

Dear Reader,

this time our newsletter "ImProfil" will be a little different to what you are used to.

We are mainly going to focus on the last Krah Community Meeting (KCM) in Tuscany, Italy. The KCM is getting more and more popular among our customers, employees and potential customers.

People want to know more about the meeting and the attendants. Also, it is open for new speakers with interesting themes around the application of large diameter pipes, so please do not hesitate to contact us if you are interested in taking part.

During the KCM we had lots of interesting topics that were emphasised by presentations, performances and group talks, such as

- the presentation of Carlo Avanzini about marine projects,
- the presentation of Bernhard Läufler about waste water heat recovery,
- the introduction of the new software solutions ProfiTANK and Pontis by Christopher Kirchhöfer and Stephan Füllgrabe,
- the presentation of new electrofusion machines and applications by Krah and Henze,
- the introduction of Krah partners like Centertubi and Krah Pipes Manila Inc.
- and the presentation of the Krah Handbook and calendar

Obviously we did not only come together for the business part. We didn't miss out on having fun and an amazing time together. When so many international specialists and experts come together it's always great pleasure to do things 'out of the business', to get a personal insight and to just get to know each other a little bit better, which is also important in doing business.

So we used the opportunity to build up new contacts and to strengthen already existing ones during the time we had together.

After two days, filled with meetings, presentations and business talks, we finished the day in a very special way: We had a cooking contest for preparing real Italian pizza, made in a wooden oven, which was accompanied by the Mediterranean lifestyle, folklore and Italian wine.

On the very last day the KCM closed with the possibility to have an interesting guided round tour in San Marino, before everyone went home again.

Now where we gave you a little flashback to this great experience we want to make you excited for the next meeting. The next Krah Community Meeting will take place during the next K trade fair from the 19.-26. October 2016 in Düsseldorf. After all this information I now wish you lots of fun while reading our technical articles, presentations and revisions and hopefully the year 2016 will be even more successful for you than this year!

Yours sincerely,
Alexander Krah

Waste water heat recovery

Saving energy and heat recovery with waste water

A report about energy saving and heat recovery with waste water by **Bernhard Läufler**

There is a new market in the energy sector for manufacturers of helically wound pipes. Besides the classic diversion of wastewater, you can now also recover the wastewater's energy with helically wound pipes. The wastewater and the pipe surrounded warmed up soil are a huge useful source of heat. The available support hoses around the helically wound pipes form a huge heat exchanger. Due to a heat transfer medium (brine or water) that flows through the support hoses, you can withdraw the heat energy from the wastewater and soil or you can store redundant heat energy, that is being left over from building cooling, in the soil.

Cold district heating- Energy source and profitable heat distribution with a system

The current most implemented extension version is the central hot water district heating with a flow temperature of 80-120°C and the respective losses during the heat distribution. Decentralised district heating nets are based on heat pumps and are placed in every heat decreasing building as individual heat generating units. The heat pumps draw their energy from a mutual heat source loop, which is laid underground through the whole housing area. It forms the heat source net and is called "cold district heating" or "anergy net". The loop itself serves as heat exchanger or ground collector. One or more additional heat sources, like soil, wastewater or ground water can inject energy with their own heat exchangers.

System solution for heating & cooling from wastewater and warmed up soil

Heating, Cooling, Storing
Min. 2 l/s waste water flow
Min. DN 300 sewer pipes
Very low temperature drop
No installations in the pipe
Long life time
No maintenance
environmental friendly
Reliable supply of energy

Waste water heat recovery

Saving energy and heat recovery with waste water

The temperature in these heat source loops is on the temperature level of soil or below, that's why it's called "Cold district heating".

The lower the temperatures of the heat distribution lines are, the lower is the heat loss opposite to the soil. If the temperatures are below the soil's one, heat recovery is started (cold district heating).

The rise in temperature for heating purposes happens in the decentralised heat pumps. Reversible heat pumps or chillers can also chill in the summer. The CO₂ emission of such a system is pretty low. With the cold district heating's system not only an advantageous use of environmental heat happens, but also a retention and recovery of heat loss.

Incorporation of helically wound pipes (soil bound wastewater heat exchanger) into the heat source loop

The system is being improved when, besides the geothermal energy and loops, further injecting heat sources, like the PE-helically wound pipes are being incorporated into the wastewater heat use system. The system consists of a standardised sewage pipe with an external heat exchanger.

A heat transfer medium (brine or water) which –isolated from the system- withdraws heat from the wastewater and the pipe surrounded warmed up soil, flows through said heat exchanger. This wastewater heat is also injected into the loop.

Thanks to reversible heat pumps or chillers the system can store the redundant heat loss from the building cooling in summer into the soil around the loop or the helically wound pipe.

Supportively, other heat sources like a geothermal probe, energy sources like communal heating stations or solar heat can be incorporated into the heat source loop. Nevertheless it always has to be made sure that the heat source loop's temperature is in the soil's temperature range.



Bernhard Läuflé

Graduated business economist
Engineer HVAC
Expert in heat recovery from wastewater
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skype: b.laeufle

Mr. Läuflé is an international specialist for heat recovery from wastewater and soil. He is active in different colleges in the areas of research, development, distribution and teaching. He also is an appointed member of the DWA team "wastewater heat use".

