KERN
Technology GmbH & Co. KG

Measurement and Control Technology

- Flow Measurements
- Project Engineering
- Pressure Vessel Construction
- Apparatus Construction
- Certified Welding Specialists
- CNC – Turned Part Machining

Product Range

JSP Industrial Controls

Your supplier:
JSP, s.r.o. | Raisova 547, 506 01 Jičín, Czech Republic
+420 493 760 811 | jsp@jsp.cz | www.jsp.cz

Classical Venturi Tubes acc. DIN EN ISO 5167

Application

For flow measurements with high demand for accuracy, short inlet- and outlet sections and low pressure loss.
Application in power plants for steam and feed water measurements, also as billing measurements for the complete industrial sector.

Pros

- Accuracy ± 0,7 % up to ± 3 % according to operating data
- Great long-term accuracy
- No maintenance cost
- Low pressure loss, about 10 - 15 % from the calculated differential pressure
- Short inlet- and outlet sections required

Specification

Nominal diameter from DN 50 - DN 1200
Pressure rating from PN 6 - PN 600
Temperature range up to 600°
Other dimensions, temperature and pressure ratings also possible on request.

Assembly

Venturi tubes could be mounted in each position.

Material

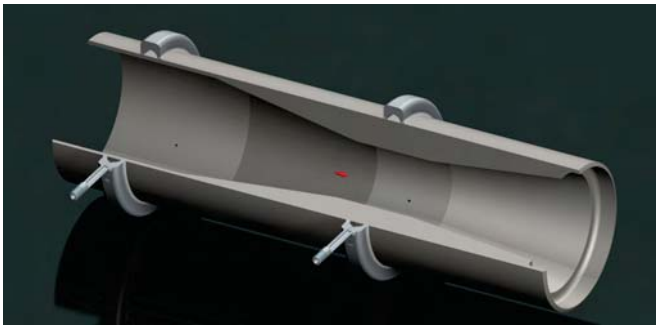
Venturi tubes in EN, ASTM and ASME materials such as : 1.4571, 1.0460, 1.5415, 1.7335, 1.7380, 1.6368, 1.4903, 1.4901.
Other materials also possible on request.

Quality Management

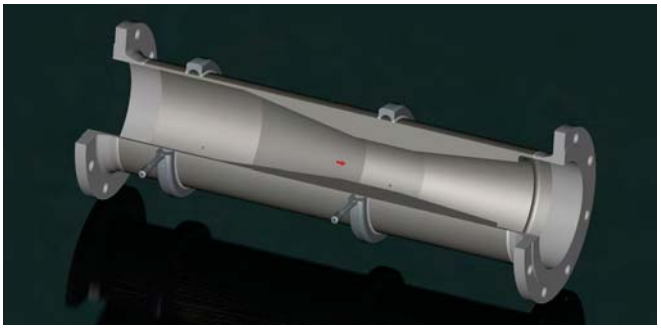
Production and testing of the venturi tubes according to the used rules and standards e.g. EN 13480, EN 12952, PED 2014/68/EU or customer specification.

Accessories

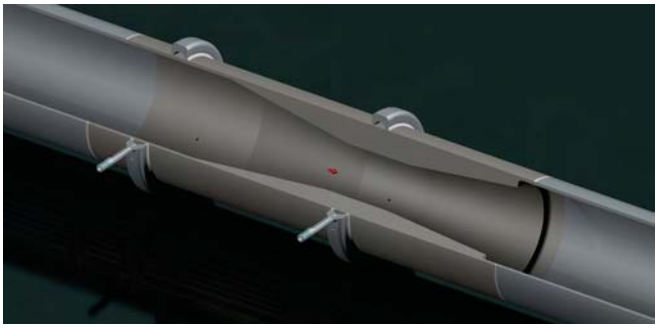
Shut-off valves, condensate pots,temperature-, pressure- and differential pressure-transmitter, thermowells and pressure taps could be also delivered if necessary.



