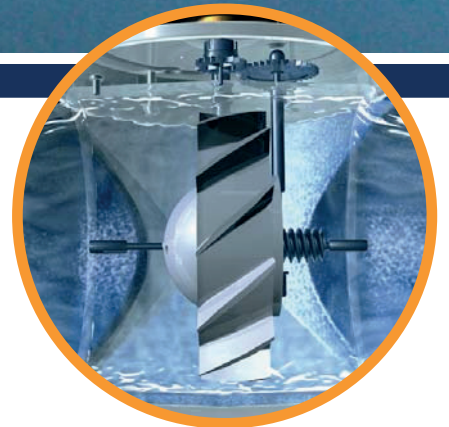
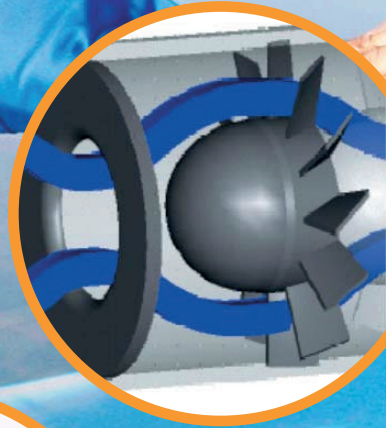


At 6000 feet you have all kinds of cool ideas...



... like a free-floating rotor



 **MeiStream**

 **SENSUS**
METERING SYSTEMS

A new era in water measurement

The start of a revolutionary new era in bulk water measurement has begun. MeiStream exceeds all previous metrological norms for bulk water meters and makes it possible to cover the performance of three currently available bulk meter types in one meter. With the introduction of MeiStream new metrological standards have been set.

Water is a scarce and precious resource. Environmental costs, rising water prices and the need to control leakage are impacting on the industry in many ways. The revolutionary new technology embodied in MeiStream specifically addresses these issues.

Since our inception in 1843 the Sensus heritage has been at the forefront of breaking new ground in metering technology. By embracing market trends and listening intently to our global customers needs, the Company has introduced and championed new ideas and principles. Sensus in its different guises over the years such as Meinecke, Spanner-Pollux, Socam and Premex have always pioneered change. MeiStream is our latest innovation.

MeiStream, the latest bulk meter from Sensus borne from this heritage, uses a unique new turbine principle that offers unsurpassed flexibility to the specifier and distribution engineer when designing or maintaining a water reticulation network.

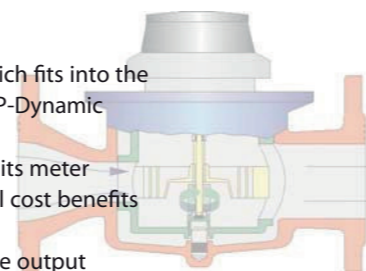
Depending on application requirements, the user has the choice between two versions - MeiStream and MeiStream Plus. The key features are:



MeiStream

Merges the high overload capability and stable measuring curve of the Woltman WP meter with the low flow performance of Woltman WS meter into an excellent new class B meter

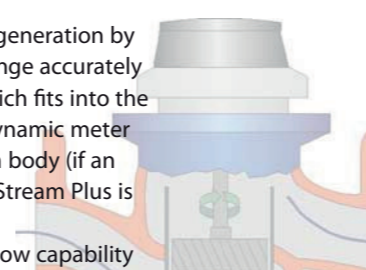
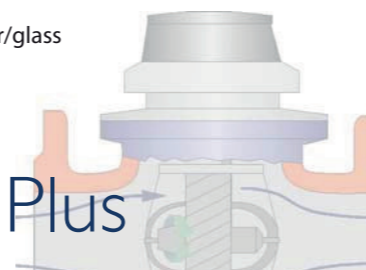
- Removable measuring insert, which fits into the well-known Sensus/Meinecke WP-Dynamic meter body range
- Extended measuring range permits meter downsizing with resultant capital cost benefits
- Prepared for AMR:
 - M-Bus and standard pulse output
 - GSM
 - fixed network radio
 - walk-by solutions
 - data logging
- Robust register with IP 68 copper/glass construction
- Comprehensive range of sizes



MeiStream Plus

MeiStream Plus conforms to the extreme low flow requirements of metrological class C meters, while allowing considerably higher flow rates than current single jet bulk water meters. Furthermore, this is achieved with reduced pressure loss and less sensitivity to particulates in the water.

