

## Turndown vs. Valve Position

Unit	Low Fire	High Fire	Turndown
BMK 750	50,000	750,000	15:1
BMK 1000	50,000	1,000,000	20:1
BMK 1500	75,000	1,500,000	20:1
BMK 2000	100,000	2,000,000	20:1
BMK 2500	166,667	2,500,000	15:1
BMK 3000	200,000	3,000,000	15:1
BMK 4000	267,000	4,000,000	15:1
BMK 5000N	256,000	5,000,000	20:1
BMK 5000	400,000	5,000,000	12:1
BMK 6000	385,000	6,000,000	15:1
INN 600N	50,000	625,000	12:1
INN 800N	50,000	800,000	16:1
INN 1060N	50,000	1,060,000	21:1
INN 1350N	50,000	1,350,000	27:1

BMK 750 Boiler - 15:1 Turndown		
Fire Rate (Valve Position)	BTU/H Input	% of Unit's Full Capacity
18% open	50,000	6.7%
20% open	52,000	6.9%
30% open	108,000	14%
40% open	246,000	33%
50% open	369,000	49%
60% open	465,000	62%
70% open	554,000	74%
80% open	637,000	85%
90% open	733,000	98%
100% open	750,000	100%

BMK 1000 Boiler - 20:1 Turndown		
Fire Rate (Valve Position)	BTU/H Input	% of Unit's Full Capacity
18% open	50,000	5%
20% open	54,000	5.4%
30% open	140,000	14%
40% open	297,000	30%
50% open	443,000	44%
60% open	564,000	56%
70% open	660,000	66%
80% open	789,000	79%
90% open	933,000	93%
100% open	1,000,000	100%

BMK 1500 Boiler - 20:1 Turndown		
Fire Rate (Valve Position)	BTU/H Input	% of Unit's Full Capacity
16% open	75,000	5%
20% open	127,000	8.5%
30% open	366,000	24.4%
40% open	629,000	41.9%
50% open	822,000	54.7%
60% open	977,000	65%
70% open	1,119,000	74.5%
80% open	1,255,000	83.5%
90% open	1,396,000	92.9%
100% open	1,502,000	100%

BMK 2000 Boiler - 20:1 Turndown		
Fire Rate (Valve Position)	BTU/H Input	% of Unit's Full Capacity
16% open	100,000	5%
20% open	143,000	7%
30% open	388,000	19.4%
40% open	759,000	38%
50% open	1,069,000	53.5%
60% open	1,283,000	64.2%
70% open	1,476,000	73.8%
80% open	1,675,000	83.4%
90% open	1,833,000	91.7%
100% open	2,000,000	100%

BMK 2500 Boiler - 15:1 Turndown		
Fire Rate (Valve Position)	BTU/H Input	% of Unit's Full Capacity
16% open	167,000	6.7%
30% open	430,000	17%
40% open	770,000	31%
50% open	1,070,000	43%
60% open	1,440,000	58%
70% open	1,815,000	73%
80% open	2,030,000	81%
90% open	2,300,000	92%
100% open	2,500,000	100%

BMK 3000 Boiler - 15:1 Turndown		
Fire Rate (Valve Position)	BTU/H Input	% of Unit's Full Capacity
14% open	200,000	6.7%
30% open	520,000	17%
40% open	880,000	29%
50% open	1,270,000	42%
60% open	1,680,000	56%
70% open	2,100,000	70%
80% open	2,390,000	80%
90% open	2,650,000	88%
100% open	3,000,000	100%

BMK 4000 Boiler - 15:1 Turndown		
Fire Rate (Valve Position)	BTU/H Input	% of Unit's Full Capacity
23%	267,000	5.7%
30%	456,900	11.4%
40%	822,800	20.6%
50%	1,205,000	30.1%
60%	1,684,000	42.1%
70%	2,388,000	59.7%
80%	3,107,000	77.7%
90%	3,582,000	89.6%
100%	4,000,000	100%

BMK 5000N Boiler - 20:1 Turndown		
Fire Rate (Valve Position)	BTU/H Input	% of Unit's Full Capacity
18%	256,000	5.0%
30%	776,300	15.6%
40%	1,563,000	31.5%
50%	2,198,000	44.3%
60%	2,601,000	52.4%
70%	3,111,000	62.6%
80%	3,755,000	75.6%
90%	4,391,000	88.4%
100%	4,966,000	100%

BMK 5000 Boiler - 12:1 Turndown		
Fire Rate (Valve Position)	BTU/H Input	% of Unit's Full Capacity
18% open	400,000	8%
30% open	997,217	20%
40% open	1,667,848	33%
50% open	1,992,380	40%
60% open	2,486,881	50%
70% open	2,981,381	60%
80% open	3,780,230	76%
90% open	4,375,500	88%
100% open	5,000,000	100%

BMK 6000 Boiler - 15:1 Turndown		
Fire Rate (Valve Position)	BTU/H Input	% of Unit's Full Capacity
18% open	385,000	6%
20% open	400,000	7%
30% open	540,000	9%
40% open	770,000	13%
50% open	1,160,000	19%
60% open	1,650,000	28%
70% open	2,386,000	40%
80% open	3,515,000	59%
90% open	4,650,000	78%
100% open	6,000,000	100%

INN 600N Boiler - 12:1 Turndown		
Fire Rate (Valve Position)	BTU/H Input	% of Unit's Full Capacity
20%	50,000	8.0%
30%	93,000	14.9%
40%	161,000	25.8%
50%	272,000	43.5%
60%	367,000	58.7%
70%	446,000	71.4%
80%	500,000	80.0%
90%	591,000	94.6%
100%	625,000	100%

INN 800N Boiler - 16:1 Turndown		
Fire Rate (Valve Position)	BTU/H Input	% of Unit's Full Capacity
20%	50,000	6.3%
30%	99,000	12.4%
40%	210,000	26.3%
50%	344,000	43.0%
60%	478,000	59.8%
70%	586,000	73.3%
80%	660,000	82.5%
90%	768,000	96.0%
100%	800,000	100.0%

INN 1060N Boiler - 21:1 Turndown		
Fire Rate (Valve Position)	BTU/H Input	% of Unit's Full Capacity
20%	50,000	4.7%
30%	108,000	10.2%
40%	222,000	20.9%
50%	372,000	35.1%
60%	563,000	53.1%
70%	686,000	64.7%
80%	823,000	77.6%
90%	981,000	92.5%
100%	1,060,000	100.0%

INN 1350N Boiler - 27:1 Turndown		
Fire Rate (Valve Position)	BTU/H Input	% of Unit's Full Capacity
20%	50,000	3.7%
30%	124,000	9.2%
40%	260,000	19.3%
50%	445,000	33.0%
60%	637,000	47.2%
70%	845,000	62.6%
80%	1,050,000	77.8%
90%	1,259,000	93.3%
100%	1,350,000	100.0%



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