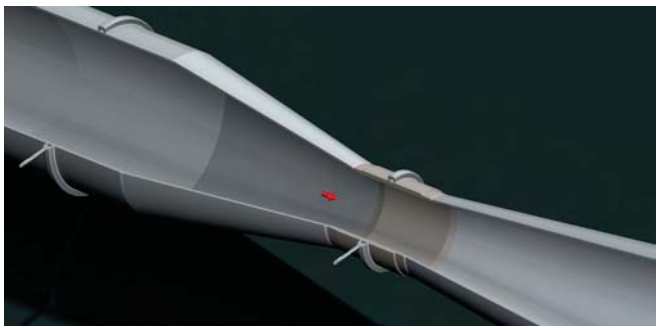
VR-400



VFR-403



VREA-404



VRB-420

Venturi Nozzles acc. DIN EN ISO 5167

Application

For flow measurements with low pressure loss. Applicaton in power plants for steam and feed water measurements, also for flow measurements with demand on high accuracy.

Pros

- Accuracy ± 0,8 % to ± 1,67 % according to operating data
- Good long term accuracy
- No maintenance cost
- Low pressure loss, about 10-30% from the calculated differential pressure

Specification

Nominal diameter from DN 50 - DN 600
Pressure rating from PN 6 - PN 600
Temperature range up to 600°
Other dimensions, temperature and pressure ratings also possible on request.

Assembly

Venturi nozzles could be mounted in each position.

Material

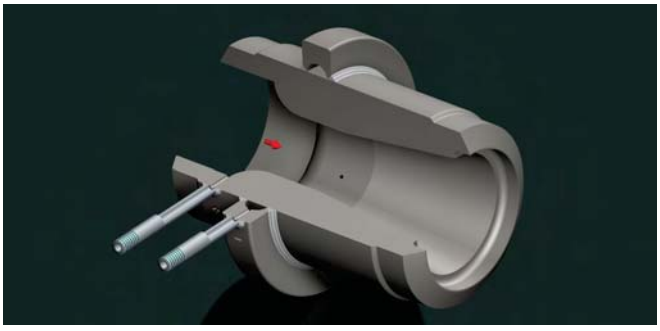
Venturi nozzles in EN, ASTM and ASME materials such as: 1.4571, 1.0460, 1.5415, 1.7335, 1.7380, 1.6368, 1.4903, 1.4901.
Other materials also possible on request.

Quality Management

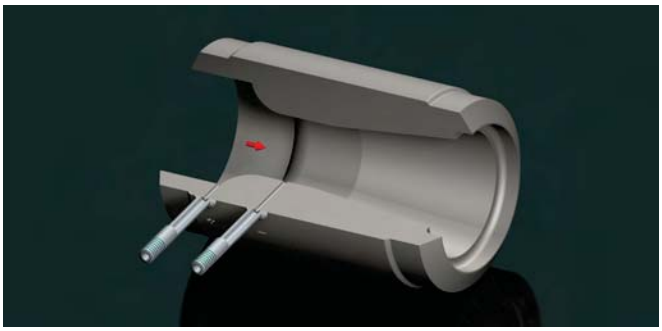
Production and testing of the venturi nozzles according to the used rules and standards e.g. EN 13480, EN 12952, PED 2014/68/EU or customter specification.

Accessories

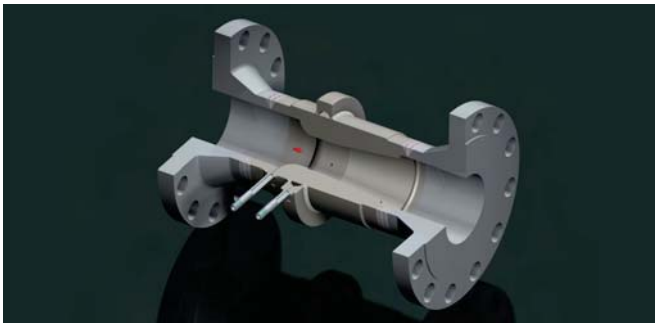
Shut-off valves, condensate pots, temperature-, pressure- and differential pressure-transmitter, thermowells and pressure taps could be also delivered if necessary.



