

Product datasheet

Jaw Gyratory Crusher BK 54-67 Pro

High-performance crushing for capacities
above 3,500 mtp/h

Jaw Gyratory Crusher Pro – the next generation of underground crushing

The main characteristic of jaw gyratory crushers is their enlarged feed opening which is located on one side of the crusher only. Jaw gyratory crushers can handle much bigger chunks of material than comparable gyratory crushers of the same mantle diameter. Jaw gyratory crushers feature a higher crushing ratio and less tendency to become clogged in the feed zone as a result of bridging.

Performance by design Maintenance friendly design

- Easy access to all heavy components from above

Optimised “fish belly” shell design

- Ensures less weight, less stresses and easier casting
- Increase of overall strength

Easy modification of eccentricity

- Change of stroke by adjustment of the eccentricity

Adjustable pinion gear

- Simple adjustment of the backlash by rotating the housing from outside

Several options to increase safety and performance

- Double mouth spider with hydraulic spider fixing unit
- Spherical spider bearing
- Eccentric removal trolley
- Concave mounting rack
- Concave dismantling device (concave pans)
- Main shaft stand
- Hydraulic nuts
- Enclosure of hydraulic unit, comparable to IP 54
- Different liner configurations etc.

Efficient crushing at high capacities

Optimised crushing chamber with huge feed opening

- High throughput rates
- Huge feed opening for receiving big lumps of rock
- Largest available feed opening
- Less tendency of bridging
- One side indirect feed
- High crushing ratio
- Two crushing stages
- More fine and uniform product
- Low operating and wear costs

Combines all advantages of a common gyratory crusher

- Hydraulic adjustment of crushing gap to compensate for wear
- Hydraulic main shaft adjustment for overload protection
- Gyramatic monitoring and control system
- Direct drive via disc-pack coupling with floating shaft and safety coupling
- Cyclo-paloid spiral bevel gear for smooth operation and use of high-capacity drive motors
- High starting torque allows start of crusher under load (emergency case)



Technical specification

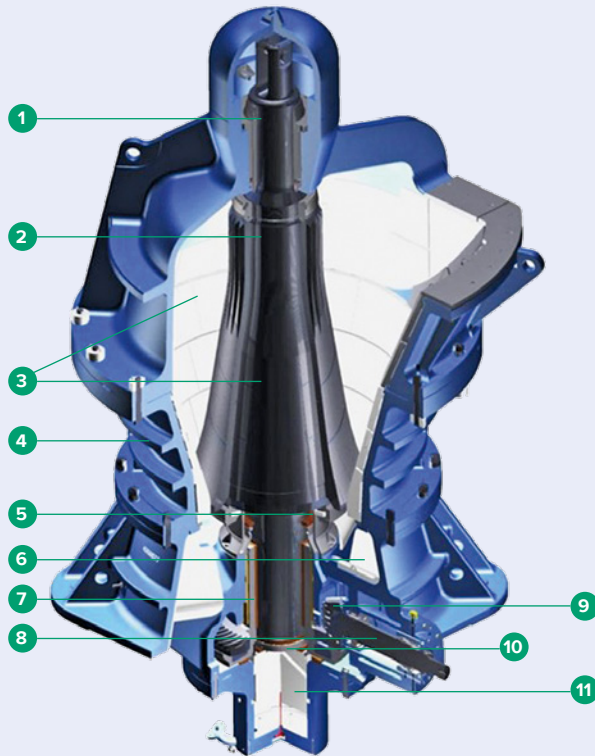
Application data	
Application	Primary crushing
Feed material	Medium hard to hard rock and ore
Capacity ¹	Up to 4,000 metric tph

Technical data	
Configuration	Pro Design (e.g. safe and reliable maintenance from top)
Feed opening ² (w x h)	2,640 x 1,350 mm/104 x 54 inch
Mantle diameter	1,700 mm/67 inch
Eccentricity ³	Adjustable in up to 3 settings
Eccentric speed	Approx. 137 rpm
Gap setting range OSS	130 – 200 mm
Control and monitoring system	“Gyramatic”
Drive concept	Direct drive with hydraulic safe-set coupling
Installed drive motor power ⁴	Up to 500 kW

