



Type angle pattern needle valves designed for use general applications requiring complete isolation and throttling of media. Produced as standard angle body at 90 degrees. Specially designed conical metal tip (type CT) ensures perfect alignment for positive bubble tight shut-off. Available with end connections in sizes from 1/4" to 1/2" and a wide choice of female screwed, male to female screwed or socket weld.

**Applications**

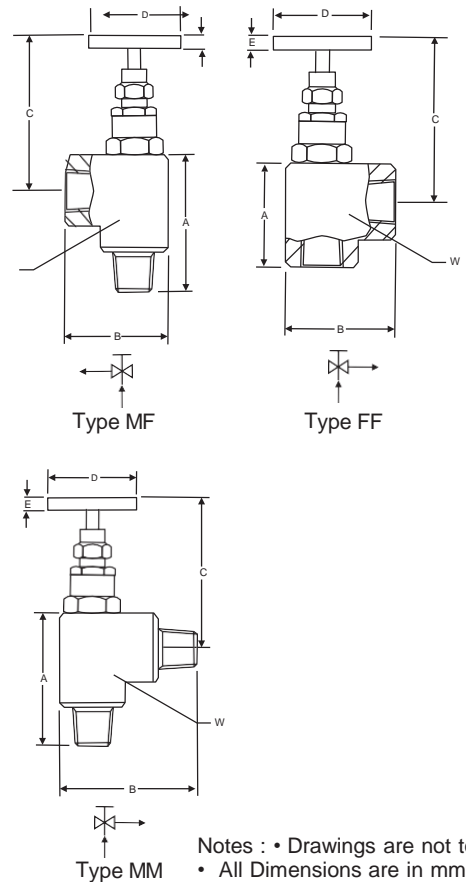
- High pressure instrument line shut off
- Instrument and gauge isolation
- Drain valve
- Liquid and vapor service

**Technical Specifications**

Design Pressure	: 6000 PSI
Max temp.	: 240°C
Needle Tip	: Stainless Steel
Material	: Stainless Steel
Stem	: (Type CT) Conical tip
Gland Packing	: PTFE
Stem packing area	: Burnished finish for smooth valve operation.
Safety Feature	: Back seating for preventing stem blowout.

Size	Type	Body dimensions			Height (open) C	Handle D	Handle OD E
		A	B	W			
1/4"	FxF	32	32	28	62	40	10
	MxF	48	32	28	62	40	10
	MxM	48	48	28	62	40	10
3/8"	FxF	32	32	28	62	40	10
	MxF	48	32	28	62	40	10
1/2"	MxM	48	48	28		40	10
	FxF	50	50	32	86.6	55	12.7
1/2"	MxF	70	50	32	86.6	55	12.7
	MxM	70	70	32	86.6	55	12.7

Note : Other combination sizes available on request. Please contact us for more details.



Notes : • Drawings are not to scale.  
• All Dimensions are in mm.

**How To Order**

Body Material	Stem Packing	Size = P x P1	Connections (inlet x outlet)	Threads
C = Carbon Steel	P = PTFE	24 = 1/4" x 1/4"	FF = Female x Female	N = NPT (ANSI B 1.20.1)
S = SS 316	G = Grafoil	33 = 3/8" x 3/8"		P = BSPP (BS 2779, ISO 228/1)
S4 = SS 304		44 = 1/2" x 1/2"	MF = Male x Female	B = BSPT (BS 21, ISO 7/1)
SL = SS 316L			MM = Male x Male	
M4 = Monel 400			MM = Male x Male	
M5 = Monel 500				
H = Hastelloy C				
B = Brass				

**Options**

**TF** : Compliance to NACE standard  
**SG** : For Oxygen service, valves are supplied cleaned, degreased and suitably packed.  
**GH** : Material test certificate\*  
**GO** : Hydro test certificate

\* Material test certificate will be provided for wetted parts only with chemical composition testing. For others, please consult factory.

**Example**

To place an order simply refer to the codes in the table.

Valve Type : Body Material + Stem Packing + Size + Connections + Threads + Options

AVT + S + P + 44 + MF + N = AVT . S . P . 44 . MF . N .  
Options

**Standard Valve Materials**

Valve	Body	Bonnet	Stem	Tip
Carbon Steel	CS A105	CS A105	SS 304	SS 304
Stainless Steel	SS 316	SS 316	SS 316	SS 316
Monel	Monel	Monel	Monel	Monel

Note : Specifications and dimensions given in this product catalogue represents the state of engineering at the time of printing .  
 Modifications may take place and materials specified may be replaced by others without prior notice.