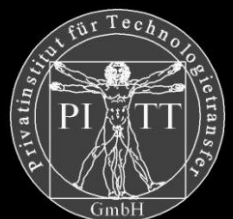


PITT-TPS

three phase separator

**The flexible high-performance separator
for industry and trade**

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The Product

The **TPS** (three phase separator) is a system for the physical treatment and recovery of industrial and commercial waste water. Thanks to an optimal utilisation of physical forces and individually adapted streaming technology the three primary phases of a process liquid are efficiently separated.

1. Free light liquids of a density of $\rho < 1 \text{ g/cm}^3$
2. Process water of a density of $\rho \sim 1 \text{ g/cm}^3$
3. Sedimentable pollutants of a density of $\rho > 1 \text{ g/cm}^3$

As defined in the European standard the nominal size of separators and strippers exclusively refers to the maximum influent volume in l/s (e.g. NG10 = 10 l/s). Many other parameters relevant to the physical separation are not considered.

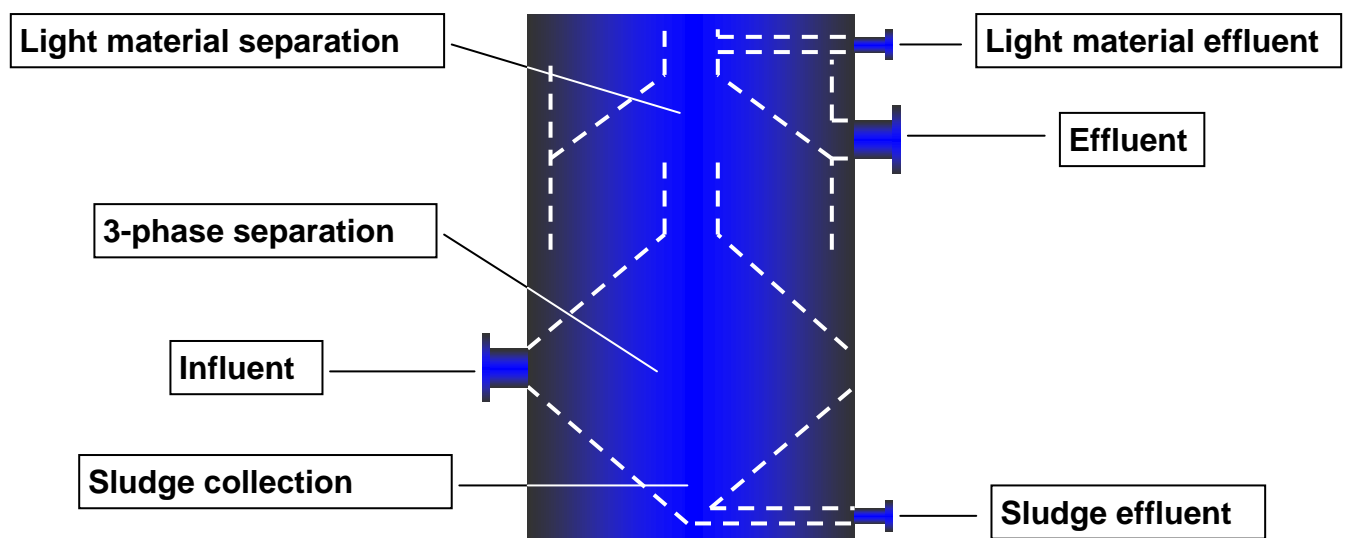
As opposed to the common systems the **TPS** is exclusively manufactured to the individual technical specifications thereby ensuring the efficient separation of the three phases for their further processing.

The **TPS** accounts for all parameters influencing the separating behaviour as well as the streaming properties, such as:

- The influent volume (Q_{total})
- The maximum quantity of light liquids ($Q_{\text{l max}}$)
- The density of the light liquids (ρ_{l})
- The maximum quantity of sedimentable substances ($Q_{\text{s max}}$)
- The average density of the sedimentable substances (ρ_{s})

Further parameters such as the place and temperature of installation, media temperature, chemical composition etc. determine the materials used in construction. The **TPS** is available in polyethylene, polypropylene, standard steel, stainless steel of various grades as well as in concrete.

Main Components of the PITT-TPS (schematic representation)



The Process

The water to be treated flows into the 3-phase separator's (TPS) influent for separating the free light liquids and sedimentable substances.

The first separator stage consists of a capsulated 3-phase separation chamber containing a hydrodynamic flow distributor in the influent. This avoids unwanted eddy flows and facilitates the phase separation.

The sedimentable substances sink in the lower static area of the hopper-shaped sludge collection chamber. The separated sludge is directly discharged via the sludge effluent by means of a suitable pump so that it can be further processed.

The water containing the light liquids flows out of the 3-phase separating chamber into the above light material separation stage. Within the static area of the separation stage the light liquids are dewatered and are drained for further processing via the light material effluent.

By means of a defined hydro-dynamic reverse flow the purified water is fed to the TPS's effluent.

Sample Applications

- Metal processing industry
- Chemical industry
- Petroleum industry
- Refineries ...

Sizes

Sample sizes and materials:

Type	Material	Maximum hydro flow (gpm)	Maximum hydro flow (m³/h)	Metrics diameter x high (inch)	Metrics diameter x high (mm)
PITT-TPS 10 PE	Polyethylene	10	2,3	30 x 45	762 x 1,143
PITT-TPS 20 PE	Polyethylene	20	4,5	40 x 60	1,016 x 1,524
.....					
.....					
PITT-TPS 250 St	St 37-2	250	56,8	100 x 150	2,540 x 3,810
PITT-TPS 500 St	St 37-2	500	113	150 x 225	3,810 x 5,715
.....					
.....					
PITT-TPS 2000 C	Concrete	2000	454	350 x 525	8,890 x 13,335
PITT-TPS 3000 C	Concrete	3000	681	450 x 675	11,430 x 17,145

Subject to change

Data Sheet

(Please fill in as accurately as possible and fax it to +49 (0)234 890 388-20)

Technical Data for Product Planning TPS			
Customer data			
Company			
Industry			
Address			
Country			
Phone / Telefax			
E-mail			
Contact			
Construction site (if other than the customer data)			
Company			
Industry			
Address			
Country			
Phone / Telefax			
E-mail			
Contact			
Utilization			
Process medium		Installation site, indoor	
Type of medium		Available space	l x w x h
Quantity	gpm / m ³ /h max	Floor type	
Temperature	°C min-max	Access dimensions	w x h
pH-value	min-max	Temperature	°C min-max
Conductance	µS		
Type of solid			
Solids content	ppm max	Installation site, outdoor	
Solids density	g/cm ³ min-max	Available space	l x w
Type of light mat.		Type of ground	
Light mat. content	ppm max	Temperature	°C min-max
Light mat. density	g/cm ³ min-max	Frost penetration depth	- m
Further information or comments			

