12 MAY 2011

BS&B Safety Systems

K_R (Left of Slash)/Minimum Net Flow Area (Right of Slash)

Minimum Net Flow Area (MNFA) in Square Inches

Style	Media	Size 0.5"	0.6875"	0.75"	1.0"	1.5"	2.0"	3.0"	4.0"	6.0"	8.0"	10.0"	12.0"	14.0"	16.0"	18.0"	20.0"	24.0"	30.0"	36.0"
B, BR, BRR	Liquid	1.47/0.18			1.47/0.80	1.47/1.76	1.47/3.33	1.47/6.51	1.47/11.8	1.47/28.8	1.47/49.8	1.47/78.8	1.47/112.0	1.47/137.0	1.47/182.0	1.47/233.0	1.47/291.0	1.47/424.0	1.47/671.0	1.47/975.0
B, BR, BRR	Gas	0.71/0.18			0.71/0.80	0.71/1.76	0.23/3.33	0.71/6.51	0.71/11.8	0.71/28.8	0.71/49.8	0.71/78.8	0.71/112.0	0.71/137.0	0.71/182.0	0.71/233.0	0.71/291.0	0.71/424.0	0.71/671.0	0.71/975.0
B-,BR-, BRR-LTF(Note 5)	Liquid	8.0/0.18			8.0/0.80	8.0/1.76	8.0/3.33	8.0/6.51	8.0/11.8	8.0/28.8	8.0/49.8	8.0/78.8	8.0/112.0	8.0/137.0	8.0/182.0	8.0/233.0	8.0/291.0	8.0/424.0	8.0/671.0	8.0/975.0
B-,BR-, BRR-LTF(Note 5)	Gas	8.0/0.18			8.0/0.80	8.0/1.76	8.0/3.33	8.0/6.51	8.0/11.8	8.0/28.8	8.0/49.8	8.0/78.8	8.0/112.0	8.0/137.0	8.0/182.0	8.0/233.0	8.0/291.0	8.0/424.0	8.0/671.0	8.0/975.0
BV-,BRV-,BSV-,BRSV-LTF(Note 5)	Liquid				2.47/0.57	2.47/1.44	2.47/2.24	2.47/5.41	2.47/9.62	2.47/23.7	2.47/44.1	2.47/70.8	2.47/101.0	2.47/130.0	2.47/176.0	2.47/202.0	2.47/279.0	2.47/380.0	2.47/615.0	2.47/927.0
BV-,BRV-,BSV-,BRSV-LTF(Note 5)	Gas				2.47/0.57	2.47/1.44	2.47/2.24	2.47/5.41	2.47/9.62	2.47/23.7	2.47/44.1	2.47/70.8	2.47/101.0	2.47/130.0	2.47/176.0	2.47/202.0	2.47/279.0	2.47/380.0	2.47/615.0	2.47/927.0
BV-,BRV-,BSV-,BRSV-LTF (w/liners)(Note 5)	Liquid				2.47/0.57	2.47/1.44	2.47/2.24	2.47/5.41	2.47/9.62	2.47/23.7	2.47/44.1	2.47/70.8	2.47/101.0							
BV-,BRV-,BSV-,BRSV-LTF (w/liners)(Note 5)	Gas				2.47/0.57	2.47/1.44	2.47/2.24	2.47/5.41	2.47/9.62	2.47/23.7	2.47/44.1	2.47/70.8	2.47/101.0							
B-Series w/liner(Note 3)	Liquid	1.47/0.18			1.47/0.80	1.47/1.76	1.47/3.33	1.47/6.51	1.47/11.8	1.47/28.8	1.47/49.8	1.47/78.8	1.47/112.0							
B-Series w/liner(Note 3)	Gas	0.71/0.18			0.71/0.80	0.71/1.76	0.71/3.33	0.71/6.51	0.71/11.8	0.71/28.8	0.71/49.8	0.71/78.8	0.71/112.0							
BV-Series(Note 3)	Liquid				2.45/0.57	2.45/1.44	2.45/2.24	2.45/5.41	2.45/9.62	2.45/23.7	2.45/44.1	2.45/70.8	2.45/101.0	2.45/130.0	2.45/176.0	2.45/202.0	2.45/279.0	2.45/380.0	2.45/615.0	2.45/927.0
BV-Series(Note 3)	Gas				0.80/0.57	0.80/1.44	0.55/2.24	0.80/5.41	0.80/9.62	0.80/23.7	0.80/44.1	0.80/70.8	0.80/101.0	0.80/130.0	0.80/176.0	0.80/202.0	0.80/279.0	0.80/380.0	0.80/615.0	0.80/927.0
BV-Series w/liner(Note 3)	Liquid				2.45/0.57	2.45/1.44	2.45/2.24	2.45/5.41	2.45/9.62	2.45/23.7	2.45/44.1	2.45/70.8	2.45/101.0							
