

# Woltman Silver Turbo



## Model WSTsb - Water Meter

The Woltman Silver Turbo- WSTsb implements advanced methods and technologies in order to present a top of the line product.

### • Applications

Water supply networks, agricultural applications and industrial use

### • Available Sizes

2" - 12" (50mm - 300mm)

### • Standards

MID 2004/22/EC (based on OIML R49 EN 14154 and ISO 4064:2005),  
EEC (based on ISO 4064:1993)



### Features:

The Woltman Silver Turbo (WSTsb) offers the following:

- The WSTsb has wide measuring rate that enables to serve in broaden applications and in extreme situations (low flows an high flows)
- No sensitivity to working conditions like vibrations
- No sensitivity to humidity conditions (even if dry chamber is full of water)
- The worm assy is in a separate kit, which enable easy replacement if necessary
- Resistance - Bearings and materials used in the WSTsb have been proved to ensure long life expectancy
- Magnetic Coupling - The WSTsb, like its predecessor, the Woltman Turbo meter - has a unique measuring unit, in which only one moving element in contact with water, and has repelling magnets installed in the impeller and the transmitting gear, instead of the attracting magnets installed in the WT
- The implementation of oil can and sliding bearing (SB) enables the WSTsb to have a better durability
- Compatibility - The WSTsb is also available with EV, EF, Dialog 3G, MPE, DPE etc.

### Technical Specifications

|                                   |   |
|-----------------------------------|---|
| <b>Maximum Working Pressure</b>   | Standard - 16 bar<br>Upon request - 25 bar                    |
| <b>Maximum Liquid Temperature</b> | 60°C  |
| <b>Body</b>                       | Cast iron, polyester coated,<br>Optional - bronze (AWWA std.) |
| <b>Connection</b>                 | Flanges according to ISO,<br>BS 10, ANSI 150 or others        |



WSTsb type dial

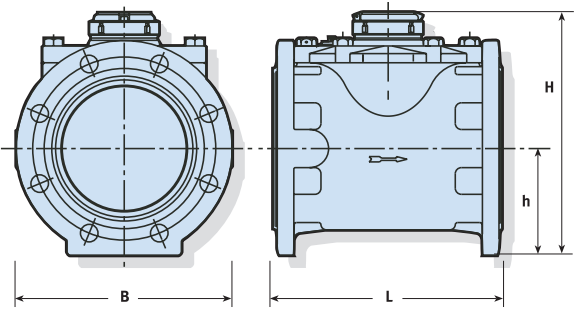
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### Dimensions

| Model           |        | WST sb |        |      |     |      |     |     |     |
|-----------------|--------|--------|--------|------|-----|------|-----|-----|-----|
| Nominal size    | (mm)   | 50     | 65     | 80   | 100 | 150  | 200 | 250 | 300 |
|                 | (inch) | 2      | 2 1/2" | 3    | 4   | 6    | 8   | 10  | 12  |
| L - Length (mm) |        | 200    | 200    | 230  | 250 | 300  | 350 | 450 | 500 |
| B - Width (mm)  |        | 165    | 185    | 200  | 220 | 283  | 340 | 406 | 489 |
| H - Height (mm) |        | 214    | 228    | 234  | 250 | 310  | 338 | 438 | 465 |
| h - Height (mm) |        | 70     | 84     | 90   | 106 | 130  | 158 | 258 | 330 |
| Weight (kg)     |        | 12.5   | 15     | 15.5 | 19  | 35.5 | 41  | 80  | 95  |



### Performance data:

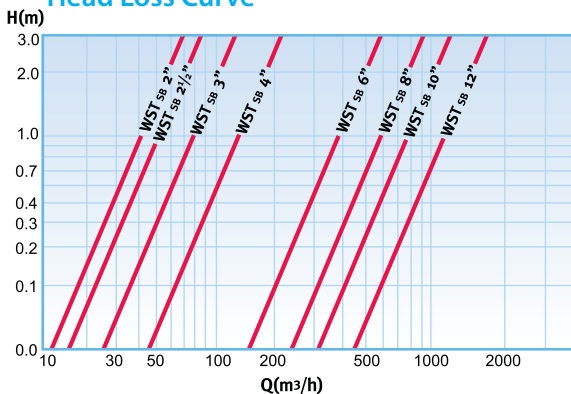
Metrological Characteristics according to EEC (based on ISO 4064:1993)

