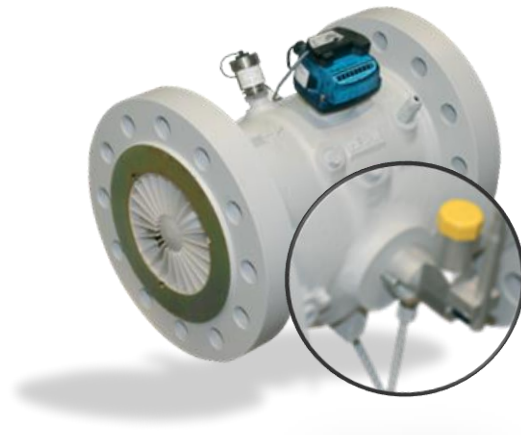




Lubrication

Fluxi 2000/TZ



Introduction

The Fluxi 2000/TZ is delivered, as standard, with life lubricated ball bearings. As option, an oil pump can be fitted onto the meter to lubricate the main ball bearings.

This option is recommended when the meter is used at high pressure and/or when the gas is not dry or clean.

The use of the oil pump and the type of lubricant to be filled should follow the below recommendations.

Oil pump benefits

- Can be mounted either on the left or right side of the meter.
- Possible to change the position, even on site.
- Easy orientation of the tank without tool
- Capacity of the tank = 35cc
- Tank equipped with water separator
- Extra spacer to increase the distance between the body and the oil pump
- Extra lever for high pressure applications

Oil pump position

In order to provide the best access, independently of the flow direction, the pump can be mounted **either at the right or left side** of the meter body.

The position can be changed, on site, very easily.

Exception for $DN \geq DN200$, where the connecting pipe has to be changed (attached *to the body below the meter for $DN < DN200$ and laterally for $DN \geq DN200$*).



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Tank orientation

When the meter is used vertically the tank has to be turned 90°. It can be easily turned without the help of any tool.

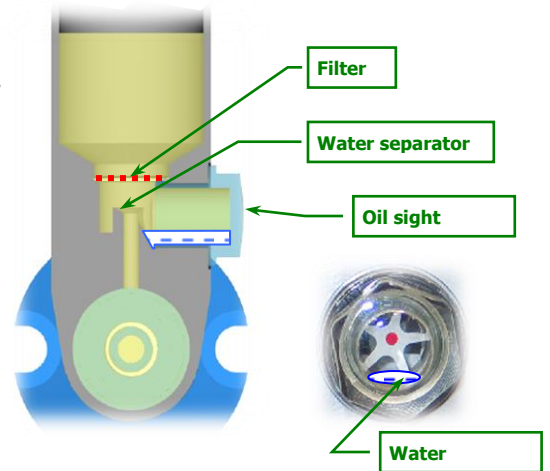
Note that the tank doesn't need to be perfectly vertical to insure a good functioning of the oiling (+/-15° from vertical is sufficient).



Tank equipped with water separator

Combination of important temperature cycles, high % of relative humidity and almost empty tank may induce condensation and accumulation of water in the tank.

Therefore the tank has been equipped with a water separator. Accumulated water can be checked in the oil sight. If water appears, the tank must be emptied completely immediately (by rotation of the tank) and the lubricant replaced by new one.



Extra spacer

A 15mm spacer (Ref: 651-252-00) can be used to increase the distance between the body of the meter and the oil pump.

It is useful in case of icing of the meter body or when some interference occurs between the tank and other options (HF, thermowells)



Extra lever

To reduce the effort to lubricate meters under high pressure, oil pumps, mounted on meters with flanging \geq PN25, are equipped, as standard, with a lever.





Filling the oil pump

Tank

Before unscrewing the yellow cap, ensure that no dust or water can drop into the tank.

The oil pump has to be filled only with the lubricant delivered with the meter or with a lubricant listed in "Type of lubricant".

Afterward tight the cap securely to avoid that humidity enters into the tank.

Pipe (between the pump and the ball bearings)

On commissioning:

DN	Volume	Pushes
50/80	4 cm ³	20
100	5 cm ³	25
150/200	6 cm ³	30
≥250	7 cm ³	35

On service:

DN	Volume	Pushes
50/80	0,5 cm ³	2-3
100	0,8 cm ³	4
150/200	1 cm ³	5
≥250	1,2 cm ³	6

Lubrication periodicity

Depending of the quality of the gas, the periodicity has to be as following:

Application	Periodicity
Dry gas – no dust	6 months
Gas containing light condensates and little dust	Monthly
Gas with high percentage of condensates and dust. BIOGAS applications	Weekly



It is important to respect these volumes and the periodicity to ensure the best lifetime and metrological performances of the meter.

All instructions required to fill lubricant into the meter are listed in the instruction manual delivered with each meter.



Type of lubricant

Fluxi 2000/TZ, equipped with an oil pump, are delivered with a bottle of 100 cm³ of Aeroshell fluid 12 MIL6085A.

This oil has been tested and qualified by Itron to guarantee the best lifetime and metrological performances of the meter.

For further servicing of your installed meter, it is possible to order it at your local Itron representative (Part ref: 009-990-00 for 100 cm³, 009-990-02 for 500 cm³).

As alternative, the following lubricants are also qualified: Isoflex PDP38 (Klüber), Anderol 401D (Mobil Oil), Univis P38 (Shell)

Retrofitting the oil pump

On all Fluxi 2000/TZ, produced since the year 2000, it's possible to retrofit the oil pump. Such operation must be carried out by a technician from Itron, or somebody trained by Itron. Materials and tools necessary to retrofit the oil pump are listed in Itron's Spare parts list.

Fluxi 2000/TZ version with separated lubrication

Suitable to measure gas at low temperature, this version is equipped with:

- An extension for the totalizer (long neck), increasing the distance between the body of the meter and the totalizer, to facilitate the reading when the meter is covered with ice.
- A separated lubrication system, including a pipe and a connector type Ermeto M16x2 firmly attached to the extension of the totalizer (long neck).
The lubrication is achieved with a separated pump.

Volume of oil required, on commissioning, to fill the pipe between the connector and the ball bearings:

DN	Volume
50/80	3,5 cm ³
100	4,5 cm ³
150/200	6 cm ³
≥250	7 cm ³

