

Screwed Bonnet Type Needle Valves

◆ K-LOK JOINT

Materials of Construction

NO	PARTS	MATERIALS		
		304SS	316SS	BRASS
1	BODY	304SS	316SS	BRASS
2	FERRULE NUT	316SS		BRASS
3	FRONT FERRULE			
4	BACK FERRULE			
5	BONNET	304SS	316SS	BRASS
6	STEM	316SS		
7	PACKING RING			
8	PACKING	PTFE / GRAPHITE		
9	GLAND	304SS		
10	PACKING NUT	304SS	BRASS	
11	HANDLE	STAINLESS STEEL		

* Standard lubrication : Nickel anti - seize lubricant. (hydrocarbon carrier)

* Standard Seat : Metal to Metal / Body Material.

* Optional Seat : Metal to Metal / Stellite, Hard coating, Soft Seat. (TFE Seat)

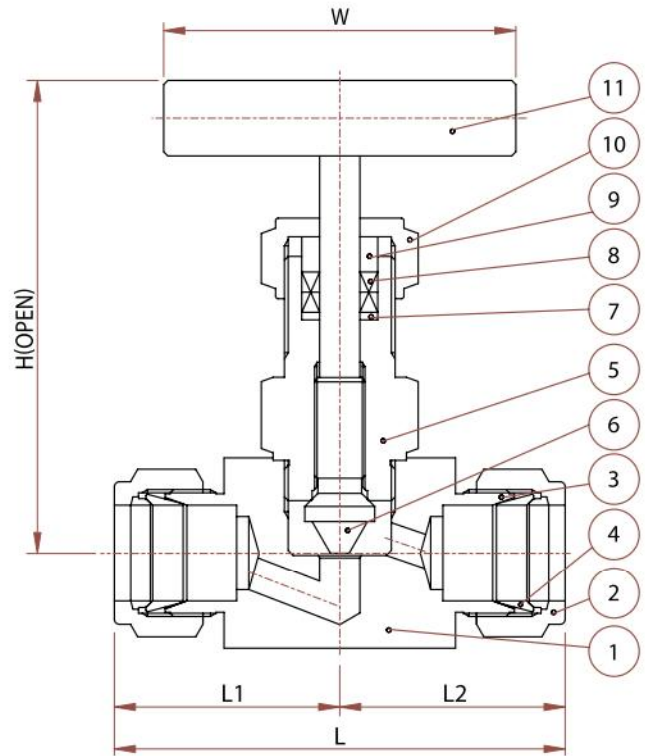


Table of Dimensions

BASIC ORDERING NUMBER	END CONNECTION		ORIFICE	Cv	DIMENSION			
	INLET	OUTLET			L	L1	L2	W
KST-6T	1/8" K-LOK	1/8" K-LOK	2.0	0.09	58	29	29	56
KST-6M	6mm K-LOK	6mm K-LOK	4.3	0.37	62	31	31	56
KST-8T	1/4" K-LOK	1/4" K-LOK			62	31	31	56
KST-8M	8mm K-LOK	8mm K-LOK	6.4	0.73	64	32	32	56
KST-10T	3/8" K-LOK	3/8" K-LOK			70	35	35	56
KST-10M	10mm K-LOK	10mm K-LOK			70	35	35	56
KST-12M	12mm K-LOK	12mm K-LOK			74	37	37	56
KST-15T	1/2" K-LOK	1/2" K-LOK	8.0	1.1	74	37	37	56
KST-16T	5/8" K-LOK	5/8" K-LOK			90	45	45	70
KST-16M	16mm K-LOK	16mm K-LOK			90	45	45	70
KST-20T	3/4" K-LOK	3/4" K-LOK			90	45	45	70
KST-25T	1" K-LOK	1" K-LOK	9.5	1.8	104	52	52	70

* All dimensions in millimeters. Dimensions shown with k-lok nuts in finger-tight position, Where applicable.

Screwed Bonnet Type Needle Valves

◆ THREAD ENDS.

Materials of Construction

NO	PARTS	MATERIALS		
		316SS	304SS	A105
1	BODY	316SS	304SS	A105
2	BONNET			
3	STEM	316SS		
4	PACKING RING			
5	PACKING	PTFE / GRAPHITE		
6	GLAND	304SS		
7	PACKING NUT	304SS	A105	
8	HANDLE	STAINLESS STEEL		

* Standard lubrication : Nickel anti - seize lubricant. (hydrocarbon carrier)

* Standard Seat : Metal to Metal / Body Material.

