



Sewer manhole bottom segment DN 1000 with flowmeter

POLYPROPYLENE BASE IN FORM OF DOUBLE CASING - PERMANENT SHUTTERING PREPARED FOR EXTENSION FROM TYPIFIED CONCRETE UNITS

DESCRIPTION

- bottom segment is laid on the concrete base and filled with concrete
- manhole is finished by the extension with the typified concrete units
- the measurement range - from 0,3 to 35 l/s according to the used flowmeter (see Table)
- manhole is suitable for the use of the automatic sampler

TYPE OF FLOWMETER

Flume	Flow (l/s)		Type of water
	Qmin	Qmax	
Parshall flume P1	0,26	6,2	Mechanically treated
Parshall flume P2	0,52	15,1	Raw sewage
Parshall flume P3	0,78	35	Raw sewage

ADVANTAGES

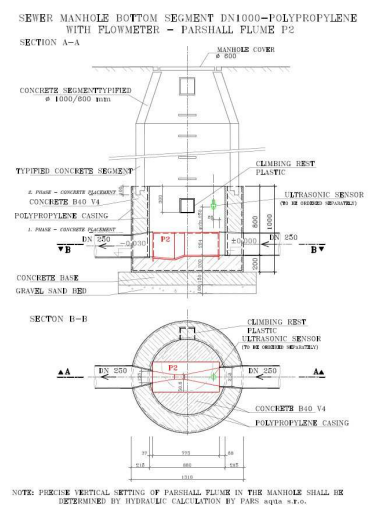
- ❖ Speeding up and simplification of the project and construction
- ❖ Prefabrication of the bottom segment helps for the measurement accuracy and offer more safety
- ❖ Parshall flume is relatively not sensitive to the turbulent flow and not smart distribution of velocity across the flow profile,
- ❖ head losses are 3-4 times lower compared to the weirs,
- ❖ applicable in low slope conditions
- ❖ not influenced by suspended solids
- ❖ Long time life

PROJEKT PARAMETERS OF PARSHALL FLUME

- the river flow regime with Froud number up to 0,5 in the channel River motion
- sewage water has reologic features of water
- can be submerged by backwater up to the ratio 0,5

CERTIHKATES

- Parshall flume type TCM 142/95-2075 , certificated by the Czech Metrology Institute
- Appendix No.1 2075/95/1 from January 2009 extending the certification for Parshall flumes with connection to pipes DN 300
- Initial calibration list of the measurement unit based on the law of Metrology''''



The equipment described above meets metrological standards of EU. The Czech Certifications are acknowledged in the countries which have a contract with The Czech Metrological Institute

TECHNICKÉ PARAMETRY

The manhole is a vessel in form of cylindrical double casing from UV stabilized polypropylene. The space between the casing is filled with concrete B40 V4 after stabilizing of the bottom segment on the concrete base (desk). The base is laid for all the manholes 20 cm under the pipe inflow level. Concrete placing is carried out per parts. As the first step the bottom part is filled up to the level of the upper desk of Parshall flume. After the bottom concrete gets stiff as the next step concrete is placed between the casing by 20 cm layers up to cca 10 cm bellow the upper edge. After the concrete stiffening at least on the 60 percent of the final strength the space between the casing is filled up to the edge and into the liquid concrete the typified cylindrical concrete segment DN 1000 is laid. This is the way, how both the watertight connection and required static qualities of the manhole are reached. The manhole is finished from the typified cylindrical concrete segments according to the requirements of the producer. Connections to the pipes are carried out by means of fittings in accordance with the requirements of the pipe producer. The project plan is shown on the picture 1. For P2 parshall flume

MANHOLE TYPE LABELLING

MD-Q / y / p / o / k / na / strainer /

Parameter for the manhole labeling		Options
y	Type of Parshall flume	...P1...P2...P3
p	Diameter and material of inlet	e.g....DN 300 Bocker
o	Diameter and material of outlet	e.g ...DN 400 PVC
k	The vertical distance between IN and OUT pipes	e.g ...50 mm /see Picture/
na	Distance between Parshall bottom and the inlet pipe bottom	e.g ...25 mm /see Picture/
strainer	Chamber for inlet unit of sampler with strainer	YES ... NO

PRICING :

	Sewer manhole bottom segment		
	P1	P2	P3
Price	3450 ,-Eur	3320,-Eur	3050,-Eur
Parshall flume hydraulic parameters			
	P1	P2	P3
Q min	0,26 l/s	0,52 l/s	0,78 l/s
Q max	6,22 l/s	15,1 l/s	35 l/s
a	0,0609	0,120	0,178
b	1,552	1,553	1,555
B`	30 cm	34 cm	39 cm

Consumption curve:

$$Q = a * h^b$$

h (m) ... water depth measured at the distance B` in front of inflow

Q (m³/s) ... discharge

Pri

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are without the price of the Parshall flume

Supplier :

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