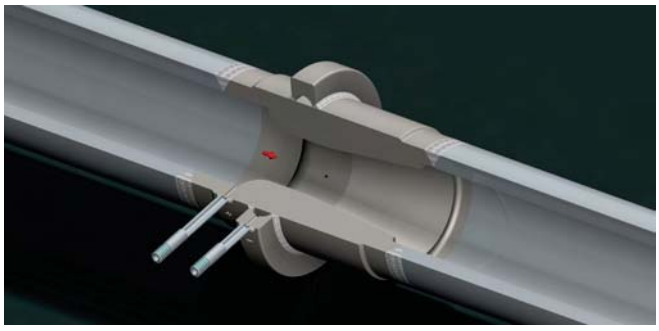
VD-400



VD-400or



VD-440



VDM-410

ISA 1932 Nozzles acc. DIN EN ISO 5167

Application

For flow measurements with enough inlet- and outlet sections. For all mediums in industrial sector like power plants, chemistry, petrochemistry, paper and cellulose. Recommendation for steam measurements.

Pros

- Accuracy ± 0,8 % up to ± 1,3 % according to operating data
- Good long-term accuracy
- No maintenance cost
- Easy installation

Specification

Nominal diameter from DN 50 - DN 500
Pressure rating from PN 6 - PN 600
Temperature range up to 600°
Other dimensions, temperature and pressure ratings also possible on request.

Assembly

Nozzles could be mounted in each position.

Material

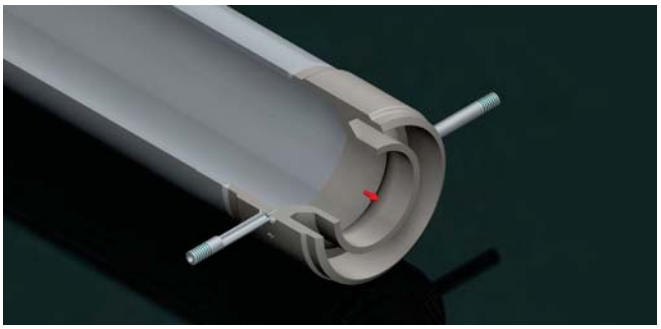
Nozzles in EN, ASTM and ASME materials such as 1.4571, 1.0460, 1.5415, 1.7335, 1.7380, 1.6368, 1.4903, 1.4901.
Other materials also possible on request.

Quality Management

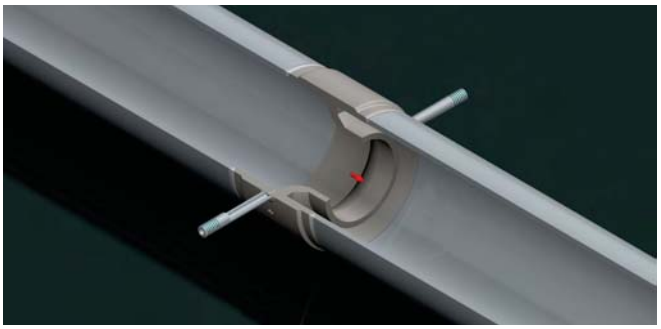
Production and testing of the ISA 1932 nozzles according to the used rules and standards e.g. EN 13480, EN 12952, PED 2014/68/EU or customer specification.

Accessories

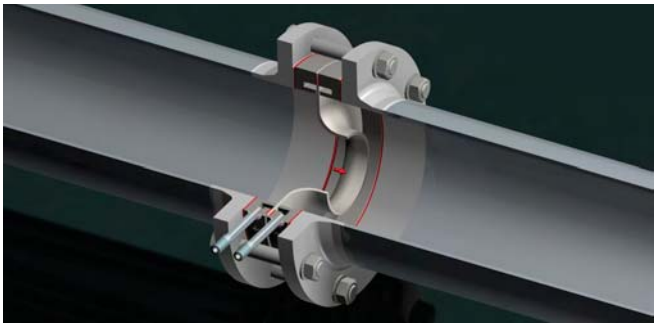
Shut-off valves, condensate pots, temperature-, pressure- and differential pressure-transmitter, thermowells and pressure taps could be also delivered if necessary.



