

NEEDLE VALVE

Features

- Our original special shape plug allows for highly accurate flow control.
- Shutoff valve and rubber seat allow for complete sealing.
- Independent from shutoff valve, it maintains high-accuracy control function for a long period.
- Inspection and cleaning of inside of the valve can be performed without dismounting it from the pipe, by removing the cap (15mm, 20mm).
- Integrally molded body that is light weight, robust and compact.



Basic specifications

- Valve Type : Needle Valve
- Size : 15mm (1/2") - 25mm (1")
- Body Material : U-PVC (Conforming to ASTM D1784 Cell Classification 12454A)
- Seal Material / O-ring : EPDM etc.
- Connection / Flanged : JIS B2220 10K, JIS B2220 5K, DIN/EN1092-1, ANSI B16.5

Body Material	FLUID TEMPERATURE °C {°F}	Maximum working pressure (Normal temperature) MPa {psi}
U-PVC	0 ~ 50 { 30 ~120 }	1.0 { 150 }

Note: The maximum working pressure is the value including the water hammer pressure. Be careful that the maximum working pressure is not exceeded during use.

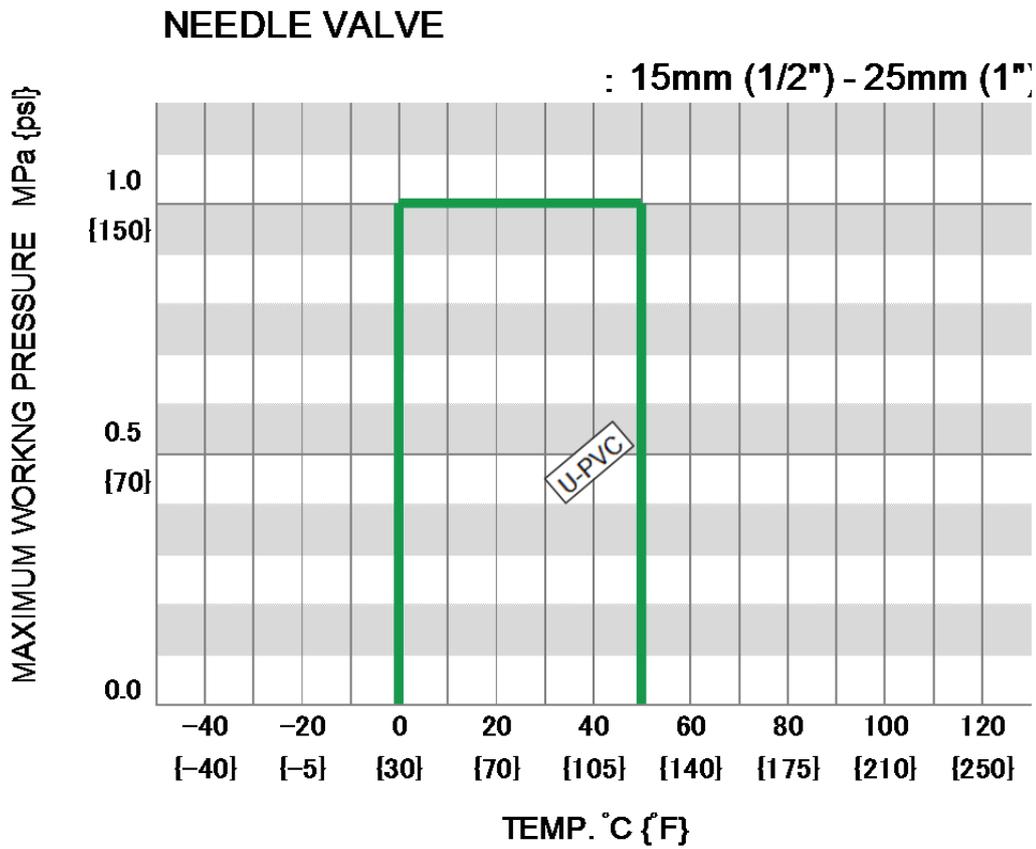
* Concerning the allowable pressure for each temperature and material, see the technical documents at the next page of this sheet.

