



FIGURE 31 CAST IRON SERIES

FIGURE 31 / 41 CAST IRON SERIES

SIZES 1 1/2" – 6"
PRESSURES to 250 PSIG at 406°F

- Meets ASME Section I & VIII Code for Steam, Air & Non-hazardous Gas Service
- "V" or "UV" National Board Certified
- Dual Ring Control See page 12
- Heavy Duty Construction
- Flanged or Threaded Connections
- SS Trim Design Available
- Heavy Duty Open Lever Assembly

OPTIONS

- SS Trim
- BSP Connections
- Test Reports Available

MODELS

- 0031 - ASME Section I Steam, Bronze Trim
- 0041 - ASME Section VIII Steam, Bronze Trim
- 041A - ASME Section VIII Air, Bronze Trim
- 0032 - SS Base & Disc on 0031
- 0042 - SS Base & Disc on 0041
- 042A - SS Base & Disc on 041A

APPLICABLE CODES

- ASME Section I "V" for Steam
- ASME Section VIII "UV" for Steam/Air/Gas
- API 527
- Canadian Registration # OG0591.9C

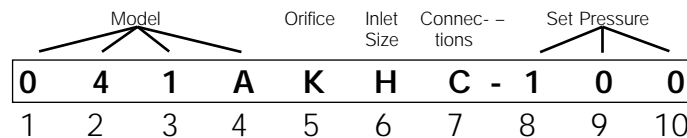
APPLICATION DATA

- Steam Boilers
- Pressure Reducing Stations
- Unfired Steam Pressure Vessels & Lines
- Air compressors, Cookers, Receivers
- Pneumatic Systems
- OEM Equipment

VALVE RATINGS *See Capacity Charts beginning on page 21*

| Model | Pressure PSIG (bar) | Temperature °F (°C) |
|-------|---------------------------|----------------------------|
| All | 10 to 250 (.7 to 17.2) | -20 to 406 (-29 to 208) |

CODE SELECTION CHART



Model -

Position 1, 2, 3 & 4

- 0031 = ASME Section I Steam, Bronze Trim
- 0041 = ASME Section VIII Steam, Bronze Trim
- 041A = ASME Section VIII Air, Bronze Trim
- 0032 = SS Base & Disc on 0031
- 0042 = SS Base & Disc on 0041
- 042A = SS Base & Disc on 041A

Orifice -

Position 5

- J
- K
- L
- M
- N
- P
- Q
- R

Inlet Size -

Position 6

- G = 1 1/2
- H = 2
- J = 2 1/2
- K = 3
- M = 4
- P = 6

Connections -

Position 7

- B = FPT x FPT
- C = 250# x FPT
- D = 250# x 125#
- Z = Other

Set Pressure -

Position 8, 9 & 10

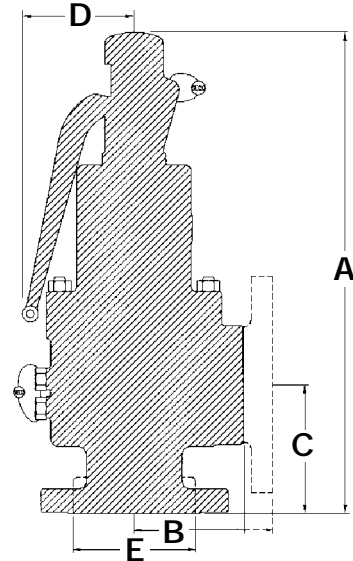
- ___ = Actual Setting
- LAS - Loosely Assembled†

†Spence Certified Assemblers Only
(use 0031 or 0032 only)

FIGURE 31 / 41 CAST IRON SERIES

SPECIFICATION

The valve shall meet the ASME Section I or VIII Code for steam, air and gas services. It shall be "V" or "UV" National Board Certified. The valve shall have dual blowdown ring to allow better adjustment of the pop and blowdown. The valve shall be top guided and shall have a semi nozzle for optimum flow performance. The valve shall have an open lever assembly. The valve shall meet the API 527 leakage standard requiring bubble tight shutoff up to 90% of set pressure.



