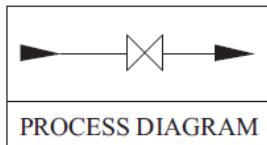


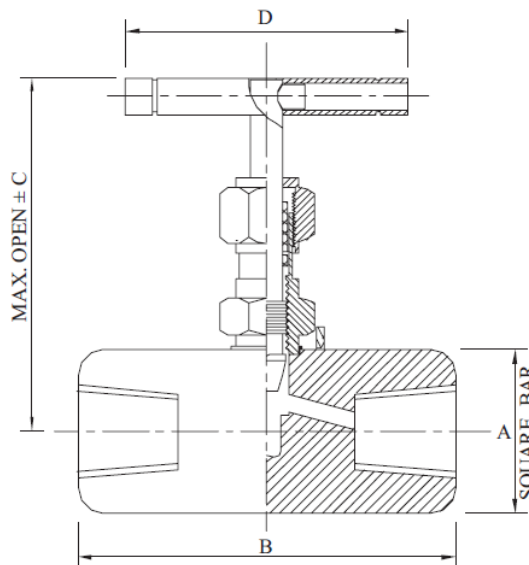
Needle Valves

# Needle Valve - Female x Female

Dwg No. IINV/FF



Orifice : 4 mm  
 Pressure : up to 6000 psi  
 Temperature : up to 400°C  
 All dimensions in Millimetre

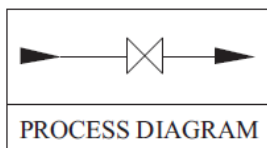


PART NO.	Size	A	B	±C	D
IINV/FF/01	1/8"	19	50	65	45
IINV/FF/02	1/4"	22	50	70	50
IINV/FF/03	3/8"	25	55	75	55
IINV/FF/04	1/2"	30	65	85	55
IINV/FF/05	3/4"	36	75	95	65
IINV/FF/06	1"	40	85	100	65
IINV/FF/07	1-1/4"	54	90	120	80
IINV/FF/08	1-1/2"	62	110	130	88
IINV/FF/09	2"	72	120	150	95

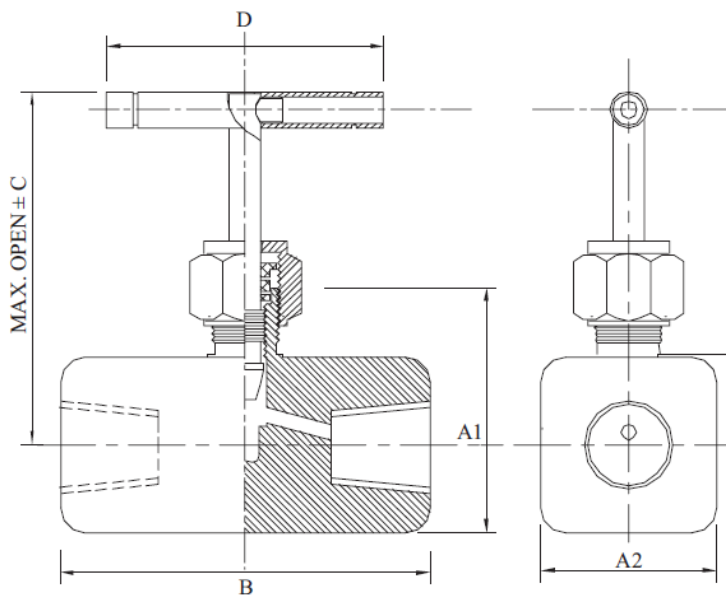
Needle Valves

# Needle Valve - Female x Female - High Pressure

Dwg No. IINV/FF/HP



Orifice : 4 mm  
 Pressure : up to 10,000 psi  
 Temperature : up to 400°C  
 All dimensions in Millimetre

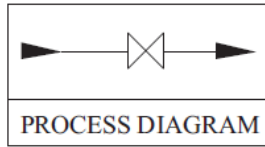


PART NO.	Size	A1	A2	B	±C	D
IINV/FF/HP/01	1/8"	38	25	55	70	45
IINV/FF/HP/02	1/4"	38	25	55	75	50
IINV/FF/HP/03	3/8"	42	28	60	80	55
IINV/FF/HP/04	1/2"	48	32	65	85	60

