## Automatic

Hydraulic Operated
control Valves
Control Valves


Size Range : $2^{\prime \prime}$ to $24^{\prime \prime}$ FlangedRelevant Standard :
As Per Manufacturing Standard As Per ASME B 16.5 RF

Overview:
Pressure reducing valve is used to lower pipeline pressure to a pre-set value in water system and building service application. Automatically, quietly and smoothly control downstream pressure. The valve maintains a preset downstream pressure, regardless of upstream pressure or flow fluctuation. The main valve is controlled by a pilot valve, which makes the main valve modulating to maintain the downstream pressure.Features :

- Hydraulically Operated, Accurate And Repeatable Pressure Control
- Pressure Reducing Pilot Feature Easy Operation And Accurate Pressure Control
- Top And Bottom Guided Stem And Diaphragm Assembly For Long Life And Reliable Performance
- Two Way To Install: Horizontally Or Vertically
- Disc quickly Open But Slowly Close To Prevent A Water Hammer
- High Precision For Decompression And The Adjusting Range is Extensive
- Valve Has Two Pressure Gage Indicating Upstream Pressure And Downstream Pressure

Pressure / Temperature

Temperature Range Maximum Inlet Pressure

Pressure Adjusting Range
$80^{\circ} \mathrm{C}$ ( For Water \& Air) Cast Iron Body - $12 \mathrm{Kg} / \mathrm{cm}^{2}$ WCB / S. S. Body $-25 \mathrm{Kg} / \mathrm{cm}^{2}$
$1 \sim 7 \mathrm{Kg} / \mathrm{cm}^{2} / 4 \sim 10 \mathrm{Kg} / \mathrm{cm}^{2} / 1 \sim 10 \mathrm{Kg} / \mathrm{cm}^{2}$ ( $1 \mathrm{Kg} / \mathrm{cm}^{2}=14.2 \mathrm{PSI}$ )


| 12 | Diaphragm Dist | C.I. / D.I. |
| :---: | :---: | :---: |
| 11 | Gasket | S.S. |
| 10 | Plate | S.S. |
| 9 | Seat | S.S. |
| 8 | Diaphragm | NBR |
| 7 | Plate | S.S. |
| 6 | Nut | S.S. |
| 5 | Steam | S.S. |
| 4 | Spring | S.S. |
| 3 | Cover | CAST IRON / DUCTILE IRON |
| 2 | Double End Bolt | S.S. |
| 1 | Body | CAST IRON / DUCTILE IRON |
| Item | Part Name | material |


| Specifications |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Nominal pressure ( $\mathbf{K g} / \mathbf{c m} \mathbf{2}$ ) | $\begin{gathered} \text { Shell Test } \\ \text { Pressure(Kg/cm2) } \end{gathered}$ | Sealing test pressure(Kg/cm2) | Maximum outlet pressure (Kg/cm2) | Regulator range of outlet ( Kg g/cm 2) |
| 10 | 15 | 11 | 10 | 0.9-8 |
| 16 | 24 | 17 | 16 | 1.14 |
| 25 | 37 | 27 | 26 | 1.5-16 |

## - Installation Example



- Adjusting The Setting Pressure In Pilot Valve
"Turn Anti Clock Wise The Adjusting Stem Of Pilot Valve To Set Lower Pressure"


## O Pressure Reducing Valve Drawing :

| $1 \& 4$ | Pin Valve |
| :---: | :---: |
| $2 \& 6$ | Ball Vale |
| 5 | Pilot Valve |
| $3 \& 7$ | Pressure Gauge |
| 8 | Strainer |

## O Before Installation:

- Clean And Remove All The Impurities Inside The Pipe, A Filter Is Recommended To Install.
- Make Sure The Direction Is Correct (Follow Embossed Arrow On The Valve Body For The Same).
- Setting Pressure Gets Higher By Turning The Adjusting Pilot Stem Clock Wise.

- The Pressure 1) For Inlet And 2) For Outlet
- Better Starter Up With Cold Water Supply Subsequently Hot Water Supply, Inspect For Leakage.
"AIRA" PRV Should Be Checked / Inspected Annually To Assure Smooth Performances.
- This Valves Are Suitable For Outdoor Installation.


