



2202 2nd Avenue
Regina, SK S4R 1K3 Canada
1 (866) 530-8599
info@tsask.ca
www.tsask.ca

REGISTRATION OF A PRESSURE FITTING DESIGN

November 15, 2024

TSSA
345 Carlingview Dr.
Toronto, ON
Canada
M9W 6N9

Attention: Cecylia Garbacz

File Number: 101850

Re: Manufacturer: Generant Company, Inc
Item: BLD Series Pressure Regulator
Catalog or Drawing: Per Series BLD Scope of Registration EN-FR-207 Rev. C

TSASK Codes and Standards Compliance has registered the design listed above in accordance with The Boiler and Pressure Vessel Act and Regulations and CSA B51. The Canadian Registration Number (CRN) is:

0C25486.53

Expiry Date: 2034-09-23

Please note that every fitting shall be constructed in strict accordance with the registered design.

Fitting registrations are required to be resubmitted for validation after ten (10) years from the registration date in accordance with CSA B51, Clause 4.2.1.

Should you require anything further, please do not hesitate to contact the Codes and Standards Compliance Office at your convenience.

Yours truly,

A handwritten signature in blue ink, appearing to read "A. Syrgiannis".

Athan Syrgiannis, P.Eng.

Codes and Standards Compliance

Remarks:

CRN issuance based upon registration by another province.

A valid quality control program must be maintained at the production facility for the fitting registration to remain valid until the expiry date.



CRN Scope of Registration: Series BLD (Cryogenic Pressure Regulator)

Series	ASME Design Standard	Size Range	Spring Models	Main Pressure Bearing Element Material	Operating Temperature Range	Device MAWP @ Max Temp	Device MAWP Burst Test Report
BLD	B31.3	3/8" & 1/2" NPT	A, B, C, D	ASTM B124 Brass (UNS C37700), ASTM B283 Brass (UNS C37700), ASTM A479 316 Stainless Steel (UNS S31600)	-320°F to 200°F	600 PSIG @ 225°F	Hydrostatic Test Report: BLD-500B Hydrostatic Burst Test Report

Catalog References

BLD Product Literature: SA.SL.BLD001_B.5285
 Drawing: 2BLD-375B-C-350
 Drawing: 2BLD-500B-D-450
 Drawing: 2BLD-500SS-B-125



CRYOGENIC PRESSURE REGULATOR
1/2" NPT
Max. Inlet 600 PSI (41.4 bar)

BLD
SERIES

DESCRIPTION:

BLD Series cryogenic pressure regulators provide high flow and shut off quickly at the desired set pressure. The regulator design is a non-balanced, spring reference, reducing type regulator and comes with PTFE seals for cryogenic use. These regulators are optimized for use in pressure build applications. The solid (non-tied) metal diaphragms provide long lasting, leak-free performance. The springs for BLD Series regulators have been designed for optimized flow within the set pressure range. All BLD Series regulators are supplied cleaned for oxygen service.

FEATURES:

- **OPTIMIZED FOR HIGH FLOW:** Design provides high flow rates at low pressure differential.
- **QUICK SHUT-OFF:** Regulators transition from the flowing condition to shut in a tight pressure band.
- **SOLID, NON-TIED, DIAPHRAGM:** Solid diaphragm eliminates potential leak path and increases sensitivity.
- **DESIGNED FOR CRYOGENICS:** All materials were selected specifically for use in cryogenic environments.
- **CLEANED FOR OXYGEN SERVICE:** Regulators are cleaned for use in Oxygen service standard.
- **EXTENSIVELY FIELD QUALIFIED**

TECHNICAL DATA:

Max. Inlet Pressure: 600 PSIG (41.4 bar)

Outlet Pressure Ranges:

Spring	Outlet Pressure Range	PSI/Turn*
A	15 to 75 PSI (1.0 to 5.2 bar)	12
B	50 to 200 PSI (3.4 to 13.8 bar)	20
C	100 to 350 PSI (6.9 to 24.1 bar)	40
D	300 to 600 PSI (20.7 to 41.4 bar)	70

*PSI/Turn Value is approximate change in setpoint per full turn of the adjustment screw (CW to increase, CCW to decrease), for reference only.

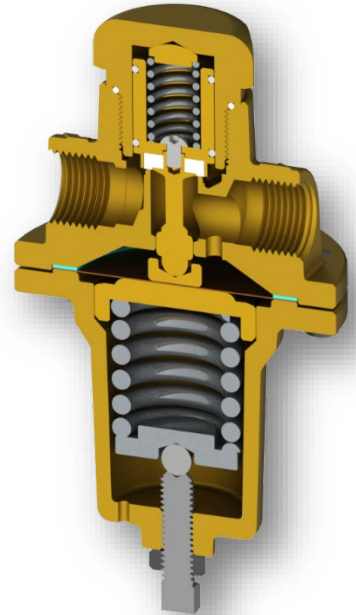
Temperature Range: -320° to 200°F (-196° to 93°C)

Full Open Flow Coefficient: 2.20

MATERIALS OF CONSTRUCTION:

Component	Material
Body, Chamber	Brass, ASTM B124
Stem, Spring Retainer, Bottom Plug, BP Button, Stem Cap	Brass, ASTM B16
Adjustment Springs, Valve Spring	17-7PH SS
Adjustment Bolt, Locknut, Chamber Bolts, Lock Washers, Valve Screw	18-8 SS
Adjustment Screw Ball Bearing	440C SS
Diaphragms	Phosphor Bronze
Spring Button	303SS, ASTM A582
Valve Seal, Bottom Plug Seal, Chamber Seal, Valve O'Rings	PTFE

NOTE: Regulators are assembled with Dupont Krytox® lubricant.