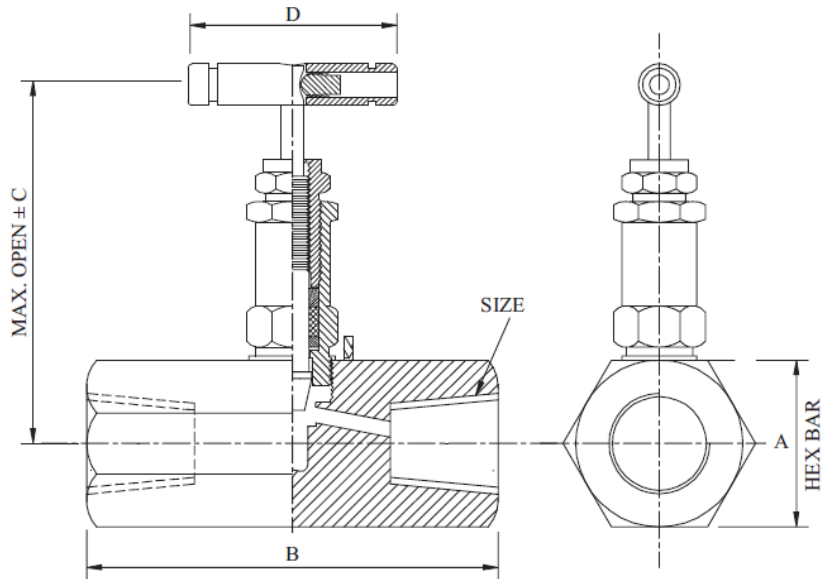
Needle Valves

# Hex Needle Valve - Female x Female

Dwg No. IINV/H/FF



Orifice : 4 mm  
 Pressure : up to 6,000 psi  
 Temperature : up to 400°C  
 All dimensions in Millimetre

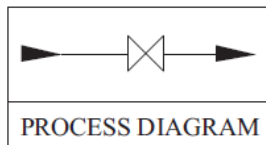


PART NO.	Size	A	B	C±3	D
IINV/H/FF/01	1/4"	25	55	92	50
IINV/H/FF/02	3/8"	25	60	92	55
IINV/H/FF/03	1/2"	32	75	98	55
IINV/H/FF/04	3/4"	36	75	114	65

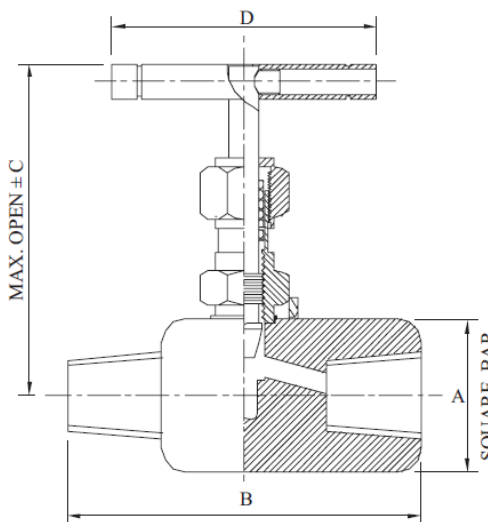
Needle Valves

# Needle Valve - Male x Female

Dwg No. IINV/MF



Orifice : 4 mm  
 Pressure : up to 6000 psi  
 Temperature : up to 400°C  
 All dimensions in Millimetre

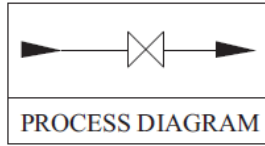


PART NO.	Size	A	B	±C	D
IINV/MF/01	1/8"	19	50	65	45
IINV/MF/02	1/4"	22	50	70	50
IINV/MF/03	3/8"	25	55	75	55
IINV/MF/04	1/2"	30	65	85	55
IINV/MF/05	3/4"	36	75	95	65
IINV/MF/06	1"	40	85	100	65
IINV/MF/07	1-1/4"	54	90	120	80
IINV/MF/08	1-1/2"	62	110	130	88
IINV/MF/09	2"	72	120	150	95

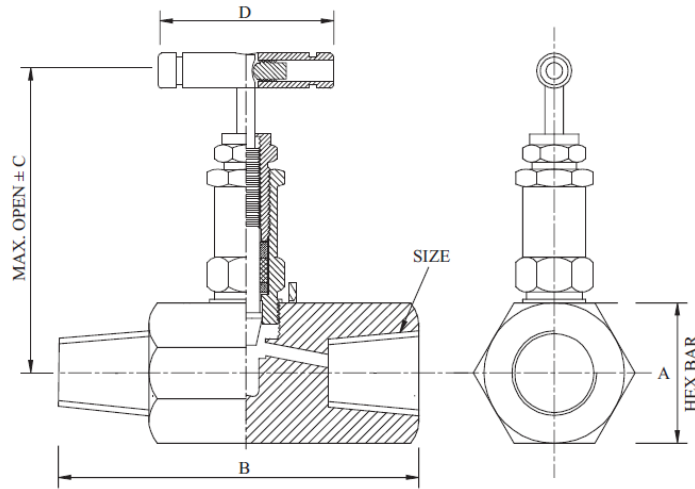
Needle Valves

# Hex Needle Valve - Male x Female

Dwg No. IINV/H/MF



Orifice : 4 mm  
 Pressure : up to 6000 psi  
 Temperature : up to 400°C  
 All dimensions in Millimetre

