A perfect mix of

performance & size

Zyklos
made by Pemat

Zyklos Rotating Pan Mixer from Pemat

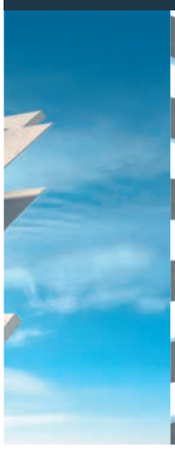
MIX.ING.

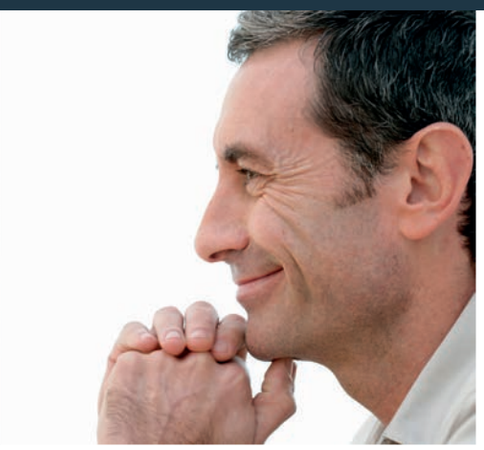
Mixing Technology made in Germany

MIX.ING. stands for our philosophy of reasoned and perfected mixing technology processes. This is a philosophy we live by and involve in every detail of our products.

We produce Rotating Pan Mixer for:

- Ceramic compounds
- Refractory compounds
- Abrasives
- Chemical products





Why Pemat? **Know-how, quality and customer focus**

With over four decades of experience in the development and manufacture of mixing technology products, today we are innovative leader in the areas of mixers, skip hoists and complete mixing plants. Our know-how enables us to help our clients optimise their processes, ensure quality, save raw materials and decide on the optimum mixture for every demand. Our products are developed and produced exclusively in Germany, in a resourceful way and sold all over the world.

Service from Pemat. **24 hours a day – seven days a week**

We ensure the special quality and long-term availability of our products with a demanding quality control system. With our highly-qualified sales and support team we support our clients both before and after purchase with words and deeds – 24 hours a day – seven days a week.

- Glass
- Floorings
- Concrete
- Roof tiles

The Zyklos Rotating Pan Mixer from Pemat

A lot of performance in a very small space

Drive unit

- Sturdy gear motors
- Speed control (optional)

Tilting arm

- When closing the tilting arm, all driven mixing tools are started automatically and switched off again when opening
- Static tools additionally layer the material
- Fast rotating whirler can be retrofitted, also with speed control

Mixing pan discharge

- By tilting the mixing pan (ZK models)
- By detaching/moving the mixing pan (ZZ models)

Mixing Star

- Available in various materials and designs

Scraper

- For cleaning the pan inner wall during mixing

Skip

- The models ZK 150 – ZK 500 can be equipped with a skip

Mixing pan

- Available in various materials
- Bolted wear linings possible
- The turn of the mixing pan is produced by friction of the batch. This rotation can be supported by an additional pan drive

