

Chapter Comm 45

APPENDIX

The following table provides the flow capacity of various equivalent lengths of discharge piping for conventional relief valves using the formula in s. Comm 45.37 (3).

Pressure-Relief Valve Discharge Line Capacity (lb/min of air) of Various Discharge Line Lengths

| Set (PSIG) | Length (feet) | Nominal Pipe Size, NPS/DN | | | | | | | | | | Set (PSIG) | Length (feet) | Nominal Pipe Size, NPS/DN | | | | | | | | | | | |
|---------------|------------------|---------------------------|------|------|------|------|------|-------|-------|-------|-----|---------------|------------------|---------------------------|-----|------|------|------|------|-------|-------|-----|-----|-----|------|
| | | 0.5 | 0.75 | 1 | 1.25 | 1.5 | 2 | 2.5 | 3 | 4 | 5 | | | 6 | 0.5 | 0.75 | 1 | 1.25 | 1.5 | 2 | 2.5 | 3 | 4 | 5 | 6 |
| | | 15 | 20 | 25 | 32 | 40 | 50 | 65 | 80 | 100 | 125 | | | 150 | 15 | 20 | 25 | 32 | 40 | 50 | 65 | 80 | 100 | 125 | 150 |
| 5 | 2 | 2.8 | 5.8 | 10.7 | 21.3 | 31.4 | 57.8 | 88.8 | 148.0 | 278.9 | 469 | 704 | 50 | 2 | 7.6 | 14.7 | 25.4 | 46.5 | 65.3 | 111.7 | 162.8 | 256 | 451 | 718 | 1045 |
| 5 | 3 | 2.3 | 4.8 | 9.0 | 18.1 | 26.8 | 49.9 | 77.3 | 130.4 | 249.8 | 426 | 647 | 50 | 3 | 6.8 | 13.2 | 23.2 | 43.4 | 61.4 | 106.3 | 156.1 | 248 | 439 | 704 | 1027 |
| 5 | 4 | 2.0 | 4.2 | 7.9 | 16.0 | 23.7 | 44.5 | 69.4 | 117.8 | 228.2 | 393 | 601 | 50 | 4 | 6.1 | 12.2 | 21.6 | 40.8 | 58.1 | 101.6 | 150.2 | 240 | 429 | 691 | 1011 |
| 5 | 5 | 1.8 | 3.8 | 7.1 | 14.4 | 21.5 | 40.6 | 63.5 | 108.3 | 211.4 | 367 | 564 | 50 | 5 | 5.7 | 11.3 | 20.2 | 38.6 | 55.2 | 97.4 | 144.9 | 233 | 419 | 678 | 996 |
| 5 | 6 | 1.7 | 3.5 | 6.6 | 13.3 | 19.8 | 37.5 | 58.9 | 100.8 | 197.8 | 346 | 533 | 50 | 6 | 5.3 | 10.6 | 19.1 | 36.7 | 52.8 | 93.8 | 140.1 | 226 | 410 | 666 | 981 |
| 5 | 8 | 1.5 | 3.0 | 5.7 | 11.6 | 17.4 | 33.1 | 52.0 | 89.5 | 177.0 | 312 | 484 | 50 | 8 | 4.7 | 9.5 | 17.3 | 33.6 | 48.7 | 87.5 | 131.8 | 215 | 393 | 644 | 953 |
| 5 | 10 | 1.3 | 2.7 | 5.1 | 10.5 | 15.7 | 29.9 | 47.1 | 81.3 | 161.7 | 286 | 446 | 50 | 10 | 4.3 | 8.7 | 15.9 | 31.2 | 45.5 | 82.4 | 124.8 | 205 | 378 | 624 | 927 |
| 5 | 15 | 1.1 | 2.2 | 4.2 | 8.6 | 12.9 | 24.7 | 39.2 | 67.9 | 135.9 | 243 | 380 | 50 | 15 | 3.6 | 7.4 | 13.6 | 26.9 | 39.6 | 72.7 | 113.3 | 185 | 347 | 582 | 872 |
| 5 | 20 | 0.9 | 1.9 | 3.7 | 7.5 | 11.3 | 21.6 | 34.2 | 59.4 | 119.5 | 214 | 337 | 50 | 20 | 3.1 | 6.5 | 12.0 | 24.0 | 35.5 | 65.8 | 101.4 | 170 | 323 | 547 | 825 |
