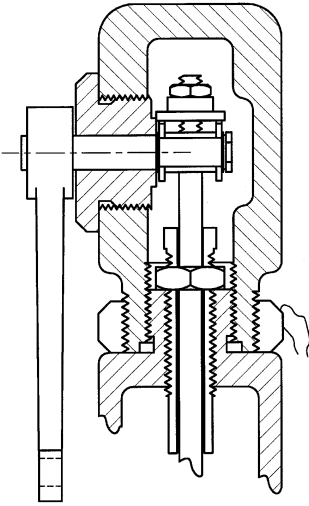


Steel & Stainless Steel Safety Relief Valves

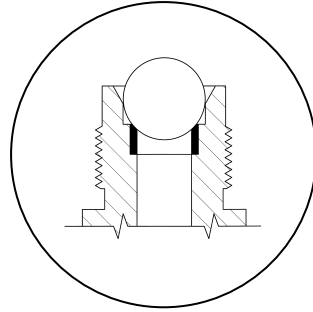
- Manufactured in accordance with ASME Code Section VIII
- NBBI capacity certified for Air/Gas
- Pressures to 12,500 psi
- Dependable “Ball & Seat” design
- 1/4” to 1” NPT inlet sizes



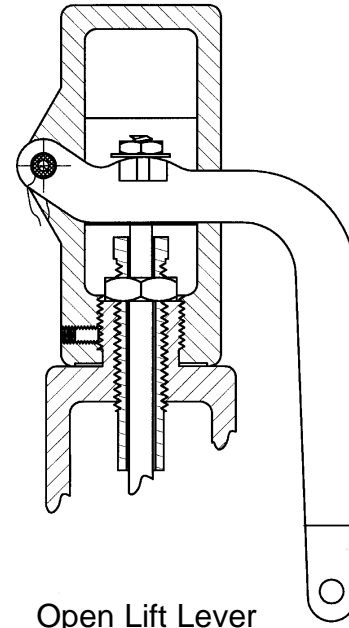
Series 14, 38, 1, 2, 3, & 4 Steel Safety Relief Valves



Packed Lift Lever



Soft Seat Detail
CRV & FRV Models
Molded Viton® seal standard
Optional materials available



Open Lift Lever

| MATERIAL CODE | 0 | 2 | 3 | 4 | 5 | 6 | 7 | 9 |
|------------------------|---------|-----------|-----------|-----------|-----------|-----------|----------|---------|
| 1. VALVE CAP | CS | CS | 316 SS | 316 SS | CS | CS | CS | CS |
| 2. ADJUSTING LOCKNUT | CS | CS | 316 SS | 316 SS | 316 SS | 316 SS | CS | CS |
| 3. CAP SEAL | Nitrile | Nitrile | Viton® | Viton® | Viton® | Viton® | Nitrile | Nitrile |
| 4. ADJUSTING SCREW | CS | CS | 316 SS | 316 SS | 316 SS | 316 SS | CS | CS |
| 5. UPPER SPRING PLATE | 304 SS | 304 SS | 316 SS | 316 SS | 316 SS | 316 SS | 304 SS | 304 SS |
| 6. BODY | WCB | WCB | CF8M | CF8M | WCB | WCB | WCB | WCB |
| 7. SPRING | 302 SS | 302 SS | 316 SS | Inconel® | 316 SS | Inconel® | Inconel® | 316 SS |
| 8. GUIDE STEM | SS | SS | 316 SS | 316 SS | 316 SS | 316 SS | SS | SS |
| 9. STEM LOCKNUT | SS | SS | 316 SS | 316 SS | 316 SS | 316 SS | SS | SS |
| 10. LOWER SPRING PLATE | 304 SS | 304 SS | 316 SS | 316 SS | 316 SS | 316 SS | 304 SS | 304 SS |
| 11. BALL | 440C SS | Stellite® | Stellite® | Stellite® | Stellite® | Stellite® | 440C SS | 440C SS |
| 12. SEAT | 304 SS | 304 SS | 316 SS | 316 SS | 316 SS | 316 SS | 304 SS | 304 SS |
| 13. BODY/SEAT SEAL | Nitrile | Nitrile | Viton® | Viton® | Viton® | Viton® | Nitrile | Nitrile |
| OPEN LEVER ASSEMBLY | CS | CS | SS | SS | CS | CS | CS | CS |
| PACKED LEVER ASSEMBLY | CS | CS | SS | SS | CS | CS | CS | CS |

