	70	42.5	55	57.0	22	40	11.0	6.5	12	24
	KH3/4-G1/4	06	5	5	4.5	-	G1/4	14	100	70	42.5	55	57.0	22	40	11.0	6.5	12	24
	KH3/4-G3/8	10	9	9	6	-	G3/8	14	115	80	46	65	67.5	27	50	11.5	6.5	14	30
	KH3/4-G1/2	16	12	12	10	-	G1/2	16	135	100	56	80	77.5	31	60	11.5	9	14	36
	KH3/4-G3/4	20	18	18	14	-	G3/4	18	144	100	58	85	92.0	36	73	11.5	9	17	46
	KH3/4-06LR	04	5	5	4.5	6	M12×1.5	10	105	70	42.5	55	57.0	22	40	11.0	6.5	12	24
	KH3/4-08LR	06	5	5	4.5	8	M14×1.5?	10	105	70	42.5	55	57.0	22	40	11.0	6.5	12	24
	KH3/4-10LR	08	9	9	6	10	M16×1.5	11	114	80	46	65	67.5	27	50	11.5	6.5	14	30
	KH3/4-12LR	10	9	9	6	12	M18×1.5	11	144	80	46	65	67.5	27	50	11.5	6.5	14	30
	KH3/4-15LR	12	12	12	10	15	M22×1.5?	12	136	100	56	80	77.5	31	60	11.5	9	14	36
	KH3/4-18LR	16	12	12	10	18	M26×1.5	12	136	100	56	80	77.5	31	60	11.5	9	14	36
	KH3/4-22LR	20	18	18	14	22	M30×2	14	143	100	58	85	92.0	36	73	11.5	9	17	46
	KH3/4-08SR	04	5	5	4.5	8	M16×1.5?	12	105	70	42.5	55	57.0	22	40	11.0	6.5	12	24
	KH3/4-10SR	06	5	5	4.5	10	M18×1.5	12	105	70	42.5	55	57.0	22	40	11.0	6.5	12	24
	KH3/4-12SR	08	9	9	6	12	M12×1.5	12	116	80	46	65	67.5	27	50	11.5	6.5	14	30
	KH3/4-14SR	10	9	9	6	14	M20×1.5?	14	120	80	46	65	67.5	27	50.	11.5	6.5	14	30
	KH3/4-16SR	12	12	12	10	16	M22×1.5	14	140	100	56	80	77.5	31	60	11.5	9	14	36
	KH3/4-20SR	16	12	12	10	20	M30×2	16	144	100	56	80	77.5	31	60	11.5	9	14	36
	KH3/4-25SR	20	18	18	14	25	M36×2	16	151	100	58	85	92.0	36	73	11.5	9	17	46
	KH3/4-M12×1.25	04	5	5	4.5	8	M12×1.25?	10	105	70	42.5	55	57.0	22	40	11.0	6.5	12	24
	KH3/4-M16×1.5	06	5	5	4.5	11	M16×1.5	11	105	70	46	55	57.0	22	40	11.0	6.5	12	24
	KH3/4-M22×1.5	08	9	9	6	16	M22×1.5	12	116	80	46	65	67.5	27	50	11.5	6.5	14	30
	KH3/4-M27×1.5	10	9	9	6	20	M27×1.5?	16	105	80	46	65	67.5	27	50	11.5	6.5	14	30
	KH3/4-M30×1.5	16	12	12	10	24	M30×1.5	16	134	100	56	80	77.5	31	60	11.5	6.5	14	36
	KH3/4-M36×2	20	18	18	14	30	M36×2	18	135	100	58	85	92.0	36	73	11.5	9	17	46

1. How to order

KHNV	–	N	–	G1/2	–	2233
(1)		(2)		(3)		(4)

1) Model:KHNV=Low pressure ball valve
2) Type:N=Standard type
3) Connection size:e.g.G1/2
4) Material:Block
Connector and stem=Brass with nickle plating
Ball=Brass with Chrome plating
Ball seat=PTFE
Connection seal=NBR or PTFE

2.Dimensions



Model	LW	Pn_{bar}	d	D	L	A	H	SW
KHNVN-G1/4	8	40	G1/4	24	41	80	44	19
KHNVN-G3/8	10	40	G3/8	24	43	80	46	19
KHNVN-G1/2	15	40	G1/2	32	56	98	55	25
KHNVN-G3/4	19	40	G3/4	38	60	98	58	31
KHNVN-G1	25	40	G1	48	73	112	68	38
KHNVN-G1¼	32	30	G1¼	58	84	112	80	48
KHNVN-G1½	40	30	G1½	70	95	138	98	54
KHNVN-G2	50	30	G2	87	112	138	107	65

