Powder cooler

Product information

Service – Revamps Cement

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thyssenkrupp

Revamps Cement

Powder cooler

Your added value

- Biggest product range of cooler sizes on the market
- Easy maintenance
- Highest quality standard due to manufacturing in German tkIS workshop
- World leader in powder coolers
- Custom-made solutions possible
- High cooling performance and efficiency

Established and proven equipment

We offer you an established and proven equipment for your specific demand.

Executions / Design options:

- Product range from ø2,0m up to 4,2m and in lengths between 5,0m to 12,0m
- Capacities up to 400tph
- Cooler shell can be manufactured in stainless steel or as boilerplate

  (with primer and without)
- Different executions of water distribution boxes available

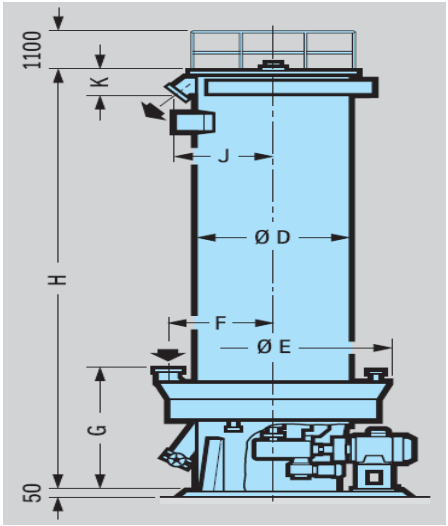
Sizes Powder cooler

Sizes - III

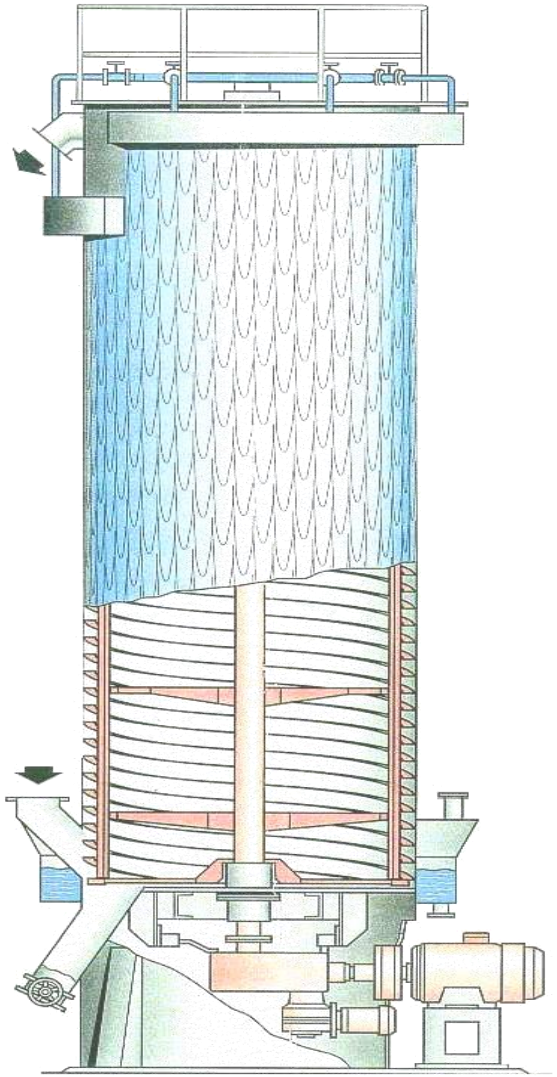
Size	I	IA	II	IIA	III	IIIA	IIIL
Measures	Ø2 x 5,5 m	Ø2 x 4,0 m	Ø2,5 x 6,5 m	Ø2, 5x 5,5 m	Ø3,2 x 8,5 m	Ø3,2 x 7 m	Ø3,2 x 10 m
Cross section	3,14m²	3,14m²	4,91m²	4,91m²	8,04m²	8,04m²	8,04m²
Cooling surface	34 m²	25 m²	50 m²	43 m²	85 m²	70 m²	100 m²
max. capacity	100 t/h	100 t/h	180 t/h	180 t/h	250 t/h	250 t/h	250 t/h

Size IV

Size	IV	IVA
Measures	Ø4,2 x 12 m	Ø4,2 x 10 m
Cross section	13,85 m²	13,85 m²
Cooling surface	158 m²	132 m²
max. capacity	400 t/h	400 t/h