* Optional Seat : Metal to Metal / Stellite, Hard coating, Soft Seat. (TFE Seat)

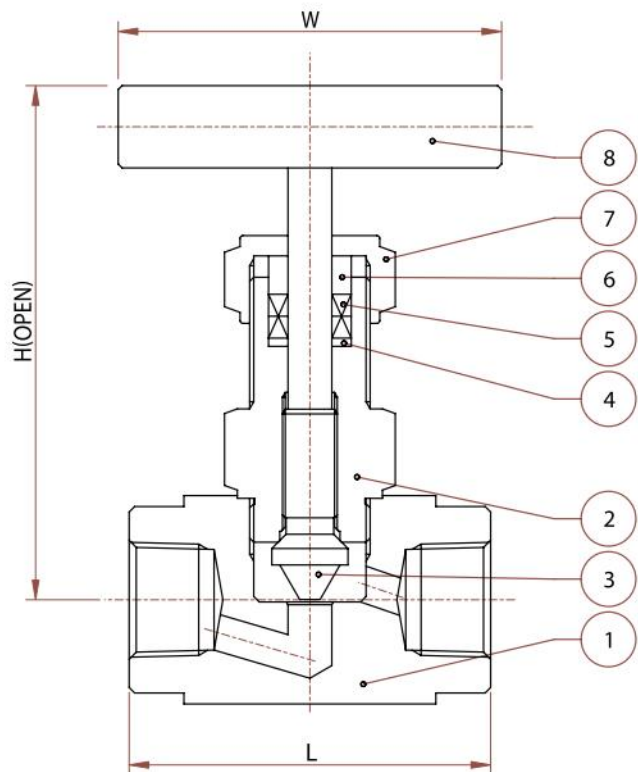


Table of Dimensions

BASIC ORDERING NUMBER	END CONNECTION		ORIFICE	Cv	DIMENSION		
	INLET	OUTLET			L	W	H
KSF-6A	1/8" FEMALE	1/8" FEMALE	4.3	0.37	48	56	65
KSF-8A	1/4" FEMALE	1/4" FEMALE			58	56	78
KSF-10A	3/8" FEMALE	3/8" FEMALE	5	0.73	58	70	71
KSF-15A	1/2" FEMALE	1/2" FEMALE	6.5	1.1	70	70	87
KSF-20A	3/4" FEMALE	3/4" FEMALE	8	1.8	80	90	101
KSF-25A	1" FEMALE	1" FEMALE	11	2.2	96	92	143
KSF-32A	1 1/4" FEMALE	1 1/4" FEMALE	14	2.8	112	151	147
KSF-40A	1 1/2" FEMALE	1 1/2" FEMALE	18	4.6	120	151	160
KSF-50A	2" FEMALE	2" FEMALE	22	5.3	130	151	166

* All dimensions in millimeters. Dimensions shown with k-lok nuts in finger-tight position, Where applicable.

Screwed Bonnet Type Needle Valves

◆ SOCKET WELDED ENDS

Materials of Construction

NO	PARTS	MATERIALS		
		316SS	304SS	A105
1	BODY	316SS	304SS	A105
2	BONNET			
3	STEM	316SS		
4	PACKING RING			
5	PACKING	PTFE / GRAPHITE		
6	GLAND	304SS		
7	PACKING NUT	304SS	A105	
8	HANDLE	STAINLESS STEEL		

* Standard lubrication : Nickel anti - seize lubricant. (hydrocarbon carrier)

* Standard Seat : Metal to Metal / Body Material.

* Optional Seat : Metal to Metal / Stellite, Hard coating, Soft Seat. (TFE Seat)

