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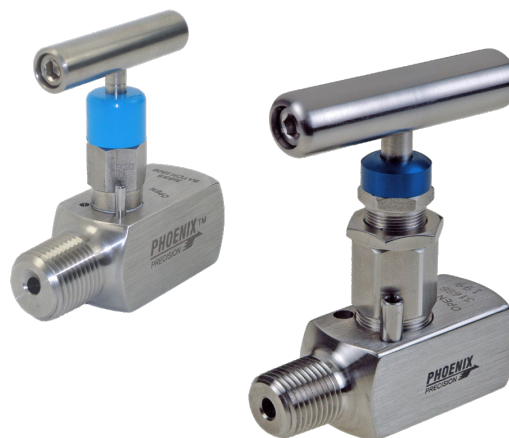


P(3,4,6)N6S™: 3/16", 1/4", 3/8" Bore Soft Seat Needle Valve

Parker Phoenix's soft seat needle valves are designed for use with various instrumentation equipment and can be installed to control, isolate, measure, calibrate, equalize, drain or vent the pressure of gases and liquids.

Parker Phoenix's roddable needle valves are of bar stock construction and are available in various materials, sizes, sealing styles, end connections and stem types.

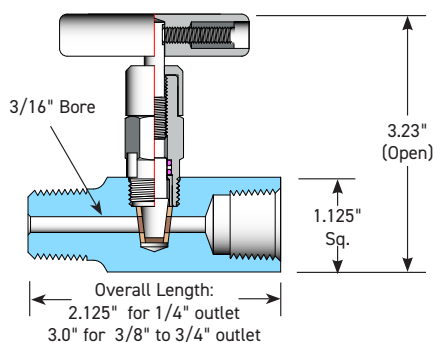
The main features of Parker Phoenix needle valves are robust stems, tapered stem tips, bubble tight seals and pinned bonnets with packing below the threads to prevent process contamination.



Standard Features	Benefits
Hydrotested at 150% of rated pressure (shell test). Nitrogen gas tested to 2000 psi.	Complies with ASME B31.1 & B31.3 shell testing procedures as standard. Ensures structural integrity of valve.
Seat tightness (zero leakage) verified to 110% of rated pressure. Nitrogen gas tested to 2000 psi.	Complies with ASME B31.1 & B31.3 seat testing procedures as standard. Ensures zero leakage at seats for proper calibration.
Packing below stem threads	Prevents corrosion of critical stem threads
Metal body-to-bonnet seals are in compression, not tension	Mitigates risk of stress cracking
Stem threads are rolled, not cut	Higher quality stem for longer service life
8 RMS stem finish	Extended packing life
V-Style Teflon™ packing	30-40% less operational torque and less frequent packing adjustments than traditional Teflon™ packed valves
Pressure component materials sourced from the US, Canada or Europe	Reliable material traceability. MTR's provided with every order for pressure containing components.

P(3,4,6)N6S™: Technical Specifications

P3N6S Assembly

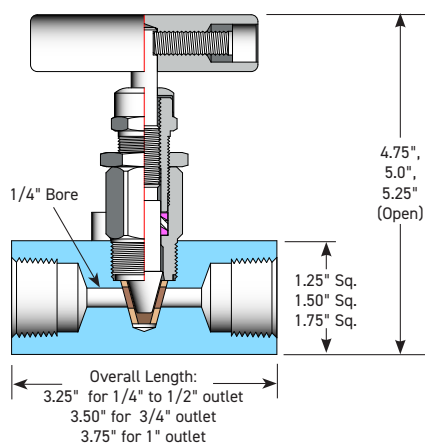


Specifications:

Type: P3N6S Valve, Roddable Pattern
 Rating: Up to 6000 psi @ 100°F (41370 kPa @ 38°C)
 Stem: Tapered Plug Tip
 Packing: Viton™, Aflas™ O-ring or Teflon™
 Seat: Delrin™
 Handle: Removable
 Bore Size: 3/16"
 Inlet Connections: 1/4" to 1/2" NPT, 3/4" for Male NPT Only
 Outlet Connections: 1/4" to 1/2" NPT
 Bonnet Lock: Pin or Plate
 Body Stock: 1.125" square
 Weight: 0.9 - 1.0 lbs
 Special Service: O2 or CL cleaning available*

*Other specifications or services may be available.

