



THE WEIGHT OF EXPERIENCE

JAW CRUSHERS

FOR ALL YOUR NEEDS



THE PRODUCT OF DECADES OF EXPERIENCE

THE WEIGHT OF EXPERIENCE

We've been designing jaw crushers, in close cooperation with customers, for many years. We know what's valued. We have the expertise to anticipate changing needs, and the resources to respond with new products at the right time.

One example is our current range of jaw crushers, which includes models suited to mobile applications, with increased strength and lower weight.

HIGHEST CAPACITY – LOWEST COST PER TON

All our jaw crushers are of the single toggle type, with a deep, symmetrical crushing chamber and easy setting adjustment.

Each model has a large feed opening for its size and an ideal nip angle, giving smooth material flow, high reduction efficiency and high capacity.

Behind the simple design are many advanced features that ensure easy operation and maintenance, long life and a low cost per ton.

ROBUST DESIGN

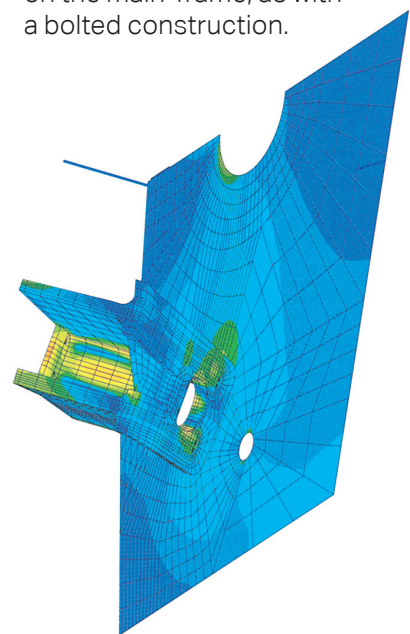
The Sandvik jaw crusher is a single toggle jaw crusher, characterized by attention to detail, in both design and manufacture.

We have incorporated the best of the old and applied the benefits of the latest technology.

The frame consists of two side plates of rolled steel, plus hollow castings at front frame end and moving jaw which give a high rigidity/weight ratio. Large-radius transition areas reduce stress concentrations and welds are positioned in low-stress areas.

The advantage of a welded frame is that it is equally strong in all

directions and ensures excellent durability against shock-loads. Thus minimizing the risk of failure on the main-frame, as with a bolted construction.



FEA (Finite element analysis) print-out showing the predicted stress distribution in a side plate.



HIGHEST CAPACITY – LOWEST COST PER TON

OPTIMIZED PERFORMANCE

- High capacity
- High reduction
- Low jaw plate wear
- Large feed acceptance capability

These four factors are closely linked and the Sandvik jaw crusher provides a good balance. The design of the deep symmetrical crushing chamber maximizes feed size, capacity and reduction.

An optimized nip angle ensures that the material progresses smoothly down through the crushing chamber to enable high reduction, productivity and superb utilization of jaw plates.

It is not just a large nominal feed opening that is necessary – the feed acceptance capability depends on a feed opening which is effective and active (see illustration). All crushers in the range have an almost square feed opening so

that they can accept the largest material lumps without blockages. A thick, replaceable deflector plate protects the top of the moving jaw from the impact of the feed material. Large material lumps entering the crusher fall straight into the active region of the crushing chamber, so there is no need for a stationary cross-wall in the feed area.

MAINTENANCE FRIENDLINESS IN FOCUS

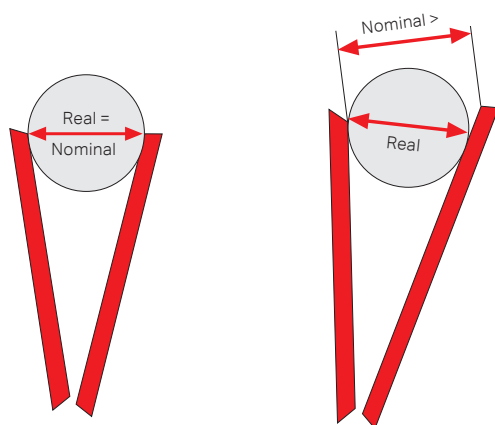
Thanks to carefully engineered design, Sandvik's jaw crushers secure trouble-free operation and increased uptime.

- Bearings are grease-lubricated and have grease-filled labyrinth seals to prevent the entry of dust.
- As a standard, grease lubrication hoses with a central distribution block offer safety value and make it easier for the operator to grease the bearings.

