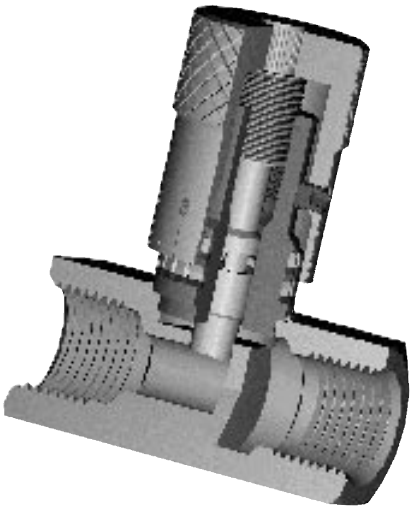
TRU Micro TMN Series with Color Bands

Designed for extremely precise control of air and hydraulic fluids.

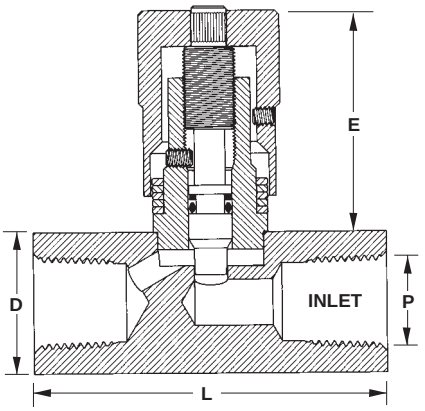


Features:

- Easy-to-read color bands and micrometer knob provide exact flow settings.
- Re-Set Repeatability within 1%.
- Precision machined DOUBLE-STEP stem with fine threading provides accurate control, even at extremely low flows.
- Rugged, all-metal construction – no plastic parts.
- Brazed construction to withstand high pressure.
- Steel valves are zinc-plated AND sealed with black chromate for double corrosion protection.
- SAE PORTS AVAILABLE, consult factory.

Ordering Information:

Part Number	Body Material	P (NPT) Female	D (In.) Square	L (In.)	E (In.) Max.	Orifice Diameter (In.)	CV
TMN125B	Brass	1/8	5/8	1 1/2	1 7/32	1/8	.25
TMN250B		1/4	13/16	2	1 3/8	5/32	.47
TMN375B		3/8	1	2 1/2	1 23/32	7/32	.72
TMN500B		1/2	1 1/8	2 5/8	2 1/2	5/16	1.07
TMN250S	Steel	1/4	13/16	2	1 3/8	5/32	.47
TMN375S		3/8	1	2 1/2	1 23/32	7/32	.72
TMN500S		1/2	1 1/8	2 5/8	2 1/4	5/16	1.07
TMN750S		3/4	1 1/2	3 1/4	2 15/32	3/8	1.71
TMN1000S		1	2	4 1/4	3 7/8	5/8	2.45



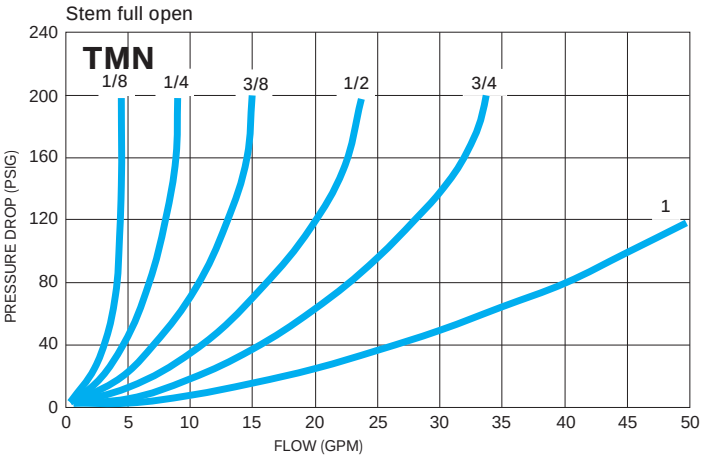
Specifications:

Maximum Operating Pressure	5000 PSIG Steel 2000 PSIG Brass
Temperature Range	-20ºF to +400ºF
Stem Taper	2º x 45º DOUBLE-STEP
Stem Pitch	40 Threads/Inch
CV Factor	See Ordering Information

