

## FORGED CARBON STEEL PISTON CHECK VALVE CLASS 800 A105N TRIM8 BSP

Forged carbon steel check valve TRIM8 BSP Class 800 standard bore for petroleum industry, steam, oil and gas and high pressure.

Piston type and bolted bonnet.

Stainless steel + graphite bonnet gasket.

Compatible with explosive atmosphere, ATEX Zone 1&21 and Zone 2&22.



**Size :** DN10 to DN50 (NPS 3/8" to 2")

**Connection :** NPT

**Min Temperature :** -29°C

**Max Temperature :** +425°C

**Max Pressure :** 136 Bars (Class 800)

**Specifications :** Piston type

Bolted bonnet

Standard bore

Horizontal and vertical position with ascendant fluid

**Materials :** Forged carbon steel ASTM A105N

## FORGED CARBON STEEL PISTON CHECK VALVE CLASS 800 A105N TRIM8 BSP

### SPECIFICATIONS :

- Respect the flow direction (indicated by the arrow)
- Standard bore
- Piston type
- Vertical with ascendant fluid and horizontal position
- Bolted bonnet
- Forged carbon steel A105N
- ½ stellite ( Trim 8 )
- Class 800
- Phosphate protection, 5 µm thickness

### USE :

- Petroleum industry, steam, high pressure
- Min and max Temperature Ts : - 29°C to + 425°C
- Max Pressure Ps : 136 bars ( see graph )

### FLOW COEFFICIENT Kvs ( M3 / h ) :

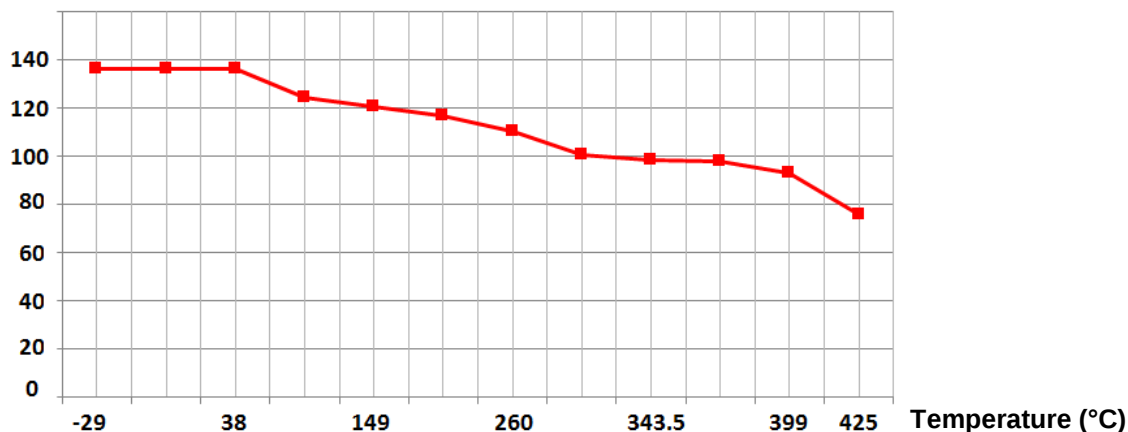
| DN (mm)      | 10   | 15   | 20   | 25  | 32    | 40    | 50   |
|--------------|------|------|------|-----|-------|-------|------|
| NPS (")      | 3/8" | 1/2" | 3/4" | 1"  | 1"1/4 | 1"1/2 | 2"   |
| Kvs ( m3/h ) | 0.95 | 0.86 | 2.4  | 5.2 | 8.2   | 9.5   | 15.6 |

### PRESSURE / TEMPERATURE RELATION :

| Pressure (bar)   | 136,2 | 136,2 | 136,2 | 124,1 | 120,7 | 116,6 | 110 | 100,7 | 98,6  | 97,9 | 92,7 | 75,9 |
|------------------|-------|-------|-------|-------|-------|-------|-----|-------|-------|------|------|------|
| Temperature (°C) | -29   | 0     | 38    | 93,5  | 149   | 204,5 | 260 | 315,5 | 343,5 | 371  | 399  | 425  |

### PRESSURE / TEMPERATURE GRAPH :

Pressure (Bars)



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**OPENING PRESSURE :**

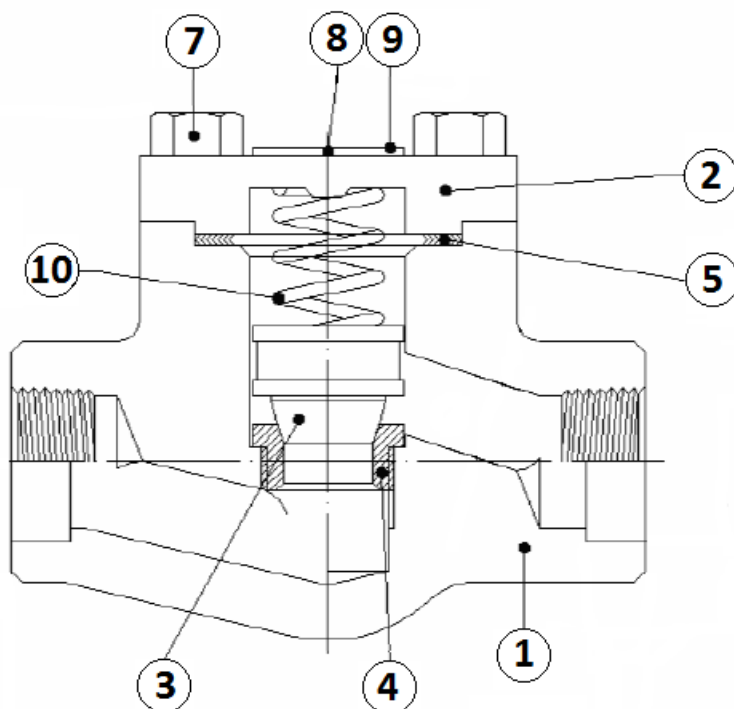
- Opening pressure between 300 and 600 mbar

