



## KUNKLE SERIES 6000 SAFETY VALVES

### SAFETY AND RELIEF PRODUCTS

Bronze safety valves to ASME section I, VIII and XIII, Steam, 'V' and 'UV'; section VIII and XIII, Air/Gas, 'UV' National Board certified including models to ASME section IV and XIII, Steam 'HV'. PED certified for non-hazardous gas.



MODEL 6010

### FEATURES

- O-ring seats available for exceptional leak-free performance, reduced maintenance cost, multiple cycles with tight shutoff and improved seating integrity.
- Heavy duty casting.
- Wide hex on valve nozzle provides clearance for easy installation.
- Seats lapped to optical flatness.
- Dual control rings offer easy adjustability for precise opening with minimum pre-open or simmer and exact blowdown control.
- Pivot between disc and spring corrects misalignment and compensates for spring side thrust.
- Grooved piston type disc reduces sliding area and friction.
- Heavy duty lift lever assembly.
- Each valve tested and inspected for pressure setting and leakage.

### GENERAL APPLICATION

These valves are suitable for use on steam boilers and generators, reciprocating or rotary, portable or stationary air/gas compressors, intercoolers and aftercoolers. Also for pressure vessels containing steam, air or non-hazardous gas and on pressure reducing stations.

### CALIFORNIA PROPOSITION 65 WARNING

*This product can expose you to chemicals including nickel, which is known to the State of California to cause cancer, birth defects or other reproductive harm. For more information, go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).*

### TECHNICAL DATA

Connections: Threaded NPT  
 Temperature Range<sup>1</sup>: -60 to 425°F (-51 to 219°C)  
 Pressure Range<sup>1</sup>: 3 to 300 psig (0.2 to 20.7 barg)  
 Code: ASME I, IV, VIII, XIII (UV and HV) and PED



### NOTE

1. See page 2 for more temperature and pressure range information.

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## SAFETY AND RELIEF PRODUCTS

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### MODELS OVERVIEW

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- Model 6010: Side outlet. Full nozzle design with bronze/brass trim. Available with O-ring seats.
- Model 6021: As model 6010 with Teflon® (PFA) disc insert (use on steam only).
- Model 6030: As model 6010 except stainless steel (SS) trim (nozzle and disc). Available with O-ring seats.
- Model 6182: Top outlet. Full nozzle design with bronze/brass trim. O-ring seat available.
- Model 6121: As model 6182 with Teflon® (PFA) disc insert (use on steam only).
- Model 6130: As model 6182 except SS trim (nozzle and disc). Available with O-ring seats.
- Model 6186: Top outlet. Full nozzle design with bronze/brass trim. 150 psig (10.3 barg) maximum set pressure. Replaces Model 86 (original equipment only). For air service only.
- Model 6283: Over-sized side outlet. Full nozzle design bronze/brass trim.
- Model 6221: As model 6283 with Teflon® (PFA) disc insert (use on steam only).
- Model 6230: As model 6283 except SS trim (nozzle and disc).
- Model 6933: As model 6010 except certified for ASME code Section IV and XIII. Low pressure steam heating boilers set at 15 psig (1.0 barg) only.
- Model 6934: As model 6021 except certified for ASME code Section IV and XIII. Low pressure steam heating boilers set at 15 psig (1.0 barg) only.
- Model 6935: As model 6030 except certified for ASME code Section IV and XIII. Low pressure steam heating boilers set at 15 psig (1.0 barg) only.

### PRESSURE AND TEMPERATURE LIMITS<sup>1</sup>

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#### Models 6010, 6021, 6182, 6121, 6283, 6221

- Steam Service: 3 to 250 psig (0.2 to 17.2 barg) -60 to 406°F (-51 to 208°C)
- Air/Gas Service: 3 to 300 psig (0.2 to 20.7 barg) -60 to 406°F (-51 to 208°C)

#### Models 6030, 6130, 6230

- Steam and Air/Gas Service: 3 to 300 psig (0.2 to 20.7 barg) -60 to 425°F (-51 to 218°C)

### SPECIFICATIONS

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#### SERVICE RECOMMENDATIONS FOR SERIES 6000 RESILIENT SEAT/SEAL MATERIALS