Materials:

Body	12L14 Steel or ASTM B 16 Brass
Stem	Stainless Steel
Knob	Brass
Color Bands	Anodized Aluminum
Set Screw	Steel
Stem Packing	Viton O-ring with “Teflon” Backup

Performance

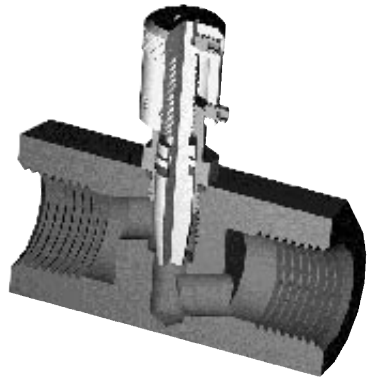


MN Series

The best value for precise control of air and hydraulic fluids where a calibrated knob is required.

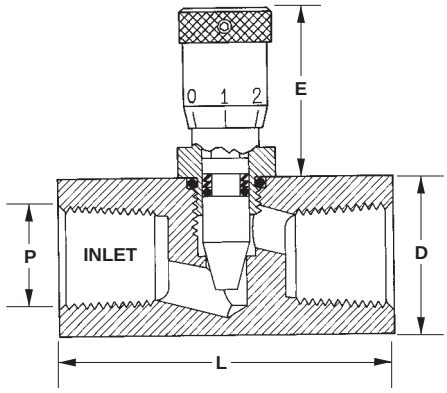
Features:

- Precision-machined long tapered stem with fine threading provides exact control.
- Calibrated knob provides setting reference and does not drift from setting.
- Durability provided by rugged, all metal construction with no plastic parts.
- Steel valves are zinc-plated and sealed with “golden glow” chromate for double corrosion protection.



Ordering Information:

Part Number	Body Material	P (NPT) Female	D (In.) Hex	L (In.)	E (In.) Max.	Orifice Diameter (In.)	CV
MN125B	Brass	1/8	11/16	1 1/2	1 1/4	.156	.25
MN250B		1/4	7/8	2			.39
MN375B		3/8	1 1/16	2 1/4	1 3/8	.265	.93
MN500B		1/2	1 5/16	2 21/32		.281	1.12
MN250S	Steel	1/4	7/8	2	1 1/4	.156	.39
MN375S		3/8	1 1/16	2 1/4	1 3/8	.265	.93
MN500S		1/2	1 5/16	2 21/32		.281	1.12
MN750S		3/4	1 5/8	3	1 1/4	.343	2.00
MN1000S		1	1 7/8	3	2 1/8	.343	2.00



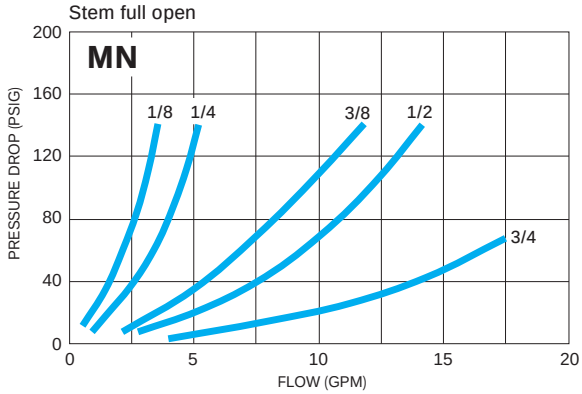
Specifications:

Maximum Operating Pressure	5000 PSIG Steel 2000 PSIG Brass
Temperature Range	-20ºF to +212ºF
Stem Taper	8º
Stem Pitch	40 Threads/Inch
CV Factor	See Ordering Information

Materials:

Body	12L14 Steel or ASTM B 16 Brass
Stem	Stainless Steel or Brass
Knob	Brass
Chamber	Steel
Set Screw	Steel
Stem Packing	Viton with “Teflon” Backup

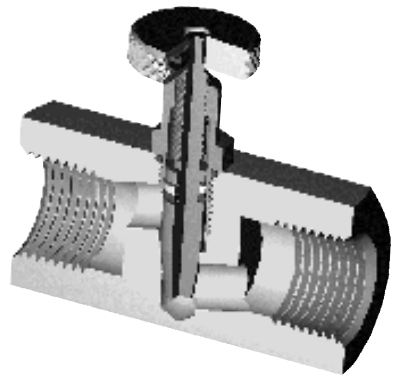
Performance



Needle Valves

KLN Series

Designed for the precise control of air and hydraulic fluids.