| 5 | 25 | 0.8 | 1.7 | 3.3 | 6.7 | 10.1 | 19.4 | 30.8 | 53.5 | 107.9 | 194 | 306 | 50 | 25 | 2.8 | 5.9 | 10.9 | 21.9 | 32.4 | 60.5 | 93.8 | 158 | 303 | 517 | 785 |
| 5 | 30 | 0.8 | 1.6 | 3.0 | 6.2 | 9.3 | 17.8 | 28.2 | 49.1 | 99.1 | 179 | 282 | 50 | 30 | 2.6 | 5.4 | 10.0 | 20.3 | 30.1 | 56.3 | 87.6 | 148 | 286 | 492 | 750 |
| 5 | 40 | 0.7 | 1.4 | 2.6 | 5.3 | 8.0 | 15.4 | 24.5 | 42.8 | 86.5 | 156 | 247 | 50 | 40 | 2.3 | 4.7 | 8.8 | 17.8 | 26.6 | 50.1 | 78.3 | 133 | 260 | 451 | 692 |
| 5 | 60 | 0.5 | 1.1 | 2.1 | 4.4 | 6.6 | 12.6 | 20.1 | 35.1 | 71.2 | 129 | 205 | 50 | 60 | 1.9 | 3.9 | 7.3 | 14.8 | 22.1 | 42.0 | 66.0 | 113 | 224 | 393 | 608 |
| 5 | 100 | 0.4 | 0.9 | 1.7 | 3.4 | 5.1 | 9.8 | 15.6 | 27.3 | 55.6 | 101 | 160 | 50 | 100 | 1.4 | 3.0 | 5.7 | 11.6 | 17.4 | 33.3 | 52.6 | 91 | 182 | 323 | 504 |
| 5 | 160 | 0.3 | 0.7 | 1.3 | 2.7 | 4.0 | 7.8 | 12.4 | 21.7 | 44.1 | 80 | 127 | 50 | 160 | 1.1 | 2.4 | 4.5 | 9.3 | 13.9 | 26.7 | 42.3 | 73 | 148 | 265 | 416 |
| 5 | 250 | 0.3 | 0.6 | 1.0 | 2.1 | 3.2 | 6.2 | 9.9 | 17.4 | 35.3 | 64 | 102 | 50 | 250 | 0.9 | 1.9 | 3.6 | 7.5 | 11.2 | 21.5 | 34.2 | 59 | 120 | 217 | 342 |
| 15 | 2 | 4.6 | 9.3 | 16.7 | 32.0 | 46.0 | 81.6 | 121.8 | 196.5 | 355.2 | 577 | 849 | 75 | 2 | 9.1 | 17.2 | 29.4 | 53.3 | 74.3 | 126.0 | 182.7 | 286 | 501 | 795 | 1154 |
| 15 | 3 | 3.9 | 8.0 | 15.5 | 28.3 | 41.0 | 74.0 | 111.6 | 182.3 | 334.5 | 550 | 815 | 75 | 3 | 8.2 | 15.8 | 27.3 | 50.4 | 70.7 | 121.2 | 176.9 | 279 | 491 | 783 | 1140 |
| 15 | 4 | 3.5 | 7.1 | 13.0 | 25.6 | 37.4 | 68.1 | 103.6 | 170.8 | 317.1 | 526 | 784 | 75 | 4 | 7.5 | 14.6 | 25.7 | 47.8 | 67.6 | 116.9 | 171.6 | 272 | 482 | 772 | 1127 |
| 15 | 5 | 3.1 | 6.5 | 11.9 | 23.6 | 34.6 | 63.5 | 97.1 | 161.2 | 302.2 | 506 | 757 | 75 | 5 | 7.0 | 13.7 | 24.3 | 45.7 | 64.8 | 113.1 | 166.8 | 266 | 474 | 762 | 1114 |
| 15 | 6 | 2.9 | 6.0 | 11.0 | 22.0 | 32.3 | 59.7 | 91.7 | 153.1 | 289.2 | 487 | 732 | 75 | 6 | 6.5 | 13.0 | 23.1 | 43.7 | 62.4 | 109.6 | 162.3 | 260 | 466 | 751 | 1101 |
| 15 | 8 | 2.5 | 5.2 | 9.7 | 19.5 | 28.9 | 53.8 | 83.2 | 140.0 | 267.5 | 455 | 689 | 75 | 8 | 5.9 | 11.8 | 21.1 | 40.6 | 58.3 | 103.4 | 154.4 | 249 | 450 | 732 | 1077 |
| 15 | 10 | 2.3 | 4.7 | 8.8 | 17.8 | 26.3 | 49.3 | 76.7 | 129.7 | 250.1 | 429 | 683 | 75 | 10 | 5.4 | 10.8 | 19.6 | 38.0 | 54.9 | 98.2 | 147.5 | 240 | 437 | 714 | 1054 |
| 15 | 15 | 1.9 | 3.9 | 7.3 | 14.8 | 22.1 | 41.7 | 65.3 | 111.6 | 218.0 | 379 | 583 | 75 | 15 | 4.5 | 9.2 | 16.9 | 33.2 | 48.4 | 88.0 | 133.7 | 220 | 407 | 675 | 1004 |

