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PROCESS TECHNOLOGIES

CEMENT & MINERALS

FCB Rhodax® 4D

Inertial vibrating cone crusher

FCB Rhodax® 4D, the latest compressive technology for optimal crushing and grinding performances

- Accurate control of the grinding force and high reduction ratio
- Constant and added-value product quality
- Low wear and long lifetime crushing parts leading to maintenance costs reduction
- A wide range of dry process applications: fused alumina, fired clay, silicon, ferroalloys, mattes, concrete recycling...

FCB Rhodax® 4D, the ultimate technology that merges crushing and grinding applications in a single equipment

High liberation ratio for the best beneficiation

- Control of the grinding force and differential grinding
- Better liberation at higher screen mesh
- Recycling of unsold stocks or undesirable fractions

Low maintenance requirements

- Low sensitivity to unbreakable parts
- Long lifetime of wear parts leading to significant savings, especially when grinding hard and abrasive materials
- Fast and easy liners change

Enhanced product quality

- Adjustable capacity and particle size distribution
- Control of ultrafines production
- Constant product quality, totally independent from the wear of the liners
- Low flakiness index (cubical shape)

Optimized & reliable operation

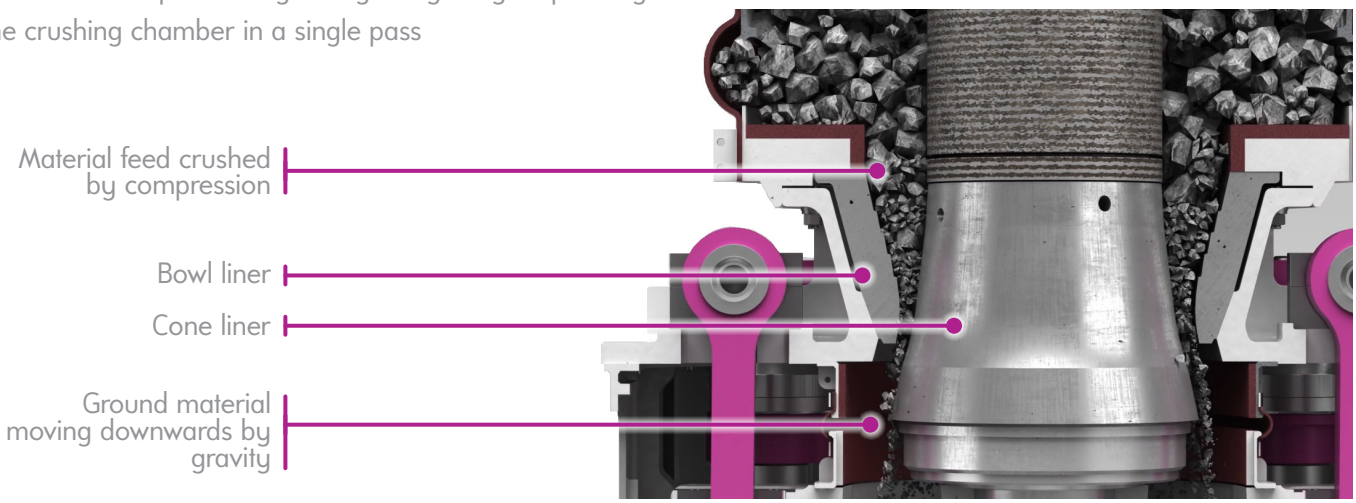
- Highest reduction ratio up to 100:1
- Replacement of 2 to 3 conventional crushing stages
- Compact installation with no specific civil works required

Get Green

- Energy savings due to the reduction of crushing stages
- No dust emission
- Low level of noise
- Preservation of natural resources through the production of artificial sand
- CO_2 emissions reduction thanks to concrete recycling

Using interparticle compressive grinding, FCB Rhodax® 4D allows for a full control of the grinding force

3 to 6 alternate phases of grinding and gravity drop through the crushing chamber in a single pass