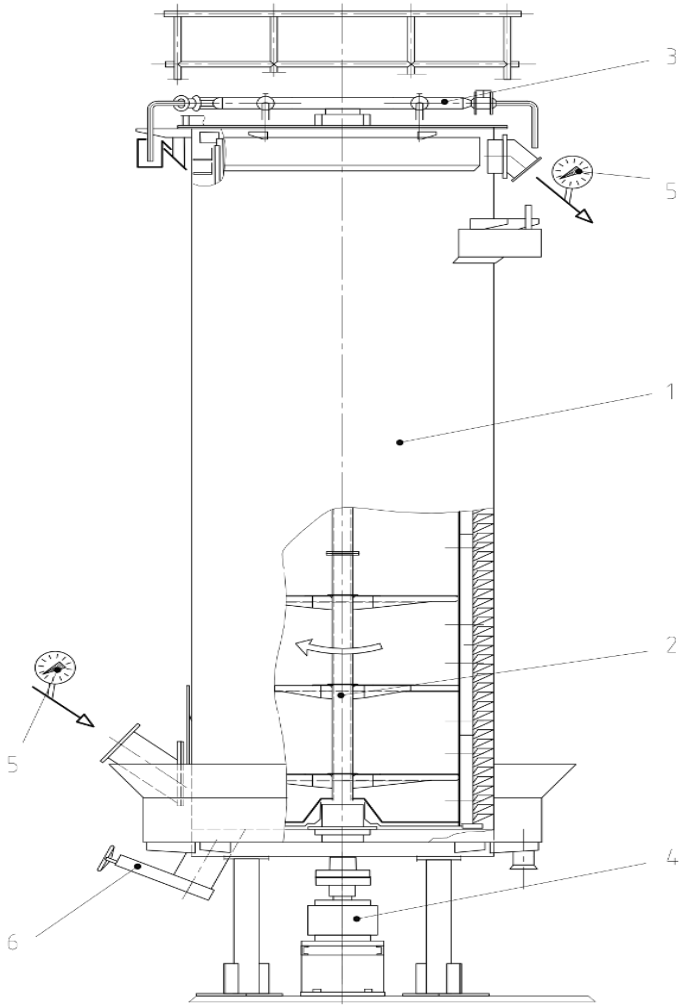
Contents



Powder cooler

