



MODEL

GS

OVAL TURBO STEAM METER

GENERAL CATALOG

The OVAL TURBO STEAM METER has been used as an effective instrument for the measurement of steam for more than twenty-five years.

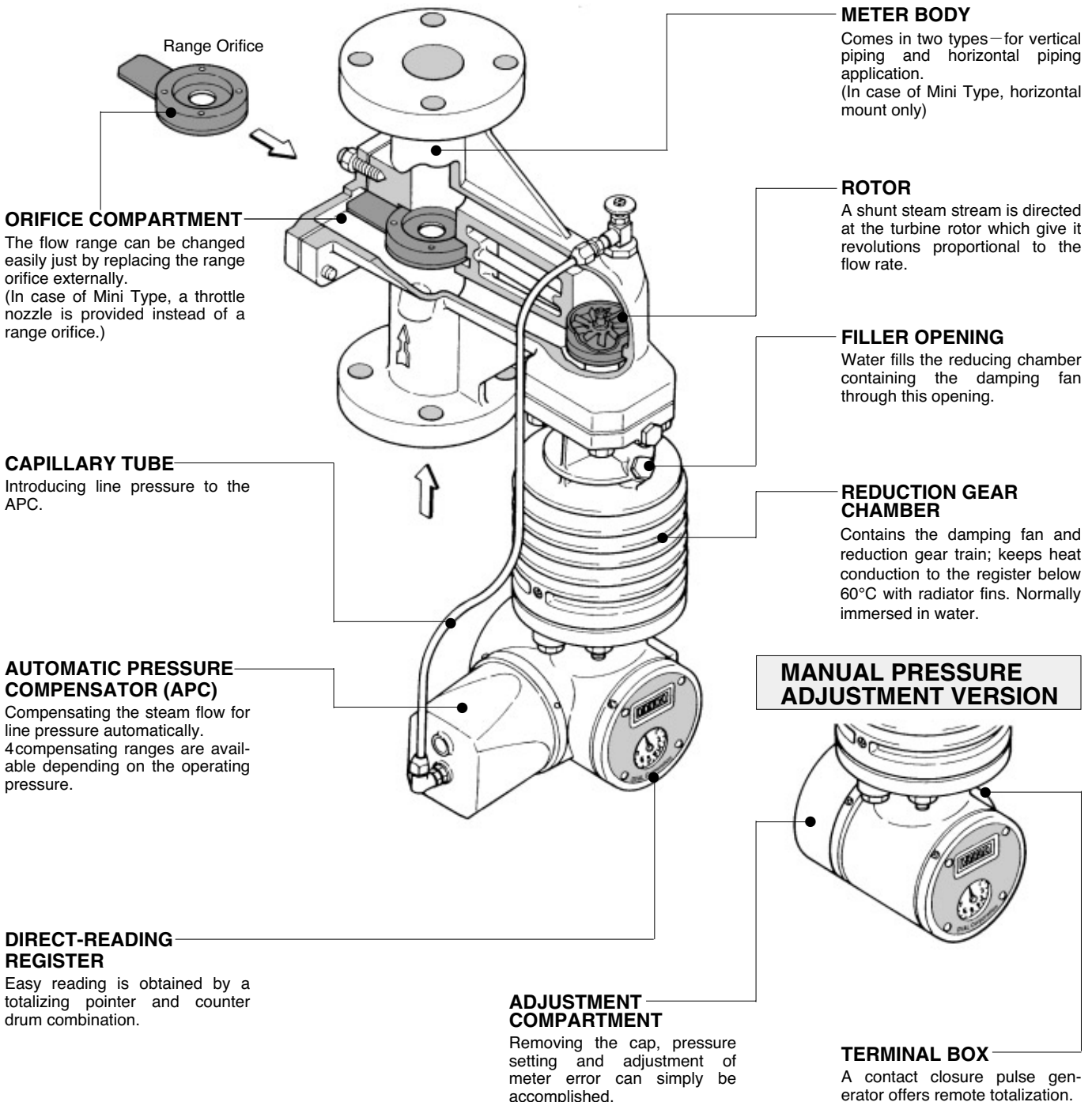
In response to market needs for more modern energy management, we new brought out an entirely new model. This new model accomplishes easy accurate measurement a hundred percent of the time.



FEATURES

1. Wide flow range and high accuracy.
2. Greatly extended service life (more than three times that of previously offered model).
3. Minimized pressure loss. Energy loss substantially reduced.
4. Very simple installation procedure — no pipe taps required.
5. Can readily change range orifices without removing meter from pipe line.
6. Manual pressure adjusting device is standard, and Automatic Pressure Compensator (APC) is optionally available for readout.
7. Easy-to-read total count register which combines a pointer-and-dial and counter drums. Remote totalization also possible.
8. Vertical-mount and horizontal-mount types are available. (A horizontal-mount version only for the MINI Type)

AUTOMATIC PRESSURE COMPENSATION VERSION



PRINCIPLE OF OPERATION

The Turbo Steam Meter is comprised of 4 major components: body with range orifice, by-pass with rotor, reduction gear chamber and direct reading counter.

The total steam flow is divided in the main meter body and a proportional flow passes through the nozzle and bypass. Smooth operation of the rotor is assured by a direct coupled dampening fan operating in a pool of a chamber below the turbine.