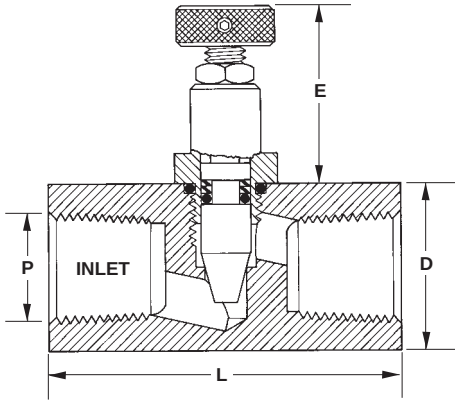


Features:

- Precision-machined long tapered stem with fine threading provides exact control.
- Lock nut provided to secure flow settings.
- Durability provided by rugged, all metal construction with no plastic parts.
- Steel valves are zinc plated and sealed with “golden glow” chromate for double corrosion protection.

Ordering Information:

Part Number	Body Material	P (NPT) Female	D (In.) Hex	L (In.)	E (In.) Max.	Orifice Diameter (In.)	CV
KLN125B	Brass	1/8	11/16	1 1/2	1 1/4	.156	.25
KLN250B		1/4	7/8	2			.39
KLN375B		3/8	1 1/16	2 1/4	1 3/8	.265	.93
KLN500B		1/2	1 5/16	2 21/32		.281	1.12
KLN750B		3/4	1 5/8	3	1 7/8	.343	2.00
KLN1000B		1	1 7/8				
KLN125S	Steel	1/8	11/16	1 1/2	1 1/4	.156	.25
KLN250S		1/4	7/8	2			.39
KLN375S		3/8	1 1/16	2 1/4	1 3/8	.265	.93
KLN500S		1/2	1 5/16	2 21/32		.281	1.12
KLN750S		3/4	1 5/8	3	1 7/8	.343	2.00



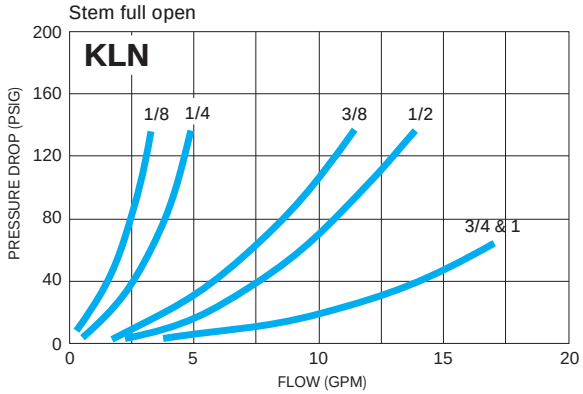
Specifications:

Maximum Operating Pressure	5000 PSIG Steel 2000 PSIG Brass
Temperature Range	-20ºF to +212ºF
Stem Taper	8º
Stem Pitch	40 Threads/Inch (1/8, 1/4, 3/8, 1/2” Sizes) 24 Threads/Inch (3/4, 1” Sizes)
CV Factor	See Ordering Information

Materials:

Body	12L14 Steel, ASTM B 16 Brass, or 303 Stainless Steel
Stem	Stainless Steel or Brass
Knob	Aluminum (1/8, 1/4, 3/8, 1/2” Sizes) Brass (3/4, 1” Sizes)
Chamber	Steel (zinc plated)
Lock Nut	Brass
Stem Packing	Viton O-ring with “Teflon” Backup

Performance

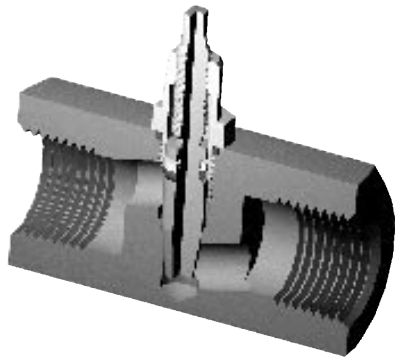


N Series

Economically designed for effective control of air and hydraulic fluids where frequent adjustment is not required.

