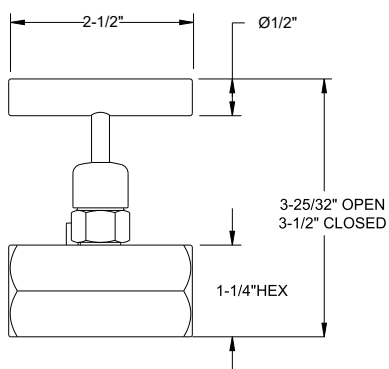


## NEEDLE VALVES



Bidirectional Flow (Soft Seat)  
Unidirectional Flow (Hard Seat)

REOTEMP needle valves allow users to isolate pressure to their instrument and remove the instrument without disturbing or shutting down the system. A variety of options are available to suit just about every application.

### FEATURES / BENEFITS

- FKM O-ring Seal and PTFE Back-up Ring Below the Stem Threads to Protect from Corrosion and Galling; Soft Seat Comes Standard With Delrin Seat
- PTFE or Grafoil Packing Optional
- All Stems are 316SS
- Vinyl Dust Cap for Bonnet & Stem (Non-packing)
- Rolled Threads for Strength, Durability, and Ease of Use
- All Valves are Helium Leak Tested for Optimal Performance

### SPECIFICATIONS

<b>Body Material</b>	316 Stainless Steel, Zinc-nickel Plated Carbon Steel
<b>Pressure Rating</b>	Hard Seat - 10,000 psi at 200°F, Soft Seat - 6,000 psi at 200°F.
<b>Temperature Rating</b>	Standard up to 200°F; Available up to 1,000°F. See Pressure/Temperature Charts on Page 97 for More Detailed Information.
<b>Orifice</b>	1/4" – 1/2" NPT: 0.187", 3/4" – 1-1/2" NPT: 0.438"
<b>Flow</b>	Hard Seat: 1/4" – 1/2" NPT: C <sub>v</sub> 0.44, 3/4" – 1-1/2" NPT: C <sub>v</sub> 2.70 Soft Seat: 1/4" – 1/2" NPT: C <sub>v</sub> 0.76, 3/4" – 1-1/2" NPT: C <sub>v</sub> 4.0
<b>Connections</b>	1/4", 3/8", 1/2", 3/4", 1", 1-1/4" & 1-1/2"

**HOW TO ORDER:** Choose options to build a part number. For example: **N10H22S-P1NC**

<b>N10</b>	<b>H</b>	<b>22</b>	<b>S</b>	<b>-P1NC*</b>
MODEL	SEAT TYPE	CONNECTION SIZE	MATERIAL	OPTIONS
<b>N10</b> = Single Handle Needle Valve	<b>H</b> = Hard Seat <b>S</b> = Soft Seat	<b>44</b> = 1/4" MxF <b>4F</b> = 1/4" FxF <b>22</b> = 1/2" MxF <b>2F</b> = 1/2" FxF <b>24</b> = 1/4" F x 1/2" M (Soft Seat Only) <b>33</b> = 3/4" MxF <b>3F</b> = 3/4" FxF	<b>11</b> = 1" MxF <b>1F</b> = 1" FxF <b>55</b> = 3/8" MxF <b>5F</b> = 3/8" FxF <b>66</b> = 1-1/4" MxF <b>6F</b> = 1-1/4" FxF <b>88</b> = 1-1/2" MxF <b>8F</b> = 1-1/2" FxF	<b>C</b> = Carbon Steel <b>S</b> = Stainless Steel <b>H</b> = Hastelloy C <b>M</b> = Monel  Available on N10: <b>-AN</b> = 90° Angled Body Design <b>-P1</b> = PTFE Packaging  Available on N10H: <b>-P2</b> = Grafoil Packing (316SS Body Rating 1,000°F at 1,500 psi)

\*See 98 for Additional Options

## INSTRUMENT & VALVE ASSEMBLIES

REOTEMP offers in house mounting services by preinstalling pressure (or dP) instrumentation on valve assemblies prior to shipping to allow for stress free/easy installation. Select from a variety of standard designs or contact your REOTEMP customer service representative to design a custom assembly to suit your desired application.

