



# P2N6G™ / P2NA6G™ Gas Mini Valve

1/8" Bore Soft Seat Gas Mini Valve



Parker Phoenix Precision Brand

## Table of Contents

Overview, Features and Benefits ..... 3

Technical Specifications ..... 4

Bonnet Characteristics ..... 5

Stem and Seat Characteristics ..... 6

Model Numbering System ..... 7



## P2N6G™ / P2NA6G™: 1/8" Bore Soft Seat Gas Mini Valve

The Parker Phoenix N6G Gas Mini Valve is designed specifically for the natural gas industry. It features a double O-ring design with a TFE backup ring below the threads, backseating capability, blowout proof stem, and a unique seat design for pressure up to 6,000 psi.

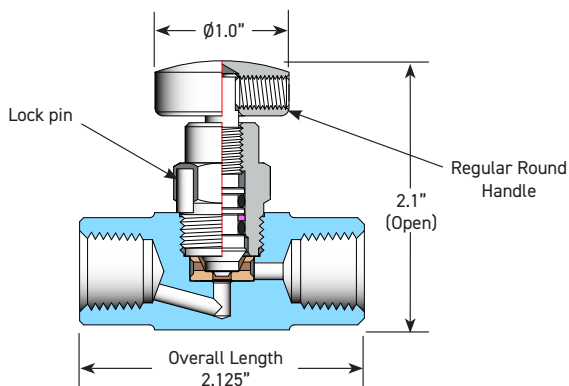
It is available with a variety of rupture discs with varying pressure ratings from 1,800 psi to 5,000 psi.



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.

## P2N6G™ / P2NA6G™ : Technical Specifications

### O-Ring Bonnet Assembly

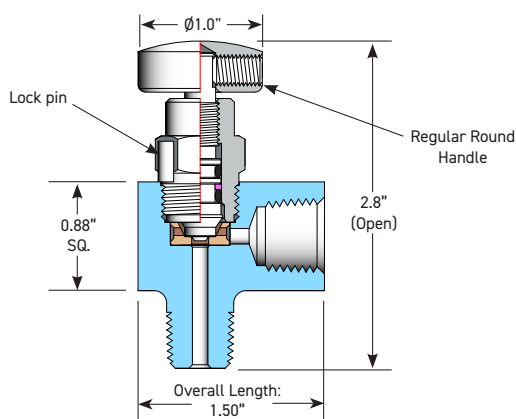


#### Specifications:

Type: P2N6G, Gas Valve, Globe Pattern  
 Rating: Up to 6000 psi @ 100°F (41370 kPa @ 38°C)  
 Stem: Flat tip  
 Packing: Viton™ or Aflas™ O-ring  
 Seat: Delrin™, Optional Peek™ and Kel-F™  
 Handle: Removable  
 Bore Size: 1/8"  
 Inlet Connections: 1/8" to 1/4" NPT  
 Outlet Connections: 1/8" to 1/4" NPT  
 Bonnet Lock: Pin  
 Body Stock: .875" Sq.  
 Weight: 0.35 - 0.40 lbs  
 Special Service: O2 or CL cleaning available\*

\*Other specifications or services may be available.