P4N6S Assembly

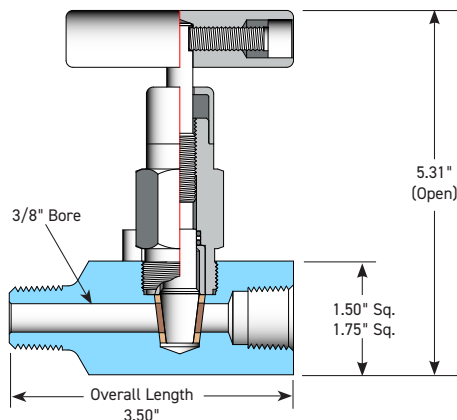


Specifications:

Type: P4N6S Valve, Roddable Pattern
 Rating: Up to 6000 psi @ 100°F (41370 kPa @ 38°C)
 Stem: Tapered Plug Tip
 Packing: Viton™, Aflas™ O-ring or Teflon™
 Seat: Delrin™
 Handle: Removable
 Bore Size: 1/4"
 Inlet Connections: 1/4" to 1/2", 3/4", 1" NPT
 Outlet Connections: 1/4" to 1/2", 3/4", 1" NPT
 Bonnet Lock: Pin or Plate
 Body Stock: 1.25", 1.50" or 1.75" square
 Weight: 1.5 - 1.6 lbs
 Special Service: O2 or CL cleaning available*

*Other specifications or services may be available.

P6N6S Assembly



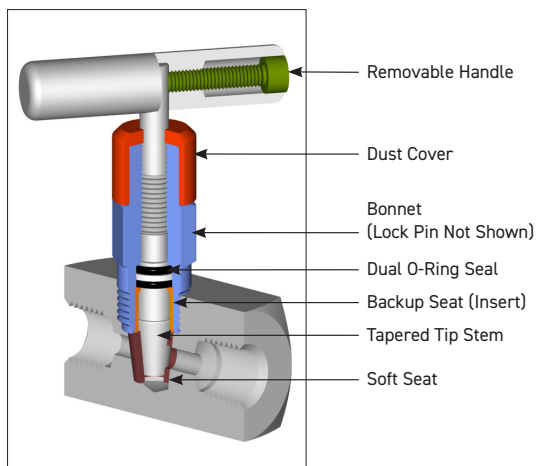
Specifications:

Type: P6N6S Valve, Roddable Pattern
 Rating: Up to 6000 psi @ 100°F (41370 kPa @ 38°C)
 Stem: Non-rotating Tapered Plug Tip
 Packing: Viton™, Aflas™ O-ring or Teflon™
 Seat: Delrin™, Tefzel™ (2000 psi Rating)
 Handle: Removable
 Bore Size: 3/8"
 Inlet Connections: 1/2" to 3/4" NPT, 1" for Male NPT Only
 Outlet Connections: 1/2" to 3/4" NPT
 Bonnet Lock: Pin or Plate
 Body Stock: 1.50" square
 Weight: 1.9 - 2.1 lbs
 Special Service: O2 or CL cleaning available*

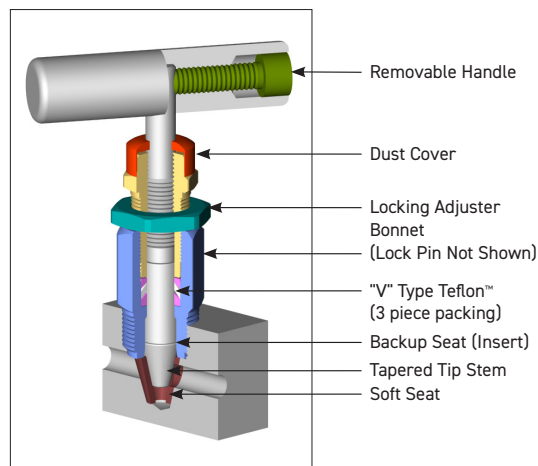
*Other specifications or services may be available.

