

C3000 Cryogenic Liquid Helium Valve - Manual & Actuated Options

1. Liquid Helium Valve Model C3041-M21

.5" LHe Vacuum Jacketed Globe Valve, Manual Operation

- 1/2" IPS LHe Valve
- Cold Box Cuff Or Jacketed
- Manual Operation
- Globe Style Body

Features

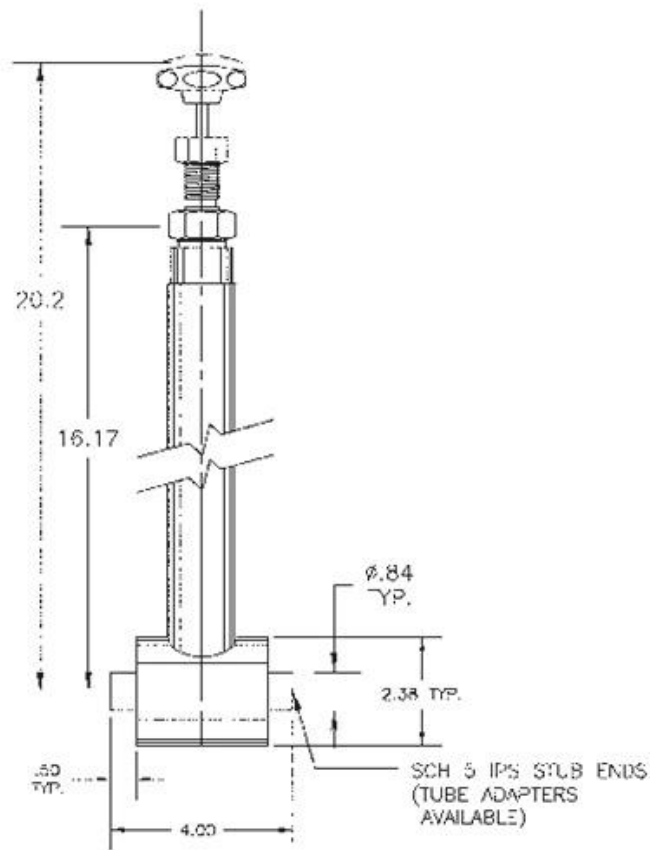
- Manual Actuation
- Redundant Stem Seal
- Cryogenic Stem Packing
- Brass Bonnet
- Redundant Cryogenic Bonnet Seal
- Bonnet Purge Port (Thermal Relief Location)
- All Stainless Steel Body & Stem
- Cold Box Cuff (Full Jacket Available)
- MLI On Jacketed Valves
- Low Thermal Conductivity Stem & Support Tube
- Brass Plug
- Plug To Stem Stabilizer
- Kel-F Seat Seal w/Locked Thread
- Contoured Flow Plugs Available

Technical Data

- 225 PSIG Proof
- Seat Seal Bubble Tight @150 PSIG
- Packing Mass Spec Tested @ 1×10^{-5}
- Leak Rate Below 1×10^{-8} CC GHe/SEC.
- Heat Leak: 3.5 BTU/HR.(1 Watt)
- Cooldown Mass: 0.75 Pounds.

Applications

- Vacuum Jacketed Piping
- Cold Boxes
- Helium Transfer Lines
- Helium Liquefiers



2. Liquid Helium Valve Model C3041-A21

.5" LHe Vacuum Jacketed Globe Valve, Pneumatic Actuated Operation

- 1/2" IPS LHe Valve
- Cold Box Cuff Or Full Jacket
- Actuated
- Globe Style Body