## O Dimensions:

| Tolerance | $\pm 1 \mathrm{~mm}$ | $\pm 3 \mathrm{~mm}$ | +2 mm <br> -1 mm | +3 mm | $\pm 0.5 \mathrm{~mm}$ | $\pm 1 \mathrm{~mm}$ |  |  | $\pm 1.5 \mathrm{~mm}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| SIZE | Port A | L | $\varnothing \mathrm{D}$ | b | f | $\varnothing \mathrm{g}$ | $\varnothing \mathrm{J}$ | N | PCD |
| $2^{\prime \prime}(50 \mathrm{~mm})$ | 50 | 214.5 | 150 | 14.3 | 2 | 92.1 | 19.05 | 4 | 120.7 |
| $2.1 / 2^{\prime \prime}(65 \mathrm{~mm})$ | 64 | 237.5 | 180 | 15.9 | 2 | 104.8 | 19.05 | 4 | 139.7 |
| $3^{\prime \prime}(80 \mathrm{~mm})$ | 78 | 249 | 190 | 17.5 | 2 | 127 | 19.05 | 8 | 152.4 |
| $4^{\prime \prime}(100 \mathrm{~mm})$ | 99.5 | 291 | 230 | 22.3 | 2 | 157.2 | 19.05 | 8 | 190.5 |
| $5^{\prime \prime}(125 \mathrm{~mm})$ | 124 | 323 | 255 | 22.3 | 2 | 185.7 | 22.2 | 8 | 215.9 |
| $6^{\prime \prime}(150 \mathrm{~mm})$ | 149 | 360 | 280 | 23.9 | 2 | 215.9 | 22.2 | 8 | 241.3 |
| $8^{\prime \prime}(200 \mathrm{~mm})$ | 190 | 421 | 345 | 27 | 2 | 269.9 | 22.2 | 8 | 298.5 |
| $10^{\prime \prime}(250 \mathrm{~mm})$ | 250 | 450 | 405 | 28.6 | 2 | 323.8 | 25.4 | 12 | 362 |
| $12^{\prime \prime}(300 \mathrm{~mm})$ | 298 | 514 | 485 | 30.2 | 2 | 381 | 25.4 | 12 | 431.8 |
| $14^{\prime \prime}(350 \mathrm{~mm})$ | 346 | 672 | 535 | 33.4 | 2 | 412.8 | 28.6 | 12 | 476.3 |
| $16^{\prime \prime}(400 \mathrm{~mm})$ | 400 | 728 | 595 | 35 | 2 | 469.9 | 28.6 | 16 | 539.8 |
| $18^{\prime \prime}(450 \mathrm{~mm})$ | 439 | 720 | 635 | 38.1 | 2 | 533.4 | 31.75 | 16 | 577.9 |
| $20^{\prime \prime}(500 \mathrm{~mm})$ | 489 | 790 | 700 | 41.3 | 2 | 584.2 | 31.75 | 20 | 635 |
| $24^{\prime \prime}(600 \mathrm{~mm})$ | 600 | 967 | 815 | 46.1 | 2 | 692.2 | 34.9 | 20 | 749.3 |



## Catalogue No. AEA / 1032

## "PRV" Pressure Reducing Valve

"Suzhik" Offer Pressure Reducing Valve Investment Cast Stainless Steel Material for Air, Water, Oil, Gas, Steam \& Chemicals.

## Size Range : $1 / 2^{\prime \prime}$ to 4" Screwed / Flange End

## Standard

- $1 / 2^{\prime \prime}$ to $4^{\text {" }}$ Meet requirements of
- ASSEStandard 1003. (ANST 112.26)
- CSAStandard B356
- (ASSE - American Society of Sanitary Engineering )
- (CSA-Canadian Standard Association)


## - Pressure / Temperature

- Temperature
- Tempearture
$: 80^{\circ} \mathrm{C}$ (For Water)
$180^{\circ}$ C (For Stean
- Pressure Adjusting Range
$21 \mathrm{Kg} / \mathrm{cm}^{2}$, Inlet
$: 1^{\sim} 6 \mathrm{Kg} / \mathrm{cm}^{2}, 4^{\sim} 10 \mathrm{Kg} / \mathrm{cm}^{2}$
$8 \sim 13 \mathrm{Kg} / \mathrm{cm}^{2}, 12 \sim 20 \mathrm{Kg} / \mathrm{cm}^{2} 20 \sim 35 \mathrm{Kg} / \mathrm{cm}^{2}$