- Automatic lubrication system that can be connected to existing control systems for remote alarm indication ensuring protection of the roller bearings.
- Setting adjustment made with traditional shim plates.
- Quick and easy installation of jaw plates by using clamping and support bars to fix the jaw plates to the crusher.
- Designed with sacrificial parts to protect the main components of the crusher such as frame, swing jaw and bearings.

This reduces total life-cycle costs and increases uptime, as it is less expensive to change the sacrificial parts than the main components.

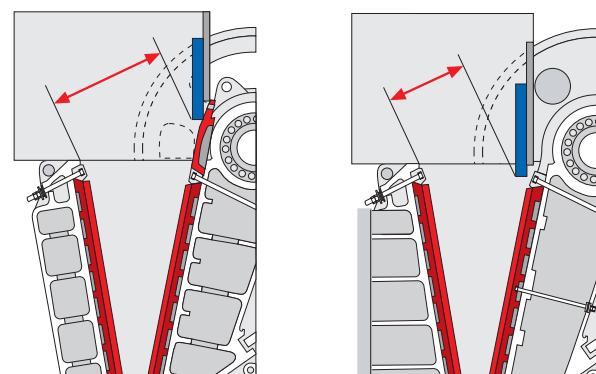
Effective feed opening



Sandvik

Competitor

Active feed opening



Sandvik

Competitor

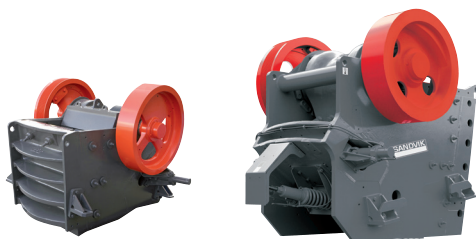


- **SANDVIK JAW CRUSHER**
 Symmetrical crushing chamber.
 Effective feed opening = Nominal feed opening.
- **COMPETITOR**
 Conventional crushing chamber.
 Effective feed opening < Nominal feed opening.
- **SANDVIK JAW CRUSHER**
 A deflector plate at the top of the moving jaw means that no intrusive cross-wall is required in the feed hopper. All of the effective feed opening is active. Material is crushed right at the top of the crushing chamber.
- **COMPETITOR**
 Cross-wall required in feed hopper to protect top of moving jaw.



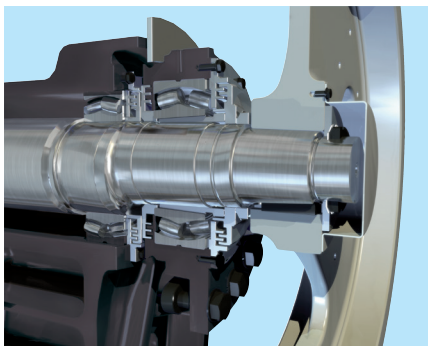
KEY COMPONENTS OF OUR JAW CRUSHER

- ① Deflector plate
- ② Quick and easy installation of jaw plates by using clamping bars to fix the jaw plates to the crusher
- ③ Cheek plates for protection of side plates
- ④ Easily replaceable support bars and clamping bars reduce total life-cycle cost
- ⑤ Wear plate protects the front frame end
- ⑥ Intermediate plate protects the swing jaw
- ⑦ Lubrication-free toggle-plate