- Substantially increased revenue generation by measuring a much wider flow range accurately
- Removable measuring insert, which fits into the existing Sensus/Meinecke WP-Dynamic meter body, or the standard MeiStream body (if an upgrade from MeiStream to MeiStream Plus is required)
- Greatly increased high and low flow capability permits significant meter downsizing with resultant capital cost benefits
- Prepared for AMR:
 - M-Bus and standard pulse output
 - GSM
 - fixed network radio
 - walk-by solutions
 - data logging
- Robust construction



So what are the benefits of this new technology?

MeiStream

- Unlike Woltman WS meters, MeiStream can be installed in any orientation without affecting its metrological performance
- Reduced stockholding – Each meter size covers a much wider flow range. As a result fewer meter sizes and types are required to cover a wide range in network flow rates.
- The accurate extreme low flow measuring capability generates additional revenue. The calibrated cartridge measuring insert allows for reduced stock holding because one insert can be used to replace both WPD and MeiStream meters in the field.
- With the pre-calibrated MeiStream cartridges an estimated installed base 500,000 Meinecke/Sensus model WPD meters worldwide can be upgraded to the new MeiStream technology without having to remove the existing meter bodies, thus greatly reducing change-out and maintenance costs.
- Substantially improved turndown ratios resulting in increased accuracy, improved water balance calculations and enhanced revenue generation
- Because of MeiStream's greatly improved measuring range smaller diameter meters may be employed in network design resulting in lower capital costs.

The AMR prepared meter range can be equipped with the unique Sensus HRI-Mei sensing device, allowing for walk by radio, fixed radio, and GSM meter reading solutions:

- The electronic meter reading options offer accurate remote meter reading with no discrepancy between remote and on-site meter reading
- Reduced meter reading costs
- Leakage detection through alarm profiling, as well as detection of reverse flow



The MeiStream range extends from DN 40 mm - DN 150 mm in ISO and DIN body lengths. (Other standard lengths on request)