BV-Series w/liner(Note 3)	Gas				0.80/0.57	0.80/1.44	0.55/2.24	0.80/5.41	0.80/9.62	0.80/23.7	0.80/44.1	0.80/70.8	0.80/101.0							
D, DR, DRR, PLD	Liquid				1.3/0.80	1.3/1.76	1.3/3.33	1.3/6.51	1.3/11.8	1.3/28.8	1.3/49.8	1.3/78.8	1.3/112.0	1.3/137.0	1.3/182.0	1.3/233.0	1.3/291.0	1.3/424.0	1.3/671.0	1.3/975.0
D, DR, DRR, PLD	Gas				1.19/0.69	1.19/1.62	1.19/2.95	1.19/6.49	1.19/11.0	1.19/25.9	1.19/47.1	1.19/74.6	1.19/106.0	1.19/135.0	1.19/176.0	1.19/223.0	1.19/277.0	1.19/397.0	1.19/661.0	1.19/907.0
D-,DR-, DRR-,PLD-LTF(Note 5)	Liquid				2.3/0.80	2.3/1.76	2.3/3.33	2.3/6.51	2.3/11.8	2.3/28.8	2.3/49.8	2.3/78.8	2.3/112.0	2.3/137.0	2.3/182.0	2.3/223.0	2.3/291.0	2.3/424.0	2.3/671.0	2.3/975.0
D-,DR-, DRR-, PLD-LTF(Note 5)	Gas				2.3/0.80	2.3/1.76	2.3/3.33	2.3/6.51	2.3/11.8	2.3/28.8	2.3/49.8	2.3/78.8	2.3/112.0	2.3/137.0	2.3/182.0	2.3/223.0	2.3/291.0	2.3/424.0	2.3/671.0	2.3/975.0
DV-,DRV-,DSV-, DRSV-,PLDV-LTF(Note 5)	Liquid				2.2/0.57	2.2/1.44	2.2/2.24	2.2/5.41	2.2/9.6	2.2/23.7	2.2/44.1	2.2/70.8	2.2/101.0	2.2/130.0	2.2/176.0	2.2/202.0	2.2/280.0	2.2/380.0	2.2/615.0	2.2/927.0
DV-,DRV-,DSV-, DRSV-,PLDV-LTF(Note 5)	Gas				2.2/0.57	2.2/1.44	2.2/2.24	2.2/5.41	2.2/9.6	2.2/23.7	2.2/44.1	2.2/70.8	2.2/101.0	2.2/130.0	2.2/176.0	2.2/202.0	2.2/280.0	2.2/380.0	2.2/615.0	2.2/927.0
DV, DRV, DSV, DRSV, PLDV	Liquid				2.60/0.57	2.60/1.44	2.60/2.24	2.60/5.41	2.60/9.62	2.60/23.7	2.60/44.1	2.60/70.8	2.60/101.0	2.60/130.0	2.60/176.0	2.60/202.0	2.60/279.0	2.60/380.0	2.60/615.0	2.60/927.0
DV, DRV, DSV, DRSV, PLDV	Gas				1.19/0.69	1.19/1.62	1.19/2.94	1.19/6.49	1.19/11.0	1.19/25.9	1.19/47.1	1.19/74.6	1.19/106.0	1.19/135.0	1.19/176.0	1.19/223.0	1.19/277.0	1.19/397.0	1.19/660.0	1.19/907.0
AV	Liquid				4.35/0.86	4.35/2.03	4.35/3.35	4.35/7.39	4.35/12.7	4.35/28.8	4.35/50.0	4.35/78.8	4.35/113.0	4.35/137.0	4.35/182.0	4.35/233.0	4.35/291.0	4.35/424.0	4.35/671.0	4.35/975.0
AV	Gas				4.35/0.86	4.35/2.03	4.35/3.35	4.35/7.39	4.35/12.7	4.35/28.8	4.35/50.0	4.35/78.8	4.35/113.0	4.35/137.0	4.35/182.0	4.35/233.0	4.35/291.0	4.35/424.0	4.35/671.0	4.35/975.0
CSR (w/ or w/o Liners)	Liquid				3.19/0.86	3.19/2.03	3.19/3.35	3.19/7.39	3.19/12.7	3.19/28.8	3.19/50.0									
CSR (w/ or w/o Liners)	Gas				1.0/0.86	1.0/2.03	1.0/3.35	1.0/7.39	1.0/12.7	1.0/28.8	1.0/50.0									
CSI (w/ or w/o Liners)	Liquid				6.92/0.86	6.92/1.89	6.92/3.35	6.92/7.29	6.92/11.2	6.92/22.6	6.92/42.7									
CSI (w/ or w/o Liners)	Gas				0.62/0.86	0.62/1.89	0.62/3.35	0.62/7.29	0.62/11.2	0.62/22.6	0.62/42.7									
Sigma (Series)	Liquid				1.25/0.86	1.25/1.93	1.25/3.36	1.25/7.39	1.25/12.7	1.25/28.8	1.25/50.0									
Sigma (Series)	Gas				0.38/0.86	0.38/1.93	0.38/3.36	0.38/7.39	0.38/12.7	0.38/28.8	0.38/50.0									