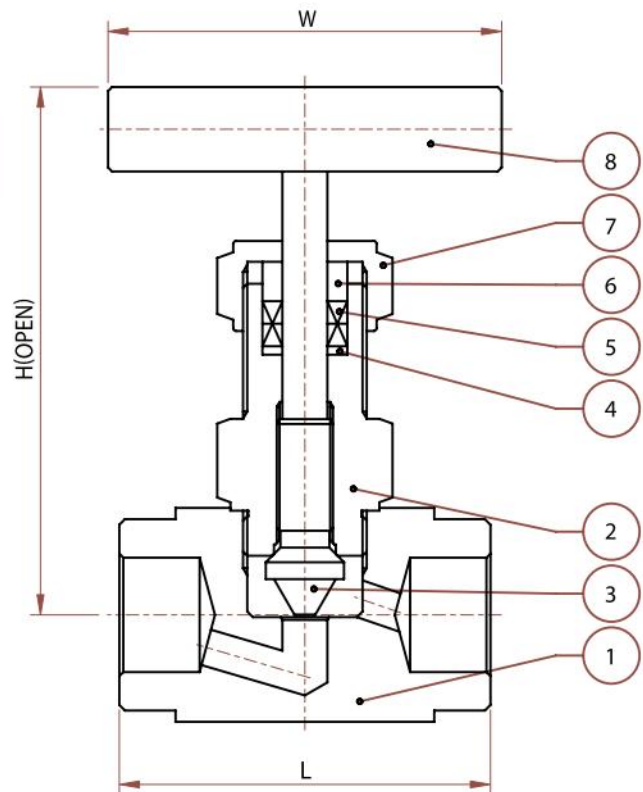


Table of Dimensions

BASIC ORDERING NUMBER	END CONNECTION		ORIFICE	Cv	DIMENSION		
	INLET	OUTLET			L	W	H
KSW-6A	1/8" PIPE S.W	1/8" PIPE S.W	4.3	0.37	48	56	65
KSW-8A	1/4" PIPE S.W	1/4" PIPE S.W			58	56	78
KSW-10A	3/8" PIPE S.W	3/8" PIPE S.W	5	0.73	58	70	71
KSW-15A	1/2" PIPE S.W	1/2" PIPE S.W	6.5	1.1	70	70	87
KSW-20A	3/4" PIPE S.W	3/4" PIPE S.W	8	1.8	80	90	101
KSW-25A	1" PIPE S.W	1" PIPE S.W	11	2.2	96	92	143
KSW-32A	1 1/4" PIPE S.W	1 1/4" PIPE S.W	14	2.8	112	151	147
KSW-40A	1 1/2" PIPE S.W	1 1/2" PIPE S.W	18	4.6	120	151	160
KSW-50A	2" PIPE S.W	2" PIPE S.W	22	5.3	130	151	166

* All dimensions in millimeters. Dimensions shown with k-lok nuts in finger-tight position, Where applicable.

Union Bonnet Type Needle Valves

Features

- Pressures to 6000, 10000 PSIG.
- Temperatures from -54° C to 232° C with standard PTFE packing; up to 315° C with optional GRAPHITE packing.
- Choice of materials : 316L, 316, 304L, 304, stainless steel, carbon steel, etc.
- Straight and Angle pattern body styles.
- Variety of end connections includes gageable K- LOK[®] tube fittings.

Working pressure in PSIG

ASME / ANSI B 16.34	GROUP No. 2.2	
MATERIAL NAME	316SS	
CLASS (ANSI)	2500	4500
TEMPERATURE @ PRESSURE(PSIG)		
100° F(38° C)	6000	10000
200° F(93° C)	5160	9290
300° F(148° C)	4660	8390
400° F(204° C)	4280	7705
450° F(232° C)	4130	7435

Technical Data

These ratings are for a standard valve having PTFE packing.

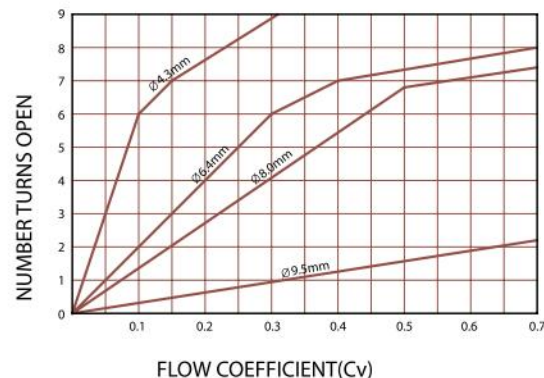
Optional seal materials will affect the Temperature ratings.

VALVE MATERIAL	TEMPERATURE RATING	PRESSURE RATING 100° F(38° C)
316 or 304 CARBON STEEL	-65° F to 450° F (-54° C to 232° C)	6000psi (422kg/cm ²)
		10000psi (703kg/cm ²)

Testing

- Standard Production Test - Each valve is 100% tested with pneumatic at 1000PSIG. for leak age at the seat and packing. Each test is performed to a maximum allowable leak rate of 0.1 sec/min.
- Optional Hydrostatic Test - This hydrostatic shell test is performed with pure water at 1 1/2 times the working pressure.

Flow Coefficient(Cv) @ Turns open

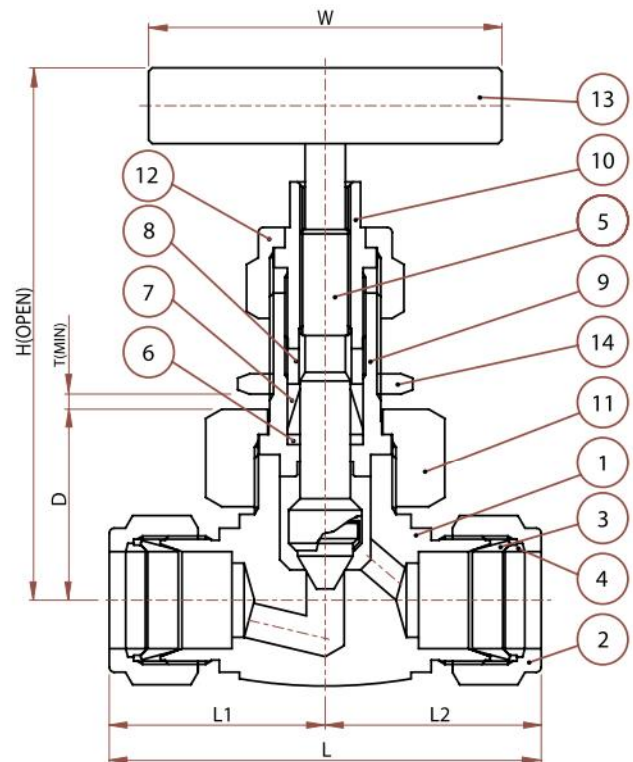


Union Bonnet Type Needle Valves

◆ K-LOK JOINT

Materials of Construction

NO	PARTS	MATERIALS	
		304SS	316SS
1	BODY	304SS	316SS
2	FERRULE NUT	316SS	
3	FRONT FERRULE		
4	BACK FERRULE		
5	STEM	316SS	
6	PACKING RING		
7	PACKING	PTFE / GRAPHITE	
8	GLAND	304SS	
9	BONNET	304SS	
10	PACKING BOLT		
11	UNION NUT		
12	PACKING NUT	304SS	
13	HANDLE	STAINLESS STEEL	
14	PANEL NUT	304SS	