| Model WSTsb  |        | Qmax                    | Qn              | Qn                      | Qt                           | Qmin                    | Starting Flow | Maximum register capacity        | Smallest readable unit | Accuracy between Qmax & Qt | Accuracy between Qt & Qmin |
|--------------|--------|-------------------------|-----------------|-------------------------|------------------------------|-------------------------|---------------|----------------------------------|------------------------|----------------------------|----------------------------|
| Nominal size |        | Maximum Flowrate (m³/h) | ISO 4064 (m³/h) | Nominal Flowrate (m³/h) | Transitional Flowrate (m³/h) | Minimum Flowrate (m³/h) | (m³/h)        | (m³)                             | (liter)                |                            |                            |
| (mm)         | (inch) |                         |                 |                         |                              |                         |               |                                  |                        |                            |                            |
| 50           | 2      | 100                     | 15              | 50                      | 0.7                          | 0.3                     | 0.15          | 10 <sup>6</sup>                  | 1                      | ±2%                        | ±5%                        |
| 65           | 2 1/2  | 120                     | 25              | 80                      | 0.8                          | 0.35                    | 0.15          | 10 <sup>6</sup>                  | 1                      |                            |                            |
| 80           | 3      | 170                     | 40              | 120                     | 0.8                          | 0.5                     | 0.25          | 10 <sup>6</sup>                  | 1                      |                            |                            |
| 100          | 4      | 300                     | 60              | 230                     | 1.8                          | 0.8                     | 0.3           | 10 <sup>7</sup> /10 <sup>6</sup> | 1/10                   |                            |                            |
| 150          | 6      | 410                     | 150             | 260                     | 3.5                          | 2.5                     | 0.8           | 10 <sup>7</sup> /10 <sup>6</sup> | 1/10                   |                            |                            |
| 200          | 8      | 730                     | 250             | 450                     | 15                           | 5                       | 2             | 10 <sup>8</sup>                  | 100                    |                            |                            |
| 250          | 10     | 1400                    | 400             | 750                     | 15                           | 6                       | 3             | 10 <sup>8</sup>                  | 100                    |                            |                            |
| 300          | 12     | 2000                    | 600             | 1000                    | 40                           | 10                      | 4             | 10 <sup>8</sup>                  | 100                    |                            |                            |

Metrological Characteristics according to MID 2004/22/EC (based on OIML R49 EN 14154 and ISO 4064:2005)

| Model WSTsb  |        | Q4                      | Q3                      | Q2                           | Q1                      | Starting Flow | Maximum register capacity        | R Value | Smallest readable unit | "Accuracy between Q4 & Q2" | "Accuracy between Q2 & Q1" |
|--------------|--------|-------------------------|-------------------------|------------------------------|-------------------------|---------------|----------------------------------|---------|------------------------|----------------------------|----------------------------|
| Nominal size |        | Maximum Flowrate (m³/h) | Nominal Flowrate (m³/h) | Transitional Flowrate (m³/h) | Minimum Flowrate (m³/h) | (m³/h)        | (m³)                             |         | (liter)                |                            |                            |
| (mm)         | (inch) |                         |                         |                              |                         |               |                                  |         |                        |                            |                            |
| 50           | 2      | 78.75                   | 63                      | 1.01                         | 0.63                    | 0.15          | 10 <sup>6</sup>                  | 100     | 0.5                    | ±2%                        | ±5%                        |
| 65           | 2 1/2  | 78.75                   | 63                      | 1.01                         | 0.63                    | 0.15          | 10 <sup>6</sup>                  | 100     | 0.5                    |                            |                            |
| 80           | 3      | 125                     | 100                     | 1.6                          | 1                       | 0.25          | 10 <sup>6</sup>                  | 100     | 0.5                    |                            |                            |
| 100          | 4      | 200                     | 160                     | 2.56                         | 1.6                     | 0.3           | 10 <sup>7</sup> /10 <sup>6</sup> | 100     | 5                      |                            |                            |
| 150          | 6      | 312.5                   | 250                     | 4                            | 2.5                     | 0.8           | 10 <sup>7</sup> /10 <sup>6</sup> | 100     | 5                      |                            |                            |
| 200          | 8      | 787.5                   | 630                     | 20.16                        | 12.6                    | 2             | 10 <sup>8</sup>                  | 50      | 50                     |                            |                            |
| 250          | 10     | 1250                    | 1000                    | 32                           | 20                      | 3             | 10 <sup>8</sup>                  | 50      | 50                     |                            |                            |
| 300          | 12     | 1250                    | 1000                    | 32                           | 20                      | 4             | 10 <sup>8</sup>                  | 50      | 50                     |                            |                            |

### Head Loss Curve



### Installation Requirements

- The water meter may be installed in any position. For non-horizontal positions the flow shall be upwards.
- The meter shall be full of water while operating.
- Prior to installation of a meter, the pipeline shall be thoroughly flushed.
- Requirements for straight pipe section: U5/ D3.



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