#### Needle Valves Bleed, Hard Seat & Soft Tip



# 800/850 SERIES

- Bleed valves provide a convenient means to relieve process pressures trapped between a shut off valve and the instrument
- Uses the same bonnet assemblies of the 100/150 Series mini valves with an integrated single threaded body for insertion in vent port
- Soft tip valves feature a patented Delrin® non-rotating soft tip stem, and a back-up metal-to-metal seal (U.S. Patent 6,820,857)
- 100% helium leak tested to 1 x 10<sup>-4</sup> ml/s for performance and reliability
- 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 Graphite (800 Series only) packing optional
- · All stem threads are rolled for strength and ease of operation
- 0.159" bleed port
- 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                  |  |  |  |  |
|---------------------------------|--|--|--|--|
| Materials                       | Zinc-Nickel plated Steel, electropolished<br>316 Stainless Steel*, 360 Brass   |  |  |  |
| Connections                     | 1/4" & 1/2" NPT  |  |  |  |
| Hard seat<br>pressure ratings** | Brass: 6,000 psi @ 200 °F<br>Steel: 10,000 psi @ 200 °F<br>Stainless Steel: 10,000 psi @ 200 °F  |  |  |  |
| Soft tip<br>pressure ratings    | Brass: 6,000 psi @ 200 °F<br>Steel: 6,000 psi @ 200 °F<br>Stainless Steel: 6,000 psi @ 200 °F  |  |  |  |
| Bleed port                      | 0.159"   |  |  |  |
| Stem seal & type                | All 316 Stainless Steel stems with FKM o-ring and<br>PTFE back-up ring below the threads, PTFE or<br>Graphite (800 Series only) packing optional |  |  |  |
| Options                         | Panel mountings, o-ring materials, handles, packings, regulating stem and stem tips  |  |  |  |
| Weight                          | Approximately 0.4 lb.  |  |  |  |
|                                 |  |  |  |  |

 \* All 316SS products meet the requirements of NACE MR0175/ISO 15156-3.
\*\* 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.

For NOSHOK Valves with Brass & Steel valve types:



WARNING: This product can expose you to chemicals including Lead, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov

For NOSHOK Valves with Stainless Steel valve types:

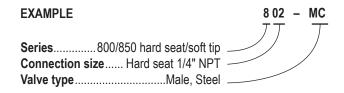


WARNING: This product can expose you to chemicals including Chromium (VI) and Nickel, which are known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov



| SERIES           | 8  | 800/850 Series, hard sea | at/soft ti | p                     |    |                                       |
|------------------|----|--------------------------|------------|-----------------------|----|---------------------------------------|
| CONNECTION SIZES | 02 | Hard seat 1/4" NPT       |            |                       | 52 | Delrin <sup>®</sup> soft tip 1/4" NPT |
|                  | 04 | Hard seat 1/2" NPT       |            |                       | 54 | Delrin <sup>®</sup> soft tip 1/2" NPT |
| VALVE TYPES      | MC | Male, Steel              | MS         | Male, Stainless Steel | MB | Male, Brass                           |

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



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: 802-MC-EM1)

**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  | Graphite                                      |     |                  |  |
| STEM TIPS                                 | T1  | Non-rotating (316 Stainless) | T4  | PEEK***                                       | T7  | Ball (ceramic)** |  |
|   | T2  | Delrin® (Acetal)***          | Т5  | Ball (440C Stainless)**                       | T8  | Ball (Monel)**   |  |
|   | Т3  | PCTFE***                     | Т6  | Ball (carbide)**                              |     |                  |  |
| O-RINGS*                                  | EM1 | EPDM                         | KZ1 | FFKM (Kalrez <sup>®</sup> 3018 or equivalent) | NB1 | NBR              |  |
| HANDLES                                   | HL2 | 2-1/2" "T"**                 | HL4 | 1-3/8" Phenolic**                             |     |                  |  |
|   | HL3 | 1" Round knurled             | HL5 | 1-3/4" Phenolic**                             |     |                  |  |

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† 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.

\* Other o-ring materials available on request.

\*\* For 800 Series only.