Certificate / Approval / Directive

PED, ABS, NSF/ANSI61

“For details of applicable products, please consult us.”

Working pressure vs. Temperature

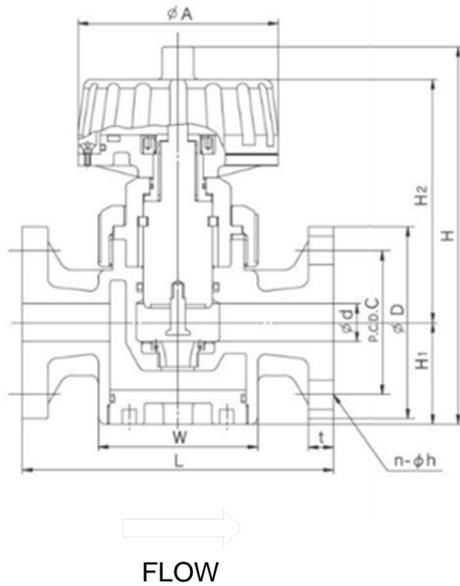


Note:

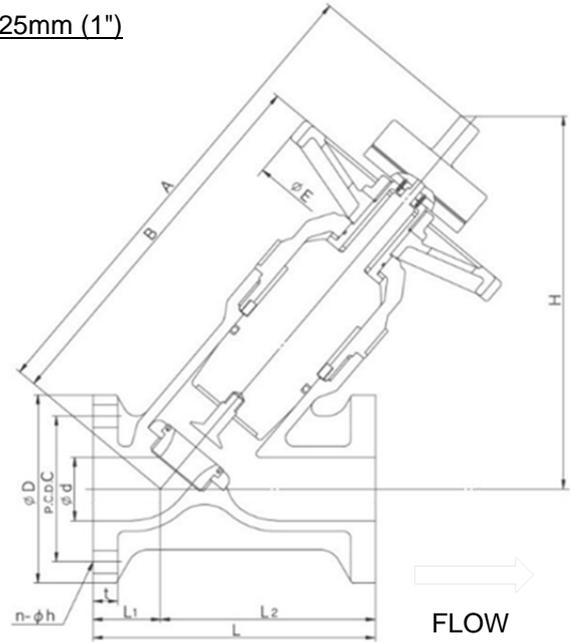
Make sure that the temperature and pressure are within the working range during operation.
(If the tolerance range is exceeded during use, the valve may be damaged.)

Product dimension

15mm (1/2") - 20mm (3/4")



25mm (1")



PORT SIZE 15mm

■ JIS, DIN (Unit: mm)

mm	inch	d	W	A	H ₁	H ₂	H ₃	L	t	JIS 10K				DIN PN10			
										D	C	n	h	D	C	n	h
15	1/2	16	82X82	103	51	129	197	160	12	95	70	4	15	95	65	4	14
20	3/4	20	82X82	103	53	127	197	160	13	100	75	4	15	105	75	4	14

■ JIS, DIN (Unit: mm)

mm	inch	d	L ₁	L ₂	A	B	H	E	L	t	JIS 10K				DIN PN10			
											D	C	n	h	D	C	n	h
25	1	25	40	120	272	201	218	150	160	14	125	90	4	19	115	85	4	14

■ ANSI (Unit: inch)

