

KUNKLE

ASME Section VIII, Air/Gas, “UV” National Board Certified Safety Valve

Features

- High capacity with small size.
- Factory sealed to prevent tampering or disassembly.
- Each Kunkle valve is tested and inspected for pressure setting and leakage.

Model Descriptions

Model 541: 1/4" or 1/2" Male NPT inlet. Brass body and seat with BUNA-N ball or flat seal. Exceptional seat tightness performance.

Model 542: Same as model 541 except Viton® ball or flat seal.

Model 548: Same as model 541 except Stainless Steel (SS) ball seal.

Applications

- Small to medium size, single and multi-stage, air compressors, intercoolers, aftercoolers, instrument/control air lines and systems.
- Air tanks/receivers and pressurized equipment.

Pressure and Temperature Limits

Model 541:

3 to 200 psig [0.2 to 13.8 barg]
-40° to 200°F [-40° to 93°C]

Model 542:

3 to 200 psig [0.2 to 13.8 barg]
-10° to 300°F [-23° to 149°C]

Model 548:

3 to 400 psig [0.2 to 27.6 barg]
-60° to 400°F [-34° to 204°C]



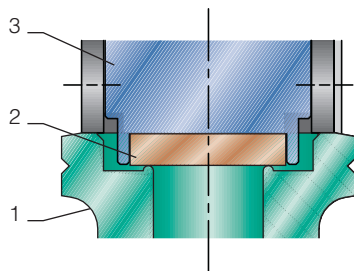
Parts and Materials

Models 541, 542 and 548

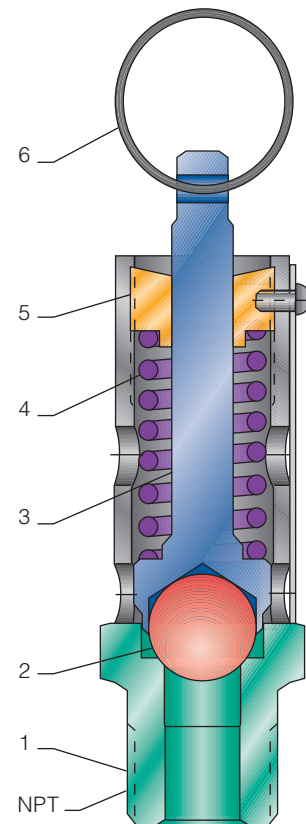
| No. | Part Name | Materials |
|-----|-------------------|---|
| 1 | Body | Brass, B16 |
| 2 | Seat ¹ | Model number changes with seat material |
| 3 | Disc Holder | Brass, B16 |
| 4 | Spring | SS, A313-631 |
| 5 | Compression Screw | Brass, B16 |
| 6 | Lift Ring | SS, A313 |

Notes

1. Seat material: Model 541 BUNA-N, Model 542 Viton® A, and Model 548 SS, A756 440C.



**Models 541-C and 542-C
Seat Configuration**

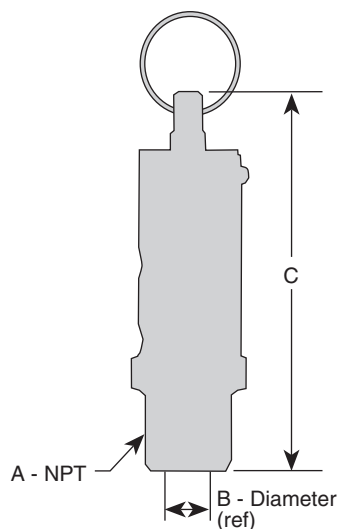


Models 541-A, 542-A, 548

Specifications

| Size Inlet | Dimensions, in [mm] | | | Weight lb (kg) |
|---------------|---------------------|--------------|-------------|-------------------|
| | A | B | C | |
| 1/4" | 1/4 - 18 | 0.295 [7.5] | 2.88 [73.2] | 0.2 (0.1) |
| 1/2" | 1/2 - 14 | 0.422 [10.7] | 3.62 [91.9] | 0.5 (0.23) |

Dimensions are for reference only.



Capacities

ASME Section VIII Air, (U.S., SCFM)

| Set Pressure (psig) | Inlet | |
|------------------------|-------|------|
| | 1/4" | 1/2" |
| 3 | 12 | 23 |
| 5 | 16 | 31 |
| 10 | 23 | 47 |
| 15 | 31 | 62 |
| 20 | 37 | 73 |
| 25 | 42 | 84 |
| 50 | 70 | 139 |
| 75 | 97 | 194 |
| 100 | 125 | 249 |
| 125 | 152 | 304 |
| 150 | 180 | 359 |
| 175 | 207 | 414 |
| 200 | 235 | 469 |
| 225 | 262 | 524 |
| 250 | 290 | 579 |
| 275 | 317 | 634 |
| 300 | 345 | 689 |
| 325 | 372 | 744 |
| 350 | 400 | 799 |
| 375 | 427 | 854 |
| 400 | 455 | 909 |

ASME Section VIII Air, [Metric, Nm³/h]

| Set Pressure [barg] | Inlet | |
|------------------------|-------|-------|
| | 7 mm | 15 mm |
| 1.7 | 67 | 135 |
| 3.5 | 114 | 227 |
| 5.0 | 152 | 304 |
| 7.0 | 203 | 407 |
| 9.0 | 255 | 509 |
| 13.0 | 357 | 715 |
| 15.0 | 409 | 818 |
| 17.0 | 460 | 920 |
| 19.0 | 511 | 1023 |
| 21.0 | 563 | 1126 |
| 23.0 | 614 | 1228 |
| 25.0 | 665 | 1331 |
| 27.0 | 717 | 1434 |
| 27.5 | 730 | 1459 |

Kunkle Safety and Relief Products

Models 541, 542 and 548

Model Number/Order Guide

Model Number Position

| | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 |
|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|

Example

| | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0 | 5 | 4 | 1 | — | A | 0 | 1 | — | K | M | 0 | 2 | 5 | 0 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|

Model

0541
0542
0548

Inlet Size

A - 1/4"
C - 1/2"

Variation (01 to 99)

01 - Catalog standard
60 - BSP threads

Design Revision

Indicates non-interchangeable revision
Dash (-) if original design
Models 541-C and 542-C – Revision A

Service

K - ASME VIII Air/Gas
N - Non-code Air/Gas for set pressures below 15 psig

Spring Material

M - SS

Set Pressure

548 - 3 psig (0003) [0.2 barg] to 400 psig (0400) [27.5 barg]
541 - 3 to 200
542 - 3 to 200

KUNKLE

953 Old U.S. Highway 70
Black Mountain, North Carolina 28711-2549
Facility Phone: 1-828-669-3700

www.kunklevalve.com

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