P(3,4,6)N6S™: Bonnet Characteristics

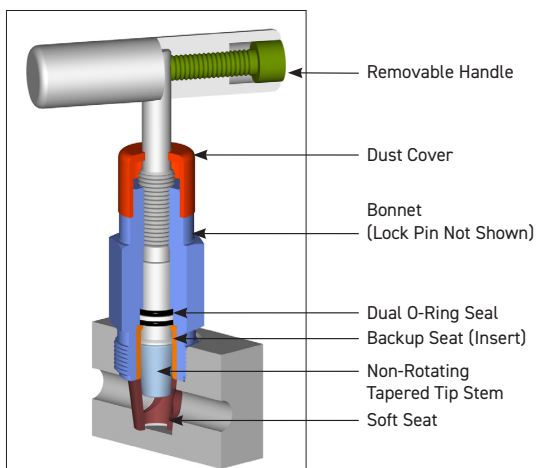
3/16" Bonnet Assembly



1/4" Bonnet Assembly



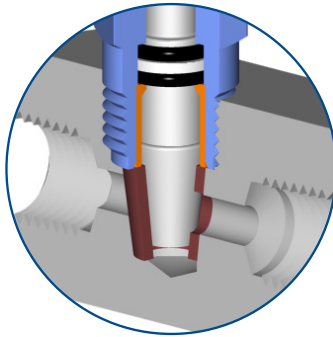
3/8" Bonnet Assembly



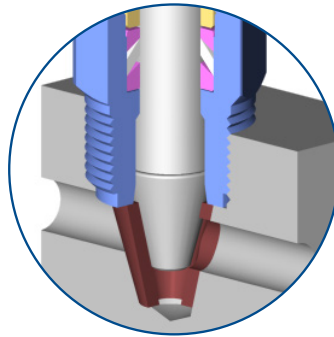
Material of Construction			
Code	SS	SC	CS
Body	ASTM A182 316SS	ASTM A105 CS	ASTM A108 CS
Bonnet	ASTM A182 316SS	ASTM A182 316SS	ASTM A108 CS
Stem	ASTM A182 316SS	ASTM A182 316SS	ASTM A582 303SS
Adjuster	ASTM A582 303SS	ASTM A582 303SS	ASTM A108 CS
Insert	ASTM A182 316SS	ASTM A182 316SS	ASTM A108 CS
Handle	ASTM A582 303SS	ASTM A582 303SS	ASTM A108 CS

P(3,4,6)N6S™: Stem Tips and Seat Characteristics

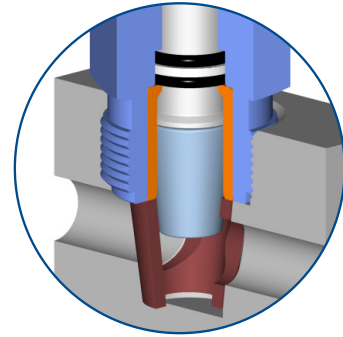
Stem Tips



3/16" Bore



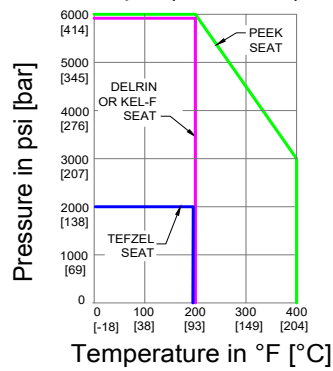
1/4" Bore



3/8" Bore

Pressure vs. Temperature (Soft Seat)

Pressure vs. Temperature Chart
6000 psi (Soft Seat)



Note: Packing material ratings based on manufacturer's specifications. Approximations only. Parker Phoenix does not represent these values as finite. They are provided only as representative values.

