

# DM4600 Series

## BALL VALVES FOR STEAM SERVICE



### WHAT IS STEAM?

- When water reaches its boiling point when it is heated
- When water passes from a liquid to a gaseous state

## Types of Steam

- Saturated Steam - when heated water reaches its boiling point
- Wet Saturated Steam - a mixture of saturated steam with condensed water particles present
- Dry Saturated Steam - saturated steam is free of water particles
- Super Heated Steam - saturated steam passed through superheater, increasing temperature without increasing pressure

## Limitations of Ball Valves

- Wet steam can damage the ball when the ball is open or closed
- PTFE or RPTFE seats can be damaged when the ball is opened or closed
- Steam and steam condensate is more corrosive than water due to the presence of dissolved gases. This can cause the stem and ball to corrode

## Applications

- Laundry units
- Kettle lines, sterilizers and condensate drains
- Clean lines
- Heating coils in tank, locomotive and steam jacketing
- Brine cooker valve systems
- Heater bypass lines and pressure kettles
- Tire presses, metal pickling, steam cleaning, and boiler shutoff

## Preparation for the DM4600 Series on Low Pressure or High Pressure Steam

- Use TFM 1600 seats and seals for low pressure steam (261 psi @ 403°F)
- Use TFM 4215 seats and seals for saturated steam, high pressure steam (378 psi @ 437°F)
- Vent ball with a 1/8" drill hole in the top of the ball slot to prevent excessive pressure build-up in the cavity from trapped liquid when the valve is in the closed position

## Why is the DM4600 Series Excellent for Low Pressure and High Pressure Steam?

- Live loaded graphoil packing
- Robust square stem so no need to worry about twisting the valve stem
- B16.34 rated valve, firesafe and CRN numbers available
- TFM 4215 good to 300 psi steam and 450°F
- TFM1600 good to 200 psi steam and 400°F
- Easily automated - pneumatic or electric
- For higher pressure applications, we can supply an extended bracket to dissipate the radiant heat that can damage actuation package
- Full port and Bi-directional



**CALL NOW! 513-731-2900**

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