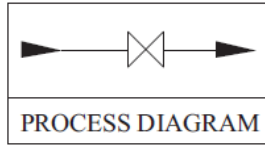


PART NO.	Size	A	B	±C	D
IINV/H/MF/01	1/4"	25	60	92	50
IINV/H/MF/02	3/8"	25	65	92	55
IINV/H/MF/03	1/2"	32	80	98	55
IINV/H/MF/04	3/4"	36	80	114	65

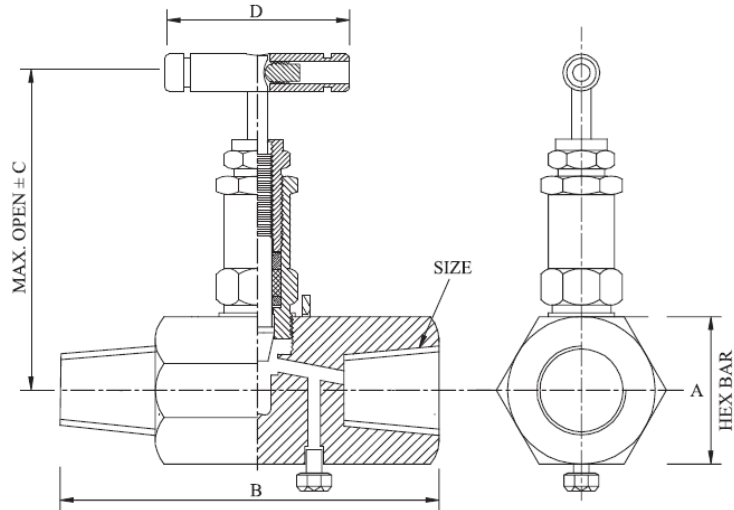
Needle Valves

# Hex Needle Valve - Vent

Dwg No. IINV/HV/MF



Orifice : 4 mm  
 Pressure : up to 6000 psi  
 Temperature : up to 400°C  
 All dimensions in Millimetre

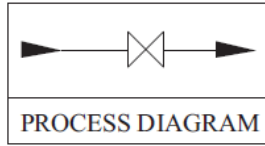


PART NO.	Size	A	B	±C	D
IINV/HV/MF/01	1/4"	25	65	92	50
IINV/HV/MF/02	3/8"	25	70	92	55
IINV/HV/MF/03	1/2"	32	85	98	55
IINV/HV/MF/04	3/4"	36	85	114	65

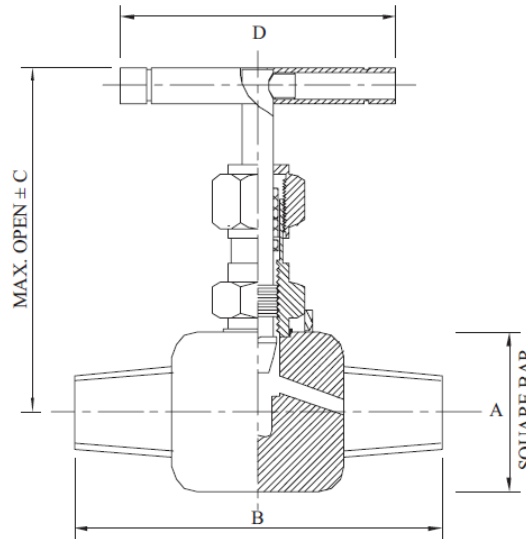
Needle Valves

# Needle Valve - Male x Male

Dwg No. IINV/MM



Orifice : 4 mm  
 Pressure : up to 6000 psi  
 Temperature : up to 400°C  
 All dimensions in Millimetre

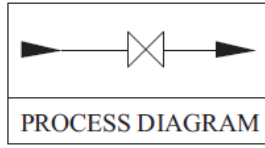


PART NO.	Size	A	B	±C	D
IINV/MM/01	1/8"	19	50	65	45
IINV/MM/02	1/4"	22	50	70	50
IINV/MM/03	3/8"	25	55	75	55
IINV/MM/04	1/2"	30	65	85	55
IINV/MM/05	3/4"	36	75	95	65
IINV/MM/06	1"	40	85	100	65
IINV/MM/07	1-1/4"	54	90	120	80
IINV/MM/08	1-1/2"	62	110	130	88
IINV/MM/09	2"	72	120	150	95