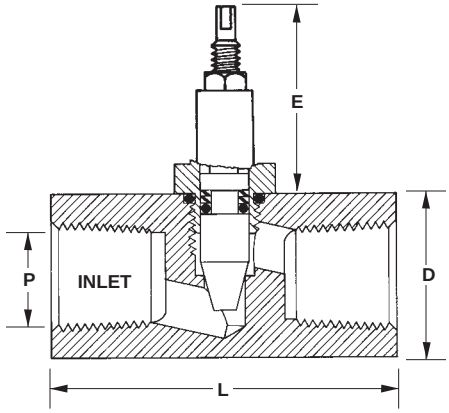
Features:

- Wrench flats provided to adjust setting, while resisting unwanted tampering.
- Steel valves are zinc plated and sealed with “golden glow” chromate for double corrosion protection.
- Durable, rugged, all metal construction — no plastic parts.



Ordering Information:

Part Number	Body Material	P (NPT) Female	D (In.) Hex	L (In.)	E (In.) Max.	Orifice Diameter (In.)	CV
N125B	Brass	1/8	11/16	1 1/2	1 1/4	.156	.25
N250B		1/4	7/8	2			.39
N375B		3/8	1 1/16	2 1/4	1 3/8	.265	.93
N500B		1/2	1 5/16	2 21/32		.281	1.12
N250S	Steel	1/4	7/8	2	1 1/4	.156	.39
N375S		3/8	1 1/16	2 1/4	1 3/8	.265	.93
N500S		1/2	1 5/16	2 21/32		.281	1.12



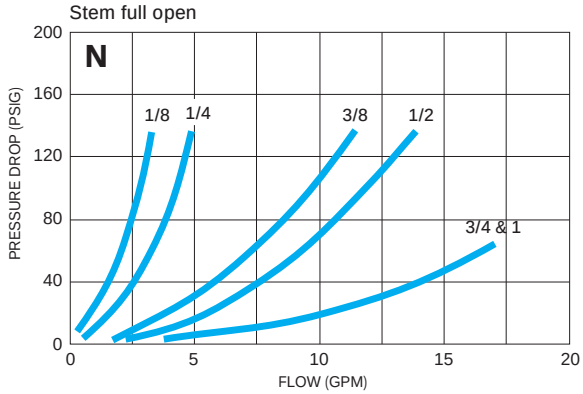
Specifications:

Maximum Operating Pressure	5000 PSIG Steel 2000 PSIG Brass
Temperature Range	-20ºF to +212ºF
CV Factor	See Ordering Information
Stem Taper	8º
Stem Pitch	40 Threads/Inch

Materials:

Body	12L14 Steel or ASTM B 16 Brass
Stem	Stainless Steel or Brass
Chamber	Steel (Zinc Plated)
Lock Nut	Brass
Stem Packing	Viton O-Ring

Performance



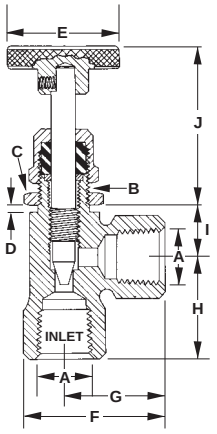
Mini-Line Series

Ideal for test bench and control panel applications. Designed for use with air, oil, water, steam, vacuum service, and most chemicals.

Features:

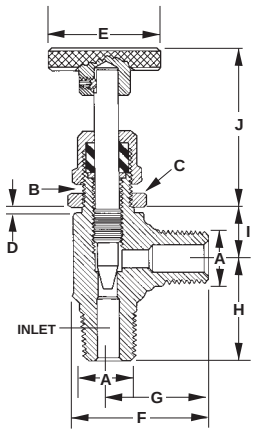
- Compact design provides easy installation.
- Fine stem threading and long taper allow precise metering and leak-free shut-off.
- Internal stop prevents the stem from being accidentally unscrewed from the body.
- Rugged forged brass bodies withstand higher pressures.
- Available in globe and angle configurations.
- Valves come equipped for panel mounting.
- Some models available with stainless steel stem (ss suffix denotion).