- ✓ Inspector's Lacquer & Threads Sealed with Loctite 567™
- ✓ 100% Argon Leak Checked (Maximum 1,000 psi)
- ✓ Optional ID Tag for Complete Assembly
- ✓ Packaged for Out of Box Installation
- ✓ DP Assemblies Mounted with 316SS Compression Fittings & 316 Tubing
- ✓ To Customize Your Design Contact REOTEMP Customer Service

**HOW TO ORDER:**  
Choose options to build a part number.

PT45P1A2P20-D-T-TS

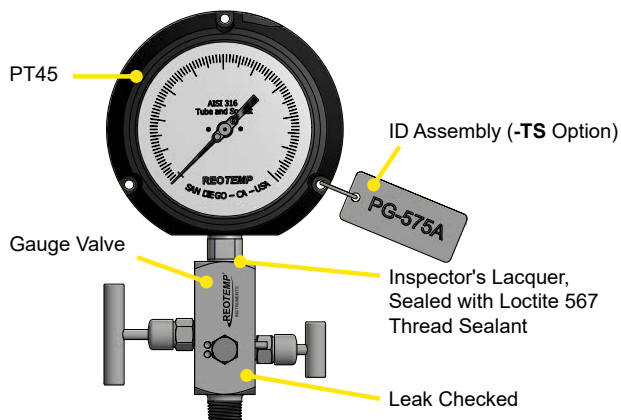
// G20H22S

-A1

SELECT PRESSURE GAUGE

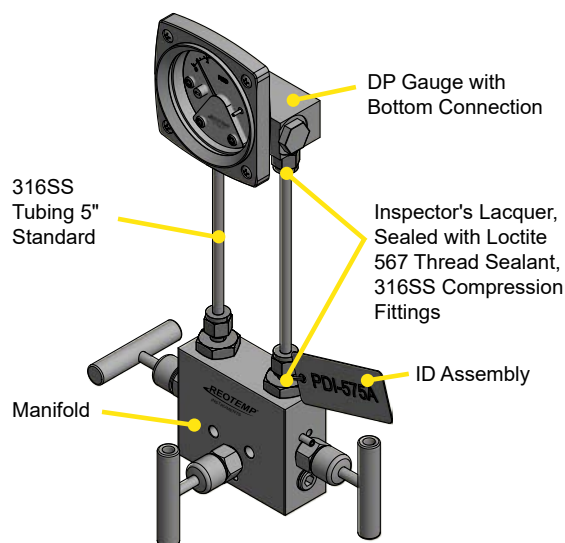
SELECT VALVE

SELECT MOUNT



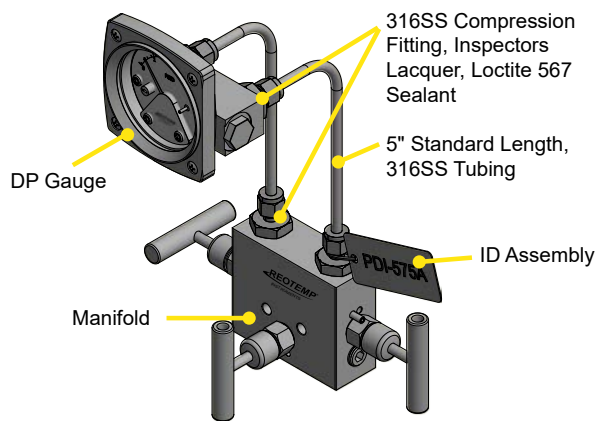
-A1

Valve mounted to pressure instrument. (Example: Gauge, Switch Direct Mount or Transmitter.)



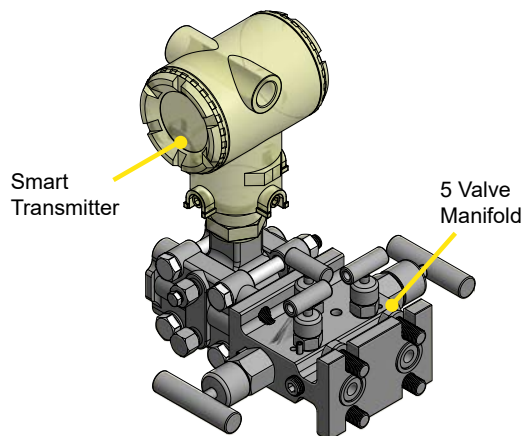
-A4

Bottom mounted differential pressure gauge to manifold.



