

## "Turbidron" Bobbin Wound Filters



### GEMAS "TURBIDRON" SAND FILTERS.

Up to size Ø1800, filter shell made of single piece Roto MOLDED PE.

Larger sizes shell made of FR Polyester shell reinforced by fiberglass bobbin winding outside. Complete with pressure gauge, air release valve of 0,5". Test pressure 4,0 kg/cm<sup>2</sup>.

Max. operation pressure 2,5 kg/cm<sup>2</sup>. Filtration rate: 40 m<sup>3</sup>/h/m<sup>2</sup>.

Filtration bed depth: 1,0 m (Excluding 021717E). Please ask price for 4,0 and 6,0 kg/cm<sup>2</sup> operation pressures. 2-year warranty.



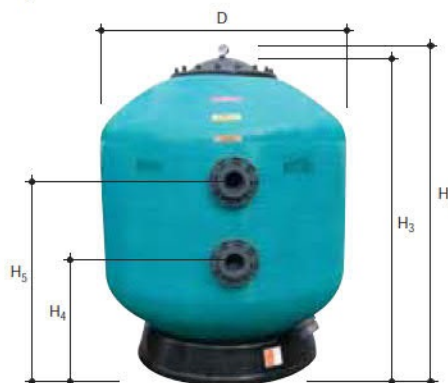
021725



021721

Description	Code	Pieces/box	Weight Kg	Volume m <sup>3</sup>
• Ø1200 mm - 56 m <sup>3</sup> /h, 75 mm unions	021717E	1	95,000	
• Ø1200 mm - 56 m <sup>3</sup> /h	021725	1	110,000	
• Ø1400 mm - 77 m <sup>3</sup> /h	021718	1	180,000	
• Ø1600 mm - 100 m <sup>3</sup> /h	021719	1	240,000	
• Ø1800 mm - 127 m <sup>3</sup> /h	021720	1	275,000	
• Ø2000 mm - 157 m <sup>3</sup> /h	021721	1	300,000	
• Ø2200 mm - 190 m <sup>3</sup> /h	021722	1	425,000	
• Ø2350 mm - 217 m <sup>3</sup> /h	021727	1		
• Ø2400 mm - 226 m <sup>3</sup> /h	021723	1	535,000	
• Ø2500 mm - 245 m <sup>3</sup> /h	021724	1		
• Ø3000 mm - 245 m <sup>3</sup> /h	021726	1		

PS: Filtration rate for public pools should not exceed 40 m<sup>3</sup>/h/m<sup>2</sup>.



### TECHNICAL CHARACTERISTICS

MODEL	021717E	021725	021718	021719	021720	021721	021722	021727	021723	021724	021726
D (mm)	1200	1200	1400	1600	1800	2000	2200	2350	2400	2500	3000
H <sub>1</sub> (mm)	1410	1410	1560	1860	2050	2160	2360	2560	2660	2770	2770
H <sub>2</sub> (mm)	-	-	-	-	-	-	-	-	-	-	-
H <sub>3</sub> (mm)	1350	1350	1500	1800	1990	2100	2300	2500	2600	2710	2710
H <sub>4</sub> (mm)	520	520	600	640	700	770	900	900	900		
H <sub>5</sub> (mm)	880	880	950	1200	1300	1400	1530	1700	1700		
CONNECTIONS Ø (mm)	75	90	110	125	140	160	200	200	200	200	200
FLOW (m <sup>3</sup> /h) (50 m <sup>3</sup> /h/m <sup>2</sup> )	56	56	77	100	127	157	190	217	226	245	245
SAND (Kg)	1300	1500	1950	2750	3650	4750	5700	6150	6400	7000	7000
NET WEIGHT (Kg)	95,000	110,000	180,000	240,000	275,000	300,000	425,000	500,000	535,000		



# Turbidron

Bobbin Wound Sand Filters for Commercial Pools



"Pool Technology"



DISTRIBUTOR

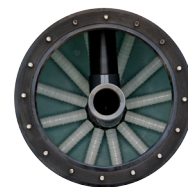
[www.gemas.com.tr](http://www.gemas.com.tr)

# "Turbidron" Bobbin Wound Sand Filters for Commercial Pools

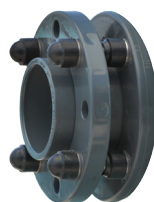
**GEMAS "TURBIDRON" SAND FILTERS.** Filter shell made of FR Polyester and reinforced by fiberglass bobbin winding outside. Complete with pressure gauge, air release 1/2". Test pressure 4.0 kg/cm<sup>2</sup>. Max. operation pressure 2.5 kg/cm<sup>2</sup>. Filtration rate: 50 m<sup>3</sup>/h/m<sup>2</sup>. Filtration bed depth: 1.0 m (Excluding 021717E). Please ask price for 4.0 and 6.0 kg/cm<sup>2</sup> operation pressures.