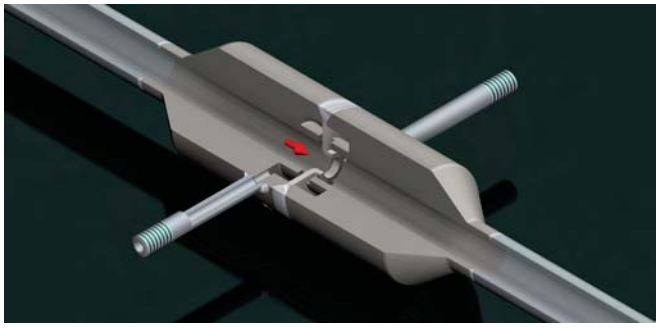
D-341



DM-350



DM-331



DRVEA-231

Orifices acc. DIN EN ISO 5167

Application

For low cost flow measurements with enough inlet- and outlet sections. For all mediums in industrial sector like power plants, chemical, petrochemistry, paper and cellulose.

Pros

- Accuracy ± 0,5 % up to ± 1,2 % according to operating data
- Cheapest flow measurement according to DIN EN ISO 5167
- Easy installation

Cons

The uncertainty will rise with abrasion of the sharp edge from the orifice plate.

Specification

Nominal diameter from DN 50 - DN 1200
Pressure rating from PN 6 -PN 600
Temperature range up to 600°
Other dimensions, temperature and pressure ratings also possible on request.

Assembly

Orifices could be mounted in each position.

Material

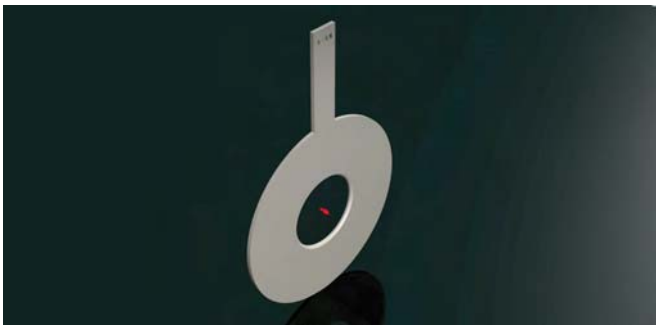
Orifices in EN, ASTM and ASME materials such as: 1.4571, 1.0460, 1.5415, 1.7335, 1.7380, 1.6368, 1.4903, 1.4901.
Other materials also possible on request.

Quality Management

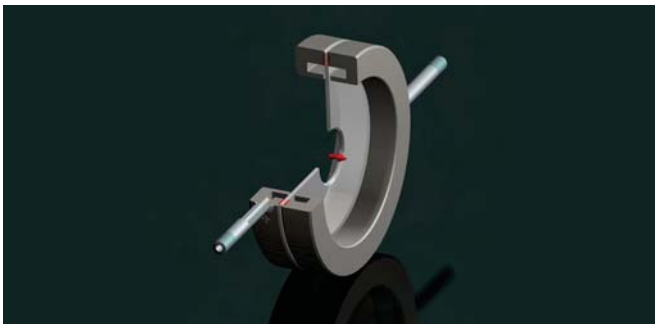
Production and testing of the orifices according to the used rules and standards e.g. EN 13480, EN 12952, PED 2014/68/EU or customer specification.

