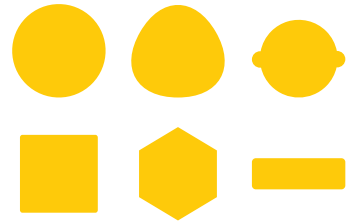


STEELMASTER SMO 100-SX Series

For Diameters/Dimensions up to approx. 80 mm (3.2 in.) (Oscillating/Static)

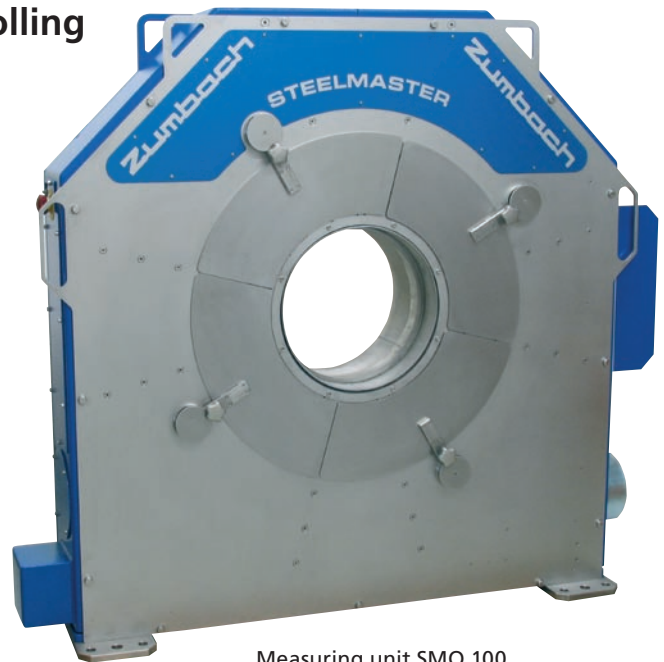


Multi-Mode Diameter Gauges for Hot Rolling of Rod, Bar, Tube, Rebar

Latest technology for top accuracy and for all products. For 2 and 3-roll mills.

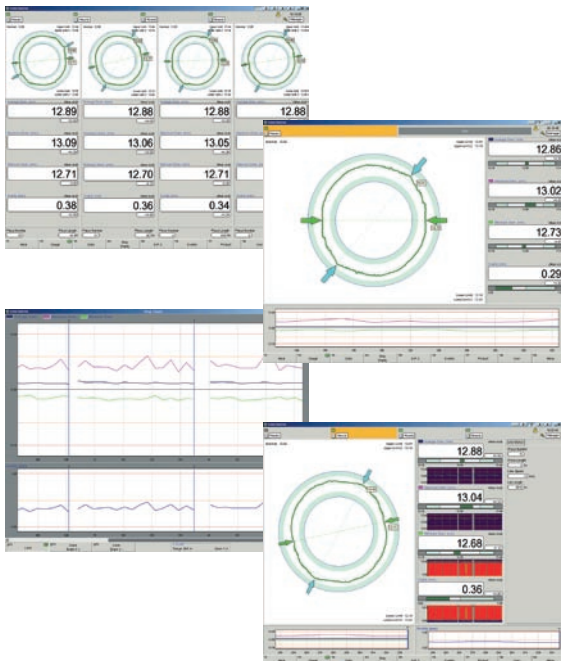
Standard Versions:

- **SMO 100-S2**
Basic model with 2 axes for round and non-round products.
- **SMO 100-S3**
Special model with 3 axes, also for non-round products.
- **SMO 100-S4**
Model with 4 axes for round and non-round. 2x faster than model S2.
- **SMO 100-S6**
High performance model with 6 axes, for rod and bar mills.



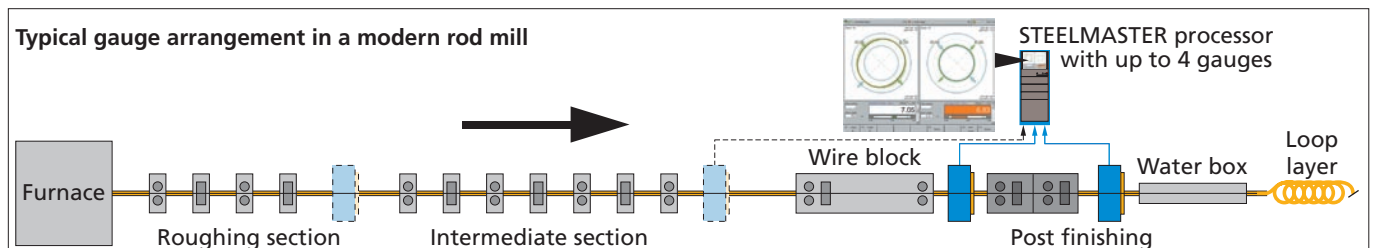
Measuring unit SMO 100

Typical Screens



Outstanding Advantages

- Up to 6000 measurements/s (1000/scanner)
- Extremely compact, only 210 mm (8.27 in.) long
- Three measuring modes at choice:
 - A) Static mode shows evolution over 1 billet
 - B) Oscillating mode captures entire profile
 - C) Selective oscillation over programmable angle shows critical dimensions, especially for non-round products
- Very reliable, thanks to unique protection design
- Large measuring field, uncritical guiding
- Up to 6 measuring heads in the same plane i.e. ovality is known at all times
- Computes also cross section ($\text{mm}^2/\text{in.}^2$)
- Industrial PC, works without hard disk
- Measures rounds and non-round profiles **regardless of product twist**
- Fibre optics cable between measuring unit and processor
- No wear, minimum maintenance



Standard System

Measuring Unit

A robust, welded structure ensures protection of the laser heads against dust, scale, splashes and heat.

