

# Sandvik HSI Impact Crushers



Sandvik offers primary (CI100 series) and secondary (CI200 series) horizontal impact crushers for the crushing of soft and medium hard materials. These crushers have a very high reduction ratio, which normally results in a three-stage crushing plant becoming a two-stage plant, using the Sandvik HSI impact crusher range of crushers. The latest generation of compact horizontal impact crushers from Sandvik have been specifically designed to ensure rugged reliable operation coupled with simple maintenance, interchangeable wear parts and fast part replacement.

Sandvik horizontal impactors provide low capital cost solutions, optimum performance and good cubical shape, whilst ensuring the lowest operating cost per tonne, for a wide range of materials and applications.

## The Sandvik HSI Advantage

### ADVANCED DEVELOPMENT

Sandvik's wealth of experience and leading technology design have produced a modular design concept for the horizontal impactor crusher range. A rugged steel outer fabrication ensures long life, stability and easy maintenance. The wear liners are of unique modular design, ensuring minimal stock holding whilst ensuring maximum wear parts utilization.

The all-welded frame is equipped with two heavy curtains, each separately adjustable, mounted on a common pivoting shaft.

A unique, large diameter steel fabricated rotor separates the primary and secondary series from other designs. It ensures maximum inertia and superior impact forces, resulting in optimum reduction of material whilst maintaining cubical product shape.

A third pivoted curtain is another option available on secondary units. This third curtain ensures even greater reduction ratios, combined with cubical high rate production of finer fraction sizes.

### OUTSTANDING PERFORMANCE

Sandvik impact crushers are the most advanced line of impact crushers available at this present time. All liners can be interchanged to compensate for areas of unequal wear rate, within the crusher. This results in maximum utilization of wear parts and further reduces operating costs.

Sandvik HSI application experts have a wealth of experience which is utilized when selecting crusher configuration. A comprehensive range of high quality wear parts ensures selection of optimum grade wear parts to best suit each customer's individual application requirements. The unique banana-shape hammers ensure maximum reduction and extended life. *Read more about this superior design on page 4.*

### OPERATION & MAINTENANCE

Maximum crushing chamber accessibility is provided by the low pivot point of the crusher top shell, giving smooth operation and superior clearance space between fixed and pivoting frames.

A self-locking frame tilt latch (with electric safety cut-out) and easily accessible rotor locking device mounted to the main crusher support frame, ensures safe access to the interior of the crusher. The hammers can easily be vertically removed (a great benefit in confined spaces), using the special lifting tool and lifting beam provided. Curtain adjustment and frame opening are made easy with the electrically operated hydraulic system, maximizing crusher availability.



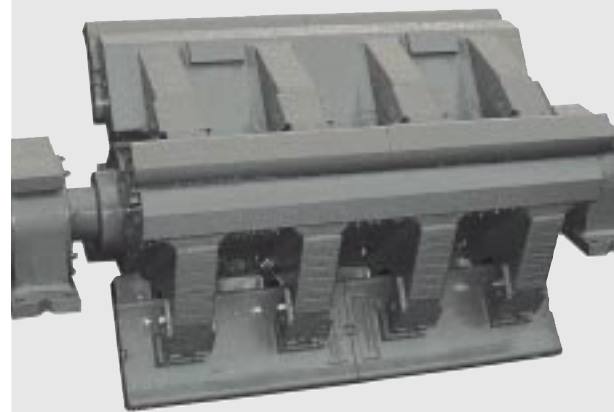
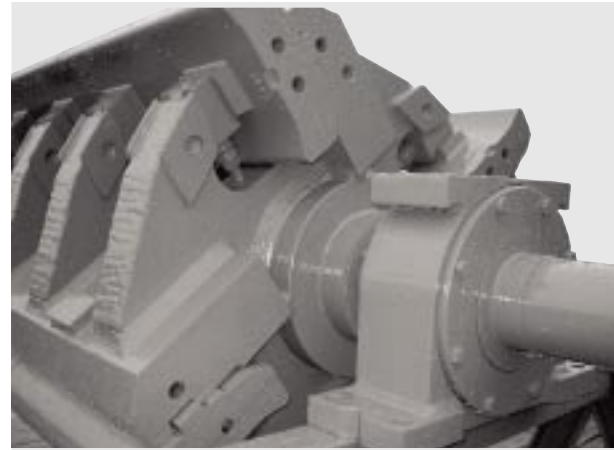
## Unique Rotor and Hammer Design