LPS	Liquid				0.86/0.86	0.86/1.93	0.86/3.36	0.86/7.39	0.86/12.7	0.86/28.8	0.86/50.0									
LPS	Gas				0.79/0.86	0.79/1.93	0.79/3.36	0.79/7.39	0.79/12.7	0.79/28.8	0.79/50.0									
S-90 (w/ or w/o Liners)	Gas				1.13/0.86	1.13/2.03	1.13/3.35	1.13/7.39	1.13/12.7	1.13/28.8	1.13/50.0	1.13/78.8	1.13/111.0	1.13/135.0	1.13/176.0	1.13/223.0	1.13/277.0	1.13/402.0	1.13/672.0	
S-90 (Note 1)	Gas				0.23/0.86	0.23/2.03	0.23/3.35	0.23/7.39	0.23/12.7	0.23/28.8	0.23/50.0	0.23/78.8	0.23/111.0	0.23/135.0	0.23/176.0	0.23/223.0	0.23/277.0	0.23/402.0	0.23/672.0	
S-90 Double Disk Assembly	Gas				1.13/0.86	1.13/2.03	1.13/3.35	1.13/7.39	1.13/12.7	1.13/28.8	1.13/50.0	1.13/78.8	1.13/111.0	1.13/135.0	1.13/176.0	1.13/223.0	1.13/277.0	1.13/402.0	1.13/672.0	
SVI	Gas					11.35/1.37	11.35/2.26	11.35/5.11	11.35/8.66	11.35/20.9	11.35/37.0	11.35/61.0								
MVB	Gas							0.23/7.39												
SRC(Note 3)	Gas						1.1/3.35	1.1/7.39	1.1/12.7	1.1/28.8	1.1/50.0									
JRS	Gas				0.31/0.86	0.31/1.89	0.31/3.35	0.31/6.53	0.31/11.8	0.31/25.0	0.31/42.0	0.31/68.6	0.31/102..0	0.31/121.0	0.31/156.0	0.31/198.0	0.31/246.0	0.31/357.0	0.31/592.0	0.31/868.0
JRS (w/ Liners)	Gas						0.31/3.35	0.31/6.53	0.31/11.8	0.31/25.0	0.31/42.0	0.31/68.6	0.31/102.0	0.31/121.0	0.31/156.0	0.31/198.0	0.31/246.0	0.31/357.0	0.31/592.0	0.31/868.0
JRS Double Disk Assembly	Gas				0.68/0.86	0.68/1.89	0.68/3.35	0.68/6.53	0.68/11.8	0.68/25.0	0.68/42.0	0.68/68.6	0.68/102.0	0.68/121.0	0.68/156.0	0.68/198.0	0.68/246.0	0.68/357.0	0.58/592.0	0.68/868.0
RLS (w/ or w/o Liners)	Liquid			5.83/0.50	5.83/0.84	5.83/1.77	5.83/3.23	5.83/6.44	5.83/11.5	5.83/26.4	5.83/47.0	5.83/73.9	5.83/99.0	5.83/131.0	5.83/172.0	5.83/219.0	5.83/270.0			
RLS (w/ or w/o Liners)	Gas			1.14/0.50	1.14/0.84	1.14/1.77	1.14/3.23	1.14/6.44	1.14/11.5	1.14/26.4	1.14/47.0	1.14/73.9	1.14/99.0	1.14/131.0	1.14/172.0	1.14/219.0	1.14/270.0			
RLS Double Disk Assembly	Liquid				5.83/0.84	5.83/1.77	5.83/3.23	5.83/6.44	5.83/11.5	5.83/26.4	5.83/47.0	5.83/73.9	5.83/99.0	5.83/131.0	5.83/172.0	5.83/219.0	5.83/270.0			
RLS Double Disk Assembly	Gas				1.9/0.84	1.9/1.77	1.9/3.23	1.9/6.44	1.9/11.5	1.9/26.4	1.9/47.0	1.9/73.9	1.9/99.0	1.9/131.0	1.9/172.0	1.9/219.0	1.9/270.0			
SK_R	Liquid				1.9/0.86	1.9/2.04	1.9/3.36	1.9/7.39	1.9/12.7	1.9/28.8	1.9/50.0	1.9/78.8								
SK_R	Gas				0.37/0.86	0.37/2.04	0.37/3.36	0.37/7.39	0.37/12.7	0.37/28.8	0.37/50.0	0.37/78.8								
SK_R-U	Liquid			1.10/0.53	2.20/0.60															
SK_R-U	Gas	0.85/0.30		0.73/0.53	1.25/0.60															
SSR	Liquid				0.52/0.86	0.52/1.93	0.52/3.36	0.52/7.39	0.52/12.74	0.52/28.89	0.52/50.0	0.52/78.8								

