

TANGENTIAL WATER METER FOR IRRIGATION



Size : DN 50 to 200
Connection Ends : Flanged ISO PN 10/16 (ISO PN16 for DN200)
Min Temperature : 0°C
Max Temperature : + 50°C
Max Pressure : 16 Bars
Specifications : Tangential type
Dry dial
Magnetic transmission

Materials : Cast iron body

TANGENTIAL WATER METER FOR IRRIGATION

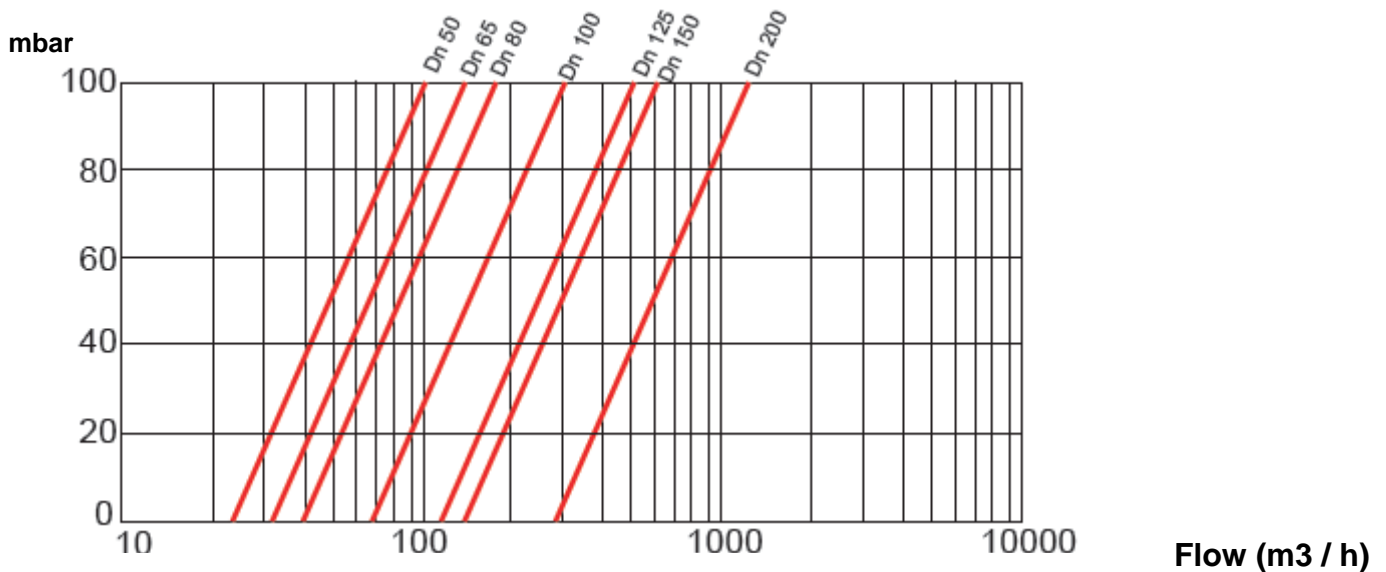
SPECIFICATIONS :

- Tangential type with removable insert
- Pre-equipped for pulse emitter
- A Class for horizontal position with horizontal dial (respect the flow direction indicated by the arrow)
- Negligible head loss
- Dry dial
- Magnetic transmission
- Direct reading on numerical rolls
- With lid
- Cast iron body

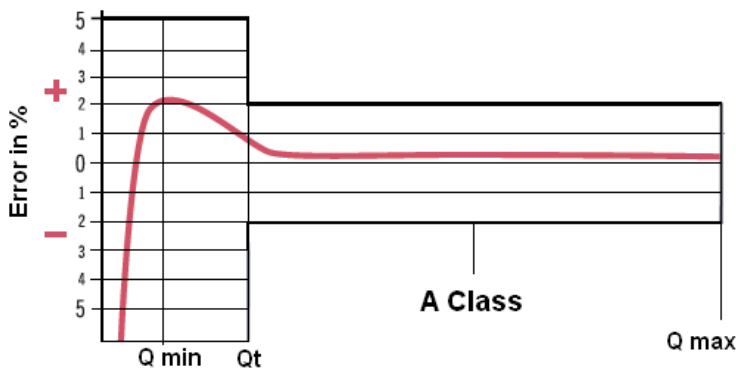
USE :

