

KUNKLE SAFETY AND RELIEF PRODUCTS
MODELS 537

ASME Section IV, Low Pressure Steam and Hot Water Boilers, "HV" National Board Certified, Safety Relief Valves



Model 300 and 600

Features

- Extra heavy construction helps provide long life.
- Top guided disc assembly incorporates resilient seal in seating area.
- An isolating diaphragm protects working parts from corrosion caused by discharged liquid.
- Pivot between disc and spring designed to correct for misalignment and compensates for spring side thrust.
- These safety relief valves serve the dual purpose of relieving (1) overpressure created by thermal expansion under normal "on" and "off" firing conditions, and (2) overpressure in the form of water or steam created in over-firing due to failure of electrical or other controls.
- Each Kunkle valve is tested and inspected for pressure setting and leakage.

Technical data**Pressure and Temperature Limits**15 to 160 psig
-20° to 250°F

Code:

**Applications**

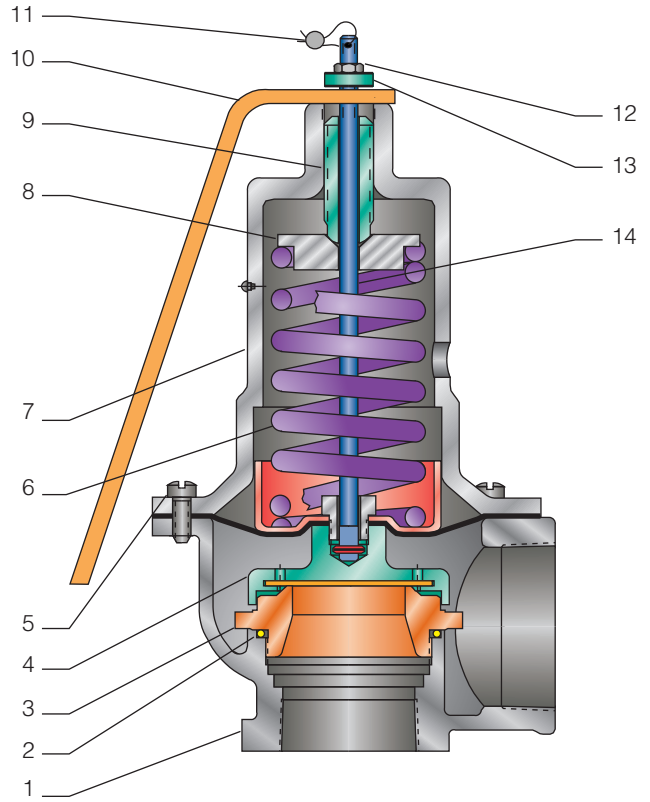
Hot water boiler, heat exchangers and generators.

Parts and Materials

Model 537		
No.	Part Name	Materials
1	Body	1
2	Seat O-ring	BUNA-N ²
3	Seat	Bronze, B584 Alloy 84400 ²
4	Disc Holder	Bronze, B584 Alloy 84400
	Insert	Ethylene Propylene (EPDM)
	Diaphragm	BUNA-N/Nylon
	Guide	Brass, B36 Alloy C26000
	Lock Nut	Brass, B16
5	Screw	SS
6	Spring	SS, A313-631
7	Bonnet	1
8	Spring Step	Brass, B16
9	Compression Screw	Brass, B16
10	Lever	Steel, Zinc Plated
11	Seal and Wire	Lead seal and SS wire
12	Lift Washer Nut	SS
13	Lift Washer	SS
	Stem	SS, A479-316
14	Spring Pin	SS
	Disc Locknut	Brass

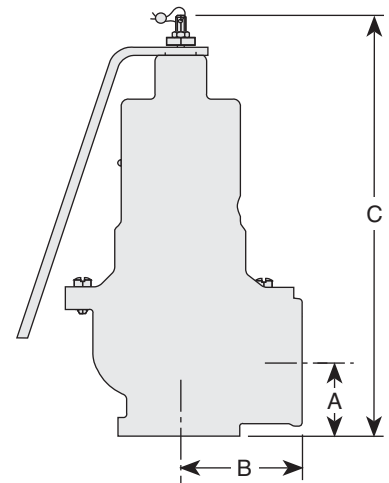
Notes:

- 3/4" and 1": Bronze, B584 Alloy 84400
 1 1/2" and 2": Cast Iron, A126 Class A/B
- D and E orifice sizes have an integral seat.
 G and H orifice sizes have an insert seat above a BUNA-N O-ring body seal.



Specifications					
Size		Dimensions, in			Weight (lb)
Inlet	Outlet	A	B	C	
3/4"	1"	15/16	17/8	6 1/8	2
1"	1 1/4"	15/16	2 3/8	7 1/8	5
1 1/2"	2"	1 3/4	2 15/16	10 1/8	12
2"	2 1/2"	2 1/8	3 9/16	11 3/4	22

Dimensions are for reference only.



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Capacities

ASME Section IV Steam (Hot Water Boiler)								
Set Pressure (psig)	Orifice Area, in ²							
	3/4" (0.533 in ²)		1" (0.833 in ²)		1 1/2" (1.767 in ²)		2" (3.142 in ²)	
	lb/h	BTU/h	lb/h	BTU/h	lb/h	BTU/h	lb/h	BTU/h
15	690	690278	1079	1078802	2288	2288408	4069	4069144
20	812	811962	1269	1268976	2692	2691813	4786	4786461
30	1055	1055329	1649	1649323	3499	3498623	6221	6221095
40	1299	1298696	2030	2029670	4305	4305434	7656	7655729
50	1542	1542064	2410	2410017	5112	5112244	9090	9090363
60	1785	1785431	2790	2790364	5919	5919055	10525	10524997
70	2029	2028798	3171	3170711	6726	6725865	11960	11959631
80	2272	2272165	3551	3551058	7533	7532676	13394	13394265
90	2516	2515533	3931	3931405	8339	8339486	14829	14828899
100	2759	2758900	4312	4311752	9146	9146296	16264	16263533
110	3002	3002267	4692	4692098	9953	9953107	17698	17698167
120	3246	3245634	5072	5072445	10760	10759917	19133	19132801
125	3367	3367318	5263	5262619	11163	11163323	19850	19850119
130	3489	3489002	5453	5452792	11567	11566728	20567	20567436
140	3732	3732369	5833	5833139	12374	12373538	22002	22002070
150	3976	3975736	6213	6213486	13180	13180349	23437	23436704
160	4219	4219103	6594	6593833	13987	13987159	24871	24871338

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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	3	7	—	D	0	1	—	H	M	0	1	6	0
Model	0537														
Inlet Size	D - 3/4" E - 1" G - 1 1/2" H - 2"														
Variation	01 - Catalog Standard														
Design Revision	Indicates non-interchangeable revision. Dash (-) if original design.														
Service	H - Steam ASME Section IV - hot water														
Spring Material	M - SST														
Set Pressure	15 psig (0015) 160 psig (0160)														



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