Accessories

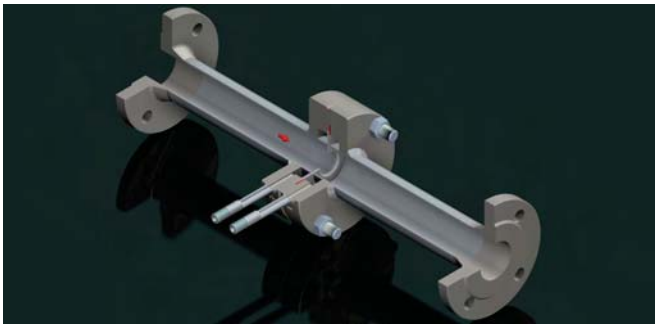
Shut-off valves, condensate pots, temperature-, pressure- and differential pressure-transmitter, thermowells and pressure taps could be also delivered if necessary.



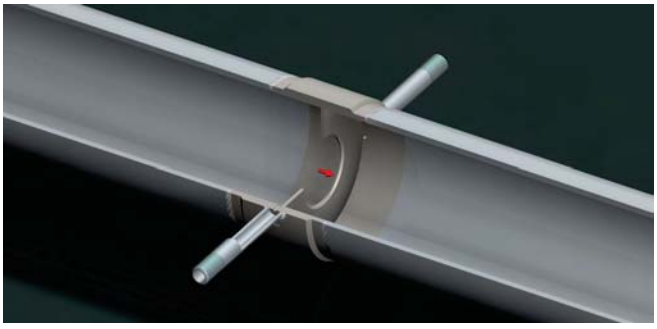
B-200



B-240



BM-253



BM-270

Kaybar Pitot Tubes

Application

Low cost flow measurements, only as monitoring measurement suitable.
Mediums in industrial sector like: power plants, petrochemistry, chemical, paper and cellulose.

Pros

- Accuracy ± 1 % (Recommendation) according to operating data
- Low priced flow measurement (especially in bigger dimensions)
- Easy handling
- Low pressure loss

Cons

Non-standard measuring principle. Only as monitoring measurement suitable.
In opposition to an measurement acc. DIN EN ISO 5167 a clearly smaller flow profile is measured.

Specification

Nominal diameter from DN 50 - DN 5000
Pressure rating from PN 6 - PN 600
Temperature up to 600°
Other dimensions, temperature and pressure ratings also possible on request.

Assembly

Pitot tubes could be mounted in each position.

Material

Pitot tubes in EN, ASTM and ASME material availabe. The standard type will be produced in 1.4571/316Ti.
Other materials available on request.

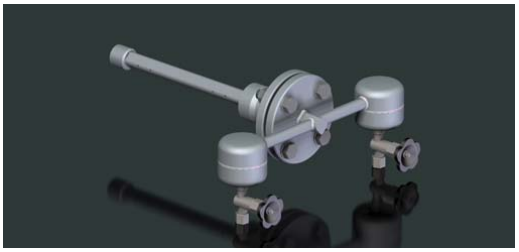
Quality Management

Production and testing of the pitot tubes according to the used rules and standards e.g. EN 13480, EN 12952, PED 2014/68/EU or customer specification.

Accessories

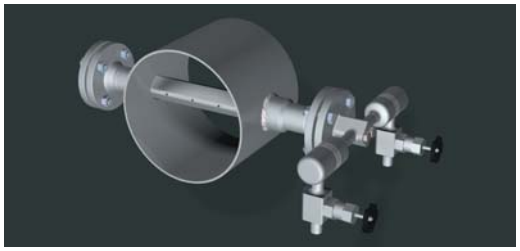
Shut-off valves, condensate pots, temperature-, pressure- and differential pressure-transmitter, thermowells and pressure taps could be also delivered if necessary.

