

Referential projects- special 2007-2015

main skills & global strategy

In the last 15 years, more than 16.000 sewage water plants in the range 4-500p.e., have been built by members of PPU Umwelttechnik GmbH-Germany.

More than 250 plants in the range of 500 - 10.000p.e. for municipalities, some of them in Germany in "turnkey" as general contractor.

Since the year 2007 consistently - always together with local partner-companies- the global presence under the label "ClearFox" has been developed.

Projects for




- private investors
- municipalities
- food industry applications
- oil,fat and grease removal




We have been successfully implemented with our partners in the following **countries:**




Abu Dhabi	Azerbaijan	Bulgaria
Bosnia	Croatia	Dubai
Egypt	England	France
Germany	Ireland	Kuwait
Macedonia	Poland	Romania
Serbia	Slowenia	Switzerland
Algeria	Greece	Austria
		Serbia



We are members of the main water associations in our home country, such as DWA/ATV, VDI, BDZ. This is standing for a good technical background and we always meet the global state of the art in waste water treatment.




With this document we want to give a brief overview about the wide range of our skills in waste water treatment. Please see a collection of projects of the last 8 years with technical data and pictures. We hope in your understanding that for clients privacy we cannot give detail information and this is not a complete summary of projects. In case of your interest in a special application we can organize for most projects a site-visit by clients agreement.




APPLICATION-DATA TASK IN ORDER	SERVICES CHARACTERISTICS	PROJECT NAME END COSTUMER COUNTRY & YEAR
<p>Domestic from tourism 450 m³/d waste water, domestic biological treatment, sludge dewatering preparation for reuse after filtration and disinfection Kit for tank installation</p>	<p>Engineering, projecting, installing, purchase, design for concrete basin</p>	<p>Cartage Village, holiday club Egypt-Alexandria 2011</p>
 <p>Sludge splitter, polymer dosing</p>	 <p>Control unit / air-condition</p>	 <p>Site view during installation</p>




APPLICATION-DATA TASK IN ORDER	SERVICES CHARACTERISTICS	PROJECT NAME END COSTUMER COUNTRY & YEAR
<p>Domestic from tourism 250 m³/d waste water, screen biological treatment, Kit for tank installation machine house</p>	<p>Engineering, projecting, supervising, purchase, design for concrete basin</p>	<p>Holiday park, Tourism Greece, Argolida 2007</p>
 <p>View to the club facilities</p>	 <p>Inside SBR during installation</p>	 <p>Screen with bypass</p>




APPLICATION-DATA TASK IN ORDER	SERVICES CHARACTERISTICS	PROJECT NAME END COSTUMER COUNTRY & YEAR
Wine and brandy production 200 m ³ /d waste water, biological treatment, screening, pH-equalizing, nutrients dosing machine-house	Engineering, projecting, supervising, purchase, design for concrete basins very fluctuating loads between peak- and after season	Black Sea Gold, Cellars Pomorie-Burgas, Bulgaria 2008
		
Buffering tanks during concrete work	Startup aeration system	Storage tanks for young wine

APPLICATION-DATA TASK IN ORDER	SERVICES CHARACTERISTICS	PROJECT NAME END COSTUMER COUNTRY & YEAR
Municipal water 500 m ³ /d waste water, biological treatment, aerations system optimizing implemented into existing technology	Engineering, supervising, purchase, denitrification , implementation in existing tanks , nitrification and denitrification with two-line aeration system COD:60/ BOD:5/N:10	Kläranlage Seybothenreuth VG Weidenberg Germany 2007
		no more picture available
Control unit, energy control	Installation of new aeration	

APPLICATION-DATA TASK IN ORDER	SERVICES CHARACTERISTICS	PROJECT NAME END COSTUMER COUNTRY & YEAR
Water from cow breeding farm 75 m ³ /d waste water, biological treatment, flocculation, precipitation, flotation, ammonification, sand-filtration, disinfection, machine house, water for reuse	Engineering, design for concrete tanks, purchase, installation, ammonia concentrations in inlet up to 750 mg/l	Sheiki Agro-Anim Baku, Azerbaijan 2011
		