- * Standard lubrication : Nickel anti - seize lubricant. (hydrocarbon carrier)
- * Standard Seat : Metal to Metal / Body Material.
- * Optional Seat : Metal to Metal / Stellite, Hard coating, Soft Seat. (TFE Seat)

Table of Dimensions / 6000PSIG

BASIC ORDERING NUMBER	END CONNECTION		ORIFICE	Cv	DIMENSION						
	INLET	OUTLET			L	L1	L2	T	D	W	H
KUT-6M	6mm K-LOK	6mm K-LOK	4.3	0.37	58	29	29	3	35	56	98
KUT-8T	1/4" K-LOK	1/4" K-LOK									
KUT-8M	8mm K-LOK	8mm K-LOK									
KUT-10T	3/8" K-LOK	3/8" K-LOK	6.4	0.73	68	34	34	4	42	70	110
KUT-10M	10mm K-LOK	10mm K-LOK									
KUT-12M	12mm K-LOK	12mm K-LOK									
KUT-15T	1/2" K-LOK	1/2" K-LOK									

* All dimensions in millimeters. Dimensions shown with k-lok nuts in finger-tight position, Where applicable.

Union Bonnet Type Needle Valves

◆ THREAD ENDS.

Materials of Construction

NO	PARTS	MATERIALS		
		316SS	304SS	A105
1	BODY	316SS	304SS	A105
2	STEM	316SS		
3	PACKING RING			
4	PACKING	PTFE / GRAPHITE		
5	GLAND	304SS		
6	BONNET	316SS	304SS	A105
7	PACKING BOLT			
8	UNION NUT			
9	PACKING NUT	304SS		BRASS
10	HANDLE	STAINLESS STEEL		
11	PANEL NUT	304SS		

- * Standard lubrication : Nickel anti - seize lubricant. (hydrocarbon carrier)
- * Standard Seat : Metal to Metal / Body Material.
- * Optional Seat : Metal to Metal / Stellite, Hard coating, Soft Seat. (TFE Seat)