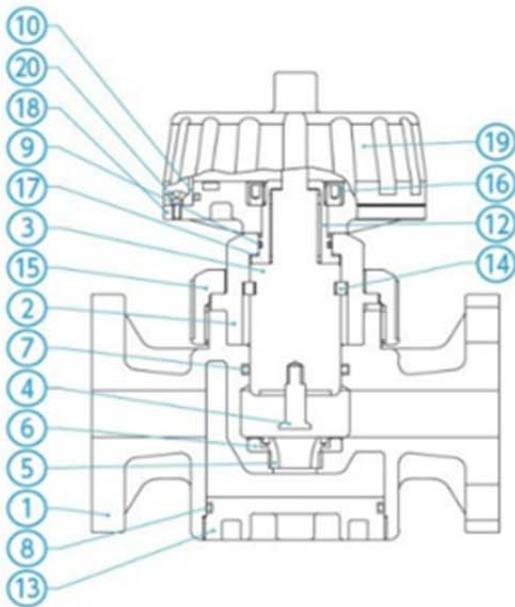
inch	mm	d	W	A	H ₁	H ₂	H ₃	L	t	ANSI Class150			
										D	C	n	h
1/2	15	0.63	3.23X3.23	4.06	2.01	5.08	7.76	6.30	0.47	3.50	2.38	4	0.63
3/4	20	0.79	3.23X3.23	4.06	2.09	5.00	7.76	6.30	0.51	3.86	2.76	4	0.63

■ ANSI (Unit: inch)

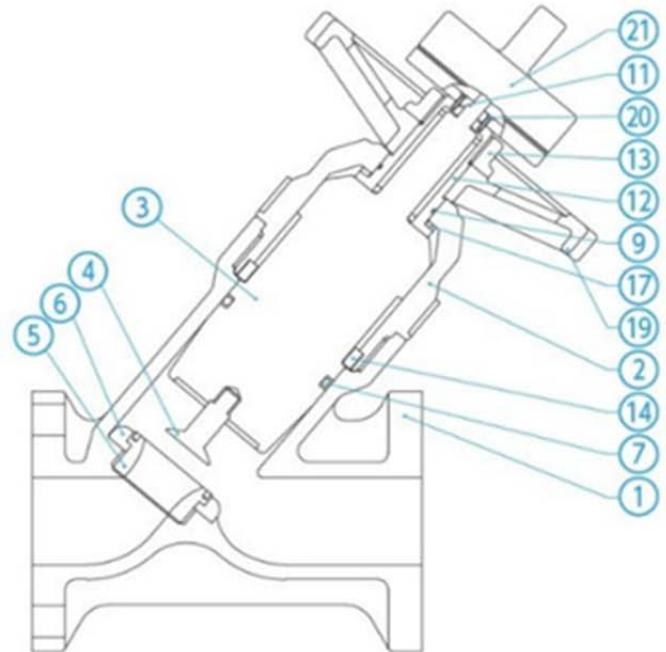
inch	mm	d	L ₁	L ₂	A	B	H	E	L	t	ANSI Class150			
											D	C	n	h
1	25	0.98	1.57	4.72	10.71	7.91	8.58	5.91	6.30	0.55	4.25	3.13	4	0.63

Parts list

15mm (1/2") - 20mm (3/4")



25mm (1")



PORT SIZE 15mm

PART NO./NAME	QTY	MATERIAL
1 BODY	1	U-PVC
2 BONNET	1	U-PVC
3 CYLINDER	1	U-PVC
4 PLUG	1	U-PVC
5 ORIFICE	1	U-PVC
6 SEAT	1	U-PVC
7 O-RING (A)	1	EPDM, etc. ⁽¹⁾
9 O-RING (C)	1	EPDM, etc.
12 SLEEVE	1	COPPER ALLOY
13 CAP	1	U-PVC

PART NO./NAME	QTY	MATERIAL
14 KEY	2	PP (15-20mm) U-PVC (25mm)
17 THRUST RING	1	PP
19 HANDLE	1	PP (15-20mm) U-PVC (25mm)
20 MACHINE SCREW	4	STAINLESS STEEL (15-20mm) COPPER ALLOY (25mm)

Used for 15 - 20mm only.