Part of stable	DAF and filters in container	Ammonification tank before installing



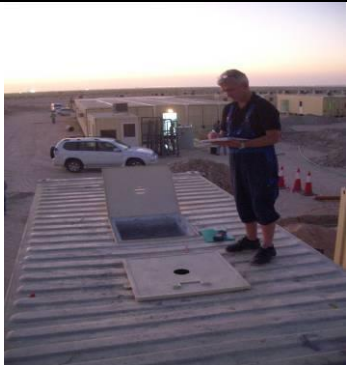
APPLICATION-DATA TASK IN ORDER	SERVICES CHARACTERISTICS	PROJECT NAME END COSTUMER COUNTRY & YEAR
Water from cheese production 20 m ³ /d waste water, biological treatment, DAF (Flotation), sand-filtration, disinfection, sludge treatment/dewatering	Engineering, design, purchase, installation miniature PPU-Standard application PLUG &PLAY effluent: N tot. < 10 mg/l	Bongard-Käserei Bernier Oberland Switzerland 2012
		
Mini compact unit	Mini compact unit	Mini compact unit




APPLICATION-DATA TASK IN ORDER	SERVICES CHARACTERISTICS	PROJECT NAME END COSTUMER COUNTRY & YEAR
Water from tomato ketchup- production 50 m ³ /d waste water, flocculation, precipitation, sand filtration, biological treatment, DAF-(Flotation), sludge dewatering,	Engineering, design, purchase, installation, main contracting, concrete work, tanks site organisation up-ground SBR-Tower 10 meter loadings up to 25.000 mg/ICOD	Naba Feinkost Gierstädt- Germany 2008
		
View from tower reactor	Container, SBR-reactor-tower	Container before shipment




APPLICATION-DATA TASK IN ORDER	SERVICES CHARACTERISTICS	PROJECT NAME END COSTUMER COUNTRY & YEAR
Water from a monastery 150 m ³ /d waste water, biological treatment, sludge treatment	Engineering, purchase, installation, main contracting, design concrete work,	Livplast Suceava-Romania 2009
		
Splitter	Tanks	Small dosing storage


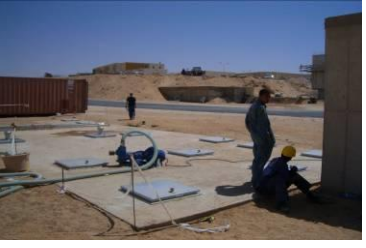

APPLICATION-DATA TASK IN ORDER	SERVICES CHARACTERISTICS	PROJECT NAME END COSTUMER COUNTRY & YEAR
Water from a wine production 1.200 m ³ /d waste water, screening, pH, nutrients equalizing, biological treatment, sludge treatment, final treatment	Engineering, design concrete work, projecting	Vinex-Black Forest Burgas-Bulgaria 2010
no picture available	no picture available	no picture available
Description	Description	Description




APPLICATION-DATA TASK IN ORDER	SERVICES CHARACTERISTICS	PROJECT NAME END COSTUMER COUNTRY & YEAR
Water from a mustard production 50 m ³ /d waste water, biological treatment,	Engineering, design tanks, projecting, supervising, purchase tower SBR-reactor in PE	Develey Unterhaching- Germany 2009
no picture available	no picture available	no picture available
Description	Description	Description




APPLICATION-DATA TASK IN ORDER	SERVICES CHARACTERISTICS	PROJECT NAME END COSTUMER COUNTRY & YEAR
Waste water from a worker camps 60-200 m ³ /d waste water, biological treatment, sludge treatment, machine house	Engineering, design tanks, projecting, supervising, purchase , installation PPU-Standard application PLUG &PLAY simple, plug and play solutions	Envitec , MEA , several clients Abu Dhabi 2009
		
