# **Engineering Specification**

Job Name	Contractor
Job Location	Approval
Engineer	Contractor's P.O. No.
Approval	Representative



# Series 2300 **Direct Operated Water Pressure Reducing Valves**

### Sizes: 3" - 4"

Series 2300 Direct Operated Water Pressure Reducing Valves are designed for dead-end water service where the flow is intermittent and changes rapidly, as on domestic water system. This Series is also installed to regulate the flow of water to such fast acting equipment as flushometers and snap cocks. The Series 2300 is recommended where city water pressure is to be reduced to supply plumbing fixtures to prevent violent pressure fluctuations. The 2300 features Lead Free\* construction to comply with Lead Free\* installation requirements.

### Features

- An essentially balanced single seat minimizes variation in delivery pressure resulting from varying inlet pressure
- A large Hycar diaphragm ensures a sensitive response to the slightest changes in reduced pressure
- Packless design eliminates stuffing box friction
- Hycar composition single seat provides for dead-end shutoff and prevents pressure-creep when no flow is required
- Self-aligning design. Eliminates the need for a stem guide in the bottom flanges and removes a point of direct collection that can cause faulty operation
- Disc and piston are located to minimize the possibility of obstruction by dirt
- Large pressure plate gives ample support to the diaphragm assuring long life
- · Self-contained design, requires no control lines
- All internal parts accessible by removing blind flange or spring chamber. Regular maintenance can be performed with the valve body in line
- No stuffing box maintenance required

#### Specifications

A Direct Operated Water Pressure Reducing Valve shall be installed where indicated on the plans. Lead Free\* Direct Operated Water Pressure Reducing Valve shall be constructed using Lead Free\* materials. Lead Free 2300 shall comply with state codes and standards, where applicable, requiring reduced lead content. The Valve shall be manufactured out of cast iron and be pressure rated to 200psi (13.8 bar). The valve shall have a large Hycar diaphragm to ensure sensitive response. Valve shall be a Watts Series 2300.

#### \*The wetted surface of this product contacted by consumable water contains less than 0.25% of lead by weight.

The design of this valve minimizes any danger of dirt lodging in the stem guide.

Essentially balanced single seat minimizes a variation in

delivery pressure resulting from a varying inlet pressure.

A large Hycar diaphragm ensures a sensitive response to the slightest change in reduced pressure.

> This design being selfcontained, no control lines are required.

> > Designed

to close against the

flow. Will

not chatter or pro-

hammer.

Operates smoothly and

quietly.

duce water

No stem guide in bottom flange to collect dirt. These valves are self-aligning and the guiding of the disc is independent of the bolted bottom flange.

#### NOTICE

The information contained herein is not intended to replace the full product installation and safety information available or the experience of a trained product installer. You are required to thoroughly read all installation instructions and product safety information before beginning the installation of this product.

#### NOTICE

Inquire with governing authorities for local installation requirements

Watts product specifications in U.S. customary units and metric are approximate and are provided for reference only. For precise measurements, please contact Watts Technical Service. Watts reserves the right to change or modify product design, construction, specifications, or materials without prior notice and without incurring any obligation to make such changes and modifications on Watts products previously or subsequently sold.



Series 2300

### Applications

- Industrial plants for washrooms and processing operations
- Apartment buildings, hotels, office buildings and hospitals to provide each floor with a steady pressure.
- Municipal or plant water main to maintain constant pressure

### Materials

Body	Cast Iron
Disc	Hycar Composition
Trim	Stainless Steel
Diaphragm	Hycar
Spring	Tempered Steel

### Pressure – Temperature

Maximum Temperature: 150°F (66°C) Maximum Pressure: 200psi (13.8 bar) Reduced Pressure Range: 30 – 80psi (207 – 552 kPa) ANSI Class 125 Flanges: 165psi (11.4 bar) at 200°F (93°C)

## Typical Applications

### Washroom Water Supply

Series 2300 is a direct operated, balanced, tight seating pressure reducing valve, opened and closed by small v ariations in delivery pressure.



### Domestic water pressure control for tall buildings

Series 2300 provides each floor of the building with water at a steady economical pressure. The delivery pressure acting on the spring loaded diaphragm throttles the balanced valve to control the pressure.

WEIGHTS

kgs

49

90

lbs.

108

198







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DIMENSIONS

С

тт

229

286

in.

9

111/4

Е

тт

254

302

in.

10

111%

В

тт

552

676

in.

21<sup>3</sup>/<sub>4</sub>

265/8

# Dimensions – Weights

A mm

153

168

in

6

65%

SIZE

in

3

4