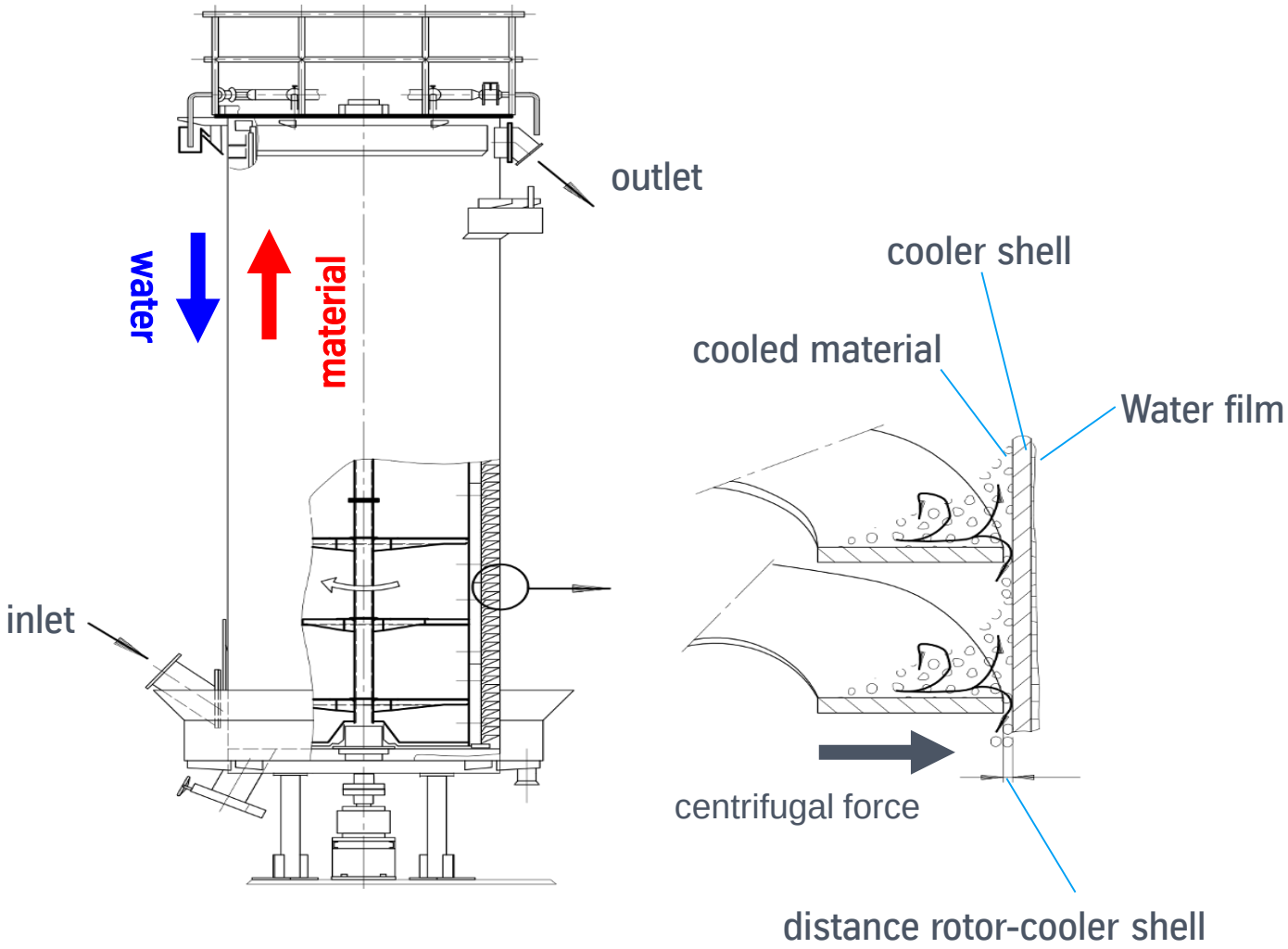
- structure
- mode of functioning
- design details
- maintenance

