

**PRESSURE REDUCING VALVE  
DIRECT ACTING  
PRV25I – Stainless steel (CF8M)**

**DESCRIPTION**

The ADCA PRV25I series direct acting pressure reducing valves are designed for use on steam, compressed air and other gases.

They are suitable for reducing steam pressure at the point of use on laundry machines, dyeing, food industries, sterilizers, etc.

Connections are female screwed or flanged.

**MAIN FEATURES**

Compact design.

Bellows specially designed for high durability.

Built-in strainer.



**OPTIONS:** Regulating screw with top cap.

**USE:** Saturated steam, compressed air and other gases compatible with the construction.

**AVAILABLE MODELS:**  
 PRV25 I – metal to metal seating  
 PRV25IG – soft valve  
 PRW25I – soft valve balanced

**RECOMMENDED APPLICATIONS :**  
 PRV25I – steam and compressed air  
 PRV25IG – steam and compressed air where tight off is required  
 PRW25I – water, compressed air

**SIZES:** ½", ¾", 1"; DN15, DN 20 and DN 25.

**CONNECTIONS:** Female screwed ISO7/1Rp(BS 21) .  
 Flanged EN 1092-1 PN40 or ANSI.

**INSTALLATION:** Horizontal installation.  
 An "Y" strainer should be provided upstream the valve.  
 See IMI, installation and maintenance instructions.



| CE MARKING (PED - European Directive 97/23/EC) |                          |
|------------------------------------------------|--------------------------|
| PN 25                                          | Category                 |
| DN 15 to 25                                    | SEP - art. 3, paragraph3 |

| LIMITING CONDITIONS     |          |          |          |
|-------------------------|----------|----------|----------|
|                         | PRV25I   | PRV25IG  | PRW25I   |
| Body design conditions  | PN25     | PN25     | PN25     |
| Max.upstream pressure   | 17 bar   | 17 bar   | 14 bar   |
| Max.downstream pressure | 8,6 bar  | 8,6 bar  | 8,6 bar  |
| Min.downstream pressure | 0,14 bar | 0,14 bar | 0,35 bar |
| Max.design temperature  | 210°C    | 180°C    | 75°C     |
| Max.cold hydraulic test | 38 bar   | 38 bar   | 38 bar   |
| Max.reducing ratio      | 10:1     | 10:1     | 10:1     |

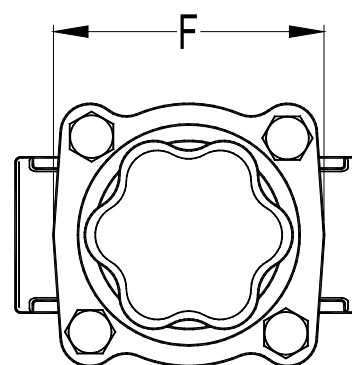
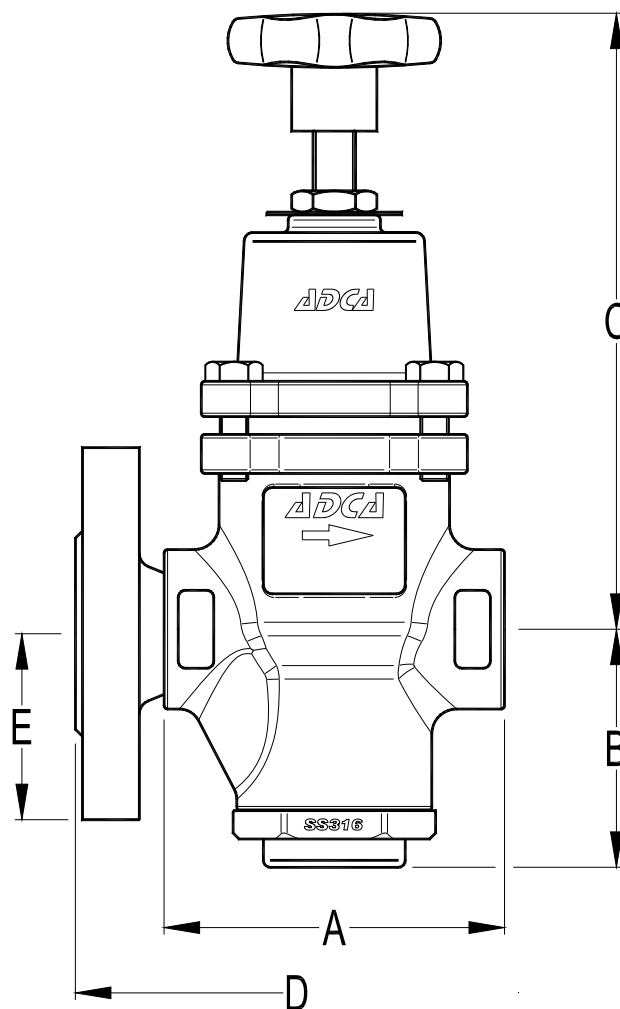
| CAPACITIES<br>(See selection table) |     |     |     |
|-------------------------------------|-----|-----|-----|
| Valve Size                          | 15  | 20  | 25  |
| KVs                                 | 1,7 | 2,6 | 3,1 |

