

Part Number: 113077

Part Description: PRD Manifold Assembly

Product Technical Specifications

Approved Valves and Pressure Relief Devices (PRD)

The specifications shown in this document outline the construction requirements of the PRD manifold configuration that has been tested and approved for use with your Quantum Type 4 cylinder, valve and PRD assembly.

Any PRD manifold that does not meet the specifications indicated in this document should be immediately altered to comply with the requirements in this document.



The PRD manifold assembly described in this data sheet must be constructed according to the specifications defined in this document. Only approved valves and PRD's are to be installed in your Quantum cylinder. Installation of a valve, PRD or combination of the two components not approved for your cylinder will result in death or serious injury.

Installation

This completed PRD manifold assembly must be installed on the cylinder before the cylinder is filled with fuel. Alteration or modification of a PRD Manifold that has been fabricated to meet this specification is strictly prohibited.

The mounting hardware used to secure the PRD manifold assembly, must be able retain the PRD manifold in place at temperatures that will cause the PRD to discharge.



The PRD manifold assembly **MUST** be secured in the areas indicated. Failure to properly secure the PRD manifold assembly will result in death or serious injury.



This PRD manifold assembly is connected to a "live" port on the cylinder valve; this PRD manifold will always be exposed to tank pressure even if the cylinder valve is in the closed position.

Never disassemble or disconnect the PRD manifold assembly from the cylinder while the cylinder is pressurized. Failure to follow this instruction may result in death or serious injury.

For additional information regarding your CNG cylinder and its installation and usage, refer to the *Type 4 Compressed Natural Gas (CNG) Cylinder Installation and Maintenance Guide* available at www.qtw.com.

Mechanical Interface

Cylinder Valve PRD Interface ½" Tube
 PRD Relief Port 3/4-16 SAE

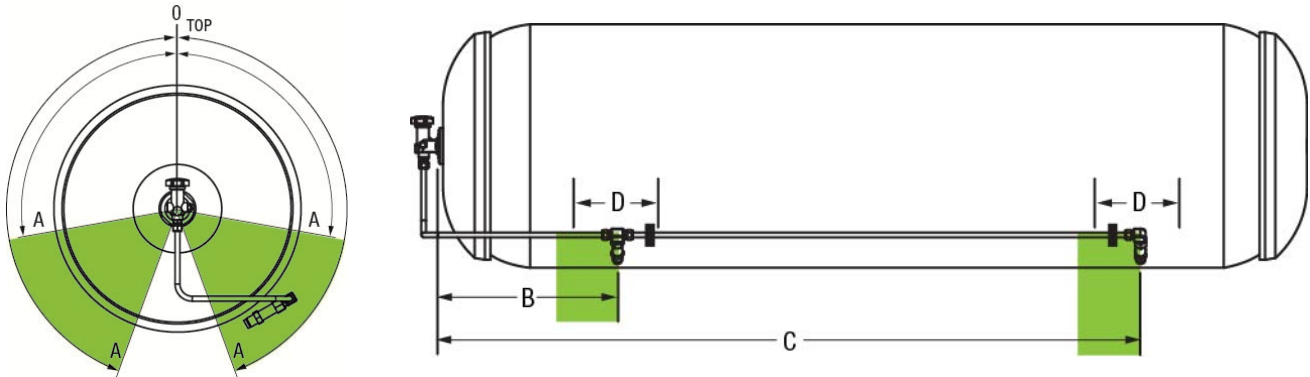
Torque Specifications

Cylinder Valve PRD Interface 47 Ft. lb. (64 N.m.)
 PRD Assembly (3/4-16 SAE) 41 Ft. lb. (55 N.m.)
 9/16-18 SAE Fittings 33 Ft. lb. (45 N.m.)

Maintenance Parts

N/A

General Construction Reference



General Specifications

Maximum Length of Tubing to Reach PRD #1 ¹	36.7" (933 mm)
Maximum Length of Tubing to Reach PRD #2 ¹	90.7" (2,304 mm)
Minimum ID of Tubing	0.402" (10.2 mm)
Minimum Tubing Wall Thickness ²	0.049" (1.2 mm)
Tubing Material	Seamless 316 Stainless Steel
Minimum ID of Any Fitting Used in Assembly	0.28" (7.1 mm)
Maximum Degree of Any Single Bend	90 Degrees
Maximum Total Degrees of All Combined Bends	270 Degrees
Orientation of PRD(s) (A)	±100°-150°
Distance of PRD #1 From Valve Boss (B)	20.0" +0"/ -5.0" (508.0 mm +0 mm / -127 mm)
Distance of PRD #2 From Valve Boss (C)	74.0" +0"/ -5.0" (1879.6 mm +0 mm / -127 mm)
Approved PRD(s)	Quantum 114056
Number of PRD(s) Required in Assembly	Two (2)
Distance of mounting point from PRD (D)	2.0" (51 mm)
Minimum Number of Mounting Points	Two (2)
Approved Service Gas	Compressed Natural Gas (CNG)
Service Pressure	3,600 psi (24.8 MPa) @ 70°F (21°C)
PRD #1 Discharge Tubing Length ^{1, 3}	0.0" (0 mm)
PRD #2 Discharge Tubing Length ^{1, 3}	0.0" (0 mm)
PRD #1 Discharge Tube Maximum Total Degrees of All Combined Bends	0 Degrees
PRD #2 Discharge Tube Maximum Total Degrees of All Combined Bends	0 Degrees
Minimum ID of PRD Discharge Tubing	N/A

- 1) Tubing length shown is maximum length of straight tube before bending.
- 2) If larger tubing sizes are used, the wall thickness of the tube must be increased to maintain the proper pressure rating.
- 3) If used, the PRD discharge tube MUST be secured properly to prevent movement during a discharge.