Seat/Seal Materials	Service Recommendation
Viton® A (FKM) [-15 to 406°F [-26 to 208°C]]	Air and Gas
Ethylene propylene [-60 to 425°F [-51 to 218°C]]	Steam
Teflon® (PFA) [-60 to 406°F [-51 to 208°C]]	Steam

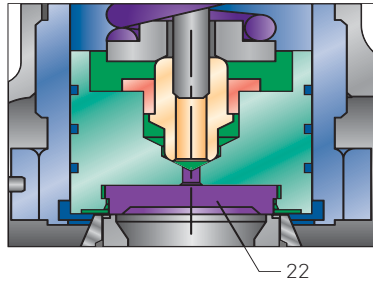
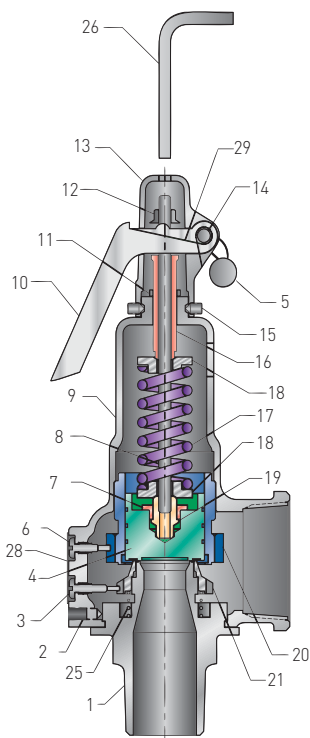
#### NOTE

1. Resilient seats determine temperature range (see Specifications section).
2. Viton® and Teflon® are marks owned by E.I. du Pont de Nemours and Co.

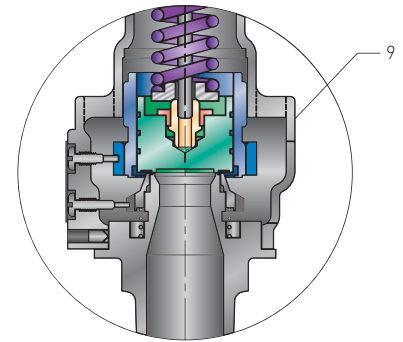
# KUNKLE SERIES 6000 SAFETY VALVES

## SAFETY AND RELIEF PRODUCTS

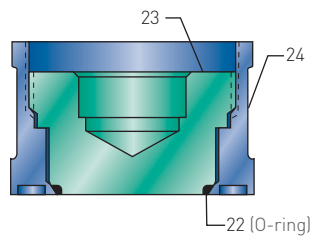
### Parts and Materials



MODELS 6021, 6121, 6221 AND 6934  
Teflon® (PFA) seat configuration



MODELS 6182, 6121, 6130 AND 6186  
Top outlet configuration



MODELS 6010, 6030, 6182,  
6130, 6186, 6283 AND 6230  
Optional soft seat

MODELS 6010, 6030, 6283, 6230, 6933 AND 6935

### PARTS AND MATERIALS

No.	Part name	Materials
1	Nozzle	BRS B283-C48500 or BRZ SB62 <sup>3</sup>
2	Body set screw	STL A108 Black oxide
3	Warn ring set screw	SS 18-8
4	Disc	BRS B21 C48500 <sup>4</sup>
5	Wire and seal	SS wire and lead seal
6	Guide set screw	SS 18-8
7	Retainer nut <sup>2</sup>	BRS B16
8	Stem	SS A582-303 for D orifice SS A582-416 for E thru J orifice
9	Body	BRZ B584-C84400
10	Lever	STL A109 or JIS SPPC equivalent/ZN plated yellow
11	Compression screw locknut	BRS B16
12	Lift nut	STL A108-1018/ZN plated
13	Cap	Aluminum, anodized
14	Lever pin	STL A108-12L14
15	Cap set screw <sup>10</sup>	STL A108 Black oxide
16	Compression screw	BRS B16
17	Spring	ASTM A-313 TY 631
18	Spring step	BRS B16
19	Stem end <sup>12</sup>	BRS B16
20	Guide	BRS B283-C37700
21	Warn ring <sup>7</sup>	BRS B283-C37700
22	Seat	Note 1
23	Seat retainer <sup>8</sup>	BRS B16 <sup>5</sup>
24	Soft seat disc <sup>8</sup>	BRS B21 C48500 <sup>5</sup>
25	Warn ring spring <sup>6</sup>	SS A313-302/316
26	Gag screw <sup>7</sup>	STL A108-1018/ZN plated
27 <sup>11</sup>	Pop rivet	Aluminum
28	Nameplate	Aluminum
29 <sup>6</sup>	Vibration dampener spring	PH BRZ B159-C51000

