

HAM-LET BELLOWS VALVES



STAINLESS STEEL BELLOWS VALVES

The HAM-LET HBV series is a stainless steel bellows-protected needle valve.

The stainless steel bellows seals the wetted area from the external atmosphere and protects the threaded stem from corrosive media.

The BV series is a miniature bellows valve with body made of 316 L.

The orifice diameter varies from 4.5 through 12 mm.

The K series is a cast-body bellows valve for high-flow applications.

The orifice size varies from 8 through 40 mm.

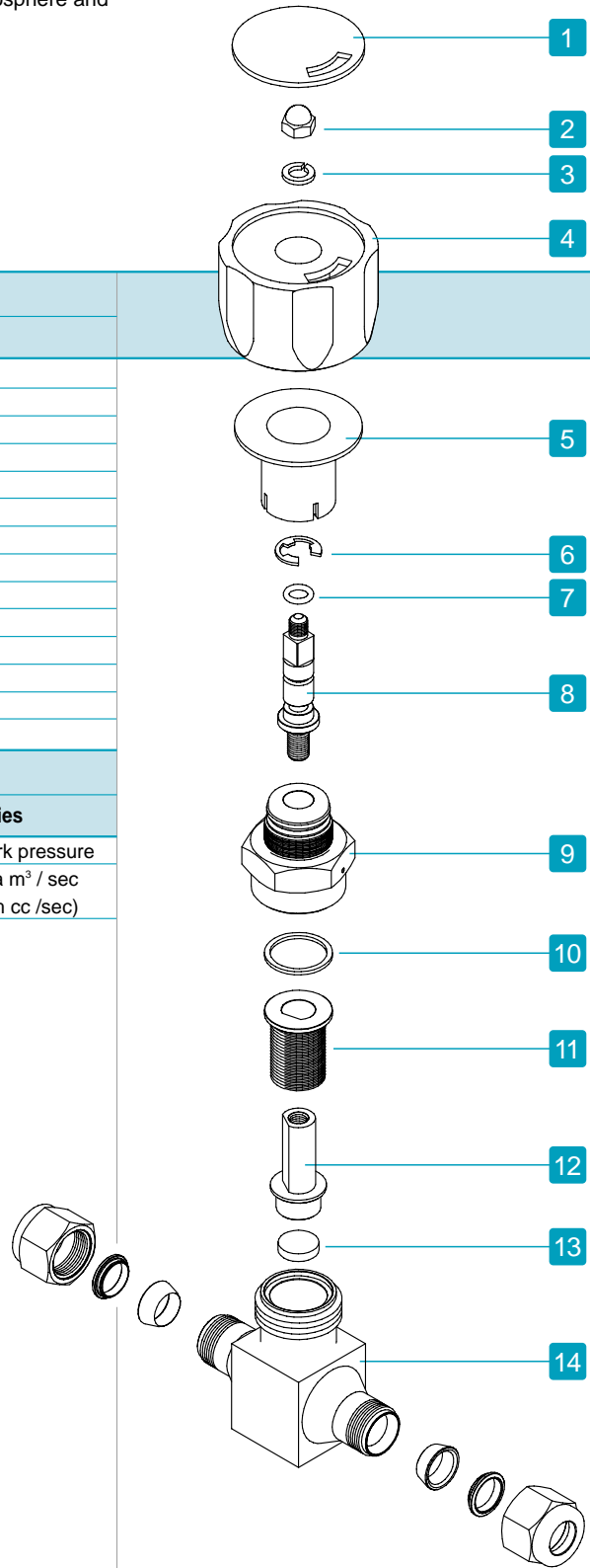
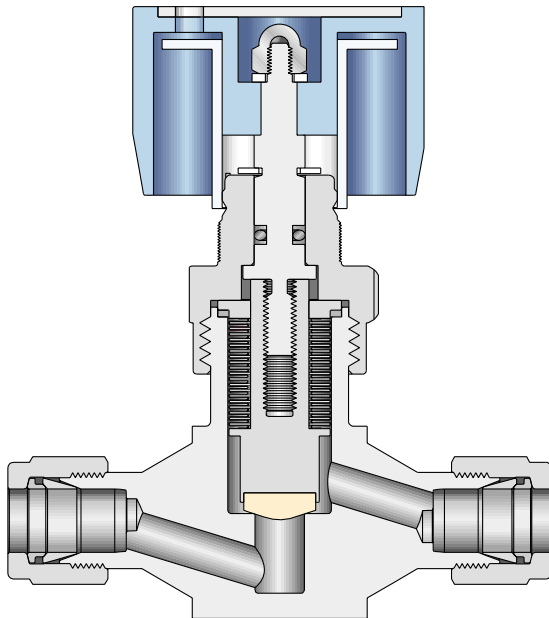
MATERIALS OF CONSTRUCTION