SSR	Gas				0.52/0.86	0.52/1.93	0.52/3.36	0.52/7.39	0.52/12.74	0.52/28.89	0.52/50.0	0.52/78.8								
FRS	Gas				0.80/0.86	0.80/1.93	0.80/3.35													
FRS w/liner (Note 3)	Gas				0.80/0.86	0.80/1.93	0.80/3.35													
ECR	Liquid	(Not Tested)																		
ECR (Note 3)	Gas				0.58/0.86	0.58/2.03	0.58/3.35	0.58/7.30	0.58/12.1	0.58/25.4	0.58/43.6	0.58/66.3	0.58/94.7	0.58/118.0	0.58/154.0	0.58/195.0	0.58/241.0	0.58/348.0		
RB-90	Gas				3.47/0.83	3.47/1.80	3.47/3.15	3.47/6.84	3.47/11.8	3.47/25.4	3.47/47.6	3.47/67.6	3.47/101.0	3.47/121.0	3.47/162.0	3.47/209.0	3.47/262.0	3.47/386.0	3.47/617.0	3.47/872.0
MRB	Gas	5.3/0.14		5.3/0.31	5.3/0.55	5.3/1.24	5.3/2.20	5.3/4.50	5.3/8.80	5.3/19.8	5.3/35.2	5.3/55.0								
GFN (w/ or w/o Liners)	Gas				0.55/0.86	0.55/2.03	0.55/3.35	0.55/7.39	0.55/12.7	0.55/28.8	0.55/50.0	0.55/78.8	0.55/111.0	0.55/137.0	0.55/176.0	0.55/223.0	0.55/277.0	0.55/402.0		
MB, AMB (Note 4)	Liquid				0.19/0.86	0.19/2.03	0.19/3.35	0.19/7.39	0.19/12.7	0.19/28.8	0.19/50.0	0.19/78.8	0.19/113.0	0.19/137.0	0.19/182.0	0.19/233.0	0.19/291.0	0.19/424.0		
MB, AMB (Note 4)	Gas				0.19/0.86	0.19/2.03	0.19/3.35	0.19/7.39	0.19/12.7	0.19/28.8	0.19/50.0	0.19/78.8	0.19/113.0	0.19/137.0	0.19/182.0	0.19/233.0	0.19/291.0	0.19/424.0		
MBV, AMBV (bar spt) (Note 4)	Liquid				1.9/0.63	1.9/1.66	1.9/2.69	1.9/5.92	1.9/10.4	1.9/23.1	1.9/40.9	1.9/63.7	1.9/91.5	1.9/110.0	1.9/146.0	1.9/186.0	1.9/232.0	1.9/339.0		
MBV, AMBV (bar spt) (Note 4)	Gas				1.9/0.63	1.9/1.66	1.9/2.69	1.9/5.92	1.9/10.4	1.9/23.1	1.9/40.9	1.9/63.7	1.9/91.5	1.9/110.0	1.9/146.0	1.9/186.0	1.9/232.0	1.9/339.0		
MBV, AMBV (dial spt) (Note 4)	Liquid				5.40/0.298	5.40/1.02	5.40/1.74	5.40/4.20	5.40/7.60	5.40/15.8	5.40/25.8	5.40/41.0	5.40/59.1	5.40/88.3	5.40/95.7	5.40/124.0	5.40/153.0	5.40/226.0		
MBV, AMBV (dial spt) (Note 4)	Gas				5.40/0.298	5.40/1.02	5.40/1.74	5.40/4.20	5.40/7.60	5.40/15.8	5.40/25.8	5.40/41.0	5.40/59.1	5.40/88.3	5.40/95.7	5.40/124.0	5.40/153.0	5.40/226.0		
IMB, AIMB (Note 4)	Liquid				0.31/0.86	0.31/2.03	0.31/3.35	0.31/7.39	0.31/12.7	0.31/28.8	0.31/50.0	0.31/78.8	0.31/113.0	0.31/137.0	0.31/182.0	0.31/233.0	0.31/291.0	0.31/424.0		
IMB, AIMB (Note 4)	Gas				0.31/0.86	0.31/2.03	0.31/3.35	0.31/7.39	0.31/12.7	0.31/28.8	0.31/50.0	0.31/78.8	0.31/113.0	0.31/137.0	0.31/182.0	0.31/233.0	0.31/291.0	0.31/424.0		
IMBL, AIMBL (Note 4)	Liquid				0.31/0.86	0.31/2.03	0.31/3.35	0.31/7.39	0.31/12.7	0.31/28.8	0.31/50.0	0.31/78.8	0.31/113.0	0.31/137.0	0.31/182.0	0.31/233.0	0.31/291.0	0.31/424.0		