### NOTES

- Models 6021, 6121, 6221 and 6934 Teflon® (PFA), optional O-ring seat available for all others (except Models 6933 and 6935 - metal seat only).
- Section IV only.
- Models 6030, 6130, 6230 and 6935 are SS SA351-CF8.
- Models 6030, 6130, 6230 and 6935 are SS SA479-304.
- Models 6030, 6130 and 6230 are SS SA479-304.
- Variation 02 (vibration dampening) only.
- Soft seat 'D', 'E' and 'F' orifice require special warn ring (notch on O.D. of fins).
- Applies only to soft seat options.
- Applies only to gag options. Remove when valve is in service. Failure to remove gag screw may cause serious damage to equipment, personal injury and death.
- Rotated 90° for clarity.
- Not shown on assembly.
- Soft seat 'D' orifice requires special stem end (no hex).

# KUNKLE SERIES 6000 SAFETY VALVES

## SAFETY AND RELIEF PRODUCTS

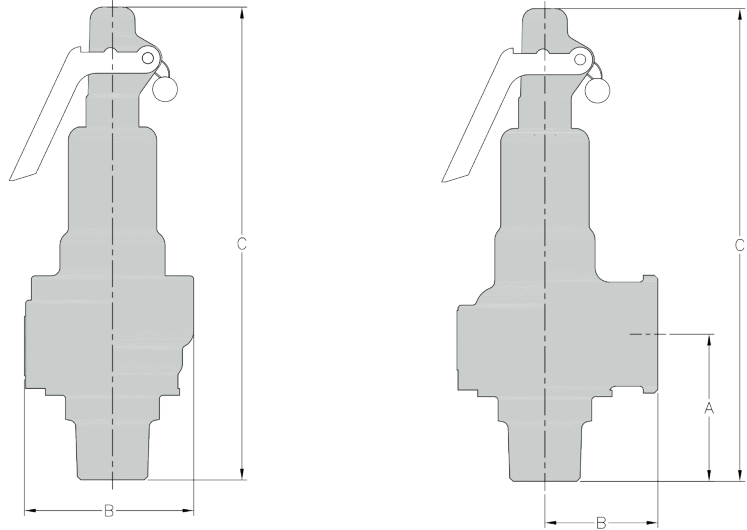
### SPECIFICATIONS

Model Number <sup>1</sup>	Orifice	Connections ANSI Standard				Valve Dimensions						Approximate Weight	
		Inlet		Outlet		A		B		C		lb	kg
		inch	mm	inch	mm	inch	mm	inch	mm	inch	mm		
60**DC#	D	1/2	12.7	3/4	19.0	2 1/8	54	1 5/8	41	6 1/2	165	1 1/2	0.7
60**DD# <sup>2</sup>	D	3/4	19.0	3/4	19.0	2 1/8	54	1 5/8	41	6 1/2	165	1 3/4	0.8
61**DC#	D	1/2	12.7	-	-	-	-	2 3/8	60	6 1/2	165	1 1/4	0.6
60**ED#	E	3/4	19.0	1	25.4	2 3/8	60	1 3/4	44	7 1/2	191	2 1/2	1.1
60**EE# <sup>2</sup>	E	1	25.4	1	25.4	2 1/2 <sup>4</sup>	64	1 3/4	44	7 5/8 <sup>5</sup>	194	2 3/4	1.2
61**ED#	E	3/4	19.0	-	-	-	-	2 7/8	73	7 1/2	191	2 1/4	1.0
62**ED#	E	3/4	19.0	1 1/4	31.75	2 7/8	73	1 3/4	44	7 1/2	191	2 3/4	1.2
