



# Thrust Kinetic Power Plant

**ROSCH INNOVATION**  **AG**  
Leading Technology Solutions



## Rosch Innovations AG acquires new property for inhouse technology institute

Rosch Innovations AG accelerates the expansion of its research and development department in Serbia.

By now the departments' current premises turned out to be too small. To assure a long term solution for further expansion Rosch AG acquired an exclusive property in Belgrad on 14th of September 2012.

The new location provides a total of 1200 sqm office and work space across three floors. Effective floor space includes huge production halls for construction of smaller power plants destined for decentralized usage by private customers and SMEs.

The building adjoining the main complex serves as guest house for Rosch customers, who come visit to experience the production process live. .

Serbia is the location of our subsidiary company Rosch Technologie D.O.O. It is here, where engineers, scientists, and technical experts research the new and further development of Rosch patents. It is the place, where we think outside the box and create tomorrow's innovative technologies.



## We power you with new energy - pollution free!

Rosch AG is an incorporated company located in Switzerland with headquarters in Amriswil (canton Thurgau).

Its corporate purpose is patent development and realization and it exists since 2011. We carry out this process very differently from what we commonly see in how inventors do it: we put a lot more emphasis on commercialization and efficiency. Our technology center with a team of 20 colleagues, based in a beautiful landed property comprised of 1300 sqm of office space and shop floor is a beneficial resource.

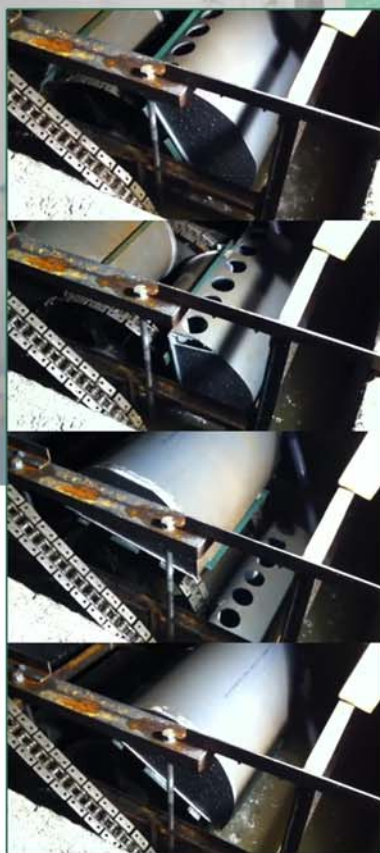
Here you can visit our prototypes and have a tour with our expert engineers. Current projects that we consider ready for public announcement are listed in the table below. They are presented according to their development stages.

Our capital stock has been fully contributed. We aim for a significant increase in capital and issue registered shares. Furthermore, we plan to realize capital assets amounting to 10 Mio € with our principal shareholders. Real estate in Serbia and Germany as well as existing patents and prototypes add to this.





ROSCH  
INNOVATION AG



Prior to Rosch Thrust Kinetic Generator engagement, the well containing chambers (floats), has to be filled up with water.

The device gets started by "START" - button on the command el. cabinet. The PLC (programmable logic controller) turns on the air compressor that only after several minutes gains necessary "operating pressure" within reservoir.

The PLC further detects the pressure within reservoir via probe and opens electro-motorized pneumatic valve. Once the valve is opened the comprised air enters the pipe and goes to the bottom of the well where it pumps the water out of the lowest system chamber (float).

Under influence of Archimedes Law this chamber (float) gains thrust toward the top making entire system rotate in the circle clockwise.



In the moment when the next chamber gets in the lowest position of the system the mechanic valve of the pipe that distributes comprised air from the compressor reservoir connects onto chamber valve. As soon as the connection is made the chamber gets filled with compressed air, as well as every other coming one after another generator as well.

A certain number of rotations should be obtained for the precise generator performance, which will result with full and stable voltage of 3x380V with stable frequency of 50 Hz.