Krah E-Box MS 44- the new generation of electrofusion machines

After having introduced the socket welding device Krah E-Box 33 now the Krah E-Box 44 MS is available and was presented on the Krah Community Meeting.

This device was especially developed for the area of large diameter pipes. Up to now two separate devices were needed for the welding process, since from a pipe diameter of DN1400 you need two heating circles for the welding process.

Should smaller pipes be welded with only one heating circle it's possible to weld two pipes at the same time together. Also a simultaneous welding of pipes with different diameters and welding parameters is possible at any time.

This is possible because the welding parameters can be put in independently. The import of the welding parameters is made with a barcode scanner and can optionally be entered manually on a keyboard. Furthermore the device can also be used as a single welding device.

For this the slave unit can be undocked from the master unit and can be used on its own.

Due to the higher weight the E-Box 44MS is being delivered on a driving unit. Also the connection cable for the transport is being held on there. A box for the retention of smaller pieces for welding adapters and tools is also available.

Further points are:

- Welding area up to DN4000mm
- Automatic logging up to 10.000 protocols
- Data input via keyboard or barcode scanner
- Welding monitoring of all important data
- System monitoring
- Traceability after ISO 12176-3/4
- Data output via print menu on a USB stick
- Languages: DE, EN, FR, BG, CS, ZH, N, FI, GR, IT, NO, RO, SK, TR, RU, on request more

Technical dates:

Initial stress:	8V - 48V
Output current:	max. 150 A
Input voltage:	400V (3P/N/PE)
Input frequency:	40Hz - 70Hz
Current consumption:	AC 16 A
Temperature range:	-20°C bis +60°C
Power cord:	5m mit EUR-Stecker
Welding cable:	7m mit 6mm
Weight:	90kg
Measurements:	B 636 x H1130 x T630mm

The devices are being distributed worldwide by Krah GmbH, Germany.
Please do not hesitate to contact us:

Krah GmbH
Betzdorfer Str.
57520 Schutzbach
02741- 976444
www.krah.net

Krah E-Box MS 44- the new generation of electrofusion machines



Jochen Blickheuser
Krah GmbH, Germany

The HAS-System

An innovative fitting welding system

Since 2015 the company Henze is part of the Krah group. At this year's Krah Community Meeting the new generation of the HAS fitting welding system was presented by Henze.

The HAS-Fitting is:

- suitable for branches at all kinds of helically wound pipes.
- suitable for branches at direct extruded pipes too.
- available from OD 125 mm until OD 225 mm
- easy and quick to assemble
- especially designed for requirements of sewer pipe systems.
- available in polyethylene (HDPE) and polypropylene (PP)
- same durability as the main pipe system

Due to the current development of the system the HAS-fitting is also applicable for solid-wall pipes and profiled pipes from OD 225 mm. The fitting welding system is consistent of well-matched welding devices and fittings. This makes it possible for the fittings to be welded into all plastic pipe systems out of HDPE and PP. In comparison to mechanical jointed branches the HAS-fitting convinces with a 100% safety and water-tightness. The user receives an absolute homogeneously welded branch with smooth surfaces to avoid any additional disturbance for the flow media/sewage. The HAS-system is based on the principle of the heating element-socket welding. The whole installation-process is designed to manage it under site conditions - just from the outside and while the collector is running.

Step 1:

Firstly a hole is drilled with a hole saw where then a clamping-device is being fastened on the pipe.

Step 2:

By using the milling device a conical shape is made accordingly to the heating element

Step 3:

Both the fitting and the pipe are being heated up with the according heating elements.

Step 4:

After the recommended heating time the heating elements are removed and the HAS fitting is pressed into the main pipe .

Step 6:

After a quick, fixated cooling time the welding device can be removed.

Step 7 (optional):

As addition to the system there is a scraper tool with which you can remove the protruding parts of the welded fitting inside the main pipe. The fitting is now absolutely flush-mounted. There are no leftover that protrude into the main channel which could cause additional disturbance for the flow media/sewage.

The whole installation procedure takes about 15 minutes regarding pipes with a wall thickness of 85mm.

Up to now there are 4 fitting diameters with different welding depths available:

Branch OD [mm]	Main Pipe OD [mm]	Welding depth			
		60 mm	85 mm	110 mm	145 mm
OD 125, SDR17	≥ 180	X			
OD 160, SDR17	≥ 200	X	X	X	X
OD 200, SDR17	≥ 280		X		X
OD 225, SDR17	≥ 355		X		X

The HAS-System

An innovative fitting welding system

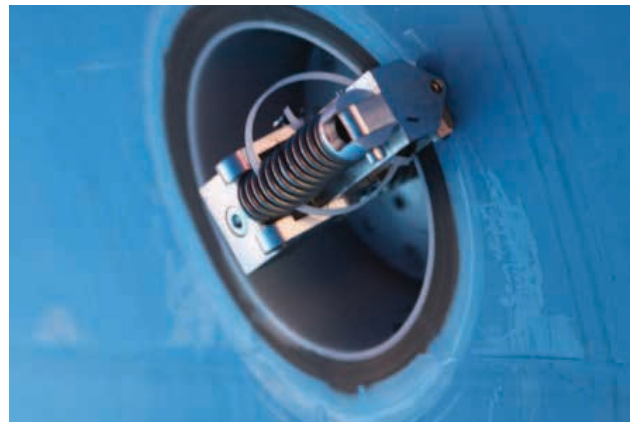
The belonging devices and heating elements are accordingly dimensioned.