The Zyklos Mixing Principle

according to the uniflow system

ZZ 3 PE ZZ 30 HE

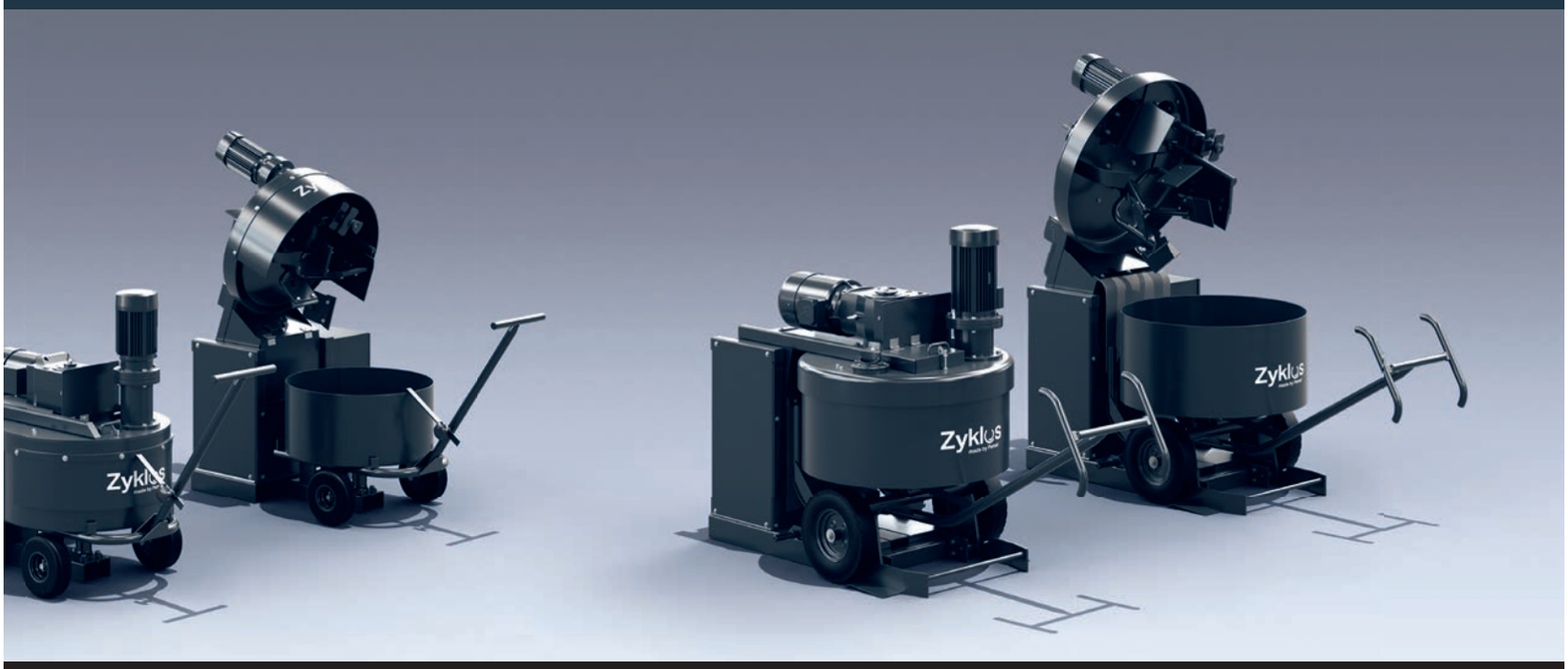
Mixing performance is based on the uniflow system

The offset mixing star [1] rotates synchronously with the mixing pan [2] thus producing high levels of shearing effect and kinetic energy release. Due to the high relative velocity of the batch a homogeneous mixture is quickly achieved. Statically mounted mixing tools [3] [4] on the tilting arm effect a horizontal and vertical rearrangement within the batch.

A wall scraper [4] continuously removes batch residues from the pan wall and deposits this back into the batch flow stream.

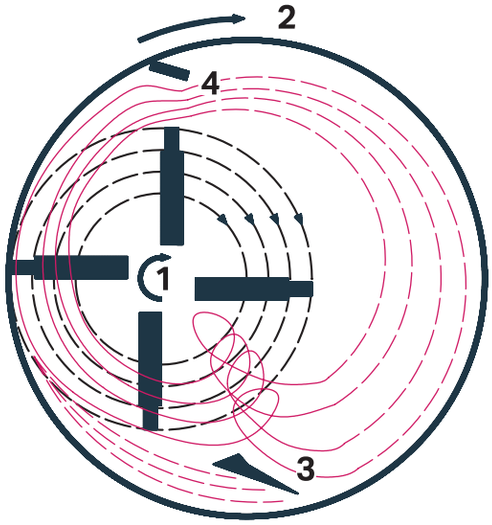
The pressure of the batch against the wall and the bottom of the mixing pan, produced by the mixing tools, makes the mixing pan turn co-currently without any extra drive. This rotation can be supported – if necessary – by an additional pan drive.

In order to intensify the mixing process, we could supply high speed whirlers [5] as an option.