- Drive system for oscillation through max. 180°
- Central automatic shutter
- Protection glasses with thermal coating
- Temperature control system
- Cooling for ODs up to approx. 30 mm (1.2 in.) by air only
- Air purging and cooling by blower GE 5

Up to 6 Measuring Heads ODAC 100

- 1 emitter / 1 receiver for each unit
- Principle: Laser scanning 1000/s
- Light source: Solid state laser, class II
- Fully synchronized scanning of all lasers

STEELMASTER Processing and Display System

- Industrial PC (operation without Hard Disk)
- Telephone modem
- High resolution 17" flat screen, keyboard
- 1 x RS-422 for giant displays, 1 for optional use
- ETHERNET TCP/IP
- UBS printer port

Filter / Blower Unit GE 5

Providing filtered air at high volume to purge the laser shutter and for cooling of the measuring unit (3 kW, 135 m³/h [4.7 cu.ft./h]).

STEELMASTER Software

- Pre-processing of the readings
- Suppression of ends
- Computation of diameters, height, width, diagonals
- Min./Max. alarms
- Statistics, printed protocols
- Optional software
- 10 major languages, others on request
- Special software for polygonal shapes
- Section screens
- Trend screens
- Configurable screens
- Split screens (MULTIGAUGE)
- Configuration, calibration screens

Options

MULTIGAUGE Extension

For the connection of up to 4 gauges to the same processor.

Pyrometer

For conversion to cold values (20° C / 68° F).

Traversing System

For positioning or withdrawing of the measuring unit.

Remote Repeater Screens

For mounting and operation up to 150 m (490 ft.) away.

Remote Giant Display

2 or 3 groups of 5 digits for AVG. OVALITY, MIN or MAX.

Air Coolers or Heaters

For cooling and/or heating of blower air.

Additional Water Cooling

Attachment for products of a diameter exceeding approx. 30 mm (1.2 in.).

STEELDATABASE Software

For archiving and reviewing of measuring data.

STEELMASTER REMOTE Software

For communication with up to 10 PC workstations.

Rebar / Debar Software

SPC Software

For SPC statistics, programmable.

POLYGON Software

Special FPS (Full Profile Synthesis) software for polygonal, hexagonal and special shapes and for out of round computation.

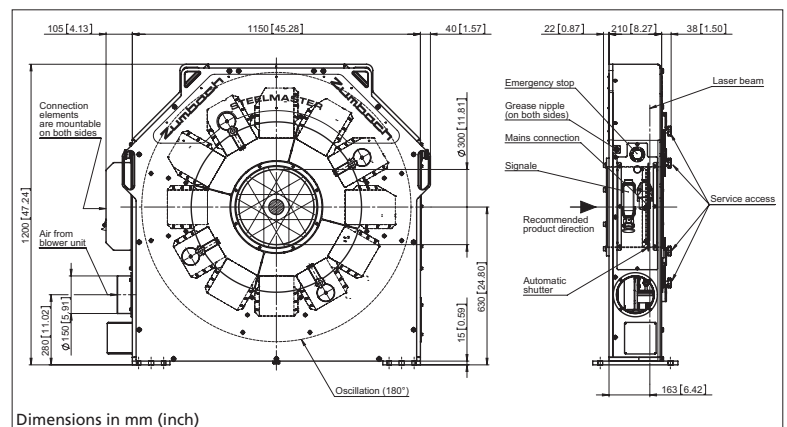
Main Data

Measuring field	100 mm (4 in.)
Product diameter*	4 up to approx. 80 mm (.16 up to approx. 3.2 in.)
Measuring rate	1000/s, each axis
Resolution	+/- 0.001 mm (.00004 in.)
Accuracy (Repeatability)	+/- 0.01 mm (.0004 in.)
Oscillation angle	max. 180°
Approx. min. time for 1 profile ...	For model:
... in oscillating mode	SMO 100-S2 1.2 s SMO 100-S4 0.6 s SMO 100-S6 0.4 s
... in static mode	1 ms (screen update = 0.5 s)
Power consumption	Blower: 3 x 400 V~, 3 kW Measuring unit: Single phase, max. 2 kW

*Depends on guiding

► For larger dimensions see data of SMO 151 or SMO 310.

Dimensions



▪ Technical specifications are subject to change without notice