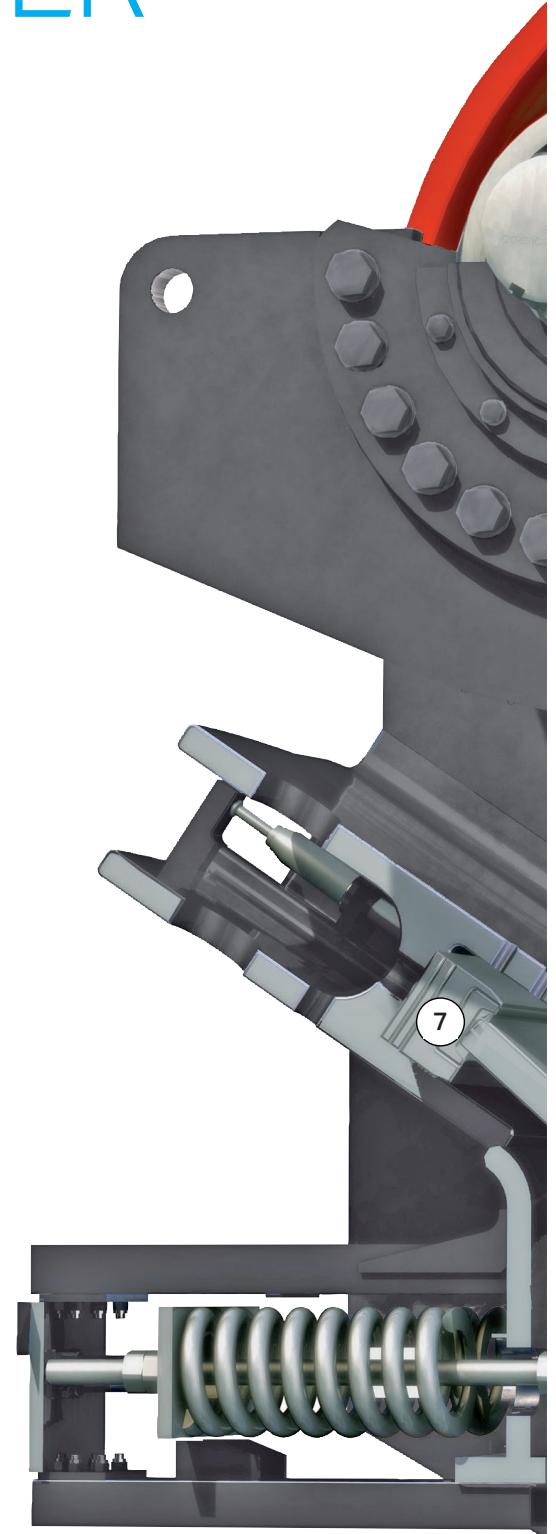


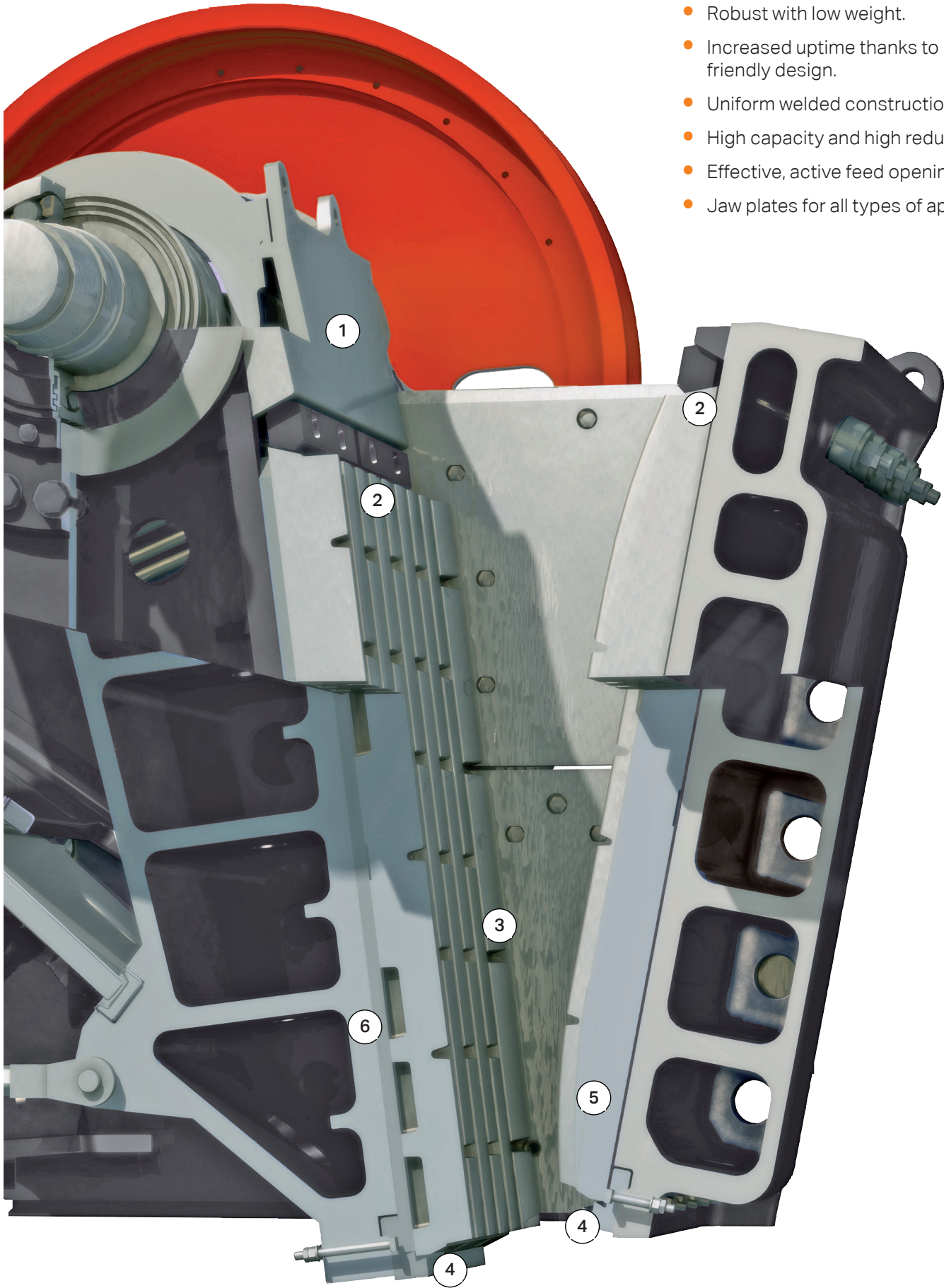
CJ211

CJ412



Cross-section of drive-side main bearings





MULTIPLE ADVANTAGES

- Robust with low weight.
- Increased uptime thanks to operator friendly design.
- Uniform welded construction.
- High capacity and high reduction.
- Effective, active feed opening.
- Jaw plates for all types of applications.

PROTECT YOUR BUSINESS AND YOUR BOTTOM LINE

HIGH PERFORMANCE COST-EFFECTIVE CRUSHING CHAMBERS

At Sandvik we have engineered rock crushers since 1896. Sandvik crushing chamber solutions are based on high-quality products with superior finish, supported by indepth knowledge of every aspect in the crushing process.

Our mission is to work together with our customers to achive the optimal crushing chamber application in terms of performance, cost-effectiveness and results.

VERSATILE RANGE OF JAW PLATES

