

Cryogenic, Steam, Water, Air & Gases
 Working Pressure 15 - 9,000kpa
 General Process Application



The 7E range represents the next evolution in Mack's 80 year history of supplying high quality, reliable safety/relief valves with the addition of a simplified, easy to use numbering and selection system.

This range of high flow safety and relief valves are specifically designed for applications where large vessels require higher relieving capacity. They activate in the instance of an over-pressure occurrence before the event becomes critical, protecting staff and valuable equipment.

Mack's 7E series is typically used to safeguard boilers, vessels and pipework from the risks of higher than desired pressures, ensuring protection for valuable resources while helping to avoid costly downtime.

SELECTION & APPLICATION

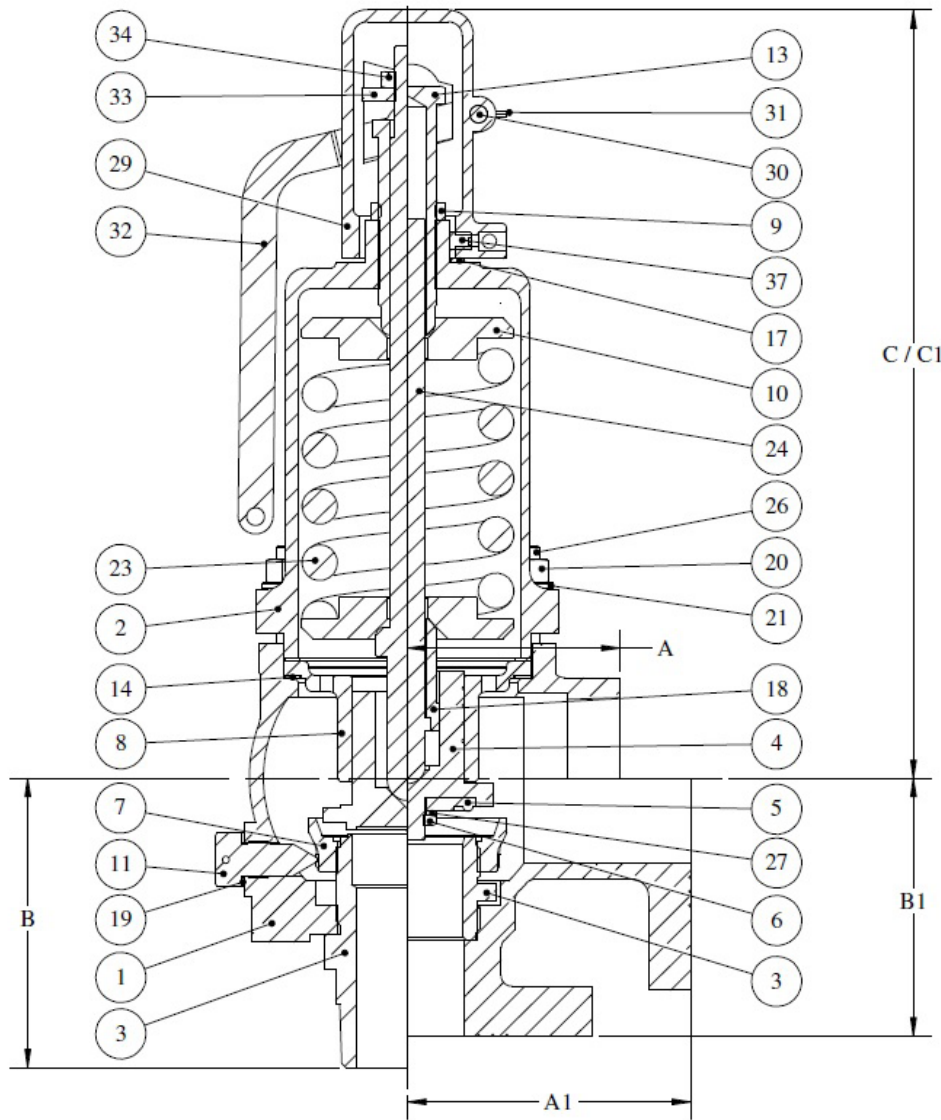
The 7E range is available in sizes from 15mm to 50mm, and in screwed, BSP, NPT and variety of other flanged connections. The 7E range suits applications across numerous industries including building services, Cryogenics, pharmaceuticals, mining and food & beverage. Simply select the gunmetal or stainless steel trim package, the size and the connection type, and let us know your set pressure. Should it be required, one of our Product Specialists can perform a sizing calculation for you based on your application parameters.