PART NO./NAME	QTY	MATERIAL
8 O-RING (B)	1	EPDM, etc.
10 O-RING (D)	1	EPDM
15 UNION NUT	1	U-PVC
16 NUT	1	ABS
18 HANDLE BASE	1	U-PVC

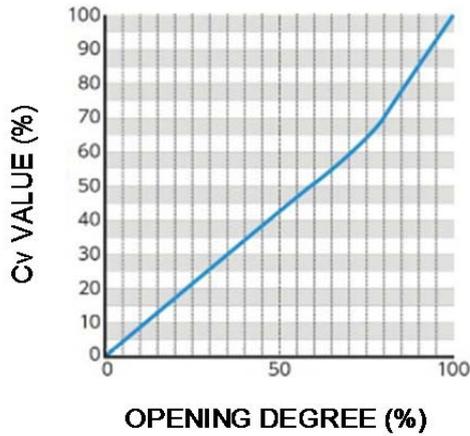
Used for 25mm only.

PART NO./NAME	QTY	MATERIAL
11 O-RING (E)	1	EPDM
21 OPENING DEGREE INDICATOR	1Set	U-PVC, etc.

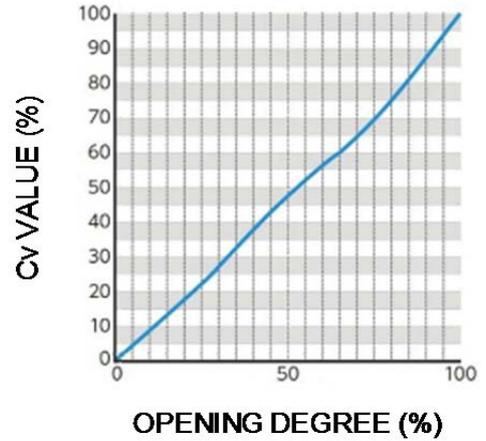
(1) For FKM, complete closure is not available.

Cv value for each opening degree

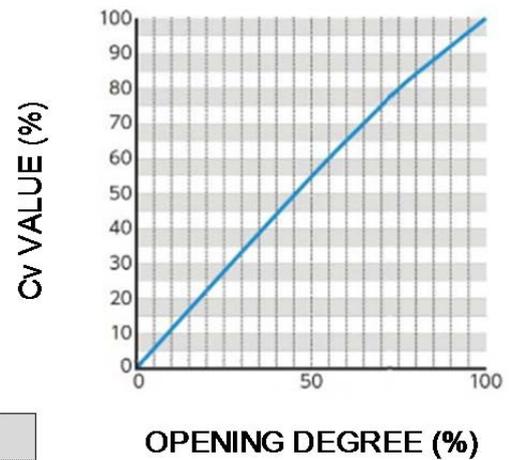
15mm (1/2"), 20mm (3/4"), 25mm (1")
(PORT SIZE 6mm)



15mm (1/2"), 20mm (3/4")
(PORT SIZE 15mm)



25mm (1") (PORT SIZE 15mm)



FULL-OPEN Cv VALUE

mm	15		20		25	
inch	1/2		3/4		1	
PORT SIZE (mm)	6	15	6	15	6	15
FULL-OPEN Cv VALUE	0.7	4.5	0.7	4.5	0.7	6.0

Product weight

NEEDLE VALVE
(FLANGED)

Unit: kg

mm	inch	U-PVC
15	1/2	1.4
20	3/4	1.5
25	1	1.6

Product model code list

NEEDLE VALVE

ACTUATION	TYPE	OPERATING SYSTEM	BODY MATERIAL	SEAL MATERIAL	CONNECTION	STANDARD	SIZE
V	ND	MH	U	*	F	*	***
:	:	:	:	:	:	:	:
V MANUAL VALVE	ND NEEDLE	MH ROUND HANDLE	U U-PVC	E EPDM V FKM	F FLANGED	1 JIS 10K 5 JIS 5K	015 15mm ? 025 25mm

Installation, Operation and Maintenance Manual

"For details of Installation, Operation and Maintenance, please refer IOM at below link"

http://www.asahi-yukizai.co.jp/en/product/mt_pdf/a_manual_valve_7_02.pdf