0031, 0041, 041A
0032, 0042, 042A

DIMENSIONS* inches (mm) AND WEIGHTS pounds (kg)

| Model | Inlet | Orifice | Outlet | A | B | C | D ⁽¹⁾ | E | Weight |
|------------------------|------------------|---------|------------------|--------------------------------|---------------|-----------------|------------------|---------------|----------------|
| ****JGB | 1½" FPT (40) | J | 2½" FPT (65) | 15⅞ (384.2) | 3½ (88.9) | 4¼ (108) | 3 (76.2) | 3¼ (82.6) | 29 (13.2) |
| ****JGC | 1½" 250# (40) | J | 2½" FPT (65) | 15⅞ (384.2) | 3½ (88.9) | 4¼ (108) | 3 (76.2) | — | 36 (16.3) |
| ****JHC | 2" 250# (50) | J | 3" FPT (80) | 15¾ (400.1) | 4 (101.6) | 45/8 (117.5) | 3½ (88.9) | — | 42 (19.1) |
| ****KHB | 2" FPT (50) | K | 3" FPT (80) | 15¾ (400.1) | 4 (101.6) | 4⅝ (117.5) | 3½ (88.9) | 3⅝ (92.1) | 36 (16.3) |
| ****KHC | 2" 250# (50) | K | 3" FPT (80) | 15¾ (400.1) | 4 (101.6) | 4⅝ (117.5) | 3½ (88.9) | — | 42 (19.1) |
| ****KJC | 2½" 250# (65) | K | 3" FPT (80) | 15¾ (400.1) | 4 (101.6) | 4¾ (120.7) | 3½ (88.9) | — | 45 (20.4) |
| ****LJB | 2½" FPT (65) | L | 4" FPT (100) | 23 ⁽²⁾ (584.2) | 5⅞ (130.2) | 5½ (139.7) | 6 (152.4) | 4½ (114.3) | 97 (44.0) |
| ****LJC | 2½" 250# (65) | L | 4" FPT (100) | 23 ⁽²⁾ (584.2) | 5⅞ (130.2) | 5½ (139.7) | 6 (152.4) | — | 105 (47.6) |
| ****KKC | 3" 250# (80) | K | 3" FPT (80) | 15¾ (400.1) | 4 (101.6) | 5 (127) | 3½ (88.9) | — | 48 (21.8) |
| ****LKC | 3" 250# (80) | L | 4" FPT (100) | 23 ⁽²⁾ (584.2) | 5⅞ (130.2) | 5½ (139.7) | 6 (152.4) | — | 107 (48.5) |
| ****MKB | 3" FPT (80) | M | 4" FPT (100) | 23⅞ ⁽²⁾ (587.4) | 5⅞ (130.2) | 55/8 (142.9) | 6 (152.4) | 4½ (114.3) | 99 (44.9) |
| ****MKC | 3" 250# (80) | M | 4" FPT (100) | 23 ⁽²⁾ (584.2) | 5⅞ (130.2) | 5½ (139.7) | 6 (152.4) | — | 107 (48.5) |
| ****NMD | 4" 250# (100) | N | 6" 125# (150) | 29½ ⁽²⁾ (749.3) | 7¼ (184.2) | 6⅝ (171.5) | 6 (152.4) | — | 215 (97.5) |
| ****PMD | 4" 250# (100) | P | 6" 125# (150) | 29½ ⁽²⁾ (749.3) | 7¼ (184.2) | 6⅝ (171.5) | 6 (152.4) | — | 215 (97.5) |
| ****QPD ⁽²⁾ | 6" 250# (150) | Q | 8" 125# (200) | 39½ ⁽²⁾ (1003.3) | 10 (254) | 9¼ (235) | 10½ (266.7) | — | 605 (274.4) |
| ****RPD ⁽²⁾ | 6" 250# (150) | R | 8" 125# (200) | 39½ ⁽²⁾ (1003.3) | 10 (254) | 9¼ (235) | 10½ (266.7) | — | 605 (274.4) |

*Accurate to ±1/8".

**** Use appropriate Model Number.

⁽¹⁾ Add 50% to D Dimension when lever is pulled out to manually operate valve.

⁽²⁾ Dimensions are current as of printing, consult factory for updated dimensions as they may change.