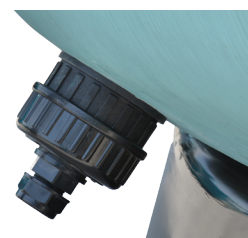
Fiberglass Reinforced Filter Lid



40 cm Large Lid Opening



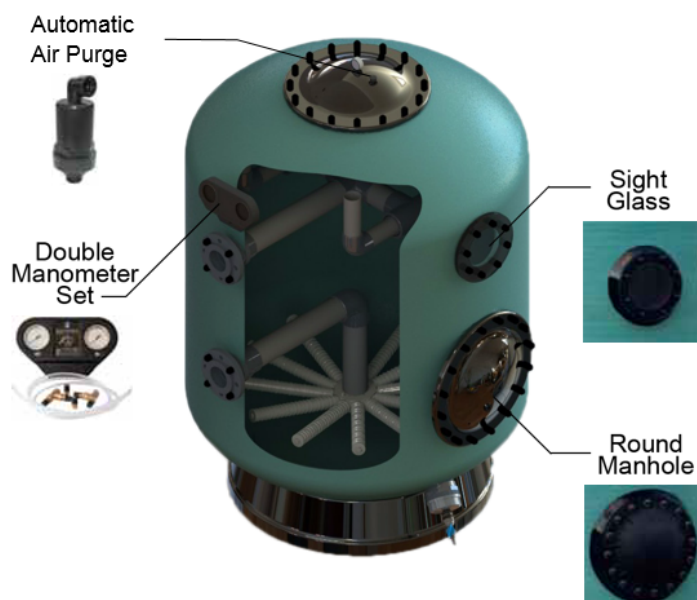
Double Flange Connections with Screws



Filter Drainage

MODEL	021717E	021725	021718	021719	021720	021721	021722	021723	021724	021726
D (mm)	1200	1200	1400	1600	1800	2000	2200	2400	2500	3000
H <sub>1</sub> (mm)	1410	1560	1560	1860	2050	2160	2300	2660	2770	2770
H <sub>2</sub> (mm)	-	-	-	-	-	-	-	-	-	-
H <sub>3</sub> (mm)	1350	1500	1500	1800	1990	2100	2240	2600	2710	2710
H <sub>4</sub> (mm)	520	520	600	640	700	770	900	900	-	-
H <sub>5</sub> (mm)	880	880	950	1200	1300	1400	1530	1700	-	-
Connection (Ø)	75	90	110	125	140	160	200	200	200	200
Flow Rate (m <sup>3</sup> /h) (50 m <sup>3</sup> /h/m <sup>2</sup> )	56	56	77	100	127	157	190	226	245	245
Sand Weight (kg)	1300	1500	1950	2750	3650	4750	5700	6400	7000	7000
Net Weight (kg)	95.00	110.00	180.00	240.00	275.00	300.00	425.00	535.00	-	-

Additional Options	Code
Round Manhole (2.5 bar) Ø 400 mm	0217172
Round Manhole (2.5 bar) Ø 400 mm (Transparent lid)	0217172T
Round Manhole (4 bar) Ø 400 mm	0217182
Round Manhole (4 bar) Ø 400 mm (Transparent lid)	0217119
Sight Glass Ø 90 mm	0217192
Sight Glass Ø 125 mm	0217202
Sight Glass Ø 200 mm	0217212
Automatic Air Purge 1"	0217222
Automatic Air Purge 2"	0217232
Double Manometer Set	0217242
Double Manometer Set with Sampling Valves	0217252
Ozone Protection (Vinyl Ester Coating)	
Sand Bed Depth =1.5 m	







*"Pool Technology"*

## **BOBIN WOUNDED FILTERS INSTALLATION MANUAL**



### **FIBERGLASS REINFORCED PLASTIC BOBBIN WOUND SAND FILTERS FOR COMMERCIAL POOL APPLICATION**

IMPORTANT SAFETY INSTRUCTIONS  
READ AND FOLLOW ALL INSTRUCTIONS  
SAVE THESE INSTRUCTIONS

**Declaration of Conformity**

We declare, under our sole responsibility, that the product identified, and to which this declaration relates, are in conformity with the protection requirements of Council Directive 2006/42/EG.



The manufacturer, Gemas has the right to modify the products without previous notice for as far as their characteristics are not really changed by this.

