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## **Users manual Filter housing H35**

## Warranty card

	<b>Name</b> <b>Filter housing</b>	<b>Type</b> <b>H35</b>	
<p>The seller warrants the product to function properly for a period of 12 months from the date of purchase under the following conditions:</p> <ol style="list-style-type: none"> <li>1. The warranty card is filled correctly, stamped and signed by the seller.</li> <li>2. The installation of equipment was executed by the manufacturer or his representative.</li> <li>3. The product will be used by trained personnel in accordance with the "Users manual".</li> <li>4. The guarantee is related to defects in design, production, materials, installation and servicing. Defects will be removed by the manufacturer or his representative in the form of repair or replacement of the defective parts or equipment within 72 hours.</li> <li>5. The warranty period will be extended by a period in which the product is malfunctioning.</li> <li>6. The warranty does not cover defects caused by: <ul style="list-style-type: none"> <li>• Improper or negligent installation, handling and operation</li> <li>• Placement at an inappropriate environment</li> <li>• a natural disaster.</li> </ul> </li> </ol>			
<b>MANUFACTURER</b>	<b>ECOFIL spol. s r.o.</b> <b>Okružná 6001</b> <b>071 01 Michalovce</b> <b>Tel. 00421 56 6441732</b> <b>email: info@ecofil.sk</b>	Stamp and signature	Date of issue 01/2017
<b>CHECK</b>	<b>ECOFIL spol. s r.o.</b> <b>Okružná 6001</b> <b>071 01 Michalovce</b> <b>Tel. 00421 56 6441732</b> <b>email: info@ecofil.sk</b>	Stamp and signature	Date of issue 01/2017
<b>SELLER</b>	<b>ECOFIL spol. s r.o.</b> <b>Okružná 6001</b> <b>071 01 Michalovce</b> <b>Tel. 00421 56 6441732</b> <b>email: info@ecofil.sk</b>	Stamp and signature	Date of issue 01/2017
<b>ASSEMBLY</b>		Stamp and signature	Date of issue

Dear Customer,

You became the owner of the filter housing H35 **ECOFIL** for oil filtration. Let us to take this opportunity to congratulate and to wish you a lot of benefits for its use. The product is designed for the by-pass filtration of all kinds of oil on devices without interrupting the main technological process. 1-5micron filtration efficiency and water-retention capacity significantly increases the service life not only of the filtered oil, but also of the hydraulic and mechanical components in the hydraulic circuit.

**ECOFIL** products are made of first-class foreign and domestic materials and components, assembled and thoroughly tested in the manufacturing plant. All the parts are surface finished.

Except of the production of mobile, stationary, portable and special devices for the filtration and separation of the oil and other liquid media, **ECOFIL** company also provides other related services:

- Demonstrating filtration, including the assessment at the customer
- Guidance
- Regular inspection and maintenance of the supplied equipment
- Certificated oil analyses
- Delivery of a portable kit to evaluate the purity of the oil
- Renting of filtration devices
- Filtration services on its own devices
- Production and distribution of filter elements.

Our employees will be pleased to provide you more information please own and external employees of the company.

The most important guidelines to align and use of the product are described in this "Users manual". It is necessary to be familiar with these instructions for the workers who will work with this unit.

As a result of practical experience **ECOFIL** filter installation are continuously improved and adapted to the most recent technologies.

Therefore it is possible that this manual is in some details not entirely corresponding with reality. However, if you follow the directions given in the following chapters, you will be sure satisfied our product.

We wish you a successful deployment of the device and good service.

Ing. Andrej Zatvarnický, PhD.  
director

Manufacturer **ECOFIL** spol. s.r.o. declares that supplied filter housing complies with applicable safety and technical requirements.