Onsite	Single container	Final check before startup



APPLICATION-DATA TASK IN ORDER	SERVICES CHARACTERISTICS	PROJECT NAME END COSTUMER COUNTRY & YEAR
Water from a bewerage production 1.000 m ³ /d waste water, biological treatment,	Engineering, design tanks, projecting, supervising, installing , extrem sugar contents	United Bewerage Kuweit 2009
		
View over the city	Blower battery	Installaton inside tank




APPLICATION-DATA TASK IN ORDER	SERVICES CHARACTERISTICS	PROJECT NAME END COSTUMER COUNTRY & YEAR
Industrial water from a tank wagon company 80 m ³ /d waste water, biological treatment,	Engineering, design tanks, projecting, supervising, installing inert-hard COD	EuroMaint- Oberhausen Germany 2010
 View inside	 Old pumping basin = buffer	 Base before container delivery




APPLICATION-DATA TASK IN ORDER	SERVICES CHARACTERISTICS	PROJECT NAME END COSTUMER COUNTRY & YEAR
Waste water from a worker camp 150 m ³ /d waste water, biological treatment, sludge dewatering sludge fields	Engineering, design tanks, projecting, supervising, installing , inside desert	Red Med Hassi Messoud-Algeria 2007
 Warm up membranes	 During installation	 View into camp




APPLICATION-DATA TASK IN ORDER	SERVICES CHARACTERISTICS	PROJECT NAME END COSTUMER COUNTRY & YEAR
Castle and asylum home 200 m ³ /d waste water, biological treatment, flocculation, precipitation, sand filtration	Engineering, design tanks, projecting, supervising, installing natural river resort-protection BOD < 1 mg/l no N effluent (N _{tot} =0.5mg/l)	Millstreet Castle-ISTS County Cork- Ireland 2012
		
DN 200 multilayer filter automatic backflush	Scope before wet testing	View onsite




APPLICATION-DATA TASK IN ORDER	SERVICES CHARACTERISTICS	PROJECT NAME END COSTUMER COUNTRY & YEAR
Oily water from power plant 3.300 m ³ /d seperation, flocculation, coalescens steps, precipitation, sand filtration, DAF (Flotation), sludge removal	Engineering, design tanks, projecting, supervising, installing oil concentration after adsorbens outlet < 0.05 mg/l	Coal Power Plant (Mittal-group) Gacko- Bosnia 2012
		
View to the construction site	Flocculation along DAF-basin	Coalescens step 150m ³ /hour




APPLICATION-DATA TASK IN ORDER	SERVICES CHARACTERISTICS	PROJECT NAME END COSTUMER COUNTRY & YEAR
Water from skiing restaurant 20 m ³ /d biological treatment, filtration	Engineering, design tanks, projecting, supervising, system on 2.350 meter oversea level,	Seilbahn Wendelstein Betrieb Mittenwald Germany 2005
 View to the gondel	 Prechambers in the rock	more picture on request




APPLICATION-DATA TASK IN ORDER	SERVICES CHARACTERISTICS	PROJECT NAME END COSTUMER COUNTRY & YEAR
Water from domestic houses 0.5-2 m ³ /d biological treatment, filtration 2.000 applications/year	Engineering, design tanks, projecting, system without electricity	England France Poland 2008-2013
 Small WWTP	 Small WWTP	 Small WWTP




APPLICATION-DATA TASK IN ORDER	SERVICES CHARACTERISTICS	PROJECT NAME END COSTUMER COUNTRY & YEAR
Water from worker camp 200 m ³ /d grease seperation, biological treatment, filtration	Engineering, design tanks, projecting, supervising, main engineering for concrete tanks including statics	Dobersek- Anlagenbau Mönchengladbach- Germany 2012
		
Aeration system before test	During wiring, electro inst.	Scope inside during shipping