All participants were amazed by the easy handling and the perfect welding connection. With their own eyes, they could see how easy the usage of this system is without knowing much about it.

Henze also reported that the system is being successfully used for some low pressure applications as well.

The devices are being distributed worldwide by Krah GmbH, Germany. Please do not hesitate to contact us:

Krah GmbH	Henze GmbH Kunststoffwerk
Betzdorfer Str	Josef-Kitz-Straße 9
57520 Schutzbach	53840 Troisdorf
02741- 976444 .	02241-98190
www.krah.net	www.henze-gmbh.de



PONTIS


The bridge between a Krah machine and the office

A report about the new software solution „Pontis“ by **Christopher Kirchhöfer**

Pontis is a software package to monitor your KRAH machine from almost everywhere, from the view of a production manager or the general manager – not from the view of a technician. It is not showing boring data or screen shots of the control panel, it's nearly sending real-time production data of your machine without any human interaction. The software itself is reporting what your KRAH machine is doing.

The information can be received everywhere where internet access is available and without any special software but your standard internet browser on your computer, tablet or even your smartphone will provide you with the complete information.

You will immediately know the real production time of the line, downtime and the reason why the machine is not running (not making pipes and money). Also the numbers of produced pipes and the output in kg/hr will be shown. Every time a pipe is produced (manually or through a program), your machine will save the collected data with the help of our Pontis server. Later the user has access to the results 24/7. The software Pontis can handle up to 8 machines for each customer. No high investment is needed; the customer pays the use only.



The screenshot shows a calendar for October 2015. The days of the week are Sun, Mon, Tue, Wed, Thu, Fri, Sat. The number of programs made each day is displayed in the cells. The data is as follows:

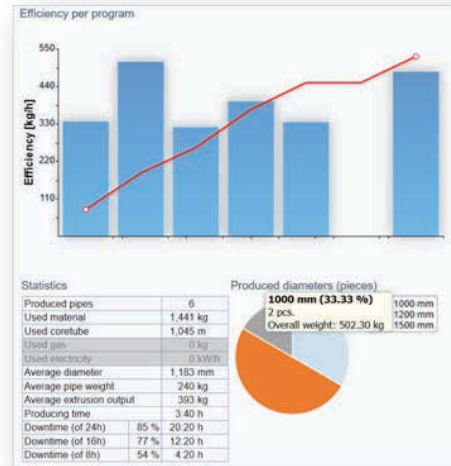
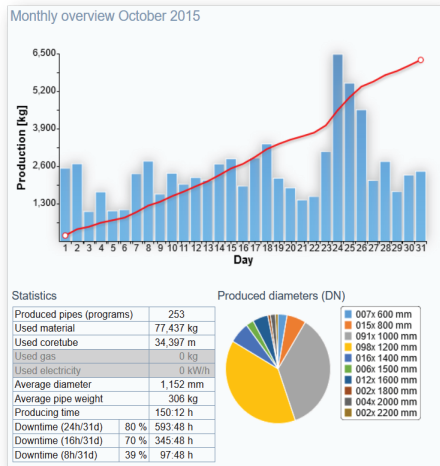
Sun	Mon	Tue	Wed	Thu	Fri	Sat
				8 programs	10 programs	12 programs
6 programs	9 programs	8 programs	12 programs	8 programs	9 programs	9 programs
7 programs	6 programs	12 programs	9 programs	10 programs	10 programs	7 programs
9 programs	6 programs	8 programs	7 programs	9 programs	11 programs	19 programs
16 programs	14 programs	6 programs	9 programs	10 programs	10 programs	8 programs

Screenshot: Monthly overview – each day the number of made pipes is shown

Further several statics will be shown for different periods, like days, months and years. What are the main produced diameters, how many pipes with which profiles.. You can see and analyze the mix of production to improve your production planning.

PONTIS

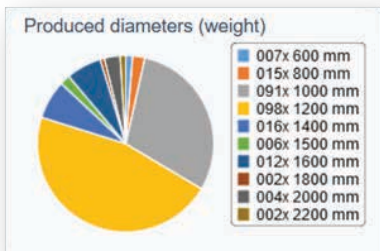
The bridge between a Kraih machine and the office



Screenshot: Monthly overview – Output per day, output per months and some statistics.

Program list

#	Start	Stop	Duration	Program	Weight [kg]	Errors
1	08:09	08:48	00:38 h	SPR34-002 72-DN1200L6Sm	215.10	No
2	09:55	10:29	00:34 h	PR75-009 43-DN1000L6Rg	291.80	No
3	10:45	11:24	00:38 h	SPR34-002 72-DN1200L6Sm	204.30	No
4	12:30	13:16	00:46 h	SPR54-010 00-DN1500L6SmSm	305.61	No
5	14:42	15:21	00:38 h	SPR34-002 72-DN1200L6Sm	213.90	No
6	17:14	17:43	00:28 h	PR42-002 56-DN1000 L6Sm1	0.00	No
7	17:58	18:25	00:26 h	PR42-002 56-DN1000 L6Sm2	210.50	No