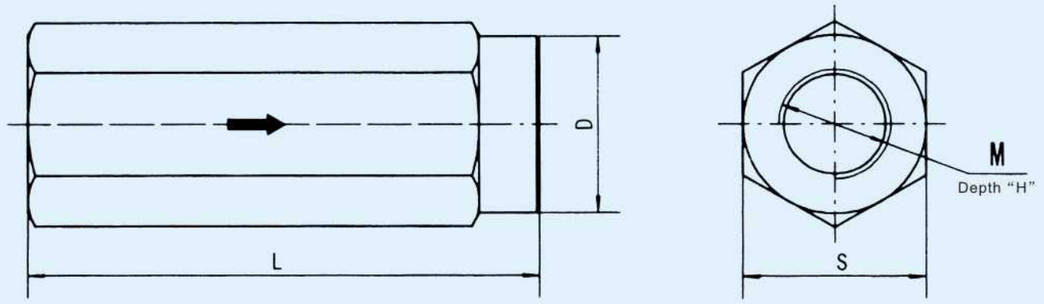
Check Valves

1. How to order

ATR	–	G1/2	–	0.5
(3)		(3)		(3)

(1)Model:AYR=ATR series check valve
(2)Thread size:e.g.G1/2
(3)Cracing point:e.g. 0.5 bar
5 bar

2.Dimensions



Model	DN	PN(bar)	L	D	S	M	H
ATR-G1/4	6	400	62	18.5	19	G1/4	12
ATR-G3/8	10	400	70	23.5	24	G3/8	14
ATR-G1/2	12	350	77	29.5	30	G1/2	16
ATR-G3/4	16	350	90	35.5	36	G3/4	18
ATR-G1	20	350	106	45.5	46	G1	20
ATR-G1-1/4	25	250	130	54.5	55	G1 1/4	22
ATR-G1-1/2	30	250	140	64.5	65	G1 1/2	24
ATR-G2	40	250	160	74.5	75	G2	26

KHB HYDRAULIC COMPONENT FACTORY

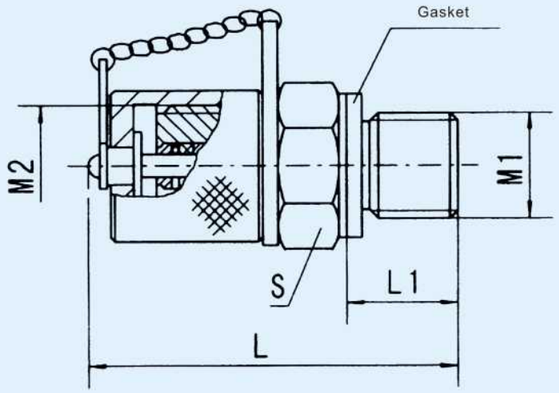
Pressure Testing Adaptor

1.General

The adaptor is connected with pressure testing device and pressure gauges to test the pressure in hydaulic system.

2.Specificatons

(1)Nominal diameter:DN=3mm
(2)Max.Working pressure=400 bar



PT And PPT Series Pressure Testing Adaptor Gasket Seal(without exhausting)

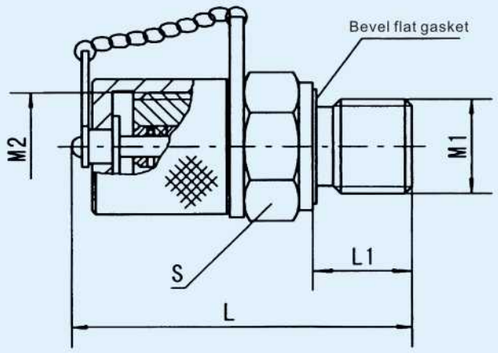
Model	Original Model	M1	M2	L	L1	S	Hose adaptor type
PT-1	PT-00	M10x1	M12x1.25	33	8	17	H1
PT-2	PT-00A1	M10x1	M16	46	10	19	H2
PT-3	PT-00A2/D1-3/M14X1.5	M14x1.5	M16	46	12	19	H2
PT-4	DI-3/M10X1	M10x1	M16	46	10	19	H2
PT-5	DI-3/M12X1.5	M12x1.5	M16	46	12	19	H2
PT-6	DI-3/M18X1.5	M18x1.5	M16	46	12	24	H2
PT-7	DI-3/G1/4	G1/4	M16	46	12	19	H2
PT-8	BZ	M12x1.5	M14x1.5	50	12	17	H3
PT-9	KF-1/M10X1	M10x1	M16x1.5	46	11.5	19	H4
PT-10	KF-1/M12X1.5	M12x1.5	M16x1.5	46	11.5	19	H4
PT-11	KF-1/M14X1.5	M14x1.5	M16x1.5	46	11.5	19	H4
PT-12	KF-1/M18X1.5	M18x1.5	M16x1.5	46	11.5	24	H4