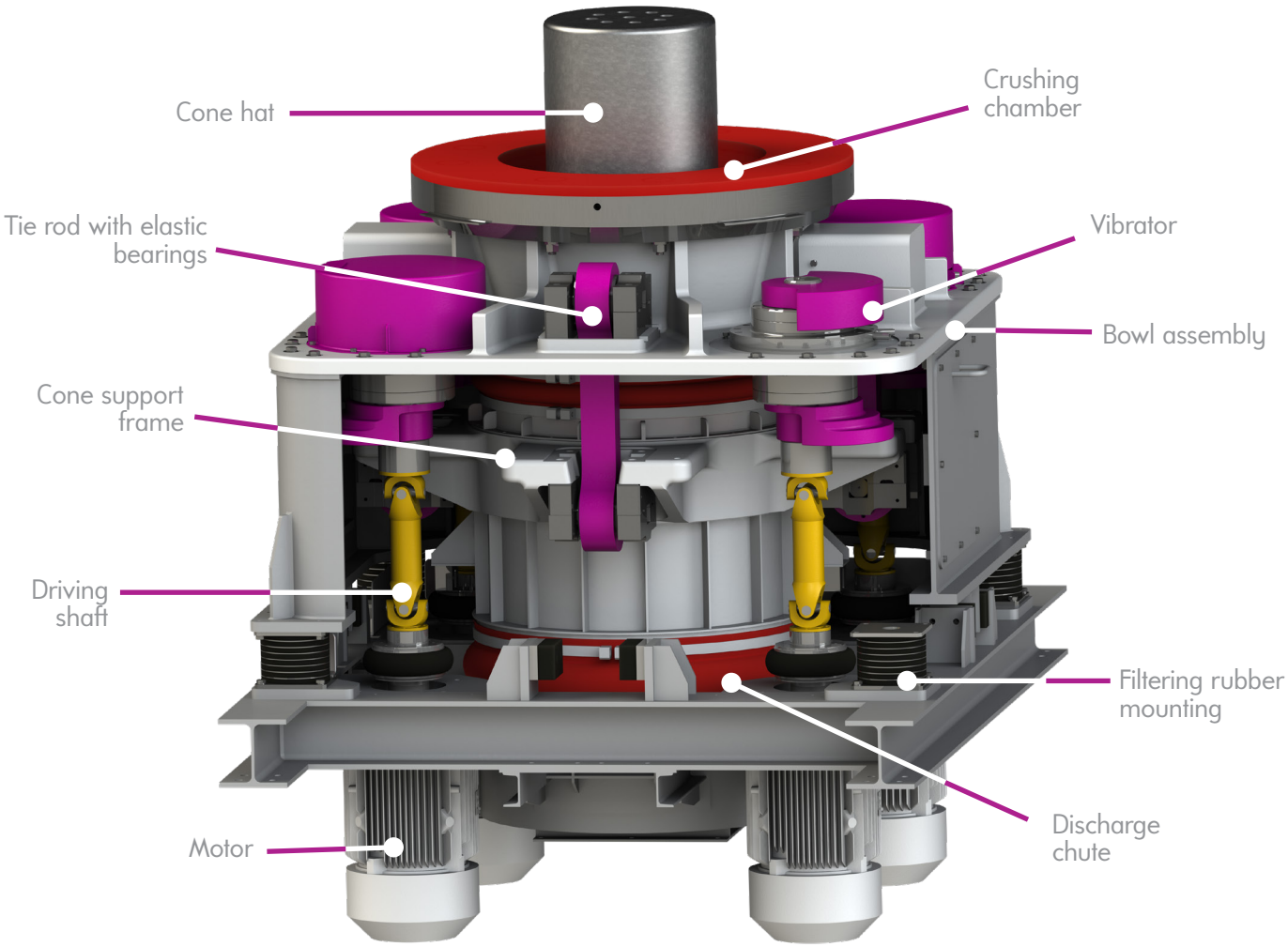


FCB Rhodax® 4D provides the highest reduction ratio in the market

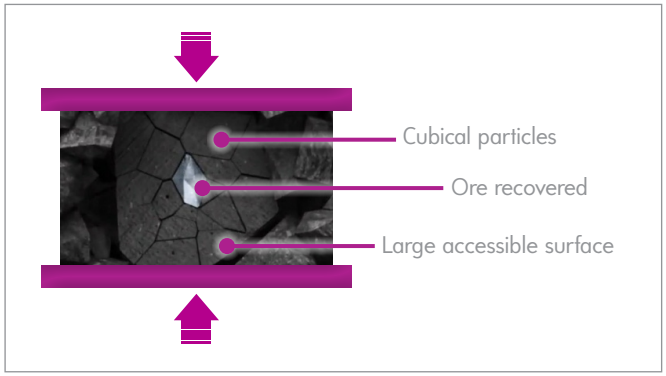
The FCB Rhodax® is composed of:

- a feeding hopper,
- a grinding chamber whose outer bowl is driven in circular horizontal motion by 4 motorized outriggers
- a suspended cone whose gap to the grinding chamber can be adjusted to control the size of the output particles.