P(3,4,6)N6S™ : Model Numbering System

Phoenix	Orifice Size	Type	Inlet Size	Inlet Type	Outlet Size	Outlet Type	Material	Packing	Seat	Stem Tip	Option Codes	Description
P	3 3/16"	N6S	4 1/4" <small>(P3,P4 only)</small>	F FNPT	4 1/4" <small>(P3,P4 only)</small>	F FNPT	SS ASTM A182 316/316L	A Aflas™	D Delrin™	Tapered Plug Tip Standard <small>(leave blank)</small>	LB	Bonnet Lock
	4 1/4"	N6SH Angle Body	6 3/8" <small>(P3,P4 only)</small>	M MNPT	6 3/8" <small>(P3,P4 only)</small>	M MNPT	SC ASTM A105 CS**	V Viton™ (FKM)	Z Tefzel™ <small>(PB only)</small>		CC	Chlorine Clean
	6 3/8"		8 1/2"		8 1/2"		CS ASTM A108 CS**	T Teflon™ (PTFE)			OC	Oxygen Clean
			12 3/4" <small>(Male only)</small>		12 3/4"		C5 ASTM A350 LF2				TG	SS Tag
			16 1" <small>(Male only)</small>				N4 Monel™ 400				SGI	Sour Gas ISO NACE Latest Rev.
							N6 Inconel™ 625				RA (R)(B)	Round Handle Aluminum (Red)(Blue)
							N8 Inconel™ 825				RC	Round Handle CS (P3 only)
							N2 Hastelloy™ C276				RS	Round Handle SS (P3 only)
											PM	Panel Mount
											N2	Hastelloy™ C276 Stem
											N4	Monel™ 400 Stem
											N5	Monel™ 500 Stem
											N6	Inconel™ 625 Stem
											N8	Inconel™ 825 Stem
EXAMPLE: P3G6S4M4FCSVD = Phoenix, 3/16" Orifice, N6S, 1/4" MNPT Inlet, 1/4" FNPT Outlet, A108 CS Body, FKM Packing, Delrin™ Seat, Tapered Plug Tip Stem												
P	3	N6S	4	M	4	F	CS	V	D			
*For socket weld (SW) connections, specify MS or FS. **For code applications, A108 CS is unacceptable, A105 CS must be selected for CS valves.												

Use with Confidence, Parker Phoenix Precision Products Meet the Following Specifications:

- ASME B31.1 Power Piping
- ASME B31.3 Process Piping
- ASME B16.34 Valves - Flanged, Thread, and Welding End
- API 598 Valve Inspection and Testing
- MSS SP-25 Standard Marking Systems for Valves, Fittings and Flange Unions
- MSS SP-99 Instrument Valves
- MSS SP-105 Instrument Valves for Code Applications
- NACE MR0175 for all 316SS valves and A105CS body/316SS bonnet (SC Material Code)

Seal and Seat Material Temperature Rating

Code	Description	MIN. TEMP	MAX. TEMP
A	Aflas™	15°F (-10°C)	400°F (204°C)
V	Viton™	-20°F (-29°C)	400°F (204°C)
T	Teflon™	-65°F (-54°C)	450°F (232°C)
D	Delrin™	-40°F (-40°C)	200°F (93°C)
Z	Tefzel™	-300°F (-185°C)	300°F (150°C)

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Parker Phoenix P(3,4,6)N6S™: 3/16", 1/4", 3/8" Bore Soft Seat Needle Valve
PPL-CAT-P3N6S-P4N6S-P6N6S-001 May 2024

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