PPT Series Pressure Testing Adaptor (with exhausting)

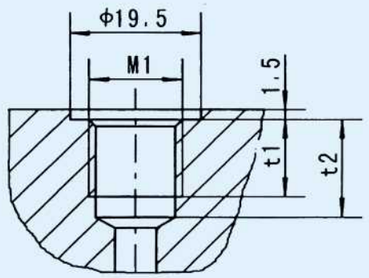
Model	Original Model	M1	M2	L	L1	S	Hose adaptor type
PPT-1	PT1-00	M10x1	M12x1.25	33	10	17	H1
PPT-2	PT1-00A1	M10x1	M16	46	10	19	H2
PPT-3	PT1-00A2	M14x1.5	M16	46	12	19	H2
PPT-5		M12x1.5	M16	46	12	19	H2

Pressure Testing Adaptor

PT series pressure testing adaptor with rectangular gasket(without exhausting)



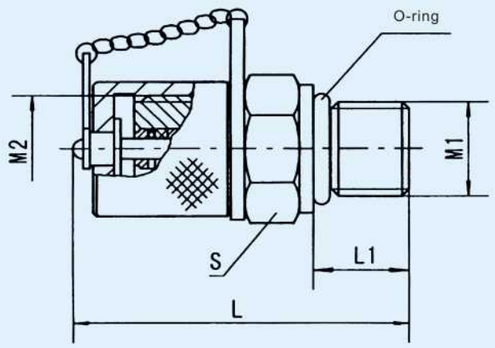
size matched with adaptor



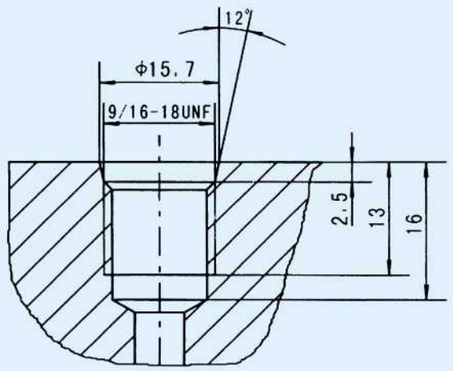
Model	M1	t1	t2
PT-21	M10x1	10	13
PT-22	G1/4	13	16
PT-23	M14x1.5	13	16

Model	M1	M2	L	L1	S	Hose Adaptor type
PT-21	M10x1	M16	46	8	19	H2
PT-22	G1/4	M16	50	12	19	H2
PT-23	M14x1.5	M16	46	12	19	H2

DI series pressure testing adaptor O-ring(without exhausting)



size matched with adaptor



Model	M1	M2	L	L1	S	Hose Adaptor type
DI-3	9/16-18UNF	M16	46	12	19	H2

Hose adaptor type (see page 36)

KHB HYDRAULIC COMPONENT FACTORY

Pressure Testing Hose Assembly

1. How to order

HF	*	*	—	*	*	—	*	P	*
(1)	(2)	(3)		(4)	(5)		(6)	(7)	(8)

(1)Mini high pressure hose adaptor assembly

(2)Connecting type of another end
J:Adjustable fitting
O:Cone seal fitting
H:Quick fitting
P:Direct connect to pressure gauge
K:Tube jam fitting
G:Outor fixed thread
S:Snap-check fitting
E:Outer thread

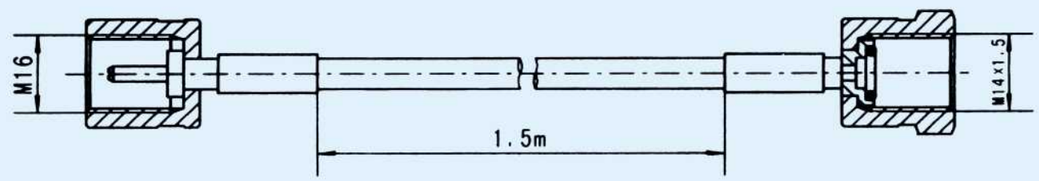
(3)Connecting Thread of another end
J、K、O Type-1:M10x1
2:M14x1.5
P、S Type-1:M14x1.5
2:M20x1.5
3:G1/4
H Type-1:M12x1.5
2:M16
3:M14x1.5
4:M16x1.5
G Type-1:M12x1.5
2:M14x1.5
3:M16x1.5
E Type-1:M14x1.5
2:G1/4