CS - CARBON STEEL WCB - ASTM A 216
SS - STAINLESS STEEL CF8M - ASTM A 351

Viton® and Kalrez® are registered trademarks of the DuPont Dow Elastomers, LLC.
Teflon® is a registered trademark of I. E. DuPont De Nemours Company.
Stellite® is a registered trademark of the Deloro Stellite Company, Inc.
Inconel® and Monel® are registered trademarks of the International Nickel Company, Inc.

Model Selection



14AV INLET • ORIFICE • OUTLET

| MODEL | INLET | ORIFICE [DIA] | OUTLET | SOFT SEAT | MAX. SET PRESS. [PSI] |
|-------|-----------|---------------|-----------|-----------|-----------------------|
| 14AV* | 1/4" FNPT | 1/4" | 3/4" FNPT | | 12500 |
| 14BV* | 1/4" FNPT | 3/8" | 3/4" FNPT | | 6000 |
| 14DV* | 1/4" FNPT | 1/4" | 1" FNPT | | 12500 |
| 14EV* | 1/4" FNPT | 3/8" | 1" FNPT | | 6000 |
| 38AV* | 3/8" FNPT | 1/4" | 3/4" FNPT | | 12500 |
| 38BV* | 3/8" FNPT | 3/8" | 3/4" FNPT | | 6000 |
| 38DV* | 3/8" FNPT | 1/4" | 1" FNPT | | 12500 |
| 38EV* | 3/8" FNPT | 3/8" | 1" FNPT | | 6000 |
| 1AV* | 1/2" MNPT | 1/4" | 3/4" FNPT | | 3000 |
| 1BV | 1/2" MNPT | 3/8" | 3/4" FNPT | | 2000 |
| 1CXV | 1/2" MNPT | 9/16" | 3/4" FNPT | | 720 |
| 1CRV | 1/2" MNPT | 1/2" | 3/4" FNPT | ● | 720 |
| 1DV* | 1/2" MNPT | 1/4" | 1" FNPT | | 3000 |
| 1EV | 1/2" MNPT | 3/8" | 1" FNPT | | 2000 |
| 1FXV | 1/2" MNPT | 9/16" | 1" FNPT | | 720 |
| 1FRV | 1/2" MNPT | 1/2" | 1" FNPT | ● | 720 |
| 2AV* | 1/2" FNPT | 1/4" | 3/4" FNPT | | 12500 |
| 2BV | 1/2" FNPT | 3/8" | 3/4" FNPT | | 6000 |
| 2CXV | 1/2" FNPT | 9/16" | 3/4" FNPT | | 3500 |
| 2CRV | 1/2" FNPT | 1/2" | 3/4" FNPT | ● | 2500 |
| 2DV* | 1/2" FNPT | 1/4" | 1" FNPT | | 12500 |
| 2EV | 1/2" FNPT | 3/8" | 1" FNPT | | 6000 |
| 2FXV | 1/2" FNPT | 9/16" | 1" FNPT | | 3500 |
| 2FRV | 1/2" FNPT | 1/2" | 1" FNPT | ● | 2500 |
| 3AV* | 3/4" MNPT | 1/4" | 3/4" FNPT | | 12500 |
| 3BV | 3/4" MNPT | 3/8" | 3/4" FNPT | | 6000 |
| 3CXV | 3/4" MNPT | 9/16" | 3/4" FNPT | | 3500 |
| 3CRV | 3/4" MNPT | 1/2" | 3/4" FNPT | ● | 2500 |
| 3DV* | 3/4" MNPT | 1/4" | 1" FNPT | | 12500 |
| 3EV | 3/4" MNPT | 3/8" | 1" FNPT | | 6000 |
| 3FXV | 3/4" MNPT | 9/16" | 1" FNPT | | 3500 |
| 3FRV | 3/4" MNPT | 1/2" | 1" FNPT | ● | 2500 |
| 4DV* | 1" MNPT | 1/4" | 1" FNPT | | 12500 |
| 4EV | 1" MNPT | 3/8" | 1" FNPT | | 6000 |
| 4FXV | 1" MNPT | 9/16" | 1" FNPT | | 3500 |
| 4FRV | 1" MNPT | 1/2" | 1" FNPT | ● | 2500 |