Pressure-Relief Valve Discharge Line Capacity (lb/min of air) of Various Discharge Line Lengths

| Set Length (PSIG) (feet) | Nominal Pipe Size, NPS/DN | | | | | | | | | | | | Set Length (PSIG) (feet) | Nominal Pipe Size, NPS/DN | | | | | | | | | | | |
|--------------------------|---------------------------|---------|------|---------|--------|------|--------|-------|-------|-------|-------|--------|--------------------------|---------------------------|------|---------|--------|------|--------|-------|-------|-------|-------|------|--|
| | 0.5 15 | 0.75 20 | 1 25 | 1.25 32 | 1.5 40 | 2 50 | 2.5 65 | 3 80 | 4 100 | 5 125 | 6 150 | 0.5 15 | | 0.75 20 | 1 25 | 1.25 32 | 1.5 40 | 2 50 | 2.5 65 | 3 80 | 4 100 | 5 125 | 6 150 | | |
| 15 20 | 1.6 | 3.4 | 6.4 | 13.0 | 19.4 | 36.8 | 57.9 | 99.4 | 195.8 | 344 | 532 | 75 | 20 | 4.0 | 8.2 | 15.1 | 29.9 | 43.8 | 80.5 | 123.1 | 204 | 383 | 641 | 960 | |
| 15 25 | 1.5 | 3.1 | 5.7 | 11.7 | 17.5 | 33.3 | 52.5 | 90.5 | 179.3 | 316 | 492 | 75 | 25 | 3.6 | 7.4 | 13.7 | 27.4 | 40.3 | 74.6 | 114.8 | 192 | 363 | 612 | 921 | |
| 15 30 | 1.3 | 2.8 | 5.3 | 10.7 | 16.1 | 30.7 | 48.4 | 83.6 | 166.3 | 295 | 460 | 75 | 30 | 3.3 | 6.8 | 12.7 | 25.4 | 37.6 | 69.8 | 107.9 | 181 | 345 | 587 | 887 | |
| 15 40 | 1.2 | 2.4 | 4.6 | 9.4 | 14.0 | 26.8 | 42.4 | 73.5 | 147.1 | 262 | 411 | 75 | 40 | 2.9 | 6.0 | 11.2 | 22.5 | 33.4 | 62.5 | 97.2 | 164 | 317 | 544 | 828 | |
| 15 60 | 1.0 | 2.0 | 3.8 | 7.7 | 11.6 | 22.1 | 35.1 | 61.0 | 122.7 | 220 | 347 | 75 | 60 | 2.4 | 5.0 | 9.3 | 16.8 | 28.0 | 52.9 | 82.8 | 141 | 276 | 481 | 739 | |
| 15 100 | 0.7 | 1.5 | 2.9 | 6.0 | 9.0 | 17.3 | 27.5 | 47.9 | 96.8 | 175 | 276 | 75 | 100 | 1.9 | 3.9 | 7.3 | 14.8 | 22.2 | 42.2 | 66.5 | 115 | 227 | 401 | 623 | |
| 15 160 | 0.6 | 1.2 | 2.3 | 4.7 | 7.1 | 13.7 | 21.8 | 38.1 | 77.3 | 140 | 222 | 75 | 160 | 1.5 | 3.1 | 5.8 | 11.9 | 17.8 | 34.0 | 53.8 | 93 | 186 | 332 | 520 | |
| 15 250 | 0.5 | 1.0 | 1.9 | 3.8 | 5.7 | 11.0 | 17.5 | 30.6 | 62.3 | 113 | 179 | 75 | 250 | 1.2 | 2.5 | 4.7 | 9.6 | 14.4 | 27.5 | 43.6 | 76 | 153 | 274 | 432 | |
| 25 2 | 5.7 | 11.3 | 20.0 | 37.6 | 53.5 | 93.2 | 137.5 | 219.2 | 390.5 | 628 | 918 | 100 | 2 | 10.3 | 19.4 | 32.9 | 59.3 | 82.2 | 138.8 | 200.8 | 314 | 547 | 868 | 1258 | |
| 25 3 | 4.9 | 9.9 | 17.8 | 34.0 | 48.8 | 86.5 | 128.8 | 207.5 | 374.4 | 608 | 893 | 100 | 3 | 9.4 | 17.9 | 30.9 | 56.4 | 78.9 | 134.4 | 195.4 | 307 | 539 | 857 | 1246 | |