## Pressure Setting And Flow Rate Of Direct - Activated Pressure Reducing Valve

- Direct-activated pressure reducing valve directly opens and close valve gate by the outlet pressure
- When Outlet pressure is under setting pressure, valve gate automatically opens, To make valve gate fully open, adjustable pressure range and setting pressure are relative points.
- A : Pressure drop needed for fully-opened valve gate $=B / 4, B=$ Adjustable Pressure Range Maximum-Maximum
- B :Adjustable Pressure Range (=Maximum Maximum Adjustable Pressure Range)
- C:Setting Pressure of Outlet
- P: Pressure of fully-opend outlet valve gate, $P=C-A$
- Pressure drop needed for fully-opened valve gate for Adjusting Pressure range $3^{\sim} 9 \mathrm{kgf} / \mathrm{cm} 2$ of direct activated pressure reducing valve.
- $\mathrm{A}=\mathrm{B} / 4=9-3=1.5 \mathrm{kgf} / \mathrm{cm} 2$.
- If the setting pressure of outlet $6 \mathrm{kgf} / \mathrm{cm} 2$, Pressure of fully opened valve gate will be $P=6-1.5=4.5$
- $\mathrm{kgf} / \mathrm{cm} 2$ (Outlet Pressure should go down under $4.5 \mathrm{kgf} / \mathrm{cm} 2$ to make valve gate fully open)


## Options

- Available different Models for Air, Wtare, Oil, Gas, Steam \& Chemical
- LP-Low Pressure Range :10-35 PSI
- HP-High Pressure Range: Max. Inlet $40 \mathrm{Kg} / \mathrm{cm}^{2}$ Outlet $12 \sim 25 \mathrm{Kg} / \mathrm{cm}^{2}$ $20 \sim 35 \mathrm{Kg} / \mathrm{cm}^{2}$




## Example

- Pressure drop needed for fully - opened valve. gate for adjustable Pressure range $3 \sim 9$ $\mathrm{Kg} / \mathrm{cm}^{2}$ of direct activated pressure reducing valve
- $\mathrm{A}=\mathrm{B} / 4=9-3=1.5 \mathrm{Kg} / \mathrm{cm}^{2}$
- If the setting pressure of outlet $6 \mathrm{Kg} / \mathrm{cm}^{2}$, Pressure of fully-opened valve gate will be $P$ $=6-1.5=4.5$
- $\mathrm{Kgf} / \mathrm{cm}^{2}$ (Outlet Pressure should go down under $4.5 \mathrm{Kg} / \mathrm{cm}^{2}$ to make valve gate fully

| No. | Description | Material | Qty. |
| :--- | :--- | :--- | :--- |
| 01 | Body | CF8 / CF8M | 01 |
| 02 | Bonnet | CF8 / CF8M | 01 |
| 03 | Piston | CF8 / CF8M | 01 |
| 04 | Spring | S. S. 302 | 01 |
| 05 | Spring Guide | Brass / S. S. 410 | 01 |
| 06 | Diaphragm | NBR / Viton | 01 |
| 07 | Piston V - Seal | NBR / Viton | 01 |
| 08 | Washer | NBR / Viton | 01 |
| 09 | End Cover | CF8 / CF8M | 01 |
| 10 | End Cover 'O' - Ring | NBR / Viton | 01 |
| 11 | Plug | CF8 / CF8M | 01 |
| 12 | Plug V-Seal | NBR / Viton | 01 |
| 13 | Bonnet 'O' - Ring | NBR / Viton | 01 |
| 14 | Adjusting Bolts | S. S. 304 / 316 | 01 |
| 15 | Adjusting Nut | S. S. 304 / 316 | 01 |
|  |  |  |  |



| Dimensions : (Screwed End) (All Dimensions are in mm) |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Valve <br> Model | Valve Size |  | LM | Inch | L | $H$ |
| CV | Weight <br> Approx. |  |  |  |  |  |
| WGS-15-SD | 15 | $1 / 2^{\prime \prime}$ | 70.5 | 72 | 24 | 0.800 |
| WGS-20-SD | 20 | $3 / 4^{\prime \prime}$ | 85.5 | 87 | 9 | 1.000 |
| WGS-25-SD | 25 | $1^{\prime \prime}$ | 90.5 | 91 | 11 | 1.000 |
| WGS-32-SD | 32 | $1.1 / 4^{\prime \prime}$ | 98.5 | 100 | 12.15 | 1.200 |
| WGS-40-SD | 40 | $1.1 / 2^{\prime \prime}$ | 115 | 116 | 21 | 2.250 |
| WGS-50-SD | 50 | $2^{\prime \prime}$ | 120 | 120 | 25 | 2.400 |
| WGS-65-SD | 65 | $2.1 / 2^{\prime \prime}$ | 148 | 147 | 75 | 7.650 |
| WGS-80-SD | 80 | $3^{\prime \prime}$ | 177 | 176 | 80 | 8.050 |
| WGS-100-SD | 100 | $4^{\prime \prime}$ | 190 | 190 | 120 | 12.500 |


