

# KUNKLE

## Non-Code Liquid Relief, ASME Section VIII, Air/Gas and Steam, National Board Certified, Safety and Relief Valves

### Features

- **Top guided design** offers high capacity with 0.110 in<sup>2</sup> [0.710 cm<sup>2</sup>] orifice area.
- **Ball bearing pivot between disc and spring** corrects misalignment and compensates for spring side thrust.
- **Every valve is 100% tested/inspected** for pressure setting and leakage.
- **Standard outlet** with 1-inch Female NPT.

### Model Descriptions

**Model 264:** CS housing with 316 SS trim (nozzle and disc), SS spring. Pressure-tight cap.

**Model 265:** Same as Model 264 except high-temperature alloy spring (temperatures to 750°F [400°C]).

**Model 266:** Same as Model 264 except all 316 SS materials.

**Model 267:** Same as Model 266 except high-temperature alloy spring (temperatures to 750°F [399°C]).

**Model 264P:** Same as Model 264 with pressure-tight packed lift lever.

**Model 265P:** Same as Model 265 with pressure-tight packed lift lever.

**Model 266P:** Same as Model 266 with pressure-tight packed lift lever.

**Model 267P:** Same as Model 267 with pressure-tight packed lift lever.

### Applications

- Protection of pumps, compressors, pressure vessels or systems handling corrosive fluids or vapors at high pressure and/or temperature.
- Sentinel (warning) on steam equipment.



Model 264

### Pressure and Temperature Limits<sup>1</sup>

#### Model 264:

4 to 3300 psig [0.28 to 227 barg]  
-20° to 550°F [-29° to 288°C]

#### Model 266:

4 to 3300 psig [0.28 to 227 barg]  
-320° to 550°F [-195° to 288°C]

#### Model 265:

4 to 3300 psig [0.28 to 227 barg]  
-20° to 750°F [-29° to 399°C]

#### Model 267:

4 to 3300 psig [0.28 to 227 barg]  
-320° to 750°F [-195° to 316°C]

Pressures listed are for female NPT inlets only, see chart on page 5 for male NPT.

Maximum back pressure 400 psig [27.6 barg]

### Notes

1. Pressures are female NPT inlets only. For maximum pressures for male NPT inlets see chart on page 5.
2. ASME standard valves for air or steam service must have lift lever.
3. Due to the capacity of this valve, thrust calculations should be reviewed and valve supported accordingly.

**tyco** / Flow Control

Total Flow Control Solutions™

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## Models 264, 265, 266, 267, 264P, 265P, 266P and 267P

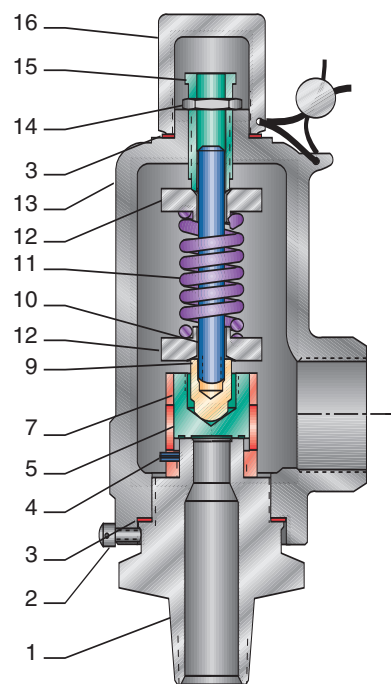
### Parts and Materials

#### Models 264, 265, 266 and 267 - Threaded Cap

No.	Part Name	264, 265	266, 267
1	Nozzle <sup>1</sup>	SS SA351-CF8M	SS SA351-CF8M
2	Lock Screw	SS Commercial 18-8	SS Commercial 18-8
3	Gasket	Teflon <sup>®</sup>	Teflon <sup>®</sup>
4	Spring Pin	SS Commercial	SS Commercial
5	Guide	SS A743-CF8M	SS A743-CF8M
7	Disc	SS A479-316	SS A479-316
9	Stem Retainer	SS A479-316	SS A479-316
10	Stem	SS A479-316	SS A479-316
11	Spring <sup>2</sup>	A313-316 or 6312 <sup>2</sup>	SS A313-316 or 6312 <sup>2</sup>
12	Spring Step	SS A479-316	SS A479-316
13	Bonnet	Steel SA216-WCB	SS A351-CF8M
14	Jam Nut	SS A479-316	SS A479-316
15	Compression Screw	SS A479-316	SS A479-316
16	Cap	Steel A108	SS A479-316
17	Cap Gasket	Teflon <sup>®</sup>	Teflon <sup>®</sup>