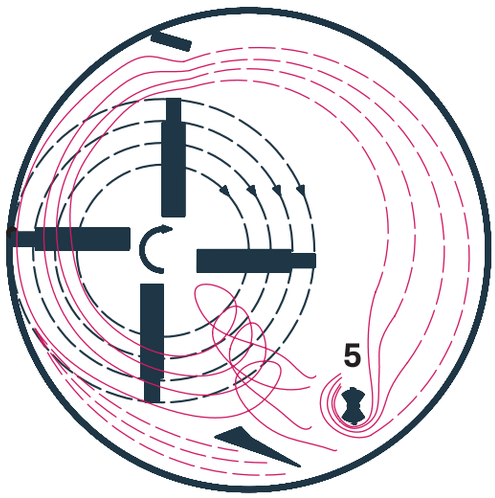


ZZ 50 HE / ZZ 75 HE

ZZ 150 HE



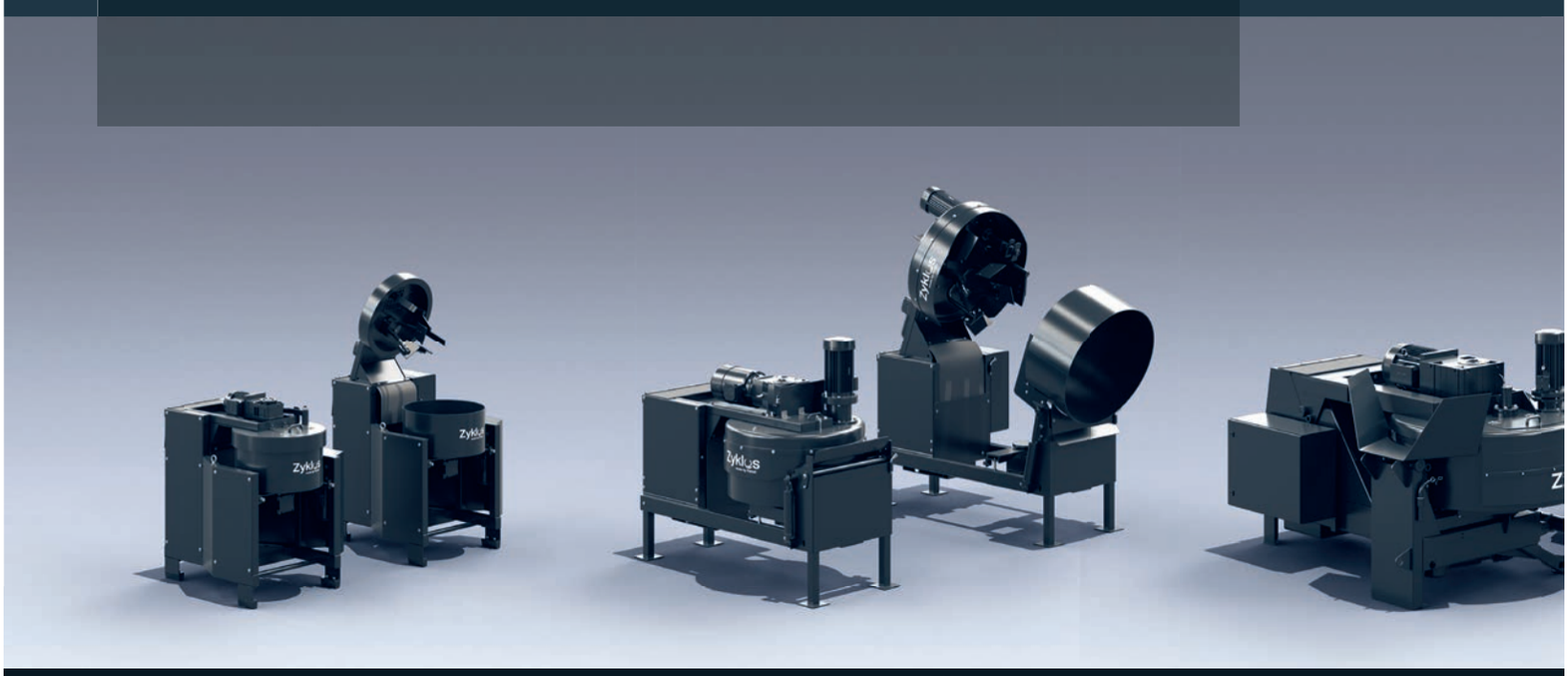
Mixing process



Mixing process with high speed whirler

The Zyklos Rotating Pan Mixer

and its areas of application



ZK 30 HE / ZK 50 HE

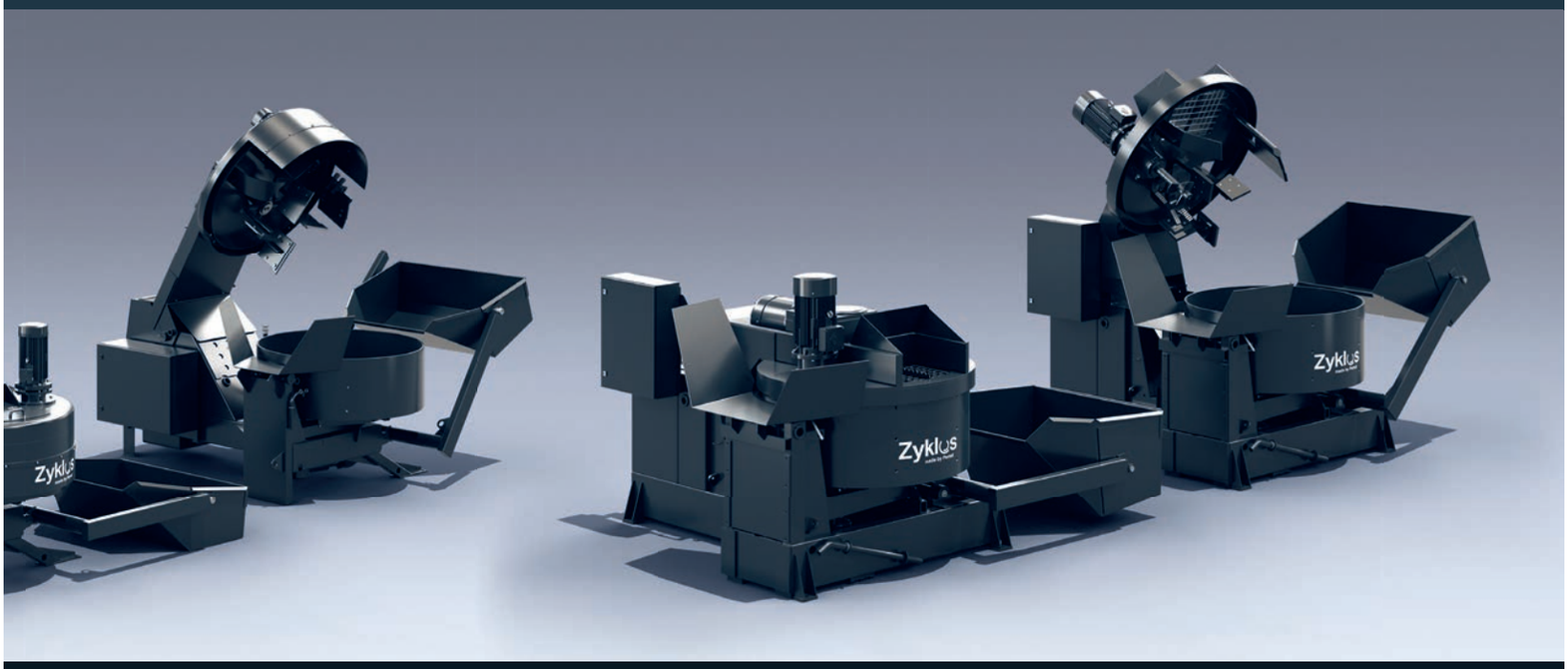
ZK 75 HE / ZK 150 HE

Operational features

After loading mixing pan, the lowering of the tilting arm controlled by limit switch actuates the mixing star, which is let down into the material to be mixed. On raising the tilting arm the mixing star stops automatically. Raising and lowering of the tilting arm are done hydraulically. All functions can be controlled by push-button respectively selector. Visual checking during mixing is possible through an inspection cover on the tilting arm. When the power is on but the tilting arm is in the raised position the mixing star cannot rotate.