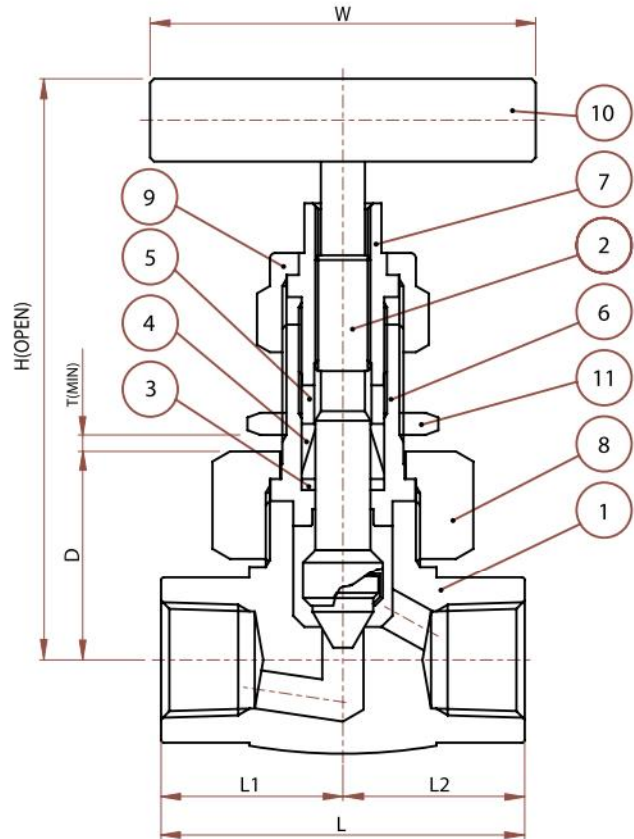


Table of Dimensions / 6000PSIG

BASIC ORDERING NUMBER	END CONNECTION		ORIFICE	Cv	DIMENSION						
	INLET	OUTLET			L	L1	L2	D	T	W	H
KUF-6A	1/8" FEMALE	1/8" FEMALE	4	0.37	54	27	27	31.5	3	56	88
KUF-8A	1/4" FEMALE	1/4" FEMALE	4	0.37	54	27	27	31.5	3	56	88
KUF-10A	3/8" FEMALE	3/8" FEMALE	5	0.73	60	30	30	32	3	70	93
KUF-15A	1/2" FEMALE	1/2" FEMALE	7	1.1	66	33	33	38	3.5	70	114
KUF-20A	3/4" FEMALE	3/4" FEMALE	9	1.8	76	38	38	44	4	70	126
KUF-25A	1" FEMALE	1" FEMALE	10	2.2	92	46	46	57	4	92	146
KUM-6A	1/8" MALE	1/8" MALE	2.0	0.09	54	27	27	35	3	56	98
KUM-8A	1/4" MALE	1/4" MALE	4.3	0.37	54	27	27	35	3	56	98
KUM-10A	3/8" MALE	3/8" MALE	6.4	0.73	60	30	30	35	3	70	98
KUM-15A	1/2" MALE	1/2" MALE	8.0	1.1	66	33	33	42	3.5	70	110
KUM-20A	3/4" MALE	3/4" MALE	8.0	1.1	76	38	38	42	4	70	110
KUM-25A	1" MALE	1" MALE	9.5	1.8	92	46	46	50	4	92	120

* All dimensions in millimeters. Dimensions shown with k-lok nuts in finger-tight position, Where applicable.

Union Bonnet Type Needle Valves

◆ S.W ENDS / TUBE S.W ENDS

Materials of Construction

NO	PARTS	MATERIALS		
		316SS	304SS	A105
1	BODY	316SS	304SS	A105
2	STEM	316SS		
3	PACKING RING			
4	PACKING	PTFE / GRAPHITE		
5	GLAND	304SS		
6	BONNET	316SS	304SS	A105
7	PACKING BOLT			
8	UNION NUT			
9	PACKING NUT	304SS		A105
10	HANDLE	STAINLESS STEEL		
11	PANEL NUT	304SS		

- * Standard lubrication : Nickel anti - seize lubricant. (hydrocarbon carrier)
- * Standard Seat : Metal to Metal / Body Material.
- * Optional Seat : Metal to Metal / Stellite, Hard coating, Soft Seat. (TFE Seat)

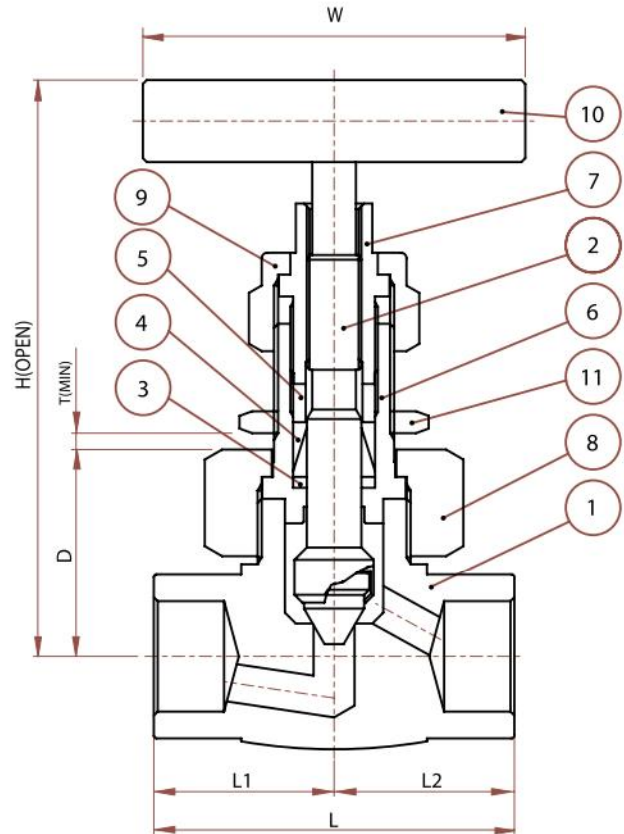


Table of Dimensions / 6000PSIG

BASIC ORDERING NUMBER	END CONNECTION		ORIFICE	Cv	DIMENSION						
	INLET	OUTLET			L	L1	L2	D	T	W	H
KUW-6A	1/8" PIPE	1/8" PIPE	4	0.37	54	27	27	31.5	3	56	88
KUW-8A	1/4" PIPE	1/4" PIPE	4	0.37	54	27	27	31.5	3	56	88
KUW-10A	3/8" PIPE	3/8" PIPE	5	0.73	60	30	30	32	3	70	93
KUW-15A	1/2" PIPE	1/2" PIPE	7	1.1	66	33	33	38	3.5	70	114
KUW-20A	3/4" PIPE	3/4" PIPE	9	1.8	76	38	38	44	4	70	126
KUW-25A	1" PIPE	1" PIPE	10	2.2	92	46	46	57	4	92	146
KUW-6T	1/8" TUBE	1/8" TUBE	2.0	0.09	54	27	27	35	3	56	98
KUW-8T	1/4" TUBE	1/4" TUBE	4.3	0.37	54	27	27	35	3	56	98
KUW-10T	3/8" TUBE	3/8" TUBE	6.4	0.73	60	30	30	35	3	70	98
KUW-15T	1/2" TUBE	1/2" TUBE	8.0	1.1	66	33	33	42	3.5	70	110
KUW-20T	3/4" TUBE	3/4" TUBE	8.0	1.1	76	38	38	42	4	70	110
KUW-25T	1" TUBE	1" TUBE	9.5	1.8	92	46	46	50	4	92	120

* All dimensions in millimeters. Dimensions shown with k-lok nuts in finger-tight position, Where applicable.