| PRESSURE RANGES |            |            |           |           |
|-----------------|------------|------------|-----------|-----------|
| Spring colour   | Blue *     | Yellow **  | Green     | Red       |
| Red.Press. bar  | 0,35 - 1,7 | 0,14 - 1,7 | 1,4 - 4,0 | 3,5 - 8,6 |

\*Applicable only on the PRW ; \*\* Appl.only on the PRV

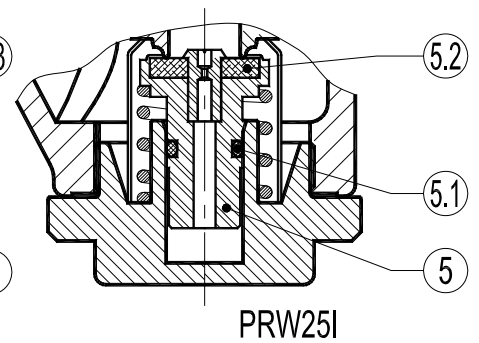
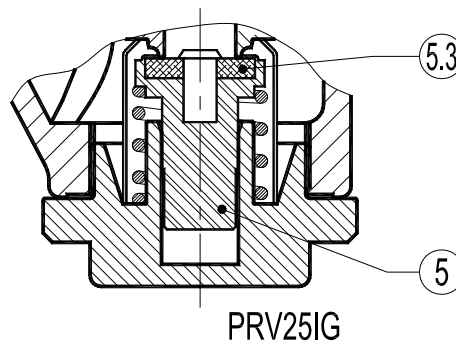
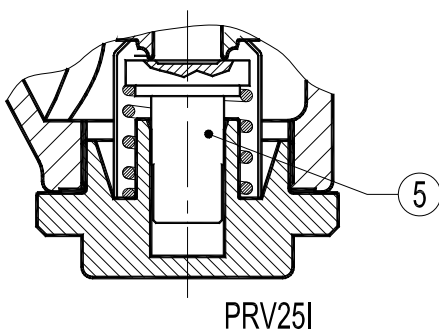
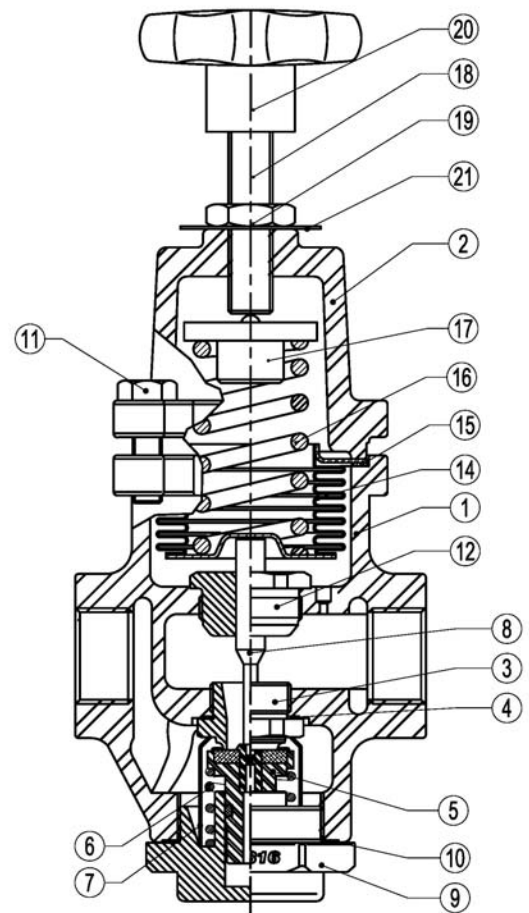
Where control spring ranges overlap,always use the lower range to give better control and precision.

