#### **GTH Series Needle Valves**

Hex stock, soft seat 6,000 psi



#### Overview

The GTH series are machined from hexagonal Bar stock and supplied in 316 stainless steel and carbon steel with yellow zinc plate. GTH series are produced in 1/2", 3/4" and 1" NPT with male-female and female-female threaded connections. The GTH soft seat series are designed with a Delrin® seat to ensure a tight shut off even in abrasive process conditions.



#### **Features**

- ▶ Delrin® soft seat standard.
- Rodable straight thru process to instrument orifices.
- ▶ The stem threads are rolled and lubricated to prevent galling and reduce operating torque.
- ▶ Valves are assembled with standard T-bar handles.
- ▶ All bonnets are assembled with a locking pin to prevent accidental removal while in service.
- ► Teflon® packing can be adjusted to increase valve life.
- ▶ Stem packing below the threads prevents lubricant washout and ensures no process contamination.
- ▶ The valves feature safety back seating to ensure a secondary stem seal.
- ▶ Dust caps are fitted to contain stem lubricant and prevent the ingress of contaminants.
- ▶ All valves are hydrostatically tested to 1.5 times maximum working pressure prior to shipment.
- ▶ The valves are Mill Test Traceable.
- ▶ 316SS material traceable to NACE MR0175

AB CRN# 0C08236.2 BC CRN# 0C08236.21 SK CRN# 0C08236.23

#### ▶ How to order

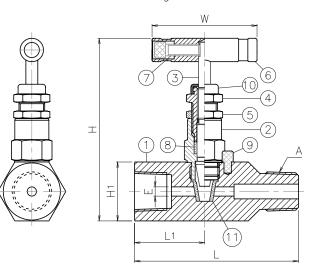
| Part Number | Connections |           | Material          | Orifice Size |  |
|-------------|-------------|-----------|-------------------|--------------|--|
|             | Inlet       | Outlet    |                   | (mm)         |  |
| GTH12MFSSD  | 1/2" MNPT   | 1/2" FNPT | 316SS             | 5            |  |
| GTH12FFSSD  | 1/2" FNPT   | 1/2" FNPT | 316SS             | 5            |  |
| GTH12MFCD   | 1/2" MNPT   | 1/2" FNPT | A108 carbon steel | 5            |  |
| GTH12FFCD   | 1/2" FNPT   | 1/2" FNPT | A108 carbon steel | 5            |  |
| GTH34MFSSD  | 3/4" MNPT   | 3/4" FNPT | 316SS             | 6            |  |
| GTH34FFSSD  | 3/4" FNPT   | 3/4" FNPT | 316SS             | 6            |  |
| GTH34MFCD   | 3/4" MNPT   | 3/4" FNPT | A108 carbon steel | 6            |  |
| GTH34FFCD   | 3/4" FNPT   | 3/4" FNPT | A108 carbon steel | 6            |  |
| GTH10MFSSD  | 1" MNPT     | 1" FNPT   | 316SS             | 7            |  |
| GTH10FFSSD  | 1" FNPT     | 1" FNPT   | 316SS             | 7            |  |
| GTH10MFCD   | 1" MNPT     | 1" FNPT   | A108 carbon steel | 7            |  |
| GTH10FFCD   | 1" FNPT     | 1" FNPT   | A108 carbon steel | 7            |  |

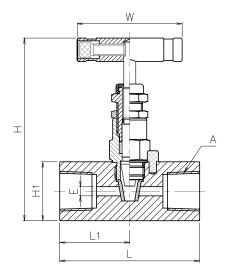
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# ▶ **Dimensions** (Drawings are not to scale. Dimensions in millimeters.)

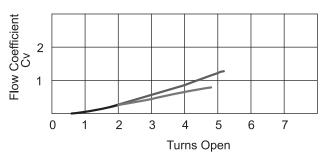




| No. | Description  | 316SS   | C.S. Valve |
|-----|--------------|---------|------------|
| 1   | Body         | S316    | C.S        |
| 2   | Bonnet       | S316    | C.S        |
| 3   | Stem         | S316    | S316       |
| 4   | Adjuster     | S316    | C.S        |
| 5   | Lock Nut     | S316    | C.S        |
| 6   | Handle       | S303    | C.S        |
| 7   | Fixing Screw | S302    | C.S        |
| 8   | Packing      | Teflon® | Teflon®    |
| 9   | Locking Pin  | S303    | S303       |
| 10  | Dust Cap     | NBR     | NBR        |
| 11  | Soft Seat    | Delrin® | Delrin®    |
|     |              |         |            |

| Dim.    | А        | L  | L <sub>1</sub> | Н   | Н  | E | W  |
|---------|----------|----|----------------|-----|----|---|----|
| GTH12MF | 1/2" NPT | 89 | 38             | 94  | 32 | 5 | 57 |
| GTH12FF | 1/2" NPT | 76 | 38             | 94  | 32 | 5 | 57 |
| GTH34MF | 3/4" NPT | 89 | 38             | 96  | 35 | 6 | 57 |
| GTH34FF | 3/4" NPT | 76 | 38             | 96  | 35 | 6 | 57 |
| GTH10MF | 1" NPT   | 94 | 42.5           | 101 | 41 | 7 | 57 |
| GTH10FF | 1" NPT   | 85 | 42.5           | 101 | 41 | 7 | 57 |

### **▶** Flow Characteristics



— orifice 6.6 m/m

- orifice 5.0 m/m

## **▶** Pressure vs Temperature