#### Notes

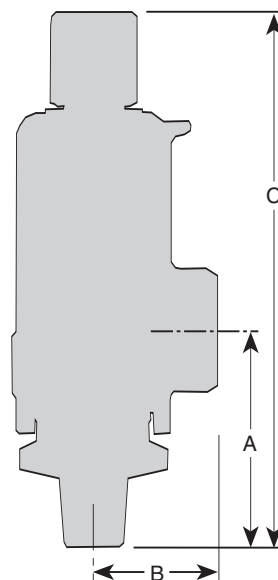
1. SA479-316 for internal thread.
2. Tungsten alloy steel for Models 265, 267.
3. For maximum pressures for male NPT inlets see chart on page 4.
4. Due to the capacity of this valve, thrust calculations should be reviewed and valve supported accordingly.
5. Teflon<sup>®</sup> is a registered trademark of E.I. du Pont de Nemours Company.



Models 264 and 265

#### Specifications

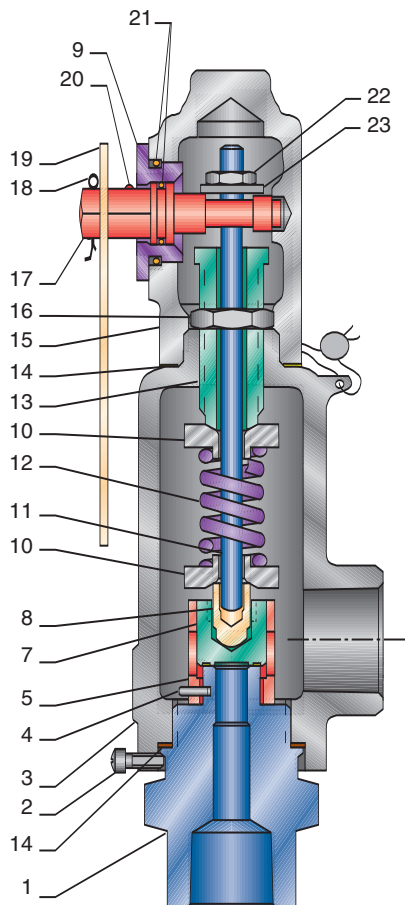
Size		Dimensions, in [mm]			Weight (lb) [kg]
Inlet	Outlet	A	B	C	
1/2", 3/4", 1"	3/4", 1"	3 1/16 [77.8]	1 3/4 [44.5]	9 [228.6]	4 1/2 [2.3]