**All rights reserved. This document is subject to change without notice.**

**Warranty conditions:** 2 years limited warranty

**IMPORTANT SAFETY INSTRUCTIONS**

**THESE OPERATING INSTRUCTIONS CONTAIN IMPORTANT INFORMATION ON THE SAFE, PROPER AND ECONOMICAL OPERATION OF THIS SWIMMING POOL APPLIANCE. STRICT OBSERVATION OF THE OPERATING INSTRUCTIONS WILL HELP TO AVOID DANGERS, REDUCE REPAIR COSTS, SHUTDOWN TIMES AND INCREASE THE RELIABILITY AND WORKING LIFE OF THE PRODUCT.**

# BOBBIN WOUND SAND FILTERS

## 1- GENERAL INFORMATION

### 1.1- INSTRUCTION

This manual provides the necessary instructions to install, use and maintain bobbin wound filters. In order to obtain the benefits that are indicated in the characteristics, all the instructions that appear in this manual must be followed. This will offer a safe and long-lasting installation.

The equipment's supplier will provide further information to the user whenever it is needed.

## 2- DESCRIPTION

### 2.1 Description

These filters have been designed to provide water in pools and aquatic parks, also for all water treatments that require the elimination of suspended matter using the proper reduction of filtration element.

Apart from the filter itself, filtration and purification process include some points that must be taken into consideration as they can influence the correct filter operation. These would be chemical water treatment, pump equipment, pipe segments and general hydraulic design.

When public pools are concerned, the current rules in each country should be observed, as the installation must follow them.

The filtration quality depends on different parameters as depth of filtration bed, characteristics, quality and grade of filtration media, etc., as well as filtration rate.

### 2.2 Filter's Characteristics.

The tank is made of plastic, resin of polyester and fiberglass, totally anticorrosive. Inside, it contains collectors and diffusers made of unalterable plastic material (PVC and ABS), tested against salt-water. They are supplied for a working pressure of 2.5 kg/cm<sup>2</sup>, 4 kg/cm<sup>2</sup>, or 6 kg/cm<sup>2</sup> and a maximum temperature of 50°C. Other specifications can be supplied upon request.

Filtration rates may be 20, 30, 40 and 50 m<sup>3</sup>/h/m<sup>2</sup>, depending on the application and the kind of filtration elements that have been selected. Rate 50 is not recommended in public pools.

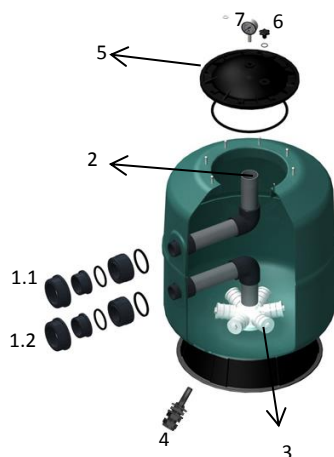
## 3. INSTALLATION

### 3.1 Filter Installation

Filters are delivered properly packed and ready in order to facilitate unloading and transport using forklift truck, crane etc. It is very important to make sure that the filters have not suffered bumps during transport.

To obtain a correct filter installation, the following stages must be observed:

- Install filters on their final location.
- Install correctly the multiport valve in the filters.
- Connect multiport valve with the delivery pipe of the pumps, returns pipes and drain.
- Check the inner parts of each filter (nozzles, collectors, top, diffusers).
- Fill the filters with water.
- Empty half the water and add the filtration element (gravel, sand and/or anthracite), etc.

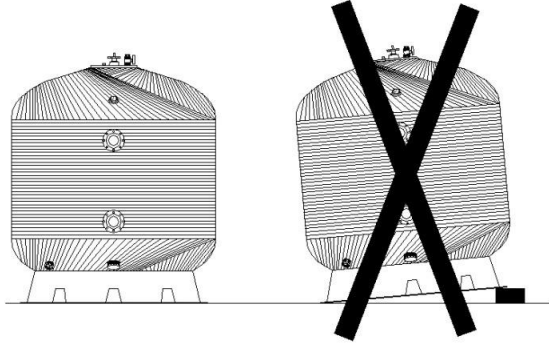


NO	DESCRIPTION
1.1	Water inlet for filtration
1.2	Filtrated water outlet
2	Diffuser
3	Collector
4	Water Drain
5	Filter Lid
6	Air Purge
7	Manometer

### 3.1.1-Filters location.

Filters must be placed under the water level. However if vacuum occurs in the installation, suction cups must be installed in the lids to avoid that depression could collapse the filter's tanks.

Filters must be situated so that their bases are perfectly level and completely supported by the floor.



