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# TMTTV

Gimpel Top Mechanism Trip  
Throttle Valve  
(Latch-type)

PIB 106-2020

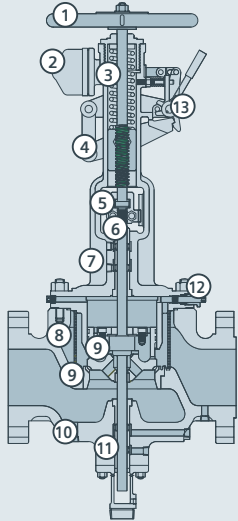


## TMTTV – Gimpel Top Mechanism Trip Throttle Valve

### TMTTV features

**Straight-through or corner:** 90-degree body construction available

**Corrosion resistant:** materials of construction for outdoor use; copperless materials available



- 1 Handwheel
- 2 Hydraulic/spring-actuated relay
- 3 Spring loaded
- 4 Slide nut
- 5 Non-rotating split coupling with bearing
- 6 One-piece stem and pilot valve
- 7 Stems and bushings
- 8 Drilled stainer
- 9 Stellite wear-resistant metal alloy (disc and seat)
- 10 Drain connection
- 11 Lower guide bushing
- 12 Field adjustable throttling screw
- 13 Manual trip

## Background

SE Gimpel top mechanism latch-type trip throttle valve (TMTTV) is suited for single-valve, single-stage and single-valve, multi-stage steam turbines that drive chillers, fans, generators and pumps in air conditioning service, correctional facilities, food processing plants, hospitals, pulp and paper plants, chemical and petrochemical plants, refineries and universities.

The primary function of the Gimpel TMTTV is to function as an emergency closing safety valve that trips at oil pressure loss. It can also be used to slow-roll the steam turbine during start-up.

## Design

The valve is designed so that once tripped it cannot be opened unless safe oil pressure exists in the oil system. It is normally installed with the hand-wheel in a vertical or horizontal position.

The valve can be furnished in several body styles and assembly arrangements.

## Features

The design incorporates more than 50 years of reliable operation and experience with proven technology, including:

### Standard features

- ANSI normal pipe sizes (NPS) 2 to 10 and pressure classes 150 to 900
- Steam temperature up to 950 °F (510°C)
- Tripping in 0.5 seconds
- Poppet design with pilot valve capable of opening against full differential steam pressure
- Cast alloy steel valve body with bolted yoke (cover) available in straight-through, corner-body and tip-inlet flow arrangements
- Nitralloy-nitrided valve stem/ pilot valve and steam bushings
- Chrome moly steel main disc and valve seat (seating contact surfaces are overlaid with Stellite® wear-resistant metal alloys\*)
- Stainless steel, integral, replaceable, steam strainer basket
- Handwheel (provides throttling for use during start-up)
- Local trip lever
- Factory hydrostatic and seat leakage tests
- Factory operational test without steam

### Optional features

- Limit switches and electric valve actuator available
- Hydraulic and pneumatic trip cylinders and trip solenoid (optional)

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