60**FE#	F	1	25.4	1 1/4	31.8	2 5/8	67	2	51	8 1/2	216	3 1/2	1.6
60**FF# <sup>2</sup>	F	1 1/4	31.8	1 1/4	31.8	2 7/8	73	2	51	8 3/4	222	3 3/4	1.7
61**FE#	F	1	25.4	-	-	-	-	3 1/8	79	8 1/2	222	3 1/4	1.5
62**FE#	F	1	25.4	1 1/2	38.0	2 7/8	73	2	51	8 1/2	222	3 3/4	1.7
60**GF#	G	1 1/4	31.8	1 1/2	38.0	3 1/8	79	2 3/8	60	9 5/8	244	5 1/2	2.5
60**GG# <sup>2</sup>	G	1 1/2	38.0	1 1/2	38.0	3 3/8	86	2 3/8	60	9 7/8	251	5 3/4	2.6
61**GF#	G	1 1/4	31.8	-	-	-	-	3 3/4	95	9 5/8	244	5	2.3
62**GF#	G	1 1/4	31.8	2	51.0	3 3/8	86	2 1/4	57	9 5/8	244	5 3/4	2.6
60**HG#	H	1 1/2	38.0	2	51.0	3 5/8	92	2 3/4	70	10 5/8	270	7 3/4	3.5
60**HH# <sup>2</sup>	H	2	51.0	2	51.0	4 1/8	105	2 3/4	70	11 1/8	283	8	3.6
61**HG#	H	1 1/2	38.0	-	-	-	-	4 3/8	111	10 5/8	270	7 1/4	3.3
62**HG#	H	1 1/2	38.0	2 1/2	64.0	3 7/8	98	3	76	10 5/8	270	8	3.6
60**JH#	J	2	51.0	2 1/2	64.0	4 1/4	108	3 3/8	86	14 1/8	359	15 1/2	7.0
60**JJ# <sup>2</sup>	J	2 1/2	64.0	2 1/2	64.0	4 1/2	114	3 3/8	86	14 1/4	362	15 3/4	7.2
61**JH#	J	2	51.0	-	-	-	-	5	127	14 1/8	359	15	6.8
62**JH#	J	2	51.0	3	76.0	4 5/8	117	3 3/8	86	14 1/8	359	15 1/2	7.0

Dimensions are for reference only.

### NOTES

1. Replace asterisks with desired model number.  
Replace # with desired seat material.
2. Model 6030 and 6935 available only 1/2 in. x 3/4 in. (12.7 x 19 mm), 3/4 in. x 1 in. (19 x 25.4 mm), 1 in. x 1 1/4 in. (25.4 x 31.8 mm), 1 1/4 in. x 1 1/2 in. (31.8 x 38 mm), 1 1/2 in. x 2 in. (38 x 51 mm) and 2 in. x 2 1/2 in. (51 x 64 mm).
3. Models 6933, 6934 and 6935 have same dimensions as model 6010.
4. 2 1/4 in. for BSPT [57].
5. 7 3/8 in. for BSPT [192.5].