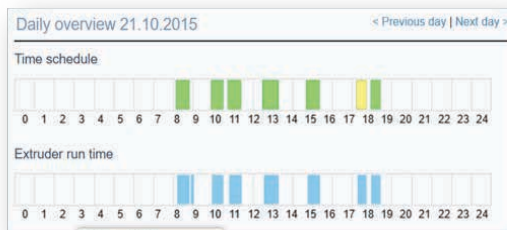
Program details

General Information

Customer	Estland
Start time	09:55
Stop time	10:29
Duration	0:34 h
Program name	PR75-009 43-DN1000L6Rg
Operator	Not specified
Diameter	1000 mm
Length	6145 mm

Used materials

Material (main)	291.80 kg
material 1 (85 %)	248.03 kg
material 2 (15 %)	43.77 kg
material 3 (0 %)	0.00 kg
material 4 (0 %)	0.00 kg
material 5 (0 %)	0.00 kg
Material (co-extruder)	not connected
material 1	0.00 kg
material 2	0.00 kg
Coretube	136.50 m
Gas	not connected
Electricity	not connected



Screenshot: Real working hours on one day, including real extrusion time.

PONTIS

The bridge between a Krah machine and the office

A customer will get with the Pontis package the following parts:

- The Pontis client, which will be installed on the PLC of your machine
- One (or more) user account(s) to login on the Pontis server.
- Quality approval (in progress)

Summary:

- Data will be refreshed after each finished program
- Access to the information from everywhere you can get access to the internet.
- Access from mobile devices (i.e. tablets or mobile phones)
Since it's a web-based application, you can access it from every phone which has an internet browser and shows websites in desktop mode (Phone mode will work also, but there are too many phones on the market to guarantee that everything is displayed correctly).
- Multiple machines manageable per company
- All machine data will be encrypted prior to the transmission to the Pontis server
- Daily / Monthly / Annual reports of your produced pipes
- Identify each pipe and check the producing process, even if the pipe is already shored.

Christopher Kirchhöfer
Krah GmbH, Germany

PROFITank- Static Design Software

for vertically installed thermoplastic tanks

A report about the new software solution „PROFITank“ by **Stephan Füllgrabe**

General

For the static calculation and design of cylindrical plastic tanks a software solution should be used.

Only with software-solutions an optimization of the needed wall thicknesses, diameters and design solutions can be done. Also the weight and the costs can be optimized and minimized without losing safety!

Especially if external loads, like wind, snow, earthquakes or static loads by attachments have to be considered, the manual design becomes very complex and needs a lot of time.

Plaspittec is preparing a new software for static design of thermoplastic cylindrical tanks.

In strong relation to a very experienced and already since several years existing German software solution, PROFITank will be officially published for the international market in the beginning of 2016.

Features of PROFITank:

- static calculation is considering the rules and regulations of DVS 2205-2
- For PEHD, PP, PVDF and PVC
- For Vertical Installation
- For Cylinder shell made from bent sheets or from spiral pipes

- Database for multitude chemical liquids acc. Media list DIBt
- optimized for KRAH tanks
- Until 14 cylinder tiers
- Consideration of weathering: Wind, Snow, Sun acc.to international DIN or EN standards
- Free input of period use (yearly graduated)
- Free input of temperature for medium and environment
- complete static proof and print-out with
 - all equations
 - detailed way of calculation
 - sketch
- Optional earthquake proof acc.to DIN or EN standards, either standardized load or free input data possible
- Upgrade for sloped bottom and conical bottom

Furthermore Plaspittec provides Training courses + Technical support 24/7

Order your Test version now !

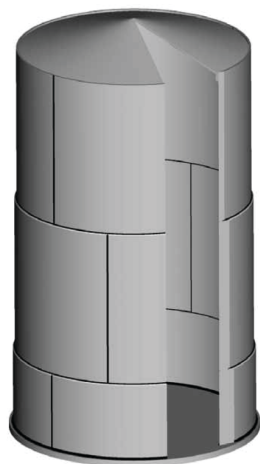
PROFITank is for tiered cylindrical tanks made of helically extruded pipes (Krah pipes) and for tanks made of fused and bent sheets as well:

PROFITank- Static Design Software

for vertically installed thermoplastic tanks



Tiered cylindrical tank made of a helically extruded pipe



Cylindrical tank made of fused and bent sheets

PROFITank- Static Design Software for vertically installed thermoplastic tanks

Impressions of PROFITank:

Professional Software Solution for static calculation and static proof of vertical installed cylindrical tanks, made of thermoplastic materials:

- Polyethylene (PEHD, PE80, PE100)
- Polypropylene (PP-R, PP-B, PP-H)
- Polyvinyl chloride (PVC-U)
- Polyvinylidene fluoride (PVDF)

Following DVS rules for the static design resp. the static calculation.

Distributed by Plaspitec GmbH:

Visualized material characteristics for strength in relation of temperature and time.