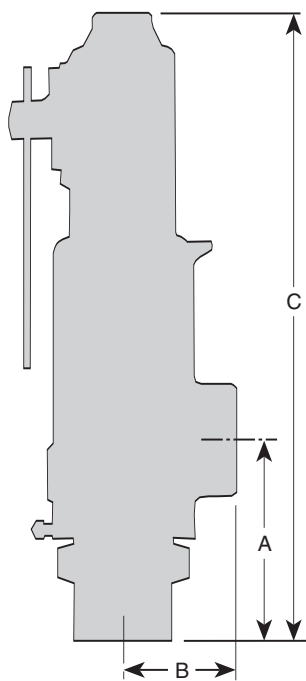
Models 264 and 265

Models 264, 265, 266, 267, 264P, 265P, 266P and 267P

Parts and Materials



Models 264P and 265P



Models 264P and 265P

Models 264P, 265P, 266P and 267P - Packed Lever

No.	Part Name	264P/265P	266P/267P
1	Nozzle <sup>1</sup>	SS SA479-316	SS SA479-316
2	Lock Screw	SS Commercial	SS Commercial
3	Bonnet	Steel SA216-WCB	SS A351-CF8M
4	Spring Pin	SS Commercial	SS Commercial
5	Guide	SS A743-CF8M	SS A743-CF8M
7	Disc	SS A479-316	SS A479-316
8	Stem Retainer	SS A479-316	SS A479-316
10	Spring Step	SS A479-316	SS A479-316
11	Stem	SS A479-316	SS A479-316
12	Spring <sup>2</sup>	SS A313-316, Optional 6312	SS A313-316, Optional 6312
13	Compression Screw	SS A479-316	SS A479-316
14	Gasket - Body	Teflon®	Teflon®
15	Cap	SS A743-CF8M	SS A473-CF8M
16	Jam Nut	SS A479-316	SS A479-316
17	Lift Cam	SS A743-CF8M	SS A743-CF8M
18	Cotter Pin	Steel Commercial	Steel Commercial
19	Lever	Steel A108 Zinc Plated	Steel A108 Zinc Plated
20	Drive Screw	SS Commercial	SS Commercial
21	O-ring	BUNA-N	BUNA-N
22	Lift Disc Nut	SS A479-316	SS A479-316
23	Lift Disc	SS A756-440C	SS A756-440C
24	Cap Gasket	Teflon®	Teflon®

Notes

1. SA351-CF8M for external thread.
2. Tungsten alloy steel for Models 265, 267.
3. For maximum pressures for male NPT inlets see chart on page 4.
4. Due to the capacity of this valve, thrust calculations should be reviewed and valve supported accordingly.

Specifications

Size		Dimensions, in [mm]			Weight
Inlet	Outlet	A	B	C	(lb) [kg]
1/2", 3/4", 1"	3/4", 1"	3 1/16 [77.8]	1 3/4 [44.5]	9 [228.6]	4 1/2 [2.3]

Models 264, 265, 266, 267, 264P, 265P, 266P and 267P

Capacities

Notes

1. 10% or 3 psig [0.2 barg] accumulation, whichever is greater.
2. Below 15 psig is non-code.
3. For maximum pressures for male NPT inlets see chart below.
4. Due to the capacity of this valve, thrust calculations should be reviewed and valve supported accordingly.
5. Orifice Area = 0.110 square inch

ASME Section VIII, Air/Gas, and Steam, Non-Code Liquid

Set Pressure psig [barg]	Water Non-code GPM [m <sup>3</sup> /h]	Air SCFM [Nm <sup>3</sup> /h]	Steam lb/h [kg/h]
4 [0.3]	5 [1]	25 [44]	79 [37]
6 [0.4]	5 [1]	31 [50]	96 [42]
8 [0.6]	6 [1]	36 [61]	109 [51]
10 [0.7]	6 [1]	40 [66]	120 [55]
20 [1.4]	8 [2]	58 [97]	164 [75]
30 [2.1]	10 [2]	74 [123]	207 [95]
40 [2.8]	11 [3]	91 [152]	255 [117]
50 [3.5]	13 [3]	108 [180]	302 [139]
75 [5.2]	15 [4]	150 [249]	422 [192]
100 [6.9]	18 [4]	193 [319]	541 [246]
125 [8.6]	20 [5]	235 [388]	660 [299]
150 [10.3]	22 [5]	278 [457]	780 [353]
200 [13.8]	25 [6]	363 [600]	1018 [463]
250 [17.2]	28 [6]	447 [738]	1257 [570]
300 [20.7]	31 [7]	532 [881]	1496 [680]
350 [24.1]	33 [8]	617 [1020]	1734 [787]
400 [27.6]	36 [8]	702 [1162]	1973 [897]
500 [34.5]	40 [9]	872 [1444]	2450 [1113]
600 [41.4]	44 [10]	1042 [1725]	2928 [1330]
700 [48.3]	47 [11]	1212 [2006]	3405 [1547]
800 [55.2]	51 [11]	1382 [2287]	3882 [1764]
900 [62.1]	54 [12]	1552 [2569]	4360 [1981]
1000 [69.0]	57 [13]	1722 [2850]	4837 [2198]
1200 [83.0]	62 [14]	2062 [3421]	5792 [2638]
1400 [96.5]	67 [15]	2401 [3971]	6746 [3063]
1600 [111]	72 [16]	2741 [4562]	7789 [3561]
1800 [124]	76 [17]	3081 [5092]	8885 [4031]
2000 [138]	80 [18]	3421 [5662]	10036 [4541]
2250 [155]	85 [19]	3846 [6355]	—
2500 [173]	89 [20]	4270 [7089]	—
2750 [190]	94 [21]	4695 [7782]	—
3000 [207]	98 [22]	5120 [8475]	—
3300 [227]	103 [23]	5630 [9290]	—