Ordering Information:



NVA

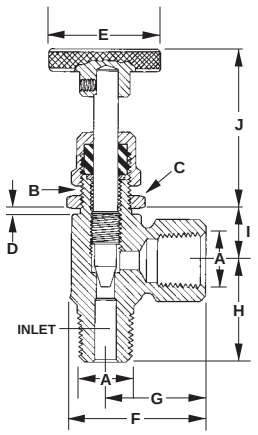
Part Number	A (NPT)	B (UNS-2B) Thd. Size	C (In.) Hex Size	D (In.) Max.	E (In.)	F (In.)	G (In.)	H (In.)	I (In.)	J (In.) Open	J (In.) Closed	CV
NVA125B	1/8	1/2 - 27	11/16	3/32	1 1/4	1 5/32	3/4	3/4	7/16	1 31/32	1 11/16	.7
NVA250B	1/4			7/32		1 13/32	1	1		2 5/32	1 19/32	



MMA

Part Number	A (NPT)	B (UNS-2B) Thd. Size	C (In.) Hex Size	D (In.) Max.	E (In.)	F (In.)	G (In.)	H (In.)	I (In.)	J (In.) Open	J (In.) Closed	CV
MMA250B	1/4	1/2 - 27	11/16	7/32	1 1/4	1 11/32	1	1	7/16	2 5/32	1 19/32	.7
HHA250B	1/4*	1/2 - 27	11/16	7/32	1 1/4	1 11/32	1	1	7/16	2 5/32	1 19/32	.7

*1/4" Hose Barbs



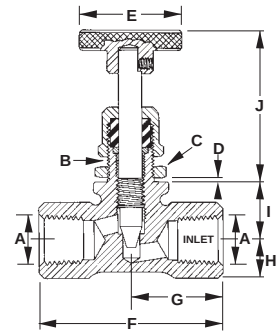
MFA

Part Number	A (NPT)	B (UNS-2B) Thd. Size	C (In.) Hex Size	D (In.) Max.	E (In.)	F (In.)	G (In.)	H (In.)	I (In.)	J (In.) Open	J (In.) Closed	CV
MFA125B	1/8	1/2 - 27	11/16	7/32	1 1/4	1 7/32	7/8	7/8	7/16	2 5/32	1 19/32	.7
MFA250B	1/4					1 11/32	1	1				
MFA250BSS												

Mini-Line Series

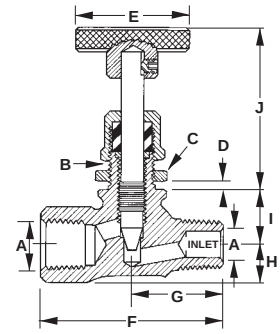
NVG

Part Number	A (NPT)	B (UNS-2B) Thd. Size	C (In.) Hex Size	D (In.) Max.	E (In.)	F (In.)	G (In.)	H (In.)	I (In.)	J (In.) Open	J (In.) Closed	CV
NVG125B	1/8	1/2 - 27	11/16	7/32	1 1/4	1 7/8	15/16	13/32	7/16	2 5/32	1 25/32	.5
NVG250B	1/4					2	1					
NVG250BSS												



MFG

Part Number	A (NPT)	B (UNS-2B) Thd. Size	C (In.) Hex Size	D (In.) Max.	E (In.)	F (In.)	G (In.)	H (In.)	I (In.)	J (In.) Open	J (In.) Closed	CV
MFG125BF	1/8	1/2 - 27	11/16	7/32	1 1/4	1 7/8	15/16	13/32	7/16	2 5/32	1 25/32	.5
MFG250BF	1/4					2	1					



