Instructions For Installation and Start-Up (Models B531, B838)

INSTALLATION

1) Make certain all shipping plugs are removed from the inlet, outlet and vent of any ROOTS regulator before installation
2) Keep the piping interior (inner diameter), ROOTS regulator inlet, and regulator outlet free of dirt, chemical sealant (pipe dope), Teflon tape, or other debris. Materials in piping or ROOTS regulator inlet or outlet creating a loss of pressure control.
3) Gas must flow through the ROOTS regulator valve body in the same direction as the arrow on the regulator body. Gas flowing in the wrong direction may cause an over-pressure condition and damage the regulator.
4) During product installation, do not clamp the valve body in a vice, this may lead to permanent damage rendering a ROOTS Regulator that is not fit for service.
5) Apply a gas resistant pipe joint sealant on the male (exterior) pipe threads. Do not use any type of Teflon tape on ROOTS Regulator installations. Do not apply pipe joint sealant on the female (interior) pipe threads of the ROOTS Regulator as joint materials could lodge in the regulator creating a loss of pressure control.
6) During product installation, use of excessive force and unsafe practices can lead to permanent damage rendering a ROOTS Regulator that is not fit for service. It is recommended to not exceed 3 full turns past hand tight into the ROOTS Regulator valve body per SAE standard AS71051. Do not use oversized pipe wrenches and/or "Cheater" bars during the installation of ROOTS Regulators which can damage valve body from an over torque situation.

ADJUSTMENT

7) All ROOTS regulators are preset at the factory to match specifications given when ordered. The outlet pressure may be adjusted by removing the caps on top of the spring housings and turning the adjustment screws inside the spring housing with a spring adjustment wrench available from Itron or with a large flat-head screwdriver. To adjust the regulator, open downstream flow and observe the outlet pressure.
8) **If outlet pressure needs to be decreased go to step 5a. If outlet pressure needs to be increased, go to step 5b.**
   a) Turn each adjustment screw counterclockwise an equal number of turns to reduce the outlet pressure to a point just below the desired set point. Note: The outlet pressure will not drop until the second screw is turned.
   b) Turn one screw clockwise until the desired outlet pressure is obtained.
   c) Turn the second screw clockwise until a slight increase in outlet pressure is observed.
   d) Turn the second screw counterclockwise to achieve the desire outlet pressure. Only a fraction of a turn should be required.
9) Both screws should be at about the same depth in the spring housing when the regulator is properly set.
10) After the desired outlet pressure is achieved, replace the adjustment seal caps and recheck for leaks. The regulator is now ready for operation.

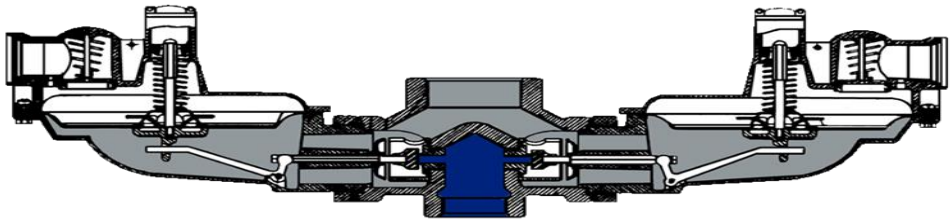
SAFETY NOTES:

A. The maximum inlet pressure for this regulator is dependent upon the size of the orifice and model designation. The non-relief models are limited to 60 psig maximum inlet pressure unless addition safety devices are used as outlined in DOT code, OPS, Part 192, section 192.197.
B. When this model is used on liquid petroleum gases, it should be restricted to second-stage pressure reduction in the gaseous phase.

SAFETY WARNING:

This product, as of the date of manufacture, is designed and tested to conform to all governmental or industry safety standards then existing as may apply to the manufacturer.

The purchaser and user of this product are warned that compliance with the manufacturer's instructions and procedures is required in order to avoid the hazards of leaking gas resulting from improper installation, start-up or use of this product, and further, that all area fire control, building codes or other safety regulations established under public laws which regulate or concern the application, installation, operation or general use of this product should be complied with. In order to insure the safe and proper operation of this product, the manufacturer recommends that this product be installed by a qualified installer.



B531 Operating Schematic

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ROOTS Regulator Installation Models B531, B838 DUS.ROOTS.032
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