Forged Long Bonnet Needle Valves

Features

- Pressures to 5000 PSIG.
- Temperatures from -54° C to 232° C with standard PTFE packing; up to 315° C with optional GRAPHITE packing.
- Choice of materials : 316L, 316, 304L, 304, stainless steel, carbon steel, etc.
- Straight and Angle pattern body styles.
- Variety of end connections includes gageable K- LOK[®] tube fittings.

Working pressure in PSIG

ASME / ANSI B 16.34	GROUP No. 2.2
MATERIAL NAME	319SS
CLASS (ANSI)	1250
TEMPERATURE @ PRESSURE(PSIG)	
100° F(38° C)	3000
200° F(93° C)	2580
300° F(148° C)	2330
400° F(204° C)	2140
450° F(232° C)	2065
500° F(260° C)	1990
600° F(315° C)	1880

Technical Data

These ratings are for a standard valve having PTFE packing.

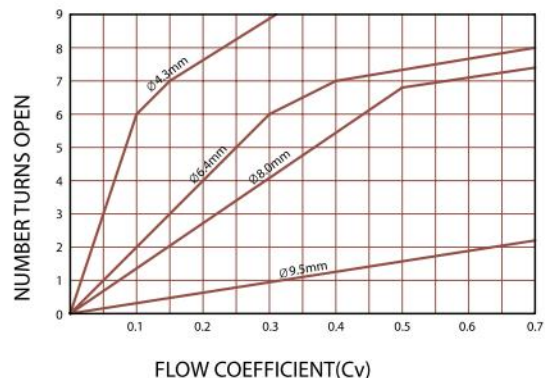
Optional seal materials will affect the Temperature ratings.

VALVE MATERIAL	TEMPERATURE RATING	PRESSURE RATING 100° F(38° C)
316 or 304 Stainless steel	-65° F to 450° F (-54° C to 232° C)	3000psi (211kg/cm ²)

Testing

- Standard Production Test - Each valve is 100% tested with pneumatic at 1000PSIG. for leak age at the seat and packing. Each test is performed to a maximum allowable leak rate of 0.1 sec/min.
- Optional Hydrostatic Test - This hydrostatic shell test is performed with pure water at 1 1/2 times the working pressure.

Flow Coefficient(Cv) @ Turns open



Forged Long Bonnet Needle Valves

◆ K-LOK JOINT

Materials of Construction

NO	PARTS	MATERIALS	
		304SS	316SS
1	BODY	304SS	316SS
2	FERRULE NUT	316SS	
3	FRONT FERRULE		
4	BACK FERRULE		
5	STEM		
6	PACKING RING	316SS	
7	PACKING	PTFE / GRAPHITE	
8	GLAND	304SS	
9	BONNET	304SS	316SS
10	UNION NUT	316SS	
11	PACKING NUT	304SS	
12	HANDLE	STAINLESS STEEL	

- * Standard lubrication : Nickel anti - seize lubricant. (hydrocarbon carrier)
- * Standard Seat : Metal to Metal / Body Material.
- * Optional Seat : Metal to Metal / Stellite, Hard coating, Soft Seat. (TFE Seat)