Sandvik's wear parts are designed to give high performance and low

operating costs. High quality material and experienced design ensure quality parts.

Fine tuning in applications are ensured through the available range of alternative jaw plate designs.

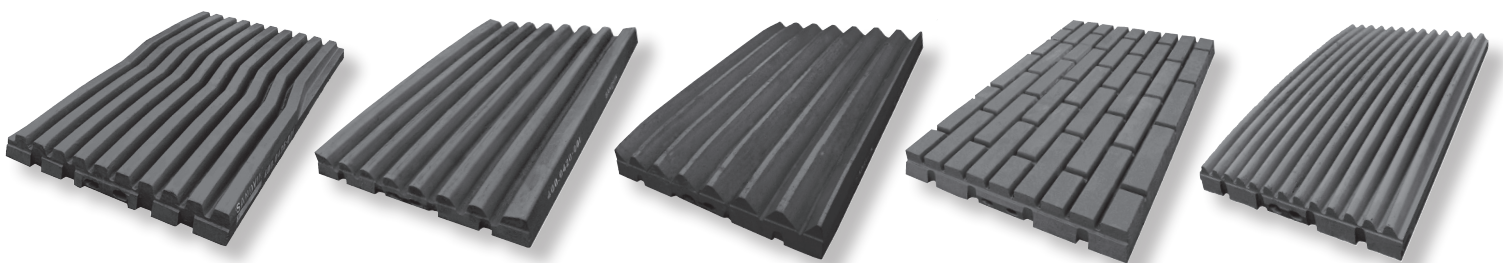
All jaw plates are reversible. The "WT" jaw plate can also be used on both the stationary and moving jaw.

SUPPORT WHERE AND WHEN IT COUNTS

For most people, service is a matter of being available when problems occur. But we at Sandvik prefer seeing it as a matter of

being proactive. Investment in, for instance, scheduled inspections and maintenance will help you protect your business from unexpected risks.

Moreover, availability of essential parts and consumables, efficient and quick logistical processes, fully trained operators... all these ensure trouble-free operations and maximize productivity.