-A5

Back mounted threaded differential pressure gauge to manifold.



-A6

Differential transmitter to manifold.

VALVES

## VALVE OPTIONS



Visit [reotemp.com](https://reotemp.com)

- ✓ Check Stock
- ✓ Get Price
- ✓ Configure Part #
- ✓ Download PDF Data Sheets

		G10	G20	G30	G40	N10	M2PH	M2PS	M2LH	M2LS	M2M	M30H	M30S	M3M	M50H	M50S
<b>PACKING/O-RINGS</b>																
P1	PTFE Packing	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
P2	Grafoil Packing	H	H	H	H	H	✓	N/A	✓	N/A	✓	✓	N/A	N/A	✓	N/A
P3	EPDM O-Ring	✓	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	✓	N/A	N/A	✓	N/A	N/A
P4	FFKM (Kalrez 3018) O-Ring	✓	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	✓	N/A	N/A	✓	N/A	N/A
P5	NBR O-Ring	✓	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	✓	N/A	N/A	✓	N/A	N/A
<b>SOFT SEATS</b>																
S1	PEEK	S	S	S	S	S	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	✓
S2	PCTFE	S	S	S	S	S	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	✓
<b>STEM TIPS</b>																
T1	Non-Rotating SS Stem Tip	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
T5	Ball (440C Stainless) Stem Tip	H	H	H	H	H	✓	N/A	✓	N/A	N/A	✓	N/A	N/A	✓	N/A
T6	Ball (Carbide) Stem Tip	H	H	H	H	H	✓	N/A	✓	N/A	N/A	✓	N/A	N/A	✓	N/A
T7	Ball (Ceramic) Stem Tip	H	H	H	H	H	✓	N/A	✓	N/A	N/A	✓	N/A	N/A	✓	N/A
T8	Ball (Monel) Stem Tip	H	H	H	H	H	✓	N/A	✓	N/A	N/A	✓	N/A	N/A	✓	N/A
T9	Regulating Hard Stem Tip	H	H	H	H	H	✓	N/A	✓	N/A	N/A	✓	N/A	N/A	✓	N/A
<b>MOUNTING OPTIONS</b>																
M1	CS 2" Pipe Mounting Bracket	N/A	✓	✓	N/A	N/A	N/A	N/A	N/A	N/A	N/A	✓	✓	✓	✓	✓
M2	SS 2" Pipe Mounting Bracket	N/A	✓	✓	N/A	N/A	N/A	N/A	N/A	N/A	N/A	✓	✓	✓	✓	✓
M3	1 Nut	✓	N/A	N/A	✓	✓	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
M4	2 Nuts	✓	N/A	N/A	✓	✓	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<b>EXTRAS</b>																
NC	NACE Compliance MR0175*	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
OX	Cleaned for O2 Service	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
IH	Internal Hydrostatic Test	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
PM	Positive Material ID	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
EX	Extended Body Design	N/A	✓	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
RV	Right Vent	N/A	✓	✓	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
HP	1/2" Hex Plug	N/A	N/A	N/A	✓	N/A	✓	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
BP	1/2" Bleed Plug	N/A	STD	STD	✓	N/A	✓	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
BV	1/2" Bleed Valve	N/A	N/A	N/A	✓	N/A	✓	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
AN	90° Angled Body Design	N/A	N/A	N/A	N/A	✓	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
FC	CS Futbol	N/A	N/A	N/A	N/A	N/A	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
FS	SS Futbol	N/A	N/A	N/A	N/A	N/A	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
DC	CS Dielectric Kit	N/A	N/A	N/A	N/A	N/A	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
DS	SS Dielectric Kit	N/A	N/A	N/A	N/A	N/A	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
AC	CS Static Adaptors	N/A	N/A	N/A	N/A	N/A	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
AS	SS Static Adaptors	N/A	N/A	N/A	N/A	N/A	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

\*Available only on SS, Monel, & Hastelloy C-276 bodies.

✓	Indicates that the option is available
N/A	Indicates the option is not available
STD	The option comes standard
H	Only available on hard seated valves
S	Only available on soft seated valves