- Irrigation
- Min and max Temperature Ts : 0°C to + 50°C
- Max Pressure Ps : 16 bars

HEAD LOSS :



TYPICAL ERROR CURVE :



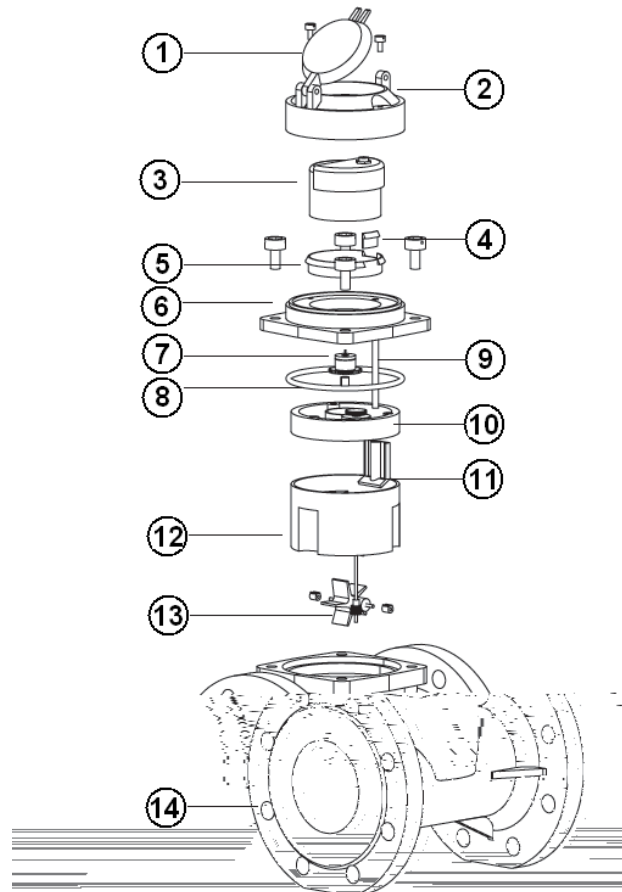
Qmin : Min flow
Qt : Transitional flow
Qmax : Max flow

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RANGE :

- Cold water flanged R.F. ISO PN10/16 up to DN150, ISO PN16 for DN200 type **Ref.1720 DN 50 to 200**

MATERIALS :



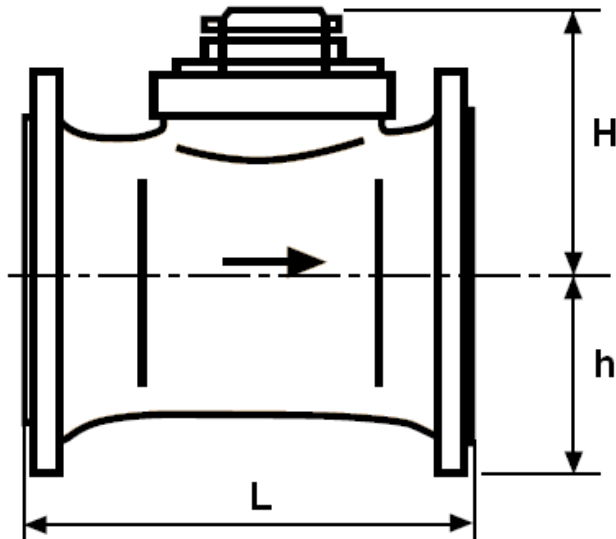
Item	Designation
1	Lid
2	Cap
3	Mechanism with PC and glass 5 mm
4	Clamp
5	Ring nut
6	Separation plate
7	Magnetic transmission
8	O-ring
9	Adjusting shaft
10	Upper insert
11	Adjusting device
12	Lower insert
13	Turbine
14	Cast iron body