| 25 4 | 4.4 | 8.9 | 16.2 | 31.3 | 45.3 | 81.0 | 121.6 | 197.6 | 360.1 | 589 | 869 | 100 | 4 | 8.7 | 16.8 | 29.2 | 54.0 | 75.9 | 130.3 | 190.4 | 301 | 531 | 847 | 1234 | |
| 25 5 | 4.0 | 8.2 | 14.9 | 29.1 | 42.3 | 76.4 | 115.5 | 188.9 | 347.3 | 572 | 848 | 100 | 5 | 8.1 | 15.8 | 27.8 | 51.8 | 73.2 | 126.6 | 185.9 | 295 | 523 | 837 | 1222 | |
| 25 6 | 3.7 | 7.6 | 13.9 | 27.4 | 39.9 | 72.6 | 110.2 | 181.3 | 335.8 | 556 | 828 | 100 | 6 | 7.6 | 15.0 | 26.5 | 49.9 | 70.8 | 123.2 | 181.7 | 289 | 515 | 828 | 1210 | |
| 25 8 | 3.3 | 6.7 | 12.4 | 24.6 | 36.1 | 66.4 | 101.5 | 168.5 | 315.9 | 529 | 791 | 100 | 8 | 6.9 | 13.7 | 24.5 | 46.6 | 66.6 | 117.2 | 174.0 | 279 | 501 | 810 | 1188 | |
| 25 10 | 3.0 | 6.1 | 11.3 | 22.6 | 33.3 | 61.5 | 94.6 | 158.1 | 299.1 | 505 | 759 | 100 | 10 | 6.3 | 12.7 | 22.8 | 43.9 | 63.1 | 112.0 | 167.2 | 270 | 488 | 793 | 1167 | |
| 25 15 | 2.5 | 5.1 | 9.5 | 19.1 | 28.3 | 52.9 | 82.1 | 138.7 | 266.6 | 457 | 694 | 100 | 15 | 5.4 | 10.9 | 19.9 | 38.7 | 56.3 | 101.4 | 153.1 | 250 | 459 | 756 | 1120 | |
| 25 20 | 2.1 | 4.5 | 8.3 | 16.8 | 25.0 | 47.1 | 73.5 | 125.0 | 242.9 | 420 | 643 | 100 | 20 | 4.7 | 9.7 | 17.8 | 35.1 | 51.3 | 93.4 | 142.1 | 234 | 435 | 723 | 1077 | |
| 25 25 | 1.9 | 4.0 | 7.5 | 15.2 | 22.7 | 42.9 | 67.1 | 114.7 | 224.5 | 391 | 602 | 100 | 25 | 4.3 | 8.8 | 16.3 | 32.3 | 47.4 | 87.0 | 133.2 | 221 | 415 | 694 | 1039 | |
| 25 30 | 1.8 | 3.7 | 6.9 | 14.0 | 20.9 | 39.6 | 62.2 | 106.6 | 209.8 | 367 | 568 | 100 | 30 | 4.0 | 8.2 | 15.1 | 30.1 | 44.3 | 81.8 | 125.8 | 210 | 397 | 668 | 1005 | |
| 25 40 | 1.5 | 3.2 | 6.0 | 12.2 | 18.3 | 34.8 | 54.9 | 94.5 | 187.3 | 331 | 514 | 100 | 40 | 3.5 | 7.2 | 13.3 | 26.7 | 39.5 | 73.7 | 114.0 | 192 | 367 | 625 | 946 | |
| 25 60 | 1.3 | 2.6 | 4.9 | 10.1 | 15.1 | 28.9 | 45.7 | 79.1 | 158.0 | 281 | 440 | 100 | 60 | 2.9 | 5.9 | 11.1 | 22.4 | 33.4 | 62.7 | 97.9 | 166 | 323 | 558 | 853 | |
| 25 100 | 1.0 | 2.0 | 3.8 | 7.9 | 11.8 | 22.7 | 36.0 | 62.5 | 125.8 | 226 | 356 | 100 | 100 | 2.2 | 4.7 | 8.7 | 17.8 | 26.6 | 50.4 | 79.2 | 136 | 268 | 471 | 728 | |
| 25 160 | 0.8 | 1.6 | 3.1 | 6.3 | 9.4 | 18.1 | 28.7 | 50.0 | 101.1 | 183 | 289 | 100 | 160 | 1.8 | 3.7 | 7.0 | 14.3 | 21.4 | 40.7 | 64.3 | 111 | 222 | 393 | 614 | |
| 25 250 | 0.6 | 1.3 | 2.4 | 5.0 | 7.6 | 14.5 | 32.1 | 40.3 | 81.7 | 148 | 235 | 100 | 250 | 1.4 | 3.0 | 5.6 | 11.5 | 17.3 | 33.0 | 52.3 | 91 | 182 | 326 | 513 | |

Notes: SI Conversions; kPa = psig × 6.895, mm = inches × 25.4, kg/s = lb/min × 0.007559, m = feet × 0.3048.