Weight and dimensions	
Total weight ⁵	Approx. 175,000 kg
Heaviest piece for transportation ⁶	Approx. 46,000 kg
Heaviest piece for maintenance ⁷	Approx. 34,000 kg

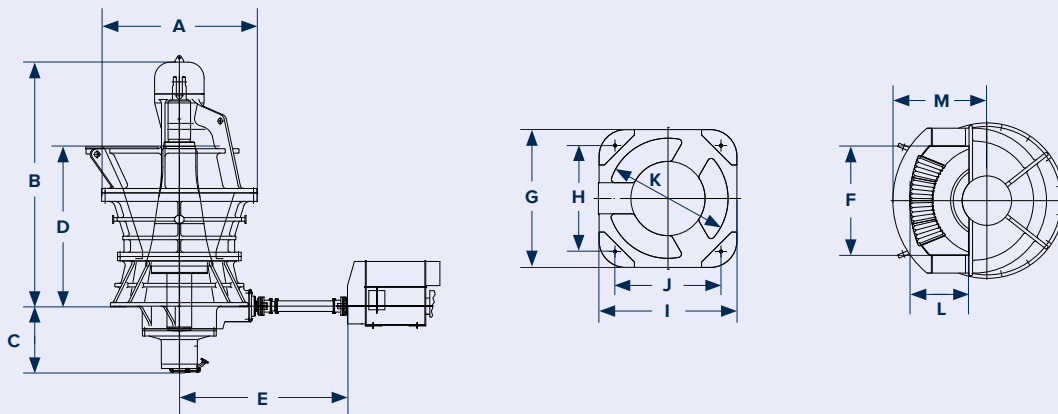
1. Crusher capacity calculated based on a feed material bulk density of 1.6 metric t/m³. Actual values depend on feed material characteristics and crusher configuration. All data should be used as a guide only and are not guaranteed.
2. For larger feed opening a Double Mouth Spider is available on request. Recommended maximum feed size up to 80% of the feed opening
3. Range of eccentricity 14-26 mm.
4. Actual motor rating depending on the feed material characteristics, crusher configuration and altitude.
5. Crusher weights indicated do not include any base frame, drive motor and tools. Weight may vary depending on actual machine configuration.
6. Shell segment
7. Mainshaft assembly with “oversized” mantle diameter including crushing elements.

Main components



1. Spider bearing
2. Main shaft
3. Crushing elements: mantle/concaves
4. Shell sections
5. Dust sealing
6. Material discharge
7. Eccentric bearing assembly
8. Countershaft assembly
9. Bevel gear and pinion
10. Step bearing
11. Hydraulic cylinder

Main dimensions



Ø A [mm]	B [mm]	C [mm]	D [mm]	E [mm]	F [mm]	G [mm]	H [mm]	I [mm]	J [mm]	Ø K [mm]	L [mm]	M [mm]
3,400	6,262	1,642	4,252	4,352	2,640	3,660	2,800	3,660	2,800	3,200	1,350	2,150

FLSmidth A/S
2500 Valby
Denmark
Tel. +45 3618 1000
info@flsmidth.com

www.flsmidth.com

FLSmidth Inc.
Salt Lake City Operations
Midvale, UT 84047-5559
USA
Tel. +1 801 871 7000
info.sl.c@flsmidth.com

FLSmidth Mining Technologies GmbH
Ennigerloh Operations
59320 Ennigerloh
Germany
Tel. +49 201 828 3000
mining-technologies@flsmidth.com

Copyright © 2023 FLSmidth A/S.
All Rights Reserved. FLSmidth and FLS are (registered) trademarks of FLSmidth A/S. This brochure makes no offers, representations or warranties (express or implied), and information and data contained in this brochure are for general reference only and may change at any time.