PRODUCT NUMBERING

| High Lift Valves | | | | | | | | | | | | | | | | | |
|------------------|---|--------------------------|-----------|------|----|-------|----|-----------|------|--------|---------|---------|---|------------------|----|--------|-----|
| 7E | - | # | # | # | # | # | # | # | # | # | # | # | # | # | # | ### | |
| Base No. | - | Material of Construction | | | | | | | | | | Lever | | Inlet Connection | | - Size | |
| | | Body, Cover, Cap | | Seat | | Valve | | Seat Type | | Gasket | Spindle | BD Ring | | | | | |
| 7E | | 1 | Bronze | 2 | BR | 2 | BR | 1 | Hard | Fibre | BR | BR | 0 | No | 05 | BSPT | 015 |
| | | 3 | Stainless | 3 | SS | 3 | SS | 2 | Hard | PTFE | BR | BR | 1 | Yes | 5A | NPT | 020 |
| 7E | | 1 | Bronze | | | | | 3 | Soft | PTFE | BR | BR | | | | | 025 |
| | | 3 | Stainless | | | | | 4 | Hard | PTFE | SS | SS | | | | | 040 |
| | | | | | | | | 5 | Soft | PTFE | SS | SS | | | | | 050 |

NB: All Springs are Stainless Steel
 All Valves can be flanged
 All valves are degreased for Oxygen

All build options are available from Mack on special order, thus enabling clients to create their own specifications for their own specific needs, but our stock is based around common material specifications favoured by the cryogenic, steam and general process industries.



| ITEM NO. | DESCRIPTION |
|----------|----------------------------|
| 1 | Body |
| 2 | Spring Cover |
| 3 | Seat |
| 4 | Disc Holder / Valve |
| 5 | Disc (4) |
| 6 | Disk Locknut (4) |
| 7 | Blowdown Ring |
| 8 | Guide Plate |
| 9 | Locknut |
| 10 | Spring Pad |
| 11 | Lockscrew |
| 12 | Hex Plug (Not Shown) |
| 13 | Adjusting Screw |
| 14 | Gasket (3) |
| 15 | Nameplate (Not Shown) |
| 16 | Drive Pin (Not Shown) |
| 17 | Gasket (3) |
| 18 | Spindle Sleeve (40 & 50mm) |
| 19 | Lockscrew Gasket |
| 20 | Hex Nut (1) |
| 21 | Washer (1) |
| 22 | Tie Wire (Not Shown) |
| 23 | Spring |
| 24 | Spindle |
| 26 | Stud (1) |
| 27 | Disc Washer (4) |
| 29 | Lockup Top (2) / Cap (3) |
| 30 | Lever Pin (2) |
| 31 | Split Pin (2) |
| 32 | Lever (2) |
| 33 | Spindle Nut (2) |
| 34 | Locknut (2) |
| 37 | Grub Screw (2) |

| | CENTRE TO OUTLET FACE (Screwed) | | | | | | | | | INLET FACE TO CENTRE (Screwed) | | | | | | | | CENTRE LINE TO TOP | | |
|------|---------------------------------|------------------|------------------|------------------|------------------|------------------|--------------|--------------|-----------------|--------------------------------|------------------|------------------|------------------|------------------|------------------|--------------|--------------|--------------------|-----------|------------|
| | A. | A1. #150 FF Brnz | A1. #300 FF Brnz | A1. #150 RF Brnz | A1. #300 RF Brnz | A1. Table H Brnz | A1. #150 CSS | A1. #300 CSS | A1. Table H CSS | B. | B1. #150 FF Brnz | B1. #300 FF Brnz | B1. #150 RF Brnz | B1. #300 RF Brnz | B1. Table H Brnz | B1. #150 CSS | B1. #300 CSS | B1. Table H CSS | C. Relief | C1. Safety |
| 15mm | 38 | 75 | 75 | 75 | 75 | 75 | 75 | 75 | 75 | 59 | 55 | 55 | 65 | 65 | 55 | 65 | 65 | 65 | 140 | 153 |
| 20mm | 48 | 86 | 83 | 86 | 86 | 86 | 83 | 83 | 83 | 64 | 64 | 64 | 73 | 73 | 64 | 73 | 73 | 64 | 159 | 167 |
| 25mm | 57 | 99 | 99 | 99 | 99 | 99 | 99 | 99 | 99 | 86 | 90 | 90 | 103 | 103 | 90 | 103 | 103 | 90 | 218 | 221 |
| 40mm | 73 | 108 | 108 | 108 | 108 | 108 | 108 | 108 | 108 | 108 | 95 | 95 | 105 | 105 | 95 | 105 | 105 | 95 | 275 | 288 |
| 50mm | 95 | 127 | 127 | 127 | 127 | 127 | 127 | 127 | 127 | 130 | 114 | 116 | 114 | 114 | 114 | 114 | 114 | 114 | 328 | 344 |

Notes:

- 1) Bolted cover for 50mm valves only
- 2) Items for safety valve only
- 3) Items are for relief valve only
- 4) Items are for soft seated valve only
- 5) Valve designed in accordance with AS1271
- 6) Valve tested in accordance with API 527

