

400 SERIES hard seat VALVES



***THIS VALVE IS THE WORK-HORSE OF THE INDUSTRY...
and is fast becoming the standard that other hard seat needle valves are judged against.***

- Metal to metal hard seat design is *100% Helium leak tested* to 1×10^{-4} ml/s.
- 10,000 psi pressure rating (@200°F maximum).
- Blow out proof stem that provides a secondary stem seal in the full open position.
- Stem packing below the threads prevents thread galling & corrosion.
- Viton O-Ring & Teflon back-up ring stem seals.
- All 316SS stems (even in steel valves) for longer life.
- Stem and bonnet threads are rolled for greater strength and smoother operation.
- Angled stem for precise flow metering.
- One piece bonnet with a metal to metal seal to the valve body below the bonnet threads.
- Bonnet lock pin to prevent accidental loosening.
- Vinyl bonnet & stem dust cap.
- Optional panel mount bonnet and panel nuts.
- Electroless Nickel plated finish on carbon steel valves.
- Electropolish finish on stainless steel valves.

Ordering Information

PART NUMBER	CONNECTION	MATERIAL
402 MFC	1/4 NPT Male-Female	Steel
404 MFC	1/2 NPT Male-Female	Steel
406 MFC	3/4 NPT Male-Female	Steel
408 MFC	1 NPT Male-Female	Steel
410 MFC	1-1/4 NPT Male-Female	Steel
412 MFC	1-1/2 NPT Male-Female	Steel
402 MFS	1/4 NPT Male-Female	Stainless Steel
404 MFS	1/2 NPT Male-Female	Stainless Steel
406 MFS	3/4 NPT Male-Female	Stainless Steel
408 MFS	1 NPT Male-Female	Stainless Steel
410 MFS	1-1/4 NPT Male-Female	Stainless Steel
412 MFS	1-1/2 NPT Male-Female	Stainless Steel
402 FFC	1/4 NPT Female-Female	Steel
403 FFC	3/8 NPT Female-Female	Steel
404 FFC	1/2 NPT Female-Female	Steel
406 FFC	3/4 NPT Female-Female	Steel
408 FFC	1 NPT Female-Female	Steel
410 FFC	1-1/4 NPT Female-Female	Steel

PART NUMBER	CONNECTION	MATERIAL
412 FFC	1-1/2 NPT Female-Female	Steel
442 FFC	*7/16 -20 UNF-2B Female-Female	Steel
402 FFS	1/4 NPT Female-Female	Stainless Steel
403 FFS	3/8 NPT Female-Female	Stainless Steel
404 FFS	1/2 NPT Female-Female	Stainless Steel
406 FFS	3/4 NPT Female-Female	Stainless Steel
408 FFS	1 NPT Female-Female	Stainless Steel
410 FFS	1-1/4 NPT Female-Female	Stainless Steel
412 FFS	1-1/2 NPT Female-Female	Stainless Steel
442 FFS	*7/16 -20 UNF-2B Female-Female	Stainless Steel
402 MFAC	1/4 NPT Female-Female Angle	Steel
404 MFAC	1/2 NPT Male-Female Angle	Steel
402 MFAS	1/4 NPT Male-Female Angle	Stainless Steel
404 MFAS	1/2 NPT Male-Female Angle	Stainless Steel
402 FFAC	1/4 NPT Female-Female Angle	Steel
404 FFAC	1/2 NPT Female-Female Angle	Steel
402 FFAS	1/4 NPT Female-Female Angle	Stainless Steel
404 FFAS	1/2 NPT Female-Female Angle	Stainless Steel

When ordering options please refer to the Part Number Construction guide below for the appropriate suffix. Please note that the standard O-Ring in all the **NOSHOK** Valves are Viton® and the standard handles are: "T" handles. * SAE J1926-4 O-Ring Port.