* Models 14, 38 and 1/4" orifice are not ASME Code Stamped valves.

O MATERIAL

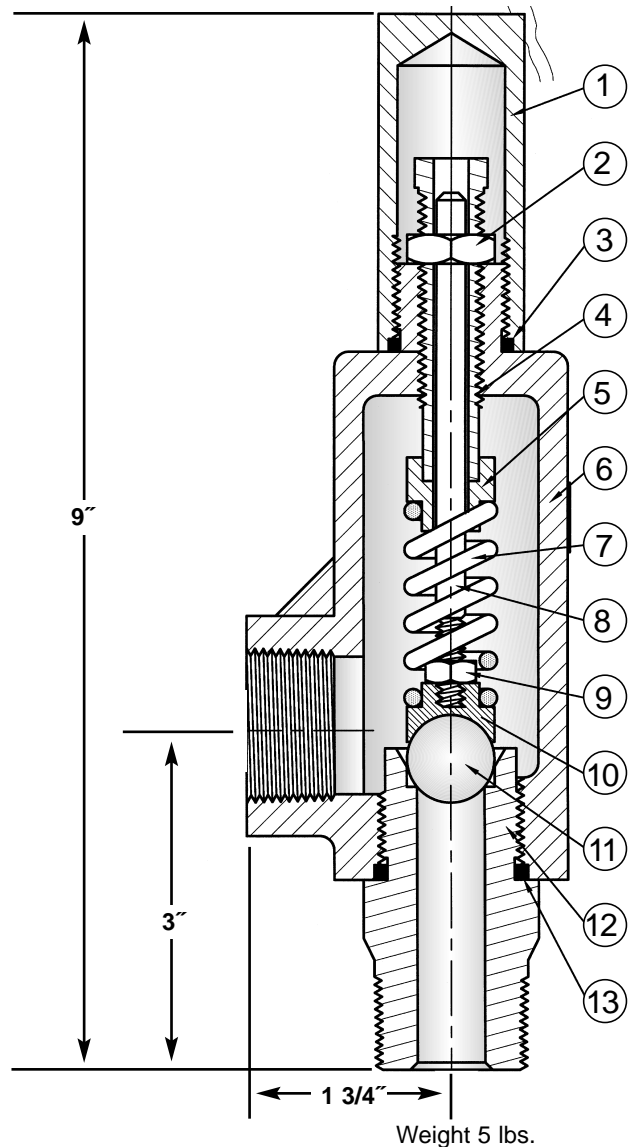
| | |
|---|--|
| 0 | - Standard Trim |
| 2 | - Standard w/ Stellite® Ball |
| 3 | - All 316 SS Stellite® Ball |
| 4 | - All 316 SS w/ Inconel® Spring & Stellite® Ball |
| 5 | - 316 SS Trim w/ Stellite® Ball |
| 6 | - 316 Trim/ Inconel® Spring |
| 7 | - Standard Material/ Inconel® Spring |
| 9 | - Standard Material/ 316 Spring |