(4)Connecting type of another end
J:Adjustable fitting
O:Cone seal fitting
H:Quick fitting
P:Direct connect to pressure gauge
K:Tube jam fitting
G:Outor fixed thread
S:Snap-check fitting
E:Outer thread

(5)Connecting Thread of another end
J、K、O Type-1:M10x1
2:M14x1.5
P、S Type-1:M14x1.5
2:M20x1.5
3:G1/4
H Type-1:M12x1.5
2:M16
3:M14x1.5
4:M16x1.5
G Type-1:M12x1.5
2:M14x1.5
3:M16x1.5
E Type-1:M14x1.5
2:G1/4

(6)Nor.Dia:2mm;3mm
(7)Pressure Class:40Mpa
(8)Lerght of hose unit

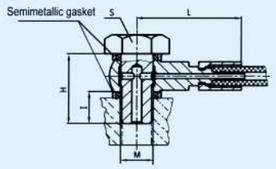
2.Hose assembly



Pressure Testing Hose Assembly

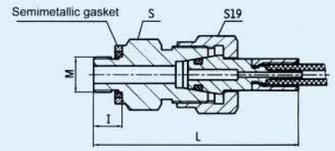
3.Dimensions

3.1 Adjustable fitting:HF J* Unit:mm



J※	M	S	I	H	L	Semimetaillic gasket
J1	M10x1	17	10	22	33	10
J2	M14x1.5	19	14	26	40	14

3.2 Cone seal fitting:HF O* Unit:mm

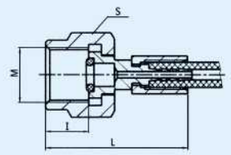


0※	M	I	L	S	Semimetaillic gasket
01	M10x1	8	54	17	10
02	M14x1.5	12	58	19	14

3.3 Quick fitting:HFH * Unit:mm

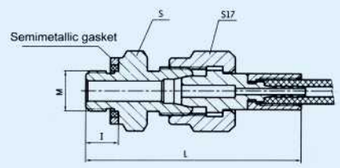
H※	M2	S
H1	M12x1.25	17
H2	M16	19
H3	M14x1.5	17
H4	M16x1.5	19

3.4 Direct connect to pressure gauge:HFP * Unit:mm



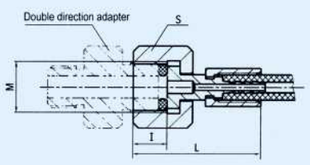
P※	M	S	L	I
P1	M14x1.5	17	34	10
P2	M20x1.5	24	42	18
P3	G1/4	17	34	10
P4	G1/4	27	35	11

3.5 Tube jam fitting:HFK * Unit:mm



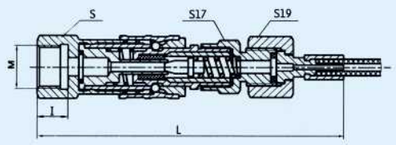
K※	M	I	L	S	Semimetaillic gasket
K1	M10x1	8	51	17	10
K2	M14x1.5	12	55	19	14

3.6 Outer fixed thread:HFG * Unit:mm



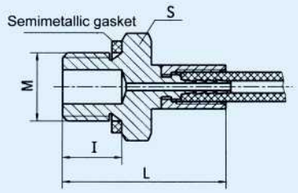
G※	M	S	L	I
G1	M12x1.25	17	8	31
G2	M14x1.5	17	10	33
G3	M16x1.5	19	10	33