### Angle Body Assembly

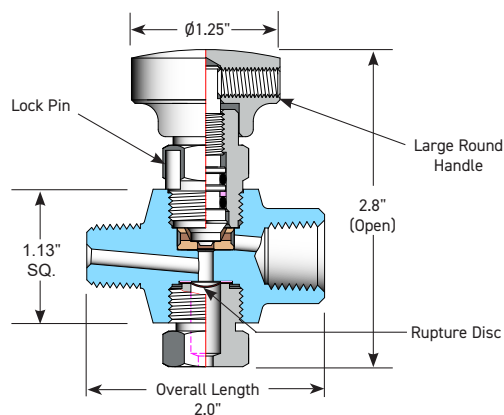


#### Specifications:

Type: P2NA6G, Gas Valve, Globe Pattern  
 Rating: Up to 6000 psi @ 100°F (41370 kPa @ 38°C)  
 Stem: Flat tip  
 Packing: Viton™ or Aflas™ O-ring  
 Seat: Delrin™, Optional Peek™ and Kel-F™  
 Handle: Removable  
 Bore Size: 1/8"  
 Inlet Connections: 1/8" to 1/4" NPT  
 Outlet Connections: 1/8" to 1/4" NPT  
 Bonnet Lock: Pin  
 Body Stock: 1.5" x 1.5" x 0.875"  
 Weight: 0.4 lbs  
 Special Service: O2 or CL cleaning available\*

\*Other specifications or services may be available.

### Rupture Disc Valve Assembly



#### Specifications:

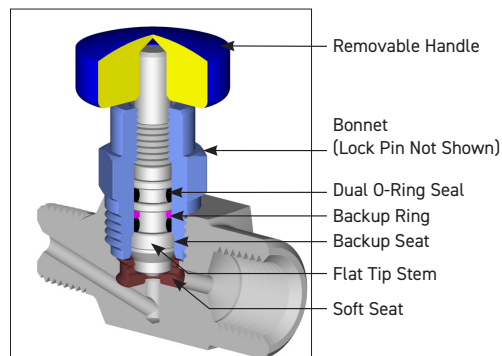
Type: P2N6G-RPD, Rupture Valve, Globe Pattern  
 Rating: Up to 5000 psi @ 100°F (12410 kPa @ 38°C)  
 Stem: Flat tip  
 Packing: Viton™ or Aflas™ O-ring  
 Seat: Delrin™, Optional Peek™ and Kel-F™  
 Handle: Removable  
 Bore Size: 1/8"  
 Inlet Connections: 1/8" to 1/4" NPT  
 Outlet Connections: 1/8" to 1/4" NPT  
 Bonnet Lock: Pin  
 Body Stock: 2.0" x 1.125" x 1.125"  
 Weight: 0.5 lbs  
 Special Service: O2 or CL cleaning available\*

\*Other specifications or services may be available.

## P2N6G™ / P2NA6G™: Bonnet Characteristics

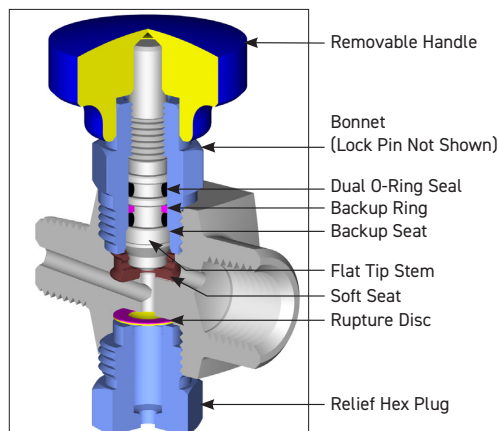
### O-Ring Bonnet Assembly

Standard Materials					
Valve	Body	Bonnet	Stem	Handle	Packing
CS	ASTM A108CS	ASTM A108CS	ASTM A582 303SS	Anodized Aluminum	Dual Viton™ O-ring with Teflon™ backup ring
SC	ASTM A105CS	ASTM A182 316SS	ASTM A182 316SS		
316SS	ASTM A182 316SS	ASTM A182 316SS	ASTM A182 316SS		



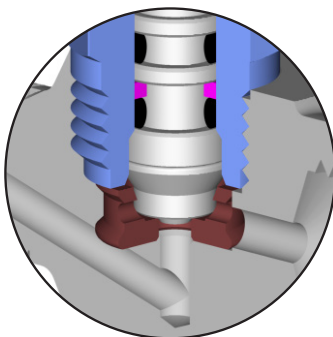
### Rupture Disc Valve Assembly

Standard Materials					
Valve	Body	Bonnet	Stem	Disc	Packing
CS	ASTM A108CS	ASTM A108CS	ASTM A582 303SS	Incoloy™	Dual Viton™ O-ring with Teflon™ backup ring
SC	ASTM A105CS	ASTM A182 316SS	ASTM A182 316SS		
316SS	ASTM A182 316SS	ASTM A182 316SS	ASTM A182 316SS		