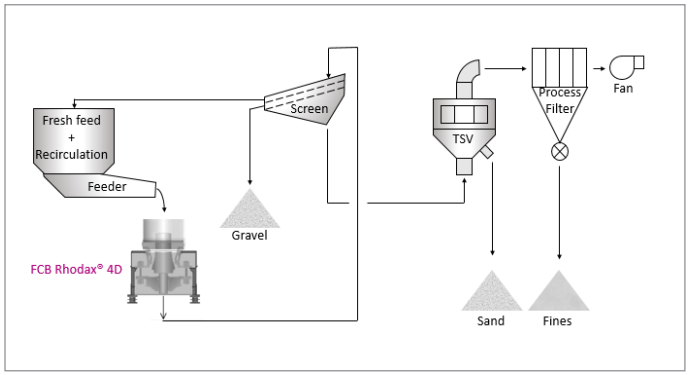
The grinding force is adjusted by the speed of rotation of the unbalanced weights. The wear parts are made of high chromium cast iron or martensitic steel to reduce the wear rate.



SELECTIVE GRINDING WITH THE HIGHEST LIBERATION

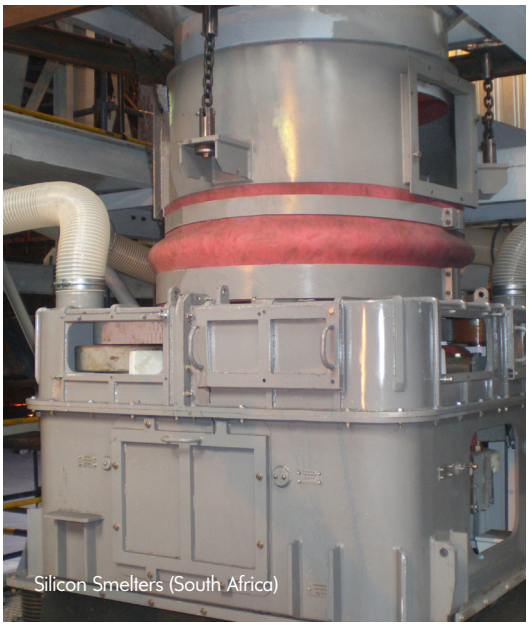


CLOSED CIRCUIT OPERATION EXAMPLE



FCB Rhodax® 4D, a flexible machine for a wide range of applications

Equipment range	Nominal gap (mm)	Power LP/HP (kW)	Maximal throughput (tph)
FCB Rhodax® 300	12	8/13	10
FCB Rhodax® 450	18	21/35	30
FCB Rhodax® 600	24	42/70	70
FCB Rhodax® 800	32	86/145	140
FCB Rhodax® 1000	40	150/250	180
FCB Rhodax® 1200	48	240/395	380
FCB Rhodax® 1400	56	350/580	560


Silicon Smelters (South Africa)

FCB Rhodax® 4D range (LP/HP: Low / High Pressure)

Applications

KEY REFERENCES

- FCB Rhodax® 300 - Fired clay grinding 2 tph from 0-30 mm to 0-800 µm
- FCB Rhodax® 450 - Corundum crushing 4 tph from 0-30 mm to 0-2 mm
- FCB Rhodax® 600 - Electrofused hematite crushing 7 tph from 0-75 mm to 0-3 mm
- FCB Rhodax® 600 - Silicon metal grinding 4 tph from 0-90 mm to 0-425 µm
- FCB Rhodax® 1000 - Chromium corundum crushing 50 tph from 0-120 mm to 0-6 mm
- FCB Rhodax® 1000 - Concrete waste from 0-100 mm to 0-4 mm

PROCESS APPLICATIONS

- Ceramics tiles, fired clay
- Abrasives
- Corundum hematite
- Silicon metal
- Ferroalloys
- Diamond ore
- Concrete recycling
- Precious and rare metals
- Iron ore
- Phosphates
- Limestone
- Slags
- Others...

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Industry can do it