| Dimensions: (Flange End) |  |  |  |  |  |  |  |  |  | (All Dimensions are in mm) |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Valve <br> Model | Valve Size |  | Port | $\varnothing 口$ | b | $\emptyset \mathrm{g}$ | f | $\varnothing J$ | N | PCD | L | H | Weight Approx. |
|  | MM | Inch |  |  |  |  |  |  |  |  |  |  |  |
| WGF-15-FD | 15 | $1 / 2^{\prime \prime}$ | 12.5 | 88.9 | 8.9 | 35.05 | 2 | 15.75 | 4 | 60.45 | 138 | 100.8 | 1.500 |
| WGF-20-FD | 20 | 3/4" | 17 | 98.55 | 8.9 | 42.9 | 2 | 15.75 | 4 | 69.85 | 147 | 111.1 | 2.000 |
| WGF-25-FD | 25 | 1 " | 24 | 107.9 | 9.6 | 50.8 | 2 | 15.75 | 4 | 79.25 | 127 | 87.7 | 2.250 |
| WGF-32-FD | 32 | 1.1/4" | 30 | 117.34 | 11.1 | 63.5 | 2 | 15.75 | 4 | 88.9 | 170 | 108.8 | 3.100 |
| WGF-40-FD | 40 | 1.1/2" | 37 | 127 | 12.6 | 73 | 2 | 15.75 | 4 | 98.55 | 195 | 137.5 | 4.700 |
| WGF-50-FD | 50 | $2^{\prime \prime}$ | 49 | 152.4 | 14.15 | 91.95 | 2 | 19.05 | 4 | 120.65 | 208 | 138.5 | 6.300 |
| WGF-65-FD | 65 | 2.1/2 ${ }^{\prime \prime}$ | 64 | 177.8 | 15.4 | 104.65 | 2 | 19.05 | 4 | 139.7 | 210 | -- | 13.500 |
| WGF-80-FD | 80 | $3^{\prime \prime}$ | 80 | 192.5 | 17.9 | 129.16 | 2 | 19.05 | 4 | 152.4 | 225.5 | $\cdots$ | 14.500 |
| WGF-100-FD | 100 | 4 | 100 | 230.6 | 22.4 | 158.57 | 2 | 19.05 | 8 | 190.5 | 251 | -..- | 24.600 |