Only when the full speed is obtained the PLC engages the consumers on to generator via three-phase switch. The measurement cabinet contains sound and visual indicators of device performance as well as instruments for measuring inter-phase voltage, voltages between each of three phases and ZERO, the current strength by phase as well as frequency of exiting voltage.

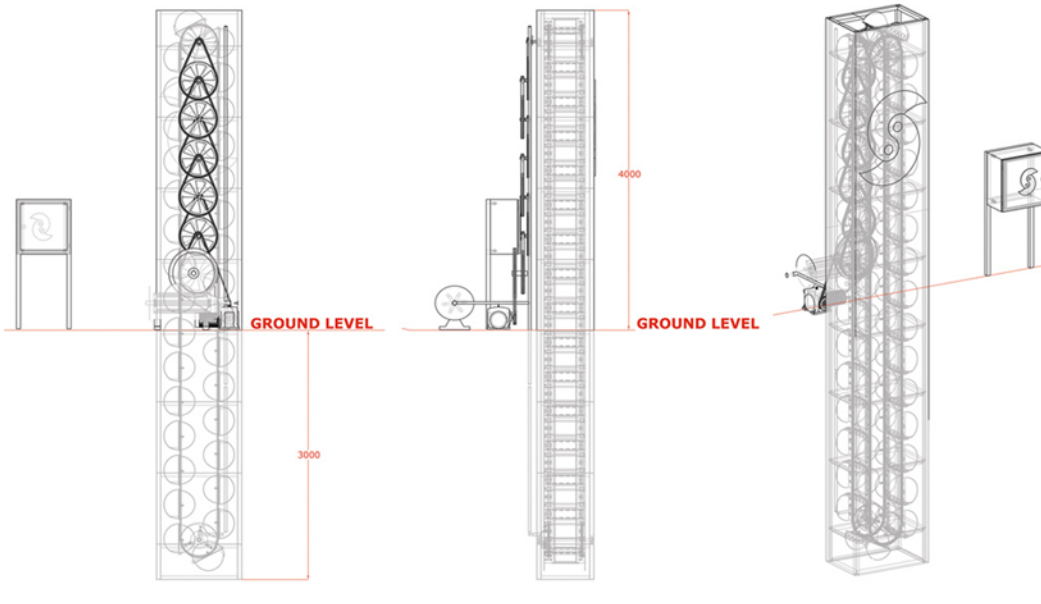
The six water heaters of 2kW each are connected as consumers, they are submerged into water using in total 12kW.



The above described proves the Rosch patent principals valid, or in other words used 4,2kW to supply three-phase air compressor ensured mechanical movement of the entire mechanism and secured kinetic energy that gained 12kW after being converted into electrical three-phase energy. More precise technical information we do not provide due to patent secrecy. Blueprints, performance simulation or video that shows our device in function, you may find at our website:

# Thrust Kinetic Power Plant

## How it works



ROSCH THRUST KINETIC GENERATOR consists of one well (6m depth) filled with water wherein the plastic chambers (floats) are submerged and connected to a transporting system.

Transport system to which the chambers (floats) are connected serves to direct their movement from the top to the bottom of the well and reversably in a circle.

