

Referential projects- special 2007-2013

main skills & global strategy

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

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

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

Projects for




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




we have been succesfully implemented with our partners in the following **countries:**




Abu Dhabi	Aserbeijan	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 we want to give a brief overview about the wide range of our skills in waste water treament. Please see a collection of projects of the last 6 years with technical data and pictures. We hope in your understanding that for clients privacy we cannot give detail informations 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
domestic from tourism 450 m ³ /d waste water, domestic biological treatment, sludge dewatering preparation for reuse after filtration and disinfection Kit for tank installaton	engineering, projecting, installing, purchase, design for concrete basin	Cartage Village, holiday club egypt-Alexandria 2011
		
sludge splitter, polymer dosing	control unit / aercondition	site view during installation




APPLICATION-DATA TASK IN ORDER	SERVICES CHARACTERISTICS	PROJECT NAME END COSTUMER COUNTRY & YEAR
domestic from tourism 250 m ³ /d waste water,screen biological treatment, Kit for tank installation machine house	engineering, projecting, supervising, purchase, design for concrete basin	Holiday park, Tourism Greece, Argolida 2007
		
view to the club facilities	inside SBR during installation	screen with bypass




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-equilizing, nutrients dosing machinehouse	engineering, projecting, supervising, purchase, design for concrete basins very fluctuating loads between campagne 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, sandfiltration, 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), sandfiltration, disinfection, sludge treatment/dewatering	engineering, design, purchase, installation miniature PPU-Standard application PLUG &PLAY effluent:N tot. < 10 mg/l	Bongard-Käserei Berner 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 upground 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


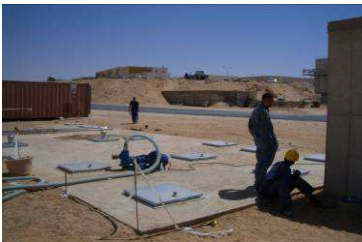

APPLICATION-DATA TASK IN ORDER	SERVICES CHARACTERISTICS	PROJECT NAME END COSTUMER COUNTRY & YEAR
water from a wine production 1.200 m ³ /d waste water, screening, ph,nutrients equilizing, biological treatment, sludge treatment, final treatment	engineering, design concrete work, projecting	Vinex-Black 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 wagoon company 80 m ³ /d waste water, biological treatment,	engineering, design tanks, projecting, supervising, installing inert-hard COD, extrem water	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 resortprotection 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	flocculaton along DAF-basin	coalescens step 150m3/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	spliiter 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, equilizing, biological treatment, DAF (Flotation) sludge dewatering	engineering, design tanks, projecting, supervising, installing PPU-Standard application PLUG &PLAY	Iwet Shumensko, Bulgaria 2010
		
storage tanks	DAF	fixed bed reactor access hole




APPLICATION-DATA TASK IN ORDER	SERVICES CHARACTERISTICS	PROJECT NAME END COSTUMER COUNTRY & YEAR
waste water fruitfactory 100 m ³ /d biological treatment,	engineering, design tanks, projecting, supervising, installing nutrients dosing	Barakat Vegetables Abu Dhabi-United Arab Emirates 2009
		
view onto yard	membrane installaton SBR	blower-battery, installed



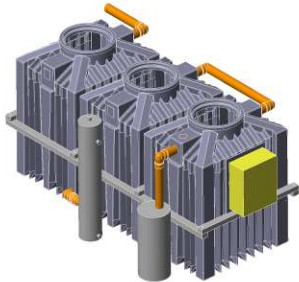
APPLICATION-DATA	SERVICES	PROJECT NAME
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TASK IN ORDER	CHARACTERISTICS	END COSTUMER COUNTRY & YEAR
waste water fishfactory 250 m ³ /d screening, pH, equilizing, stripping biological treatment, DAF , (Flotation) sludge dewatering	engineering, design tanks, projecting, installation 06-13 PPU-Standard application PLUG &PLAY concentrations of Chlorid up to 40.000 mg/l	Sardina d.o.o Postira-Croatia 2012-2013
		
PPU production DN 2000 DAF	loading scope of delivery	mixing line precipitation

APPLICATION-DATA TASK IN ORDER	SERVICES CHARACTERISTICS	PROJECT NAME END COSTUMER COUNTRY & YEAR
waste water fishfactory 100 m ³ /d, stripping screening, pH, equilizing, biological treatment, DAF (Flotation) sludge dewatering	engineering, design tanks, projecting, supervising, installing PPU-Standard application PLUG &PLAY concentrations of Chlorid up to 40.000 mg/l	Connex d.o.o Split-Croatia 2012
		
screen channel	start up flotation unit	fixed bed installation

APPLICATION-DATA TASK IN ORDER	SERVICES CHARACTERISTICS	PROJECT NAME END COSTUMER COUNTRY & YEAR
dairy-milk whey - production 4.000 m ³ /d pilote system as prestep for main system Q=2m ³ /hr, DC-reactor, pH , dosing	projecting, supervising, installing	Milei Leutkirch- Germany 05-2013
		
after deloading	after deloading	new task for PPU

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
		
Description	underground tank battery	new control unit, alarm system

APPLICATION-DATA TASK IN ORDER	SERVICES CHARACTERISTICS	PROJECT NAME END COSTUMER COUNTRY & YEAR
grey water applications 5-48 m ³ /d police screen, flotation , biological treattent, hygienisation, sludge removal, recycling tank	projecting, supervising, installing , existing tanks standard application PLUG&PLAY indoor application, no smell, no noise	business buildings (several) Abu Dhabi, Dubai United Arabian Emirates
		
24 m3/d- system	fixed bed module- manhole	drawing of project 15 m3/d

Note:

This are not all projects with participation of PPU-Umwelttechnik.
 These projects reflect our skills in waste water treatment.

More references are available for our **containerized waste water treatment** systems. All the technology is installed for plug&play- available as OEM-product (ClearFox container)

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.
 We will find a shoe your food !

Bayreuth, May- 2013
 PPU-Umwelttechnik