

TOSACA Model 1400 – Safety Relief Valve

Safety relief valves



Description

Type Safety and Relief valve
 Connections Flanged EN 1092
 Rating PN-16 / 25 / 40 / 63 / 100
 Material Nodular Iron, Carbon steel, Stainless steel
 Temperature range -28°C to +350°C

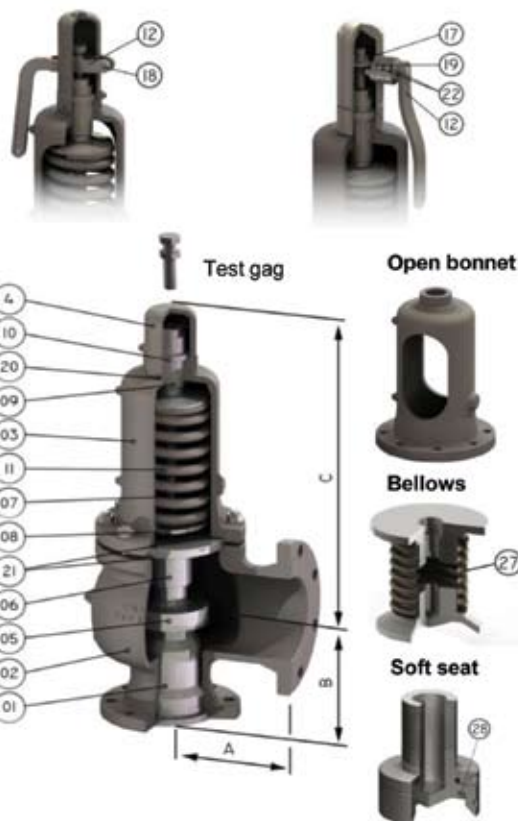
Requirements

Calculation EN-4126-1 / 7
 Design/Size EN-12516-1, EN-4126-1 / 7
 Materials EN / ASTM
 Inspection EN-4126-1 / 7 API 527 MSS-SP-55
 Tolerances EN-4126-1 and ASME UG-126

Technical Information

Applications Steam, gases, vapours and liquids
 Min. Set pressure 0,2 barg
 Seat metal-metal, PTFE, Viton, Nozzle SS+Stellite
 Overpressure 10% for steam, gas and vapour, 20% for fire exposure, 25% for liquid on thermal relief
 Blowdown 7%
 Tolerance Set pressure ± 3%
 Discharge coefficients k = 0,64 for gases, k = 0,5 for liquids