Ing. Andrej Zatvarnický, PhD.  
director

## **Contents:**

1. Utilization
2. Technical data
3. Picture section
4. Hydraulic scheme
5. Starting the installation
6. Filter element's change process
7. Maintenance

# 1. Utilization

Filtration equipment is intended for fine BY-PASS filtration of hydraulic, lubrication, heat transfer, transformer, transmission, engine, cooling and any other types of oil with alternative types of filter elements:

- |                        |  |
|------------------------|--|
| - Filter element T351  | - for all oil types (efficiency up to 5 $\mu\text{m}$ )  |
| - Filter element H351  | - for all oil types with requirements on high oil purity and extended life time (efficiency up to 3 $\mu\text{m}$ )        |
| - Filter element HH351 | - for all oil types with requirements on the highest oil purity and extended life time (efficiency up to 1 $\mu\text{m}$ ) |

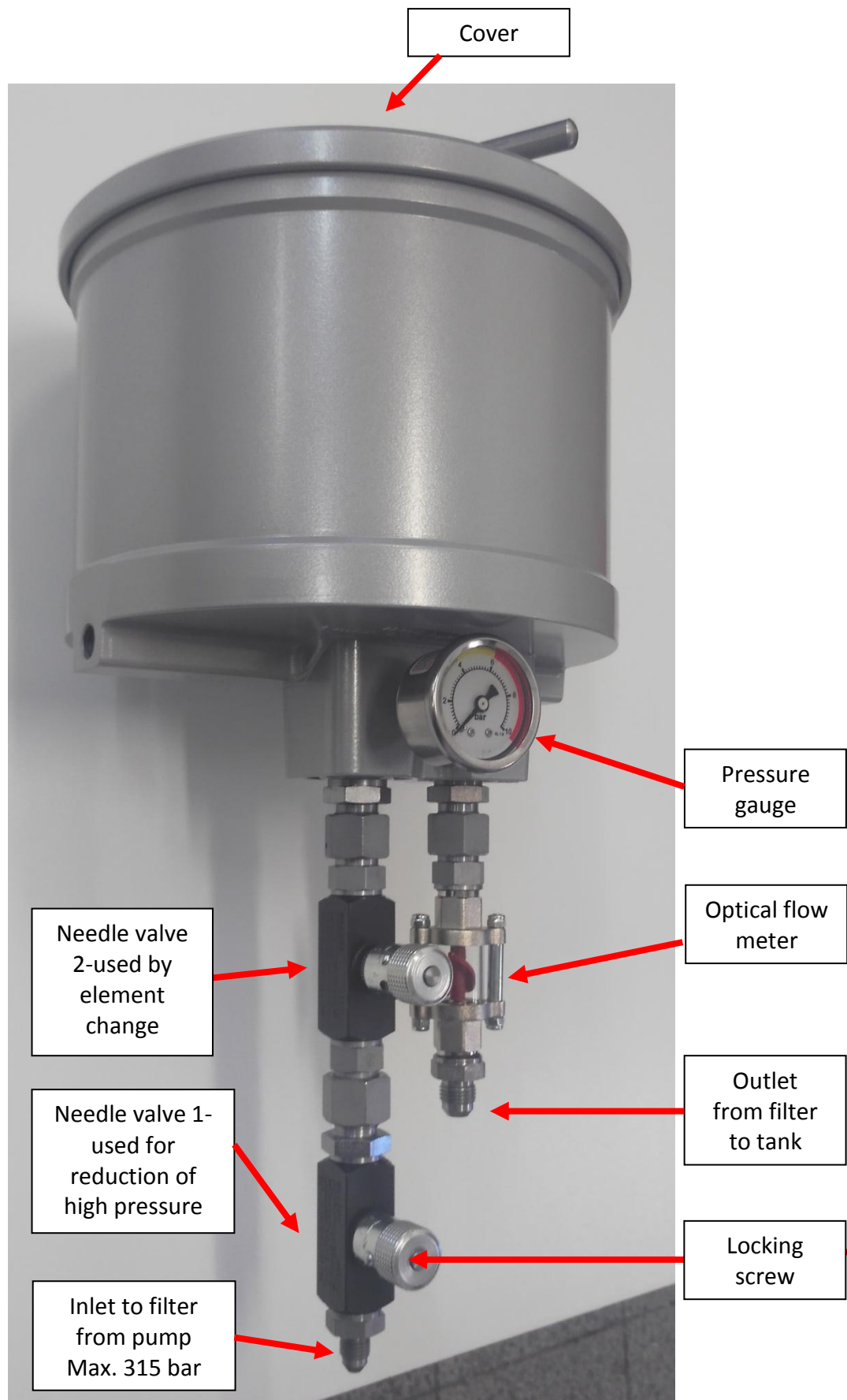
Important:

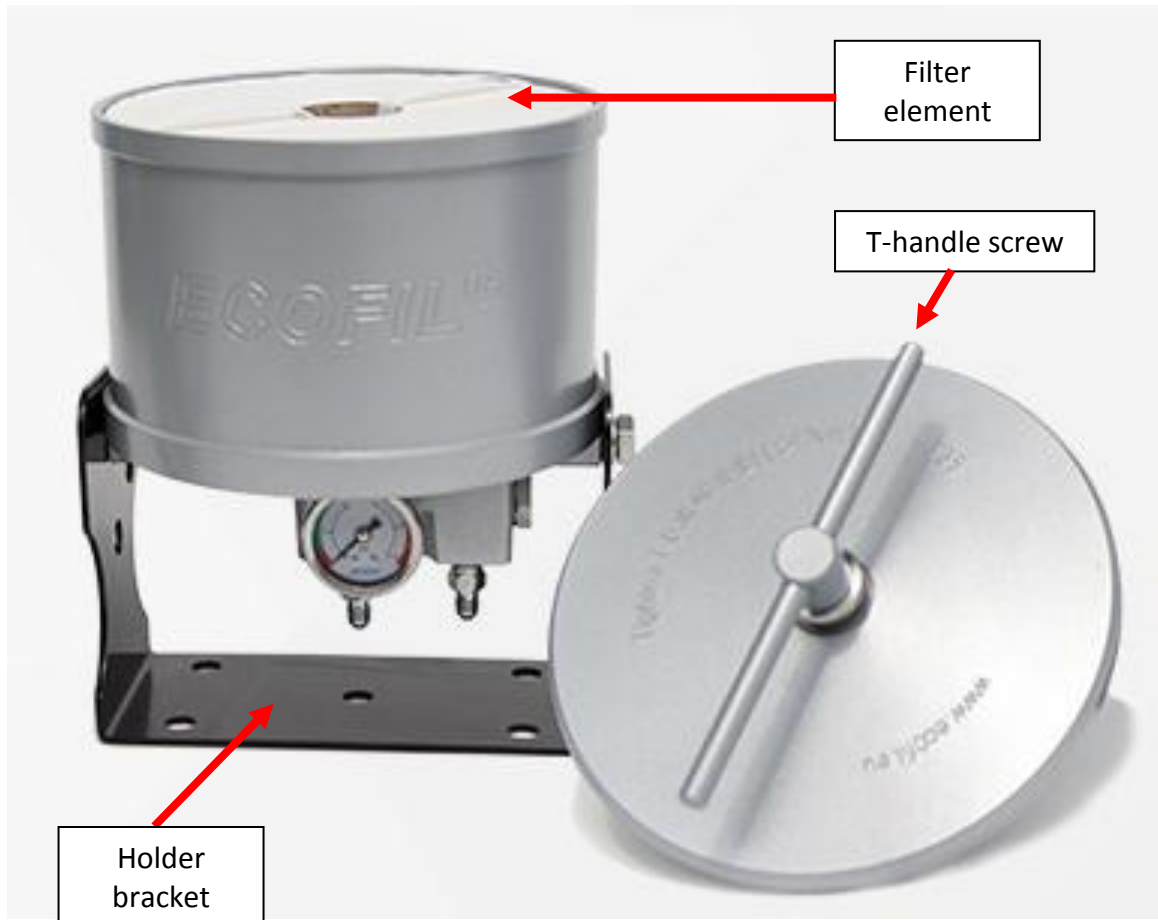
In the order it is necessary to specify the type of filtered liquid and the type of pollution. For other types of filter media, the device will be equipped with suitable elements.