### UNIQUE ROTOR DESIGN

The CI100 and CI200 series both have large diameter robust fabricated rotors. These rotors, with superior weight and diameter, deliver the high inertia required for optimum crushing performance. Heavy duty rotor discs and backing bars (120 mm thick), ensure stability and smooth operation during production. The mass and integrity of the rotor are the most critical design aspects of any impact crusher and are found in all HSI crushers from Sandvik. Stable hammer supports and a high chrome steel alloy shaft further strengthen the unique rotor assembly.

### UNIQUE HAMMER DESIGN

The unique banana shaped hammer design helps to keep the contact heads sharper during operation. This unique hammer design is also self-sharpening throughout its life, resulting in more effective shearing of the incoming material and hence improved production. The hammers have a two-edge (two life) facility, again maximizing wear part life. Hammer lock wedges retain the hammers both vertically and horizontally. Furthermore, they are quickly and easily fitted and removed. The rear of the hammer locks easily along the whole length of the backing plate and hammer, giving solid abutment positioning and maintaining rigidity during operation.



1. Side liners - modular design, available in optional grades and easy to install.

2. Hammers available in a range of materials to suit specific applications. Modular concept means minimal on site stock holding over complete range.

3. High inertia rotor with heavy duty backing bars and unique wedge lock system allowing vertical removal of hammers.

4. Individual curtain adjustment (hydraulic) with easy locking.

5. First curtain liner with modular concept heavy duty liners. All curtain liners are interchangeable.

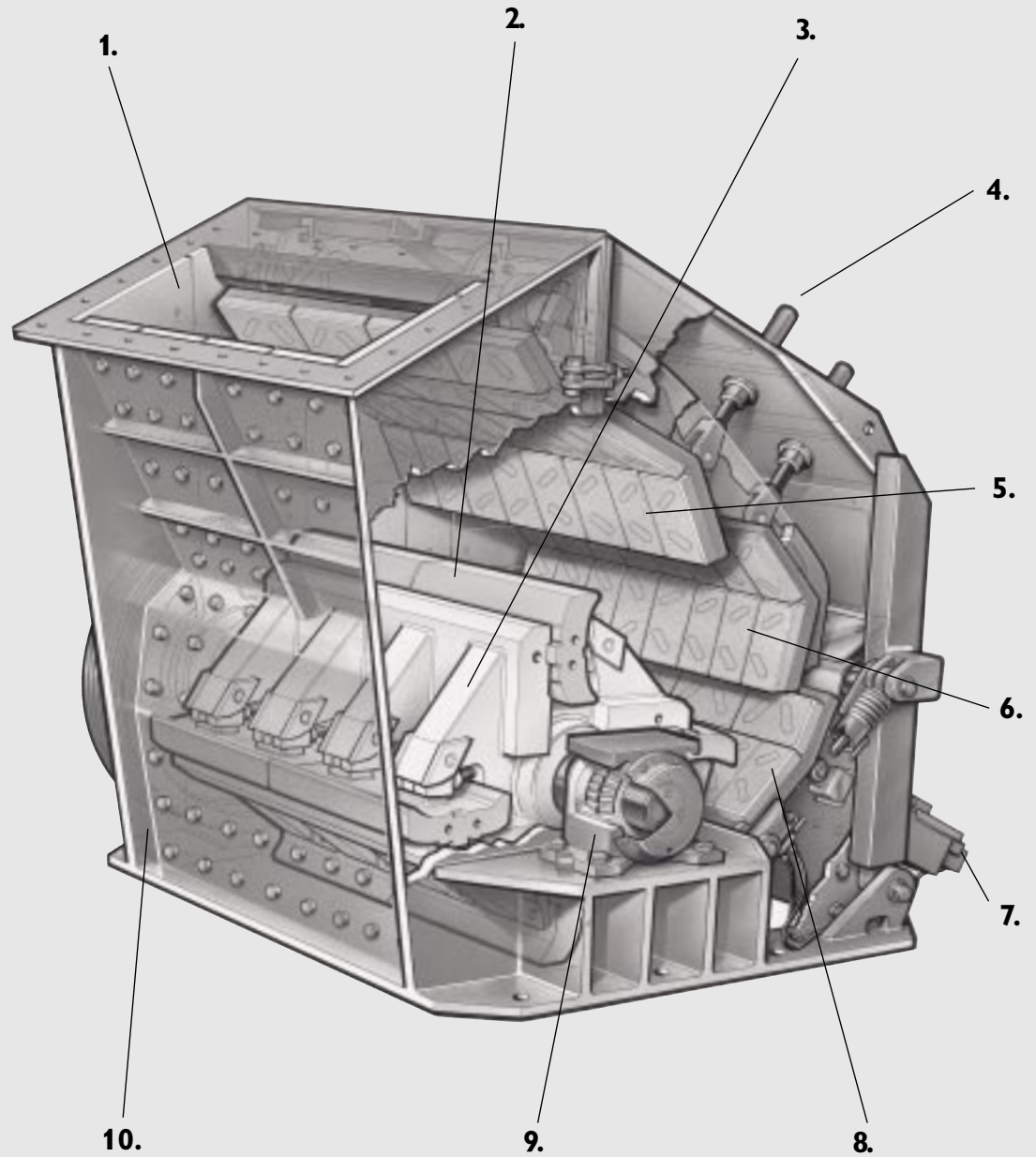
6. Second curtain liner separately adjustable for accurate product sizing.