| Size Inlet/Outlet | Carbon Steel / Nodular Iron - PN16/25 | | Stainless Steel A351 CF3M - PN16/25 | | Carbon Steel - PN40 | | Stainless Steel A351 CF3M - PN40 | | Carbon Steel - PN63 & PN100 | | Stainless Steel A351 CF3M - PN63 & PN100 | |
|-------------------|---------------------------------------|------------|-------------------------------------|------------|---------------------|------------|----------------------------------|------------|-----------------------------|-----------|--|-----------|
| | Price £ | Price € | Price £ | Price € | Price £ | Price € | Price £ | Price € | Price £ | Price € | Price £ | Price € |
| 15 x 25 | £429.00 | €450.50 | £1,504.50 | €1,579.80 | £493.00 | €517.70 | £1,589.70 | €1,669.20 | £1,757.00 | €1,844.80 | £2,932.00 | €3,078.60 |
| 20 x 25 | £446.80 | €469.20 | £1,565.80 | €1,644.10 | £516.00 | €541.80 | £1,654.50 | €1,737.20 | £1,771.90 | €1,860.50 | £2,951.70 | €3,099.30 |
| 25 x 40 | £458.70 | €481.60 | £1,595.50 | €1,675.30 | £530.60 | €557.10 | £1,685.80 | €1,770.10 | | | | |
| 25 x 50 | | | | | | | | | £2,135.60 | €2,242.40 | £3,175.10 | €3,333.90 |
| 32 x 50 | £561.50 | €589.60 | £1,933.50 | €2,030.20 | £645.50 | €677.80 | £2,043.00 | €2,145.20 | £2,801.40 | €2,941.50 | £3,827.60 | €4,018.90 |
| 40 x 65 | £684.10 | €718.30 | £2,129.30 | €2,235.70 | £804.20 | €844.50 | £2,249.80 | €2,362.30 | £2,891.00 | €3,035.50 | £4,153.80 | €4,361.50 |
| 50 x 80 | £850.10 | €892.60 | £3,167.00 | €3,325.40 | £1,006.90 | €1,057.20 | £3,347.90 | €3,515.30 | £3,711.60 | €3,897.20 | £4,887.30 | €5,131.60 |
| 65 x 100 | £1,263.30 | €1,326.50 | £3,924.40 | €4,120.70 | £1,506.10 | €1,581.40 | £4,146.60 | €4,353.90 | £4,234.80 | €4,446.60 | £7,635.40 | €8,017.10 |
| 80 x 125 | £1,732.20 | €1,818.80 | £6,393.80 | €6,713.50 | £2,623.70 | €2,754.90 | £6,755.70 | €7,093.50 | | | | |
| 100 x 150 | £2,433.80 | €2,555.40 | £9,895.10 | €10,389.90 | £3,818.60 | €4,009.60 | £10,455.20 | €10,978.00 | | | | |
| 125 x 200 | £5,782.10 | €6,071.20 | £11,982.90 | €12,520.00 | £7,562.00 | €7,940.10 | £12,661.20 | €13,294.30 | | | | |
| 150 x 250 | £9,778.40 | €10,267.30 | £15,689.90 | €16,474.40 | £9,778.40 | €10,267.30 | £16,578.00 | €17,406.90 | | | | |
| 200 x 300 | £10,011.80 | €10,512.40 | £23,380.60 | €24,549.60 | £10,011.80 | €10,512.40 | £23,380.60 | €24,549.60 | | | | |
| 250 x 350 | £18,614.10 | €19,544.80 | £52,597.00 | €55,226.90 | £44,767.20 | €47,005.50 | £52,597.00 | €55,226.90 | | | | |
| 300 x 440 | £35,251.20 | €37,013.80 | £55,861.00 | €58,654.10 | £49,482.20 | €51,956.40 | £55,861.00 | €58,654.10 | | | | |
| 450 x 500 | £47,747.70 | €50,135.00 | £63,787.90 | €66,977.30 | £56,327.30 | €59,143.70 | £63,787.90 | €66,977.30 | | | | |



Construction and Materials

| Description | Nodular iron PN 16/25 | Carbon steel PN 40/63/100 | S.S PN 16 to 100 |
|------------------------|-----------------------|---------------------------|------------------|
| 1 Nozzle | AISI-304 | AISI-304 | AISI-304 |
| 2 Body | EN-JS1030 | A.C. 1.0619 | 1.4409 |
| 3 Bonnet | EN-JS1030 | A.C. 1.0619 | 1.4409 |
| 4 Cap | A351 CF-8 | A351 CF-8 | A351 CF-8 |
| 5* Disc | AISI-316L | AISI-316L | AISI-316L |
| 6 Guide | C. steel. zn. | A.C. + 304 SS | AISI-316L |
| 7 Push Road | AISI-420 | AISI-420 | AISI-316L |
| 8 Spring Button | C. steel. zn. | C. steel. zn. | AISI-303 |
| 9 Adjusting Screw | AISI-303 | AISI-303 | AISI-303 |
| 10 Lock Nut | AISI-303 | AISI-303 | AISI-303 |
| 11* Spring | Carbon steel | Carbon steel | AISI-302 |
| 12 Lever | A 351 CF 8 | A 351 CF 8 | A351 CF-8 |
| 17 Release nut | AISI-303 | AISI-303 | AISI-316 |
| 18* Lever axis | AISI-303 | AISI-303 | AISI-303 |
| 19 Packing lever axis | AISI-303 | AISI-303 | AISI-303 |
| 20* Gasket cap | NBR+MF | NBR+MF | PTFE |
| 21* Gasket bonnet | NBR+MF | NBR+MF | PTFE |
| 22* Gasket pack. lever | Viton | Viton | Viton |
| 27* Bellow | AISI-316 TI | AISI-316 TI | AISI-316 TI |
| 28* Soft seat | Viton / PTFE | Viton / PTFE | Viton / PTFE |

*Recommended spare parts

Model 1400 – Safety Relief Valve contd.