WT: Wide Teeth

CC: Coarse Corrugated

ST: Sharp Teeth

HD: Heavy Duty

C: Corrugated



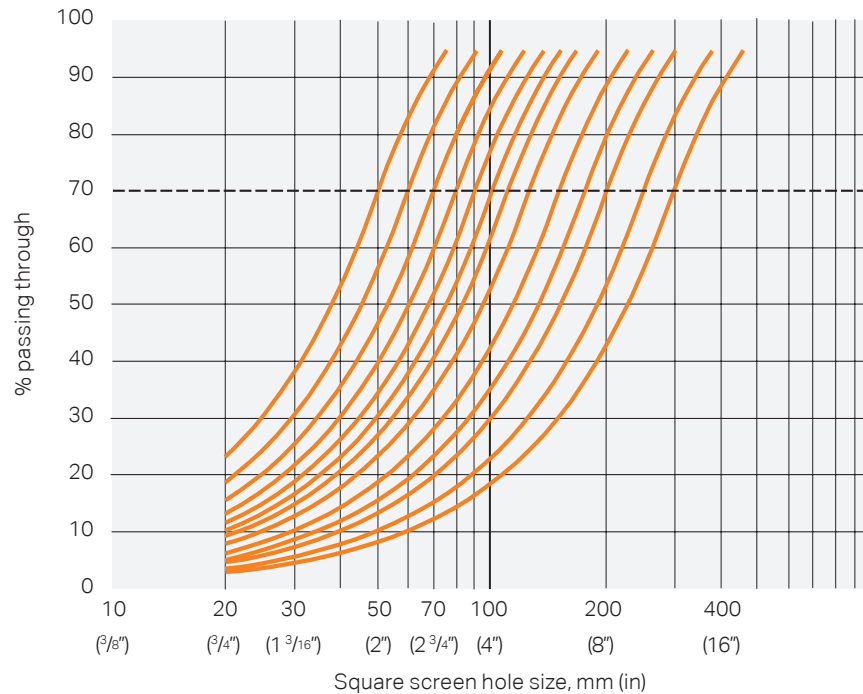
PERFORMANCE DATA

PRODUCT CURVES

The figure shows product distribution curves which are representative for medium-hard material [Impact Work Index (Wi = 16)], with approx. 70 % of the product smaller than the crusher's Closed Side Setting (CSS).

The shape of the product curve and the proportion of the product which will be smaller than the CSS depend on the characteristics of the feed material.

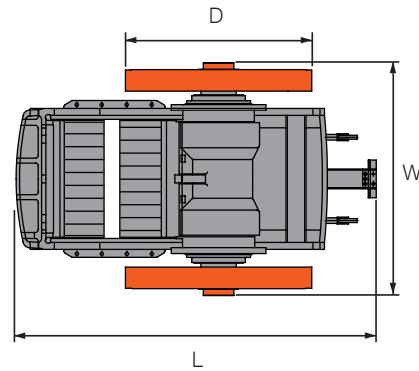
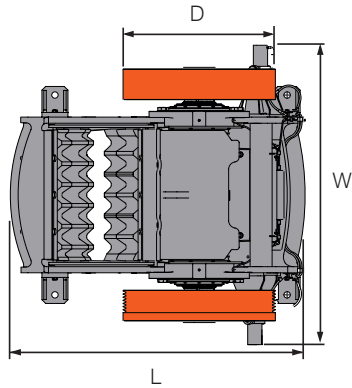
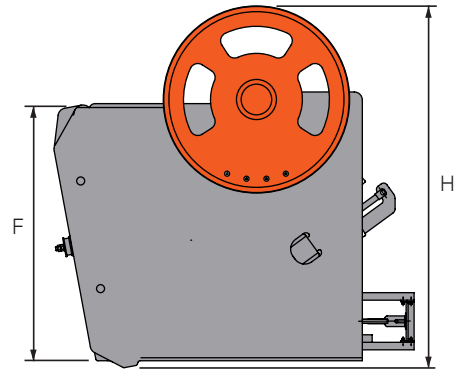
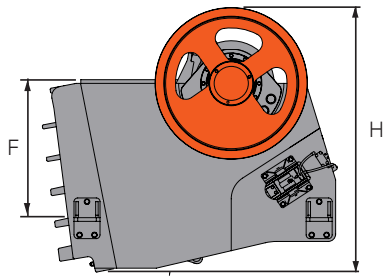
Operation with common rock materials with different crushabilities (Work Index between 12 and 20) normally results in a product curve that is between 65 %–75 % smaller than the crusher's CSS.