3.7 Snap-check fitting:HFS * Unit:mm



S※	M	S	L	I
S1	M14x1.5	12	104	19
S2	M20x1.5	14	106	24
S3	G1/4	12	104	19

3.8 Outer thread HFE * Unit:mm



E※	M	S	L	I
E1	M14x1.5	12	34	19
E2	G1/4	12	34	19

KHB HYDRAULIC COMPONENT FACTORY

Multi-function Inflator

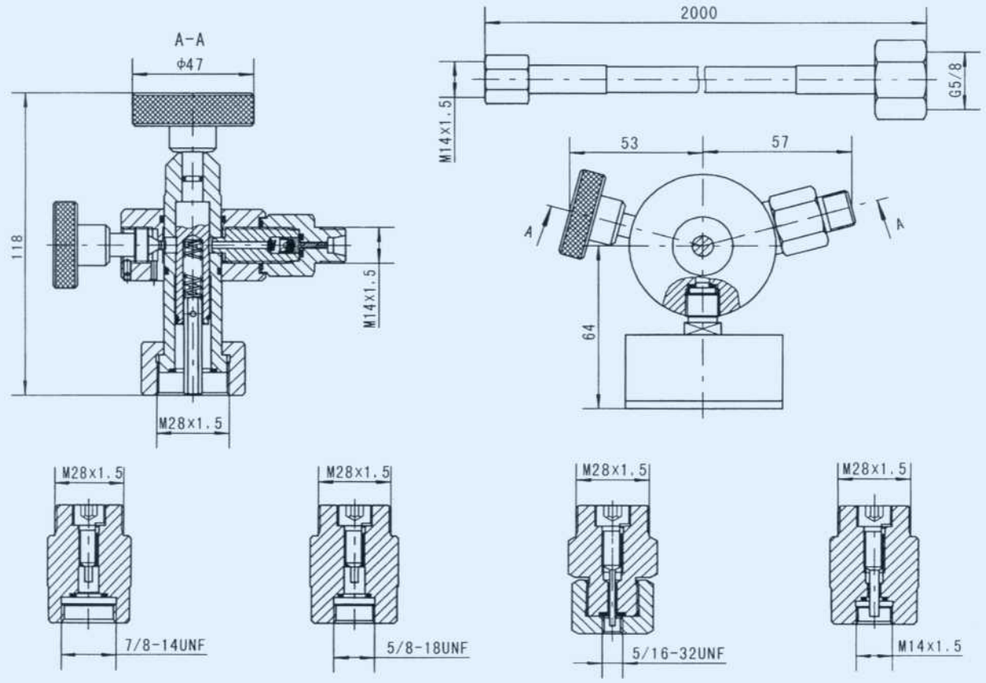
1.General

PFU series multifunctioal inflator is used to accumlator for charging or checking pressure.

2.How To Order

FPU	—	31.5	—	7/8UNF
(1)		(2)		(3)

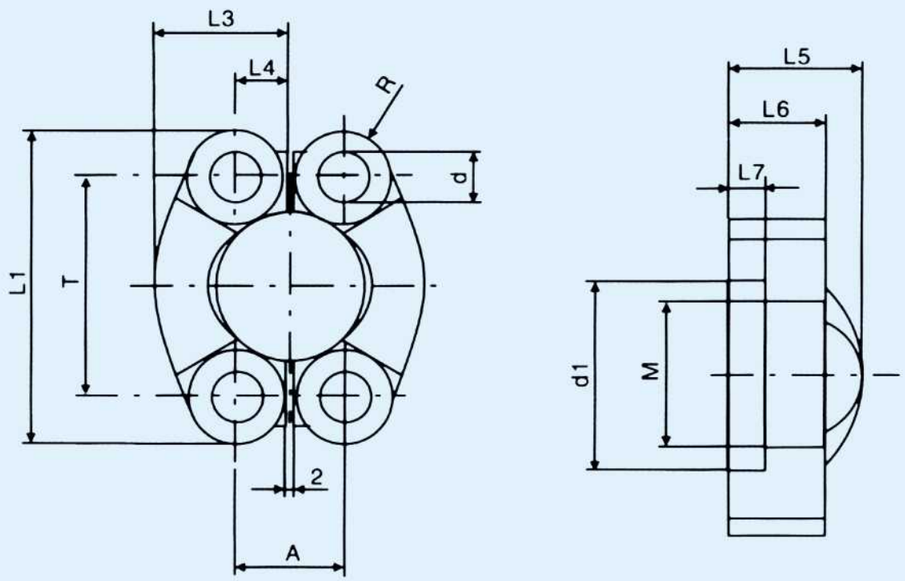
(1) Model: FPU = Multi-function inflator
(2) Pressure setting: eg. 31.5 = 31.5 Mpa
(3) Connection thread to accumulator (see diagram)



	PN (Mpa)	Matched pressure gauge		Hose length	Connection thread to accumulator
		Measure range	Precision rate		
FPU-10	10	0-16	1.5	2000	M28 X 1.5
					M14 X 1.5
FPU-20	20	0-25			5/16UNF
					5/8UNF
FPU-40	31.5	0-40			7/8UNF