APPLICATION-DATA TASK IN ORDER	SERVICES CHARACTERISTICS	PROJECT NAME END COSTUMER COUNTRY & YEAR
Waste water from municipality 50 m ³ /d biological treatment,	Engineering, design tanks, projecting, supervising, effluent for high requirements precasted tanks in concrete	Gemeindekläranlage Woppmansdorf Germany 2006
		
Tank installations	Startup aeration system	Splitter for airlift system




APPLICATION-DATA TASK IN ORDER	SERVICES CHARACTERISTICS	PROJECT NAME END COSTUMER COUNTRY & YEAR
Waste water meatfactory 200 m ³ /d screening, pH, equalizing, biological treatment, DAF (Flotation) sludge dewatering	Engineering, design tanks, projecting, supervising, installing PPU-Standard application PLUG &PLAY	Iwet Shumensko, Bulgaria 2010
 <p>Storage tanks</p>	 <p>DAF</p>	 <p>Fixed bed reactor access hole</p>



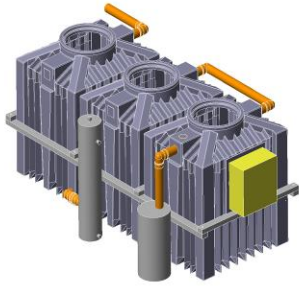
APPLICATION-DATA TASK IN ORDER	SERVICES CHARACTERISTICS	PROJECT NAME END COSTUMER COUNTRY & YEAR
Waste water fruit-factory 100 m ³ /d biological treatment	Engineering, design tanks, projecting, supervising, installing nutrients dosing	Barakat Vegetables Abu Dhabi-United Arab Emirates 2009
 <p>View onto yard</p>	 <p>Membrane installation SBR</p>	 <p>Blower-battery, installed</p>




APPLICATION-DATA TASK IN ORDER	SERVICES CHARACTERISTICS	PROJECT NAME END COSTUMER COUNTRY & YEAR
<p>Waste water fishfactory 250 m³/d screening, pH, equalizing, stripping biological treatment, DAF , (Flotation) sludge dewatering</p>	<p>Engineering, design tanks, projecting, installation 06-13</p> <p>PPU-Standard application PLUG &PLAY</p> <p>concentrations of Chlorid up to 40.000 mg/l</p>	<p>Sardina d.o.o Postira-Croatia 2012-2013</p>
 <p>PPU production DN 2000 DAF</p>	 <p>Loading scope of delivery</p>	 <p>Mixing line precipitation</p>




APPLICATION-DATA TASK IN ORDER	SERVICES CHARACTERISTICS	PROJECT NAME END COSTUMER COUNTRY & YEAR
<p>Waste water fishfactory 100 m³/d, stripping screening, pH, equalizing, biological treatment, DAF (Flotation) sludge dewatering</p>	<p>Engineering, design tanks, projecting, supervising, installing</p> <p>PPU-Standard application PLUG &PLAY</p> <p>concentrations of Chlorid up to 40.000 mg/l</p>	<p>Connex d.o.o Split-Croatia 2012</p>
 <p>Screen channel</p>	 <p>Start up flotation unit</p>	 <p>Fixed bed installation</p>



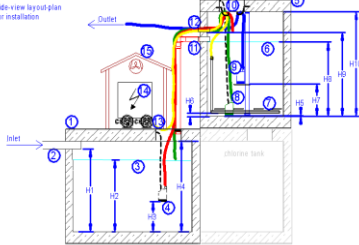
APPLICATION-DATA TASK IN ORDER	SERVICES CHARACTERISTICS	PROJECT NAME END COSTUMER COUNTRY & YEAR
Dairy-milk whey - production 4.000 m ³ /d pilot system as pre-step for main system Q=2m ³ /hr, DC-reactor, pH , dosing	Projecting, supervising, installing	Milei Leutkirch- Germany 05-2013
 <p data-bbox="188 1014 384 1048">After de-loading</p>	 <p data-bbox="598 1014 794 1048">After de-loading</p>	 <p data-bbox="1024 1014 1236 1048">New task for PPU</p>