# KUNKLE SERIES 6000 SAFETY VALVES

## SAFETY AND RELIEF PRODUCTS

### Capacities

#### NON-CODE<sup>1</sup> AND ASME SECTION VIII AND SECTION XIII AIR (SCFM) Flow Coefficient = 0.878

Set Pressure (psig)	Orifice Area, in <sup>2</sup>					
	D (0.121)	E (0.216)	F (0.336)	G (0.554)	H (0.863)	J (1.414)
3	28	50	77	127	198	325
4	32	57	89	146	228	374
6	39	70	108	178	278	456
8	45	80	124	205	319	523
10	50	89	138	228	355	582
15	64	114	177	292	454	744
20	73	131	204	336	524	858
25	83	148	231	381	593	972
30	93	166	258	425	663	1086
35	104	185	288	474	739	1211
40	114	204	317	523	815	1336
45	125	223	347	572	892	1461
50	136	242	377	621	968	1586
55	146	261	407	671	1045	1711
60	157	281	436	720	1121	1837
65	168	300	466	769	1197	1962
70	179	319	496	818	1274	2087
75	189	338	526	867	1350	2212
80	200	357	555	916	1426	2337
85	211	376	585	965	1503	2462
90	221	395	615	1014	1579	2588
95	232	414	645	1063	1656	2713
100	243	434	674	1112	1732	2838
105	254	453	704	1161	1808	2963
110	264	472	734	1210	1885	3088
115	275	491	764	1259	1961	3213
120	286	510	793	1308	2038	3339
125	296	529	823	1357	2114	3464
130	307	548	853	1406	2190	3589
135	318	567	883	1455	2267	3714
140	329	586	912	1504	2343	3839
145	339	606	942	1553	2420	3964
150	350	625	972	1602	2496	4090
160	371	663	1031	1700	2649	4340
170	393	701	1091	1798	2802	4590
180	414	739	1150	1897	2954	4841
190	436	778	1210	1995	3107	5091
200	457	816	1269	2093	3260	5341
210	478	854	1329	2191	3413	5592
220	500	892	1388	2289	3566	5842
230	521	931	1448	2387	3718	6092
240	543	969	1507	2485	3871	6343
250	564	1007	1567	2583	4024	6593
260	586	1045	1626	2681	4177	6843
270	607	1084	1686	2779	4329	7094
280	628	1122	1745	2877	4482	7344
290	650	1160	1805	2975	4635	7594
300	671	1198	1864	3074	4788	7845

#### NOTE

1. No code stamp or 'NB' on nameplate below 15 psig set.

# KUNKLE SERIES 6000 SAFETY VALVES

## SAFETY AND RELIEF PRODUCTS

### Capacities - Metric Units

#### NON-CODE<sup>1</sup> AND ASME SECTION VIII AND SECTION XIII AIR (Nm<sup>3</sup>/h) Flow Coefficient = 0.878

Set Pressure (barg)	Orifice Area, cm <sup>2</sup>					
	D (0.781)	E (1.394)	F (2.168)	G (3.574)	H (5.567)	J (9.123)
0.2	44	78	121	199	311	509
0.3	53	95	148	243	379	621
0.4	61	109	170	280	436	715
0.6	74	133	206	340	530	869
1.0	95	169	263	433	675	1106
1.5	123	219	340	561	874	1433
2.0	145	259	403	664	1035	1696
2.5	170	303	471	777	1210	1982
3.0	195	347	540	890	1386	2272
3.5	219	391	609	1004	1563	2562
4.0	244	436	678	1117	1740	2851
4.5	269	480	746	1231	1917	3141
5.0	294	524	815	1344	2094	3431
5.5	319	569	884	1458	2270	3721
6.0	343	613	953	1571	2447	4010
6.5	368	657	1022	1685	2624	4300
7.0	393	701	1091	1798	2801	4590
7.5	418	746	1160	1912	2978	4880
8.0	443	790	1228	2025	3154	5169
8.5	467	834	1297	2139	3331	5459
9.0	492	878	1366	2252	3508	5749
9.5	517	923	1435	2366	3685	6039
10.0	542	967	1504	2479	3862	6328
10.5	567	1011	1573	2593	4038	6618
11.0	591	1056	1642	2706	4215	6908
11.5	616	1100	1710	2820	4392	7197
12.0	641	1144	1779	2933	4569	7487
12.5	666	1188	1848	3047	4746	7777
13.0	691	1233	1917	3160	4922	8067
13.5	715	1277	1986	3274	5099	8356
14.0	740	1321	2055	3387	5276	8646
14.5	765	1365	2124	3501	5453	8936
15.0	790	1410	2192	3614	5630	9226
16.0	839	1498	2330	3841	5983	9805
17.0	889	1587	2468	4068	6337	10385
18.0	939	1675	2605	4295	6690	10964
19.0	988	1764	2743	4522	7044	11543
20.0	1038	1852	2881	4749	7398	12123

