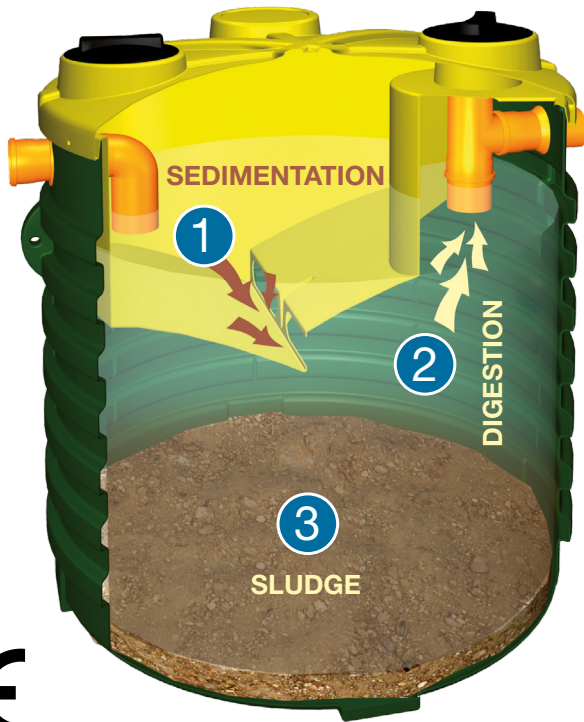


# DEPURO NIM

## IMHOFF BIOLOGICAL TANKS



- 1 SEDIMENTATION**  
sedimentation area for incoming solids.
- 2 DIGESTION**  
area into which the treated effluent flows for digestion.
- 3 SLUDGE**  
area in which the biological sludge responsible for purifying the effluent is formed.

CE

## INSTALLATION DIAGRAM



# SPECIFICATIONS

## TECHNICAL CHARACTERISTICS

Imhoff type septic tanks consist of two overlapping and hydraulically communicating compartments. In the upper compartment the sedimentable solids fall to the bottom of the sedimentation chamber by gravity. The chamber is suitably inclined to allow the sludge to pass into the lower compartment where digestion takes place.

### USE

Primary treatment of sewage from toilets.

### DAILY HYDRAULIC LOAD: 200 l/PE

Please note: it is possible to size the treatment plant according to different daily hydraulic loads.

## PRODUCT CERTIFICATION

Rototec Imhoff biological tanks are CE marked and have been designed, tested and certified under standard UNI EN 12566-3 "Small wastewater treatment systems for up to 50 PT – Part 3: Packaged and/or site assembled domestic wastewater treatment".

The tests were carried out at the PIA Gmbh accredited test laboratory (Aachen - Germany). The Imhoff tanks were found to comply with the necessary requirements.

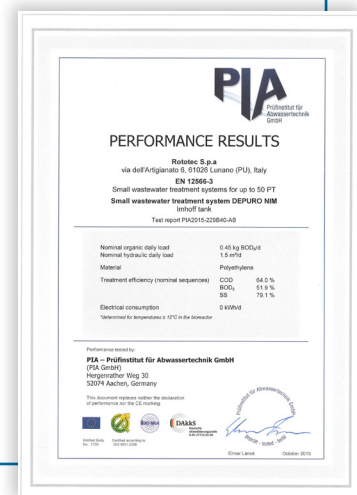
- Sewage treatment efficiency
- Watertightness
- Structural behaviour



**CERTIFIED**  
**UNI EN 12566-3**

Percentage reduction in pollutants:

**64%**    **52%**    **79%**  
**COD**    **BOD<sub>5</sub>**    **SS**



# ADVANTAGES DEPURO NIM



#### Operating guarantee:

the tests carried out according to European standards under the control of a qualified laboratory certify the actual sewage treatment levels of the system