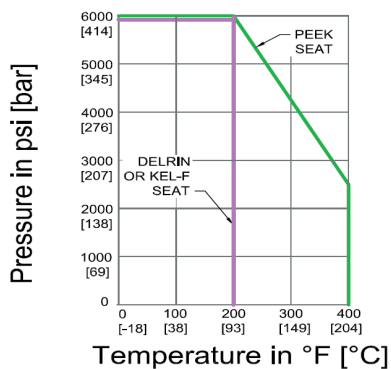
## P2N6G™ / P2NA6G™: Stem and Seat Characteristics

### Stem Tips



Mini Soft Seat Unique Flat  
Tip Design Rated Up to 6000 psi

### Pressure vs. Temperature (Soft Seat)



**Note:** Body material specifications based on ASME B16.34 - 2009. Packing material ratings based on manufacturer's specifications. Approximations only. Phoenix does not represent these values as finite. They are provided only as representative values.

## P2N6G™ / P2NA6G™ : Model Numbering System

Phoenix	Orifice Size	Type	Inlet Size	Inlet Type	Outlet Size	Outlet Type	Material	Packing	Seat	Stem Tip	Option Codes	Description
P	2 1/8"	NG6	2 1/8"	F FNPT	2 1/8"	F FNPT	SS ASTM A182 316/316L	A Aflas™	D Delrin™	Flat Tip Standard (leave blank)	CC	Chlorine Clean
		NA6G (Angle Body)	4 1/4"	M MNPT	4 1/4"	M MNPT	SC ASTM A105 CS**	V Viton™ (FKM)	P Peek™		OC	Oxygen Clean
							CS ASTM A108 CS**		K Kel-F™		SN	SilcoNert™ Coating
							C5 ASTM A350 LF2				SGI	Sour Gas ISO NACE Latest Rev.
							N4 Monel™ 400				RL (R)(B)	Round Large Handle Aluminum (Red)(Blue)
							N6 Inconel™ 625				RC	Round Handle CS
							N8 Inconel™ 825				RS	Round Handle SS
							N2 Hastelloy™ C276				N4	Monel™ 400 Stem
EXAMPLE: <b>P2NG64M4FCSVD</b> = 1/8" Orifice, Gas Valve, 1/4" MNPT Inlet, 1/4" FNPT Outlet, A108 CS Body, FKM Packing, Delrin™ Seat, Flat Tip Stem												
P	2	NG6	4	M	4	F	CS	V	D		N5	Monel™ 500 Stem
* For code applications, A108 CS is unacceptable, A105 CS must be selected for CS valves.												
											N6	Inconel™ 625 Stem
											N8	Inconel™ 825 Stem
											N2	Hastelloy™ C276 Stem
											RPD	Rupture Disc Incoloy™
											TG	SS Tag

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)
D	Delrin™	-40°F (-40°C)	200°F (93°C)
P	Peek™	-40°F (-40°C)	400°F (204°C)
K	Kel-F™	-100°F (-73°C)	200°F (93°C)

Parker Hannifin Corporation  
**Instrumentation Products Division**  
1005 A Cleaner Way  
Huntsville, AL 35805 USA  
phone 256 881 2040  
fax 256 881 5072  
[www.parker.com/ipd](http://www.parker.com/ipd)

Parker Phoenix P2N6G™ / P2NA6G™ Gas Mini Valve  
PPL-CAT-P2N6G-P2NA6G-001 May 2024

© 2024 Parker Hannifin Corporation



[parker.com/ipd](http://parker.com/ipd)