

Before installation these instructions must be fully read and understood

General

The intent of these instructions is to acquaint the user with the storage, installation and operation of this product.

This regulator should only be used in accordance with the applicable operating instructions and within the application specifications of the purchase order.

These regulators have been tested at the factory and should be adjusted on site. Contact the Factory or a Tyco Valves and Controls authorized representative for any questions.

Storage and handling

Because cleanliness is essential to the satisfactory operation and tightness of a regulator, precautions should be taken during storage to keep out all foreign materials. Inlet, outlet, & sense line protectors should remain in place until the regulator is ready to be installed in the system. Take care to keep the regulator inlet absolutely clean. It is recommended that the regulator be stored indoors in the original shipping container away from dirt and other forms of contamination.

Regulators must be handled carefully and never subjected to shocks. Rough handling may alter the pressure setting, deform regulator parts and adversely affect seat tightness and regulator performance.

The regulator should never be lifted or handled using the tubing. When it is necessary to use a hoist, use the lifting eye(s) on the main regulator body. If there are no lifting eyes, a chain or sling should be placed around the main regulator body in a manner that will insure that the regulator is in a position to facilitate installation.

Installation (see applicable figure)

Many regulators are damaged when first placed in service because of failure to clean the connection properly when installed. Before installation, flange faces or threaded connections on both the regulator and the vessel and/or line on which the regulator is mounted must be thoroughly cleaned of all dirt and foreign material.

Because foreign materials that pass into and through regulators can be damaging, the systems on which the regulator are tested and finally installed must also be inspected and cleaned. New systems in particular are prone to contain foreign objects that inadvertently get trapped during construction and will destroy the seating surface when the regulator opens. The system should be thoroughly cleaned before the regulator is installed.

The gaskets used must be dimensionally correct for the specific flanges. The inside diameters must fully clear the regulator inlet, outlet, & sense openings so that the gasket does not restrict flow.

For flanged regulator, draw down all connection studs or bolts evenly to avoid possible distortion of the regulator body.

For threaded regulators, use flats on the body to aid in installation. Use a back-up wrench when necessary.

Adjustment

Remove the cap and back off the pressure adjustment screw to a no set pressure position (blanketing valve closed) and pressurize the regulator. If block valves are installed, pressurize the blanketing valve by opening the block valves in the following sequence, B3 (sense) first, B2 (inlet) next, then B4 (gauge) and B1 (outlet) last. Slowly adjust the set pressure adjustment screw to obtain the desired tank blanket gas pressure. Clockwise rotation of the pressure adjustment screw increases tank pressure. The recommended set pressure range is stamped on the regulator nameplate. Adjusting the set pressure higher than the nameplate limit could prevent the blanketing regulator from closing

Regulators are intended to open and close within a narrow pressure range. Regulator installations require accurate design both as to inlet, discharge, & sense piping. Refer to International, National and Industry Standards for guidelines.

Installation and Operational Safety Instructions for Anderson Greenwood Tank Blanketing Regulators