| DIMENSIONS (mm)-Screwed |    |      |     |    |          | EN1092-1 Flanges |      |          |
|-------------------------|----|------|-----|----|----------|------------------|------|----------|
| SIZE DN                 | A  | B    | C   | F  | WGT. Kgs | D                | E    | WGT. Kgs |
| 1/2"                    | 96 | 68,5 | 175 | 74 | 3        | 150              | 47,5 | 4,4      |
| 3/4"                    | 96 | 68,5 | 175 | 74 | 3        | 150              | 52,5 | 5        |
| 1"                      | 96 | 68,5 | 175 | 74 | 2,9      | 160              | 57,5 | 5,5      |



| MATERIALS |                      |                      |
|-----------|----------------------|----------------------|
| POS.      | DESIGNATION          | MATERIAL             |
| 1         | VALVE BODY           | CF8M / 1.4408        |
| 2         | COVER                | CF8M / 1.4408        |
| 3         | *SEAT                | AISI 316 / 1.4401    |
| 4         | *GASKET              | COPPER               |
| 5         | *VALVE               | HARDENED ST. STEEL   |
| 5.1       | *O-RING              | NBR                  |
| 5.2       | *VALVE HEAD          | NBR                  |
| 5.3       | *VALVE HEAD          | PTFE/GRAPHITE        |
| 6         | *VALVE RETURN SPRING | AISI 302 / 1.4300    |
| 7         | *STRAINER SCREEN     | AISI 304 / 1.4301    |
| 8         | PUSHROD              | AISI 316 / 1.4401    |
| 9         | BOTTOM CAP           | CF8M / 1.4408        |
| 10        | *CAP GASKET          | ST. ST. / GRAPHITE   |
| 11        | COVER BOLTS          | STAINLESS STEEL      |
| 12        | *GUIDE BUSH          | AISI 316 / 1.4401    |
| 14        | *BELLOWS             | AISI 316 TI / 1.4571 |
| 15        | *BELLOWS GASKET      | ST. ST. / GRAPHITE   |
| 16        | *ADJUSTMENT SPRING   | STEEL                |
| 17        | TOP SPRING PLATE     | BRASS                |
| 18        | ADJUSTMENT SCREW     | AISI 304 / 1.4301    |
| 19        | LOCKNUT              | AISI 304 / 1.4301    |
| 20        | HANDWHEEL            | PLASTIC              |
| 21        | SPRING IDENT. PLATE  | ALUMINIUM            |

\* Available spare parts.