Part Number Construction: 404 FFC - PM2 - EM1 - HL5

Panel Mount Options

PM1 - Panel Mount (1 nut)
PM2 - Panel Mount (2 nuts)

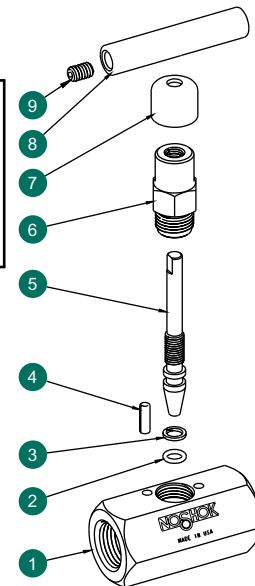
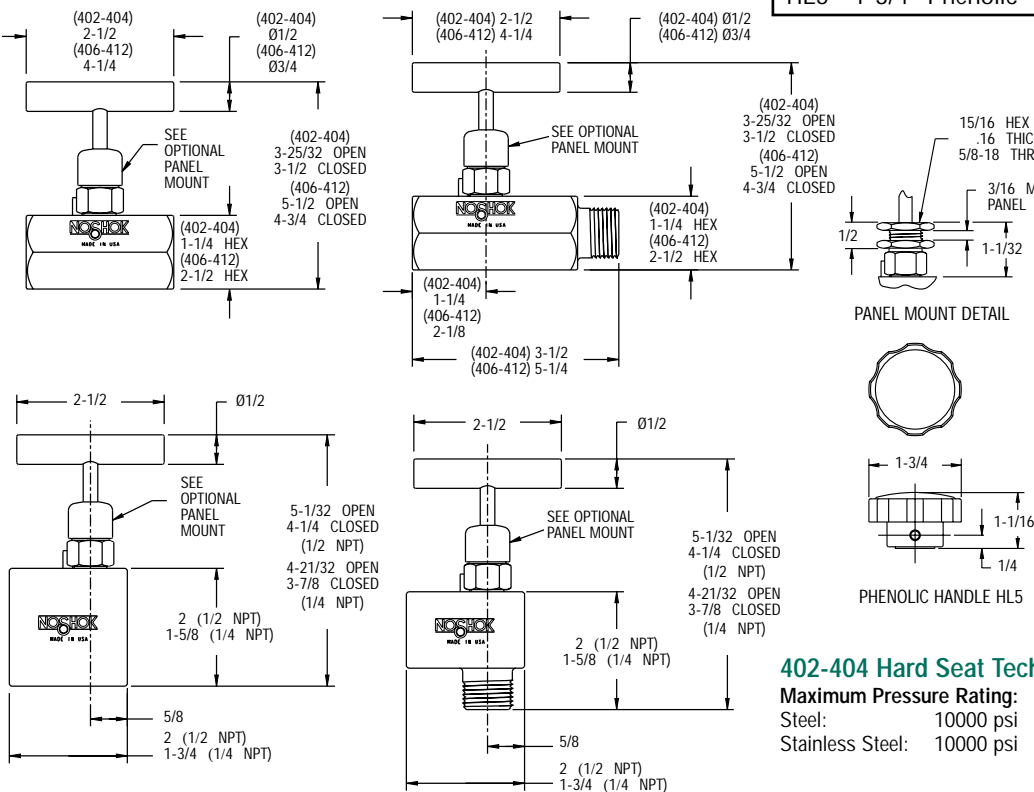
O-Ring Options

EM1 - EPDM 80
KZ1 - Kalrez® 3018

Handle Options

HL1 - Mini "T"
HL2 - "T"
HL3 - Round Knurled
HL4 - 1-3/8 Phenolic
HL5 - 1-3/4 Phenolic

General Dimensions



- 1 Valve Body
- 2 Viton® O-Ring
- 3 Teflon® Back-up Rings
- 4 Bonnet Lock Pin
- 5 Valve Stem
- 6 Valve Bonnet
- 7 Dust Cap
- 8 Valve Handle
- 9 Set Screw

402-404 Hard Seat Technical Data:

Maximum Pressure Rating:	Orifice size:	0.187"
Steel: 10000 psi	Flow Coefficient:	0.44
Stainless Steel: 10000 psi	Standard O-Ring:	Viton®
	Standard Back-up Ring:	Teflon®

406-412 Hard Seat Technical Data:

Maximum Pressure Rating:	Orifice size:	0.438"
Steel: 10000 psi	Flow Coefficient:	2.70
Stainless Steel: 10000 psi	Standard O-Ring:	Viton®
	Standard Back-up Ring:	Teflon®

For flow characteristics refer to page 14

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