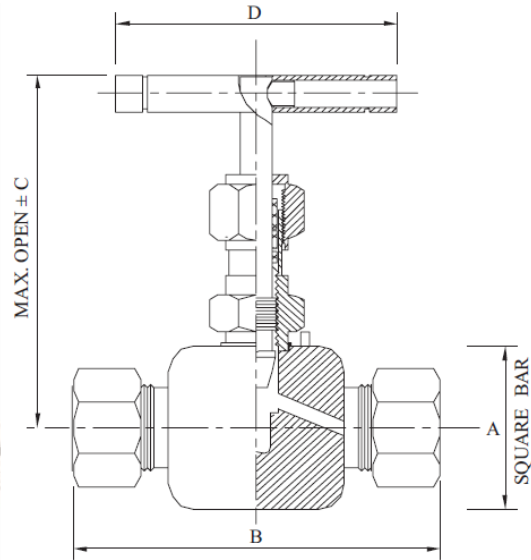
Needle Valves

# Needle Valve - O.D.

Dwg No. IINV/OD



Orifice : 4 mm  
 Pressure : up to 6000 psi  
 Temperature : up to 400°C  
 All dimensions in Millimetre



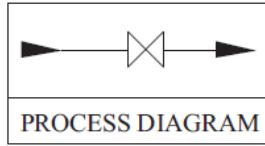
PART NO.	Size	A	B	±C	D
IINV/OD/01	1/8"	20	50	65	45
IINV/OD/02	1/4"	22	50	70	50
IINV/OD/03	3/8"	22	55	75	55
IINV/OD/04	1/2"	22	65	85	55
IINV/OD/05	3/4"	28	75	95	65
IINV/OD/06	1"	36	85	100	65
IINV/OD/07	1-1/4"	45	90	120	80
IINV/OD/08	1-1/2"	52	110	130	88
IINV/OD/09	2"	62	120	150	95



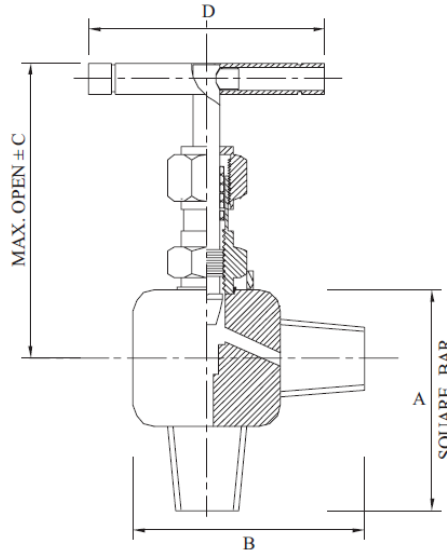
Needle Valves

# Needle Valve - Angle

Dwg No. IINV/ANG



Orifice : 4 mm  
 Pressure : up to 6000 psi  
 Temperature : up to 400°C  
 All dimensions in Millimetre

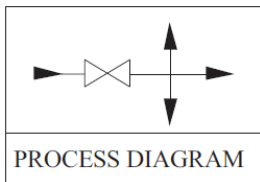


PART NO.	Size	A	B	±C	D
IINV/ANG/01	1/8"	26	26	70	45
IINV/ANG/02	1/4"	32	32	75	50
IINV/ANG/03	3/8"	36	36	80	55
IINV/ANG/04	1/2"	42	42	90	55
IINV/ANG/05	3/4"	50	50	100	65
IINV/ANG/06	1"	56	56	105	65
IINV/ANG/07	1-1/4"	62	62	125	80
IINV/ANG/08	1-1/2"	72	72	135	88
IINV/ANG/09	2"	82	82	155	95