No.	Part	Qty	Material
1	Handle Cover	1	Nylon
2	Stem Nut	1	St. St. 304
3	Locking Washer	1	St. St. 304
4	Handle	1	Nylon (Aluminium k series)
5	Position Indicator	1	Nylon
6	Stem Locking Ring	1	St. St. 304
7	O-ring	1	Viton® (fluorocarbon kfm)
8	Actuator	1	St. St. 316L
9	Bonnet	1	St. St. 304
10	Bonnet Gasket	1	PCTFE / St. St. 316L
11	Bellows	1	St. St. 316L
12	Stem	1	St. St. 316L
13	Stem Tip	1	PCTFE / (PTFE k series)
14	Body	1	St. St. 316L (cast 316 k series)

SPECIFICATIONS

	Bv Series	K Series
Pressure Test	1.5 X Max work pressure	1.5 X Max work pressure
Helium Leak	< 1 X 10 ⁻¹⁰ pa m ³ / sec (1 X 10 ⁻⁹ Atm cc /sec)	< 1 X 10 ⁻⁶ pa m ³ / sec (1 X 10 ⁻⁵ Atm cc /sec)

TYPICAL CONSTRUCTION (BV)



BV-M-SS TYPE

BV-GF-SS TYPE

BV series is the HBV miniature bellows valve.

The valve body is machined from 316 L.

Four basic connection types are available:

Face-Seal, LET-LOK®, standard Union and Welded Type.



TECHNICAL DATA								
Size	Temperature °C	Working Pressure MPa (Kg/Cm2G)	Orifice Diameter (mm)		Cv Flow Coefficient			
4BV	-10° ~ 100° 15-210°F 150 psi	Vacuum ~ 1.0 (10)	4.5		0.36			
6BV			7.0		1.1			
8BV			12		1.6			
12BV								
HTC® (MALE TYPE) M								
Description	Type	Size	H1	H2	L	D	W	C
HBV4-K-SS-M-K	Face Seal	3/4"	64	14	58	40	25	23
HBV8-K-SS-M-K		1/2"	71	16	60			
HBV12-K-SS-M-K		3/4"	102	22	125			
HTC® (FEMALE TYPE) GF								
Description	Type	Size	H1	H2	L	D	W	C
HBV4-K-SS-GF-K	Face Seal	1/4"	64	14	58	40	25	23
HBV8-K-SS-GF-K		1/2"	71		60			
HBV12-K-SS-GF-K		3/4"	102		125			

BV-L-SS TYPE

BV-BW-SS TYPE

BV series is the HBV miniature bellows valve. The valve body is machined from 316 L. Four basic connection types are available: Face-Seal, LET-LOK®, Standard Union and Welded Type.



