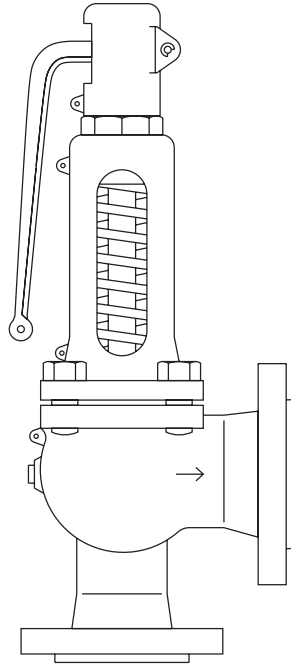


## SV60 안전밸브



### ● 개요

SV60은 전양정식 타입의 플랜지식 밸브로 스팀, 가스 및 액체 시스템에 사용할 수 있다.

### 이용가능타입

| 모델    | 재질     | 보닛, 캡 외형 |                                      |
|-------|--------|----------|--------------------------------------|
| SV604 | 탄소강    | 밀폐형 보닛   | 개방형 이징 레버<br>밀봉 캡                    |
| SV607 | 구상흑연주철 | 개방형 보닛   | 압축 이징 레버-DN20~DN100만 해당<br>개방형 이징 레버 |

### 적용 공정

스팀보일러 및 배관, 압력 용기, 압축기 및 저장 탱크, 기타 일반 산업설비의 공정

### 규격 및 형식 승인

- 한국산업안전공단 형식승인품
- TÜV to AD Merkblatt A2 and TRD421, TRD721, Vd TÜV 100, 100/4
- Seat tightness to ANSI/API Standard 527-1992
- Lloyds Register(LR) type approval procedure TA96-Certificate number 01/00125
- CE 인증

### ● 배관구경

DN20, 25, 32, 40, 50, 65, 80, 100, 125, 150

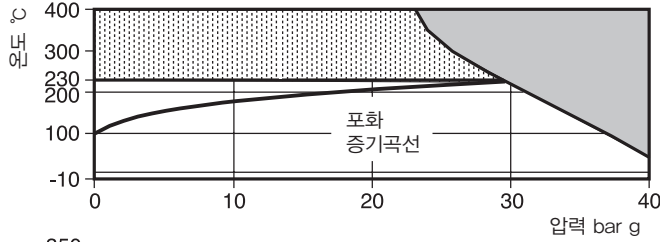
### ● 배관연결방법

| 밸브 타입 | 입구측                  | 출구측            |
|-------|----------------------|----------------|
| SV607 | PN 16 (DN65~DN150까지) | PN16           |
|       | PN25                 | PN16           |
| SV604 | PN40                 | PN16           |
|       | ASME(ANSI) 300       | ASME(ANSI) 150 |

