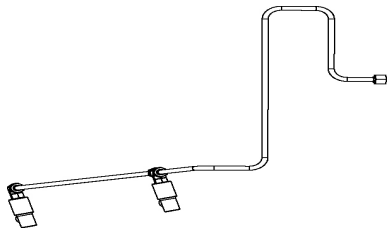
Part Number: **116880**

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 IV 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.

PRD valve locations on cylinder modules designed and built by a cylinder manufacturer, may not comply with the specifications indicated on this data sheet. The cylinder module manufacturer has tested and approved the specific design including the PRD placement for that cylinder module. If you have questions regarding the installation or placement of the PRD assemblies, contact the manufacturer of the cylinder module for additional information.

⚠ DANGER *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.

⚠ DANGER *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.*

⚠ WARNING *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 IV Compressed Natural Gas (CNG) Cylinder Installation and Maintenance Guide* available at www.qtww.com.

Mechanical Interface:

PRD Inlet Port ..... 9/16" SAE
PRD Outlet Port ..... 1/2" SAE

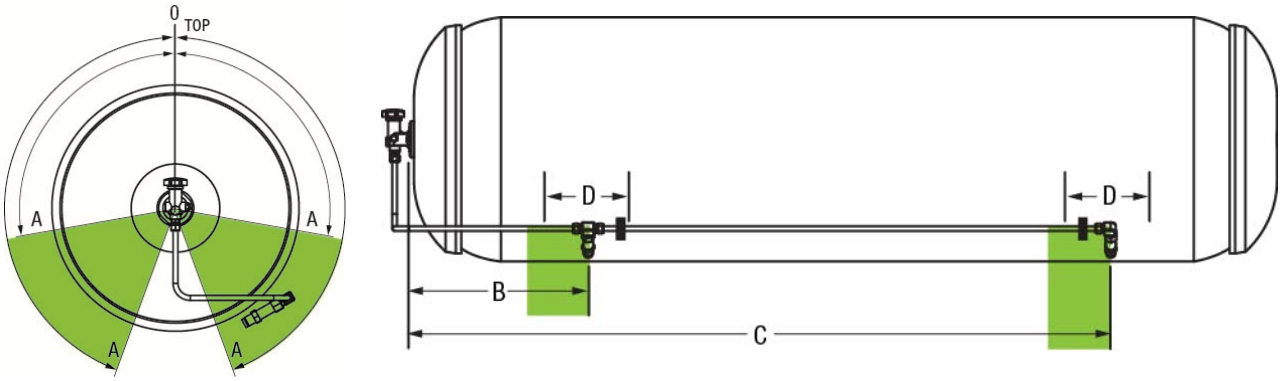
Torque Specifications:

3/8" ORFS ..... 30 lb ft (40 N.m)
9/16-18 SAE (VTI PRD) ..... 24 lb ft (32 N.m)

Maintenance Parts:

N/A

General Construction Reference



General Specifications:

Maximum Length of Tubing to Reach PRD #1 [1]	60.9” (1547 mm)
Maximum Length of Tubing to Reach PRD #2 [1]	N/A
Minimum ID of Tubing	0.277” (7.0 mm)
Minimum Tubing Wall Thickness [2]	0.049” (1.2 mm)
Tubing Material	Seamless 316L Stainless Steel
Minimum ID of Any Fitting Used in Assembly	0.264” (6.7 mm)
Maximum Degree of Any Single Bend	90 Degrees
Maximum Total Degrees of All Combined Bends	450 Degrees
Orientation of PRD(s) (A)	±100°-150°
Distance of PRD #1 From Valve Boss (B)	31.3” +0”/-5.0” (795 mm +0/-127mm)
Distance of PRD #2 From Valve Boss (C)	N/A
Approved PRD(s)	Quantum 114405
Number of PRD(s) Required in Assembly	One (1)
Distance of mounting point from PRD (D)	2” (51 mm)
Minimum Number of Mounting Points	One (1)
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]	N/A
PRD #2 Discharge Tubing Length [1, 3]	N/A
PRD #1 Discharge Tube Maximum Total Degrees of All Combined Bends	N/A
PRD #2 Discharge Tube Maximum Total Degrees of All Combined Bends	N/A
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.