With detachable mixing pan	The mixing pan is easily manual detachable.
With mobile mixing pan	The mixing pan rests on a ball bearing turntable or is fix mounted on a trolley. Lifting and transportation of the mixing pan can be easy done by a trolley.
With tiltable mixing pan	Tilting of the mixing pan is done electrically/hydraulically by push-button.

Accessory: Further designs can be quoted on request.



ZK 250 HE

ZK 375 HE / ZK 500 HE

Areas of application and examples

All sorts of concrete:

- Lightweight, fibre, fine and polymer concrete
- Self-compacting and Ultra High Performance Concrete
- Mortar, plaster
- Concrete and artificial stones
- Exposed aggregate concrete
- Paving slabs
- Roof tiles
- Precast concrete parts such as coloured U-, L- and manhole stones
- Window and door lintels
- Prefabricated garages
- Internal/external concrete pipes
- Crane counterbalance weights
- Machine tool beds
- Spacer blocks for reinforced concrete

Depending on material, special executions might be possible. Mixings of explosive materials or mixing in an explosive environment is not possible.

Further applications:

- Adhesives for tiles
- Floorings: Industrial or sports ground flooring
- Refractory and ceramic compounds
- Domestic pottery (flowerpots, etc.)
- Components made of technical ceramics, porcelain
- Roof tiles
- Glass
- Accumulator fillings
- Abrasives
- Foundry sand
- Insulating materials
- Fillers
- Chemical products
- Waste treatment