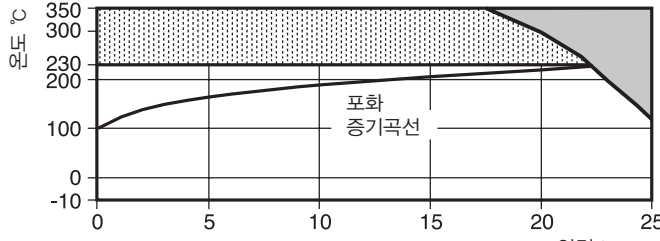
몸체 드레인 홀 규격 : 1½" BSP

● 압력/온도 한계

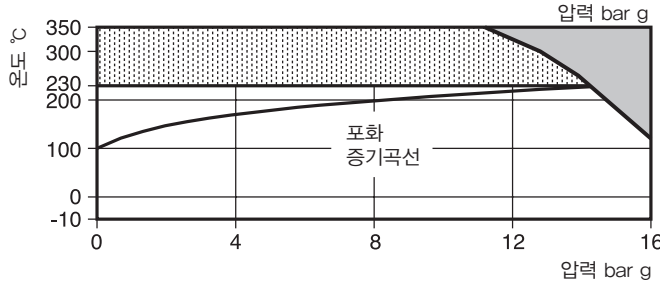
SV604 PN40



SV607 PN25

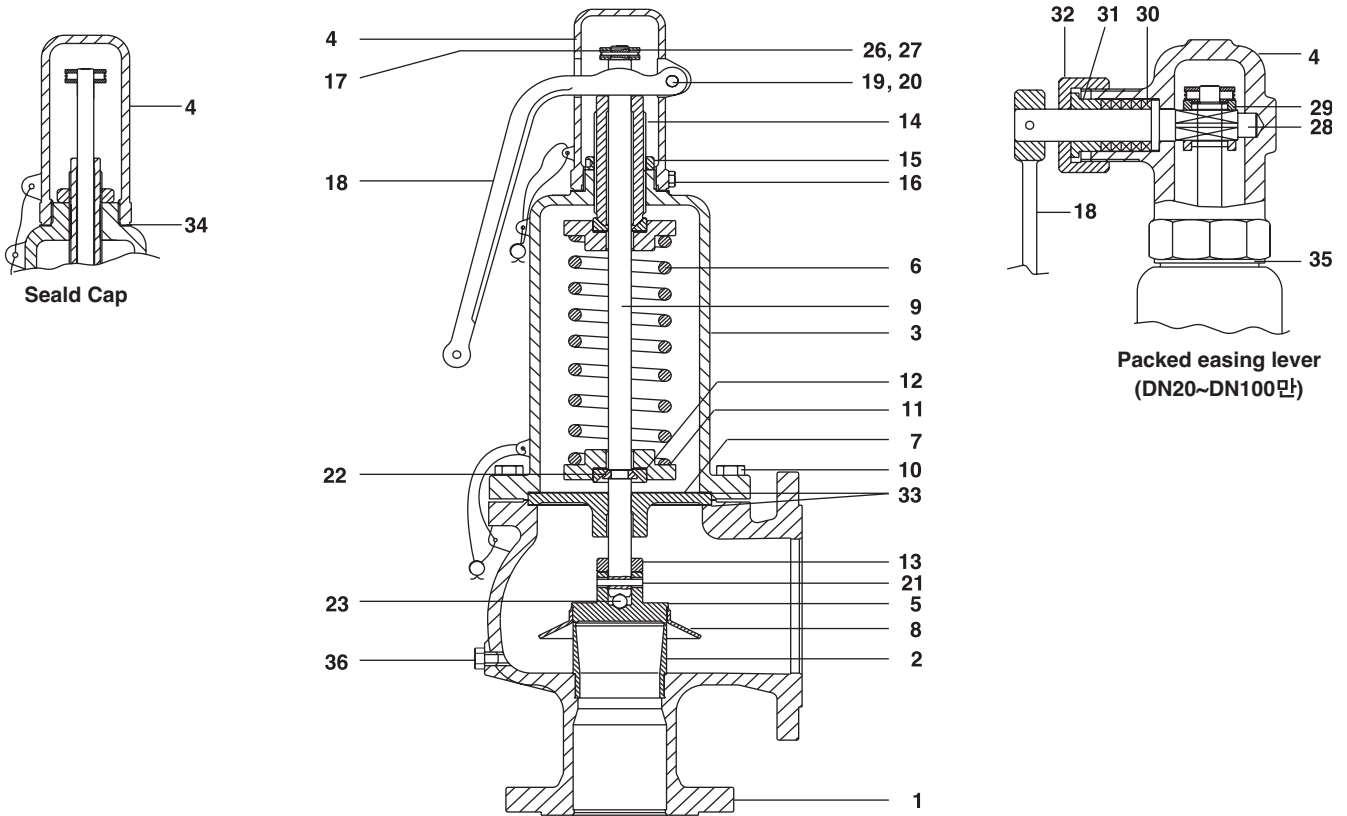


SV607 PN16



이 영역에서 사용할 수 없다.  
 텅스텐 합금 스프링 사용 시 이 영역에서 사용 가능. 스파이렉스사코에 문의

| 몸체설계조건     |  | SV604                  | SV607       | PN40     |
|------------|--|------------------------|-------------|----------|
|            |  | PN16 or PN25           |             |          |
|            |  | 구경                     | 스팀          | 압축공기     |
|            |  |                        |             | 물        |
|            |  | DN20 × DN32            | 29 bar g    | 40 bar g |
|            |  | DN25 × DN40            | 29 bar g    | 40 bar g |
|            |  | DN32 × DN50            | 29 bar g    | 40 bar g |
|            |  | DN40 × DN65            | 29 bar g    | 40 bar g |
|            |  | DN50 × DN80            | 29 bar g    | 40 bar g |
|            |  | DN65 × DN100           | 29 bar g    | 32 bar g |
|            |  | DN80 × DN125           | 29 bar g    | 32 bar g |
|            |  | DN100 × DN150          | 25 bar g    | 25 bar g |
|            |  | DN125 × DN200          | 20 bar g    | 20 bar g |
|            |  | DN150 × DN250          | 16 bar g    | 16 bar g |
| 최대설정압력     |  | DN20 × DN32            | 22.5 bar g  | 25 bar g |
|            |  | DN25 × DN40            | 22.5 bar g  | 25 bar g |
|            |  | DN32 × DN50            | 22.5 bar g  | 25 bar g |
|            |  | DN40 × DN65            | 22.5 bar g  | 25 bar g |
|            |  | DN50 × DN80            | 22.5 bar g  | 25 bar g |
|            |  | DN65 × DN100           | 22.5 bar g  | 25 bar g |
|            |  | DN80 × DN125           | 22.5 bar g  | 25 bar g |
|            |  | DN100 × DN150          | 22.5 bar g  | 25 bar g |
|            |  | DN125 × DN200          | 20 bar g    | 20 bar g |
|            |  | DN150 × DN250          | 16 bar g    | 16 bar g |
|            |  | DN65 × DN100           | 14.6 bar g  | 16 bar g |
|            |  | DN80 × DN125           | 14.6 bar g  | 16 bar g |
|            |  | DN100 × DN150          | 14.6 bar g  | 16 bar g |
|            |  | DN125 × DN200          | 14.6 bar g  | 16 bar g |
|            |  | DN150 × DN250          | 14.6 bar g  | 16 bar g |
| 최소설정압력     |  | SV604, SV607 0.2 bar g |             |          |
| 온도         |  | SV604 400°C            |             |          |
|            |  | SV607 350°C            |             |          |
|            |  | SV604, SV607 -10°C     |             |          |
| 성능 데이터     |  | 초과압력                   | 스팀, 가스      | 5%       |
|            |  |                        | 액체          | 10%      |
|            |  | 블로우다운                  | 스팀, 가스      | 10%      |
|            |  |                        | 액체          | 20%      |
|            |  | 배압                     | 설정압력의 10%까지 |          |
|            |  | SV604                  | 60 bar g    |          |
| 최대설계수압시험압력 |  | SV607                  | PN25        | 38 bar g |
|            |  |                        | PN16        | 24 bar g |