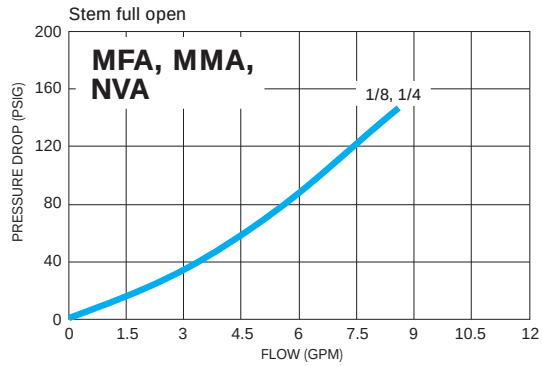
Specifications:

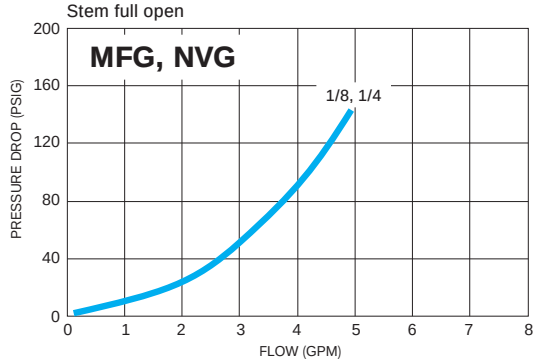
Maximum Operating Pressure	5000 PSIG Hydraulic 2000 PSIG Air
Minimum Burst Pressure	8000 PSIG
Temperature Range	-40ºF to +500ºF
Orifice Diameter	.182”
Stem Taper	15º
Stem Pitch	28 Threads/Inch
CV Factor	See Ordering Information

Materials:

Body	ASTM B283 Brass
Stem	Brass
Knob	Brass
Bonnet Nut	Brass
Panel Mount Nut	Brass
Set Screw	Steel
Stem Packing	Teflon with Brass Gland

Performance





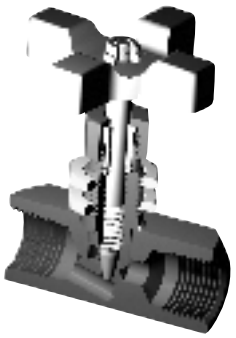
Needle Valves

2000 Series

Ideal for applications which require fine metering and shut-off. Designed for use with air, oil, water, steam, liquid fuels and most chemicals.

Features:

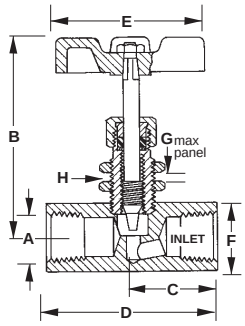
- Heavy duty brazed construction for added strength and safety up to 10,000 psi.
- Precision-machined stems and valve bodies provide perfect seat alignment for leak-free shut-off.
- Carbon steel valves are zinc plated and sealed with black chromate for double corrosion protection.
- Available in globe and angle configuration; in-line or panel mounted.
- Machined from carbon steel, or 303 stainless steel.



Ordering Information:

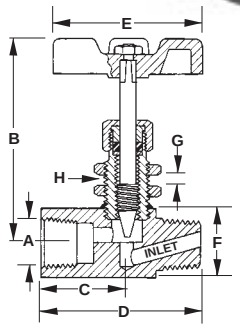
FFG

Part Number	Body Material	A (NPT) Female	B (In.) Max.	C (In.)	D (In.)	E (In.)	F (In.) Square	G (In.)	H (In.) Diam.	Orifice Diam. (In.)	CV
FFG2001T	Carbon Steel	1/8	3 1/2	31/32	1 15/16	2 1/2	7/8	3/8	5/8	7/22	.66
FFG2002T		1/4		1 1/32	2 1/16						
FFG2003T		3/8	3 5/8	1 7/16	2 3/4		1 1/8		3/4		.70
FFG2004T		1/2									
FFG2006TA		3/4	5 3/16	1 13/16	3 5/8	4 1/4	1 1/2	7/8	1 1/2	9/16	3.90
FFG2008TA		1	5 5/16	2 1/32	4 1/16		2				5.22
FFG2002SST	303 Stainless Steel	1/4	3 1/2	1 1/32	2 1/16	2 1/2	7/8	3/8	5/8	7/32	.66
FFG2003SST		3/8	3 5/8	1 7/16	2 3/4		1 1/8		3/4		.70
FFG2004SST		1/2									
FFG2006SSTA		3/4	5 3/16	1 13/16	3 5/8	4 1/4	1 1/2	7/8	1 1/2	9/16	3.90
FFG2008SSTA		1	5 5/16	2 1/32	4 1/16		2				5.22