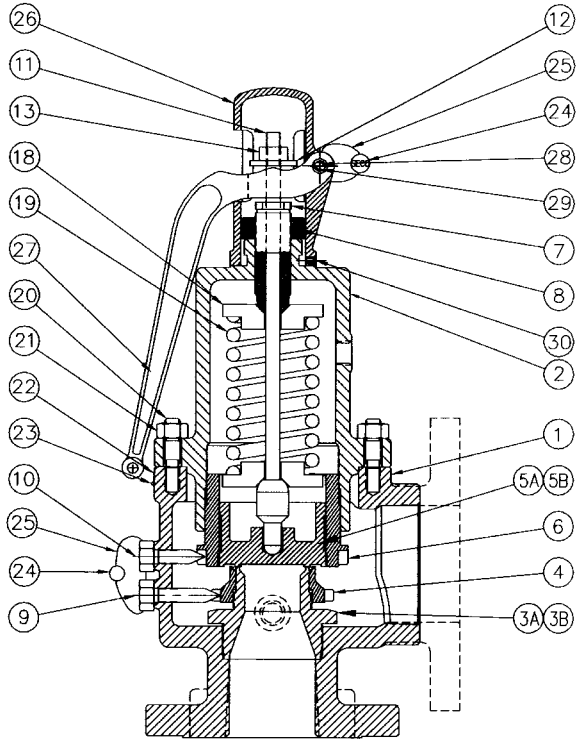
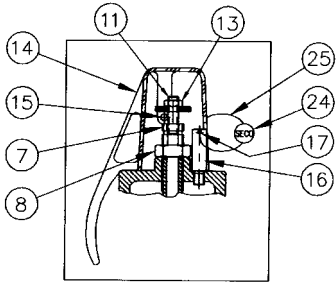


FIGURE 31 CAST IRON SERIES



CAP & LEVER CONFIGURATION
FOR J & K ORIFICES

FIGURE 31 / 41 CAST IRON SERIES

MATERIALS OF CONSTRUCTION

| Ref | Part Name | Material |
|-----|------------------------|--|
| 1 | Body | Cast Iron ASTM A126-B |
| 2 | Bonnet | Cast Iron ASTM A126-B |
| 3A | Nozzle - Bronze | Brass or Bronze ASTM B16 or B62 |
| 3B | Nozzle - SST | SST ASME SA351, CF8M or ASME SA479, S31600 |
| 4 | Nozzle Ring | Bronze ASTM B584-C84400 |
| 5A | Disc - Bronze | Brass or Bronze ASTM B16 or B62 |
| 5B | Disc - SST | SST ASTM A479, S31600 |
| 6 | Guide Ring | ASTM B584-C84400 |
| 7 | Adjusting Bolt | Brass ASTM B16 |
| 8 | Adjusting Bolt Locknut | Steel, Zinc Plated |
| 9 | Nozzle Ring Set Screw | Brass ASTM B16 |
| 10 | Guide Ring Set Screw | Brass ASTM B16 |
| 11 | Spindle | Steel ASTM A108 Grade 1212 |
| 12 | Spindle Nut | Steel ASTM A108 Grade 1212 |
| 13 | Spindle Nut Locknut | Steel, Zinc Plated |
| 14 | Lifting Cap | Zinc Alloy Zamac #3 |
| 15 | Lifting Cap Pins | Steel, Zinc Plated AISI 1020 |
| 16 | Pivot Post | Steel AISI 1020 |
| 17 | Post Pin | Steel, Zinc Plated AISI 1070 |
| 18 | Spring Washer | Steel AISI 1212 |
| 19 | Spring | Steel Zinc Plated |
| 20 | Stud | Steel, Chrome-Moly ASTM A193 B7 |
| 21 | Stud Nut | Steel, Chrome-Moly ASTM A194 2H |
| 22 | Nameplate | SST AISI 304 |
| 23 | Nameplate Screws | SST Commercial 18-8 |
| 24 | Lead Seal | Lead |
| 25 | Seal Wire | SST AISI 304 |
| 26 | Lifting Cap | Cast Iron A126-B* |
| 27 | Lifting Lever | Cast Iron ASTM A126-B |
| 28 | Clevis Pin | Steel, Zinc Plated |
| 29 | Cotter Pin | Steel |
| 30 | Liftcap Lockscrew | Steel |

*Ductile Iron for 4" and above.
ASTM A395 Grade 60-40-18