Pressure-Relief Valve Discharge Line Capacity (lb/min of air) of Various Discharge Line Lengths

| Set (PSIG) | Length (feet) | Nominal Pipe Size, NPS/DN | | | | | | | | | | | Set (PSIG) | Length (feet) | Nominal Pipe Size, NPS/DN | | | | | | | | | | |
|------------|---------------|---------------------------|------|------|------|-------|-------|-------|-----|-----|------|------|------------|---------------|---------------------------|------|------|-------|-------|-------|-----|-----|-----|------|------|
| | | 0.5 | 0.75 | 1 | 1.25 | 1.5 | 2 | 2.5 | 3 | 4 | 5 | 6 | | | 0.5 | 0.75 | 1 | 1.25 | 1.5 | 2 | 2.5 | 3 | 4 | 5 | 6 |
| | | 15 | 20 | 25 | 32 | 40 | 50 | 65 | 80 | 100 | 125 | 150 | | | 15 | 20 | 25 | 32 | 40 | 50 | 65 | 80 | 100 | 125 | 150 |
| 150 | 2 | 12.5 | 23.3 | 39.2 | 70.1 | 96.8 | 162.7 | 234.5 | 366 | 636 | 1006 | 1457 | 300 | 2 | 18.4 | 33.7 | 56.1 | 99.4 | 136.7 | 228.3 | 328 | 510 | 884 | 1395 | 2019 |
| 150 | 3 | 11.6 | 21.8 | 37.2 | 67.4 | 93.7 | 158.5 | 229.6 | 360 | 628 | 996 | 1446 | 300 | 3 | 17.3 | 32.1 | 54.0 | 96.0 | 133.5 | 224.2 | 323 | 504 | 877 | 1386 | 2009 |
| 150 | 4 | 10.8 | 20.6 | 35.5 | 64.9 | 90.8 | 154.7 | 225.1 | 354 | 621 | 987 | 1435 | 300 | 4 | 16.4 | 30.8 | 52.2 | 94.1 | 130.6 | 220.4 | 319 | 498 | 869 | 1378 | 1998 |
| 150 | 5 | 10.2 | 19.6 | 34.0 | 62.8 | 88.1 | 151.2 | 220.7 | 348 | 613 | 979 | 1425 | 300 | 5 | 15.6 | 29.6 | 50.5 | 91.7 | 127.8 | 216.8 | 314 | 493 | 862 | 1369 | 1988 |
| 150 | 6 | 9.6 | 18.7 | 32.7 | 60.8 | 85.7 | 147.8 | 216.6 | 343 | 606 | 970 | 1414 | 300 | 6 | 14.9 | 28.5 | 49.0 | 89.6 | 125.2 | 213.4 | 310 | 488 | 856 | 1361 | 1978 |
| 150 | 8 | 8.8 | 17.3 | 30.5 | 57.3 | 81.4 | 141.8 | 209.1 | 333 | 593 | 954 | 1394 | 300 | 8 | 13.8 | 26.6 | 46.3 | 85.6 | 120.4 | 206.9 | 302 | 478 | 843 | 1345 | 1959 |
| 150 | 10 | 8.1 | 16.1 | 28.7 | 54.4 | 77.7 | 136.5 | 202.3 | 324 | 581 | 938 | 1375 | 300 | 10 | 12.8 | 25.1 | 44.1 | 82.2 | 116.2 | 201.0 | 295 | 468 | 830 | 1330 | 1940 |
| 150 | 15 | 6.9 | 14.0 | 25.2 | 48.7 | 70.3 | 125.4 | 187.8 | 304 | 553 | 902 | 1330 | 300 | 15 | 11.2 | 22.2 | 39.6 | 75.1 | 107.2 | 188.3 | 279 | 447 | 801 | 1293 | 1895 |
| 150 | 20 | 6.2 | 12.5 | 22.8 | 44.5 | 64.6 | 116.6 | 176.0 | 288 | 529 | 870 | 1289 | 300 | 20 | 10.0 | 20.1 | 36.2 | 69.6 | 100.1 | 177.7 | 265 | 428 | 775 | 1260 | 1853 |
| 150 | 25 | 5.6 | 11.4 | 21.0 | 41.2 | 60.2 | 109.4 | 166.2 | 274 | 507 | 841 | 1251 | 300 | 25 | 9.2 | 18.6 | 33.6 | 65.2 | 94.2 | 168.7 | 253 | 412 | 751 | 1229 | 1814 |