The location must have the appropriated size to allow maintenance periodic overhauls and any other work. Additionally the room must provide a drain to allow, in case of accident, evacuation of water flowing from any tube, filter, pump, etc. this will avoid risk of damages in the electrical installations (pump, electric panels, etc.)

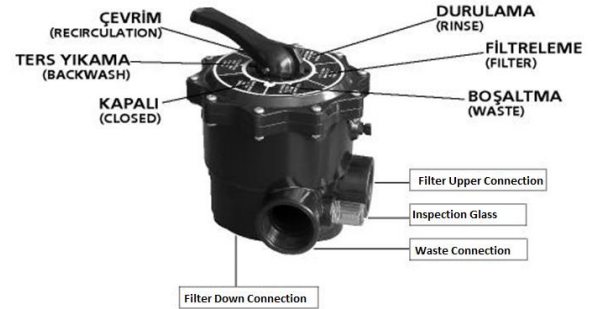
### 3.1.2 Setting up the valve battery.

Multiport valve is delivered with pipe part to connect filter water inlet (up connection) and L shaped elbow (down connection), (depending on your order).



Check the filters if they are situated in the suitable distance from multiport valve and that they are lined-up.

You can start placing the multiport valve avoiding forcing the connections. Check also that outlets have not been damaged and that they are completely clean and empty.



## 4- STARTING

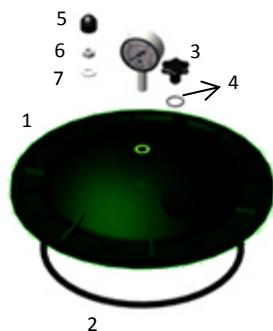
Before filling filters sand or other filtration elements, it is advisable to check the internal collectors to make sure that they have not been damaged during transport or installation. Afterwards, fill the filters and the water installation and make an hydraulic test. Thus, you will make sure that there is no leak and that equipment works properly.

Then stop the pumps, open each filter's lid (the filter must not be emptied without opening the lid, as it could collapse) and empty half the water that each filters contains.

Then, start filling the filter with sand or other filtration elements, taking into account that first of all you must put gravel up to the collector arms (10 cm. approx).

This must be done very carefully in order to avoid any damage in the lower components of the filter. When the filter is being filled with sand, this must be carefully spread over the surface.

Once the filter is full with the filtration elements clean the lid and the inner part of the manhole. This will prevent any debris and particles of sand affecting the seal of the joint.



No	Description
1	Filter lid
2	Filter lid o-ring
3	Air purge
4	Air purge o-ring
5	Screw cap
6	Inox Nut M8
7	Washer Inox M8

Put the seal in the lid; then introduce the lid in the manhole, screws must be positioned according to screw gaps on the lid to fix with nuts, leaving it leveled and centered.

Washers and nuts must be put on screws and tightened.



## EC DECLARATION OF CONFORMITY (AT UYGUNLUK BEYANI)

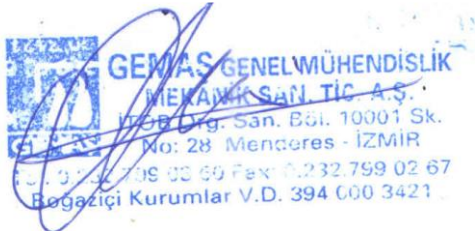
<b>Manufacturer (Üretici)</b>	<b>: GEMAŞ GENEL MÜH. MEKANİK SAN. VE TİC. A.Ş.</b> Mimar Sinan Mah. Yasemin Sok. No:16 Kemerburgaz İstanbul – Türkiye
<b>Product Description (Ürün Tanımı)</b>	<b>: Sand Filters ( Kum Filtresi)</b>
<b>Applied Standard (Uygulanan Standart)</b>	<b>: 2014/68/EU (Regulation on Pressure Equipment ) 2014/68/AT (Basıncılı Ekipmanlar Yönetmeliği – Turkish Standart)</b>
<b>Model Name</b>	<b>: Turbidron, Filtrex, Filtrone, Neptune, Premium, Filtegra, Ikarus</b>
<b>Date of CE Marking (CE Markalama Tarihi)</b>	<b>: 19.05.2022</b>
<b>Valid Until (Geçerlilik Süresi)</b>	<b>: 19.05.2024</b>
<b>Decleration No (Beyan Numarası)</b>	<b>: GEMAS/2014-004-F.00-20.05.2024</b>

We hereby declare that above mentioned products are in compliance with Regulation on Pressure Equipment 2014/68/EU (2014/68/AT)



**Mehmet Demir**  
Quality Engineer

İstanbul / Türkiye  
May, 2022



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