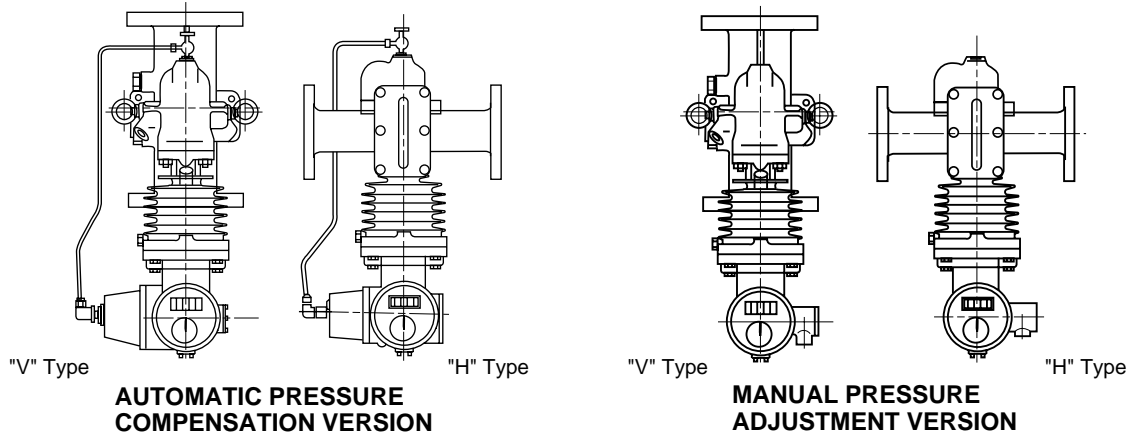
The damping torque of the submerged fan and the turning torque of the measuring rotor are balanced to produce a shaft rotation speed proportional to the total flow through

the meter body. This shaft rotation is transmitted through a magnetic coupling to a computing gear train in the register. Steam flow totals are provided by the direct reading dial and counter in the register. A pulse generator can be located in the register to provide for flow transmission to a remote totalizer.

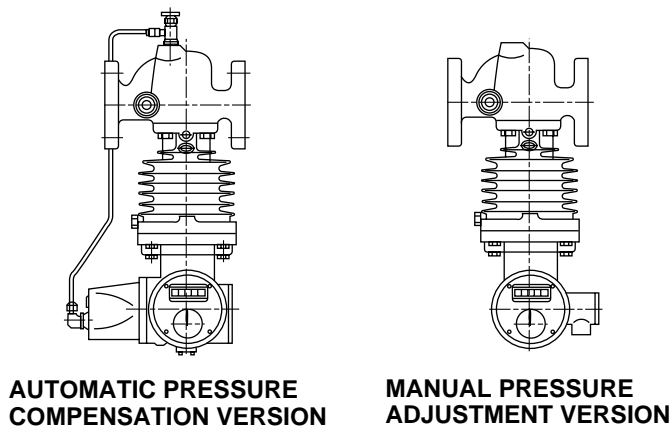
High accuracy is assured by the use of anti-friction bearings throughout. Hard carbon bearings are used at the measuring rotor. Sapphires are used for the lower shaft bearing. All parts are designed to operate smoothly for long periods at high temperatures.

LINE-UP

• STANDARD TYPE



• MINI TYPE



• Specifications

Model	Mini GSM	Standard GSH, GSV
Nominal size	25mm	50, 80, 100mm
Flow range (0.5MPa steam)	15~200kg/h	79~8751kg/h
Operating temp. range	220°C Max.	
Max. operating press.	0.9 MPa	
Accuracy	±2% of RD	
Others	Pulse generator may be added.	

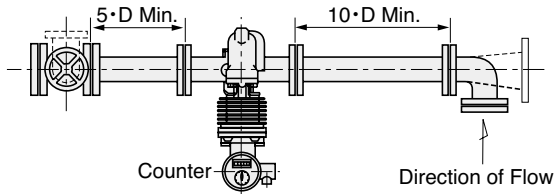
※:For further details, see GS.No. GBG201-E and GBG202-E.

INSTALLATION

Install the meter on a horizontal or vertical straight pipe section. The mini-mum length of straight pipe sections required is 10 times the pipe I.D. up-stream of, and 5 times the pipe

I.D. downstream of the meter. Be sure to fill the reduction gear chamber with clean water or antifreezing solution before startups. Safeguard your meter against freezing in winter.

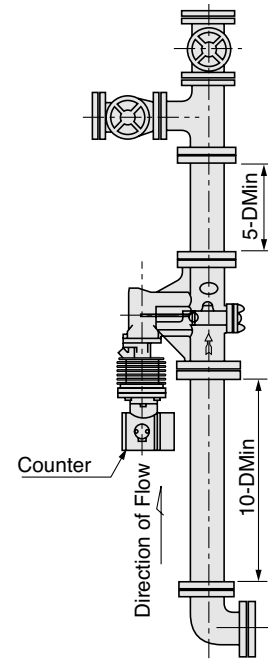
HORIZONTAL INSTALLATION



Note: The direction of the counter face can be changed in 90 deg. steps as necessary.



VERTICAL INSTALLATION



D: Nominal Meter Bore

The specification as of November, 2014 is stated in this catalog. Specifications and design are subject to change without notice.



OVAL Corporation

3-10-8 Kamiochiai, Shinjuku-ku, Tokyo 161-8508, Japan
Tel. 81-3-3360-5121 Fax. 81-3-3365-8605

<http://www.oval.co.jp/english>