Using the **ECOFIL** filtration in the hydraulic, forming, machining, construction and other machines guarantee oil purification to NAS class 4-7. This class is better (the oil is cleaner) than the new oil.

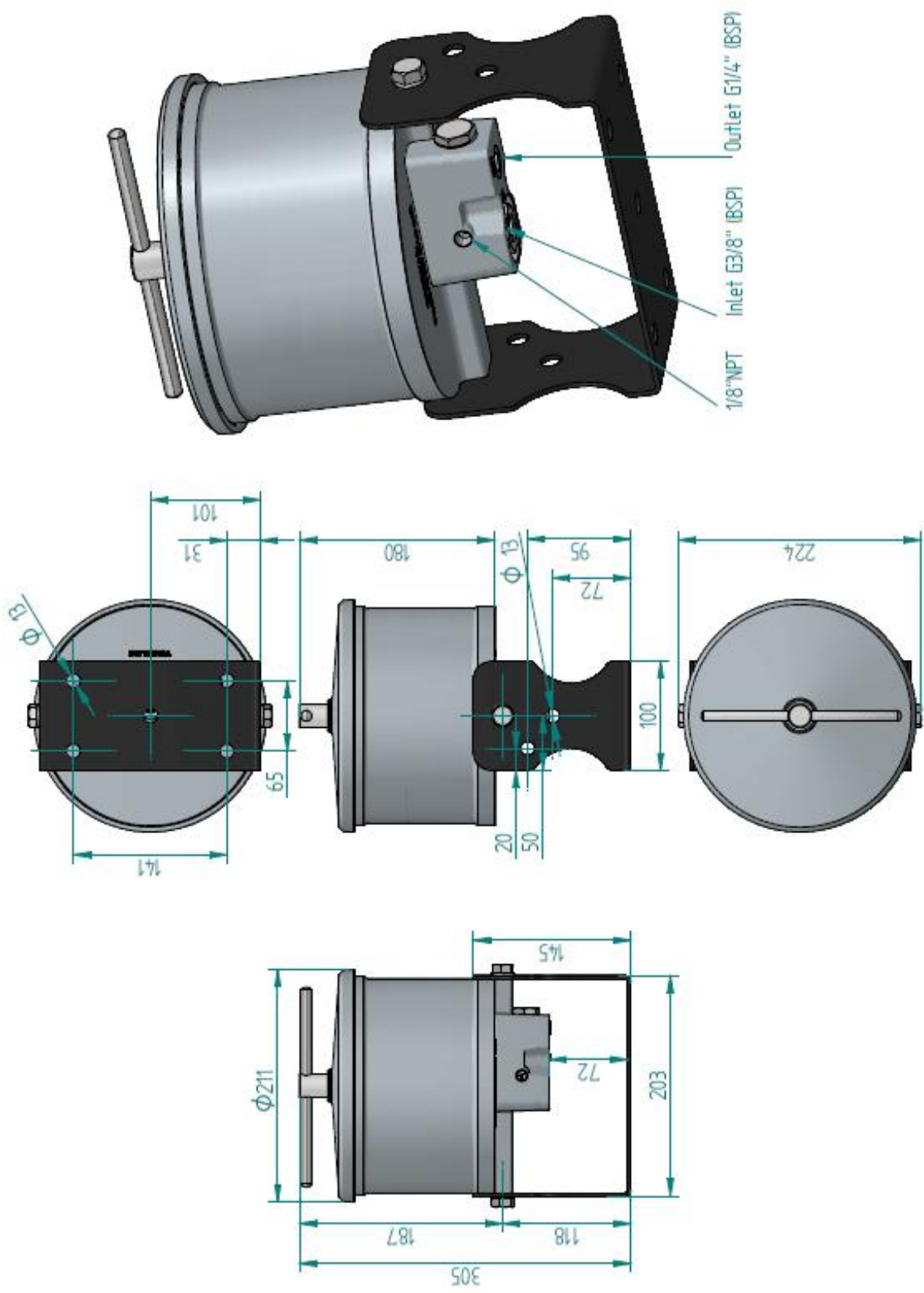
2. TECHNICAL DATA		UNIT	VALUE
Type of filter unit			H35
Number of filters in the housing		pcs.	1
Maximum flow		l/min.	3 (pri 46 cSt a 40°C)
Maximum volume of oil tank		l	1200
Maximum temperature of oil		°C	75
Viscosity of oil		cSt	2 – 150
Max. operating. pressure / test. pressure		bar	7 /10
Hydraulic connections	Inlet	thread	G 3/8"
	Outlet	thread	G 1/4"
	Gauge	thread	G 1/8"NPT
Outside dimensions	Diameter	mm	Ø220
	Height	mm	306,5