O CAP TYPE

| | |
|--|---------------------|
| 0 | - Closed Cap |
| L | - Open Lift Lever |
| P | - Packed Lift Lever |
| Maximum Temperature 450 °F | |
| ASME Code requires lift lever on air service | |

O RING

| | |
|---|-------------------------|
| N | - Nitrile [Buna-N] |
| F | - Fluorocarbon [Viton®] |
| C | - Neoprene |
| K | - Kalrez® |
| E | - EPDM |
| <i>O-ring material selection is media and temperature dependent</i> | |



Capacity Tables For Series 14, 38, 1, 2, 3, & 4



| Set Pressure PSIG | AV/DV | | BV/EV | | CRV/FRV | | CXV/FXV | |
|-------------------|---------------------------------------|-----------|---------------------------------------|-----------|---|-----------|--|-----------|
| | Orifice: 1/4" Area = 0.049 sq. in. | | Orifice: 3/8" Area = 0.110 sq. in. | | Orifice: 1/2" soft seat Area = 0.196 sq. in. | | Orifice: 9/16" Area = 0.248 sq. in. | |
| | Air SCFM | Water GPM | Air SCFM | Water GPM | Air SCFM | Water GPM | Air SCFM | Water GPM |
| 25 | | | 28 | 1 | 47 | 5 | 49 | 7 |
| 50 | | | 47 | 2 | 77 | 7 | 80 | 11 |
| 75 | | | 66 | 3 | 108 | 9 | 112 | 13 |
| 100 | | 2 | 84 | 3 | 138 | 10 | 143 | 15 |
| 125 | | 2 | 103 | 3 | 169 | 11 | 175 | 17 |
| 150 | | 2 | 122 | 4 | 199 | 13 | 207 | 19 |
| 200 | | 3 | 160 | 4 | 261 | 15 | 270 | 22 |
| 250 | | 3 | 197 | 5 | 322 | 16 | 333 | 24 |
| 300 | | 3 | 234 | 6 | 383 | 18 | 396 | 27 |
| 350 | | 4 | 272 | 6 | 444 | 19 | 460 | 29 |
| 400 | | 4 | 309 | 6 | 505 | 21 | 523 | 31 |
| 450 | | 4 | 346 | 7 | 566 | 22 | 586 | 33 |
| 500 | | 5 | 384 | 7 | 627 | 23 | 649 | 35 |
| 600 | | 5 | 458 | 8 | 749 | 26 | 776 | 38 |
| 700 | | 5 | 533 | 9 | 871 | 28 | 902 | 41 |
| 800 | | 6 | 608 | 9 | 993 | 30 | 1029 | 44 |
| 900 | | 6 | 683 | 10 | 1115 | 31 | 1155 | 47 |
| 1000 | | 7 | 758 | 11 | 1237 | 33 | 1282 | 49 |
| 1500 | | 8 | 1132 | 13 | 1848 | 41 | 1914 | 60 |
| 2000 | | 10 | 1506 | 15 | 2458 | 47 | 2547 | 70 |
| 2500 | | 11 | 1880 | 17 | | | 3179 | 78 |
| 3000 | | 12 | 2254 | 19 | | | 3812 | 85 |

ASME Section VIII "UV" Code Stamped for Air/Gas
AIR CAPACITIES determined at 10% over set pressure.
 To calculate air capacities in SCFM, $Q = m[(1.1 \times \text{Set Pressure PSI}) + 14.7]$

m [slope] VALUES

| ORIFICE | DIA. | SLOPE |
|---------|-------|-------|
| BV/EV | 3/8" | 0.68 |
| CRV/FRV | 1/2" | 1.11 |
| CXV/FXV | 9/16" | 1.15 |

1/4" ORIFICE for liquid service only
WATER CAPACITIES determined at 25% over set pressure
CANADIAN REGISTRATION NUMBER 0G0736.2C
 (Applies to ASME Code stamped valves only.)

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