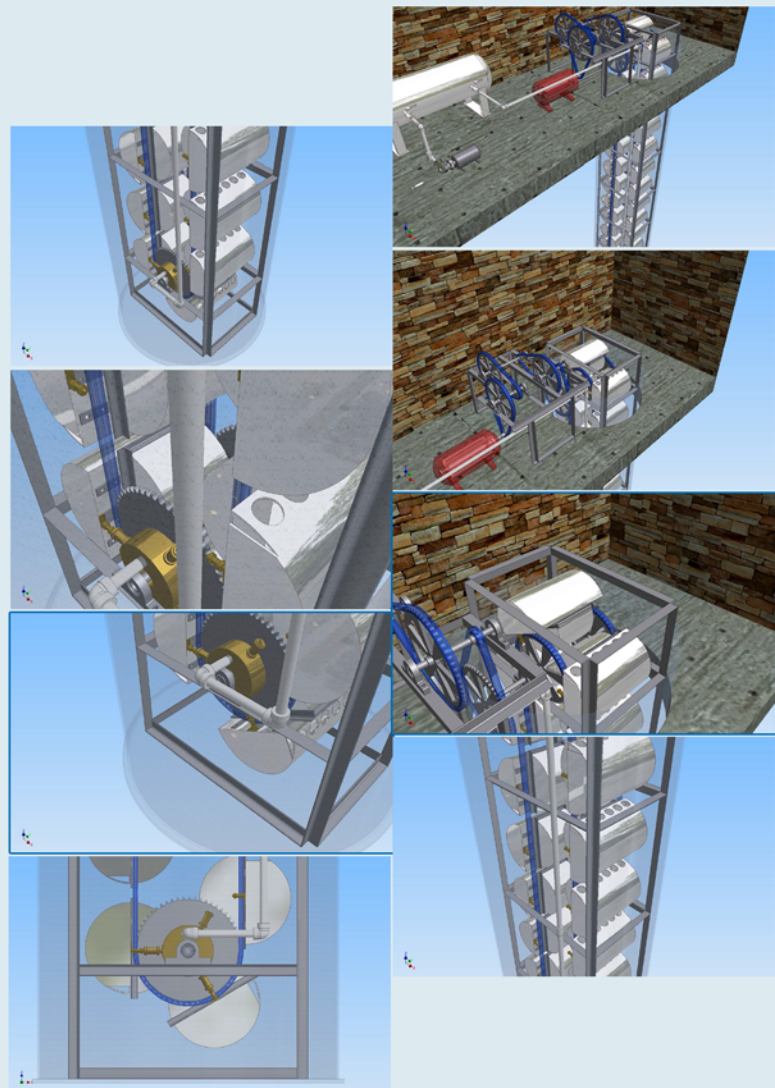
The plastic chambers (floats) contain automatic valve that connects to a pipe valve that brings the air from the compressor at the bottom of the well, and on the top of the well the compressed air discharges and the water gets pumped in.

The three-phase air compressor of 4,2kW fills up the reservoir (bottle) with compressed air, the compressed air gets further distributed to the plastic chambers (floats) within well.

The Command el. cabinet with PLC (programmable logic controller) conducts measurements of electric power used for compressor operation as well as for the control and managing of the entire system.