Features

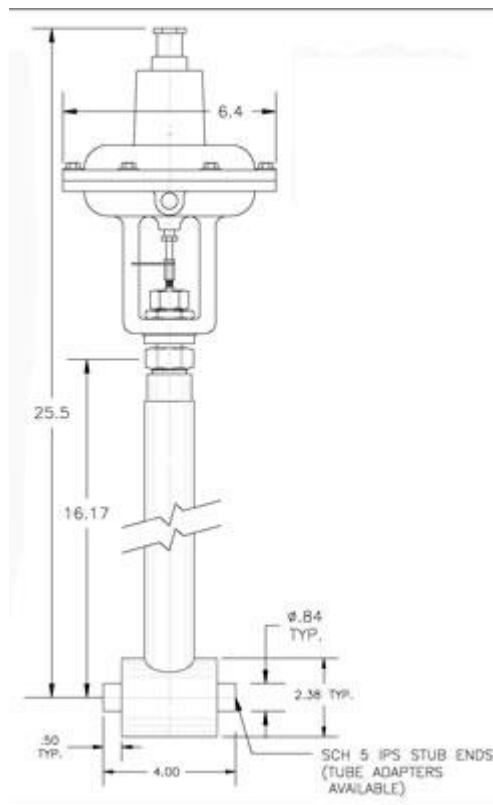
- Pneumatic Actuation Fail Closed
- Redundant Stem Seal
- Cryogenic Stem Packing
- Brass Bonnet
- Redundant Cryogenic Bonnet Seal
- Bonnet Purge Port (Thermal Relief Location)
- All Stainless Steel Body & Stem
- Cold Box Cuff (Full Jacket Available)
- MLI On Jacketed Valves
- Low Thermal Conductivity Stem & Support Tube
- Brass Plug
- Plug To Stem Stabilizer
- Kel-F Seat Seal w/Locked Thread
- Contoured Flow Plugs Available

Technical Data

- 150 PSIG MAWP
- 225 PSIG Proof
- Seat Seal Bubble Tight @150 PSIG
- Packing Mass Spec Tested @ 1×10^{-5}
- Leak Rate Below 1×10^{-8} CC GHe/SEC.
- Heat Leak: 3.5 BTU/HR.(1 Watt)
- Cooldown Mass: 0.75 Pounds.

Applications

- Vacuum Jacketed Piping
- Cold Boxes
- Helium Transfer Lines
- Helium Liquefiers



3. Liquid Helium Valve Model C3041-M23

.5" LHe Cold Box Cuff Globe Valve, Manual Operation

- 1/2" IPS LHe Valve
- Cold Box Cuff Or Jacketed
- Manual Operation
- Globe Style Body

Features

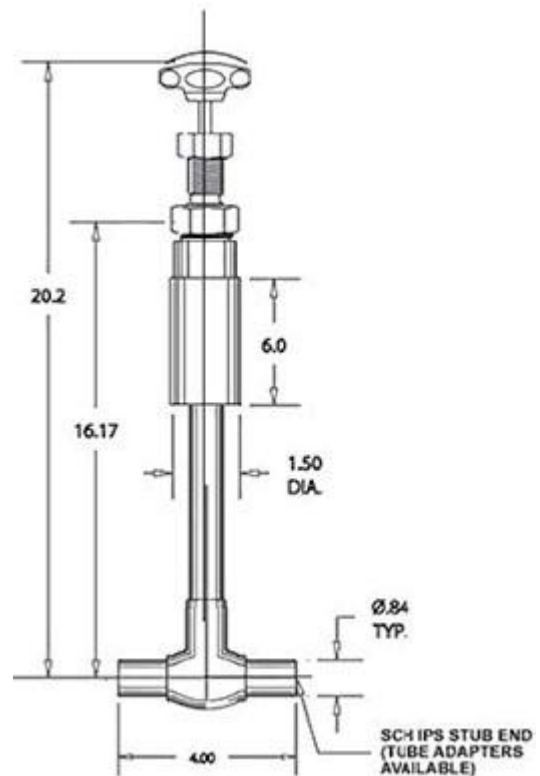
- Low Handle Torque for Bubble Tight Shut-off
- Redundant Stem Seal
- Cryogenic Stem Packing
- Brass Bonnet
- Redundant Cryogenic Bonnet Seal
- Bonnet Purge Port (Thermal Relief Location)
- Stainless Steel Body and Stem
- Cold Box Cuff (Full Jacket Available)
- MLI on Jacketed Valves
- Low Thermal Conductivity Stem and Support Tube
- Brass Plug
- Plug To Stem Stabilizer
- KEL-F Seat Seal w/ Locked Thread Insert
- Contoured Flow Plug Available

Technical Data

- 300 PSIG MAWP
- 450 PSIG Proof
- Seat Seal Bubble Tight @ 150 PSIG
- Packing Mass Spec Tested @ 1x10⁻⁵ TORR.
- Leak Rate Below 1x10⁻⁸ CC GHe/SEC.
- Heat Leak: 3.5 BTU/HR (1 Watt)
- Cooldown Mass: 0.50 Pounds
- Options:
 - Bonnet Purge Port
 - Full Lower Jacket
 - Pneumatic Actuator
 - JT Flow Plugs