TECHNICAL DATA									
Size	Temperature °C	Working Pressure MPa (Kg/Cm2G)	Orifice Diameter (mm)	Cv Flow Coefficient					
4BV	-10° ~ 100° 15 ~ 210°F	Vacuum ~ 1.0 (10) 150 psi	4.5	0.36					
6BV			7.0	1.1					
8BV			12	1.6					
12BV			12	1.6					
LET-LOK® TYPE									
Description	Type	Size	øD	H	H2	L	T	W	L1
HBV4-K-SS-L-K	LET-LOK®	1/4"	6.35	64	14	65.0	40	25	15.2
HBV6-K-SS-L-K		3/8"	9.53	82.0		16.8			
HBV8-K-SS-L-K		1/2"	12.7	87.0		22.9			
HBV12-K-SS-L-K		3/4"	19.05	102		22			101.0
BUTTWELD									
Description	Type	Size	øD	H	H2	L	T	W	C
HBV4-K-SS-BW-K	BUTT WELD	1/4"	6.35	64	14	150	40	25	23
HBV6-K-SS-BW-K		3/8"	9.53						
HBV8-K-SS-BW-K		1/2"	12.7						
HBV12-K-SS-BW-K		3/4"	19.05	106					

LET-LOK
Butt weld

L-K

2 x M5 TAPPED HOLES
8 DEEP

BV-UN-SS TYPE

BV series is the HBV miniature bellows valve.

The valve body is machined from 316 L.

Four basic connection types are available:

Face-Seal, LET-LOK®, Standard Union and Welded Type.

[illegible]

KB LINE

316 STAINLESS STEEL / SB-ISS / 10K - CAST

KB and KBA are the standard HBV bellows-valve series. The valve body is cast 316 St.St. Manual and air operated shutoff mechanisms are available. Three basic connection types are available: Standard Union, Flange Type and Tube Ends for welding.



TECHNICAL DATA

Model	Connection Size	Orifice Diam (mm)	Cv	Temperature (°C)	Working Pressure MPa (Kg/Cm2G)	Weight (Kg)
KBA-10	8A	8	1.57	-10° ~ 100° 15 ~ 210°F	Vacuum ~ 1.0 (10) (150 psi)	0.93
	10A	9	1.65			1.3
	15A	12	2.86			1.5
	20A	15	4.1			2.2
	25A	20	6.88			3.2

UNION TYPE

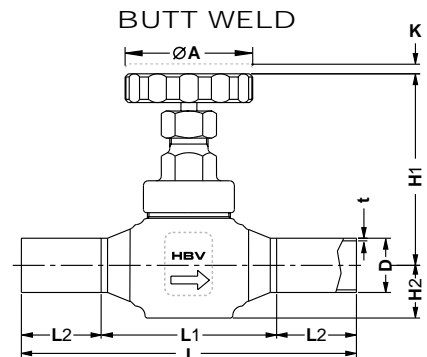
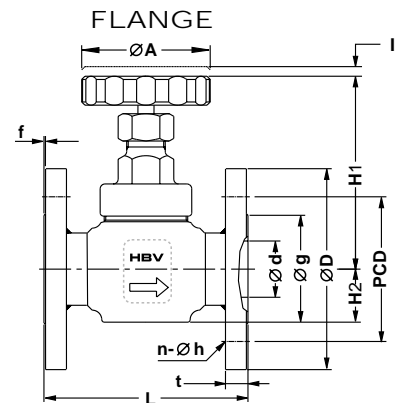
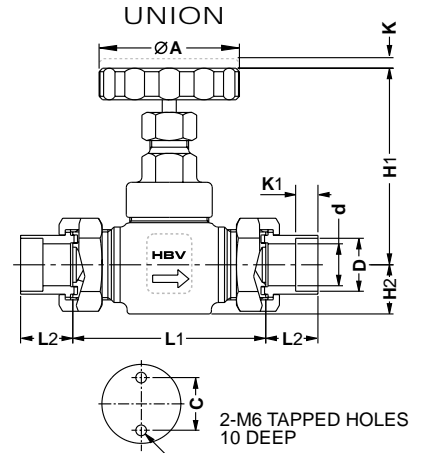
Description	Model	Size	d	D	L1	L2	H1	H2	K	K1	A	C
HKB-10A-K-U	KB-10U (U) Type	10A	10	17.8	90	30	101	20	4	10	60	30
HKB-15A-K-U		15A	15	22.2	100	35	101	24	4	15	60	30
HKB-20A-K-U		20A	20	27.2	110	35	108	28	5	15	63	35
HKB-25A-K-U		25A	25	34.5	120	35	120	33	6	15	80	40