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DIAL :



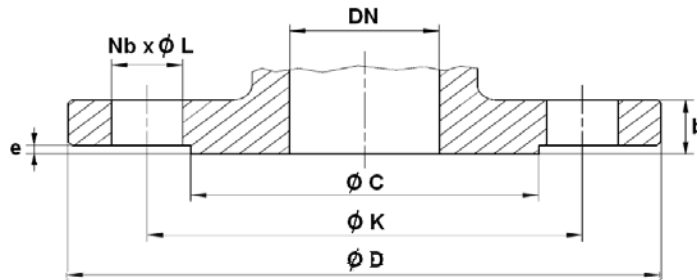
SIZE (in mm) :



Ref.	DN	50	65	80	100	125	150	200
1720	L	200	200	225	250	250	300	350
	h	80	92.5	100	110	125	142.5	170
	H	150	150	150	150	150	152	195
	Weight (Kg)	11.5	13	15	19	24	30	48

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FLANGES SIZE (in mm) :



Ref.	DN	50	65	80	100	125	150	200
1720	Ø C	102	122	138	158	188	212	268
	Ø D	165	185	200	220	250	285	340
	Ø K	125	145	160	180	210	240	295
	Nb x Ø L	4 x 18	4 x 18	8 x 18	8 x 18	8 x 18	8 x 22	12 x 22
	b	20	18	20	20	22	22	23
	e	2	2	2	2	2	2	2

TECHNICAL FEATURES :

DN	50	65	80	100	125	150	200
Max flow rate Q max (m3/h)	70	100	150	250	350	500	900
Nominal flow rate Qn (m3/h)	35	50	75	125	175	250	450
Min flow rate A Class Q min with ± 5% error (m3/h)	2.8	4	6	10	14	20	36
Transitional flow rate A Class Qt with ± 2% error (m3/h)	10.5	15	22.5	37.5	52.5	75	135
Min reading (m3)	0.005	0.005	0.005	0.005	0.005	0.005	0.005
Max reading (m3)	9999999	9999999	9999999	9999999	9999999	9999999	9999999

STANDARDS :

- Fabrication according to ISO 9001 : 2008 ICIM and IQNET
- Flanged according to EN 1092-2 PN16
- DIRECTIVE 97/23/CE : Products excluded from directive (article 1, § 3.2)

ADVICE : Our opinion and our advice are not guaranteed and Lauridsen Industri shall not be liable for the consequences of damages. The customer must check the right choice of the products with the real service conditions.

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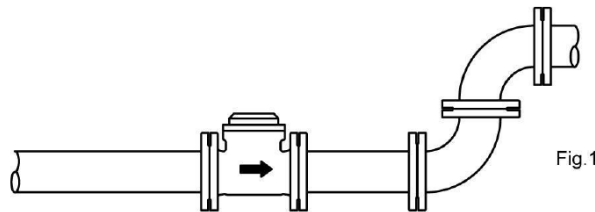
INSTALLATION INSTRUCTIONS OF WATER METER

BEFORE INSTALLATION :

Pipe-line must be cleaned and free from residual of weldings, rubbish, shaving and every kind of extraneous materials.
 Pipe-line must be perfectly aligned and their support properly dimensioned so that there's no external constraint.
 Tighten the bolts in cross
 Use the right bolt tightening so that the ends won't be damaged.

It's recommended to install a strainer before the water meter if there are some solid particles in the water.
 Installation of the meters in the vicinity of pumps must be avoided. It is advisable to install the meter as far as possible from them.