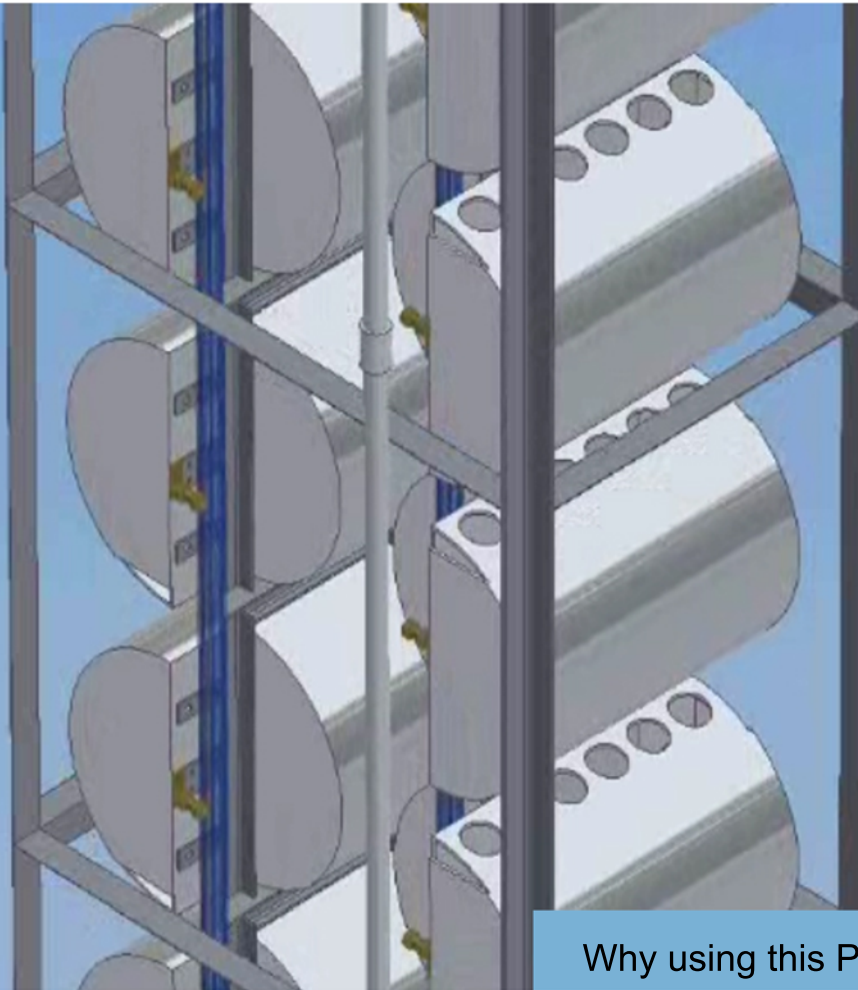
The Measuring cabinet conducts measurements of electric current gained on the generator as well as consumption of attached consumers.

The three-phase generator of electric energy is derived in a newest technology with neodymium magnets, and with assistance of transferring system (multiplier) converts mechanical rotary movements into AC electrical energy 3x380V/50Hz, which further distributes to consumers.



# Thrust Kinetic Power Plant

## These are the facts



### Why using this Power Plant?

#### How does the KPP work?

ROSCH THRUST KINETIC GENERATOR consists of one well (25 m depth) filled with water wherein the plastic chambers (floats) are submerged and connected to a transporting system.

Transport system to which the chambers (floats) are connected serves to direct their movement from the top to the bottom of the well and reversably in a circle.

The plastic chambers (floats) contain automatic valve that connects to a pipe valve that brings the air from the compressor at the bottom of the well, and on the top of the well the compressed air discharges and the water gets pumped in.

The three-phase air compressor of 4,2kW fills up the reservoir (bottle) with compressed air, the compressed air gets further distributed to the plastic chambers (floats) within well.

- generating high profit
- producing electricity for 6 eurocents
- 100% ecological, no emissions of CO<sub>2</sub> or NO<sub>x</sub>
- no fuel, Diesel, gas, sunshine or wind needed
- very low running costs
- perfect for countries without steady power grid
- return of invest is feasible in a short time period
- easy to expand, if needed