Models 264, 265, 266, 267, 264P, 265P, 266P and 267P

Notes

1. For male inlet valves with pressures exceeding the pressure limits in chart, please consult factory.
2. Female inlet is rated to 3300 psi at 550°F for 264/266 and 750°F for 265/267.
3. Due to the capacity of this valve, thrust calculations should be reviewed and valve supported accordingly.

Maximum Pressure and Temperature Limits - Male NPT Inlet Connections

Temperature °F [°C]	Air, Steam, Water psig [barg]		Air psig [barg]	Steam, Water psig [barg]
	1/2"	3/4"	1"	1"
100 [38]	1950 [134.4]	3299 [227.5]	3300 [227.5]	3300 [227.5]
200 [93]	1675 [115.5]	2836 [195.5]	3300 [227.5]	2933 [202.2]
300 [149]	1508 [104]	2554 [176.1]	3300 [227.5]	2643 [182.2]
350 [177]	1435 [98.9]	2432 [167.7]	3300 [227.5]	2539 [175.1]
400 [204]	1334 [92]	2269 [156.4]	3300 [227.5]	2421 [166.9]
450 [232]	1257 [86.7]	2146 [148]	3300 [227.5]	2335 [161]
500 [260]	1186 [81.8]	2030 [140]	3300 [227.5]	2268 [156.4]
550 [288]	1127 [77.7]	1935 [133.4]	3300 [227.5]	2186 [150.7]
600 [316]	1108 [76.4]	1844 [127]	3300 [227.5]	2148 [148.1]
650 [343]	1095 [75.5]	1805 [124.5]	3300 [227.5]	2090 [144.1]
700 [371]	1084 [74.7]	1779 [122.7]	3211 [221.4]	2063 [142.2]
750 [399]	1055 [72.7]	1770 [122]	3157 [217.7]	2029 [139.9]

## Models 264, 265, 266, 267, 264P, 265P, 266P and 267P

### Model Number/Order Guide

Model Number Position	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Example	0	2	6	4	-	D	0	1	-	K	G	1	0	0	0

**Model**

0264	264P
0265	265P
0266	266P
0267	267P

**Inlet Size**

- C - 1/2-inch [12.7 mm]
- D - 3/4-inch [19.0 mm]
- E - 1-inch [25.4 mm]

**Variation (01 through 99)**

01 - MNPT x 1" FNPT	04 - FNPT x 3/4" FNPT
02 - MNPT x 3/4" FNPT	60 - MNPT x FNPT BSPT
03 - FNPT x 1" FNPT	

**Design Revision**

Indicates non-interchangeable revision. Dash (-) if original design

**Valve Service**

- K - Air/Gas ASME Section VIII Models 264P, 265P, 266P, 267P required for air code service
- L - Steam ASME Section VIII Models 264P, 265P, 266P, 267P required for steam code service
- M - Non-code liquid, all models
- P - Non-code steam, all models

**Spring Material**

- F - High-temperature (alloy steel), (temperatures above 550°F)
- G - SS (316) (standard)
- M - SS (631) (above 2700 psi)

**Set Pressure**

4 psig [0.3 barg] (0004) through 3300 psig [227 barg] (3300)

Facility Phone: 828-669-3700

**Tyco Valves & Controls**

www.kunklevalve.com

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