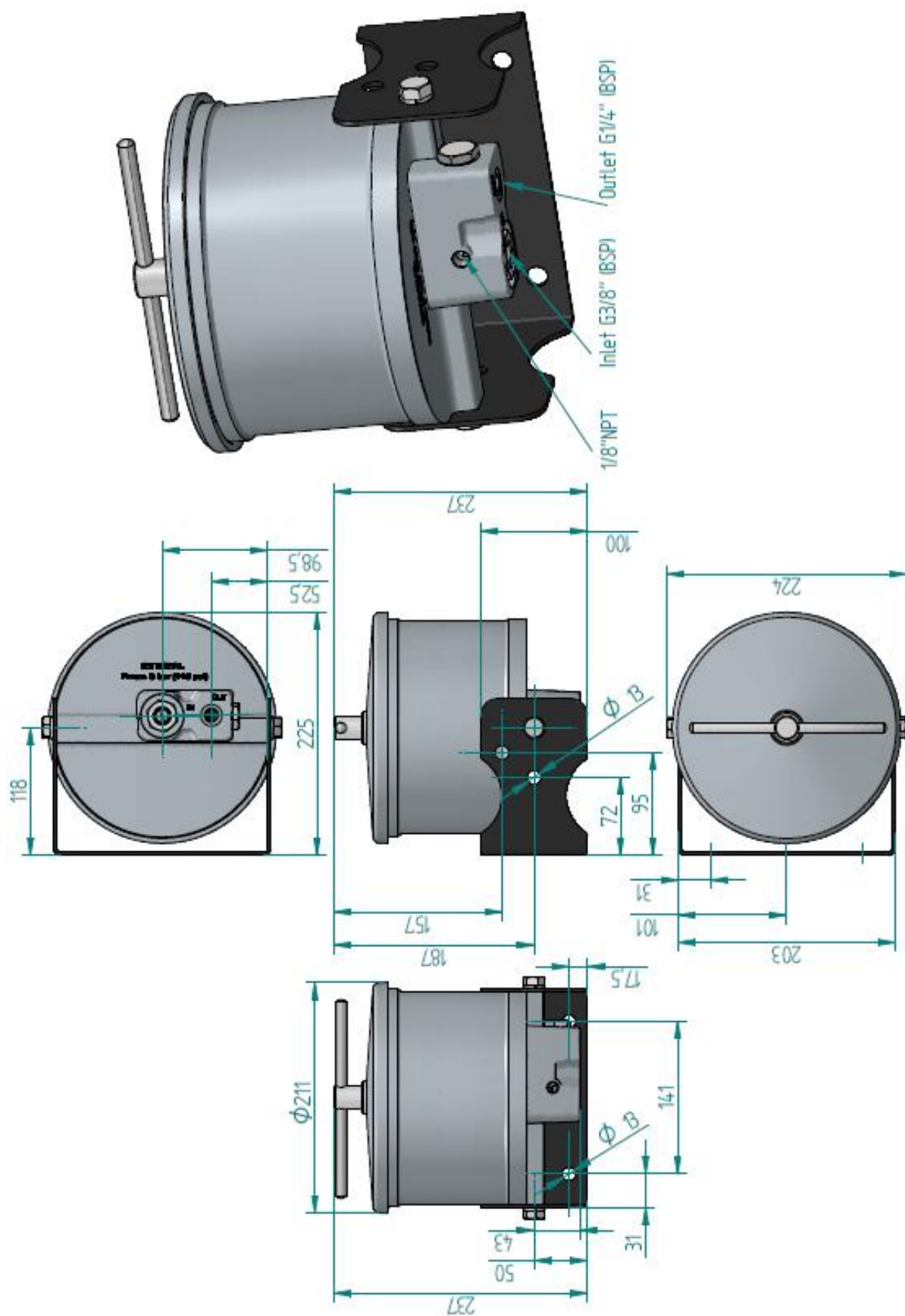
### 3. PICTURE SECTION



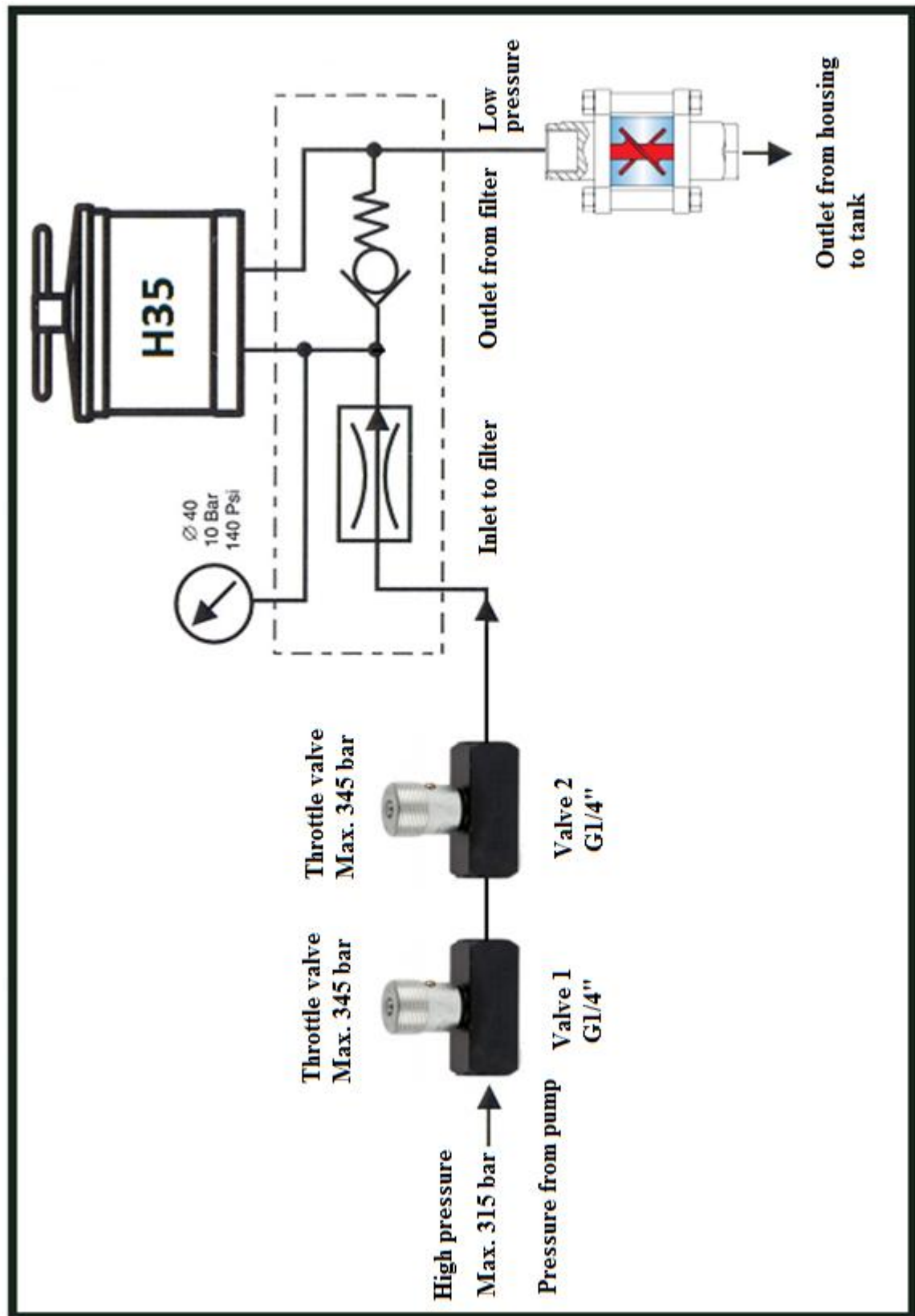








## 4. HYDRAULIC SCHEME



## 5. STARTING THE INSTALLATION

**WARNING!** Recommended temperature of oil by the filtration is 60 °C. Maximal/critical temperature of oil is 80 °C.

**WARNING!** The manufacturer prohibits making any adaptation or interventions to the filter, except of instructions in the manual!

**WARNING!** It is prohibited the handle the relief valve, as improper intervention can cause damage to the filter or injury to personnel!

**WARNING!** Filter Installation can be performed only by qualified personnel because it is a pressure vessel! Any Improper installation can cause injury or death to the operator !!!

**WARNING!** When installing the filter on the machine or plant, the equipment must be turned off !!!

**WARNING!** Never open the housing under pressure!

- Find out, if the filter housing contains filter element and if yes, tighten the T-handle screw.
- Before any other actions mount the filter housing at the machine or equipment with the bracket or screws.
- Mount the inlet and outlet hose or tube to the filter housing, and check if they are tightened properly.