#### NOTE

1. No code stamp or 'NB' on nameplate below 1.0 barg set.

# KUNKLE SERIES 6000 SAFETY VALVES

## SAFETY AND RELIEF PRODUCTS

### Capacities

#### NON-CODE<sup>1</sup> AND ASME SECTION VIII AND SECTION XIII STEAM (lb/h) Flow Coefficient = 0.878

Set Pressure (psig)	Orifice Area, in <sup>2</sup>					
	D (0.121)	E (0.216)	F (0.336)	G (0.554)	H (0.863)	J (1.414)
3	87	155	242	398	621	1017
4	100	178	277	457	711	1166
6	121	215	335	552	860	1409
8	137	245	382	629	980	1606
10	152	271	422	695	1083	1775
15	179	319	497	819	1276	2091
20	206	368	573	944	1471	2410
25	234	417	649	1070	1666	2730
30	261	466	725	1195	1861	3050
35	291	520	808	1333	2076	3401
40	321	573	892	1470	2291	3753
45	351	627	975	1608	2505	4105
50	381	681	1059	1746	2720	4456
55	411	734	1143	1884	2934	4808
60	442	788	1226	2022	3149	5160
65	472	842	1310	2159	3364	5511
70	502	896	1393	2297	3578	5863
75	532	949	1477	2435	3793	6215
80	562	1003	1560	2573	4008	6566
85	592	1057	1644	2710	4222	6918
90	622	1110	1727	2848	4437	7270
95	652	1164	1811	2986	4651	7621
100	682	1218	1895	3124	4866	7973
105	712	1272	1978	3262	5081	8325
110	742	1325	2062	3399	5295	8676
115	773	1379	2145	3537	5510	9028
120	803	1433	2229	3675	5725	9380
125	833	1487	2312	3813	5939	9731
130	863	1540	2396	3950	6154	10083
135	893	1594	2479	4088	6368	10434
140	923	1648	2563	4226	6583	10786
145	953	1701	2647	4364	6798	11138
150	983	1755	2730	4502	7012	11489
160	1043	1863	2897	4777	7442	12193
170	1104	1970	3064	5053	7871	12896
180	1164	2077	3232	5328	8300	13599
190	1224	2185	3399	5604	8729	14303
200	1284	2292	3566	5879	9159	15006
210	1344	2400	3733	6155	9588	15709
220	1404	2507	3900	6430	10017	16413
230	1465	2615	4067	6706	10446	17116
240	1525	2722	4234	6981	10876	17819
250	1585	2829	4401	7257	11305	18523
260	1645	2937	4569	7533	11734	19226
270	1705	3044	4736	7808	12163	19929
280	1766	3152	4903	8084	12592	20632
290	1826	3259	5070	8359	13022	21336
300	1886	3367	5237	8635	13451	22039

#### NOTE

1. No code stamp or 'NB' on nameplate below 15 psig set.

# KUNKLE SERIES 6000 SAFETY VALVES

## SAFETY AND RELIEF PRODUCTS

### Capacities - Metric Units

#### NON-CODE<sup>1</sup> AND ASME SECTION VIII AND SECTION XIII STEAM (kg/h) Flow Coefficient = 0.878

Set Pressure (barg)	Orifice Area, cm <sup>2</sup>					
	D (0.781)	E (1.394)	F (2.168)	G (3.574)	H (5.567)	J (9.123)
0.2	39	69	108	177	276	453
0.3	47	84	131	215	335	549
0.4	54	96	149	246	383	628
0.6	65	115	180	296	461	756
1.0	81	144	224	370	576	944
1.5	98	175	272	448	698	1144
2.0	116	207	322	530	826	1354
2.5	135	242	376	620	966	1582
3.0	155	277	431	711	1107	1814
3.5	175	312	486	801	1248	2045
4.0	195	348	541	892	1389	2276
4.5	215	383	596	982	1530	2508
5.0	234	419	651	1073	1671	2739
5.5	254	454	706	1164	1812	2970
6.0	274	489	761	1254	1954	3201
6.5	294	525	816	1345	2095	3433
7.0	314	560	871	1435	2236	3664
7.5	333	595	926	1526	2377	3895
8.0	353	631	981	1617	2518	4127
8.5	373	666	1036	1707	2659	4358
9.0	393	701	1091	1798	2800	4589
9.5	413	737	1146	1888	2942	4820
10.0	432	772	1201	1979	3083	5052
10.5	452	807	1255	2070	3224	5283
11.0	472	843	1310	2160	3365	5514
11.5	492	878	1365	2251	3506	5746
12.0	512	913	1420	2341	3647	5977
12.5	531	949	1475	2432	3788	6208
13.0	551	984	1530	2523	3929	6439
13.5	571	1019	1585	2613	4071	6671
14.0	591	1055	1640	2704	4212	6902
14.5	611	1090	1695	2795	4353	7133
15.0	630	1125	1750	2885	4494	7365
16.0	670	1196	1860	3066	4776	7827
17.0	710	1267	1970	3248	5059	8290
18.0	749	1337	2080	3429	5341	8752
19.0	789	1408	2190	3610	5623	9215
20.0	828	1479	2300	3791	5905	9678