Applications

- Vacuum Jacketed Piping
- Cold Boxes
- Helium Transfer Lines
- Helium Liquefiers



4. Liquid Helium Valve Model C3041-A23

.5" LHe Cold Box Cuff Globe Valve, Pneumatic Actuated Operation

- 1/2" IPS LHe Valve
- Cold Box Cuff Or Jacketed
- Actuated
- Globe Style Body

Features

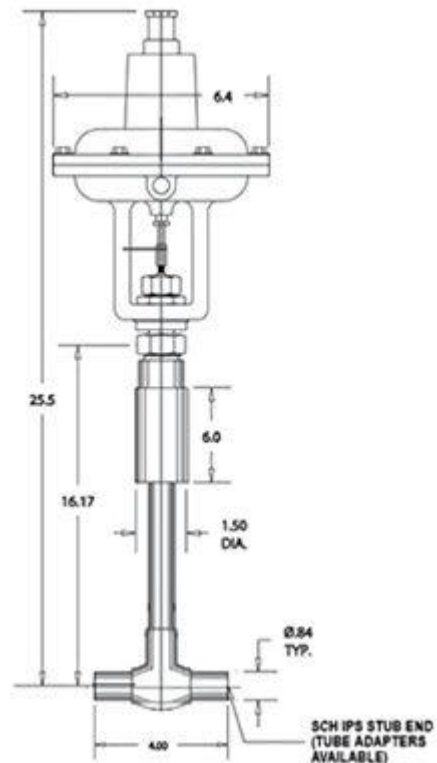
- Pneumatic Actuator Air to Open
- Redundant Stem Seal
- Cryogenic Stem Packing
- Brass Bonnet
- Redundant Cryogenic Bonnet Seal
- Bonnet Purge Port (Thermal Relief Location)
- Stainless Steel Body and Stem
- Cold Box Cuff (Full Jacket Available)
- MLI on Jacketed Valves
- Low Thermal Conductivity Stem and Support Tube
- Brass Plug
- Plug To Stem Stabilizer
- KEL-F Seat Seal w/ Locked Thread Insert
- Contoured Flow Plug Available

Technical Data

- 300 PSIG MAWP
- 450 PSIG Proof
- Seat Seal Bubble Tight @ 150 PSIG
- Packing Mass Spec Tested @ 1×10^{-5} TORR.
- Leak Rate Below 1×10^{-8} CC GHe/SEC.
- Heat Leak: 3.5 BTU/HR (1 Watt)
- Cooldown Mass: 0.50 Pounds.
- Options:
 - Bonnet Purge Port
 - Full Lower Jacket
 - Pneumatic Actuator
 - JT Flow Plugs

Applications

- Vacuum Jacketed Piping
- Cold Boxes
- Helium Transfer Lines
- Helium Liquefiers



5. Liquid Helium Valve Model C3042-M23

.5" LHe Cold Box Cuff Right Angle Valve, Manual Operation

- 1/2" IPS LHe Valve
- Cold Box Cuff Or Jacketed
- Manual Operation
- Right Angle Style Body

Features

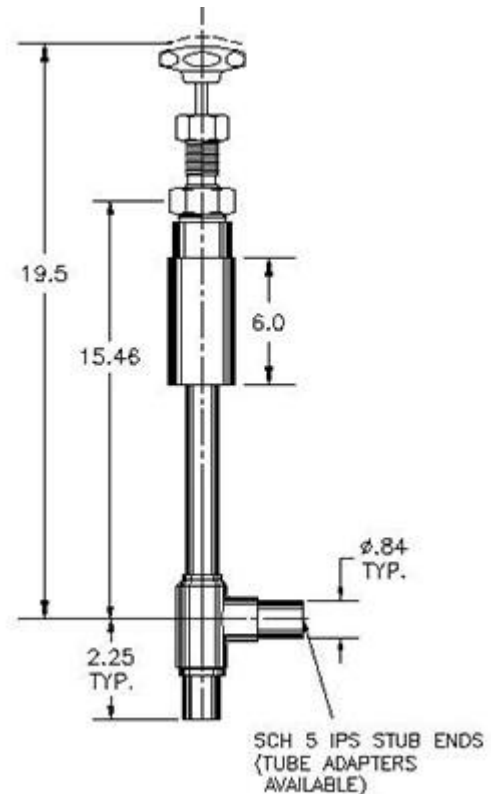
- Low Handle Torque for Bubble Tight Shut-off
- Redundant Stem Seal
- Cryogenic Stem Packing
- Brass Bonnet
- Redundant Cryogenic Bonnet Seal
- Bonnet Purge Port (Thermal Relief Location)
- All Stainless Steel Body and Stem
- Cold Box Cuff (Full Jacket Available)
- MLI on Jacketed Valves
- Low Thermal Conductivity Stem and Support Tube
- Brass Plug
- Plug To Stem Stabilizer
- KEL-F Seat Seal w/ Locked Thread Insert
- Contoured Flow Plug Available