TOSACA
Safety relief valves

SAFETY RELIEF VALVES

| DN | TOSACA Model | DN Inlet x Outlet | EN 1092 Flanges | | Orif. (mm) | Area (mm ²) | Face Dimension (mm) | | | Weight (kg) |
|-----|--------------|-------------------|-----------------|------|------------|-------------------------|---------------------|-----|------|-------------|
| | | | PN E | PN S | | | A | B | C | |
| 15 | 1400 PN 16 | 15 x 25 | 16 | 16 | 13 | 133 | 95 | 95 | 275 | 7 |
| | 1400 PN 25 | 15 x 25 | 25 | 16 | 13 | 133 | 95 | 95 | 275 | 7 |
| | 1400 PN 40 | 15 x 25 | 40 | 16 | 13 | 133 | 95 | 95 | 275 | 7 |
| | 1400 PN 63 | 15 x 25 | 63 | 16 | 13 | 133 | 95 | 100 | 275 | 9 |
| | 1400 PN100 | 15 x 25 | 100 | 16 | 13 | 133 | 95 | 100 | 275 | 9 |
| 20 | 1400 PN 16 | 20 x 25 | 16 | 16 | 13 | 133 | 95 | 95 | 275 | 7 |
| | 1400 PN 25 | 20 x 25 | 25 | 16 | 13 | 133 | 95 | 95 | 275 | 7 |
| | 1400 PN 40 | 20 x 25 | 40 | 16 | 13 | 133 | 95 | 95 | 275 | 7 |
| | 1400 PN 63 | 20 x 25 | 63 | 16 | 13 | 133 | 95 | 100 | 275 | 9 |
| | 1400 PN100 | 20 x 25 | 100 | 16 | 13 | 133 | 95 | 100 | 275 | 9 |
| 25 | 1400 PN 16 | 25 x 40 | 16 | 16 | 23,8 | 445 | 100 | 105 | 275 | 9 |
| | 1400 PN 25 | 25 x 40 | 25 | 16 | 23,8 | 445 | 100 | 105 | 275 | 9 |
| | 1400 PN 40 | 25 x 40 | 40 | 16 | 23,8 | 445 | 100 | 105 | 275 | 9 |
| | 1400 PN 63 | 25 x 50 | 63 | 16 | 20 | 314 | 110 | 100 | 275 | 12 |
| | 1400 PN100 | 25 x 50 | 100 | 16 | 16 | 201 | 110 | 100 | 275 | 12 |
| 32 | 1400 PN 16 | 32 x 50 | 16 | 16 | 29,5 | 683 | 110 | 115 | 325 | 12 |
| | 1400 PN 25 | 32 x 50 | 25 | 16 | 29,5 | 683 | 110 | 115 | 325 | 12 |
| | 1400 PN 40 | 32 x 50 | 40 | 16 | 29,5 | 683 | 110 | 115 | 325 | 12 |
| | 1400 PN 63 | 32 x 50 | 63 | 16 | 23,8 | 445 | 110 | 115 | 325 | 15 |
| | 1400 PN100 | 32 x 50 | 100 | 16 | 20 | 314 | 110 | 115 | 325 | 18 |
| 40 | 1400 PN 16 | 40 x 65 | 16 | 16 | 36 | 1018 | 115 | 140 | 325 | 14 |
| | 1400 PN 25 | 40 x 65 | 25 | 16 | 36 | 1018 | 115 | 140 | 325 | 14 |
| | 1400 PN 40 | 40 x 65 | 40 | 16 | 36 | 1018 | 115 | 140 | 325 | 14 |
| | 1400 PN 63 | 40 x 65 | 63 | 16 | 26 | 531 | 115 | 140 | 325 | 16 |