● 재 질

| 번호  | 부품명                            | 재질  | SV607 / SV604                                       |
|-----|--------------------------------|---|---|
| 1   | Body                           | SG iron / carbon steel  | GJS-400-18LT / 1.0619 + N                           |
| 2   | Seat                           | Stainless steel   | DN20-DN100 1.4057 or for DN125-DN150 ANC2           |
| 3   | Bonnet                         | SG iron / carbon steel  | GJS-400-18LT / 1.0619 + N                           |
| 4   | Cap                            | SG iron   | GJS-400-15  |
| 5   | Disc                           | Stainless steel,<br>hardened 47-52 HRC(Hardened Rockwell 'C' Scale) | DN20-DN100 1.4021 or for<br>DN125-DN150 CA15        |
| 6   | Spring                         | Standard<br>For temperatures above 230℃                             | Chrome-vanadium alloy steel<br>Tungsten alloy steel |
| 7   | Guide plate                    | SG iron   | GJS-400-15  |
| 8   | Skirt                          | Stainless steel   | DN20-DN100 1.4301 or for DN125-DN150 1.4308         |
| 9   | Stem                           | Stainless steel   | 1.4021  |
| 10  | Body bolts                     | Steel   | CK35  |
| *11 | Spring plate                   | Carbon steel  | C45E  |
| *12 | Bearing ring (DN80~DN150 only) | Stainless steel   | 1.4021  |
| 13  | Spacer                         | Stainless steel   | 1.4021  |
| 14  | Adjustment screw               | Stainless steel   | 1.4021  |
| 15  | Lock-nut                       | Zinc plated carbon steel  |   |
| 16  | Screw                          | Zinc plated steel   |   |
| 17  | Collar                         | Zinc plated carbon steel  |   |
| 18  | Lever                          | SG iron   | GJS-400-15  |
| 19  | Cross pin                      | Zinc plated carbon steel  |   |
| 20  | Circlip                        | Spring steel  |   |
| 21  | Disc pin                       | Spring steel  | DIN 7343, A304                                      |
| 22  | Collets                        | Stainless steel   | 1.4021  |
| 23  | Stem ball                      | Stainless steel   |   |
| 26  | Collar pin                     | Zinc plated carbon steel  |   |
| 27  | Collar circlip                 | Spring stainless steel  |   |
| 28  | Packed lever spindle           | Stainless steel   | ASTM A276 431                                       |
| 29  | Lifting fork                   | Carbon steel  |   |
| 30  | Gland packing                  | Graphite  |   |
| 31  | Gland                          | Stainless steel   | ASTM A276 304                                       |
| 32  | Gland nut                      | Carbon steel  |   |
| 33  | Guide plate gaskets (2 off)    | Reinforced exfoliated graphite                                      |   |
| 34  | Sealed cap gasket              | Universal SA  |   |
| 35  | Packed lever cap gasket        | Universal SA  |   |
| 36  | Body drain plug ½ BSP          | Steel   |   |

\* Note : The spring plate(11) and bearing ring design(12) varies according to the valve size and set pressure.