Structure Powder cooler



1 housing
2 rotor
3 cooling water distribution
4 drive unit
5 monitoring devices
6 emergency discharge

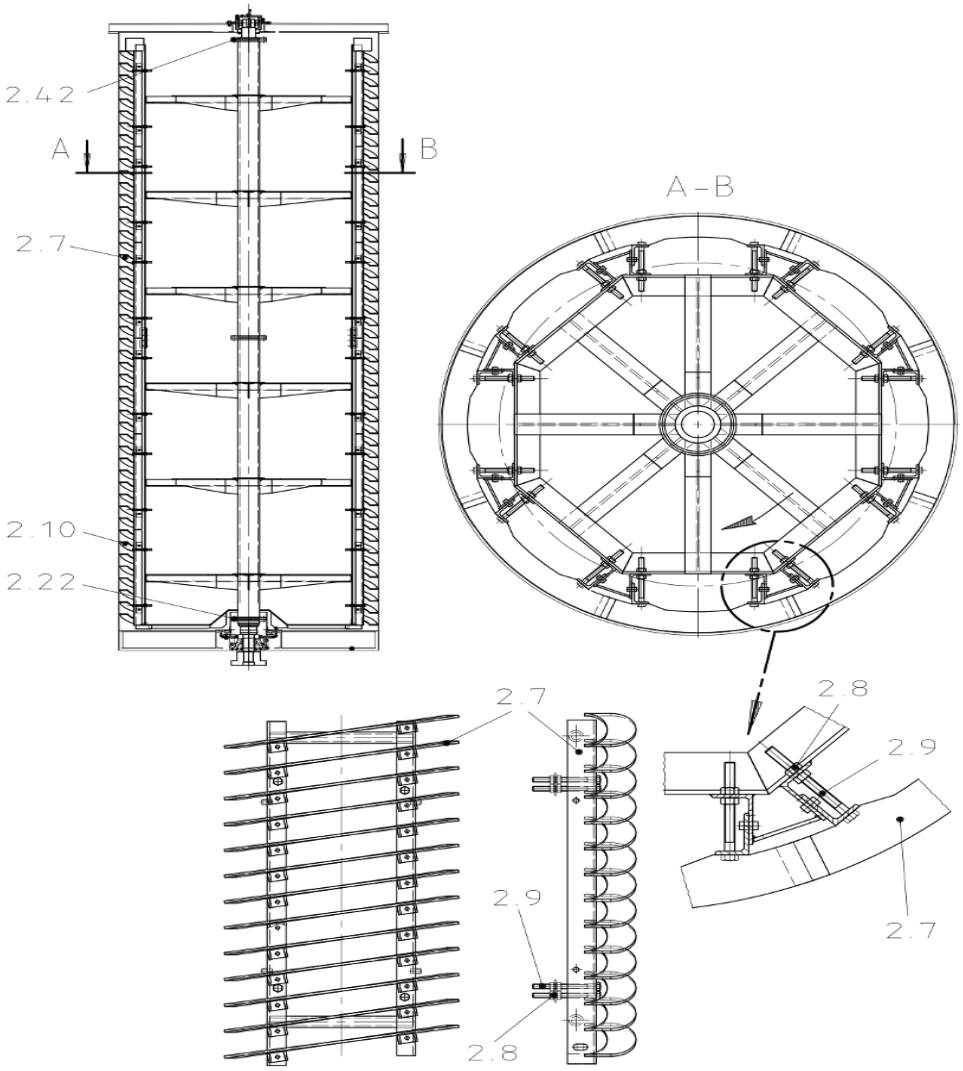
Mode of functioning Powder cooler

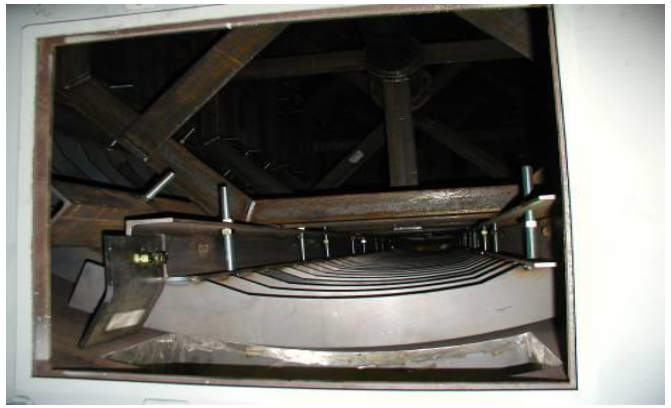


- Material to be cooled is fed through inlet chute and falls onto lower screw flights
- The turning of the rotor transports the material upwards to the outlet chute while it is permanently recirculated at the inner wall of the cooler shell
- Heat is transferred over the cooler shell to the water film
- Through the ejection plates at the end of the screw flights, the material is transported out of the machine.

