

# Enclosed Discharge Safety Relief Valves

Seetru Limited

for compressed air & gas

hydrogen

## Type 33020 / 34020 / 34320

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

### 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

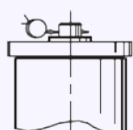
### Materials of Construction

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)

CE UK 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	40.04mm²		40.04mm²		40.04mm²	
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



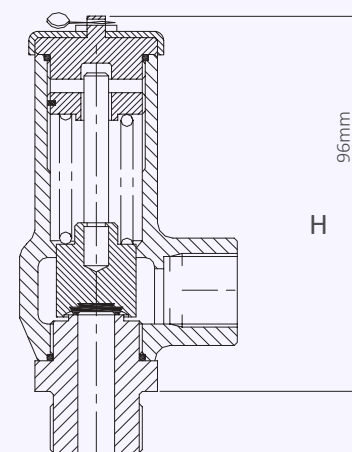
- BSP parallel male thread
- BSP taper male thread
- NPT male thread

## 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 m<sup>3</sup>/hour**  
**Type 33020, 34020 & 34320: Flow rates at 10% above the set pressure**



Set Pressure		Bore Size (D0)				
		7.14mm				
bar	psi	Nm <sup>3</sup> /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				

For any intermediate pressures/flows please contact Seetru