| STEAM CAPACITY TABLE<br>(Kg/h) |               |            |      |      |
|--------------------------------|---------------|------------|------|------|
| INLET<br>bar                   | OUTLET<br>bar | SAT. STEAM |      |      |
|                                |               | DN15       | DN20 | DN25 |
| 2                              | 0,2           | 33         | 53   | 64   |
|                                | 1,2           | 57         | 87   | 104  |
|                                | 1,6           | 38         | 59   | 71   |
| 3                              | 0,3           | 45         | 70   | 83   |
|                                | 1,2           | 76         | 116  | 138  |
|                                | 2,2           | 61         | 93   | 111  |
|                                | 2,6           | 46         | 70   | 83   |
| 4                              | 0,4           | 56         | 87   | 104  |
|                                | 1             | 66         | 102  | 121  |
|                                | 2,5           | 95         | 145  | 173  |
|                                | 3,5           | 57         | 87   | 104  |
| 5                              | 0,5           | 68         | 105  | 125  |
|                                | 2             | 91         | 139  | 166  |
|                                | 3             | 114        | 174  | 208  |
|                                | 4             | 85         | 130  | 155  |
| 6                              | 0,6           | 79         | 122  | 145  |
|                                | 2             | 106        | 162  | 194  |
|                                | 3             | 133        | 203  | 243  |
|                                | 4             | 120        | 184  | 219  |
| 7                              | 0,7           | 91         | 139  | 167  |
|                                | 2             | 121        | 185  | 222  |
|                                | 3,5           | 152        | 232  | 277  |
|                                | 5             | 132        | 201  | 240  |
| 8                              | 0,8           | 102        | 157  | 187  |
|                                | 2             | 137        | 210  | 250  |
|                                | 3,5           | 171        | 262  | 312  |
|                                | 5             | 161        | 247  | 294  |
|                                | 6             | 142        | 217  | 259  |
| 9                              | 0,9           | 114        | 174  | 208  |
|                                | 2,5           | 133        | 203  | 242  |
|                                | 4             | 152        | 233  | 277  |
|                                | 5             | 190        | 291  | 347  |
|                                | 7             | 152        | 232  | 277  |
| 10                             | 1             | 125        | 192  | 228  |
|                                | 3             | 146        | 224  | 266  |
|                                | 4             | 167        | 256  | 305  |
|                                | 6             | 209        | 320  | 381  |
|                                | 8             | 161        | 247  | 294  |
| 11                             | 1,1           | 136        | 210  | 249  |
|                                | 3             | 182        | 280  | 333  |
|                                | 6             | 228        | 350  | 416  |
|                                | 8             | 198        | 302  | 360  |
|                                | 8,6           | 182        | 279  | 331  |
| 12                             | 1,2           | 148        | 227  | 270  |
|                                | 3             | 197        | 302  | 360  |
|                                | 6             | 247        | 378  | 451  |
|                                | 8             | 228        | 349  | 416  |
|                                | 8,6           | 217        | 332  | 396  |
| 13                             | 1,3           | 159        | 244  | 291  |
|                                | 4             | 186        | 284  | 340  |
|                                | 6             | 212        | 325  | 388  |
|                                | 7             | 266        | 407  | 486  |
|                                | 8,6           | 246        | 378  | 451  |
| 15                             | 1,5           | 182        | 259  | 321  |
|                                | 4             | 212        | 302  | 374  |
|                                | 6             | 243        | 345  | 427  |
|                                | 8             | 304        | 433  | 536  |
|                                | 8,6           | 298        | 426  | 512  |
| 17                             | 1,7           | 205        | 279  | 333  |
|                                | 4             | 238        | 325  | 386  |
|                                | 6             | 273        | 372  | 441  |
|                                | 8             | 342        | 465  | 555  |
|                                | 8,6           | 339        | 449  | 541  |