#### NOTE

1. No code stamp or 'NB' on nameplate below 1.1 barg set.



# KUNKLE SERIES 6000 SAFETY VALVES

## SAFETY AND RELIEF PRODUCTS

### Capacities

#### ASME SECTION I STEAM (lb/h) Flow Coefficient = 0.878

Set Pressure (psig)	Orifice Area, in <sup>2</sup>					
	D (0.121)	E (0.216)	F (0.336)	G (0.554)	H (0.863)	J (1.414)
15	173	310	482	794	1237	2027
20	201	358	558	919	1432	2346
25	228	407	634	1045	1627	2666
30	256	456	710	1170	1822	2986
35	283	505	785	1295	2017	3306
40	310	554	861	1420	2213	3625
45	338	603	937	1546	2408	3945
50	365	651	1013	1671	2603	4265
55	392	700	1089	1796	2798	4584
60	420	749	1165	1921	2993	4904
65	447	798	1241	2047	3188	5224
70	475	848	1319	2174	3387	5550
75	503	898	1397	2303	3588	5879
80	531	948	1475	2432	3789	6208
85	559	999	1553	2561	3990	6538
90	588	1049	1632	2690	4191	6867
95	616	1099	1710	2819	4392	7196
100	644	1150	1788	2948	4593	7525
105	672	1200	1866	3077	4794	7855
110	700	1250	1945	3206	4995	8184
115	728	1300	2023	3335	5196	8513
120	757	1351	2101	3464	5397	8842
125	785	1401	2179	3593	5598	9172
130	813	1451	2258	3722	5799	9501
135	841	1502	2336	3851	6000	9830
140	869	1552	2414	3980	6201	10160
145	898	1602	2492	4109	6402	10489
150	926	1653	2571	4238	6603	10818
160	982	1753	2727	4497	7004	11477
170	1038	1854	2884	4755	7406	12135
180	1095	1954	3040	5013	7808	12794
190	1151	2055	3197	5271	8210	13452
200	1208	2156	3353	5529	8612	14111
210	1264	2256	3510	5787	9014	14769
220	1320	2357	3666	6045	9416	15428
230	1377	2457	3823	6303	9818	16087
240	1433	2558	3979	6561	10220	16745
250	1489	2659	4136	6819	10622	17404
260	1546	2759	4292	7077	11024	18062
270	1602	2860	4448	7335	11426	18721
280	1658	2960	4605	7593	11828	19379
290	1715	3061	4761	7851	12230	20038
300	1771	3162	4918	8109	12632	20696

# KUNKLE SERIES 6000 SAFETY VALVES

## SAFETY AND RELIEF PRODUCTS

### Capacities - Metric Units

#### ASME SECTION I STEAM (kg/h) Flow Coefficient = 0.878

Set Pressure (barg)	Orifice Area, cm <sup>2</sup>					
	D (0.781)	E (1.394)	F (2.168)	G (3.574)	H (5.567)	J (9.123)
1.5	95	170	265	437	680	1115
2.0	113	202	315	519	809	1325
2.5	131	235	365	601	937	1535
3.0	149	267	415	684	1065	1746
3.5	167	299	465	766	1193	1956
4.0	185	331	515	849	1322	2166
4.5	203	363	565	931	1450	2376
5.0	222	396	616	1015	1581	2592
5.5	240	429	667	1100	1714	2808
6.0	259	462	719	1185	1846	3025
6.5	277	495	770	1270	1978	3241
7.0	296	528	822	1355	2110	3458
7.5	315	561	873	1440	2242	3675
8.0	333	595	925	1524	2374	3891
8.5	352	628	976	1609	2507	4108
9.0	370	661	1028	1694	2639	4324
9.5	389	694	1079	1779	2771	4541
10.0	407	727	1131	1864	2903	4757
10.5	426	760	1182	1949	3035	4974
11.0	444	793	1233	2033	3167	5191
11.5	463	826	1285	2118	3300	5407
12.0	481	859	1336	2203	3432	5624
12.5	500	892	1388	2288	3564	5840
13.0	519	925	1439	2373	3696	6057
13.5	537	959	1491	2458	3828	6273
14.0	556	992	1542	2542	3960	6490
14.5	574	1025	1594	2627	4092	6707
15.0	593	1058	1645	2712	4225	6923
15.5	611	1091	1697	2797	4357	7140
16.0	630	1124	1748	2882	4489	7356
16.5	648	1157	1800	2967	4621	7573
17.0	667	1190	1851	3052	4753	7789
18.0	704	1256	1954	3221	5018	8223
19.0	741	1323	2057	3391	5282	8656
20.0	778	1389	2160	3561	5546	9089