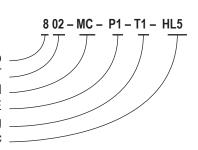
\*\*\* For 850 Series only.

Please note that the standard o-ring in all the NOSHOK valves is FKM and the standard handles are 1" round knurled handles (HL3) on Brass, and 1-3/8" mini "T" handles (HL7) on Stainless Steel and Steel.

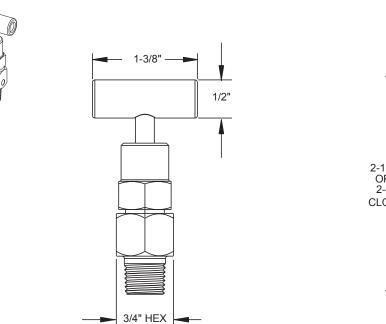
The handle material will always match the material of the valve, unless otherwise specified. For example, the mini "T" handle (HL7) on the 802-MC will be Steel. When only the standard configuration is needed, no additional designations are necessary. Please consult the factory for special application requests.

| Series          | 800/850 hard seat/soft ti |
|-----------------|---------------------------|
| Connection size | Hard seat 1/4" NP         |
| Valve type      | Male, Stee                |
| Packing         | PTFI                      |
| Stem tip        | Non-rotating              |
| Handle          | 1-3/4" Phenoli            |
|                 |                           |

**EXAMPLE** with Additional Options

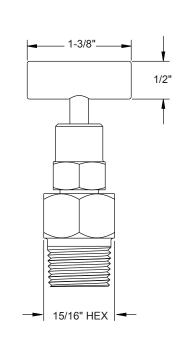


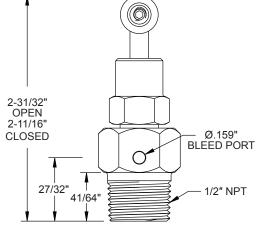
### Needle Valves Dimensions



## 2-13/16" OPEN 2-1/4" CLOSED 43/64" U/2"

#### 1/2" Bleed Valve





For panel mount, packing, & stem tip dimensions, see pgs. 64-67.



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6

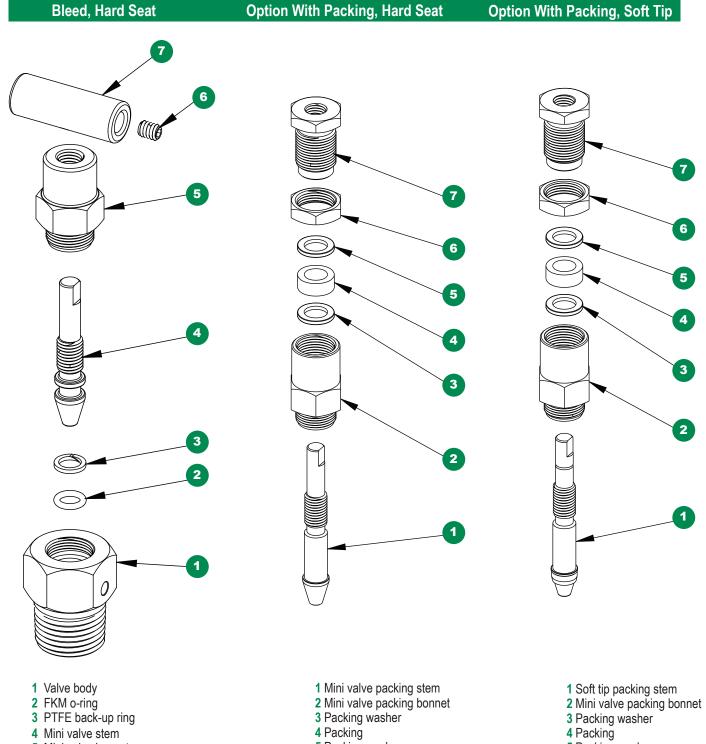
5

4

3

2

1



- 4 Mini valve stem
- 5 Mini valve bonnet
- 6 Set screw
- 7 Mini "T" handle

- 5 Packing washer
- 6 Jam nut
- 7 Packing adjustment screw

- 4 Packing
- 5 Packing washer 6 Jam nut
- 7 Packing adjustment screw