**Table 1-SV60 안전밸브 용량 - 스팀(kg/h)**  
(EN ISO 4126에 따른 10% 과압 기준의 용량)

| 구경(DN)                | 20 / 32 | 25 / 40 | 32 / 50 | 40 / 65 | 50 / 80 | 65 / 100 | 80 / 125 | 100 / 150 | 125 / 200 | 150 / 250 |
|-----------------------|---------|---------|---------|---------|---------|----------|----------|-----------|-----------|-----------|
| 면적 (mm <sup>2</sup> ) | 230     | 445     | 740     | 1 140   | 1 979   | 2 734    | 4 185    | 6 504     | 8 659     | 12 272    |
| 설정압력 (bar g)          | kg/h    |         |         |         |         |          |          |           |           |           |
| 0.5                   | 129     | 269     | 401     | 525     | 875     | 1357     | 1 889    | 3 053     | 4 299     | 6 203     |
| 1.0                   | 192     | 403     | 608     | 812     | 1 315   | 2 014    | 2 831    | 4 635     | 6 380     | 9 190     |
| 1.5                   | 254     | 538     | 816     | 1 102   | 1 764   | 2 726    | 3 793    | 6 190     | 8 502     | 12 235    |
| 2.0                   | 312     | 661     | 1 005   | 1 363   | 2 187   | 3 367    | 4 775    | 7 775     | 10 665    | 15 337    |
| 2.5                   | 369     | 789     | 1 187   | 1 636   | 2 631   | 3 981    | 5 652    | 9 162     | 1 2791    | 18 388    |
| 3.0                   | 427     | 911     | 1 354   | 1 867   | 3 002   | 4 609    | 6 551    | 10 651    | 14 805    | 21 278    |
| 3.5                   | 485     | 1 023   | 1 521   | 2 097   | 3 372   | 5 251    | 7 471    | 12 139    | 16 864    | 24 233    |
| 4.0                   | 538     | 1 148   | 1 688   | 2 326   | 3 801   | 5 825    | 8 289    | 13 662    | 18 709    | 26 883    |
| 4.5                   | 591     | 1 261   | 1 854   | 2 555   | 4 175   | 6 398    | 9 104    | 15 006    | 20 549    | 29 527    |
| 5.0                   | 644     | 1 374   | 2 019   | 2 783   | 4 548   | 6 970    | 9 917    | 16 347    | 22 385    | 32 165    |
| 5.5                   | 697     | 1 487   | 2 185   | 3 011   | 4 920   | 7 540    | 10 729   | 17 685    | 24 217    | 34 798    |
| 6.0                   | 750     | 1 599   | 2 350   | 3 239   | 5 291   | 8 110    | 11 539   | 19 021    | 26 046    | 37 427    |
| 6.5                   | 802     | 1 711   | 2 514   | 3 466   | 5 662   | 8 678    | 12 349   | 20 354    | 27 873    | 40 052    |
| 7.0                   | 855     | 1 823   | 2 679   | 3 693   | 6 033   | 9 246    | 13 157   | 21 687    | 29 697    | 42 673    |
| 7.5                   | 907     | 1 935   | 2 843   | 3 919   | 6 403   | 9 814    | 13 964   | 23 017    | 31 519    | 45 291    |
| 8.0                   | 959     | 2 047   | 3 007   | 4 145   | 6 773   | 10 380   | 14 771   | 24 346    | 33 339    | 47 907    |
| 8.5                   | 1 012   | 2 158   | 3 172   | 4 372   | 7 143   | 10 947   | 15 577   | 25 675    | 35 159    | 50 521    |
| 9.0                   | 1 064   | 2 270   | 3 336   | 4 598   | 7 512   | 11 513   | 16 382   | 27 003    | 36 976    | 53 133    |
| 9.5                   | 1 116   | 2 381   | 3 499   | 4 824   | 7 881   | 12 078   | 17 187   | 28 329    | 38 793    | 55 743    |
| 10.0                  | 1 169   | 2 493   | 3 663   | 5 049   | 8 250   | 12 644   | 17 991   | 29 655    | 40 608    | 58 352    |
| 11.0                  | 1 273   | 2 715   | 3 991   | 5 501   | 8 987   | 13 774   | 19 599   | 32 305    | 44 237    | 63 566    |