FLANGE TYPE

Description	Model	Size	d	D	g	L	PCD	f	t	n-h	H1	H2	K	A	C
HKB-15A-K-F	KB-10F (F) Type	15A	24	95	51	108	70	1	12	4-15	101	24	4	60	30
HKB-20A-K-F		20A	28	100	56	117	75	1	14	4-15	108	28	5	63	35
HKB-25A-K-F		25A	35	125	67	127	90	1	14	4-19	120	33	6	80	40

BUTTWELD TYPE (Sch5s)

Description	Model	Size	D	L	L1	L2	H1	H2	A	t	K	C
HKB-15A-K-BW	KB-10W (W) Type	15A	21.7	190	90	50	101	24	60	1.65	4	30
HKB-20A-K-BW		20A	27.2	200	100	50	108	28	63	1.65	5	35
HKB-25A-K-BW		25A	34.0	210	110	50	120	33	80	1.65	6	40



KBA LINE

AIR-OPERATED 316 STAINLESS CAST STEEL

KBA is the standard HBV bellows-valve series. The valve body is cast 316 St.St. with air-operated shutoff mechanism.

Three basic connection types are available: Standard Union, Flange Type and Tube Ends for welding.



TECHNICAL DATA															
Model	Connection Size	Orifice Diam (mm)	Cv		Temperature (°C)		Working Pressure MPa (Kg/Cm2G)		Weight (Kg)						
KBA-10	8A	8	1.57		-10° ~ 100° 15 ~ 210°F	Vacuum ~1.0 (10) 150 psi	-								
	10A	9	1.65				4.5								
	15A	12	2.86				4.5								
	20A	15	4.1				8								
	25A	20	6.88				10								
UNION TYPE															
Description	Model	Size	d	D	L1	L2	H1	H2	K	K1	A	C			
HKBA-10A-K-U	KB-10U (U) Type	10A	10	17.8	90	30	101	20	4	10	60	30			
HKBA-15A-K-U		15A	15	22.2	100	35	101	24	4	15	60	30			
HKBA-20A-K-U		20A	20	27.2	110	35	108	28	5	15	63	35			
HKBA-25A-K-U		25A	25	34.5	120	35	120	33	6	15	80	40			
FLANGE TYPE															
Description	Model	Size	d	D	g	L	PCD	f	t	n-h	H1	H2	K	A	C
HKBA-15A-K-F	KB-10F (F) Type	15A	24	95	51	108	70	1	12	4-15	101	24	4	60	30
HKBA-20A-K-F		20A	28	100	56	117	75	1	14	4-15	108	28	5	63	35
HKBA-25A-K-F		25A	35	125	67	127	90	1	14	4-19	120	33	6	80	40
BUTTWELD TYPE (Sch5s)															
Description	Model	Size	D	L	L1	L2	H1	H2	A	t	K	C			
HKBA-15A-K-BW	KB-10W (W) Type	15A	21.7	190	90	50	101	24	60	1.65	4	30			
HKBA-20A-K-BW		20A	27.2	200	100	50	108	28	63	1.65	5	35			
HKBA-25A-K-BW		25A	34.0	210	110	50	120	33	80	1.65	6	40			

UNION

FLANGE

BUTT WELD

2-M6 TAPPED HOLES
10 DEEP

KF LINE

316 STAINLESS STEEL / SB-ISS / FORGED

KF is the standard HBV bellows-valve series. The valve body is forged 316 St.St. and has a manually operated shutoff mechanism.

Two basic connection types are available: Flange Type and Tube Ends for welding.