#### High sewage treatment efficiency



#### Wide range of models:

for homes from 2 to 40 Population Equivalent



#### Reduced costs of management and installation



#### Easy installation and maintenance:

thanks to the lightweight components



#### Strength:

robust, high-strength one-piece elements

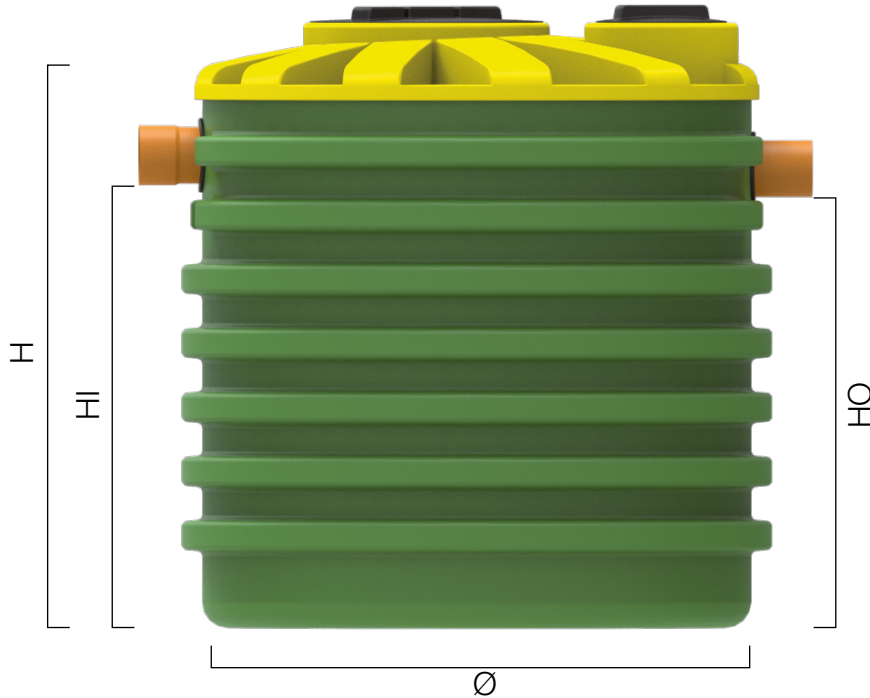


#### Respect for the environment: polyethylene is 100% recyclable

# DEPURO NIM

## MODEL

### CORRUGATED



Item	Model	Ø mm	H mm	HI mm	HO mm	Ø I/O mm	Sed. Vol. l	Dig. Vol. l	Hydraulic load l/d	Organic load gBOD5/d	PE.
DEPURO02 NIM		1150	1220	880	860	110	243	607	400	120	2
DEPURO04 NIM		1150	1720	1360	1340	110	362	906	800	240	4
DEPURO07 NIM		1710	1450	1000	980	125	629	1432	1400	420	7
DEPURO10 NIM		1710	1725	1240	1220	125	760	1765	2000	600	10
DEPURO12 NIM		1710	1955	1490	1470	125	965	2139	2400	720	12
DEPURO15 NIM		1710	2225	1710	1690	125	1085	2713	3000	900	15
DEPURO20 NIM		1950	2250	1660	1640	160	1210	3137	4000	1200	20
DEPURO25 NIM		1950	2530	1970	1950	160	1322	3778	5000	1500	25
DEPURO32 NIM		2250	2367	1850	1830	160	1460	5474	6400	1920	32
DEPURO40 NIM		2250	2625	2070	2050	160	2020	5803	8000	2400	40

PE. = population equivalent: Ø = diameter; H = height; HI = inlet pipe height; HO = outlet pipe height; ØI/O = inlet/outlet pipe diameter.

# TECHNICAL SECTION - IMHOFF BIOLOGICAL TANKS

## TECHNICAL CHARACTERISTICS

A series of chemical, physical and biological processes take place inside the biological septic tank, allowing a reduction in the values of the main reference parameters (BOD5, COD, SS (Suspended Solids)).

More specifically, the Imhoff cone means that the turbulence of the inlet flow is dampened in the **upper sedimentation section**, with solids tending to settle and enter the lower digestion section. In the same way, any substances with a specific weight lower than that of water (e.g. oils and greases, foam,...) separate from the effluent and accumulate on the surface. In the **digestion section**, in a **completely anaerobic environment**, the bacterial flora developed and maintained partially digests the accumulated sludge, transforming it into more stable, non-polluting products.

The Imhoff biological tank must be installed directly on the sewage line. It is good practice to install a grease separator tank for the pre-treatment of grey water from bathroom and kitchen sinks, showers, bidets, etc.

## USE AND MAINTENANCE

From the moment the Imhoff is put into operation, the anaerobic bacterial flora starts to develop inside the tank. Obviously, a certain period of time is necessary in order to reach the correct balance and maximum treatment efficiency. This is known as the **start-up phase**, and can last between 2 and 5 weeks. To reduce this time, the use of a specific bio-activator is recommended.

An excessive accumulation of sedimentable material in the sludge compartment can cause **uncontrolled anaerobic digestion** phenomena, leading to an over-production of biogas and bad smells. Furthermore, the reduction in the volume available in the digestion compartment and the excessive production of gas bubbles will cause the settled material to rise, causing deterioration in the quality of the treated effluent.

The use of the Rototec BIO-ACTIVATOR is highly recommended for rendering the initiation of the biological processes more rapid, thus limiting the number of **sludge removal operations** and reducing the risk of malodorous emissions.

The DEPURO NIM Imhoff tank is designed to provide primary and secondary recirculation sludge storage for a period of 6-8 months of plant operation. A minimum of 1-2 inspections per year by qualified personnel and eventual emptying operations must be programmed according to the loads fed to the tank. Once the settled sludge has been removed, the internal surfaces of the tank must be cleaned in order to eliminate any material obstructing the effluent inlet and outlet pipes and the outlet of the sedimentation chamber.

## MANAGEMENT

WHAT TO DO	WHEN	HOW
Inspect the Imhoff biological tank	From 1 to 2 times a year	Unscrew the inspection covers and check the level of sediments
Remove the settled sludge, clean the interior and the inlet and outlet pipes	Every 6 / 12 months	Contact a licensed waste disposal company

**N.B.** the frequency of operations will depend on the incoming organic load.

## PROHIBITIONS

- **do not use toxic and/or poisonous substances** (bleach, solvents, insecticides, disinfectant substances, aggressive detergents), always use biodegradable products;
- **NEVER** flush paper tissues, kitchen towel, paper napkins or other materials except toilet paper down the toilet;
- **NEVER** allow rainwater to enter the system.

## WARNINGS

- make sure that drains have a siphon;
- check that the pipes have sufficient gradient (approximately 1% - 2%);
- connect the biogas vent pipe (**see underground installation**);
- after emptying, fill the tank again with **clean water**;
- in the event of a maintenance operation of any kind, always comply with the **safety regulations** regarding operations within enclosed wastewater treatment areas and with the general technical procedures applicable within enclosed wastewater treatment areas and with the general technical procedures applicable.