| 12.0                  | 1 377   | 2 938   | 4 318   | 5 952   | 9 724   | 14 903   | 21 206   | 34 955    | 47 866    | 68 780    |
| 13.0                  | 1 482   | 3 161   | 4 645   | 6 402   | 10 460  | 16 032   | 22 812   | 37 601    | 51 490    | 73 989    |
| 14.0                  | 1 586   | 3 383   | 4 972   | 6 853   | 11 197  | 17 161   | 24 419   | 40 250    | 55 117    | 79 199    |
| 15.0                  | 1 690   | 3 606   | 5 299   | 7 304   | 11 934  | 18 290   | 26 025   | 42 898    | 58 743    | 84 410    |
| 16.0                  | 1 795   | 3 829   | 5 626   | 7 755   | 12 671  | 19 420   | 27 633   | 45 547    | 62 371    | 89 623    |
| 17.0                  | 1 899   | 4 051   | 5 954   | 8 206   | 13 408  | 20 549   | 29 240   | 48 196    | 65 999    | —         |
| 18.0                  | 2 004   | 4 274   | 6 281   | 8 658   | 14 146  | 21 680   | 30 849   | 50 847    | 69 630    | —         |
| 19.0                  | 2 108   | 4 497   | 6 609   | 9 110   | 14 884  | 22 812   | 32 460   | 53 504    | 73 267    | —         |
| 20.0                  | 2 213   | 4 721   | 6 937   | 9 562   | 15 623  | 23 944   | 34 070   | 56 158    | 76 902    | —         |
| 21.0                  | 2 318   | 4 944   | 7 266   | 10 015  | 16 363  | 25 078   | 35 684   | 58 818    | —         | —         |
| 22.0                  | 2 423   | 5 168   | 7 594   | 10 468  | 17 103  | 26 212   | 37 298   | 61 479    | —         | —         |
| 23.0                  | 2 528   | 5 392   | 7 924   | 10 922  | 17 844  | 27 348   | 38 915   | 64 144    | —         | —         |
| 24.0                  | 2 633   | 5 616   | 8 253   | 11 376  | 18 587  | 28 487   | 40 535   | 66 814    | —         | —         |
| 25.0                  | 2 738   | 5 841   | 8 584   | 11 831  | 19 331  | 29 626   | 42 156   | 69 487    | —         | —         |
| 26.0                  | 2 844   | 6 065   | 8 914   | 12 286  | 20 074  | 30 766   | 43 777   | —         | —         | —         |
| 27.0                  | 2 949   | 6 291   | 9 245   | 12 743  | 20 820  | 31 909   | 45 404   | —         | —         | —         |
| 28.0                  | 3 058   | 6 524   | 9 587   | 13 214  | 21 590  | 33 089   | 47 083   | —         | —         | —         |
| 29.0                  | 3 163   | 6 748   | 9 917   | 13 669  | 22 333  | 34 228   | 48 704   | —         | —         | —         |

**Table 2-SV60 안전밸브 용량 - 압축공기(m<sup>3</sup>/h at 0°C/1013 mbar)**  
(calculated in accordance with AD-MERKBLATT A2 and TRD 421)

|                            |         |         |         |         |         |          |          |           |           |           |
|----------------------------|---------|---------|---------|---------|---------|----------|----------|-----------|-----------|-----------|
| 구경(DN)                     | 20 / 32 | 25 / 40 | 32 / 50 | 40 / 65 | 50 / 80 | 65 / 100 | 80 / 125 | 100 / 150 | 125 / 200 | 150 / 250 |
| 오리피스 (mm)                  | 17.0    | 23.8    | 30.6    | 38.0    | 50.1    | 59.0     | 73.0     | 91.0      | 105       | 125       |
| 면적 (mm <sup>2</sup> )      | 230     | 445     | 740     | 1 140   | 1 979   | 2 734    | 4 185    | 6 504     | 8 659     | 12 272    |
| α <sub>w</sub> (P > 4 bar) | 0.78    | 0.86    | 0.76    | 0.68    | 0.64    | 0.71     | 0.66     | 0.70      | 0.72      | 0.73      |