| 150 | 30 | 5.2 | 10.6 | 19.5 | 38.6 | 56.5 | 103.4 | 157.9 | 261 | 488 | 815 | 1217 | 300 | 30 | 8.5 | 17.3 | 31.5 | 61.5 | 89.2 | 160.9 | 243 | 397 | 729 | 1200 | 1777 |
| 150 | 40 | 4.5 | 9.4 | 17.3 | 34.5 | 50.8 | 93.9 | 144.5 | 241 | 456 | 769 | 1156 | 300 | 40 | 7.5 | 15.4 | 28.2 | 55.6 | 81.3 | 148.2 | 225 | 372 | 691 | 1148 | 1710 |
| 150 | 60 | 3.8 | 7.8 | 14.5 | 29.2 | 43.3 | 80.8 | 125.4 | 212 | 407 | 696 | 1058 | 300 | 60 | 6.3 | 12.9 | 23.9 | 47.7 | 70.2 | 129.7 | 199 | 333 | 639 | 1061 | 1595 |
| 150 | 100 | 2.9 | 6.1 | 11.5 | 23.3 | 34.7 | 65.6 | 102.7 | 175 | 343 | 597 | 918 | 300 | 100 | 4.9 | 10.3 | 19.1 | 38.5 | 57.2 | 107.1 | 167 | 282 | 544 | 934 | 1422 |
| 150 | 160 | 2.3 | 4.9 | 9.2 | 18.7 | 28.0 | 53.3 | 84.0 | 145 | 286 | 505 | 785 | 300 | 160 | 3.9 | 8.2 | 15.4 | 31.3 | 46.6 | 88.1 | 138 | 236 | 463 | 807 | 1243 |
| 150 | 250 | 1.9 | 3.9 | 7.4 | 15.2 | 22.7 | 43.4 | 68.6 | 119 | 238 | 423 | 662 | 300 | 250 | 3.2 | 6.6 | 12.5 | 25.4 | 38.0 | 72.3 | 114 | 196 | 389 | 687 | 1068 |
| 200 | 2 | 14.6 | 26.9 | 45.0 | 80.2 | 110.6 | 185.2 | 266.6 | 415 | 721 | 1139 | 1649 | 350 | 2 | 20.3 | 37.0 | 61.4 | 108.6 | 149 | 249 | 358 | 556 | 963 | 1519 | 2199 |
| 200 | 3 | 13.6 | 25.4 | 43.1 | 77.5 | 107.4 | 181.2 | 261.9 | 409 | 713 | 1130 | 1638 | 350 | 3 | 19.1 | 35.3 | 59.3 | 105.8 | 146 | 245 | 353 | 550 | 956 | 1510 | 2189 |
| 200 | 4 | 12.7 | 24.2 | 41.3 | 75.1 | 104.6 | 177.4 | 257.4 | 404 | 706 | 1121 | 1628 | 350 | 4 | 18.1 | 33.9 | 57.4 | 103.3 | 143 | 241 | 348 | 544 | 949 | 1502 | 2178 |
| 200 | 5 | 12.0 | 23.1 | 39.8 | 72.8 | 101.9 | 173.9 | 253.1 | 398 | 699 | 1113 | 1618 | 350 | 5 | 17.3 | 32.7 | 55.7 | 100.9 | 140 | 237 | 344 | 539 | 941 | 1493 | 2168 |
| 200 | 6 | 11.5 | 22.1 | 38.4 | 70.8 | 99.4 | 170.6 | 249.1 | 393 | 692 | 1105 | 1608 | 350 | 6 | 16.6 | 31.5 | 54.1 | 98.6 | 137 | 234 | 340 | 534 | 935 | 1484 | 2158 |
| 200 | 8 | 10.5 | 20.5 | 36.0 | 67.2 | 95.0 | 164.5 | 241.5 | 383 | 679 | 1089 | 1588 | 350 | 8 | 15.3 | 29.6 | 51.3 | 94.5 | 132 | 227 | 331 | 523 | 921 | 1468 | 2139 |
| 200 | 10 | 9.7 | 19.2 | 34.0 | 64.1 | 91.1 | 159.0 | 234.6 | 374 | 667 | 1073 | 1570 | 350 | 10 | 14.4 | 28.0 | 48.9 | 90.9 | 128 | 221 | 324 | 514 | 908 | 1452 | 2120 |
| 200 | 15 | 8.4 | 16.8 | 30.2 | 57.9 | 83.2 | 147.3 | 219.6 | 354 | 639 | 1038 | 1525 | 350 | 15 | 12.5 | 24.8 | 44.1 | 83.5 | 119 | 208 | 307 | 492 | 879 | 1414 | 2075 |
