

## HARD SEAT

### INTRODUCTION

Type angle pattern needle valves designed for use on 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.

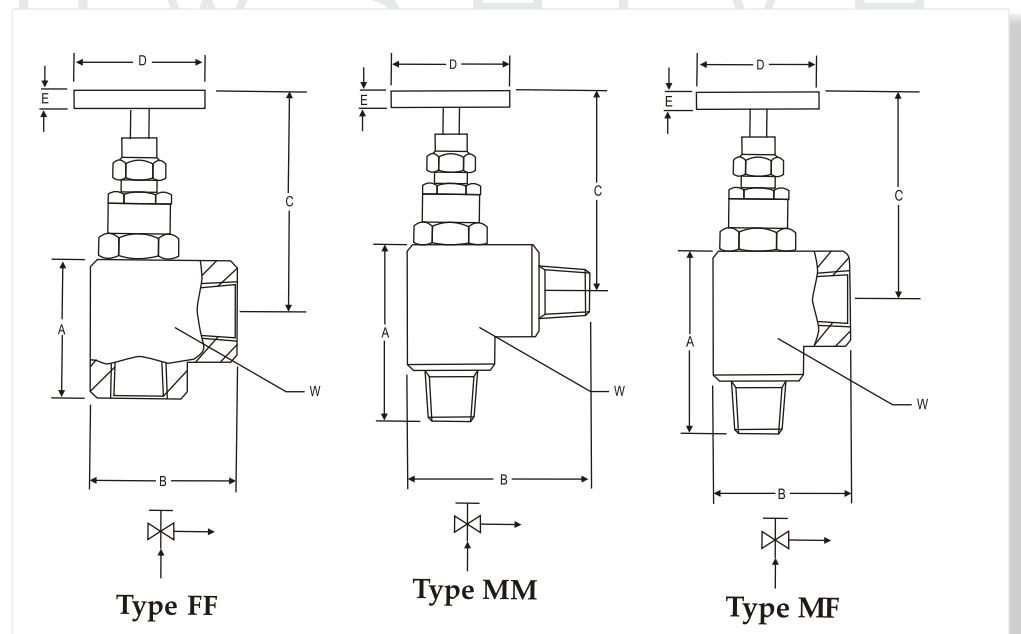
### TECHNICAL SPECIFICATIONS

Design Pressure	: 6000 PSI
Max Temperature	: 240°C
Needle Tip	: Stainless Steel
Material	: Stainless Steel
Stem	: (Type CT) Conical tip press fitted hard chrome plated
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
	MxM	48	48	28	62	40	10
1/2"	FxF	50	50	32	86.6	50	12
	MxF	70	50	32	86.6	50	12
	MxM	70	70	32	86.6	50	12

All dimensions are in mm

### DIMENSIONS



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



### INTRODUCTION

Type angle pattern needle valve designed for use in on general applications requiring complete isolation or throttling of the media. Ideal for use on gas services and some liquid applications. Produce as standard angle body at 90 degrees. Angle body 45 degrees optional. Specially designed soft Delrin needle tip (type DS) rolled in to the stem assembly in perfect location 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

- Instrument line shut off
- Instrument and gauge isolation.
- Drain valve.
- Specially designed for gas service.

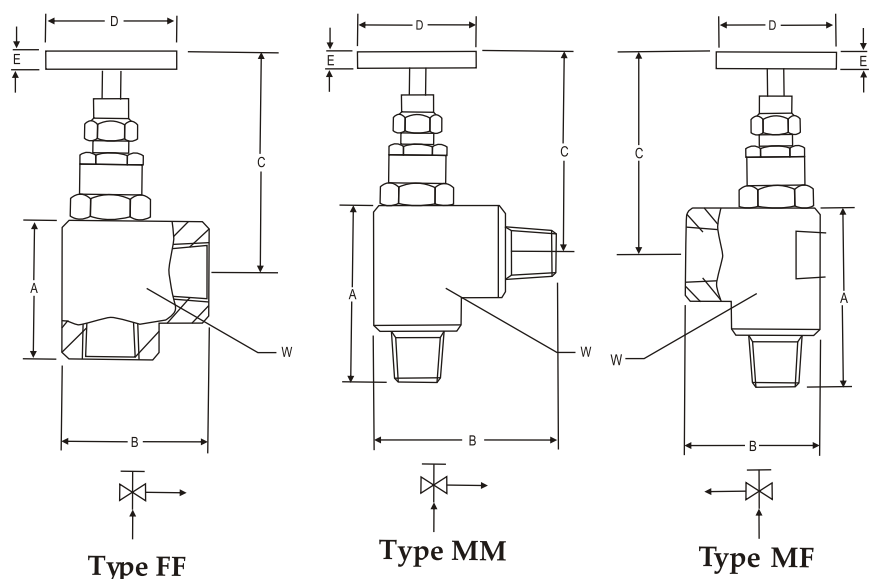
### TECHNICAL SPECIFICATIONS

Design Pressure	: 6000 PSI
Max Temperature	: 100°C
Material	: Stainless Steel
Stem	: (Type DS) Delrin Soft Needle Tip rolled into the needle
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	63	40	10
	MxF	48	32	28	63	40	10
	MxM	48	48	28	63	40	10
3/8"	FxF	32	32	28	63	40	10
	MxF	48	32	28	63	40	10
	MxM	48	48	28	63	40	10
1/2"	FxF	50	50	32	95.5	50	12
	MxF	70	50	32	95.5	50	12
	MxM	70	70	32	95.5	50	12

All dimensions are in mm

### DIMENSIONS



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



## HOW TO ORDER

BASIC MODEL				Example		
TYPE				KAVT KAVS		
MATERIAL OF CONSTRUCTION						
C	Carbon Steel	SL	SS 316L	H	Hastelloy C	
S	SS 316 (std)	M4	Monel 400			XX
S4	SS 304	M5	Monel 500			
STEM PACKING						
P	PTFE					X
G	Grafoil					
SIZE = P X P1						
24	1/4" x 1/4"	44	1/2" x 1/2"			XX
33	3/8" x 3/8"					
CONNECTIONS						
FF	Female x Female	MM	Male x Male			XX
MF	Male x Female	SW	Socket Weld			
THREADS						
N	NPT (ANSI B 1.20.1)	B	BSPT (BS 21, ISO 7/1)			X
P	BSPP (BS 2779,ISO 228/1)					
OPTIONS						
IE	Handle circular.					
TF	Compliance to NACE standard MR-0175.					
SG	For Oxygen service, valves are supplied cleaned, degreased and suitably packed.					XX
GH	Material test certificate					
GO	Hydro test certificate					
PV	IBR Approval					

**Note -**  
The weld prepared types are available with a male-or-female plain end - suitable for socket weld, or male butt weld end. Always specify pipe schedule and further requirements when ordering valves for welded or Flange connections. Panel mounting option for installation in racks and panels.

## 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



## Ordering Example : KAVT - KAVS - XX - X - XX - XX - X - XX

For Other Optional Items, Please Contact Factory For Delivery and Minimum Quantity of Order.

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