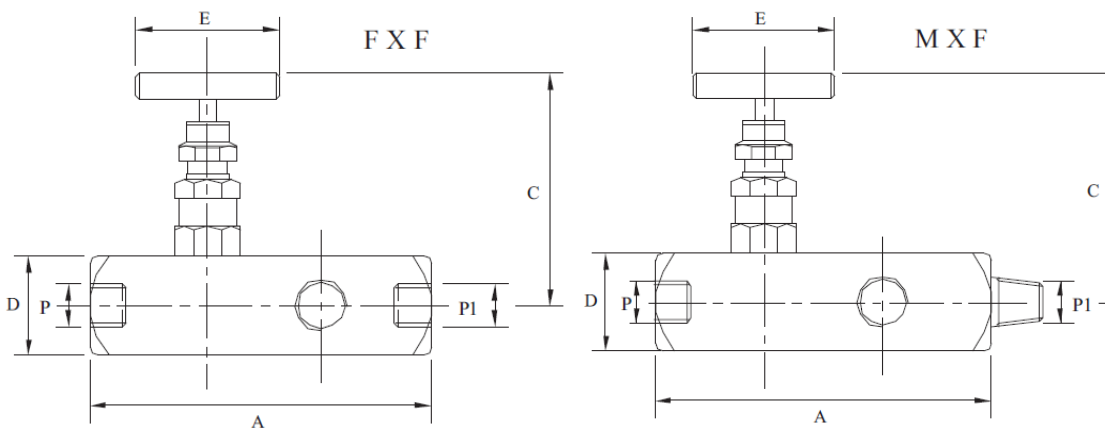
Needle Valves

# Gauge Valve - Multiport

Dwg No. IIGV/MP



Orifice : 4 mm  
 Approximate Weight : 0.90 kg  
 Pressure : up to 6000 psi  
 Temperature : up to 400°C  
 All dimensions in Millimetre

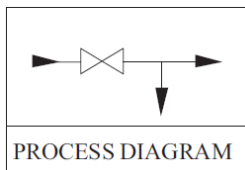


PART NO.	END CONNECTIONS		DIMENSION			
	P	P1	A	±C	D	E
IIGV/MP/01	1/2" Male	1/2" Female	115	84	30	55
IIGV/MP/02	1/2" Male	3/4" Female	115	84	30	55
IIGV/MP/03	1/2" Male	3/4" Female	115	84	38	55
IIGV/MP/04	1/2" Male	1/2" Female	115	84	30	55
IIGV/MP/05	1/4" Female	1/4" Female	90	62	22	40
IIGV/MP/06	1/2" Female	1/2" Female	115	84	30	55
IIGV/MP/07	1/2" Female	1/2" Extended	215	84	30	55
IIGV/MP/08	3/4" Female	1/2" Extended	215	84	38	55

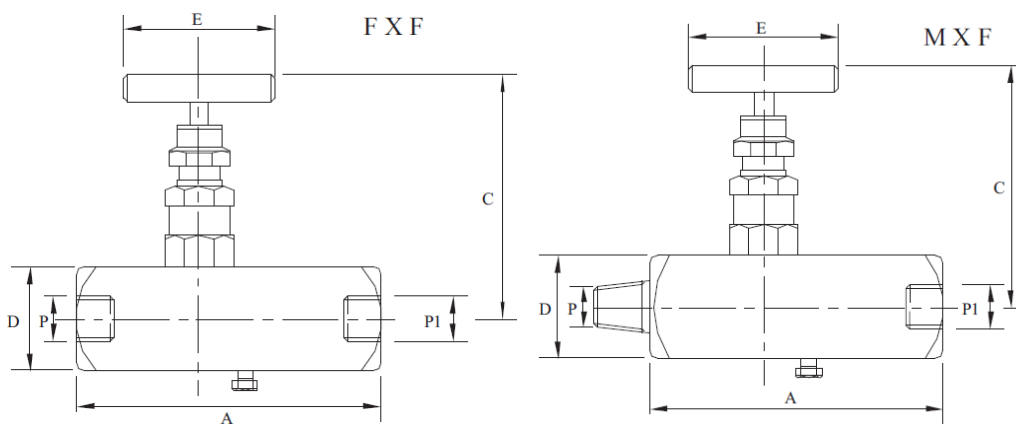
Needle Valves

# Gauge Valve - Block & Bleed

Dwg No. IIGV/BB



Orifice : 4 mm  
 Approximate Weight : 0.75 kg  
 Pressure : up to 6000 psi  
 Temperature : up to 400°C  
 All dimensions in Millimetre



PART NO.	END CONNECTIONS		DIMENSION			
	P	P1	A	±C	D	E
IIGV/BB/01	1/4" Male	1/4" Female	70	62	25	45
IIGV/BB/02	3/8" Male	3/8" Female	70	62	25	45
IIGV/BB/03	1/2" Male	1/2" Female	83	84	30	55
IIGV/BB/04	3/4" Male	3/4" Female	85	84	38	60
IIGV/BB/05	1/4" Female	1/4" Female	70	62	25	45
IIGV/BB/06	3/8" Female	3/8" Female	70	62	25	45
IIGV/BB/07	1/2" Female	1/2" Female	75	84	30	55