MFG

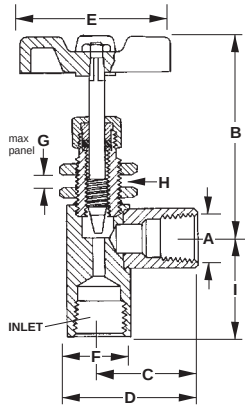
Part Number	Body Material	A (NPT) Male x Female	B (In.) Max.	C (In.)	D (In.)	E (In.)	F (In.) Square	G (In.)	H (In.) Diam.	Orifice Diam. (In.)	CV
MFG2002T	Carbon Steel	1/4	3 1/2	1 1/32	2 11/32	2 1/2	7/8	3/8	5/8	.218	.92
MFG2003T		3/8	3 5/8	1 3/8	2 3/4		1 1/8		3/4		1.10
MFG2004T		1/2			2 5/8						



2000 Series

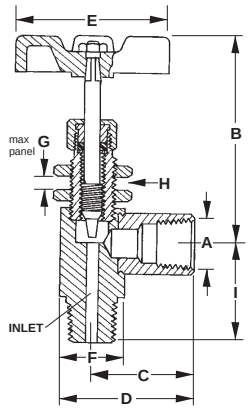
FFA

Part Number	Body Material	A (NPT) Female	B (In.) Max.	C (In.)	D (In.)	E (In.)	F (In.) Square	G (In.)	H (In.) Diam.	I (In.)	Orifice Diam. (In.)	CV
FFA2001T	Carbon Steel	1/8	3 1/2	1	1 1/2	2 1/2	1	3/8	5/8	1 1/16	7/32	.92
FFA2002T		1/4		1 9/32	1 25/32							
FFA2003T		3/8	3 5/8	1 17/32	2 5/32		1 1/4		3/4	1 19/32		1.10
FFA2004T		1/2										
FFA2006TA		3/4	5 3/16	1 27/32	2 23/32	4 1/4	1 3/4	7/8	1 1/2	1 15/16	9/16	4.43
FFA2002SST	303 Stainless Steel	1/4	3 1/2	1 9/32	1 25/32	2 1/2	1	3/8	5/8	1 1/16	7/32	.92



MFA

Part Number	Body Material	A (NPT) Male x Female	B (In.) Max.	C (In.)	D (In.)	E (In.)	F (In.) Square	G (In.)	H (In.) Diam.	I (In.)	Orifice Diam. (In.)	CV
MFA2002T	Carbon Steel	1/4	3 1/2	1 9/32	1 25/32	2 1/2	1	3/8	5/8	1 1/16	7/32	.92
MFA2003T		3/8	3 5/8	1 17/32	2 5/32		1 1/4		3/4	1 3/4		1.10
MFA2004T		1/2										



Specifications:

Maximum Operating Pressure	10,000 PSIG Hydraulic 2000 PSIG Air
Minimum Burst Pressure	20,000 PSIG
Temperature Range	-40ºF to +500ºF
Stem Taper	10 1/2º (1/8, 1/4, 3/8, 1/2" Sizes) 15º (3/4, 1" Sizes)
Stem Pitch	16 Threads/Inch (1/8, 1/4, 3/8, 1/2" Sizes) 14 Threads/Inch (3/4, 1" Sizes)
CV Factor	See Ordering Information

Materials:

	T and TA Models	SST and STA Models
Body	12L14 Carbon Steel	303 Stainless
Stem	303 Stainless	303 Stainless
Bonnet Nut	Carbon Steel	303 Stainless
Handle	Aluminum	Aluminum
Stem Packing	Teflon	Teflon

Panel Mounting Kits:

Valve Size	Kit Number
1/8 to 1/4	KIT2002S
3/8 to 1/2	KIT2004S
3/4 to 1	KIT2005S

Performance