Flow Chart of Inlet and Outlet Pressure Drop


## Catalogue No. <br> AEA / 1032

## FLOW CHART OF PRV FOR WATER AT 50 DEG C ( US GPM)

| OUTLEI | CV | SIZE | 30 PSI | 45 PSI | 60 PS I | 75 PSI | 90 PSI | 105 PSI | 120 PSI | 135 PSI | 150 PSI | 165 PSI | 180 PSI |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{aligned} & 15 \\ & \text { PSI } \end{aligned}$ | 2.4 | 1/2'1 | 9.29 | 10.73 | 16.08 | 18.58 | 20.78 | 22.75 | 25.39 | 26.28 | 27.86 | 29.38 | 30.82 |
|  | 9 | $3 / 4^{\prime \prime}$ | 34.83 | 40.23 | 60.30 | 69.66 | 77.94 | 85.32 | 95.22 | 98.55 | 104.49 | 110.16 | 115.56 |
|  | 11 | $1{ }^{1 \prime}$ | 42.57 | 49.17 | 73.70 | 85.14 | 95.26 | 104.28 | 116.38 | 120.45 | 127.71 | 134.64 | 141.24 |
|  | 12.15 | 1.1/4" | 47.02 | 54.31 | 81.41 | 94.04 | 105.22 | 115.18 | 128.55 | 133.04 | 141.06 | 148.72 | 156.01 |
|  | 21 | $11 / 2^{\prime \prime}$ | 81.27 | 93.87 | 140.70 | 162.54 | 181.86 | 199.08 | 222.18 | 229.95 | 243.81 | 257.04 | 269.64 |
|  | 25 | $2^{\prime \prime}$ | 96.75 | 111.75 | 167.50 | 193.50 | 216.50 | 237.00 | 264.50 | 273.75 | 290.25 | 306.00 | 321.00 |
|  | 75 | $21 / 2^{\prime \prime}$ | 290.25 | 335.25 | 502.50 | 580.50 | 649.50 | 711.00 | 793.50 | 821.25 | 870.75 | 918.00 | 963.00 |
|  | 80 | $3^{\prime \prime}$ | 309.60 | 357.60 | 536.00 | 619.20 | 692.80 | 758.40 | 846.40 | 876.00 | 928.80 | 979.20 | 1027.20 |
|  | 120 | $4^{\prime \prime}$ | 464.40 | 536.40 | 804.00 | 928.80 | 1039.20 | 1137.60 | 1269.60 | 1314.00 | 1393.20 | 1468.80 | 1540.80 |
| $\begin{aligned} & 30 \\ & \text { PSI } \end{aligned}$ | 2.4 | $1 / 2^{\prime \prime}$ |  | 9.29 | 10.73 | 16.08 | 18.58 | 20.78 | 22.75 | 25.39 | 26.28 | 27.86 | 29.38 |
|  | 9 | $3 / 4{ }^{\prime \prime}$ |  | 34.83 | 40.23 | 60.30 | 69.66 | 77.94 | 85.32 | 95.22 | 98.55 | 104.49 | 110.16 |
|  | 11 | $1{ }^{1 \prime}$ |  | 42.57 | 49.17 | 73.70 | 85.14 | 95.26 | 104.28 | 116.38 | 120.45 | 127.71 | 134.64 |
|  | 12.15 | 1.1/4* |  | 47.02 | 54.31 | 81.41 | 94.04 | 105.22 | 115.18 | 128.55 | 133.04 | 141.06 | 148.72 |
|  | 21 | $11 / 2^{\prime \prime}$ |  | 81.27 | 93.87 | 140.70 | 162.54 | 181.86 | 199.08 | 222.18 | 229.95 | 243.81 | 257.04 |
|  | 25 | $2^{\prime \prime}$ |  | 96.75 | 111.75 | 167.50 | 193.50 | 216.50 | 237.00 | 264.50 | 273.75 | 290.25 | 306.00 |
|  | 75 | $21 / 2^{\text {n }}$ |  | 290.25 | 335.25 | 502.50 | 580.50 | 649.50 | 711.00 | 793.50 | 821.25 | 870.75 | 918.00 |
|  | 80 | $3^{\prime \prime}$ |  | 309.60 | 357.60 | 536.00 | 619.20 | 692.80 | 758.40 | 846.40 | 876.00 | 928.80 | 979.20 |
|  | 120 | $4^{\prime \prime}$ |  | 464.40 | 536.40 | 804.00 | 928.80 | 1039.20 | 1137.60 | 1269.60 | 1314.00 | 1393.20 | 1468.80 |
| $\begin{aligned} & 45 \\ & \text { PSI } \end{aligned}$ | 2.4 | $1 / 2^{\prime \prime}$ |  |  | 9.29 | 10.73 | 16.08 | 18.58 | 20.78 | 22.75 | 25.39 | 26.28 | 27.86 |
|  | 9 | $3 / 4{ }^{\prime \prime}$ |  |  | 34.83 | 40.23 | 60.30 | 69.66 | 77.94 | 85.32 | 95.22 | 98.55 | 104.49 |
|  | 11 | $1{ }^{\prime \prime}$ |  |  | 42.57 | 49.17 | 73.70 | 85.14 | 95.26 | 104.28 | 116.38 | 120.45 | 127.71 |
|  | 12.15 | 1.1/4* |  |  | 47.02 | 54.31 | 81.41 | 94.04 | 105.22 | 115.18 | 128.55 | 133.04 | 141.06 |
|  | 21 | $11 / 2^{\prime \prime}$ |  |  | 81.27 | 93.87 | 140.70 | 162.54 | 181.86 | 199.08 | 222.18 | 229.95 | 243.81 |
|  | 25 | $2^{\prime \prime}$ |  |  | 96.75 | 111.75 | 167.50 | 193.50 | 216.50 | 237.00 | 264.50 | 273.75 | 290.25 |