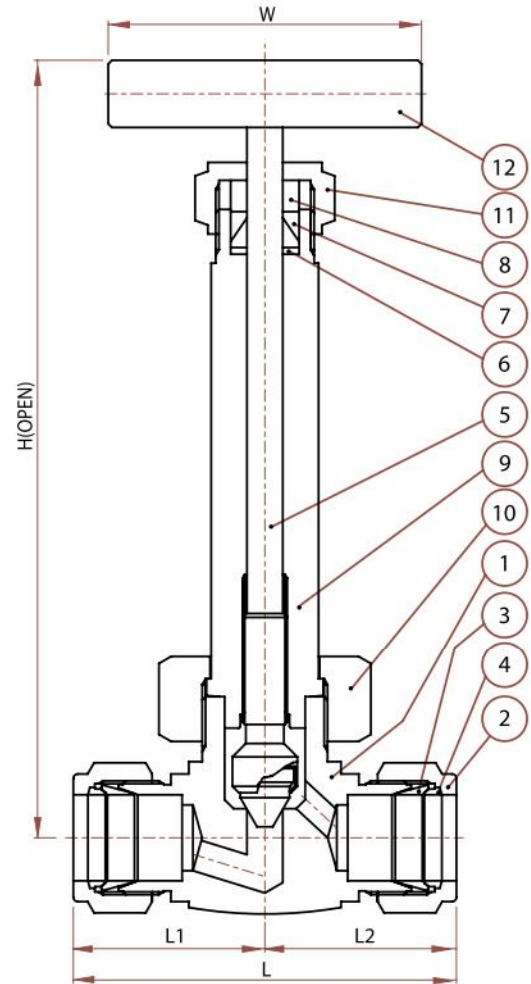


Table of Dimensions

BASIC ORDERING NUMBER	END CONNECTION		ORIFICE	Cv	DIMENSION				
	INLET	OUTLET			L	T	W	W1	H
KLT-6M	6mm K-LOK	6mm K-LOK	4.3	0.37	58	29	29	48	165
KLT-8T	1/4" K-LOK	1/4" K-LOK							
KLT-8M	8mm K-LOK	8mm K-LOK	6.4	0.73	60	30	30	56	170
KLT-10T	3/8" K-LOK	3/8" K-LOK							
KLT-10M	10mm K-LOK	10mm K-LOK							
KLT-12M	12mm K-LOK	12mm K-LOK							
KLT-15T	1/2" K-LOK	1/2" K-LOK							
KLT-16T	5/8" K-LOK	5/8" K-LOK	8.0	1.1	86	43	43	70	175
KLT-16M	16mm K-LOK	16mm K-LOK							
KLT-20T	3/4" K-LOK	3/4" K-LOK							
KLT-25T	1" K-LOK	1" K-LOK	9.5	1.8	100	50	50	70	185

* All dimensions in millimeters. Dimensions shown with k-lok nuts in finger-tight position, Where applicable.

Forged Long Bonnet Type Needle Valves

◆ THREAD ENDS.

Materials of Construction

NO	PARTS	MATERIALS		
		316SS	304SS	A105
1	BODY	316SS	304SS	A105
2	STEM	316SS		
3	PACKING RING	316SS		
4	PACKING	PTFE / GRAPHITE		
5	GLAND	304SS		
6	BONNET	316SS	304SS	A105
7	UNION NUT			
8	PACKING NUT	304SS		A105
9	HANDLE	STAINLESS STEEL		

- * Standard lubrication : Nickel anti - seize lubricant. (hydrocarbon carrier)
- * Standard Seat : Metal to Metal / Body Material.
- * Optional Seat : Metal to Metal / Stellite, Hard coating, Soft Seat. (TFE Seat)

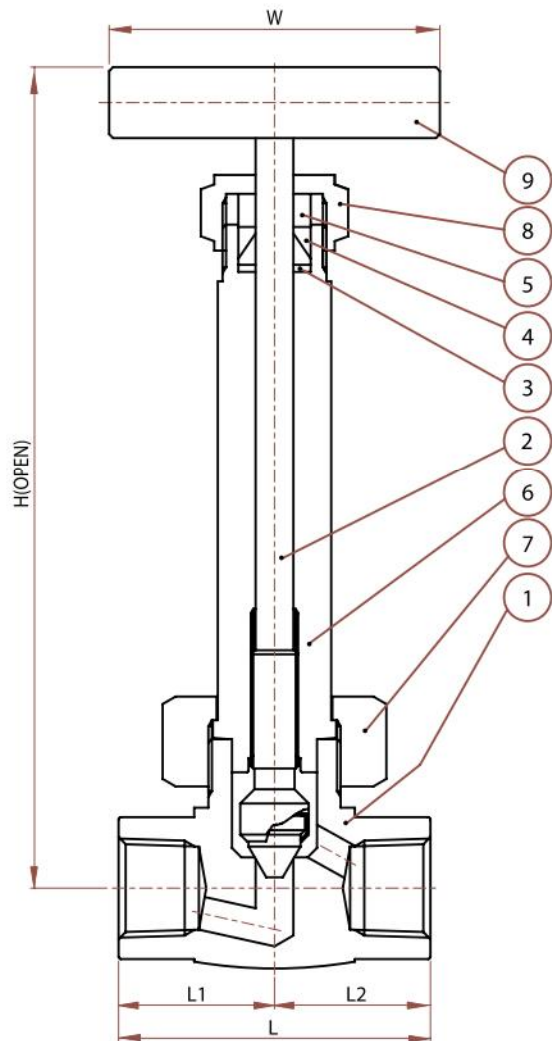


Table of Dimensions

BASIC ORDERING NUMBER	END CONNECTION		ORIFICE	Cv	DIMENSION				
	INLET	OUTLET			L	L1	L2	W	H
KLF-8A	1/4" FEMALE	1/4" FEMALE	4.3	0.37	54	27	27	56	165
KLF-10A	3/8" FEMALE	3/8" FEMALE	6.4	0.73	60	30	30	70	170
KLF-15A	1/2" FEMALE	1/2" FEMALE	8.0	1.1	66	33	33	70	175
KLF-20A	3/4" FEMALE	3/4" FEMALE	9.5	1.8	76	38	38	70	185
KLF-25A	1" FEMALE	1" FEMALE	11	2.2	92	46	46	92	200

* All dimensions in millimeters. Dimensions shown with k-lok nuts in finger-tight position, Where applicable.