Split Flanges

IS06162、SAEJ518Standard split flanges



FL Linght series

Model	DN mm	Size	A	T	M	L1	L3	L4	L5	L6	L7	d	d1	R	Weight/Kg
FL-08	15	1/2"	17.5	38.1	24.3	54	22	8	19	13	6.2	9	31	8	0.20
FL-12	20	3/4"	22.3	47.6	32.3	65	25	10	22	14	6.2	11	38.9	9	0.24
FL-16	25	1"	26.2	52.4	38.5	70	28.5	12	22	14	7.5	11	45.3	9	0.30
FL-20	32	1-1/4"	30.2	58.7	43.7	80	35.5	14	24	16	7.5	11	51.6	10	0.50
FL-24	40	1-1/2"	35.7	69.9	50.8	94	40.5	17	25	16	7.5	13.5	61.1	12	0.66
FL-32	50	2"	42.9	77.8	62.8	102	47.5	20.5	26	16	9	13.5	72.3	12	0.85
FL-40	65	2-1/2"	50.8	88.9	74.9	115	49.5	24.5	38	19	9	13.5	84.9	13	1.26

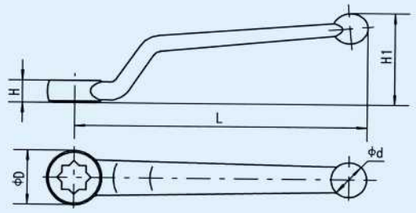
FS Heavy series

Model	DN mm		A	T	M	L1	L3	L4	L5	L6	L7	d	d1	R	Weight/Kg
FS-08	15	1/2"	18.2	40.5	24.6	56	23	8	22	16	7.2	9	32.5	8	0.22
FS-12	20	3/4"	23.8	50.8	32.5	71	29	11	28	19	8.2	11	42	10	0.41
FS-16	25	1"	27.8	57.2	38.8	81	34	13	33	24	9.0	13.5	48.4	12	0.57
FS-20	32	1-1/4"	31.8	66.7	44.5	95	38	15	38	27	9.8	15.5	54.8	14	1.34
FS-24	40	1-1/2"	36.5	79.4	51.6	113	46.5	17	43	30	12	17.5	64.3	17	1.62
FS-32	50	2"	44.5	96.8	67.6	133	56	21	52	37	12	22	80.2	18	3.64

Bolt not supplied with flanges

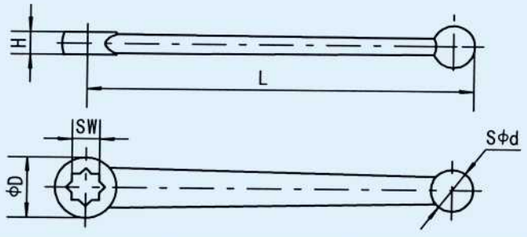
Handle

1、Zina alloy pressurt crank handle（code：04）



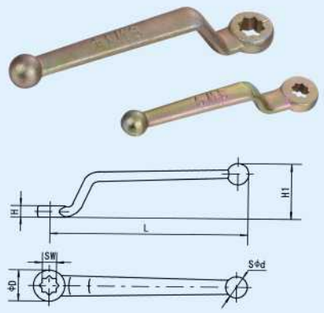
SW	L	H	H1	D	d	Hexboit
9	78	8.5	35	22.5	13	M5x8
9	120	8.5	36	5	15	M5x8
12	155	12	50	28.5	19	M6xl0
14	170	13	55	32	20.5	M6xl0

2、Steel pressure straight handle（code：05）



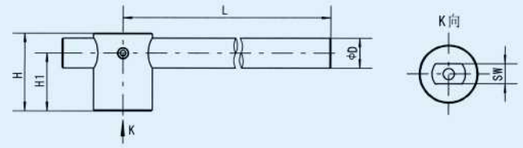
SW	L	H	D	d	Hexboit
9	145	8.5	24	19	M5x20
12	180	12	28	22	M5x25
14	200	13	32	24	M6x25
17	260	15	36	26	M6x30

3、Steel pressure crank handle（code：06）



SW	L	H	H1	D	d	Hexboit	Remark
9	135	8.5	38	26	17	M5x8	
12	165	12	50	31	21	M6x10	
12	165	12	55	31	20	M6x10	For round flange
14	181	13	61	33	22	M6x10	
14	181	13	67	33	22	M6x10	For round flange
17	223	15	75	36	26	M8x12	