|  | 75 | $21 / 2^{\prime \prime}$ |  |  | 290.25 | 335.25 | 502.50 | 580.50 | 649.50 | 711.00 | 793.50 | 821.25 | 870.75 |
|  | 80 | $3^{\prime \prime}$ |  |  | 309.60 | 357.60 | 536.00 | 619.20 | 692.80 | 758.40 | 846.40 | 876.00 | 928.80 |
|  | 120 | $4^{\prime \prime}$ |  |  | 464.40 | 536.40 | 804.00 | 928.80 | 1039.20 | 1137.60 | 1269.60 | 1314.00 | 1393.20 |
| $\begin{aligned} & 60 \\ & \text { PSI } \end{aligned}$ | 2.4 | $1 / 2^{\prime \prime}$ |  |  |  | 9.29 | 10.73 | 16.08 | 18.58 | 20.78 | 22.75 | 25.39 | 26.28 |
|  | 9 | $3 / 4{ }^{\prime \prime}$ |  |  |  | 34.83 | 40.23 | 60.30 | 69.66 | 77.94 | 85.32 | 95.22 | 98.55 |
|  | 11 | 1 " |  |  |  | 42.57 | 49.17 | 73.70 | 85.14 | 95.26 | 104.28 | 116.38 | 120.45 |
|  | 12.15 | 1.1/4" |  |  |  | 47,02 | 54.31 | 81.41 | 94.04 | 105.22 | 115.18 | 128.55 | 133.04 |
|  | 21 | $11 / 2^{\prime \prime}$ |  |  |  | 81.27 | 93.87 | 140.70 | 162.54 | 181.86 | 199.08 | 222.18 | 229.95 |
|  | 25 | $2^{\prime \prime}$ |  |  |  | 96.75 | 111.75 | 167.50 | 193.50 | 216.50 | 237.00 | 264.50 | 273.75 |
|  | 75 | $21 / 2^{\text {n }}$ |  |  |  | 290.25 | 335.25 | 502.50 | 580.50 | 649.50 | 711.00 | 793.50 | 821.25 |
|  | 80 | $3^{\prime \prime}$ |  |  |  | 309.60 | 357.60 | 536.00 | 619.20 | 692.80 | 758.40 | 846.40 | 876.00 |
|  | 120 | $4^{\prime \prime}$ |  |  |  | 464.40 | 536.40 | 804.00 | 928.80 | 1039.20 | 1137.60 | 1269.60 | 1314.00 |
| $\begin{aligned} & 75 \\ & \text { PSI } \end{aligned}$ | 2.4 | $1 / 2^{\prime \prime}$ |  |  |  |  | 9.29 | 10.73 | 16.08 | 18.58 | 20.78 | 22.75 | 25.39 |
|  | 9 | $3 / 4{ }^{\text {n }}$ |  |  |  |  | 34.83 | 40.23 | 60.30 | 69.66 | 77.94 | 85.32 | 95.22 |
|  | 11 | $1{ }^{\prime \prime}$ |  |  |  |  | 42.57 | 49.17 | 73.70 | 85.14 | 95.26 | 104.28 | 116.38 |
|  | 12.15 | 1.1/4* |  |  |  |  | 47.02 | 54.31 | 81.41 | 94.04 | 105.22 | 115.18 | 128.55 |
|  | 21 | $11 / 2^{\prime \prime}$ |  |  |  |  | 81.27 | 93.87 | 140.70 | 162.54 | 181.86 | 199.08 | 222.18 |
|  | 25 |  |  |  |  |  | 96.75 | 111.75 | 167.50 | 193.50 | 216.50 | 237.00 | 264.50 |
|  | 75 | $21 / 2^{\prime \prime}$ |  |  |  |  | 290.25 | 335.25 | 502.50 | 580.50 | 649.50 | 711.00 | 793.50 |
|  | 80 | $3^{\prime \prime}$ |  |  |  |  | 309.60 | 357.60 | 536.00 | 619.20 | 692.80 | 758.40 | 846.40 |
|  | 120 | 4" |  |  |  |  | 464.40 | 536.40 | 804.00 | 928.80 | 1039.20 | 1137.60 | 1269.60 |
| $\begin{aligned} & 90 \\ & \text { PSI } \end{aligned}$ | 2.4 | $1 / 2^{\prime \prime}$ |  |  |  |  |  | 9.29 | 10.73 | 16.08 | 18.58 | 20.78 | 22.75 |
|  | 9 | $3 / 4{ }^{\prime \prime}$ |  |  |  |  |  | 34.83 | 40.23 | 60.30 | 69.66 | 77.94 | 85.32 |
|  | 11 | $1{ }^{\prime \prime}$ |  |  |  |  |  | 42.57 | 49.17 | 73.70 | 85.14 | 95.26 | 104.28 |
|  | 12.15 | 1.1/4" |  |  |  |  |  | 47.02 | 54.31 | 81.41 | 94.04 | 105.22 | 115.18 |
|  | 21 | 11/2" |  |  |  |  |  | 81.27 | 93.87 | 140.70 | 162.54 | 181.86 | 199.08 |
|  | $25$ | $2^{\prime \prime}$ |  |  |  |  |  | 96.75 | 111.75 | 167.50 | 193.50 | 216.50 | 237.00 |
|  | 75 | $21 / 2^{\prime \prime}$ |  |  |  |  |  | 290.25 | 335.25 | 502.50 | 580.50 | 649.50 | 711.00 |
|  | 80 | $3^{\prime \prime}$ |  |  |  |  |  | 309.60 | 357.60 | 536.00 | 619.20 | 692.80 | 758.40 |
|  | 120 | $4^{\prime \prime}$ |  |  |  |  |  | 464.40 | 536.60 | 804.00 | 928.80 | 1039.20 | 1137.60 | www.airaindia.com / www.airaeuro.com