| | 1400 PN100 | 40 x 65 | 100 | 16 | 23,8 | 445 | 115 | 140 | 325 | 20 |
| 50 | 1400 PN 16 | 50 x 80 | 16 | 16 | 46 | 1662 | 120 | 150 | 400 | 25 |
| | 1400 PN 25 | 50 x 80 | 25 | 16 | 46 | 1662 | 120 | 150 | 400 | 25 |
| | 1400 PN 40 | 50 x 80 | 40 | 16 | 46 | 1662 | 120 | 150 | 400 | 25 |
| | 1400 PN 63 | 50 x 80 | 63 | 16 | 32 | 804 | 120 | 150 | 400 | 32 |
| | 1400 PN100 | 50 x 80 | 100 | 16 | 32 | 804 | 120 | 150 | 400 | 35 |
| 65 | 1400 PN 16 | 65 x 100 | 16 | 16 | 60 | 2827 | 140 | 170 | 450 | 36 |
| | 1400 PN 25 | 65 x 100 | 25 | 16 | 60 | 2827 | 140 | 170 | 450 | 36 |
| | 1400 PN 40 | 65 x 100 | 40 | 16 | 60 | 2827 | 140 | 170 | 450 | 36 |
| | 1400 PN 63 | 65 x 100 | 63 | 16 | 48 | 1810 | 140 | 170 | 450 | 50 |
| | 1400 PN100 | 65 x 100 | 100 | 16 | 39 | 1195 | 140 | 170 | 450 | 51 |
| 80 | 1400 PN 16 | 80 x 125 | 16 | 16 | 72 | 4072 | 160 | 195 | 625 | 58 |
| | 1400 PN 25 | 80 x 125 | 25 | 16 | 72 | 4072 | 160 | 195 | 625 | 58 |
| | 1400 PN 40 | 80 x 125 | 40 | 16 | 72 | 4072 | 160 | 195 | 625 | 58 |
| 100 | 1400 PN 16 | 100 x 150 | 16 | 16 | 90 | 6362 | 180 | 220 | 663 | 85 |
| | 1400 PN 25 | 100 x 150 | 25 | 16 | 90 | 6362 | 180 | 220 | 663 | 85 |
| | 1400 PN 40 | 100 x 150 | 40 | 16 | 90 | 6362 | 180 | 220 | 663 | 85 |
| 125 | 1400 PN 16 | 125 x 200 | 16 | 16 | 105 | 8659 | 200 | 250 | 760 | 140 |
| | 1400 PN 25 | 125 x 200 | 25 | 16 | 105 | 8659 | 200 | 250 | 760 | 140 |
| | 1400 PN 40 | 125 x 200 | 40 | 16 | 105 | 8659 | 200 | 250 | 760 | 140 |
| 150 | 1400 PN 16 | 150 x 250 | 16 | 16 | 125 | 12272 | 225 | 285 | 760 | 150 |
| | 1400 PN 25 | 150 x 250 | 25 | 16 | 125 | 12272 | 225 | 285 | 760 | 150 |
| | 1400 PN 40 | 150 x 200 | 40 | 16 | 125 | 12272 | 242 | 240 | 760 | 150 |
| 200 | 1400 PN 16 | 200 x 300 | 16 | 16 | 153 | 18385 | 300 | 290 | 795 | 200 |
| 250 | 1400 PN 16 | 250 x 350 | 16 | 16 | 200 | 31415 | 406 | 305 | 1390 | 750 |
| 300 | 1400 PN 16 | 300 x 400 | 16 | 16 | 228 | 40828 | 406 | 359 | 1432 | 850 |
| 400 | 1400 PN 16 | 400 x 500 | 16 | 16 | 304 | 72950 | 533 | 432 | 1943 | 1850 |



SAFETY RELIEF VALVES