| 200 | 20 | 7.5 | 15.2 | 27.5 | 53.2 | 77.0 | 137.9 | 207.2 | 337 | 614 | 1005 | 1485 | 350 | 20 | 11.3 | 22.6 | 40.5 | 77.6 | 111 | 196 | 293 | 473 | 852 | 1379 | 2032 |

Pressure-Relief Valve Discharge Line Capacity (lb/min of air) of Various Discharge Line Lengths

| Set (PSIG) | Length (feet) | Nominal Pipe Size, NPS/DN | | | | | | | | | | | Set (PSIG) | Length (feet) | Nominal Pipe Size, NPS/DN | | | | | | | | | | |
|---------------|------------------|---------------------------|------|------|------|-------|-------|-------|-----|-----|------|------|---------------|------------------|---------------------------|------|------|-------|-------|-------|-----|-----|------|------|------|
| | | 0.5 | 0.75 | 1 | 1.25 | 1.5 | 2 | 2.5 | 3 | 4 | 5 | 6 | | | 0.5 | 0.75 | 1 | 1.25 | 1.5 | 2 | 2.5 | 3 | 4 | 5 | 6 |
| | | 15 | 20 | 25 | 32 | 40 | 50 | 65 | 80 | 100 | 125 | 150 | | | 15 | 20 | 25 | 32 | 40 | 50 | 65 | 80 | 100 | 125 | 150 |
| 200 | 25 | 6.8 | 13.9 | 24.3 | 49.5 | 72.0 | 130.1 | 196.6 | 322 | 592 | 967 | 1447 | 350 | 25 | 10.3 | 20.8 | 37.6 | 72.8 | 105 | 187 | 280 | 455 | 827 | 1347 | 1992 |
| 200 | 30 | 6.3 | 12.9 | 23.6 | 46.5 | 67.9 | 123.4 | 187.6 | 309 | 572 | 949 | 1412 | 350 | 30 | 9.6 | 19.4 | 35.3 | 68.8 | 99 | 178 | 269 | 440 | 804 | 1317 | 1954 |
| 200 | 40 | 5.6 | 11.4 | 21.1 | 41.8 | 61.4 | 112.8 | 172.6 | 287 | 538 | 901 | 1349 | 350 | 40 | 8.5 | 17.3 | 31.7 | 62.4 | 91 | 163 | 250 | 413 | 764 | 1262 | 1885 |
| 200 | 60 | 4.6 | 9.6 | 17.7 | 35.5 | 52.5 | 97.7 | 151.1 | 254 | 484 | 823 | 1245 | 350 | 60 | 7.1 | 14.6 | 26.9 | 53.7 | 79 | 145 | 222 | 372 | 699 | 1170 | 1765 |
| 200 | 100 | 3.6 | 7.5 | 14.1 | 28.5 | 42.4 | 79.9 | 124.7 | 212 | 413 | 714 | 1094 | 350 | 100 | 5.6 | 11.6 | 21.6 | 43.5 | 64 | 120 | 186 | 316 | 607 | 1034 | 1582 |
| 200 | 160 | 2.9 | 6.0 | 11.3 | 23.0 | 34.4 | 65.2 | 102.5 | 176 | 347 | 610 | 944 | 350 | 160 | 4.5 | 9.3 | 17.4 | 35.4 | 52 | 99 | 155 | 266 | 519 | 897 | 1390 |
| 200 | 250 | 2.3 | 4.9 | 9.1 | 18.6 | 27.9 | 53.3 | 84.1 | 145 | 290 | 514 | 802 | 350 | 250 | 3.6 | 7.5 | 14.1 | 28.8 | 43 | 81 | 128 | 222 | 438 | 766 | 1200 |
| 250 | 2 | 16.5 | 30.4 | 50.7 | 89.9 | 123.8 | 207.0 | 297.7 | 463 | 803 | 1268 | 1836 | 400 | 2 | 22.0 | 40.2 | 66.6 | 117.7 | 161.7 | 269.6 | 387 | 601 | 1041 | 1642 | 2376 |
| 250 | 3 | 15.5 | 28.8 | 48.6 | 87.2 | 120.7 | 203.0 | 293.0 | 457 | 796 | 1260 | 1826 | 400 | 3 | 20.9 | 38.5 | 64.5 | 114.8 | 158.4 | 265.5 | 382 | 595 | 1034 | 1633 | 2366 |