7. Third curtain adjustment, easy access and adjustment.

8. Third (optional) curtain liner, ideal for finer product sizing and most recycling operations.

9. Chrome alloy shaft supported by double row bearings, grease lubrication in pedestal housing.

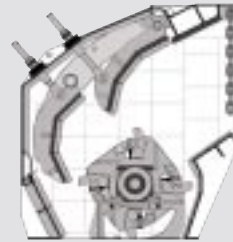
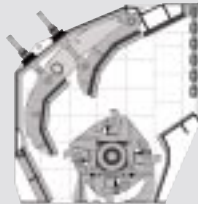
10. Heavy duty steel fabrication for integral strength. Easy opening hood with maximum opening for accessible maintenance.





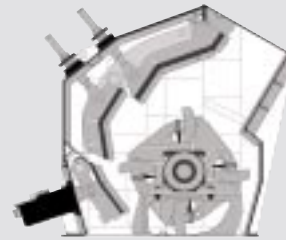
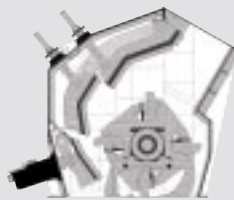
# Technical Data

## CI 100 series



		Crusher model				
		CI 121	CI 122	CI 123	CI 124	CI 125
<b>Feed</b>	<b>mm</b>	500	800	800	900	900
	<b>in</b>	20	32	32	36	36
<b>kW</b>	<b>max</b>	132	160	200	250	315
	<b>HP</b>	175	220	270	350	400
<b>MTPH</b>		100 - 200	160 - 340	200 - 420	240 - 520	300 - 700
	<b>STPH</b>	110 - 220	180 - 380	220 - 460	260 - 570	330 - 770

## CI 200 series



		Crusher model				
		CI 221 / CI 231	CI 222 / CI 232	CI 223 / CI 233	CI 224 / CI 234	CI 225 / CI 235
<b>Feed</b>	<b>mm</b>	250	250	300	300	300
	<b>in</b>	10	10	12	12	12
<b>kW</b>	<b>max</b>	132	160	200	250	315
	<b>HP</b>	175	220	270	350	400
<b>MTPH</b>		70 - 150	100 - 220	140 - 300	190 - 380	230 - 480
	<b>STPH</b>	80 - 170	110 - 240	150 - 330	210 - 420	250 - 530

Sandvik is a global industrial group with advanced products and world-leading positions in selected areas – tools for metal cutting, machinery and tools for rock excavation, stainless materials, special alloys, metallic and ceramic resistance materials as well as process systems. The Group had at the end of 2006 about 42,000 employees and representation in 130 countries, with annual sales of more than SEK 72,000 M.

Sandvik Mining and Construction is a business area within the Sandvik Group and a leading global supplier of machinery, cemented-carbide tools, service and technical solutions for the excavation of rock and minerals in the mining and construction industries. Annual sales 2006 amounted to about SEK 25,000 M, with approximately 12,200 employees.