4、DN80~DN125 Handle

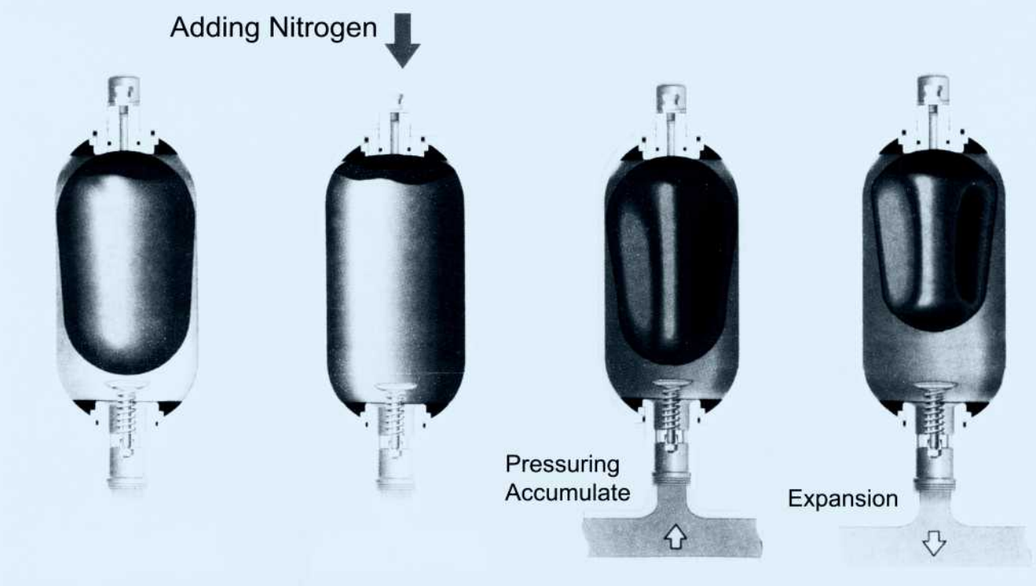


SW	L	H	H1	D	Hexboit	For ball volxe
20	600	78	58	30	M10x20	DN80
24	900	82	61	32	M10x20	DN100
36	900	93	72	32	M12x25	DN125

Bladder Accumlator

1.Mechanism

Inner space of accumulator is divided into two parts by bladder: nitrogen is filled in bladder and hyraulic oil is filled the bladder. When hydraulic oil is pressed into accumulator by hydraulic valve, bladder deform by the pressure. voiume of gas decreases With trie increasing of pressure Hydraulic oil is stored gradually. If hydraulic system nead hydraulic oil to work,accumulator discharge the hydraulic oil and compensate the system energy.



KHB HYDRAULIC COMPONENT FACTORY

ASME Accumulator

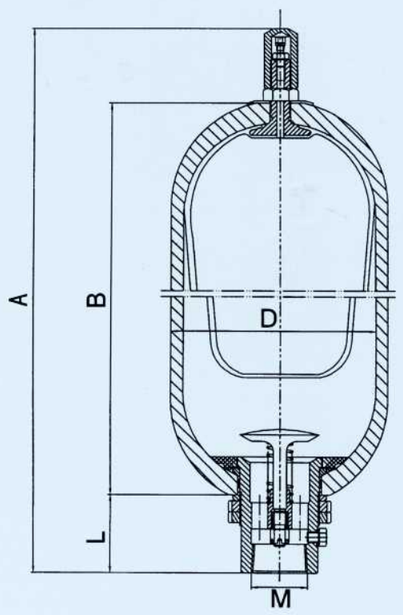
1.How To Order

M	—	B	—	2.5	/	3000
(1)		(2)		(3)		(4)

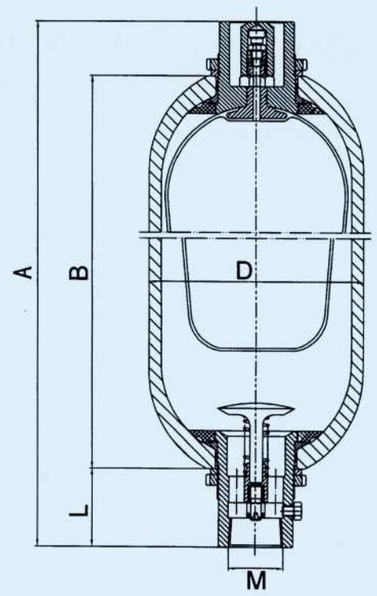
(1) M =ASME standard accumulator
(2) B =Bottom Ropair
T= Top Repair
(3) Nominal Capadty: 25=25gal
(4) Nominal pressure: 3000=3000psi

2. Specification

2.1 Structure:bottom repair structure,top repair stucture.
2.2 Fastening Method:dead ring or bearing.
2.3 Installation :veriical
2.4 Medium:hydraulic oil,emulsion
2.5 Working Temperature:-20℃ -+93℃
2 .6 Gas filled in the bladder:nitrogen.