| 250 | 4 | 14.6 | 27.5 | 46.9 | 84.7 | 117.8 | 199.3 | 288.5 | 452 | 789 | 1251 | 1815 | 400 | 4 | 19.8 | 37.0 | 62.5 | 112.2 | 155.3 | 261.5 | 378 | 589 | 1026 | 1625 | 2355 |
| 250 | 5 | 13.8 | 26.4 | 45.2 | 82.4 | 115.1 | 195.7 | 284.2 | 446 | 782 | 1243 | 1805 | 400 | 5 | 18.9 | 35.7 | 60.7 | 109.7 | 152.4 | 257.7 | 373 | 584 | 1019 | 1616 | 2345 |
| 250 | 6 | 13.2 | 25.4 | 43.8 | 80.3 | 112.5 | 192.3 | 280.2 | 441 | 775 | 1234 | 1795 | 400 | 6 | 18.2 | 34.5 | 59.1 | 107.4 | 149.6 | 254.1 | 369 | 578 | 1012 | 1608 | 2335 |
| 250 | 8 | 12.2 | 23.6 | 41.3 | 76.6 | 107.9 | 186.1 | 272.5 | 431 | 762 | 1219 | 1776 | 400 | 8 | 16.9 | 32.5 | 56.1 | 103.1 | 144.5 | 247.3 | 360 | 568 | 999 | 1591 | 2315 |
| 250 | 10 | 11.3 | 22.2 | 39.1 | 73.3 | 103.9 | 180.4 | 265.4 | 422 | 750 | 1203 | 1757 | 400 | 10 | 15.8 | 30.7 | 53.6 | 99.3 | 139.9 | 241.0 | 353 | 558 | 986 | 1575 | 2295 |
| 250 | 15 | 9.8 | 19.6 | 35.0 | 66.7 | 95.4 | 168.2 | 249.8 | 401 | 721 | 1167 | 1713 | 400 | 15 | 13.9 | 27.4 | 48.5 | 91.5 | 130.1 | 227.1 | 335 | 535 | 955 | 1537 | 2249 |
| 250 | 20 | 8.8 | 17.7 | 31.9 | 61.5 | 88.7 | 158.1 | 236.7 | 383 | 696 | 1135 | 1672 | 400 | 20 | 12.5 | 24.9 | 44.6 | 85.2 | 122.0 | 215.4 | 320 | 515 | 927 | 1502 | 2205 |
| 250 | 25 | 8.0 | 16.3 | 29.5 | 57.5 | 83.3 | 149.7 | 225.5 | 368 | 673 | 1104 | 1634 | 400 | 25 | 11.4 | 23.0 | 41.6 | 80.1 | 115.3 | 205.4 | 307 | 497 | 902 | 1469 | 2164 |
| 250 | 30 | 7.4 | 15.1 | 27.6 | 54.1 | 78.7 | 142.5 | 215.7 | 354 | 652 | 1076 | 1598 | 400 | 30 | 10.6 | 21.5 | 39.0 | 75.8 | 109.6 | 196.6 | 296 | 481 | 878 | 1438 | 2125 |
| 250 | 40 | 6.5 | 13.4 | 24.7 | 48.8 | 71.5 | 130.7 | 199.5 | 330 | 616 | 1026 | 1533 | 400 | 40 | 9.4 | 19.2 | 35.1 | 68.9 | 100.4 | 182.0 | 276 | 453 | 836 | 1382 | 2052 |
| 250 | 60 | 5.4 | 11.3 | 20.9 | 41.7 | 61.5 | 114.0 | 175.6 | 294 | 558 | 944 | 1423 | 400 | 60 | 7.9 | 16.2 | 26.9 | 59.4 | 87.2 | 160.4 | 246 | 409 | 767 | 1286 | 1927 |
| 250 | 100 | 4.3 | 8.9 | 16.6 | 33.6 | 49.9 | 93.7 | 145.9 | 248 | 479 | 826 | 1261 | 400 | 100 | 6.2 | 12.9 | 24.0 | 48.3 | 71.5 | 133.4 | 207 | 349 | 669 | 1143 | 1734 |
| 250 | 160 | 3.4 | 7.1 | 13.4 | 27.2 | 40.6 | 76.8 | 120.5 | 207 | 406 | 710 | 1096 | 400 | 160 | 5.0 | 10.4 | 19.4 | 39.3 | 58.5 | 110.3 | 173 | 294 | 574 | 996 | 1529 |
| 250 | 250 | 2.7 | 5.8 | 10.8 | 22.1 | 33.0 | 62.9 | 99.2 | 171 | 340 | 602 | 937 | 400 | 250 | 4.0 | 8.4 | 15.7 | 32.0 | 47.9 | 90.9 | 143 | 246 | 468 | 854 | 1324 |

Notes: SI Conversions; kPa = psig × 6.895, mm = inches × 25.4, kg/s = lb/min × 0.007559, m = feet × 0.3048.