- Connect the inlet hose to the pump of the machine or equipment, but the system pressure cannot be higher than 315 bar.
- Connect the outlet hose to tank with oil
- After checking all the connections completely opening the throttle valve 2 and the throttle valve 1 must remain closed!
- If all connections are tight and the throttle valve 1 is closed, you can run the machine

- If the machine develops pump pressure so very slowly we open the throttle valve 1 to us as slow pressure build-up. something around 1-2 bar
- It is necessary to wait a while before the filter cartridge drink oil, and slowly open the throttle valve 1- ATTENTION pressure must not exceed 6 bar!
- And we will see that it passes through the filter oil, which we'll see in the optical flow indicator and a throttle valve 1 set to 5 bar and tighten the locking screw! We never have it then disengages!

This filter is put into operation

Important:

When another kind of oil filtration cartridge filters should be replaced according to Chapter 6.

## 6. FILTER CARTRIDGE REPLACEMENT

**Never do not open the housing under pressure!**  
**Filter element replacement when exercising machine is switched off!**

Filter element replacement performed at the increase in pressure of 1-2 bar compared to the values measured at initial startup (about 6 bar)

- Before replacing the filters to conclude a throttle valve 2!
- Dismantle the lid of the filter unit
- Choose the filter cartridge by gripping the tape and insert it into the original polyethylene bags
- Clean the inside of the filter unit
- Insert a new filter insert and press it firmly to the bottom of the filter unit
- Check the condition of the sealing ring and tighten the lid of the filter
- Opening the throttle valve 2!
- Turn on the machine

## 7. MAINTENANCE

### 7.1 Daily check pressure.

Pressure gauge:

- Pressure should show a slight upward trend, depending on the degree of contamination of filter elements. Upon reaching the pressure yellow to red box of 0.6 MPa to replace filter cartridges

### 7.2 The interval when the PTO is dependent on various factors, e.g. the viscosity of the oil, the degree of contamination of the oil, the amount of the water-in-oil etc.

Exchange is not always necessary:

- After three months of work
- An increase in pressure to 0.6 bar (pressure gauge is in the red color)
- The depreciation insert more water-in-oil
- When connecting a filter for filtering the pot another oil type.