| COMPRESSED AIR CAPACITY TABLE<br>( Nm <sup>3</sup> /h-0°C-1,013bar ) |               |                |      |      |
|----------------------------------------------------------------------|---------------|----------------|------|------|
| INLET<br>bar                                                         | OUTLET<br>bar | COMPRESSED AIR |      |      |
|                                                                      |               | DN15           | DN20 | DN25 |
| 2                                                                    | 0,2           | 45             | 72   | 86   |
|                                                                      | 1,2           | 77             | 117  | 140  |
|                                                                      | 1,6           | 51             | 80   | 96   |
| 3                                                                    | 0,3           | 61             | 95   | 112  |
|                                                                      | 1,2           | 103            | 157  | 186  |
|                                                                      | 2,2           | 82             | 126  | 150  |
|                                                                      | 2,6           | 62             | 95   | 112  |
| 4                                                                    | 0,4           | 76             | 117  | 140  |
|                                                                      | 1             | 89             | 138  | 163  |
|                                                                      | 2,5           | 128            | 196  | 234  |
|                                                                      | 3,5           | 77             | 117  | 140  |
| 5                                                                    | 0,5           | 92             | 142  | 169  |
|                                                                      | 2             | 123            | 188  | 224  |
|                                                                      | 3             | 154            | 235  | 281  |
|                                                                      | 4             | 115            | 176  | 209  |
| 6                                                                    | 0,6           | 107            | 165  | 196  |
|                                                                      | 2             | 143            | 219  | 262  |
|                                                                      | 3             | 180            | 274  | 328  |
|                                                                      | 4             | 162            | 248  | 296  |
| 7                                                                    | 0,7           | 123            | 188  | 225  |
|                                                                      | 2             | 163            | 250  | 300  |
|                                                                      | 3,5           | 205            | 313  | 374  |
|                                                                      | 5             | 178            | 271  | 324  |
| 8                                                                    | 0,8           | 138            | 212  | 252  |
|                                                                      | 2             | 185            | 284  | 338  |
|                                                                      | 3,5           | 231            | 354  | 421  |
|                                                                      | 5             | 217            | 333  | 397  |
|                                                                      | 6             | 192            | 293  | 350  |
| 9                                                                    | 0,9           | 154            | 235  | 281  |
|                                                                      | 2,5           | 180            | 274  | 327  |
|                                                                      | 4             | 205            | 315  | 374  |
|                                                                      | 5             | 257            | 393  | 468  |
|                                                                      | 7             | 205            | 313  | 374  |
| 10                                                                   | 1             | 169            | 259  | 308  |
|                                                                      | 3             | 197            | 302  | 359  |
|                                                                      | 4             | 225            | 346  | 412  |
|                                                                      | 6             | 282            | 432  | 514  |
|                                                                      | 8             | 217            | 333  | 397  |
| 11                                                                   | 1,1           | 184            | 284  | 336  |
|                                                                      | 3             | 246            | 378  | 450  |
|                                                                      | 6             | 308            | 473  | 562  |
|                                                                      | 8             | 267            | 408  | 486  |
|                                                                      | 8,6           | 246            | 377  | 447  |
| 12                                                                   | 1,2           | 200            | 306  | 365  |
|                                                                      | 3             | 266            | 408  | 486  |
|                                                                      | 6             | 333            | 510  | 609  |
|                                                                      | 8             | 308            | 471  | 562  |
|                                                                      | 8,6           | 293            | 448  | 535  |
| 13                                                                   | 1,3           | 215            | 329  | 393  |
|                                                                      | 4             | 251            | 383  | 459  |
|                                                                      | 6             | 286            | 439  | 524  |
|                                                                      | 7             | 359            | 549  | 656  |
|                                                                      | 8,6           | 332            | 510  | 609  |
| 15                                                                   | 1,5           | 246            | 350  | 433  |
|                                                                      | 4             | 286            | 408  | 505  |
|                                                                      | 6             | 328            | 466  | 576  |
|                                                                      | 8             | 410            | 585  | 724  |
|                                                                      | 8,6           | 402            | 575  | 691  |
| 17                                                                   | 1,7           | 277            | 377  | 450  |
|                                                                      | 4             | 321            | 439  | 521  |
|                                                                      | 6             | 369            | 502  | 595  |
|                                                                      | 8             | 462            | 628  | 749  |
|                                                                      | 8,6           | 458            | 606  | 730  |

| WATER CAPACITY TABLE<br>(m <sup>3</sup> /h) |       |      |      |
|---------------------------------------------|-------|------|------|
| D.P.<br>bar                                 | WATER |      |      |
|                                             | DN15  | DN20 | DN25 |
| 1,5                                         | 2,1   | 3,18 | 3,8  |
| 2                                           | 2,4   | 3,67 | 4,38 |
| 3                                           | 2,95  | 4,5  | 5,37 |
| 4                                           | 3,4   | 5,2  | 6,2  |
| 5                                           | 3,8   | 5,8  | 6,93 |
| 6                                           | 4,16  | 6,36 | 7,6  |
| 8                                           | 4,8   | 7,35 | 8,75 |
| 12                                          | 5,8   | 9    | 10,7 |