Forged Long Bonnet Type Needle Valves

◆ SOCKET WELDED ENDS

Materials of Construction

NO	PARTS	MATERIALS		
		316SS	304SS	A105
1	BODY	316SS	304SS	A105
2	STEM	316SS		
3	PACKING RING			
4	PACKING	PTFE / GRAPHITE		
5	GLAND	304SS		
6	BONNET	316SS	304SS	A105
7	UNION NUT			
8	PACKING NUT	304SS		A105
9	HANDLE	STAINLESS STEEL		

* Standard lubrication : Nickel anti - seize lubricant. (hydrocarbon carrier)

* Standard Seat : Metal to Metal / Body Material.

* Optional Seat : Metal to Metal / Stellite, Hard coating, Soft Seat. (TFE Seat)

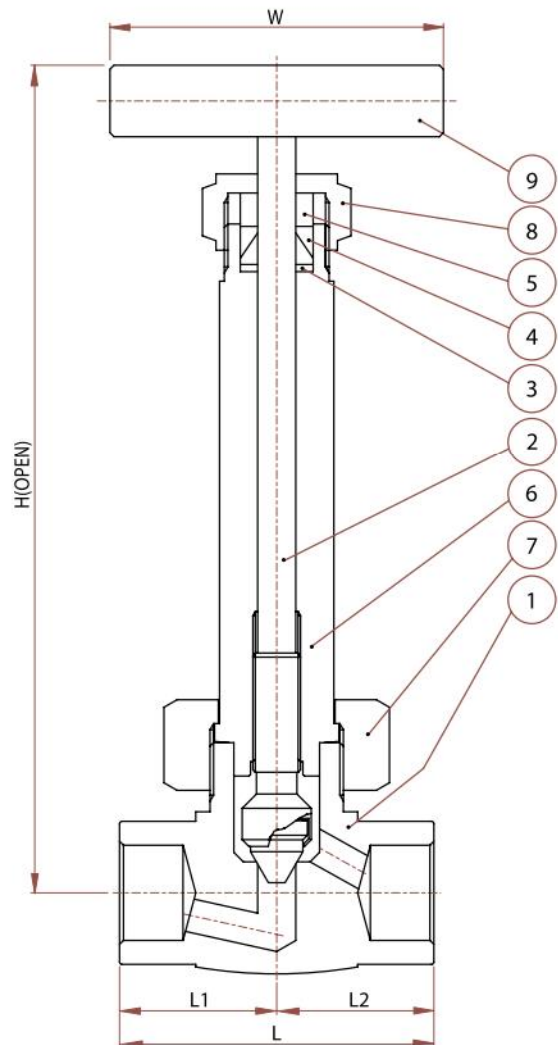


Table of Dimensions

BASIC ORDERING NUMBER	END CONNECTION		ORIFICE	Cv	DIMENSION				
	INLET	OUTLET			L	L1	L2	W	H
KLW-8A	1/4" PIPE	1/4" PIPE	4.3	0.37	54	27	27	56	165
KLW-10A	3/8" PIPE	3/8" PIPE	6.4	0.73	60	30	30	70	170
KLW-15A	1/2" PIPE	1/2" PIPE	8.0	1.1	66	33	33	70	175
KLW-20A	3/4" PIPE	3/4" PIPE	9.5	1.8	76	38	38	70	185
KLW-25A	1" PIPE	1" PIPE	11	2.2	92	46	46	92	200

* All dimensions in millimeters. Dimensions shown with k-lok nuts in finger-tight position, Where applicable.

Ordering Information

K	N	T	-	*	*	*
SYMBOL OF KPL VALVES	TYPE OF VALVE	END CONNECTION		SIZE	SEAT	PACKING
	N NEEDLE VALVE	T K-LOK TUBE		INCH TUBE	S SOFT SEAT	G GRAPHITE
	A ANGLE VALVE	F FEMALE THREAD		6T 1/8"		
	G GLOBE VALVE	M MALE THREAD		8T 1/4"		
	U UNION BONNET NEEDLE VALVES	W SOCKET WELD		10T 3/8"		
	S SCREWED BONNET NEEDLE VALVES			15T 1/2"		
	L LONG BONNET NEEDLE VALVE			16T 5/8"		
				20T 3/8"		
				25T 1"		
				METRIC TUBE		
				6M 6mm		
				8M 8mm		
				10M 10mm		
				12M 12mm		
				16M 16mm		
				SCHEDULE PIPE		
				6A 1/8"		
				8A 1/4"		
				10A 3/8"		
				15A 1/2"		
				20A 3/4"		
				25A 1"		
				32A 1 1/4"		
				40A 1 1/2"		
				50A 2"		



 **KPL VALVE IND. CO., LTD.**
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