



**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 206
- 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

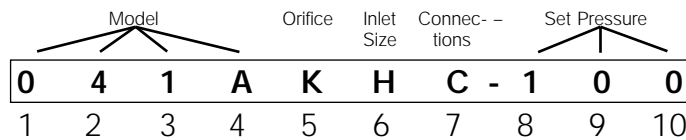
### APPLICATION DATA

- 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 215*

Model	Pressure PSIG (bar)	Temperature °F (°C)
All	5 to 250 (.3 to 17.2)	-20 to 406 (-29 to 208)

### CODE SELECTION CHART



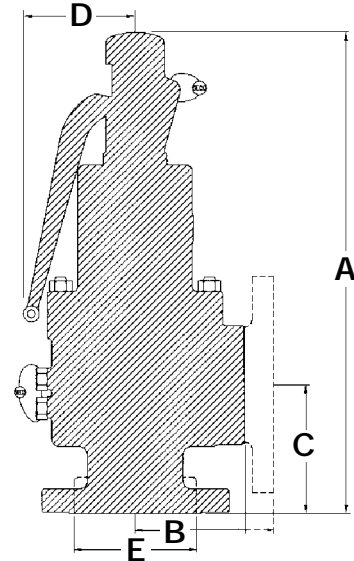
<p><b>Model -</b> Position 1, 2, 3 &amp; 4</p> <p>0031 = ASME Section I Steam, Bronze Trim 0041 = ASME Section VIII Steam, Bronze Trim 041A = ASME Section VIII Air, Bronze Trim 0032 = SS Base &amp; Disc on 0031 0042 = SS Base &amp; Disc on 0041 042A = SS Base &amp; Disc on 041A</p>	<p><b>Orifice -</b> Position 5</p> <p>J K L M N P Q R</p>	<p><b>Inlet Size -</b> Position 6</p> <p>G = 1 1/2 H = 2 J = 2 1/2 K = 3 M = 4 P = 6</p>	<p><b>Connections -</b> Position 7</p> <p>B = FPT x FPT C = 250# x FPT D = 250# x 125# Z = Other</p> <hr/> <p><b>Set Pressure -</b> Position 8, 9 &amp; 10</p> <p>___ = Actual Setting LAS - Loosely Assembled†</p>
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†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 <sup>(1)</sup>	E	Weight
****JGB	1½" FPT (40)	J	2½" FPT (65)	15⅞ (384.2)	3½ (88.9)	4¼ (108)	3 (76.2)	¾ (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)	¾ (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 <sup>(2)</sup> (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 <sup>(2)</sup> (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 <sup>(2)</sup> (584.2)	5⅞ (130.2)	5½ (139.7)	6 (152.4)	—	107 (48.5)
****MKB	3" FPT (80)	M	4" FPT (100)	23⅞ <sup>(2)</sup> (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 <sup>(2)</sup> (584.2)	5⅞ (130.2)	5½ (139.7)	6 (152.4)	—	107 (48.5)
****NMD	4" 250# (100)	N	6" 125# (150)	29⅞ <sup>(2)</sup> (749.3)	7¼ (184.2)	6⅝ (171.5)	6 (152.4)	—	215 (97.5)
****PMD	4" 250# (100)	P	6" 125# (150)	29⅞ <sup>(2)</sup> (749.3)	7¼ (184.2)	6⅝ (171.5)	6 (152.4)	—	215 (97.5)
****QPD <sup>(2)</sup>	6" 250# (150)	Q	8" 125# (200)	39⅞ <sup>(2)</sup> (1003.3)	10 (254)	9¼ (235)	10½ (266.7)	—	605 (274.4)
****RPD <sup>(2)</sup>	6" 250# (150)	R	8" 125# (200)	39⅞ <sup>(2)</sup> (1003.3)	10 (254)	9¼ (235)	10½ (266.7)	—	605 (274.4)

\*Accurate to ±1/8".

\*\*\*\* Use appropriate Model Number.

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

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

FIGURE 31 / 41  
CAST IRON SERIES

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## 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

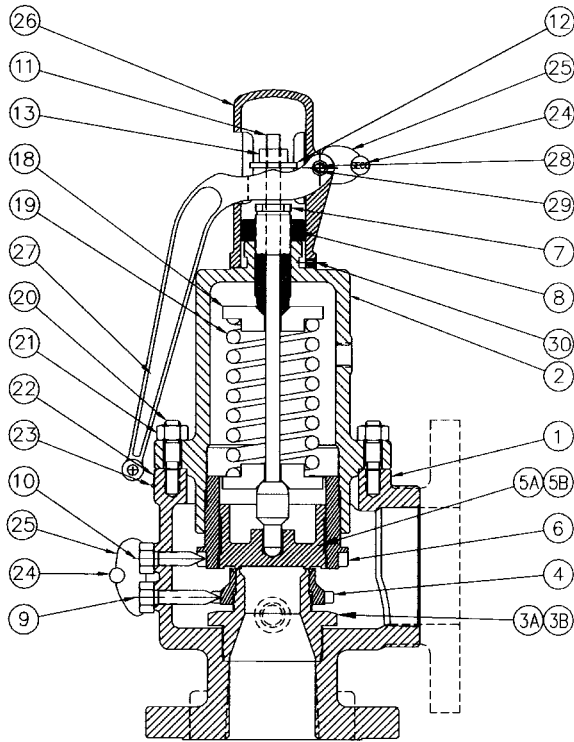
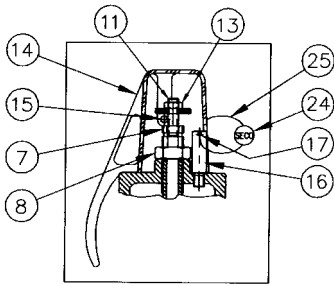


FIGURE 31 CAST IRON SERIES



CAP & LEVER CONFIGURATION  
FOR J & K ORIFICES

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