| 설정압력 (bar g) | m <sup>3</sup> /h |         |         |         |         |          |          |           |           |           |
|--------------|-------------------|---------|---------|---------|---------|----------|----------|-----------|-----------|-----------|
|              | 20 / 32           | 25 / 40 | 32 / 50 | 40 / 65 | 50 / 80 | 65 / 100 | 80 / 125 | 100 / 150 | 125 / 200 | 150 / 250 |
| 0.5          | 145               | 304     | 456     | 472     | 996     | 1 521    | 2 115    | 3 466     | 4 809     | 6 955     |
| 1.0          | 227               | 480     | 728     | 973     | 1 578   | 2 419    | 3 383    | 5 514     | 7 621     | 10 975    |
| 1.5          | 303               | 643     | 975     | 1 323   | 2 125   | 3 251    | 4 572    | 7 434     | 10 267    | 14 753    |
| 2.0          | 377               | 802     | 1 211   | 1 657   | 2 657   | 4 062    | 5 742    | 9 328     | 12 885    | 18 509    |
| 2.5          | 450               | 956     | 1 438   | 1 978   | 3 171   | 4 853    | 6 892    | 11 195    | 15 467    | 22 232    |
| 3.0          | 522               | 1 107   | 1 656   | 2 289   | 3 672   | 5 627    | 8 026    | 13 015    | 18 018    | 25 924    |
| 3.5          | 593               | 1 255   | 1 868   | 2 591   | 4 161   | 6 388    | 9 146    | 14 837    | 20 542    | 29 590    |
| 4.0          | 660               | 1 411   | 2 074   | 2 858   | 4 670   | 7 157    | 10 184   | 16 785    | 22 986    | 33 029    |
| 4.5          | 728               | 1 554   | 2 285   | 3 149   | 5 145   | 7 884    | 11 219   | 18 491    | 25 321    | 36 385    |
| 5.0          | 795               | 1 697   | 2 496   | 3 439   | 5 619   | 8 611    | 12 254   | 20 196    | 27 657    | 39 741    |
| 5.5          | 862               | 1 841   | 2 706   | 3 730   | 6 094   | 9 338    | 13 289   | 21 902    | 29 992    | 43 097    |
| 6.0          | 929               | 1 984   | 2 917   | 4 020   | 6 568   | 10 065   | 14 324   | 23 607    | 32 328    | 46 452    |
| 6.5          | 996               | 2 127   | 3 128   | 4 310   | 7 043   | 10 793   | 15 359   | 25 313    | 34 663    | 49 808    |
| 7.0          | 1 063             | 2 271   | 3 339   | 4 601   | 7 517   | 11 520   | 16 393   | 27 018    | 36 999    | 53 164    |
| 7.5          | 1 130             | 2 414   | 3 549   | 4 891   | 7 992   | 12 247   | 17 428   | 28 724    | 39 334    | 56 520    |
| 8.0          | 1 197             | 2 557   | 3 760   | 5 182   | 8 466   | 12 974   | 18 463   | 30 429    | 41 670    | 59 876    |
| 8.5          | 1 264             | 2 701   | 3 971   | 5 472   | 8 941   | 13 701   | 19 498   | 32 135    | 44 005    | 63 232    |
| 9.0          | 1 332             | 2 844   | 4 182   | 5 763   | 9 415   | 14 428   | 20 533   | 33 840    | 46 341    | 66 588    |
| 9.5          | 1 399             | 2 987   | 4 392   | 6 053   | 9 890   | 15 156   | 21 567   | 35 546    | 48 677    | 69 944    |
| 10.0         | 1 466             | 3 131   | 4 603   | 6 343   | 10 365  | 15 883   | 22 602   | 37 251    | 51 012    | 73 300    |
| 11.0         | 1 600             | 3 417   | 5 025   | 6 924   | 11 314  | 17 337   | 24 672   | 40 662    | 55 683    | 80 012    |
| 12.0         | 1 734             | 3 704   | 5 446   | 7 505   | 12 263  | 18 791   | 26 741   | 44 073    | 60 354    | 86 724    |
| 13.0         | 1 868             | 3 990   | 5 868   | 8 086   | 13 212  | 20 246   | 28 811   | 47 484    | 65 025    | 93 436    |
| 14.0         | 2 003             | 4 277   | 6 289   | 8 667   | 14 161  | 21 700   | 30 881   | 50 895    | 69 696    | 100 148   |
| 15.0         | 2 137             | 4 564   | 6 711   | 9 248   | 15 110  | 23 154   | 32 950   | 54 306    | 74 367    | 106 860   |
| 16.0         | 2 271             | 4 850   | 7 132   | 9 828   | 16 059  | 24 609   | 35 020   | 57 717    | 79 038    | 113 572   |
| 17.0         | 2 405             | 5 137   | 7 554   | 10 409  | 17 008  | 26 063   | 37 090   | 61 129    | 83 709    | -         |
| 18.0         | 2 539             | 5 424   | 7 975   | 10 990  | 17 957  | 27 517   | 39 159   | 64 540    | 88 380    | -         |
| 19.0         | 2 674             | 5 710   | 8 397   | 11 571  | 18 906  | 28 972   | 41 229   | 67 951    | 93 051    | -         |
| 20.0         | 2 808             | 5 997   | 8 818   | 12 152  | 19 855  | 30 426   | 43 299   | 71 362    | 97 723    | -         |
| 21.0         | 2 942             | 6 284   | 9 240   | 12 733  | 20 804  | 31 880   | 45 368   | 74 773    | -         | -         |
| 22.0         | 3 076             | 6 570   | 9 661   | 13 314  | 21 753  | 33 335   | 47 438   | 78 184    | -         | -         |
| 23.0         | 3 210             | 6 857   | 10 083  | 13 894  | 22 702  | 34 789   | 49 507   | 81 595    | -         | -         |
| 24.0         | 3 345             | 7 144   | 10 504  | 14 475  | 23 651  | 36 243   | 51 577   | 85 006    | -         | -         |
| 25.0         | 3 479             | 7 430   | 10 926  | 15 056  | 24 600  | 37 698   | 53 647   | 88 417    | -         | -         |
| 26.0         | 3 613             | 7 717   | 11 347  | 15 637  | 25 549  | 39 152   | 55 716   | -         | -         | -         |
| 27.0         | 3 747             | 8 004   | 11 769  | 16 218  | 26 498  | 40 606   | 57 786   | -         | -         | -         |
| 28.0         | 3 882             | 8 290   | 12 190  | 16 799  | 27 447  | 42 061   | 59 856   | -         | -         | -         |
| 29.0         | 4 016             | 8 577   | 12 612  | 17 379  | 28 397  | 43 515   | 61 925   | -         | -         | -         |
| 30.0         | 4 150             | 8 864   | 13 033  | 17 960  | 29 346  | 44 969   | 63 995   | -         | -         | -         |
| 31.0         | 4 284             | 9 150   | 13 455  | 18 541  | 30 295  | 46 424   | 66 064   | -         | -         | -         |
| 32.0         | 4 418             | 9 437   | 13 876  | 19 122  | 31 244  | 47 878   | 68 134   | -         | -         | -         |
| 33.0         | 4 553             | 9 724   | 14 298  | 19 703  | 31 907  | -        | -        | -         | -         | -         |
| 34.0         | 4 687             | 10 010  | 14 719  | 20 284  | 32 865  | -        | -        | -         | -         | -         |
| 35.0         | 4 821             | 10 297  | 15 141  | 20 865  | 33 809  | -        | -        | -         | -         | -         |
| 36.0         | 4 955             | 10 583  | 15 562  | 21 445  | 34 749  | -        | -        | -         | -         | -         |
| 37.0         | 5 089             | 10 870  | 15 984  | 22 026  | 35 690  | -        | -        | -         | -         | -         |
| 38.0         | 5 224             | 11 157  | 16 405  | 22 607  | 36 631  | -        | -        | -         | -         | -         |
| 39.0         | 5 358             | 11 443  | 16 826  | 23 188  | 37 572  | -        | -        | -         | -         | -         |
| 40.0         | 5 492             | 11 730  | 17 248  | 23 769  | 38 514  | -        | -        | -         | -         | -         |