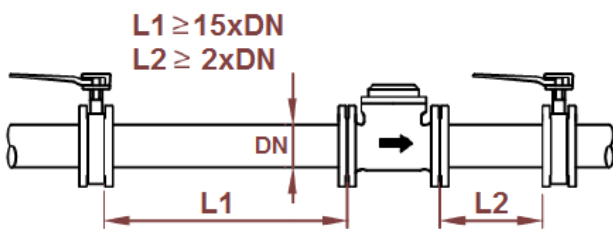
Make sure all the water supply outlets, served by the meter, sit higher than the meter itself otherwise its metering precision could be altered. The highest position of the count itself as the recording of the counter may not be reliable. To address these possibilities, simply place the meter after a 'large upward curve that ensures always a pipe completely filled with water (Fig 1). This will prevent air bubbles that could affect the accuracy of measurement



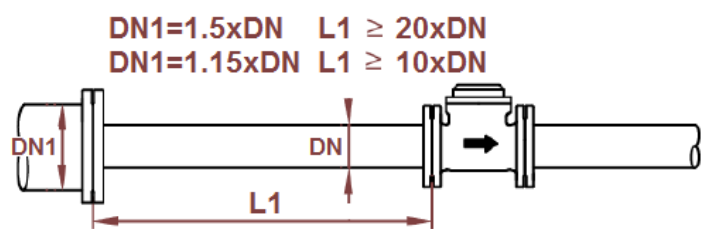
Respect the flow direction indicated by the arrow.
 We recommend installing a valve downstream and one upstream of the meter in order to facilitate a possible maintenance of the meter itself, without having to drain the complete pipeline.
 During the water meter commissioning it is advisable to open first the valve placed downstream of the meter (so to flood the mechanical part of the instrument) and then slowly open the valve located upstream of the meter. This will prevent possible water hammers or acceleration of the flow that could damage the moving parts of the instrument.

In the event of devices installed upstream of the water meter (gate valves, curves, elbows, tees, reducers, ...) it is recommended to follow the following points. These devices can generate flow turbulence that in the long run may damage the moving parts of the measuring instrument. The L1 and L2 lengths above are considered the minimum necessary. When possible, you should increase them.

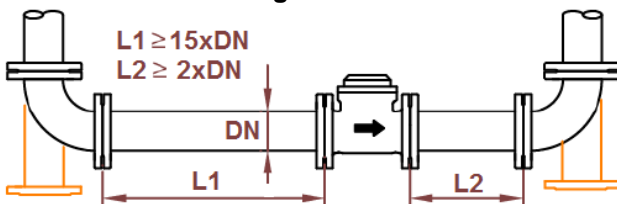
Valves placed upstream and downstream



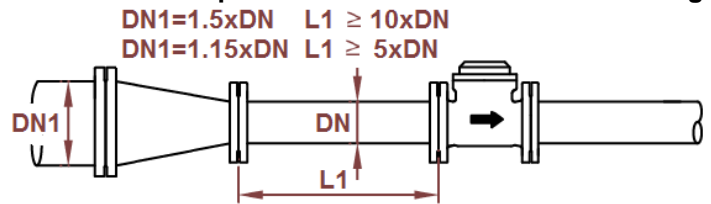
Upstream bottleneck



Curve or T fitting



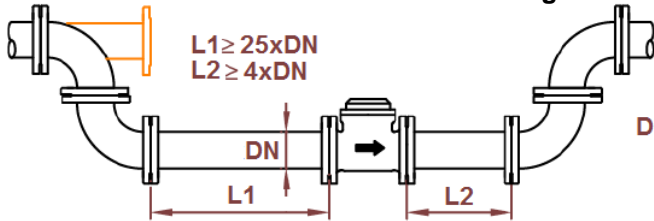
Upstream bottleneck with conical fitting



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INSTALLATION POSITIONS (SUITE) :

Two curves or one curve and T fitting



Upstream increases

$DN1 = 0.5 \times DN \quad L1 \geq 30 \times DN$
 $DN1 = 0.85 \times DN \quad L1 \geq 15 \times DN$