Bottom Repair Construction



Top Repair Construction

ASME Accumulator

3.Dimensions

Model	Pressure	Volume		Weight		Size				
						D	L	A	B	M
	gal	L	lbs	Psi	kg	mm	mm	mm	mm	NPT
MB0.25/3000	3000	0.25	1	11	5	ϕ114	50	325	195	3/4"
MB1/3000		1	4	32	14.5	ϕ168	60	385	315	1/4"
MB2.5/3000		2.5	10	95	43	ϕ229	87	565	410	2"
MB5/3000		5	19	140	64			865	710	
MB10/3000		10	38	230	104			1435	1280	
MB11/3000		11	42	240	109			1540	1385	
MB14/3000		14	53	276	126			1875	1720	
MB15/3000		15	57	290	132			1985	1830	
MT2.5/3000		2.5	10	95	43			555	410	
MT5/3000		5	19	140	64			855	710	
MT10/3000		10	38	230	104			1425	1280	
MT11/3000		11	42	240	109			1530	1385	
MT14/3000		14	53	276	126			1865	1720	
MT15/3000		15	57	290	132			1975	1830	
MB0.25/5000	5000	0.25	1	12	5.5	ϕ114	50	325	195	3/4"
MB1/5000		1	4	44	20	ϕ168	60	385	315	1/4"
MB2.5/5000		2.5	10	128	58	ϕ232	87	555	400	2"
MB5/5000		5	19	185	84			860	700	
MB10/5000		10	38	300	136			1450	1295	
MB11/5000		11	42	322	146			1570	1415	
MB14/5000		14	53	392	178			1935	1780	
MB15/5000		15	57	414	188			2055	1900	
MT2.5/5000		2.5	10	128	58			545	400	
MT5/5000		5	19	185	84			845	700	
MT10/5000		10	38	300	136			1440	1295	
MT11/5000		11	42	322	146			1560	1415	
MT14/5000		14	53	392	178			1325	1780	
MT15/5000		15	27	414	188			2045	1900	

KHB HYDRAULIC COMPONENT FACTORY

PED(CE marking) Accumulator

1.How To Order

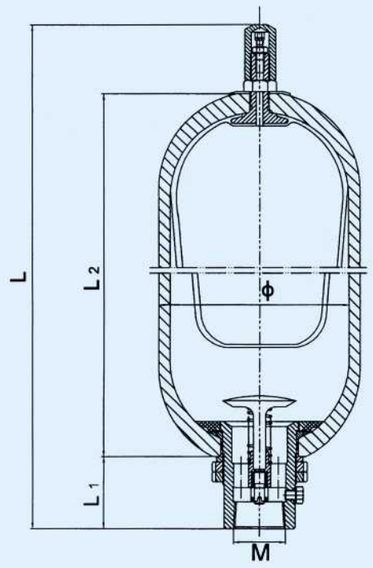
Interpretation of designation PED(CE marking)

PED (1) — 50 (2) / 345 (3)

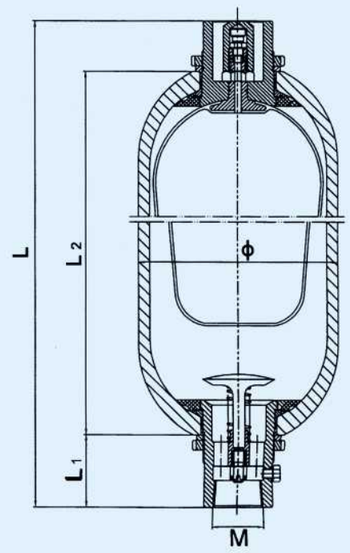
(1) PED =CE standard accumulator
(2) Nominal Capacity: 50=50L
(3) Nominal pressure: 345=345 bar

2. Specification

2.1 Structure:bottom repair structure,top repair stucture.
2.2 Fastening Method:dead ring or bearing.
2.3 Installation :veriical
2.4 Medium:hydraulic oil,emulsion
2.5 Working Temperature:-20℃-+93℃
2 .6 Gas filled in the bladder:nitrogen.



Bottom Repair Construction



Top Repair Construction

PED(CE marking) Accumulator

3.Dimensions

Model	Nominal Pressure (bar)	Nominal Capacity (L)	Weight (kg)	Size(mm)				
				ϕ	L1	L2	L	M
PED1/34.5	345	1	5.5	ϕ114	47	197	302	G3/4
PED1/34.5		2.5	10			427	532	
PED4/34.5		4	17	ϕ168	63	307	428	G1 1/4
PED6/34.5		6	21			437	558	
PED10/34.5		10	37	ϕ229	86	427	571	G2
PED15/34.5		15	49			582	725	
PED20/34.5		20	61			737	881	
PED24/34.5		24	70			857	1001	
PED32/34.5		30	87			1107	1251	
PED40/34.5		40	105			1354	1498	
PED50/34.5		50	117			1663	1807	