## 36H Series

Model PRH High Capacity Pressure Reducing Valve



## DESCRIPTION

Apollo ${ }^{\circledR}$ PRH (36H Series) Pressure Reducing Valves are designed for commercial, industrial, and institutional applications to reduce incoming water pressure for protection of plumbing system components and to reduce water consumption. The valves are made with proven ASTM grade bronze and stainless steel materials. The PRH provides high capacity flow with low pressure drop. It is designed with an integral by-pass relief to protect against thermal expansion downstream. The bottom access enables easy in-line cleaning or seat replacement. Not for use with potable water systems.

## FEATURES

- Sealed Spring Cage for Vault Installation
- Ultra-high Flow Capacity
- Internal Thermal Expansion Bypass
- Local Code Approvals
- Standard Factory Setting: 50 psi
- Three spring ranges cover 10-125 psi
- Stainless Steel Bolts and Spring
- 150\# ANSI B16.24 Flange Connection Option
- In-line strainer option
- 100\% MADE IN THE USA


## PERFORMANCE RATING

- Maximum Inlet Supply Pressure: up to 400 psig
- Temperature Range: $33^{\circ} \mathrm{F}-180^{\circ} \mathrm{F}$


## APPROVALS

- ASSE 1003
- CSA B356


## OPTIONS

## STANDARD MATERIALS LIST

| BODY | Bronze, ASTM B584 |
| :--- | :--- |
| BONNET/CAP | Bronze, ASTM B584 |
| DIAPHRAGM | FDA approved Buna-N w/ Nylon |
| SEAT DISC | FDA approved EPDM |
| YOKE | Bronze, ASTM B584 |
| SPRINGS | Stainless Steel |
| O-RINGS | FDA approved Nitrile |

- (02) - 10-35 psi
- (03) $-75-125 \mathrm{psi}$
- (36HLF) - Certified Lead Free


## DIMENSIONS

| MODEL NUMBER | PART NUMBER | $\begin{aligned} & \text { SIZE } \\ & \text { (IN.) } \end{aligned}$ | DIMENSIONS (IN.) |  |  |  |  |  | $\begin{array}{\|c\|} \hline \text { WT. (LB.) } \\ \text { W/ } \\ \text { STRAINER } \end{array}$ | $\begin{aligned} & \text { WT. (LB.) } \\ & \text { W/O } \\ & \text { STRAINER } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | A | B | C | D | E | F |  |  |
| PRH | 36H-203 | 1/2 | 4.12 | 2.25 | 9.25 | 1.87 | 8.37 | 4.00 | 7.00 | 6.0 |
| PRH | 36H-204 | 3/4 | 4.12 | 2.25 | 9.25 | 2.44 | 9.00 | 4.00 | 8.00 | 6.0 |
| PRH | 36H-205 | 1 | 4.82 | 2.31 | 9.81 | 4.00 | 10.25 | 4.70 | 12.00 | 8.0 |
| PRH | 36H-206 | 1-1/4 | 6.19 | 3.19 | 13.20 | 3.37 | 12.50 | 6.50 | 29.00 | 24.0 |
| PRH | 36H-207 | 1-1/2 | 6.75 | 3.19 | 13.20 | 3.87 | 13.13 | 6.50 | 29.00 | 23.0 |
| PRH | 36H-208 | 2 | 8.12 | 3.50 | 16.00 | 4.63 | 16.00 | 7.63 | 47.00 | 38.0 |
| PRH | 36H-209 | 2-1/2 | 8.12 | 3.50 | 16.00 | 6.00 | 17.70 | 7.63 | 49.00 | 37.0 |
| PRH | 36H-200 | 3 | 10.37 | 4.00 | 19.12 | 7.00 | 20.50 | 9.75 | 87.00 | 70.0 |
| FLANGED |  |  |  |  |  |  |  |  |  |  |
| PRH | 36H-709 | 2-1/2 | 10.37 | 3.50 | 16.00 | 7.12 | 21.70 | 7.63 | 105.00 | 55.0 |
| PRH | 36H-700 | 3 | 12.50 | 4.00 | 19.12 | 8.12 | 24.50 | 9.75 | 132.00 | 104.0 |