Consideration of welding procedure and welding factor for tank, bottom and roof construction:

- Hot-Gas-Welding (W)
- Extrusion Welding (WE)
- Butt Fusion (HS)

Free input of:

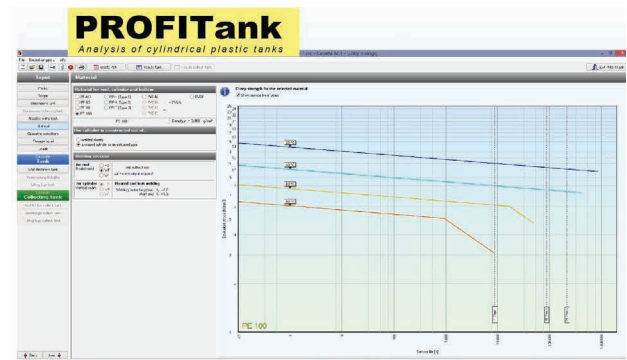
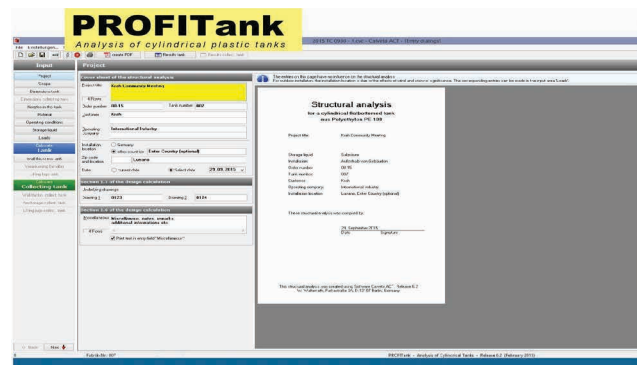
- design-time
(e.g. 1...37...43...max 50years)
- design temperature for medium and environment (winter, summer)

Further consideration of static or changing operating conditions

Input of medium/fluid characteristics:

Either by following the included chemical database for chemical fluids acc. to German DIBt-listing or free input of fluid characteristics:

- density
- concentration
- reduction-factors etc.



PROFITank
Analysis of cylindrical plastic tanks

DIBt-Media list

Storage liquid	Concentration	PE
Acetic acid		The material is resistant up to 40 °C
Aluminium chloride		60 °C
Aluminium sulfate		50 °C
Ammonia water (-: solution)		60 °C
Ammonium acetate		60 °C
Ammonium bromide		60 °C
Ammonium carbonate		60 °C

Selected storage liquid: Acetic acid

Concentration: maximal 60 %

Density: (The density is not included in the list of the DIBt) p.p.m. = 1,070 kg/dm³ (please check)

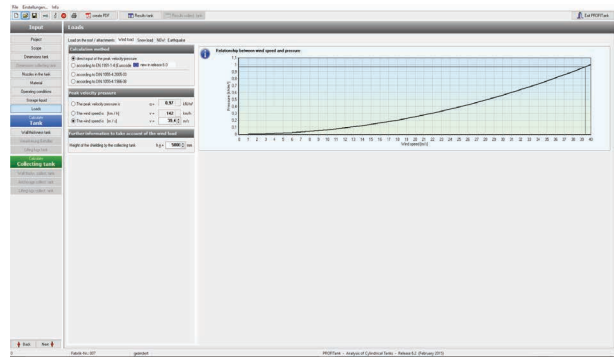
Reduction factors for the material PE

Temperature	-20	30	40	50	60	70	80	90	100 °C
A ₂₀	1,20	1,20	1,20						
A ₂₁	1,10	1,10	1,10						

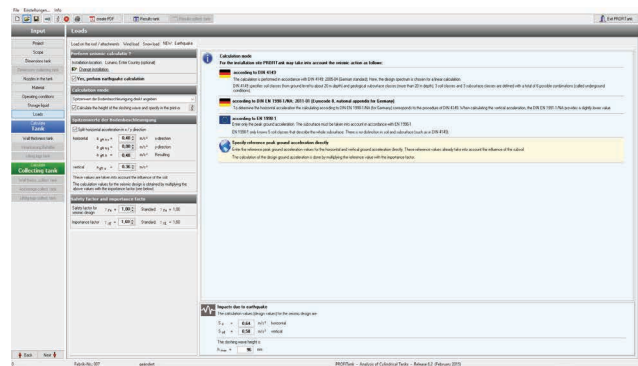
Note:
- diffundiert
- wirkt quellend
- gasbehaftete Flammpunkt < 100 °C

PROFITank- Static Design Software for vertically installed thermoplastic tanks

Possibility for consideration of wind-load acc. International standards (e.g. EN 1991-1) or by free input of max wind-speed

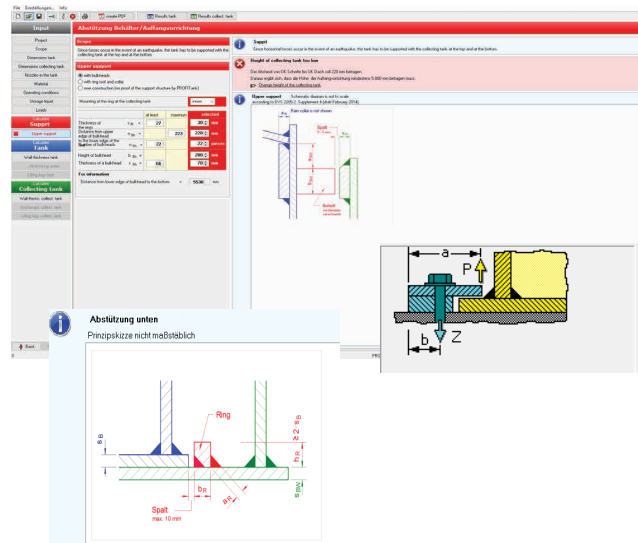


Possibility for consideration of earthquake load acc. International standards (e.g. EN 1998-1) or by free input of horizontal and vertical ground-acceleration