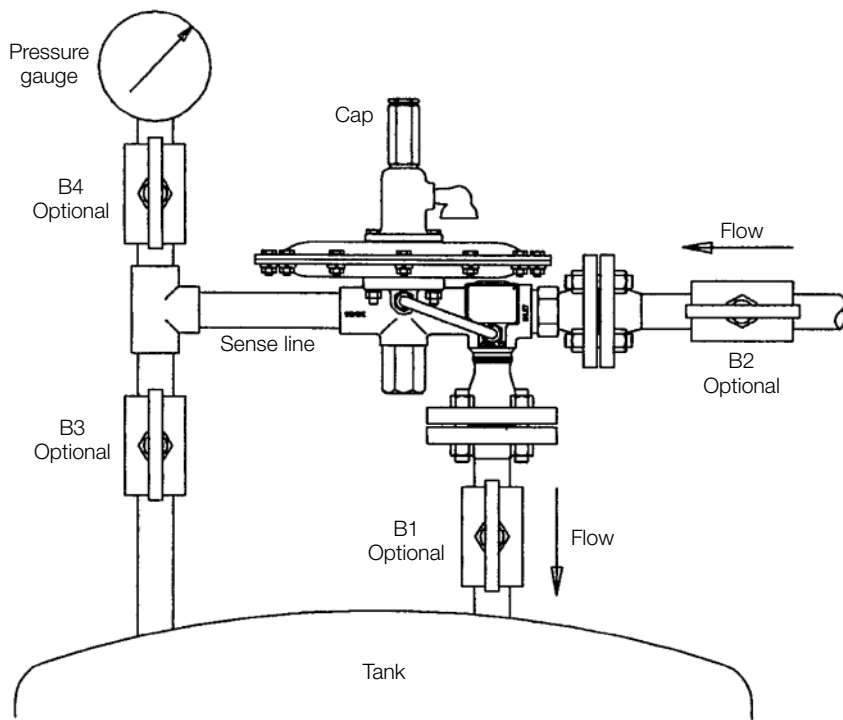


Figure 1: BV-1

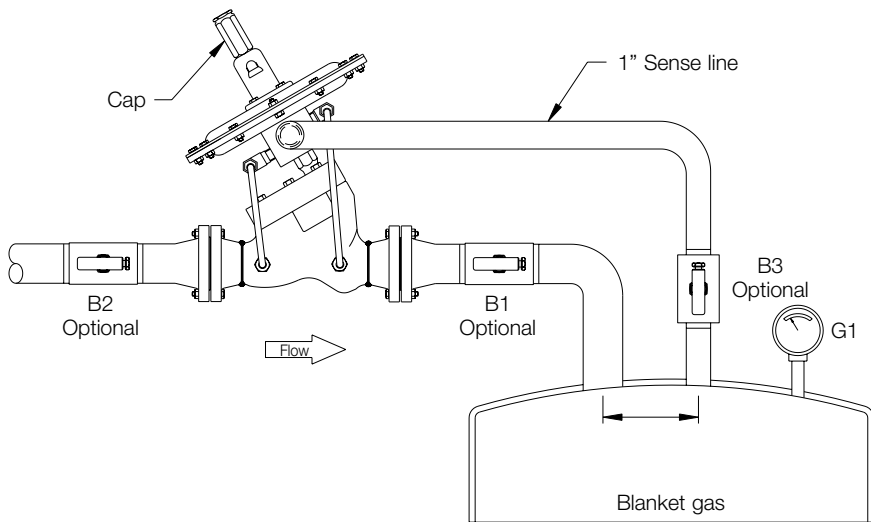


Figure 2: Y-1

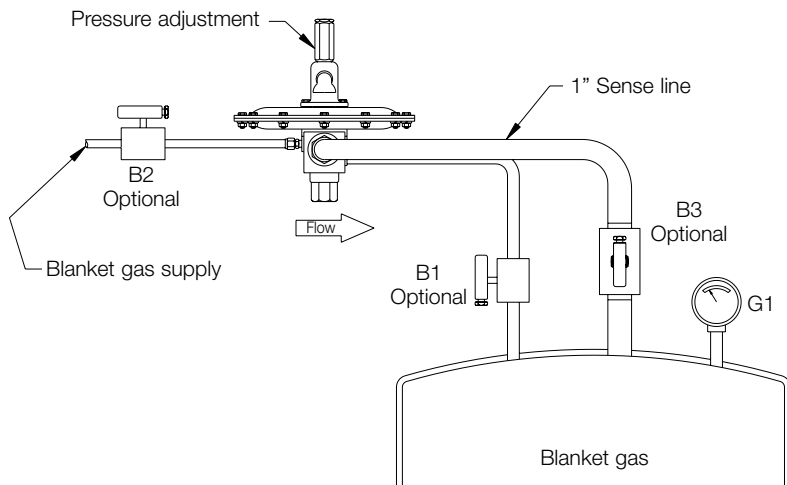


Figure 3: RA

Inlet Piping

The regulator inlet should be mounted horizontally directly on a short connection fitting to the blanketing gas source. This connection should be unobstructed, and the regulator should never be installed on a fitting having a smaller inside diameter than the inlet connection of the regulator. If a block valve is used, it should be a full port type valve sufficient size to not restrict flow through the regulator.

Discharge Piping

The regulator outlet should be mounted as close as possible to the vessel.

Discharge piping should be simple and direct. All discharge piping should be run as direct as is practicable to the point of final release for blanketing.

The regulator should be properly supported to withstand any swaying or system vibrations.

Fittings or pipe having a smaller inside diameter than the valve outlet connections must not be used. If a block valve is installed, it should be a full port type valve sufficient size to not restrict flow through the regulator.

Remote pressure

In these regulators, remote pressure sensing is standard. The remote sense port is marked "SENSE". Remove the plug and connect the remote sense line to this port. The sense line must be connected to the tank properly away from discharge piping penetration for stable operation and must be minimum 1" pipe size.

Insure that the pilot sensing port is within the system protected by the regulator.

A block valve for shut off in the remote sense line is optional to facilitate maintenance. However a closed block valve in the remote sense line renders the regulator inoperative.



This product is a safety related component intended for use in critical applications. The improper application, installation or maintenance of the regulator or the use of parts or components not manufactured by Tyco Valves & Controls may result in a failure of the regulator.

Any obstruction due to polymerization, solidification or solid deposit will affect the safety performance of this regulator. Methods to reduce such risk should be taken.

Any installation, maintenance, adjustment, repair or test, performed on the regulator must be done in accordance with the requirements of all applicable Tyco Valves & Controls Procedures and Instructions.

The information, specifications and technical data (the "Specifications") contained in this document are subject to change without notice. Tyco Valves & Controls does not warrant that the Specifications are current and assumes no responsibility for the use or misuse thereof. The Purchaser should verify that there have been no changes to the Specifications prior to use.

Safety Precautions

Always wear proper safety gear to protect head, eyes, ears, etc. anytime you are near pressurized regulators.

Never attempt to remove the regulator from a system that is pressurized.

Never perform maintenance on the regulator while in service unless the regulator is isolated from the system pressure. If not properly isolated from the system pressure, the regulator may inadvertently open resulting in serious injury.

Remove the regulator prior to performing any pressure testing of the system.

The safety of lives and property often depends on the proper operation of the regulator. The regulator must be maintained according to appropriate instructions and must be periodically tested and reconditioned to ensure correct function.

For further information including adjustment, maintenance, cleaning lapping and detail illustrations, obtain the appropriate Operation and Maintenance Manual from the following table. These manuals may be requested from the factory or are available at www.tycovalves.com.

Regulator model	Operation & maintenance manual
BV-1 Tank Blanketing - Pilot Operated Type	05.9040.252
Y-1 Tank Blanketing - Pilot Operated Type	05.9040.176
RA Tank Blanketing - Direct Spring Operated Type	05.9040.176

Service technicians are available to assist with your installation or other field problems. Call your nearest Tyco Valves and Controls representative or our factory at the addresses below.