**RANGE :**

- Forged A105N carbon steel check valve piston type TRIM 8 with threaded BSP conical ends **Ref. 314** DN 10 to DN 50 (NPS 3/8" to DN 2")

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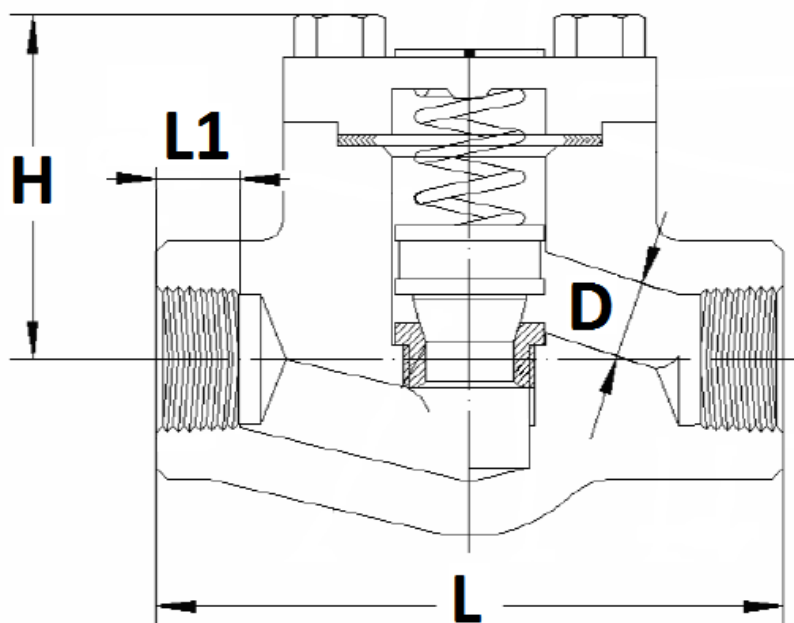
**MATERIALS :**



| Item | Designation | Materials                         |
|------|-------------|-----------------------------------|
| 1    | Body        | ASTM A105 N                       |
| 2    | Bonnet      |                                   |
| 3    | Piston      | ASTM A276 type 410                |
| 4    | Seat        | ASTM A276 TYPE 410+STELLITE GR.6' |
| 5    | Gasket      | AISI 316 + graphite spiral wound  |
| 7    | Bolts       | ASTM A193 B7                      |
| 8    | Rivet       | Carbon steel                      |
| 9    | Nameplate   | Aluminium                         |
| 10   | Spring      | AISI 302                          |

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**SIZE ( in mm ) :**



| DN (mm)        | 10     | 15     | 20     | 25     | 32     | 40     | 50     |
|----------------|--------|--------|--------|--------|--------|--------|--------|
| NPS (")        | 3/8"   | 1/2"   | 3/4"   | 1"     | 1"1/4  | 1"1/2  | 2"     |
| Ø D            | 7      | 9      | 13     | 17.5   | 22.5   | 29.5   | 35     |
| L              | 80     | 80     | 90     | 110    | 127    | 155    | 170    |
| H              | 53     | 53     | 60     | 73     | 80     | 98     | 118    |
| L1             | 13     | 15     | 18     | 19     | 20     | 21     | 21     |
| Weight (in Kg) | 1.3    | 1.2    | 1.4    | 2.4    | 3.6    | 5.4    | 8      |
| Ref.           | 314003 | 314004 | 314005 | 314006 | 314007 | 314008 | 314009 |

**FORGED CARBON STEEL PISTON CHECK VALVE CLASS 800 A105N TRIM8 BSP**

**STANDARDS :**

- Manufacturer certified **ISO 9001 : 2015**
- DIRECTIVE 2014/68/EU: For liquids or Gas of Group 1
  - DN10-25 (NPS 3/8"-1") : Article 4, S3 (SEP), no CE marking
  - DN32-50 (NPS 1"1/4-2") : Risk category II, CE 0036 marking
- Certificate 3.1 on request
- Designing according to **ISO 15761** and **API 602 8<sup>th</sup>**
- Pressure tests according to **API 598, table 6**
- Check valves approved by the main oil industries ( certificates on request )
- ATEX Group II Category 2 GD T3 Zone 1 & 21 Zone 2 & 22 ( optional marking ) according to directive 2014/34/EU
- Threaded female BSP conical ends according to **ISO 7-1 Rc**

**INSTALLATION POSITION :**

**Horizontal position**



**Vertical position with ascendant fluid**



**ADVICE :** Our opinion and our advice are not guaranteed and SFERACO shall not be liable for the consequences of damages. The customer must check the right choice of the products with the real service conditions.