Technical Data

- 300 PSIG MAWP
- 450 PSIG Proof
- Packing Mass Spec Tested @ 1×10^{-5} TORR.
- Leak Rate Below 1×10^{-8} CC GHe/SEC.
- Heat Leak: 3.5 BTU/HR (1 Watt)
- Seat Seal Helium Bubble Tight Tested @ 150 PSIG @ Ambient Temperature
- Cooldown Mass: 0.65 Pounds.
- Options:
 - Bonnet Purge Port
 - Full Lower Jacket
 - Pneumatic Actuator
 - JT Flow Plugs

Applications

- Vacuum Jacketed Piping
- Cold Boxes
- Helium Transfer Lines
- Helium Liquefiers



6. Liquid Helium Valve Model C3042-A23

.5" LHe Cold Box Cuff Right Angle Valve, Pneumatic Actuated Operation

- 1/2" IPS LHe Valve
- Cold Box Cuff Or Jacketed
- Actuated
- Right Angle Style Body

Features

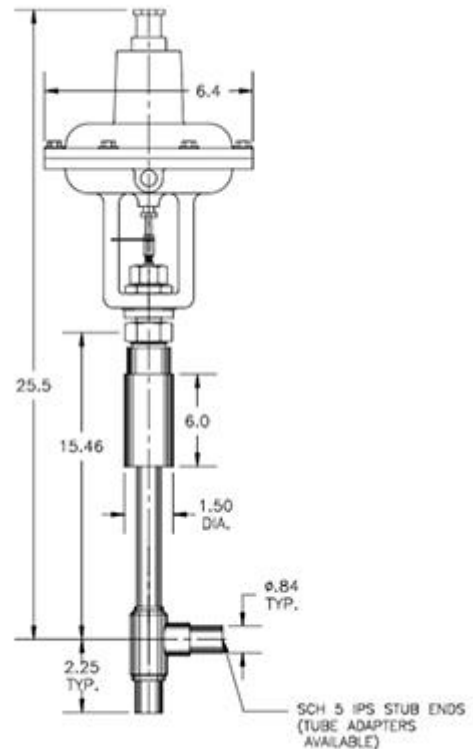
- Pneumatic Actuator Air To Open
- Redundant Stem Seal
- Cryogenic Stem Packing
- Brass Bonnet
- Redundant Cryogenic Bonnet Seal
- Bonnet Purge Port (Thermal Relief Location)
- All Stainless Steel Body and Stem
- Cold Box Cuff (Full Jacket Available)
- MLI on Jacketed Valves
- Low Thermal Conductivity Stem and Support Tube
- Brass Plug
- Plug To Stem Stabilizer
- KEL-F Seat Seal w/ Locked Thread Insert
- Contoured Flow Plug Available

Technical Data

- 300 PSIG MAWP
- 450 PSIG Proof
- Packing Mass Spec Tested @ 1×10^{-5} TORR.
- Leak Rate Below 1×10^{-8} CC GHe/SEC.
- Heat Leak: 3.5 BTU/HR (1 Watt)
- Seat Seal Helium Bubble Tight Tested @ 150 PSIG @ Ambient Temperature
- Cooldown Mass: 0.65 Pounds
- Options:
 - Bonnet Purge Port
 - Full Lower Jacket
 - JT Flow Plugs