CAPACITY MTPH (STPH)

Closed side setting (CSS)		Crusher model							
mm	in	CJ211	CJ409	CJ411	CJ412	CJ612	CJ613	CJ615	CJ815
50	2		85 – 115 (95 – 125)						
60	2	110 – 160 (115 – 165)							
75	3	127 – 192 (140 – 212)	100 – 160 (110 – 175)	150 – 200 (165 – 220)	165 – 220 (180 – 245)				
100	4	160 – 250 (175 – 275)	125 – 200 (140 – 220)	200 – 265 (220 – 290)	220 – 290 (240 – 320)				
125	5	195 – 310 (215 – 340)	150 – 235 (165 – 260)	245 – 325 (270 – 360)	270 – 355 (300 – 390)	300 – 395 (330 – 435)	330 – 430 (365 – 475)	385 – 495 (425 – 545)	
150	6	230 – 370 (250 – 410)	175 – 275 (195 – 305)	295 – 390 (325 – 430)	325 – 430 (360 – 475)	355 – 465 (390 – 515)	385 – 505 (425 – 555)	445 – 590 (490 – 650)	480 – 625 (530 – 690)
175	7	265 – 430 (290 – 475)	200 – 320 (220 – 350)	340 – 445 (375 – 490)	385 – 505 (425 – 555)	405 – 530 (445 – 585)	440 – 575 (485 – 635)	505 – 665 (555 – 735)	545 – 710 (600 – 785)
200	8	300 – 490 (330 – 540)		385 – 505 (425 – 555)	445 – 580 (490 – 640)	455 – 595 (500 – 655)	495 – 650 (545 – 715)	570 – 745 (630 – 820)	610 – 800 (675 – 880)
225	9			430 – 565 (475 – 625)	495 – 650 (545 – 715)	505 – 660 (555 – 730)	550 – 730 (605 – 805)	630 – 825 (695 – 910)	675 – 885 (745 – 975)
250	10				550 – 720 (605 – 795)	560 – 735 (615 – 810)	605 – 810 (670 – 895)	700 – 920 (770 – 1015)	745 – 975 (820 – 1075)
275	11				605 – 790 (665 – 870)	610 – 805 (670 – 890)	660 – 885 (730 – 975)	765 – 1000 (845 – 1100)	820 – 1070 (905 – 1180)
300	12						715 – 960 (790 – 1060)	825 – 1085 (910 – 1195)	885 – 1160 (975 – 1280)

The capacity figures given in the table above are approximate and are intended only to give an indication of what the crushers can be expected to produce. They apply for the open-circuit crushing of dry blasted granite with a bulk density of 1600 kg/m³ (100 lbs/ft³) and a maximum size which can be fed into the crushing chamber without difficulty. The lower values apply for a feed from which the material finer than the crusher's CSS has been removed. The higher values apply for a feed which includes the fine material. The minimum CSS at which the crusher can be operated depends on the feed size distribution, the material's crushability (Wi), the degree of contamination and moisture in the feed, the type of jaw plates fitted and the condition of the manganese.



CJ211

CJ400/600/800-series

OTHER DATA

	Crusher model							
	CJ211	CJ409	CJ411	CJ412	CJ612	CJ613	CJ615	CJ815
Feed opening								
mm	1 100 × 700	895 × 660	1 045 × 840	1 200 × 830	1 200 × 1 100	1 300 × 1 130	1 500 × 1 070	1 500 × 1 300
in	43 × 27	35 × 28	41 × 33	47 × 33	47 × 43	51 × 45	59 × 42	59 × 51
L = Max length								
m	2.39	2.55	2.99	3.23	3.61	3.76	4.11	4.50
in	94	101	118	127	142	148	161	177
W = Max width								
m	2.45	1.88	2.09	2.57	2.35	2.47	3.00	2.90
in	96	74	82	101	92	97	118	108
H = Max height								
m	2.17	2.38	2.82	2.95	3.51	3.85	3.33	4.19
in	86	94	111	116	138	152	131	165
D = Flywheel diam.								
m	1.23	1.60	1.86	1.86	1.86	2.17	1.76	2.17
in	48	63	74	74	74	86	70	86
F = Feed height								
m	1.12	1.58	1.88	1.93	2.50	2.68	2.39	3.05
in	44	62	74	76	98	105	94	120
Shipping volume								
m ³	14.1	13	20	23	32	38	48	58
ft ³	498	447	704	810	1127	1329	1690	2042
CSS min–max								
mm	60–200	50–175	75–225	75–275	125–275	125–300	125–300	150–300
in	2.3–8	2–7	3–9	3–11	5–11	5–12	5–12	6–12
Total weight								
kg	14 300	13 200	20 600	25 800	34 500	41 500	53 000	63 500
lbs	31 500	29 100	45 400	55 600	86 000	91 500	116 800	140 000
Motor power								
kW	90	75	110	132	160	160	200	200
hp	125	100	150	200	250	250	275	275
Crusher speed								
rpm	270	270	240	240	210	225	200	200