Technical Safety Authority
of Saskatchewan

Registration No. 0C25486.53

File No. 101850

Registered

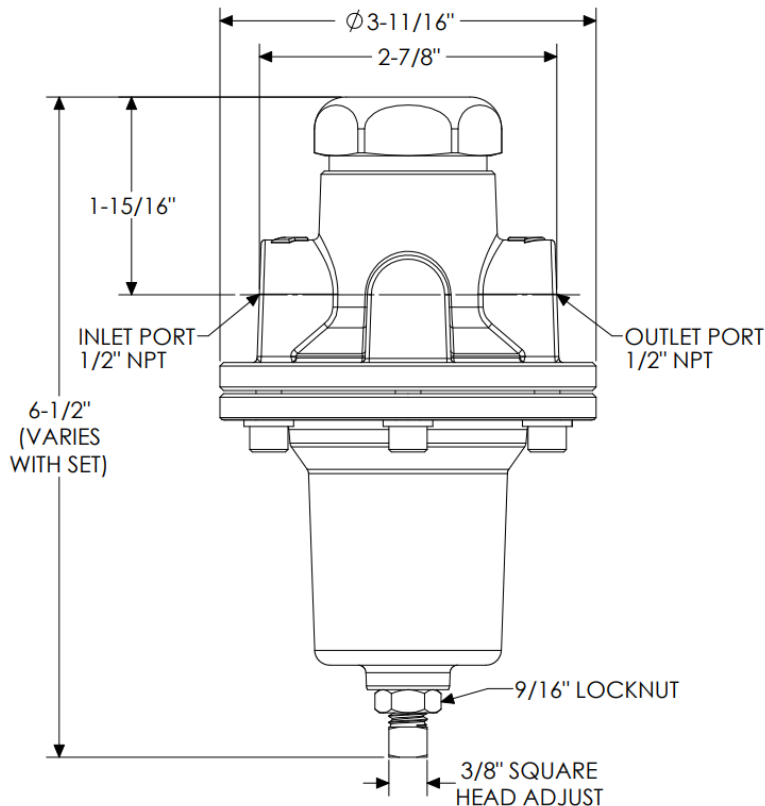
Date: November 15, 2024

Expiry Date: September 23, 2034

Codes & Standards Compliance Office

CRYOGENIC PRESSURE REGULATOR

DIMENSIONAL DATA



SPRING KITS

Part Number	Range
BLD-SK-A	15 to 75 PSI
BLD-SK-B	50 to 200 PSI
BLD-SK-C	100 to 350 PSI
BLD-SK-D	300 to 600 PSI

All Replacement Spring Kits come with a Replacement Spring, Spring Retainer, and Chamber Seal. D Range Spring Kits also come with a Chamber Ring.

REPAIR KITS

Part Number	Description
BLD-RK	Complete Repair Kit Includes Valve Assembly, Valve Spring, Bottom Plug Seal, Chamber Seal, and Diaphragms (4)
BLD-VLV-RK	Valve Only Repair Kit Includes Valve Assembly, Valve Spring, and Bottom Plug Seal

PERFORMANCE INFORMATION

Generant has flow information based on actual testing for both Pressure Build circuit applications and true cryogenic pressure reducing regulator applications. For more information, see Generant document SA.TD.BLD001.5256 *BLD Series Flow Datasheet*. The Full Open Flow Coefficient is listed in Technical Data.

HOW TO ORDER

2BLD - 500B - B - 125

SERIES — 2BLD - 2 Port BLD Regulator

INLET SIZE — 500B - 1/2" NPT Ports, Brass

SET PRESSURE
Specify Set Pressure in PSI
OMIT FOR STANDARD SET
(BY SPRING, SEE TABLE)

OUTLET PRESSURE RANGE

- A - 15 to 75 PSI (1.0 to 5.2 bar)
- B - 50 to 200 PSI (3.4 to 13.8 bar)
- C - 100 to 350 PSI (6.9 to 24.1 bar)
- D - 300 to 600 PSI (20.7 to 41.4 bar)

Spring	Std. Set
A	35
B	125
C	300
D	450

Standard Sets do not come engraved with "Factory Set Pressure."

ADAPTER KIT
Order Part Number **BLD-A401-B**.
Adapter Kit consists of two (2) fittings for easy interchange with other commonly used 1/2" NPT PB Regulators. No hard piping changes required.

PROPER COMPONENT SELECTION – When specifying a component, the total system design must be considered to ensure safe and trouble-free performance. Intended component function, materials compatibility, pressure ratings, installation, environment and maintenance are the responsibility of the system designer.



www.generant.com

1865 Route 23 South PO Box 768 Butler, New Jersey 07405 973.838.6500 Fax 973.838.4888