## Mini, Hard Seat



## **100** SERIES

- Compact size valve built for maximum durability and robust performance in the toughest applications
- 100% helium leak tested to 1 x 10<sup>-4</sup> ml/s for guaranteed performance and reliability
- Hard seat valves have a maximum pressure of 10,000 psi for stainless steel and steel models; 6,000 psi for brass
- Available in zinc-nickel plated steel, electropolished stainless steel, and brass
- FKM o-ring seal and PTFE back-up ring below the stem threads to protect from corrosion and galling; PTFE or Grafoil® packing optional
- · All stems are 316 stainless steel
- · All stem threads are rolled for strength and ease of operation
- Patented body-to-bonnet, metal-to-metal seal is designed to significantly increase the pressure range of the valve (U.S. Patent 7,758,014)

SPECIFICATIONS  Zinc nickel plated steel, electropoliched 316					
Zinc nickal plated steel alectropolished 216					
Zinc-nickel plated steel, electropolished 316 stainless steel, 360 brass					
1/8" NPT, 1/4" NPT, 7/16"-20 UNF-2B, 9/16"-18 UNF-2B Male-male, Male-female, Female-female, in-line and angled configurations					
Brass: 6,000 psi @ 200 °F Steel: 10,000 psi @ 200 °F Stainless steel: 10,000 psi @ 200 °F					
0.172"					
C <sub>v</sub> 0.42					
All 316 stainless steel stems with FKM o-ring and PTFE back-up ring below the threads, PTFE or Grafoil® packing optional					
Panel mountings, o-ring materials, handles, packings, regulating stem and stem tips					

<sup>\*</sup> If a packing option is chosen, maximum pressure rating is 6,000 psi. Refer to the "Pressure vs. Temperature: Packing Style with Compatible Fluid" chart at the back of this catalog.

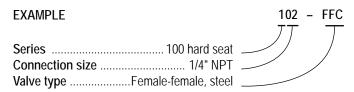
NOTE: All NOSHOK valve products conform to the MSS SP-99 instrument valves standards, and valves supplied with packing also conform to MSS SP-132 compression packing systems for instrument valves standard.



ORDERING INFORMATION										
SERIES	1	100 Series, hard seat								
CONNECTION SIZES	01 02	1/8" NPT 1/4" NPT	42 43	7/16"- 20 UNF-2B* 9/16"- 18 UNF-2B*						
VALVE TYPES	EFFB MMAB MFAB	Male-Male, Brass Male-Female, Brass Female-Female, Brass Extended Female-Female, Brass Male-Male Angle, Brass Male-Female Angle, Brass Female-Female Angle, Brass Male-Male, Steel	MFC EMFC FFC EFFC MMAC MFAC FFAC MMS	Male-Female, Steel Extended Male-Female, Steel Female-Female, Steel Extended Female-Female, Steel Male-Male Angle, Steel Male-Female Angle, Steel Female-Female Angle, Steel Male-Male, Stainless Steel	MFS EMFS FFS EFFS MMAS MFAS FFAS	Male-Female, Stainless Steel Extended Male-Female, Stainless Steel Female-Female, Stainless Steel Extended Female-Female, Stainless Steel Male-Male Angle, Stainless Steel Male-Female Angle, Stainless Steel Female-Female Angle, Stainless Steel				

Please consult your local NOSHOK Distributor or NOSHOK, Inc. for availability and delivery information.

<sup>\*</sup> Available only on EFFB, EFFC and EFFS valve types.



To meet all of your specific application requirements, the following additional options are available for these needle valves. To order all or any of these options, simply add them to the part number as shown in the diagram below.

NOTE 1: The example shown includes ALL possible additional options. Please include ONLY the options required for your application when building your part number. (EXAMPLE: 102-MFC-HL3)

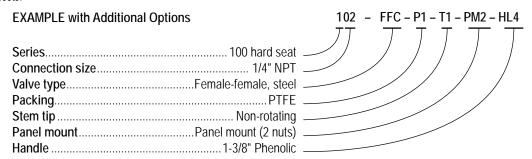
NOTE 2: When a packing option is selected, an o-ring option is NOT available.

ORDERING INFORMATION - Additional Options									
PACKINGS <sup>†</sup>	P1	PTFE	P2	Grafoil®					
STEM TIPS	T1 T5	Non-rotating (316 stainless standard) Ball (440C stainless)		Ball (carbide) Ball (ceramic)		Ball (Monel) Regulating hard			
O-RINGS*	EM1	EPDM	KZ1	FFKM (Kalrez® 3018 or equivalent)	NB1	NBR			
PANEL MOUNTINGS	PM1	Panel mount (1 nut)	PM2	Panel mount (2 nuts)					
HANDLES		2-1/2" "T" 1" Round knurled		1-3/8" Phenolic 1-3/4" Phenolic					

Please consult your local NOSHOK Distributor or NOSHOK, Inc. for availability and delivery information.

Please note that the standard o-ring in all the NOSHOK mini valves is FKM and the standard handles are brass round knurled (HL3) handles, steel mini "T" handles (HL1), and 316SS mini "T" handles (HL1).

The handle material will always match the material of the valve, unless otherwise specified. For example, the round knurled (HL3) on a 102-FFB will be brass. When only the standard configuration is needed, no additional designations are necessary. Please consult the factory for special application requests.



<sup>†</sup> If a packing option is chosen, maximum pressure rating is 6,000 psi. Refer to the "Pressure vs. Temperature: Packing Style with Compatible Fluid" chart at the back of this catalog.

<sup>\*</sup> Other o-ring materials available on request.