Applications

- Vacuum Jacketed Piping
- Cold Boxes
- Helium Transfer Lines
- Helium Liquefiers



7. Liquid Helium Valve Model C3081-M21

1.0" LHe Vacuum Jacketed Globe Valve, Manual Operation

1" IPS LHe Globe Valve

Cold Box Cuff

Manual Operation

Globe Style Body

Features

Low Handle Torque for Bubble Tight Shutoff

Redundant Stem Seal

Cryogenic Stem Packing

Brass Bonnet

Redundant Cryogenic Bonnet Seal

Bonnet Purge Port (Thermal Relief Location)

Stainless Steel Body and Stem

Full Jacket (Cold Box Cuff Available)

MLI on Jacketed Valves

Low Thermal Conductivity Stem and Support Tube

Brass Plug

Plug To Stem Stabilizer

KEL-F Seat Seal w/ Locked Thread Insert

Contoured Flow Plug Available

Technical Data

300 PSIG MAWP

450 PSIG Proof

Seat Seal Bubble Tight @ 150 PSIG

Packing Mass Spec Tested @ 1×10^{-5} TORR

Leak Rate Below 1×10^{-8} CC GHe/SEC

Heat Leak: 6.25 BTU/HR (1.8 WATTS)

Cooldown Mass: 3.25 Pounds

Options:

Bonnet Purge Port

Full Lower Jacket

Pneumatic Actuator

Flow Plugs

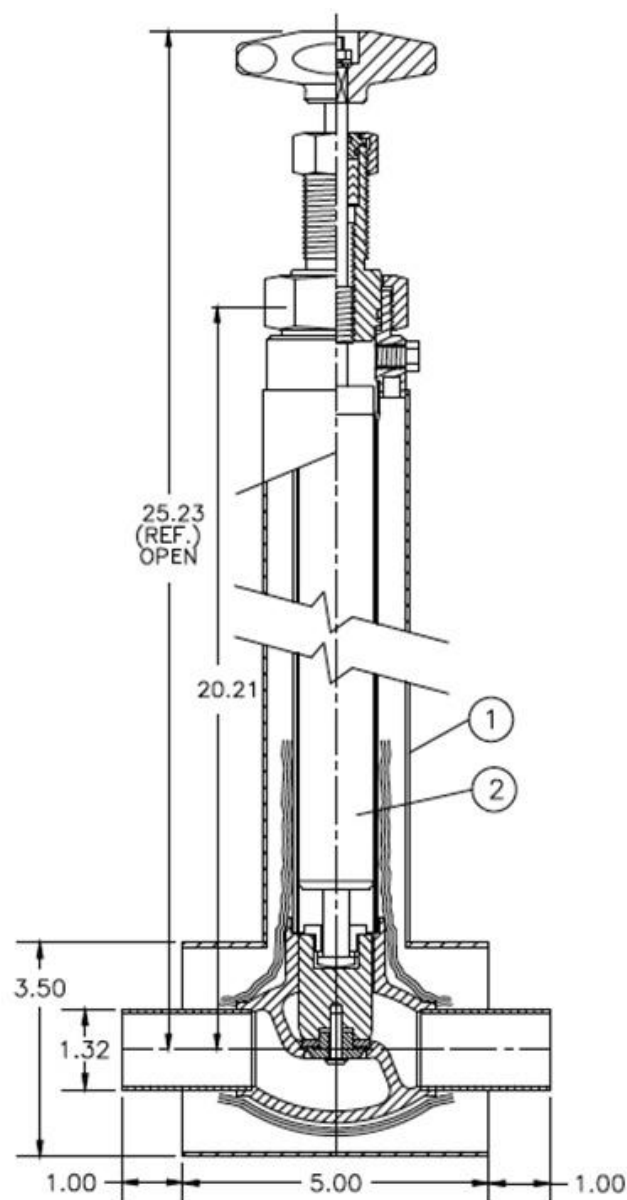
Applications

Vacuum Jacketed Piping

Cold Boxes

Helium Transfer Lines

Helium Liquefiers



9. Liquid Helium Valve Model C3081-A21

1.0" LHe Vacuum Jacketed Globe Valve, Pneumatic Actuated Operation

1" IPS Pipe Size Cryogenic Valve

Pneumatic Actuated Operation

Vacuum Jacket

Globe Style Body

Features

Pneumatic Actuator Air to Open

Redundant Stem Seal

Cryogenic Stem Packing

Brass Bonnet

Redundant Cryogenic Bonnet Seal

Bonnet Purge Port (Thermal Relief Location)