IMBL, AIMBL (Note 4)	Gas				0.31/0.86	0.31/2.03	0.31/3.35	0.31/7.39	0.31/12.7	0.31/28.8	0.31/50.0	0.31/78.8	0.31/113.0	0.31/137.0	0.31/182.0	0.31/233.0	0.31/291.0	0.31/424.0		
RE, REA (Note 4)	Liquid				0.15/0.86	0.15/2.03	0.15/3.35	0.15/7.39	0.15/12.7	0.15/28.8	0.15/50.0	0.15/78.8	0.15/113.0	0.15/137.0	0.15/182.0	0.15/233.0	0.15/291.0	0.15/424.0		
RE, REA (Note 4)	Gas				0.15/0.86	0.15/2.03	0.15/3.35	0.15/7.39	0.15/12.7	0.15/28.8	0.15/50.0	0.15/78.8	0.15/113.0	0.15/137.0	0.15/182.0	0.15/233.0	0.15/291.0	0.15/424.0		
REV, REVA (Note 4)	Liquid				3.15/0.69	3.15/1.76	3.15/3.09	3.15/6.29	3.15/10.2	3.15/20.9	3.15/37.1	3.15/56.5	3.15/77.5	3.15/99.1	3.15/125.0	3.15/158.0	3.15/190.0	3.15/269.0		
REV, REVA (Note 4)	Gas				3.15/0.69	3.15/1.76	3.15/3.09	3.15/6.29	3.15/10.2	3.15/20.9	3.15/37.1	3.15/56.5	3.15/77.5	3.15/99.1	3.15/125.0	3.15/158.0	3.15/190.0	3.15/269.0		
REL, RELA (Note 4)	Liquid				0.16/0.86	0.16/2.03	0.16/3.35	0.16/7.39	0.16/12.7	0.16/28.8	0.16/50.0	0.16/78.8	0.16/113.0	0.16/137.0	0.16/182.0	0.16/233.0	0.16/291.0	0.16/424.0		
REL, RELA (Note 4)	Gas				0.16/0.86	0.16/2.03	0.16/3.35	0.16/7.39	0.16/12.7	0.16/28.8	0.16/50.0	0.16/78.8	0.16/113.0	0.16/137.0	0.16/182.0	0.16/233.0	0.16/291.0	0.16/424.0		
GFR-Series (Note 2)	Liquid					11.5/0.79	4.76/1.77													
GFR-Series (Note 2)	Gas				19.14/0.20	9.92/0.79	4.76/1.77	23.47/4.91												
GCR-Series (Note 2)	Liquid					4.95/1.5	2.9/2.7	4.95/5.29	4.95/9.78											
GCR-Series (Note 2)	Gas					1.95/1.5	1.25/2.7	1.95/5.29	1.95/9.78											
GLP-S (Note 3)	Liquid					10.0/0.86	10.0/1.93	10.0/3.36	10.0/7.39											
GLP-S (Note 3)	Gas					10.0/0.86	10.0/1.93	10.0/3.36	10.0/7.39											
A-2 Sta-Kul w/ FRB disk (Note 3)(Note 6)	Gas	2.20/0.19																		
A-6 Sta-Kul, FRB disk (Note 6)	Gas	2.19/0.19																		
A-4 Sta-Kul w/ FRB Disk; 3/8" (Note 3)(Note 6)	Gas	6.9/0.09																		
A-10 Sta-Kul w/ Scored "B" (Note 6)	Gas				0.41/0.78															
Sta-Kul, B disk; 3/4"	Gas			3.85/0.44																
FRB WFT	Gas	35.7/0.21																		
A-6 Sta-Kul, "B" (Note 3)(Note 6)	Gas		6.44/0.19																	
A-6 Sta-Kul, "B" (w/ liner) (Note 3)(Note 6)	Gas		6.44/0.19																	
A-19 Sta-Kul w/ Scored "B" (Note 6)	Gas			0.50/0.44																
FRB w/ 3/4" San'y Connect (Note 3)	Gas/Liquid			12.0/0.22																
FRB w/ 3/4" San'y Connect (Note 3)	Gas			5.9/0.22																
1" Welded FRB w/ 1/2" VCR Conn.	Gas	16.95/0.126																		