F-25-G



F-25-G

R-45O



F-45-G

F-45-G

Accessories/Calibration/Approval

Accessories

We will also provide you with all of the necessary auxiliary equipment for the flow measurements:

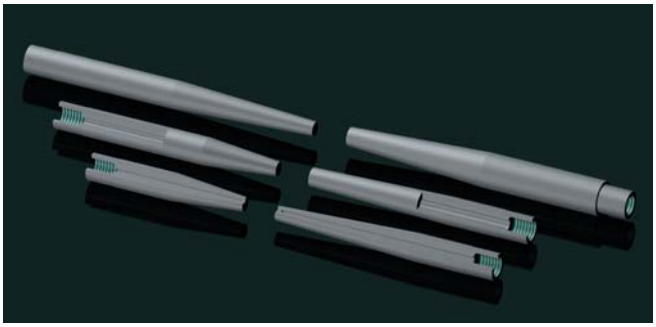
Condensate pots, shut-off valves, draining devices, level measurement devices, manifolds, pressure taps, thermowells, thermocouple elements, differential pressure-, pressure-, temperature-transmitters on demand of our customer, flow straightener acc. DIN EN ISO 5167, painting and conservation reffered to customer requirement or according our standard.

Calibration/Approval

We produce high-precision billing-measurements, which we only calibrate at well-respected, accredited and independent calibration centers. These billing measurements will be produced with complex, extensive production methods and also the best availabe transmitter technology is installed for reducing the measuring uncertainty up to < 0,1 %.

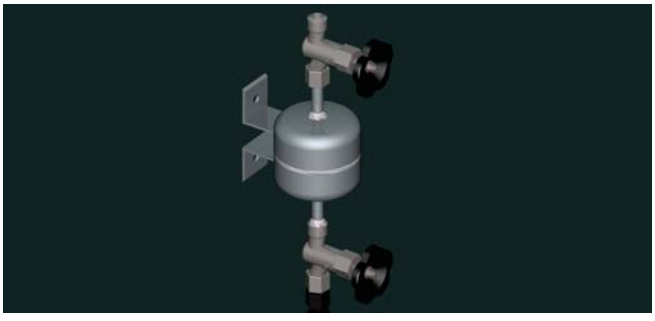
We offer the possibility to approve our measurements by office of weights and measures. In this case all requirements of the current rules and standards will be checked and approved by this department.

It is also possible to approve our measurements by the german association for technical inspection (TÜV). The components will be checked before the production process regarding strength for example and after production the components get approved again by TÜV with an final report.



Thermowell

Valve



Draining device

Straightener

Engineering/Welding/CNC Technology

Engineering/Service

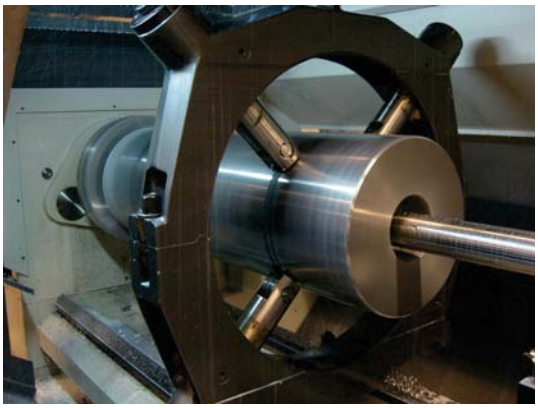
Optimal service, engineering, construction and design is our goal. We advise our customers regarding the selection of an suitable type of flow measurement and search for customised, flexible solutions for your individual measuring job. We support you concerning the choice of an suitable assembly area and check the given inlet- and outlet sections.
We complete our service with comprehensive documentation and after-sales-service.

Welding Technology

We as a service provider offer you the full spectrum of welding technology, starting with carbon steel connections right up to heat-proof/heat-resisting connections. We are specialized in this area with an emphasis on plant and power station construction with the required welder works and welding procedure qualifications for power station construction e.g. 1.5415 - 1.7380 - 1.4903 - 1.4922 - 1.6368 - 1.4901, black and white connections and high grade steel connections for areas of high pressure and temperature. Build- up welding and wear-resistant layers are also part of our range of services.

CNC-Technology

CNC-Turned part machining with specialisation at single piece production. Machining of heavy and oversize components is also possible. We have high-end machinery and are especially for single piece production in huge dimensions an professional and favourite partner.



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