[^0]integrated piping systems

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## PART NUMBER MATRIX

| $\mathbf{3 6 H L F}$ <br> $\mathbf{3 6 H} \mathbf{- X}$ | $\mathbf{X}$ | $\mathbf{X}$ | $\mathbf{O X}$ |
| :--- | :--- | :--- | :--- |
| END CONNECTIONS | OPTIONS | $\mathbf{S I Z E}$ | PRESSURE RANGE |
| 2 - FNPTXFNPT (STANDARD) | $0-$ STANDARD | $3-1 / 2^{\prime \prime}$ | $01-25-75$ PSIG (STANDARD) |
| 7 - FLANGED (2-1/2" - 3" ONLY) | $1-$ WITH Y-STRAINER | $4-3 / 4^{\prime \prime}$ | $02-10-35$ PSIG |
|  |  | $5-1 "$ | $03-75-125$ PSIG |
|  |  | $6-1-1 / 4^{\prime \prime}$ |  |
|  |  | $7-1-1 / 2^{\prime \prime}$ |  |
|  |  | $8-22^{\prime \prime}$ |  |
|  |  | $0-2-1 / 2^{\prime \prime}$ |  |

## MODEL NUMBER MATRIX

| PRH - X | X | X | X | LF |
| :---: | :---: | :---: | :---: | :---: |
| END CONNECTIONS | ACCESSORIES | PRESSURE ADJ. RANGE | SIZE |  |
| T - THREADED | Y - WITH-STRAINER | STANDARD - 25-75 PSIG (SET AT 50) | $12-1 / 2^{\prime \prime}$ | LF - LEAD FREE |
| F - ANSI 150\# FLANGES |  | H - $75-125$ PSIG (SET AT 100) | $34-3 / 4^{\prime \prime}$ | BLANK - STANDARD MATERIAL |
| (2-1/2" - $3^{\prime \prime}$ ONLY) |  | L - 10-35 PSIG (SET AT 25) | 1-1" |  |
|  |  |  | $114-11 / 44^{\prime \prime}$ |  |
|  |  |  | $112-1-1 / 2^{\prime \prime}$ |  |
|  |  |  | $2-2^{\prime \prime}$ |  |
|  |  |  | $212-2-1 / 2^{\prime \prime}$ |  |
|  |  |  | $3-3^{\prime \prime}$ |  |

FLOW CAPACITY (GPM)

| PIPE SIZE | FALL-OFF* (PSI) | PRESSURE DIFFERENTIAL (PSI) |  |  | PIPE SIZE | FALL-OFF * (PSI) | PRESSURE DIFFERENTIAL (PSI) |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 25 | 50 | 75 |  |  | 25 | 50 | 75 |
| 1/2" | 5 | 8.5 | 10 | 11.5 | 1-1/2" | 5 | 29.8 | 35.0 | 40.3 |
|  | 10 | 13.6 | 16 | 18.4 |  | 10 | 61.5 | 72.3 | 83.1 |
|  | 15 | 17.9 | 21 | 24.2 |  | 15 | 90.1 | 106.0 | 121.9 |
|  | 20 | 21.3 | 25 | 28.8 |  | 20 | 113.1 | 133.0 | 153.0 |
| 3/4" | 5 | 10.6 | 12.5 | 14.4 | 2" | 5 | 55.3 | 65.0 | 74.8 |
|  | 10 | 20.4 | 24.0 | 27.6 |  | 10 | 126.7 | 149.0 | 171.4 |
|  | 15 | 28.1 | 33.0 | 38.0 |  | 15 | 174.3 | 205.0 | 235.8 |
|  | 20 | 34.0 | 40.0 | 46.0 |  | 20 | 231.2 | 272.0 | 312.8 |
| $1 "$ | 5 | 17.0 | 20.0 | 23.0 | 2-1/2" | 5 | 58.7 | 69.0 | 79.4 |
|  | 10 | 29.8 | 35.0 | 40.3 |  | 10 | 132.6 | 156.0 | 179.4 |
|  | 15 | 40.8 | 48.0 | 55.2 |  | 15 | 200.6 | 236.0 | 271.4 |
|  | 20 | 51.0 | 60.0 | 69.0 |  | 20 | 271.2 | 319.0 | 366.9 |
| 1-1/4" | 5 | 21.3 | 25.0 | 28.8 | 3" | 5 | 80.8 | 95.0 | 109.3 |
|  | 10 | 51.9 | 61.0 | 70.2 |  | 10 | 176.0 | 207.0 | 238.1 |
|  | 15 | 80.8 | 95.0 | 109.3 |  | 15 | 282.5 | 332.4 | 382.3 |
|  | 20 | 106.3 | 125.0 | 143.8 |  | 20 | 365.5 | 430.0 | 494.5 |

## PRH SERIES PRV FLOW RATE VS. PRESSURE FALL-OFF



Note: Flow curves are based on static conditions of 100psi inlet pressure and 50 psi outlet pressure.

Pressure differential is the difference between the supply pressure and adjusted outlet pressure measured in the static (closed) condition.

Pressure fall-off is the decrease in downstream regulated pressure as the flow increases.


[^0]:    Nominal dimensions are shown. Allowances must be made for manufacturers tolerances.

