




# AURORA 1030 A 1040



## Suction Diffusers, Combination and Triple Duty Valves

Designed for Direct Mounting on the Suction Flange of Horizontal and Vertical Pumps.

### Aurora Suction Diffuser Design:

Model SD: Supplied with cast iron body and ANSI-125/PN16 flanges.

Model SDG: Supplied with ductile iron body with grooved inlet connection and ANSI-125/PN16 outlet flange.

Model SDH: Supplied with ductile iron body and ANSI-250/PN25 flanges

### Model SD, SDG and SDH Suction Diffusers.

### Four-function Pump Fitting.

#### 90° Elbow:

Mounting the Suction Diffuser on any pump suction turns the piping 90°, replacing an elbow. In addition, the Suction Diffuser can be rotated to any position allowed by the pump suction bolts, from vertical to horizontal.

### In-Line Strainer:

The stainless steel strainer has free area of at least 250% of pipe sectional area. A disposable fine-mesh strainer is installed for start-up cleaning.

### Reducing Elbow:

The Suction Diffuser connects same size piping to the pump suction, but can also connect to inlet piping one size larger than the pump suction,

# Designed for Installation on the Discharge Side of Centrifugal Pumps

## Model 3DV Triple Duty Combination Valves:

**Model 3DV:** Triple Duty valve is supplied with hard (cast-in) flanges.

**Model 3DV-G:** Triple Duty valve is supplied with grooved port connections, designed for Aurora® flange adapters or standard gr

# Valve Features

-

# Materials of Construction

## Suction Diffuser Body.

Cast iron, or ductile iron, with ANSI or PN16 flanges. Same size ports are available with oversized inlet flange to eliminate reducer.

## Diffuser Vanes.

# Technical Information

## Design Benefits.

- Reduced field installation and material costs.
- Cast iron or ductile valve body with hard flanges, or ductile iron valve body with standard grooved ends.
- Eliminates requirement for two separate valves on pump discharge and, in some cases, a 90° elbow.
- 3DV-G eliminates three welded flange connections.
- Soft seat to ensure tight shut-off.
- Spring-closure design uses a non-slam silent check valve feature for vertical mounting.
- Flow measurement and pump throttling capabilities.
- Temperature measurement capability.
- Spring-closure design check valve prevents gravity or reverse circulation when pump is not operating.
- Bonnet O-ring can be replaced under full system pressure by back seating of valve stem.
- Suitable for maximum working pressure up to 375 psi (26 bars) and temperatures up to 300°F (150°C).
- Valve seat can be changed in the field without use of special tools.
- Low pressure drop due to “Y” pattern valve design.
- Valve CV designed to ASHRAE flow recommendations for quiet system operation.

## Flow Indicator Scale.

Mounting the Suction Diffuser on any pump suction turns the piping 90°, replacing an elbow. In addition, the Suction Diffuser can be rotated to any position allowed by the pump suction bolts, from vertical to horizontal.

# Typical Specifications – Pump Trim

## Suction Diffusers.

Furnish and install on the suction of each pump an Aurora® Suction