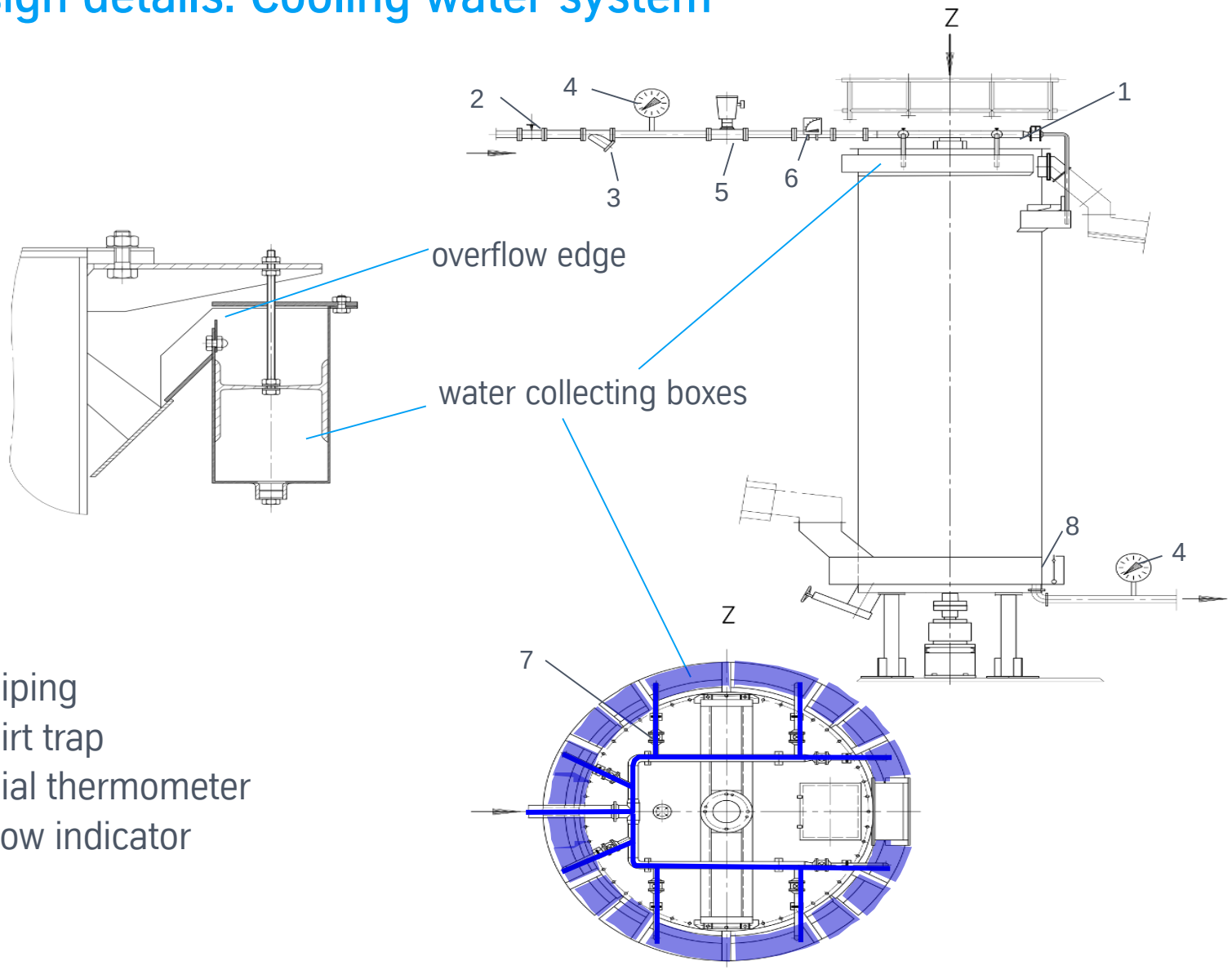
Design details: Rotor

2.7 screw flight package
2.8 nut
2.9 threaded spindle
2.10 screw flight package with mounted screw flights
2.42 bearing housing





Design details: Cooling water system

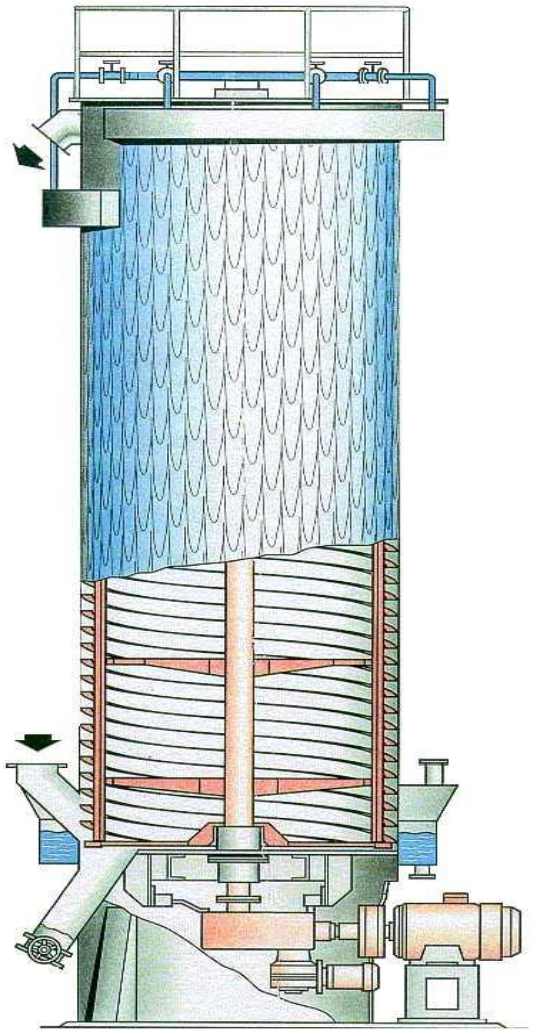


1 piping
3 dirt trap
4 dial thermometer
6 flow indicator

30-120m³/h
cooling water quantity

Design details: Drive

Maintenance of powder cooler



1. lubrication lower and upper bearing
2. readjustment of gap rotor – cooler shell
3. removal of caked cement
4. adjustment of water collecting boxes
5. maintenance gear unit and motor