### Capacities

#### ASME SECTION IV AND XIII STEAM, LB/H (kg/h) - Models 6933, 6934 and 6935

Set Pressure psig (barg)	Orifice Area, in <sup>2</sup> (cm <sup>2</sup> )					
	D 0.121 (0.781)	E 0.216 (1.394)	F 0.336 (2.168)	G 0.554 (3.574)	H 0.863 (5.567)	J 1.414 (9.123)
15 (1.0)	190 (86)	339 (153)	527 (239)	869 (394)	1353 (613)	2217 (1004)

# KUNKLE SERIES 6000 SAFETY VALVES

## SAFETY AND RELIEF PRODUCTS

ASME section I, VIII and XIII, Steam, ASME section VIII and section XIII, Air/Gas National Board Certified. Models 6933, 6934 and 6935 ASME section IV and XIII, National Board Certified

### SELECTION GUIDE

Example:	6010	H	G	M	01	A	A	M	0015
<b>Model</b>									
<b>6010</b>	<b>6130</b>								
<b>6021</b>	<b>6186</b>								
<b>6030</b>	<b>6283</b>								
<b>6182</b>	<b>6221</b>								
<b>6121</b>									
<b>Orifice</b>									
<b>D</b>	0.121 in <sup>2</sup> (0.781) cm <sup>2</sup>	<b>G</b>	0.554 in <sup>2</sup> (3.574) cm <sup>2</sup>						
<b>E</b>	0.216 in <sup>2</sup> (1.394) cm <sup>2</sup>	<b>H</b>	0.863 in <sup>2</sup> (5.567) cm <sup>2</sup>						
<b>F</b>	0.336 in <sup>2</sup> (2.168) cm <sup>2</sup>	<b>J</b>	1.414 in <sup>2</sup> (9.123) cm <sup>2</sup>						
<b>Inlet size</b>									
<b>C</b>	½ in. (12.7 mm)	<b>G</b>	1½ in. (38.1 mm)						
<b>D</b>	¾ in. (19.0 mm)	<b>H</b>	2 in. (50.8 mm)						
<b>E</b>	1 in. (25.4 mm)	<b>J</b>	2½ in. (63.5 mm)						
<b>F</b>	1¼ in. (31.8 mm)								
<b>Seat material</b>									
<b>M</b>	Metal								
<b>E</b>	EPR								
<b>V</b>	Viton® (FKM)								
<b>T</b>	Teflon® (PFA) (models 6021, 6121, 6221, 6934 only)								
<b>Variation (01 to 99)</b>									
<b>01</b>	Plain lever								
<b>02</b>	Plain lever with vibration dampener								
<b>03</b>	Plain lever with gag								
<b>61</b>	Plain lever with BSPT threads								
<b>62</b>	Plain lever with vibration dampener and BSPT threads								
<b>63</b>	Plain lever with gag and BSPT threads								
<b>Design revision</b>									
	Indicates non-interchangeable revision								
	Current design is at revision 'A'								
<b>Valve service</b>									
<b>A</b>	Steam ASME section I								
<b>K</b>	Air/Gas ASME section VIII and XIII								
<b>L</b>	Steam ASME section VIII and XIII								
<b>G</b>	Steam ASME section IV and XIII (models 6933, 6934, 6935 only)								
<b>P</b>	Steam, non-code								
<b>N</b>	Air, non-code								
<b>Spring material</b>									
<b>M</b>	SS								
<b>Set pressure</b>									
<b>0015</b>	15 psig (1.0 barg) only for models 6933, 6934, 6935								

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