

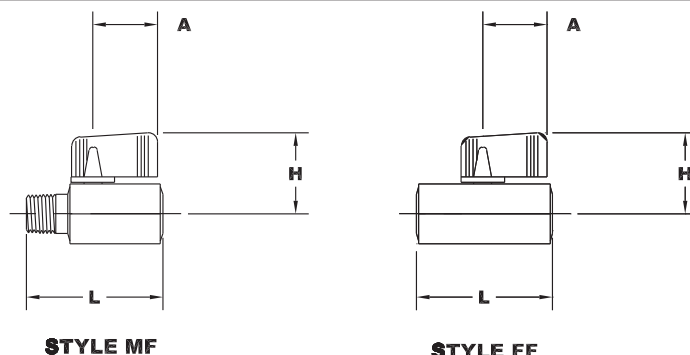
Needle and Ball Valves

Palmer Needle and Ball Valves offer economical, quality solutions for the most demanding applications.

Ball Valves

Material: Ball Valves come in nickel plated Brass with a hard chrome plated Brass ball. May be installed for flow in either direction. Blow-out proof stem. Black Nylon wedge handle. **Rating:** to 450 PSI and -4° to 200°F.

Ball Valve Body Material	
Chrome Plated Body	OT58 Brass
Retainer Nut	OT58 Brass
Retainer Seat	PFE
Chrome Plated Ball	OT58 Brass
Body Seat	PFE
Unplated Stem	OT58 Brass
Screw	SS
Green O-Ring	Vitron
Black Handle	Nylon



Ball Valve Model Numbers					Ball Valve Dimensions		
Material	Seat	Connection	Style	Model #	A	H	L
Nickel Plated Brass	Hard Chrome Plated Brass	1/4" NPT	FF	BHQ-FFB	0.885"	1.122"	1.712"
		1/4" NPT	MF	BHQ-MFB	0.885"	1.122"	1.712"
		1/2" NPT	FF	BHH-FFB	0.885"	1.200"	2.106"
		1/2" NPT	MF	BHH-MFB	0.885"	1.200"	2.106"

Needle Valves

Material: Needle Valves come in Brass, 316SS, and Carbon Steel.

Bonnet: Screwed Bonnet type.

Stem: Externally adjustable, wear compensating, virgin PTFE stem packing offers long trouble free service life in most liquid or gas applications.

Connections: Valves are available with 1/4" NPT connections in either male or female. See the Model Number Table at right.

Operating Limitations:

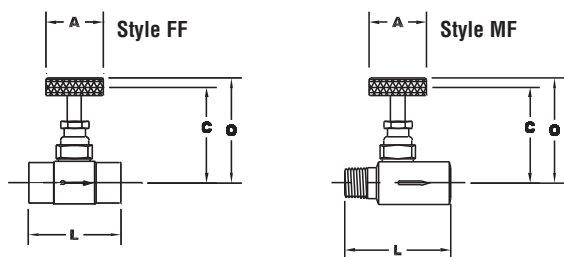
Brass: 3000 PSI (207 bar) @100°F (38°C)
316 SS: 5000 PSI (345 bar) @100°F (38°C)
Carbon Steel: 6000 PSI (413 bar) @200°F (93°C)

Flow Coefficient:

Globe and Angle (.187" Orifice): 0.40 Cv
Block (.312" Orifice): 0.90 Cv

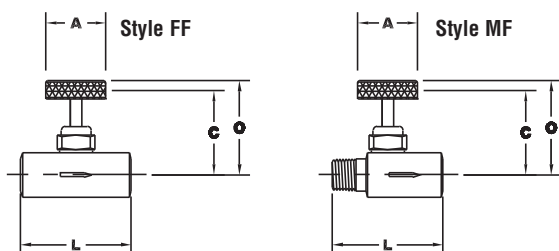
Temperature Rating: Kel-F Stem Tip Stem: -65 to 200°F (-54 to 93°C)

Brass Needle Valves



Needle Valve Model Numbers					Needle Valve Dimensions			
Material	Seat	Connection	Style	Model #	A	C	H	L
Brass	Hard	1/4" NPT	FF	NHQ-FFB	0.980"	1.935"	2.115"	1.625"
		1/4" NPT	MF	NHQ-MFB				
Carbon Steel	Soft	1/4" NPT	FF	NSQ-FFC	0.980"	1.730"	1.925"	1.875"
		1/4" NPT	MF	NSQ-MFC				
316SS	Soft	1/4" NPT	FF	NSQ-FFS	1.015"	1.790"	1.965"	1.875"
		1/4" NPT	MF	NSQ-MFS				

Stainless Steel Needle Valves



Needle Valve Body Material			
Component	Brass	316SS	Carbon Steel
Valve Body, Bonnet, Packing Nut	Brass, ASTM B16	316SS, ASTM A479	Carbon Steel
Stem		316SS, ASTM A582/Kel-F (CTFE)	304SS
Handle		Brass, ASTM B16 (Nickel Plated, ASTM689)	Carbon Steel
Set Screw	ANSI B18.3 (Alloy Steel)		Carbon Steel
Packing	PTFE		
Packing Nut	Brass, ASTM B16	Brass, ASTM B16 (Nickel Plated, ASTM689)	Carbon Steel
Tamper Proof Cap			

