

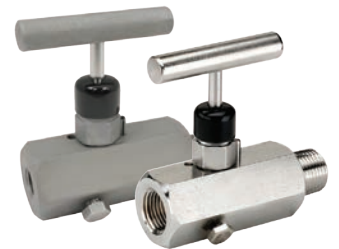
Block and Bleed Needle Valves

Features:

- allows pressure to be bled off without disturbing the permanent piping installation allowing quick and easy removal or replacement of instruments
- FKM O-ring seal and PTFE back-up ring below the threads protects from corrosion and galling
- stem threads are rolled for strength and ease of operation
- metal-to-metal hard seat design is 100% helium leak tested to 1×10^{-4} ml/s at 200 PSI
- orifice size is 0.187", flow coefficient: 0.44
- all stems are 316 stainless steel
- 0.090" bleed hole located on bottom is controlled by a 1/4"-20 UNF-2A bleed screw

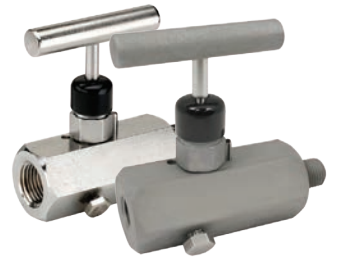
Hard Seat Male to Female

NPT Size	Handle Style	PSI at 200°F (94°C)	Zinc Nickel Plated Steel Part #	316 Stainless Steel Part #
1/4" - 18	T design	10000	MFC602	MFS602
1/2" - 14	T design	10000	MFC604	MFS604



Soft Seat Male to Female

NPT Size	Handle Style	PSI at 200°F (94°C)	Zinc Nickel Plated Steel Part #	316 Stainless Steel Part #
1/4" - 18	T design	6000	MFC702	MFS702
1/2" - 14	T design	6000	MFC704	MFS704



Bleed Needle Valves

Features:

- convenient way to relieve process pressures trapped between a shut-off valve and the instrument
- FKM O-ring seal and PTFE back-up ring below the threads protects from corrosion and galling
- stem threads are rolled for strength and ease of operation
- metal-to-metal hard seat design is 100% helium leak tested to 1×10^{-4} ml/s at 200 PSI
- non-rotating soft tip stem and a backup metal-to-metal seal
- all stems are 316 stainless steel
- 0.159" bleed port

Hard Seat Male

NPT Size	Handle Style	PSI at 200°F (94°C)	Zinc Nickel Plated Steel Part #	316 Stainless Steel Part #
1/4" - 18	T design	10000	MC802	MS802
1/2" - 14	T design	10000	MC804	MS804



316 stainless

Soft Tip Male

NPT Size	Handle Style	PSI at 200°F (94°C)	Zinc Nickel Plated Steel Part #	316 Stainless Steel Part #
1/4" - 18	T design	6000	MC852	MS852
1/2" - 14	T design	6000	MC854	MS854



316 stainless