

Enclosed Discharge Safety Relief Valves

Seetru Limited

for compressed air or gases

Safety valves made with a Brass or Stainless Steel body and Stainless Steel inlets <
Enclosed discharge valve with threaded connections <
Elastomer rubber sealing <

Type 33020 / 34020 / 34320

Example Applications

- Air / gas compressors
- Pressure vessels
- Pneumatic systems
- Medical gases/Technical gases
- Hydrogen (with 316 stainless steel inlet)

Specifications

- Inlet connections: 3/8" to 1/2" threaded inlet connections
- Temperature range: -40°C to +200°C (depending on body rubber seal material)
- Pressure range: 55.0 to 103.4 bar

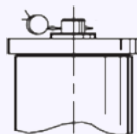
Materials of Construction

| Component | Valve Type | Material | Grade |
|-----------|------------|-----------------|--------------|
| Inlet | 33020 | Stainless Steel | 1.4305 (303) |
| | 34020 | Stainless Steel | 1.4305 (303) |
| | 34320 | Stainless Steel | 1.4401 (316) |
| Body | 33020 | Brass | CZ132 |
| | 34020 | Stainless Steel | 1.4408 (316) |
| | 34320 | Stainless Steel | 1.4408 (316) |
| Spring | All | Stainless Steel | 302 |

Drawing showing all component materials available upon request.

Top fitting

Sealed Cap (gas tight cap)



Approvals

- Designed in accordance with BS EN ISO-4126-1 &-7
- PED 2014/68/EU (CE)
- PE(S)R UK SI 2016 No. 1105 (UKCA)
- EAC



Seal Materials

This valve using metal to metal sealing. There is a choice of o'ring used for the sealed cap/lever.

| O'ring material – Top cap | Temperature Range |
|---------------------------|-------------------|
| Viton® (FKM) | -15°C to +200°C |
| Nitrile (NBR) | -40°C to +120°C |

Standard seal materials shown, others are available.

THESE VALVES SHOULD ONLY BE TESTED FOR SET PRESSURE ON LIQUID PRIOR TO FINAL INSTALLATION. VALVES THAT ARE TESTED ON AIR & FULLY LIFTED WILL CAUSE DAMAGE TO THE SEALING FACE.

Technical information by bore size

| Bore size | 7.14mm (33020) | | 7.14mm (34020) | | 7.14mm (34320) | |
|--|----------------------|------|----------------------|------|----------------------|------|
| Inlet Size | 3/8" | 1/2" | 3/8" | 1/2" | 3/8" | 1/2" |
| Outlet Size | 1/2" | | 1/2" | | 1/2" | |
| Flow Area | 40.04mm ² | | 40.04mm ² | | 40.04mm ² | |
| H - Height | 96mm | | 96mm | | 96mm | |
| TÜV allotted outflow coefficient | 0.67 | | 0.67 | | 0.67 | |
| Weight (approximate) Kg | 0.8 | | 0.8 | | 0.8 | |
| Set Pressure range - PED (CE) bar | 55.0 to 103.4 bar | | 55.0 to 103.4 bar | | 55.0 to 103.4 bar | |
| Relieving pressure/fully open pressure | Set pressure +10% | | | | | |
| Reseating pressure | Set pressure -15% | | | | | |

Maximum permissible built up back pressure = 10% of set pressure at or below which flow is not reduced.

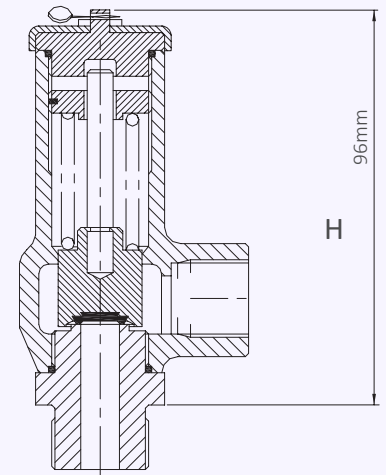
Standard INLET Connection Types

- BSP parallel male thread
- BSP taper male thread
- NPT male thread

Standard OUTLET Connection Types

- BSP parallel female thread
- NPT female thread

Valve Drawing



Valve Selection Guide

| Valve type | Inlet Size | Inlet Thread Type | Outlet Thread Type | Seal Material | Set pressure |
|---------------------------------------|------------------------------------|--------------------------|---------------------------|---------------|-----------------------------------|
| 33020, 34020 or 34320 (see materials) | Select inlet size from above table | Select Inlet Thread type | Select Outlet Thread type | See table | Set pressure from available range |

EAC marking available upon request


***Please send your selected details to Seetru and we can provide the full ordering code, price and lead-time.**

Example of Valve Selection Process

| | | | | | | |
|-------------------|------------|------------|-------------------|--------------------|---------------|--------------|
| Example Selection | 33020 | 1/2" | NPT | NPT | Viton | 100 bar |
| | Valve Type | Inlet Size | Inlet Thread Type | Outlet Thread Type | Seal Material | Set Pressure |

Capacity Table - In accordance with TÜV, AIR at 0°C and 1013mbar. Normal m³/hour
 Type 33020, 34020 & 34320: Flow rates at 10% above the set pressure



| Set Pressure | |  | Bore Size (D0) | | | |
|--------------|----------|---|-----------------------|--|--|--|
| | | | 7.14mm | | | |
| bar | psi | | Nm ³ /Hour | | | |
| 55 | 797.5 | | 1124.0 | | | |
| 60 | 870 | | 1224.5 | | | |
| 65 | 942.5 | | 1325.0 | | | |
| 70 | 1015 | | 1425.5 | | | |
| 75 | 1087.5 | | 1526.0 | | | |
| 80 | 1160 | | 1626.5 | | | |
| 85 | 1,232.50 | | 1727.0 | | | |
| 90 | 1305 | | 1827.5 | | | |
| 95 | 1377.5 | | 1928.0 | | | |
| 100 | 1450 | | 2028.5 | | | |
| 103.4 | 1499.3 | | 2096.9 | | | |
| | | | | | | |
| | | | | | | |
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For any intermediate pressures/flows please contact Seetru