TECHNICAL DATA

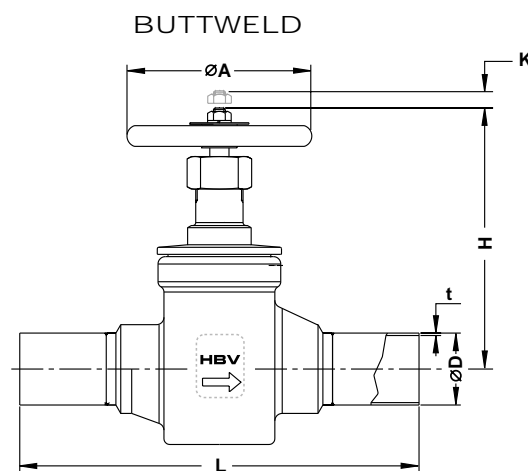
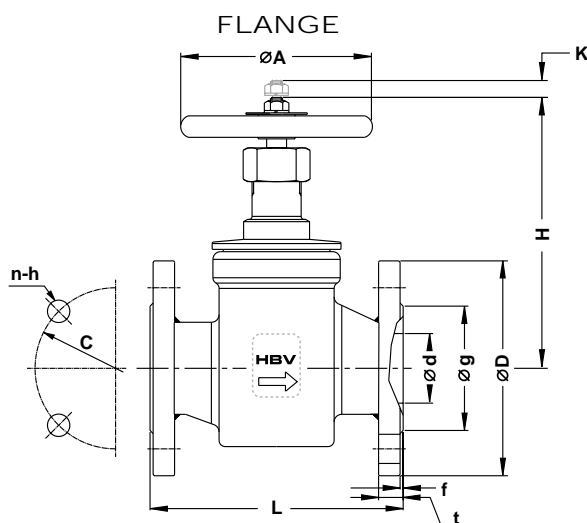
Model	Connection Size	Orifice Size (mm)	CV Flow Coefficient	Temperature (°C)	Working Pressure
KF-10	8A	10	1.8	-10° ~ 100° 15 ~ 210°F	VAC ~ 1.0 MPa (10Kgr/CM²G) 150 psi
	10A	15	3.0		
	20A	20	4.6		
	25A	25	7.5		
	32A	32	12		
	40A	40	16		
	50A	50	21		

FLANGE TYPE

Description	Model	Size	d	L	D	C	g	n-h	t	f	H	K	A
HKF-32A-K-F	KF-10F Type	32A	32	165	135	100	76	4-19	16	2	177	11	125
HKF-40A-K-F		40A	40	165	140	105	81	4-19	16	2	177	13	125
HKF-50A-K-F		50A	50	203	155	120	96	4-19	16	2	218	15	125

BUTTWELD TYPE (Sch5s)

Description	Model	Size	D	t	L	H	K	A
HKF-32A-K-BW	KF-10W Type	32A	42.7	1.65	270	177	11	125
HKF-40A-K-BW		40A	48.6	1.65	270	177	11	125
HKF-50A-K-BW		50A	60.5	1.65	295	218	15	125



ORDERING INFORMATION

BV SERIES

HBV

4

K

SS

BW

K

EP

Type	Size	Sealing Disk	Body Material	End Connection	Bonnet Gasket	Option
	4 - 1/4" 6 - 3/8" 8 - 1/2" 12 - 3/4"	K - PCTFE *(KEL-F®) P - PCTFE	SS - 316L B - Brass MO - Monel	BW - Butt weld GF - Female face seal swivel M - Male face seal L - LET-LOK® U - Union	K - PCTFE SS - St.St. 316L	EP - Electro Polished

K SERIES

HK - B

8

-

A

-

K

U

EP

NC

Type	Size	Sealing Disk	End Connection	Option	Option*
B - Cast F - Forged BA - Cast Air Operated	8 10 15 20 25 32 40 50	K - PCTFE P - PTFE	U - Union B - Buttweld F - Flange	EP - Electro Polished BA - Buffing	NC - Normally Closed NC - Normally Open * Only for HKBA type

STANDARD PRODUCTS TABLE

	Size								Connection			Body Material
	8A	10A	15A	20A	25A	32A	40A	50A	Union	Buttweld	Flange	
KBA	○	○	○	○	○				○	○	○	St.St. 316 L Custing
KF		●	●	●	●	○	○	○		○	●	St.St. 316 L Forging

Key: ○ STD size ● Special

* Trademark of Dupont