APPLICATION-DATA TASK IN ORDER	SERVICES CHARACTERISTICS	PROJECT NAME END COSTUMER COUNTRY & YEAR
School for embassy members 80 m ³ /d biological treatment,	Projecting, supervising, installing , existing tanks green concept optimizing and renewing	Anglo American School Sofia- Bugaria 2010
 <p data-bbox="188 1877 327 1910">Description</p>	 <p data-bbox="598 1868 917 1901">Underground tank battery</p>	 <p data-bbox="1013 1868 1391 1901">New control unit, alarm system</p>

APPLICATION-DATA TASK IN ORDER	SERVICES CHARACTERISTICS	PROJECT NAME END COSTUMER COUNTRY & YEAR
<p>Grey water applications 5-48 m³/d</p> <p>police screen, flotation , biological treatment, hygienisation, sludge removal, recycling tank</p>	<p>Projecting, supervising, installing , existing tanks</p> <p>standard application PLUG&PLAY</p> <p>indoor application, no smell, no noise</p>	<p>Business buildings (several) Abu Dhabi, Dubai United Arabian Emirates</p>
 <p>24 m3/d- system</p>	 <p>Fixed bed module</p>	 <p>Drawing of project 15 m3/d</p>

APPLICATION-DATA TASK IN ORDER	SERVICES CHARACTERISTICS	PROJECT NAME END COSTUMER COUNTRY & YEAR
<p>Waste water from cleaning machine for food industry transport boxes, 50m³/d, stripping screening, pH neutralization, buffer equalizing, DAF (Flotation), sludge dewatering with transportable containers</p>	<p>Engineering, design for complete plant, projecting, supervising, installing, commissioning</p> <p>PPU-Standard application PLUG &PLAY</p> <p>Smell removal system, chemical storage for ibc, sludge dewatering and thickening</p>	<p>Germany 2014</p>
 <p>50 m3/d Flotation</p>	 <p>Container sludge dewatering</p>	 <p>Container plant: Flotation, chemical storage, 2 x Sludge storage/ dewatering</p>

APPLICATION-DATA TASK IN ORDER	SERVICES CHARACTERISTICS	PROJECT NAME END COSTUMER COUNTRY & YEAR
Waste water from pharmaceutical industry, 50m ³ /d, stripping screening, pH neutralization, buffer equalizing, DAF (Flotation), sludge dewatering with transportable containers	Engineering, design for complete plant, projecting, supervising, installing, commissioning PPU-Standard application PLUG &PLAY Smell removal system, chemical storage for ibc, sludge dewatering and thickening	Germany 2014
 <p>50m³/d Flotation</p>	 <p>Container sludge dewatering</p>	 <p>Container plant: Flotation, chemical storage, 2 x Sludge storage/ dewatering</p>

APPLICATION-DATA TASK IN ORDER	SERVICES CHARACTERISTICS	PROJECT NAME END COSTUMER COUNTRY & YEAR
Waste water from municipal 300p.e., 2 line SBR Kit (2 x 150p.e.), electrical pumps, special tank installation with stainless steel tubes and fittings	Design for complete plant, projecting, supervising, commissioning PPU-Standard application SBR Kit	Egypt 2015
 <p>300p.e. SBR Kit</p>	 <p>Installed SBR aeration system</p>	 <p>Design for Kit installations</p>

Note:

These are not complete all projects with participation of PPU-Umwelttechnik.
These shown projects reflects our mainly skills in waste water treatment.

More references are available for our

ClearFox[®] containerized waste water treatment -systems.

All the technology is installed for plug&play- available as OEM-product

More references are available for projects from our license partners

- **SBR-Treatment systems (Kits for clients tanks)**
- **Flotation systems (pretreatment for clients projects)**
- **small waste water systems for domestic (dealer, agents)**

In case of interest for a special application please contact us.

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