Separate design with visualized sample solutions of:

- Anchorages
- Lifting Lugs
- Reinforcements
- Rain-collar / ring-plate
- Bearing blocks (for horizontal Earthquake loads)



PROFITank- Static Design Software

for vertically installed thermoplastic tanks

PROFITank Construction sheet for the tank		Page 1 of 1		
Cylindrical flat-bottomed tank made from PE 100 with conical roof				
Order number:	1234			
Tank number:	1 A			
Customer:	My customer			
Operating company:	Plaspittec GmbH			
Installation location:	My town			
Installation:	Outside of buildings at an altitude of 0 mm, with collecting tank. Shielding of wind forces by collecting device: $h_A = 4\,664$ mm The tank is free ventilated.			
Operation:	Service life = 25 years Weighting coefficient: $\gamma_I = 1.20$	Temperature long-term: $T_M = 30$ °C Temperature short-term: $T_{MK} = 40$ °C		
Filling:	<i>not specified</i> Filling volume: $V_F = 20.20$ m ³ Filling height: $h_F = 4\,465$ mm	Density: $\rho_F = 1.20$ g/cm ³ Specific weight: $\gamma_F = 11.77$ kN/m ³ $A_2 = 1.00$ $A_{2I} = 1.00$		
Pressures:	$p_U = 0$ mbar $p_{U'} = 0$ mbar	$p_{UK} = 5$ mbar $p_{UK'} = 3$ mbar		
Loads:	Wind impact pressure Snow load on the roof: Area load on the Wind load on attachments: Loads by mounted attachments:	$q_{max} = 0.59$ kN/m ² $s_0 = 0.68$ kN/m ² g_A $= 0.20$ kN/m ² $F_A = 0.140$ kN $G_A = 2.000$ kN total $G_{A1} = 0.500$ kN per load bearing point		
	Earthquake calculation value:	$S_{ij} = 1.07$ m/s ² $S_{vj} = 0.96$ m/s ²		
Internal diameter	$d = 2\,400$ mm			
Cylindrical height	$h_Z = 4\,700$ mm (up to the lower edge of the conical roof)			
Height of conical roof	$h_D = 322$ mm (Roof slope $\alpha_D = 15^\circ$)			
Total height	$h = 5\,022$ mm			
Component	Wall thickness	Height of tier	manufactured from	Mass
Roof	$s_D = 17.5$ mm		Sheets, WE-seam	$G_D = 171$ kg
Tier 1	$s_{Z1} = 12.0$ mm	$h_{Z1} = 1\,600$ mm	Helical Wound	$G_{Z1} = 140$ kg
Tier 2	$s_{Z2} = 17.0$ mm	$h_{Z2} = 2\,000$ mm	Helical Wound	$G_{Z2} = 248$ kg
Tier 3	$s_{Z3} = 22.0$ mm	$h_{Z3} = 1\,100$ mm	Helical Wound	$G_{Z3} = 177$ kg
Bottom	$s_B = 15$ mm		Sheets	$G_B = 65$ kg
		$h_Z = 4\,700$ mm		$G_E = 800$ kg
Nozzles in the roof:	$d_A = 630$ mm			
Nozzles in the cylinder:	$d_A = 350$ mm $x = 700$ mm			
The tank requires no special anchorage.				
The residual height of the filling level in the tank is at least: $h_{RF} = 38$ mm.				
2 Lifting lugs: $s_D = 12$ mm, $b_D = 140$ mm, $d_L = 33$ mm, $d_{Sch} = 30$ mm				
PROFITank - Version 6.2		September 1, 2015		

Stephan Füllgrabe
Plaspittec GmbH, Germany

Introduction of Krah partners

Centraltubi

Now we want to tell you a little more about our host for the KCM 2015, **Centraltubi**. Centraltubi is part of the Italian **SYSTEM GROUP**.

Centraltubi S.p.A. has been in business for over 30 years now, and today Centraltubi is one of the leaders in the polyethylene pipe market. The company bases its activities on solid foundations: quality, production control, efficient customer service and a widespread consolidated sales network.

The company possesses its own high-tech extrusion line enabling high production volumes and exceptional quality standards to be reached.

The pipes produced comply with the various national and international standards governing the company's reference market and are certified by the relevant authorities with specific quality marks.

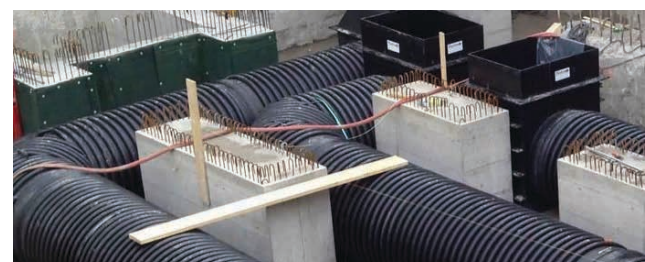
The range of products includes:

- standard smooth pipes in PE 80 and PE 100 for black or coloured water and gas pipelines
- high-performance smooth pipes PE 100 Evolution
- high-performance smooth pipes in double-layer PE100 "Safe10"
- large diameter spiral pipes (Krah pipes) up to 2500 mm ID "SGK"
- manholes with SGK pipes
- tanks for storage and treatment with SGK pipes
- smooth perforated pipes for drainage
- monopipes and tripipes for fibre optics
- MDPE and LDPE pipes for irrigation
- HDPE pipes for sewage

The choice to go with the KRAH technology was made by Centraltubi after several years of monitoring the demand of the Italian market and analysing the different production technologies for large diameter plastic pipes. The benefit of the Krah-system is the flexibility and efficiency in pipe production, even short-run production for niche products are possible.