**Table 3-SV60 안전밸브 용량 - 물(ton/h at 25% overpressure, non-certified)**  
(calculated in accordance with AD-MERKBLATT A2 and TRD 421)

|                       |         |         |         |         |         |          |          |           |           |           |
|-----------------------|---------|---------|---------|---------|---------|----------|----------|-----------|-----------|-----------|
| 구경(DN)                | 20 / 32 | 25 / 40 | 32 / 50 | 40 / 65 | 50 / 80 | 65 / 100 | 80 / 125 | 100 / 150 | 125 / 200 | 150 / 250 |
| 오리피스 (mm)             | 17.0    | 23.8    | 30.6    | 38.0    | 50.1    | 59.0     | 73.0     | 91.0      | 105       | 125       |
| 면적 (mm <sup>2</sup> ) | 230     | 445     | 740     | 1 140   | 1 979   | 2 734    | 4 185    | 6 504     | 8 659     | 12 272    |
| $\alpha_w$            | 0.5     | 0.5     | 0.5     | 0.5     | 0.5     | 0.5      | 0.5      | 0.5       | 0.5       | 0.5       |

| 설정압력 (bar g) | ton/h |      |       |       |       |       |       |       |         |         |
|--------------|-------|------|-------|-------|-------|-------|-------|-------|---------|---------|
|              | 0.5   | 4.6  | 8.9   | 14.9  | 22.9  | 39.8  | 55.0  | 84.1  | 130.8   | 174.1   |
| 1.0          | 6.5   | 12.6 | 21.0  | 32.4  | 56.3  | 77.7  | 119.0 | 184.9 | 246.2   | 348.9   |
| 2.0          | 9.2   | 17.9 | 29.8  | 45.8  | 79.6  | 109.9 | 168.3 | 261.5 | 348.2   | 493.5   |
| 3.0          | 11.3  | 21.9 | 36.5  | 56.1  | 97.5  | 134.6 | 206.1 | 320.3 | 426.4   | 604.4   |
| 4.0          | 13.1  | 25.3 | 42.1  | 64.8  | 112.6 | 155.5 | 238.0 | 369.9 | 492.4   | 697.9   |
| 5.0          | 14.6  | 28.3 | 47.1  | 72.5  | 125.8 | 173.8 | 266.1 | 413.5 | 550.5   | 780.2   |
| 6.0          | 16.0  | 31.0 | 51.6  | 79.4  | 137.8 | 190.4 | 291.5 | 453.0 | 603.1   | 854.7   |
| 7.0          | 17.3  | 33.5 | 55.7  | 85.8  | 148.9 | 205.7 | 314.9 | 489.3 | 651.4   | 923.2   |
| 8.0          | 18.5  | 35.8 | 59.5  | 91.7  | 159.2 | 219.9 | 336.6 | 523.1 | 696.4   | 986.9   |
| 9.0          | 19.6  | 37.9 | 63.1  | 97.2  | 168.8 | 233.2 | 357.0 | 554.8 | 738.6   | 1 046.8 |
| 10.0         | 20.6  | 40.0 | 66.6  | 102.5 | 178.0 | 245.8 | 376.3 | 584.8 | 778.6   | 1 103.4 |
| 11.0         | 21.7  | 42.0 | 69.8  | 107.5 | 186.6 | 257.8 | 394.7 | 613.3 | 816.6   | 1 157.3 |
| 12.0         | 22.6  | 43.8 | 72.9  | 112.3 | 194.9 | 269.3 | 412.2 | 640.6 | 852.9   | 1 208.7 |
| 13.0         | 23.5  | 45.6 | 75.9  | 116.9 | 202.9 | 280.3 | 429.1 | 666.8 | 887.7   | 1 258.1 |
| 14.0         | 24.4  | 47.3 | 78.8  | 121.3 | 210.6 | 290.9 | 445.3 | 691.9 | 921.2   | 1 305.6 |
| 15.0         | 25.3  | 49.0 | 81.5  | 125.5 | 218.0 | 301.1 | 460.9 | 716.2 | 953.5   | 1 351.4 |
| 16.0         | 26.1  | 50.6 | 84.2  | 129.7 | 225.1 | 310.9 | 476.0 | 739.7 | 984.8   | 1 395.7 |
| 17.0         | 26.9  | 52.2 | 86.8  | 133.7 | 232.0 | 320.5 | 490.7 | 762.5 | 1 015.1 | -       |
| 18.0         | 27.7  | 53.7 | 89.3  | 137.5 | 238.8 | 329.8 | 504.9 | 784.6 | 1 044.6 | -       |
| 19.0         | 28.5  | 55.1 | 91.7  | 141.3 | 245.3 | 338.8 | 518.7 | 806.1 | 1 073.2 | -       |
| 20.0         | 29.2  | 56.6 | 94.1  | 145.0 | 251.7 | 347.6 | 532.2 | 827.0 | 1 101.1 | -       |
| 21.0         | 29.9  | 58.0 | 96.5  | 148.6 | 257.9 | 356.2 | 545.3 | 847.4 | -       | -       |
| 22.0         | 30.6  | 59.3 | 98.7  | 152.0 | 264.0 | 364.6 | 558.2 | 867.4 | -       | -       |
| 23.0         | 31.3  | 60.7 | 100.9 | 155.5 | 269.9 | 372.8 | 570.7 | 886.9 | -       | -       |
| 24.0         | 32.0  | 62.0 | 103.1 | 158.8 | 275.7 | 380.8 | 583.0 | 906.0 | -       | -       |
| 25.0         | 32.6  | 63.2 | 105.2 | 162.1 | 281.4 | 388.7 | 595.0 | 940.0 | -       | -       |
| 26.0         | 33.3  | 64.5 | 107.3 | 165.3 | 287.0 | 396.4 | 606.8 | -     | -       | -       |
| 27.0         | 33.9  | 65.7 | 109.4 | 168.4 | 292.4 | 403.9 | 618.4 | -     | -       | -       |
| 28.0         | 34.6  | 66.9 | 111.4 | 171.5 | 297.8 | 411.3 | 629.7 | -     | -       | -       |
| 29.0         | 35.2  | 68.1 | 113.3 | 174.6 | 303.1 | 418.6 | 640.9 | -     | -       | -       |
| 30.0         | 35.8  | 69.3 | 115.3 | 177.6 | 308.2 | 425.8 | 651.8 | -     | -       | -       |
| 31.0         | 36.4  | 70.4 | 117.2 | 180.5 | 313.3 | 432.8 | 662.6 | -     | -       | -       |
| 32.0         | 36.9  | 71.6 | 119.1 | 183.4 | 318.3 | 439.7 | 673.2 | -     | -       | -       |
| 33.0         | 37.5  | 72.7 | 120.9 | 186.2 | 323.3 | -     | -     | -     | -       | -       |
| 34.0         | 38.1  | 73.8 | 122.7 | 189.0 | 328.1 | -     | -     | -     | -       | -       |
| 35.0         | 38.6  | 74.8 | 124.5 | 191.8 | 332.9 | -     | -     | -     | -       | -       |
| 36.0         | 39.2  | 75.9 | 126.3 | 194.5 | 337.7 | -     | -     | -     | -       | -       |
| 37.0         | 39.7  | 76.9 | 128.0 | 197.2 | 342.3 | -     | -     | -     | -       | -       |
| 38.0         | 40.3  | 78.0 | 129.7 | 199.8 | 346.9 | -     | -     | -     | -       | -       |
| 39.0         | 40.8  | 79.0 | 131.4 | 202.4 | 351.4 | -     | -     | -     | -       | -       |
| 40.0         | 41.3  | 80.0 | 133.1 | 205.0 | 355.9 | -     | -     | -     | -       | -       |