# Catalogue No. <br> AEA / 1038 

## Size Range : $1 / 2^{\prime \prime}$ to $4^{\prime \prime}$ Screwed / Flanged

## - Function

- Safety valves are used on Pressure equipments, Containers or Pipeline as over Pressure in the equipment increases and exceeds allowance, the valve can automatically open to discharge some mediums to prevent the pressure keeping raised. When the pressure decreases till to the stipulated value, the valve can close in time to avoid the pressure too much reduced, so that normal production will be carried out.

| No. | Description | Material | Qty. |
| :---: | :---: | :---: | :---: |
| 01 | Body Screwed | WCB / CF8 / CF8M | 01 |
| 02 | Bonnet | WCB / CF8 / CF8M | 01 |
| 03 | Balanced Piston | CF8 / CF8M | 01 |
| 04 | Adjusting Ring | S. S. 304 | 01 |
| 05 | Adjusting Bolt | S. S. 304 | 01 |
| 06 | Adjusting Lock Nut | M. S. | 01 |
| 07 | Stem | S. S. 304 | 01 |
| 08 | Flat Washer | M.S. | 01 |
| 09 | Spring | S. S. 302 | 01 |
| 10 | Spring Guide | S. S. 304 | 02 |
| 11 | Lock Screw | S. S. 304 | 01 |
| 12 | Cap | CF8 / CF8M | 01 |
| 13 | Lifting Lever | CF8 / CF8M | 01 |
| 14 | Lever Pin | S. S. 304 | 01 |
| 15 | Hex. Nut Lock Screw | ASTM 194 | 01 |
| 16 | Hex. Nut For Steam | ASTM 194 | 01 |
| 17 | Fitting Bolt For Cap | ASTM 194 | 02 |
| 18 | Spring Washer | S. S. 304 | 01 |



Screwed End Dimension
Dimensions: (All Dimensions are in mm )

| Valve <br> Model | Valve Size |  | L | H |
| :---: | :---: | :---: | :---: | :---: |
|  | MM | Inch |  |  |
| PTS - 15 | 15 | 1/2" | 59.5 | 193.5 |
| PTS-20 | 20 | $3 / 4{ }^{\prime \prime}$ | 67 | 212.5 |
| PTS-25 | 25 | 1 " | 75 | 235.8 |
| PTS - 32 | 32 | 1.1/4" | 88.5 | 273.85 |
| PTS - 40 | 40 | 1.1/2" | 100 | 293.2 |
| PTS - 50 | 50 | $2{ }^{\prime \prime}$ | 110 | 324.8 |
| PTS - 65 | 65 | 2.1/2" | 133 | 415.85 |
| PTS - 80 | 80 | 3 " | 174.5 | 486 |



| No. | Description | Material | Qty |
| :---: | :---: | :---: | :---: |
| 01 | Body Flanged | WCB | 01 |
| 02 | Top Cover | WCB | 01 |
| 03 | Bracket | WCB | 01 |
| 04 | Bonnet | CF8 / CF8M | 01 |
| 05 | Bonnet Adjusting Ring | CF8 / CF8M | 01 |
| 06 | Piston Guide | CF8 / CF8M | 01 |
| 07 | Piston Guide Adjusting Ring | CF8 / CF8M | 01 |
| 08 | Piston | CF8 / CF8M | 01 |
| 09 | Adjusting Bolt | S. S. 304 | 01 |
| 10 | Adjusting Lock Nut | M. S. | 01 |
| 11 | Stem | S. S. 304 | 01 |
| 12 | Spring | S. S. 302 | 01 |
| 13 | Lifting Lever | CF8 / CF8M | 01 |
| 14 | Lifting Handle | CF8/CF8M | 01 |
| 15 | Lifting Lever Pin | M. S. | 01 |
| 16 | Lifting Handle Pin | M. S. | 01 |
| 17 | Piston Bush | M. S. | 01 |
| 18 | Cap Lock Nut | M. S. | 02 |
| 19 | Nut For Stem | M. S. | 01 |
| 20 | Fitting Stud | M. S. | 08 |
| 21 | Fitting Nut | M. S. | 08 |