Through this, CENTRALTUBI can now develop many new products and serve new markets with indirect benefits extended to the entire SYSTEM GROUP for the satisfaction and success decreed by the markets.

The large diameter Krah pipes and manholes are an ideal completion for the range of products of the whole System Group.



Introduction of Krah partners

Centraltubi/ Krah Pipes Manila Inc.



CENTRALTUBI's standard product range contains—among other things—large diameter spiral pipes up to DN/ID 2500mm), tanks for storage and treatment, molded components, manholes, shafts and so on.

Download brochures of Centraltubi here:
<http://tubi.net/downloads-documenti-scaricare-listini-cataloghi-manuali-documentazione/centraltubi/>

We also could welcome a new member from the Philippines in the Krah community this year: **Krah Pipes Manila Inc.**, represented by Nobukazu Kotake. He used the opportunity to get to know other members of KCM and to get more information about their experiences with the Krah pipe production. Krah Pipes Manila was now also presenting their product range for the first time in Manila:

On the 24th of November 2015 the “Innovation in Infrastructure Congress” was held at the Marriot Grand Ballroom in Manila, Philippines. The Congress was carried out by the European Chamber of Commerce of the Philippines to mainly introduce new and innovative infrastructure technologies, to fast track the infrastructure development and to support the continued growth of the Philippine economy. It focused on 4 topics: energy, transport, water and telecommunications.

It was a good possibility to consolidate exhibitions and conferences of different companies.

Of course we didn't want to miss the opportunity to introduce the Krah pipe system there, so we attended the congress. Krah Pipes Manila Inc. had a booth right next to the entrance of the congress and the presence there raised quite a high interest in the pipe solution of Krah.



On the left you can see Mr. Sajid Anonuevo, who is Business Development Marketing Director of Krah Pipes Manila Inc. and on the right you can see Mr. Jose Luis Morata who is Marketing Manager of Krah Pipes Manila Inc.

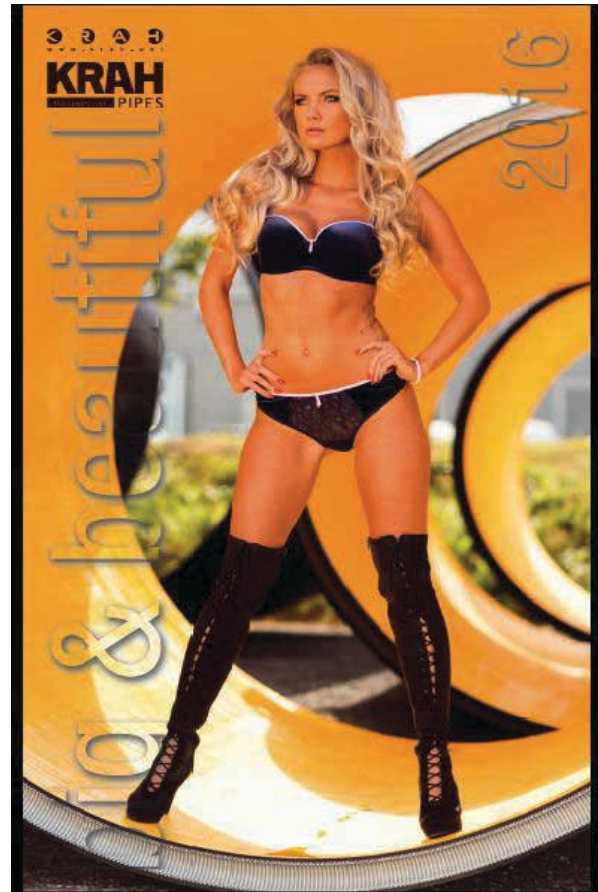
This was the first ‘official’ appearance of our newly-established Krah Pipes Manila Inc, whose pipe production will start in July 2016.

Around 250 people visited this congress, including the local government, public sectors, private companies and embassies of Switzerland and the United Kingdom.

If you would like to know more about the Krah pipe system in Manila, please do not hesitate to visit our website, www.krah-pipes.com.ph, where you will find details about different application possibilities, technical details and other useful information.

The Krah Calender 2016

It's that time of year again where we try our best to sweeten up your daily work routine with one of our premium-quality picture calendars. Not only you will be able to see some of our astonishing products and pipes, but also you will be met with some beautiful women who love to present the Krah products. The pictures were taken in a lot of different countries all around the world that we have been working with for a long time. In the past years we were always met with a lot of positive responses by our customers regarding this calendar. As usual you can't buy our calendar, there is only a limited number for customers that we send the calendar to. So if you are interested in having such a calendar for 2016, do not hesitate to write an E-Mail to calendar2016@krah.net