## Technical Data

### KPP- 5

1 Module

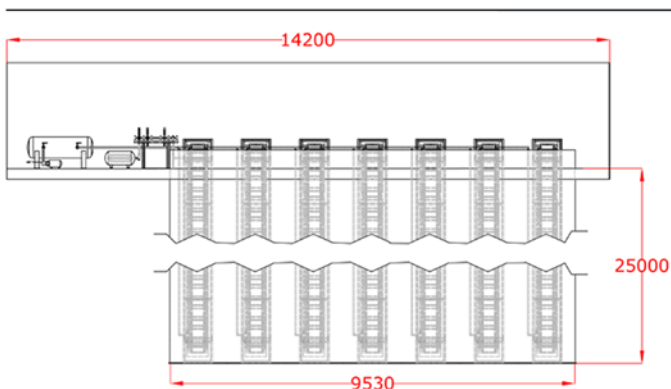
### KPP- 40

8 Modules

### KPP-100

20 Modules

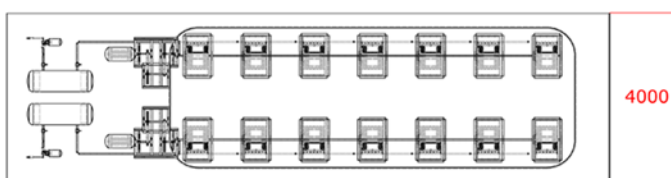
Total Performance	5 MW	40 MW	100 MW
Type	Thrust Kinetic Power Plant	Thrust Kinetic Power Plant	Thrust Kinetic Power Plant
Nominal power	5 MW	40 MW	100 MW
Power by stroke	500 kW	500 kW	500 kW
Number of strokes	10 + 4	80 + 32	200 + 80
Number of generators	7	56	140
<b>Average production per year</b>	<b>43.200 MW</b>	<b>345.600 MW</b>	<b>864.000 MW</b>



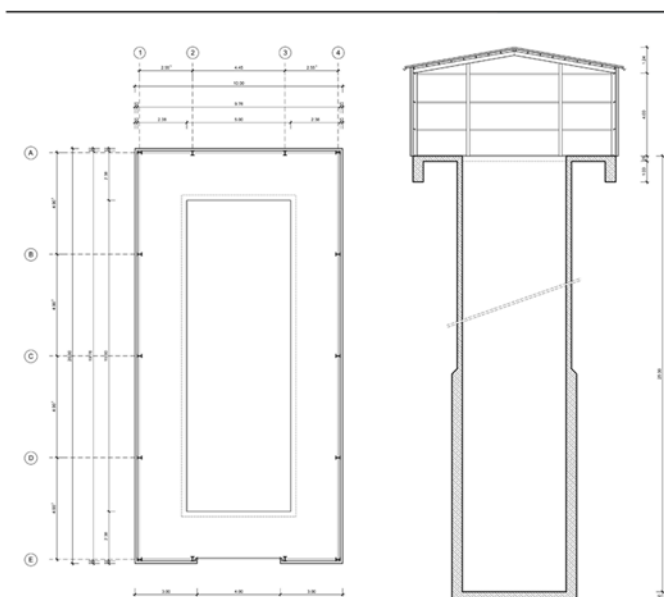
Measurement	KPP-5	KPP-40
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The Installation is under the surface in a basin filled with water.

Height over ground	2,5 m	2,5 m
Depth under ground	25 m	25 m
Total height	27,5 m	27,5 m
Width long side	14 m	32 m
Width short side	3,5 m	14 m
Basin	1 Unit	8 Unit
Basin measure ( L x B x H )	9,5 x 4 x 25	9,5 x 32 x 25
Basin material	reinforced concrete wall	



Technical Control	KPP-5	KPP-40
Contract of maintenance	Exchange of wear parts	
Service range	1x / year	1x / year



Transportation / Installation	KPP-5	KPP-40
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Delivery time	6 month	6 month
No. 40' container	6	
Load:	2 x 8t	
	2 x 20t	
	2 x 25t	
Total weight (inkl. container)	129,4t	
Setting up operation	6 month after order	

# Thrust Kinetic Power Plant Summary



## Benefits of Thrust Kinetic Power Plant

- ▶ Green electrical energy without any emissions like CO<sub>2</sub>
- ▶ Baseload capable no dependency from exogen power like wind or sun
- ▶ No external feed of energy
- ▶ Expandable in 5 MW steps
- ▶ Cost of production about 0,03 € /kWh depending on local conditions
- ▶ Perfect for countries without steady power grid
- ▶ Return of invest is feasible in a short time period
- ▶ Easy to expand, if needed



# Contact Us

## Innovations made by Germany



**ROSCH INNOVATIONS Deutschland GmbH**  
Hauptstraße 53  
53567 Asbach  
Germany

Phone: +49(0)2683 - 9478 555  
Fax: +49(0)2683 - 9478 551  
info@rosch.ag



www.rosch.ag

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