General Note: All K_R testing is done using Schedule 40 pipe.

General Note: The data provided herein is valid only when the disk is installed in a safety head (holder) which was concurrently certified with the disk as a device. Contact BS&B for additional information.

General Note: Except for those items highlighted yellow (Note #3), the data provided is valid for pressures equal to or above the catalog minimum pressures.

(Note 1) Data Valid for Alloy 600 Material Of Construction Only (Contact BS&B for minimum burst pressures for which the data is valid) (Values apply to disk with and without liners)

(Note 2) Data applies to GCR- and GFR- Series disks alone, with Fluoropolymer Liners and/or sensors (Contact BS&B for minimum burst pressures for which the data is valid)

(Note 3) Contact BS&B for minimum burst pressures for which the data is valid.

(Note 4) Data is not valid for graphite rupture disks which are equipped with "High Temperature Assemblies"

(Note 5) "LTF" Data for these disks is valid only when installed in a BS&B Type "Lo-To-Flo" Safety Head.

(Note 6) The "connections" for the Sta-Kul disks are:

A-2 1/2" Inlet x Free vented outlet

A-4 3/8" Inlet x 1/2" SAE outlet

A-6 1/2" MPT x 1/2" MPT

A-10 1" MPT Inlet x Free Vented Outlet

A-19 3/4" MPT Inlet x 3/4"; MPT Outlet