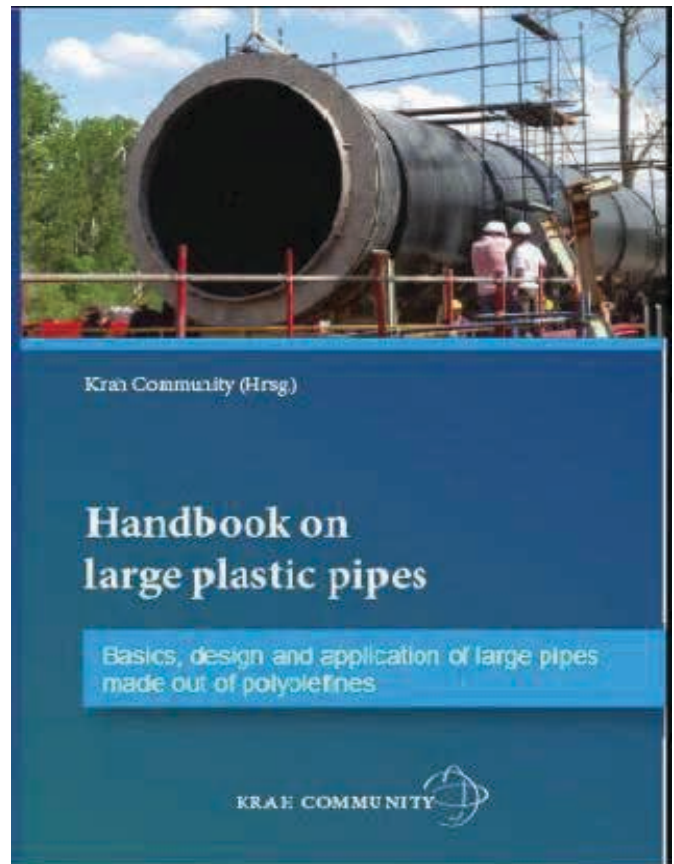
Krah calender 2016

The Krahe Community Handbook

And now, probably the most exciting thing for me is that we are going to publish a technical handbook. The Krahe Community Book is basically a collection of different technical information, instructions and guidelines from different companies that are dealing with pipe production.

You will be met with illustrated portrayals and detailed information of pipe production, technology, assembling, application, fabrication and jointing procedures. You will even find information about the material our pipes are made of. Furthermore you can have an insight of what happens behind the installation, e.g. planning and developing of new ideas and technologies. Our international customers present different possibilities and advantages of the Krahe pipe production. It will be interesting to read for engineers, planners, operators and contractors, but also for customers that are interested in how our technology of pipe production or assembling works. The book is already in printing so make sure to order one.

Now where we gave you a little flashback to this great experience we want to make you excited for the next meeting. The next Krahe Community Meeting will take place during the next K trade fair from the 19.-26. October 2016 in Düsseldorf.



Krahe Community Handbook

Krah with two faces

What is going to be new from 2016 on as well is, that from then the name of Krah will mainly stand for 2 products, **KRAH** for our range of machines and **KRAH PIPES** for our pipe systems, so you can immediately see who you are dealing with without any confusion. In addition, our homepage will be separated in two, **www.krah.net** for our range of machines **www.krah-pipes.com** for our pipe system, nevertheless they will be linked between one another. Customers of Krah machines can integrate the **www.krah-pipes.com** website on their own website if requested, so they don't have to make a completely new website. The **www.krah-pipes.com** website will constantly be kept up-to-date by our employers.

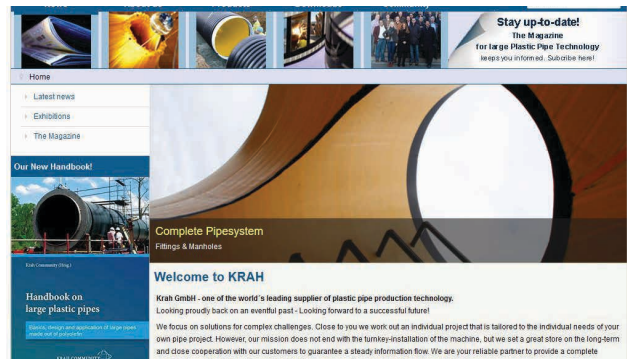
With the new Krah design there will be new marketing articles available which can be drawn from us from January 2016 on.

Furthermore there are many new Krah pipes brochures available, such as

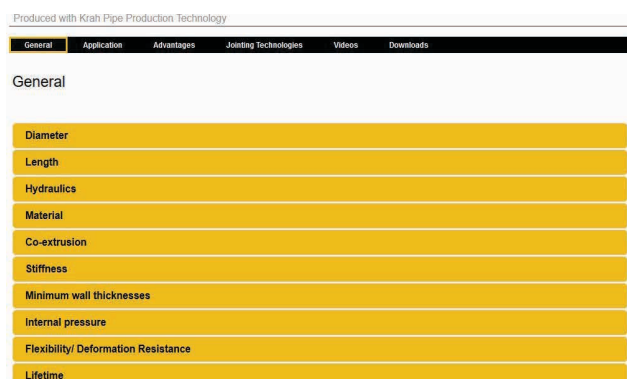
- pipe brochures,
- installation and transport instructions,
- E-fusion brochures
- and technical submittal brochures for our pipes.

These brochures can either be downloaded on our website or, if requested, ordered in paper form from our company.

Our draft is now being constantly refined and should be completed at the latest in October 2016 so it's ready for the international trade fair "K" in Düsseldorf.



www.krah.net



www.krah-pipes.com