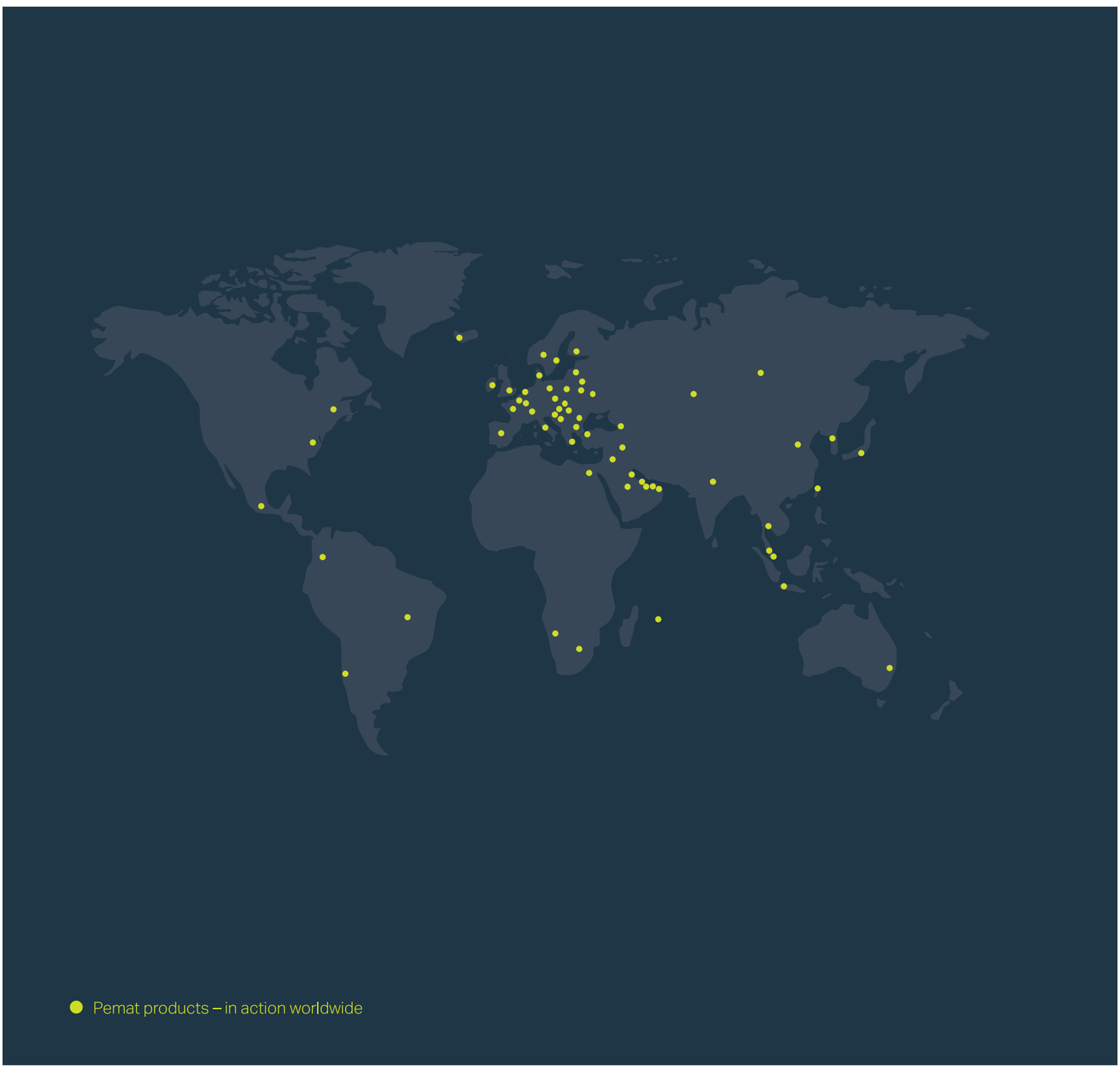
The Zyklos Rotating Pan Mixer

from 3 to 500 liters

Model	**ZZ 3 PE**	**ZZ 30 HE**	**ZK 30 HE**	**ZZ 50 HE**	**ZK 50 HE**
Batch capacity (standard concrete) ready-mix approx. l	3	30	30	50	50
Dry Filling (max.) approx. l / kg	4 / 6	38 / 50	38 / 50	80 / 90	56 / 80
Mixing pan diameter mm	280	500	500	700	597
Mixing pan design	detachable	mobile	electrically tiltable	mobile	electrically tiltable
Tilting arm design	pneumatically	hydraulically	hydraulically	hydraulically	hydraulically
Skip design	–	–	–	–	–
Power mixing star kW	0,25	1,5	1,5	2,2	1,5
Power hydraulic kW	–	1,1	1,1	1,1	1,1
Power mixing pan kW	0,12	0,75	0,75	–	0,75
Power tiltable mixing pan kW	–	–	0,12	–	0,12
Pneumatic	min. 6 bar, 17 l / min	–	–	–	–
Voltage V	230	400	400	400	400
Frequency Hz	50	50	50	50	50
Weight approx. kg	100	350	450	450	450

	ZZ 75 HE	**ZK 75 HE**	**ZZ 150 HE**	**ZK 150 HE**	**ZK 250 HE**	**ZK 375 HE**	**ZK 500 HE**
	75	75	150	150	250	375	500
	108 / 120	108 / 120	170 / 240	170 / 240	365 / 400	500 / 600	865 / 800
	800	800	900	900	1.250	1.334	1.704
	mobile	hydraulically tiltable	mobile	hydraulically tiltable	hydraulically tiltable	hydraulically tiltable	hydraulically tiltable
	hydraulically	hydraulically	hydraulically	hydraulically	hydraulically	hydraulically	hydraulically
	–	–	–	hydraulically	hydraulically	hydraulically	hydraulically
	2,2	2,2	4	4	7,5	11	15
	1,1	1,5	1,1	1,5	3	4	7,5
	–	1,5 (optional)	–	1,5 (optional)	1,5 (optional)	3	5,5
	–	–	–	–	–	–	–
	–	–	–	–	–	–	–
	400	400	400	400	400	400	400
	50	50	50	50	50	50	50
	460	780	600	800	1.400	3.000	4.250

Pemat



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