

OOTTV

Gimpel® Oil Operated Trip Throttle Valve (Inverted Globe Body)

.....
Dresser-Rand acquired the Gimpel valve business in April, 2007. Gimpel products include a line of trip, trip throttle, and non-return valves to protect steam turbines and related equipment in industrial and marine applications
.....

The Dresser-Rand Gimpel® oil operated trip throttle valve (OOTTV) is designed to close (trip) after a loss of oil supply pressure, and not reopen until oil pressure has been re-established.

The OOTTV (inverted globe body) is recommended for steam turbines driving the main process compressors in API-612 critical service applications in chemical and petrochemical plants, refineries, and synchronous generators in power generation facilities with normal inlet steam pressure up to 900 psig (63.4 kg/cm2g).

The OOTTV is designed to use hydraulic pressure supplied by the turbine control oil system to compress a fully enclosed, large diameter trip spring. This trip spring allows an OOTTV to typically produce four to 10 times the closing force of a mechanical latch-type trip throttle valve during tripping. The OOTTV is designed with pull-to-close operation and features a back seated stem that results in no continuous valve stem leakage when the valve is operating in its normal, fully-open position.

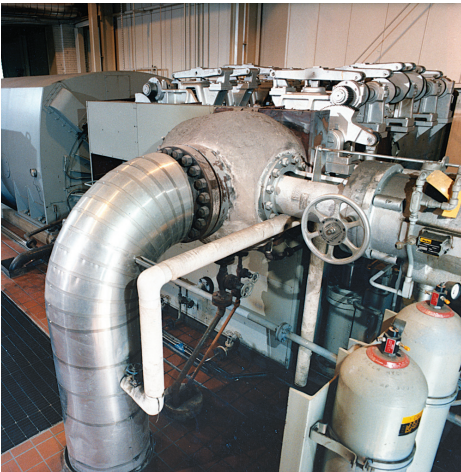
The OOTTV can be furnished in several body styles and assembly arrangements, and can be installed with the valve stem in a horizontal or vertical position. The OOTTV can be designed for start-up or extraction non-return valve service in applications that use a high pressure extraction steam header for unit start-up.

The design incorporates more than 25 years of experience with proven features and technology including:

- ANSI nominal pipe sizes (NPS) four to 24 and pressure classes 150 to 900
- Steam temperatures up to 1004°F (540°C)
- Tripping in 0.3 second or less
- Poppet design with pilot valve capable of opening against full differential steam pressure
- Cast alloy steel valve body with bolted cover available in straight-through, corner body, and top inlet flow arrangements
- Raised face (RF) flange and RTJ (ring-type joint) inlet and outlet connections available
- RF valve body drain and valve stem leak off connections standard
- Chrome moly steel main disc and valve seat – seating contact surfaces overlaid with stellite
- Stainless steel, integral, replaceable, steam strainer basket
- Handwheel provides throttling for use during start-up
- Low pressure (100 – 200 psig) and high pressure (1,100 – 1,600 psig) hydraulic actuators available
- Factory hydrostatic test for strength, porosity, and seat leakage
- Factory operational test without steam
- Final surface inspection

Optional features include:

- Limit switches to monitor valve stem positions
- Solenoid exerciser for remote on-line exercising
- Electric actuator for remote valve operation
- Protective cover (for harsh climate installations)
- Temporary start-up screen with spare cover gasket
- Blowdown kits



For more information on **Gimpel valves** please contact the following location:

Dresser-Rand
1210 W. Sam Houston Pkwy North
Houston, TX 77043
Tel: (Int'l +1) 713-467-2221
Fax: (Int'l +1) 713-346-2100

For a complete listing of products and services, visit www.dresser-rand.com or contact one of the following Dresser-Rand locations.

Dresser-Rand Corporate Headquarters

West8 Tower Suite 1000
10205 Westheimer Road
Houston, TX 77042 USA
Tel: (Int'l +1) 713-354-6100
Fax: (Int'l +1) 713-354-6110
email: info@dresser-rand.com

112, Avenue Kleber
75784 – Paris Cedex 16
Tel: (Int'l +33) 156 26 71 71
Fax: (Int'l +33) 156 26 71 72
email: info@dresser-rand.com

Regional Headquarters

The Americas

Dresser-Rand
West8 Tower Suite 1000
10205 Westheimer Road
Houston, TX 77042 USA
Tel: (Int'l +1) 713-354-6100
Fax: (Int'l +1) 713-354-6110

EMEA

(Europe, Middle East, Eurasia, Africa)
Dresser-Rand S.A.
31 Boulevard Winston Churchill
Cedex 7013
Le Havre 76080 France
Tel: (Int'l +33) 2-35-25-5225
Fax: (Int'l +33) 2-35-25-5366 / 5367

Asia-Pacific

Dresser-Rand Asia Pacific Sdn Bhd
Unit 9-4, 9th Floor
Bangunan Malaysian Re
17 Lorong Dungun
Damansara Heights
50490 Kuala Lumpur, Malaysia
Tel: (Int'l +60) 3-2093-6633
Fax: (Int'l +60) 3-2093-2622

©2008 Dresser-Rand.

This document comprises a general overview of the products described herein. It is solely for informational purposes, does not represent a warranty or guarantee of the information contained herein, and is not to be construed as an offer to sell or a solicitation to buy. Contact Dresser-Rand for detailed design and engineering information suitable to your specific applications. Dresser-Rand reserves the right to modify its products and related product information at any time without prior notice.

Form 2158

OOTTV — Inverted Globe Body Features

Cover provides easy access to internals without removal (neither from line nor of actuator.)

Pilot design reduces opening thrust required with stellite sealing surfaces.

Stellite disks and seat reduce erosion and enhance sealing longevity.

Back seat design reduces steam loss when valve is normally open (removable back seat available).

Stems and bushings are precision ground and honed for smooth, low-friction operation and minimal stem leakage (low- and high-pressure leak-off connections are provided).

Non-rotating coupling eliminates wear and provides non-rotating stem.

Spring pulls "inverted" disk closed in 0.3 second or less.

Special relay controls valve-opening pressure on piston and prevents "pop-up" of disk if oil pressure is re-established before resetting.

Double relay design enables fast and consistent tripping.

Field adjustable throttling screw balances disk for stable operation.

Drilled strainer protects sealing surfaces from debris and protects the turbine.

Before and after seat drains featured.

Beveled gear handwheel provides throttling operation during turbine start-up, manual closing, and resetting after trip; indicator shows position.

Gimpel hydraulic actuators are integral to the valve unit.

Key joins the shaft to the screw which moves up and down depending on the handwheel.

Lever-operated exerciser strokes valve at full-load without reducing steam flow.

Balanced piston allows easy, low-torque operation of handwheel for large and small valves.