Stainless Steel Body & Stem

Full Vacuum Jacket (Cold Box Cuff Available)

MLI On Jacketed Valves

Low Thermal Conductivity Stem and Support Tube

Brass Plug

Plug To Stem Stabilizer

KEL-F Seat Seal w/ Locked Thread Insert

Contoured Flow Plug Available

Technical Data

300 PSIG MAWP

450 PSIG Proog

Seat Seal Bubble Tight @ 150 PSIG

Packing Mass Spec Tested @ 1×10^{-5} TORR

Leak Rate Below 1×10^{-8} CC GHe/SEC

Heat Leak: 6.25 BTU/HR (1.8 WATTS)

Options:

Bonnet Purge Port

Cold Box Jacket

Manual Operation

Flow Plug

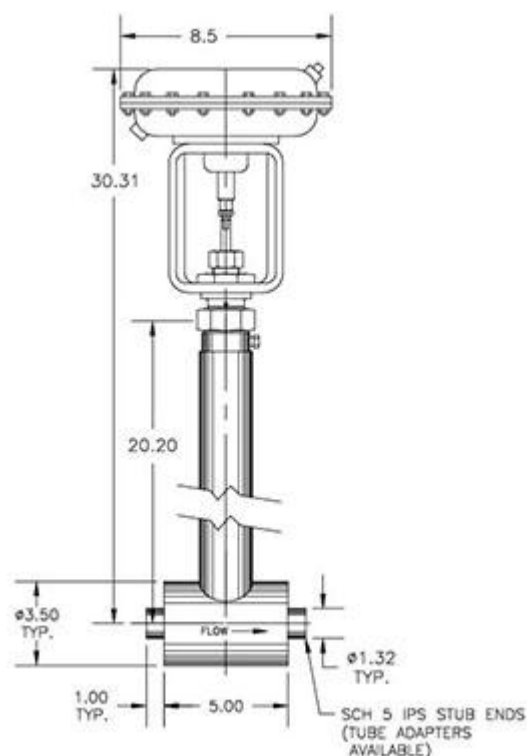
Applications

Vacuum Jacketed Piping

Cold Boxes

Helium Transfer Lines

Helium Liquefiers



10. Liquid Helium Valve Model C3081-A23

1.0" LHe Cold Box Cuff Globe Valve, Pneumatic Actuated Operation

1" IPS LHe Valve

Cold Box Cuff Or Jacketed

Actuated

Globe Style Body

Features

Pneumatic Actuator Air to Open

Redundant Stem Seal

Cryogenic Stem Packing

Brass Bonnet

Redundant Cryogenic Bonnet Seal

Bonnet Purge Port (Thermal Relief Location)

Stainless Steel Body and Stem

Cold Box Cuff (Full Jacket Available)

MLI on Jacketed Valves

Low Thermal Conductivity Stem and Support Tube

Brass Plug

Plug To Stem Stabilizer

KEL-F Seat Seal w/ Locked Thread Insert

Contoured Flow Plug Available

Technical Data

300 PSIG MAWP

450 PSIG Proof

Packing Mass Spec Tested @ 1×10^{-5} TORR.

Leak Rate Below 1×10^{-8} CC GHe/SEC.

Seat Seal Helium Bubble Tight Tested @ 150 PSIG @ Ambient Temperature.

Heat Leak: 6.25 BTU/HR (1.8 WATTS)

Cooldown Mass: 3.25 Pounds

Options:

Bonnet Purge Port

Full Lower Jacket

Manual Actuation

Flow Plugs

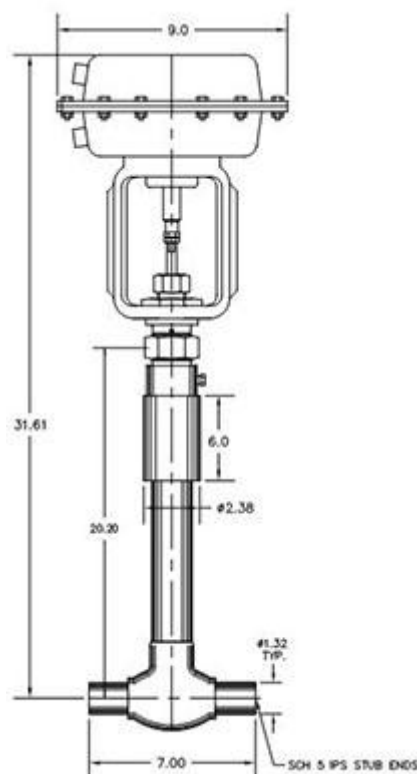
Applications

Vacuum Jacketed Piping

Cold Boxes

Helium Transfer Lines

Helium Liquefiers



11. Liquid Helium Valve Model C3082-M23

1.0" LHe Cold Box Cuff Right Angle Valve, Manual Operation

1" IPS Pipe Size Cryogenic Valve

Manual Operation

Cold Box Cuff

Right Angle Style Body

Features

Low Handle Torque For Bubble Tight Shutoff

Stainless Steel Stem & Threads

Redundant Stem Seal

Cryogenic Stem Packing

Brass Bonnet

Redundant Cryogenic Bonnet Seal

Bonnet Purge Port (Thermal Relief Location)

All Stainless Steel Body & Stem

Tight Fit Stem

Brass Plug

Plug To Stem Stabilizer

KEL-F Seat Seal w/ Locked Thread Insert

Technical Data

300 PSI MAWP 450 PSIG Proof

Seat Seal Bubble Tight @ 150 PSIG

Packing Mass Spec Tested @ 1×10^{-5} Torr Vacuum

Leak Rate Below 1×10^{-9} CC GHe/SEC

Heat Leak: 6.25 BTU/HR TO 20° K

Cooldown Mass: 3.80 Pounds

Options:

Purge Port

Full Vacuum Jacket

Pneumatic Actuators

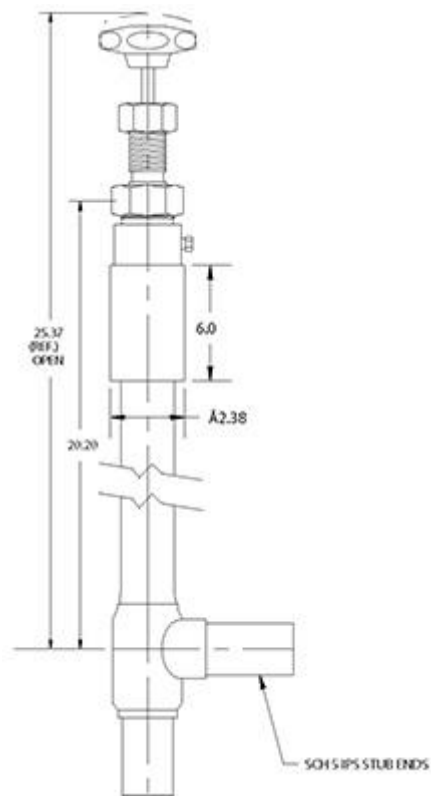
Applications

Vacuum Jacketed Piping

Cold Boxes

Helium Transfer Lines

Helium Liquefiers



12. Liquid Helium Valve Model C3082-C23A

1.0" LHe Cold Box Cuff Valve, Pneumatic Actuated Operation

Features

Pneumatic Actuator (Fail Closed)

1-P Positioner

Stainless Steel Stem & Threads

Redundant Stem Seal

Cryogenic Stem Packing

Brass Bonnet

Redundant Cryogenic Bonnet Seal

Bonnet Purge Port (Thermal Relief Location)

All Stainless Steel Body & Stem

Tight Fit Stem

Brass Plug

Plug to Stem Stabilizer

KEL-F Seat Seal w/ Locked Thread

Flow Plug (Equal %)

Technical Data

150 PSIG Working Pressure

300 PSIG Rating

Seat Seal Bubble Tight @ 150 PSIG

Packing Mass Spec Tested @ 1×10^{-5} Torr Vacuum

Leak Rate Below 1×10^{-9} CC GHe/SEC

Heat Leak: 6.26 BTU/HR to 20° K

Cooldown Mass: 3.80 Pounds

Applications

Cold Boxes

Vacuum Jacketed Piping

Helium Transfer Lines

Helium Liquefier