**Table 4-SV60 안전밸브  $\alpha_w$  값**

| 구경            | 설정압력(bar g)     |                 |                 |                 |                 |                 |                 |                 |                 |
|---------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
|               | 0.2 - 0.49      | 0.5 - 0.99      | 1.0 - 1.49      | 1.5 - 1.99      | 2.0 - 2.49      | 2.5 - 2.99      | 3.0 - 3.49      | 3.5 - 3.99      | 4.0 이상          |
| DN20 x DN32   | $\alpha_w$ 0.56 | $\alpha_w$ 0.62 | $\alpha_w$ 0.69 | $\alpha_w$ 0.73 | $\alpha_w$ 0.75 | $\alpha_w$ 0.76 | $\alpha_w$ 0.77 | $\alpha_w$ 0.78 | $\alpha_w$ 0.78 |
| DN25 x DN40   | $\alpha_w$ 0.62 | $\alpha_w$ 0.67 | $\alpha_w$ 0.75 | $\alpha_w$ 0.80 | $\alpha_w$ 0.82 | $\alpha_w$ 0.84 | $\alpha_w$ 0.85 | $\alpha_w$ 0.85 | $\alpha_w$ 0.86 |
| DN32 x DN50   | $\alpha_w$ 0.56 | $\alpha_w$ 0.60 | $\alpha_w$ 0.68 | $\alpha_w$ 0.73 | $\alpha_w$ 0.75 | $\alpha_w$ 0.76 | $\alpha_w$ 0.76 | $\alpha_w$ 0.76 | $\alpha_w$ 0.76 |
| DN40 x DN65   | $\alpha_w$ 0.45 | $\alpha_w$ 0.51 | $\alpha_w$ 0.59 | $\alpha_w$ 0.64 | $\alpha_w$ 0.66 | $\alpha_w$ 0.68 | $\alpha_w$ 0.68 | $\alpha_w$ 0.68 | $\alpha_w$ 0.68 |
| DN50 x DN80   | $\alpha_w$ 0.47 | $\alpha_w$ 0.49 | $\alpha_w$ 0.55 | $\alpha_w$ 0.59 | $\alpha_w$ 0.61 | $\alpha_w$ 0.63 | $\alpha_w$ 0.63 | $\alpha_w$ 0.63 | $\alpha_w$ 0.64 |
| DN65 x DN100  | $\alpha_w$ 0.50 | $\alpha_w$ 0.55 | $\alpha_w$ 0.61 | $\alpha_w$ 0.66 | $\alpha_w$ 0.68 | $\alpha_w$ 0.69 | $\alpha_w$ 0.70 | $\alpha_w$ 0.71 | $\alpha_w$ 0.71 |
| DN80 x DN125  | $\alpha_w$ 0.45 | $\alpha_w$ 0.50 | $\alpha_w$ 0.56 | $\alpha_w$ 0.60 | $\alpha_w$ 0.63 | $\alpha_w$ 0.64 | $\alpha_w$ 0.65 | $\alpha_w$ 0.66 | $\alpha_w$ 0.66 |
| DN100 x DN150 | $\alpha_w$ 0.48 | $\alpha_w$ 0.52 | $\alpha_w$ 0.59 | $\alpha_w$ 0.63 | $\alpha_w$ 0.66 | $\alpha_w$ 0.67 | $\alpha_w$ 0.68 | $\alpha_w$ 0.69 | $\alpha_w$ 0.70 |
| DN125 x DN200 | $\alpha_w$ 0.50 | $\alpha_w$ 0.55 | $\alpha_w$ 0.61 | $\alpha_w$ 0.65 | $\alpha_w$ 0.68 | $\alpha_w$ 0.70 | $\alpha_w$ 0.71 | $\alpha_w$ 0.72 | $\alpha_w$ 0.72 |
| DN150 x DN250 | $\alpha_w$ 0.51 | $\alpha_w$ 0.56 | $\alpha_w$ 0.62 | $\alpha_w$ 0.66 | $\alpha_w$ 0.69 | $\alpha_w$ 0.71 | $\alpha_w$ 0.72 | $\alpha_w$ 0.73 | $\alpha_w$ 0.73 |

● 치수(mm) 및 무게(kg)

| 구경<br>입구측/출구측 | 치수  |     |       | Flow ø<br>D | 무게    |       |
|---------------|-----|-----|-------|-------------|-------|-------|
|               | A   | B   | C     |             | SV604 | SV607 |
| DN20-DN32     | 85  | 95  | 385   | 17.0        | 10.5  | 10.5  |
| DN25-DN40     | 100 | 105 | 435   | 23.8        | 12.5  | 11.5  |
| DN32-DN50     | 110 | 115 | 450   | 30.6        | 16.0  | 15.0  |
| DN40-DN65     | 115 | 140 | 520   | 38.0        | 18.0  | 18.0  |
| DN50-DN80     | 120 | 150 | 535   | 50.1        | 20.0  | 22.0  |
| DN65-DN100    | 140 | 170 | 710   | 59.0        | 40.0  | 38.0  |
| DN80-DN125    | 160 | 195 | 790   | 73.0        | 56.0  | 53.0  |
| DN100-DN150   | 180 | 220 | 835   | 91.0        | 77.0  | 75.0  |
| DN125-DN200   | 200 | 250 | 1 042 | 105.0       | 120.0 | 115.0 |
| DN150-DN250   | 225 | 285 | 1 165 | 125.0       | 190.0 | 180.0 |

● 설치방법

안전밸브는 스프링 하우징이 항상 밸브의 상방향 수직으로 놓이도록 설치되어야 한다. 자세한 사항은 설치 및 정비 지침서를 참조하시기 바랍니다 (IM-P137-01).

스팀 보일러의 적용에는 개방형 보닛 타입의 안전밸브를 추천합니다.

● SV60 안전밸브 선정 예

|                   |  |      |
|-------------------|--|------|
| 모델 타입             | SV60   | SV60 |
| 몸체 재질             | 4 = 탄소강<br>7 = 구상흑연주철  | 4    |
| 구성                | A = 밀폐형 보닛/이징 레버<br>B = 밀폐형 보닛/밀봉 캡<br>C = 밀폐형 보닛/압축 레버(DN20~DN100만 해당)<br>D = 개방형 보닛/이징 레버                                  | A    |
| 시트 재질             | S = Stainless steel with<br>chrome-vanadium alloy<br>steel spring<br>T = Stainless steel with<br>tungsten alloy steel spring | S    |
| 구경                | DN20~DN150   | DN20 |
| 배관<br>연결방법        | PN16 (DN65~DN150까지), PN25,<br>PN40 또는 ASME(ANSI) 300   | PN40 |
| Selection example | SV60 4 A S DN20 PN40   |      |