Flange End Dimension
Dimensions : (All Dimensions are in mm)

| Valve <br> Model | Valve Size |  | L | H |
| :---: | :---: | :---: | :---: | :---: |
| MM | Inch | L |  |  |
| PTF-50 | 50 | $2^{\prime \prime}$ | 213 | 627.3 |
| PTF-65 | 65 | $2.1 / 2^{\text {n }}$ | 235 | 652.4 |
| PTF-80 | 80 | $3^{\prime \prime}$ | 248 | 809.5 |


(04)
(€ IBR
"Suzhik" Offer High Flow Drum Type Pressure Reducing Valves Suitable for Air, Water, Steam, Gas \& Oil ect.

## Size Range : 2" to 24" Flanged

## Relevant Standard:

Face To Face Of Valve
Flanges of Valve

As Per Manufacturing Standard As Per ASME B 16.5 RF

## Features :

- Smart Design with High Flow Characteristics
- Pressure reducing valve can be installed in water supply, air conditioning and fire control systems to maintain the Constant outlet pressure.
- The pressure reducing valve used a sub-valve (pilot valve) to control the main valve. When the outlet pressure reaches the setting range of pressure reducing pilot valve, the pilot valve will automatically sense the outlet pressure and adjusting the pressure of the back pressure chamber in the main valve, so the valve gate can be opened and consequently maintains the out let pressure.
- The pressure gauge on the pilot valve shows the outlet pressure. When the outlet opens, the valve of the pressure gauge will decrease.


| Dimensions: |  |  |  |  | (All Dimensions are in mm) |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Valve <br> Model | Valve Size |  | Port | A | L | CV | Weight <br> (Approx.) |
|  | MM | Inch |  |  |  |  |  |
| DPF - 50 | 50 | $2{ }^{\prime \prime}$ | 60 | 186 | 190 | 75 | 9.180 |
| DPF-65 | 65 | 2.1/2" | 69 | 196 | 210 | 105 | 11.960 |
| DPF - 80 | 80 | $3 "$ | 84 | 211 | 225 | 140 | 17.580 |
| DPF - 100 | 100 | $4 "$ | 110 | 223.5 | 250 | 260 | 23.340 |
| DPF-125 | 125 | $5{ }^{\prime \prime}$ | 131.5 | 242 | 280 | 390 | 49.560 |
| DPF - 150 | 150 | $6 "$ | 158.5 | 256.5 | 309.5 | 550 | 49.560 |
| DPF - 200 | 200 | $8{ }^{\prime \prime}$ | 208.5 | 303 | 419 | 1000 | 92.300 |
| DPF - 250 | 250 | 10 " | 257 | 336 | 473 | 1699 | 124.320 |
| DPF - 300 | 300 | $12^{\prime \prime}$ | 302 | 370 | 532 | 2200 | 196.840 |
| DPF-350 | 350 | 14 " | 324 | 415 | 598.4 | 3000 | 265.000 |
| DPF-400 | 400 | $16^{\prime \prime}$ | 345 | 413 | 634 | 4000 | 278.600 |
| DPF-450 | 450 | $18^{\prime \prime}$ | 472 | 407 | 766 | 5300 | 457.000 |
| DPF-500 | 500 | 201 | 472 | 493 | 772.7 | 6100 | 491.450 |
| DPF -600 | 600 | $24 "$ | 589 | 533 | 900 | 9200 | ----- |



Pressure / Temperature

Temperature Range Maximum Inlet Pressure

Pressure Adjusting Range
$80^{\circ} \mathrm{C}$ ( For Water ) $/ 180^{\circ} \mathrm{C}$ ( For Steam ) Cast Iron Body - $14 \mathrm{Kg} / \mathrm{cm}^{2}$ WCB / S. S. Body - $21 \mathrm{Kg} / \mathrm{cm}^{2}$ $1 \sim 7 \mathrm{Kg} / \mathrm{cm}^{2} / 4 \sim 12 \mathrm{Kg} / \mathrm{cm}^{2}$ $\left(1 \mathrm{~kg} / \mathrm{cm}^{2}=14.2 \mathrm{PSI}\right.$ )