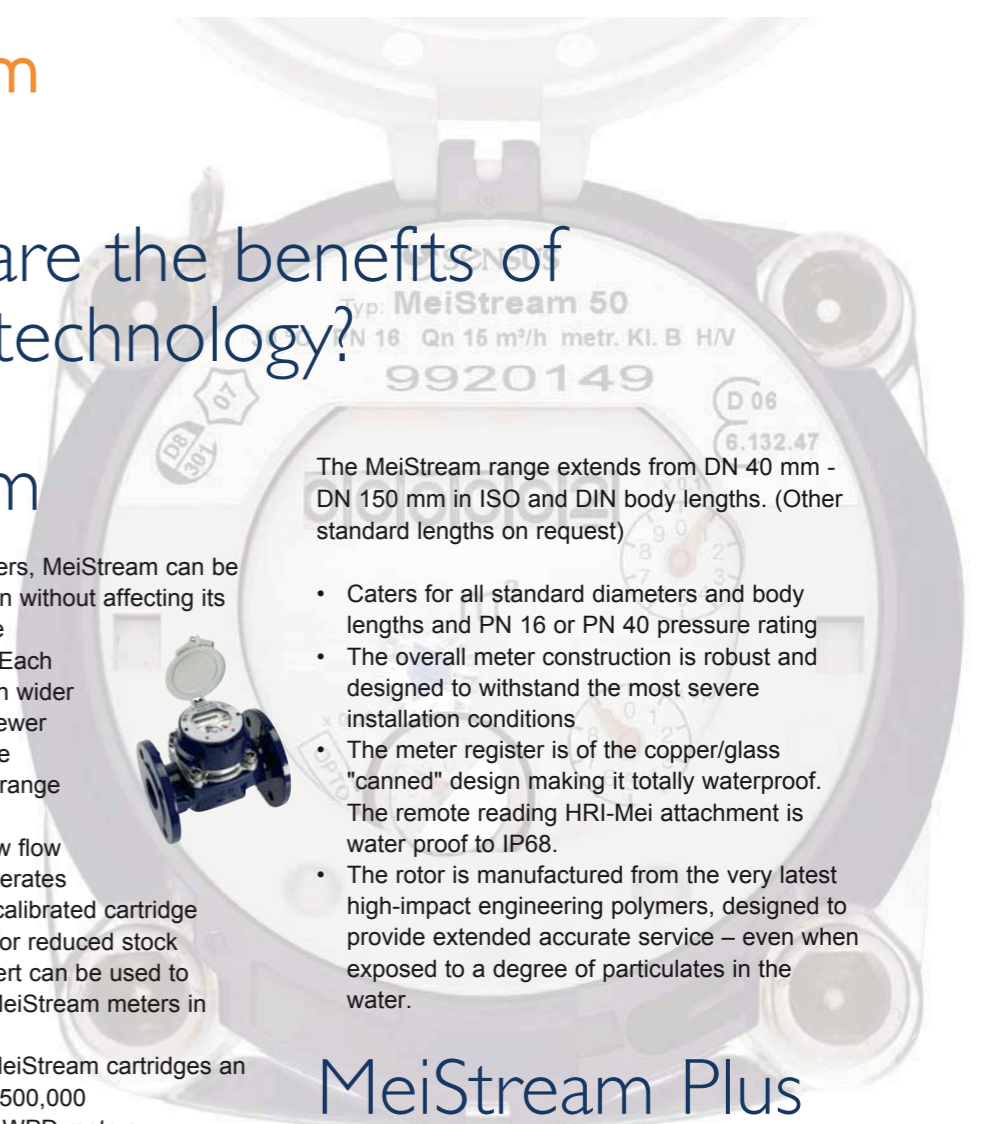
- Caters for all standard diameters and body lengths and PN 16 or PN 40 pressure rating
- The overall meter construction is robust and designed to withstand the most severe installation conditions
- The meter register is of the copper/glass "canned" design making it totally waterproof. The remote reading HRI-Mei attachment is water proof to IP68.
- The rotor is manufactured from the very latest high-impact engineering polymers, designed to provide extended accurate service – even when exposed to a degree of particulates in the water.

MeiStream Plus

The MeiStream Plus range offers the additional benefit of a class C performance in the horizontal position. It can therefore fill the billing meter gap between standard WP or WS type meters and the extreme low flow capability of the MeiTwin compound water meters.

In the future it will therefore be possible to fulfil practically every metering requirement with only three water meter types:

- MeiStream
- MeiStream Plus
- MeiTwin compound meters

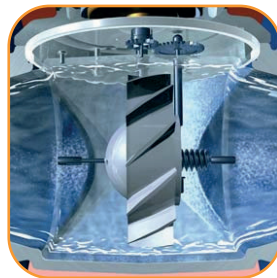
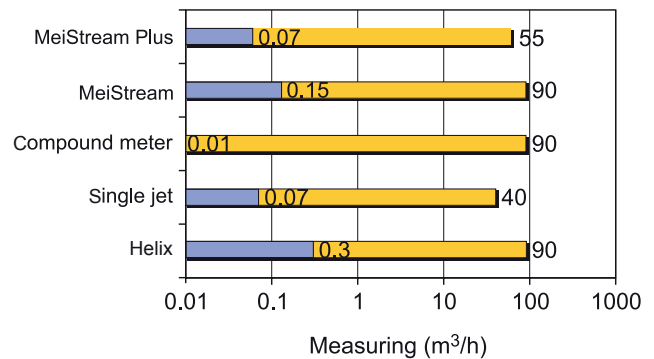


The Operating Principle

Due to a ball-shaped hub the turbine locates itself in a free-floating position between the two bearing stops. As the minimum flow rate is reached the turbine rotor lifts firstly vertically and thereafter axially into a frictionless position with no radial or axial forces on the bearings. This free-floating rotor position is maintained up to extreme overload conditions, thus ensuring maximum metrological sensitivity throughout the flow range.

The rotor blade design is the result of many years of research and development ensuring long-term durability and a constant metrological performance over a wide flow range, thus providing optimum revenue generation over the extended life of the meter.

Typical example for nominal diameter DN 50, QN 15



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