



# HPI, HPC Primary Impactor

SINCE 1946: Our journey started here with the introduction of the Andreas Impact Crusher and the beginning of HAZEMAG; now backed by a reference list well exceeding 75,000 machines. Our customers benefit from an extensive range of HAZEMAG services, realized in our industry knowledge, application expertise, innovative technologies and proven solutions. HAZEMAG customers are the very foundation and focus of our work. Your success is our goal! We call it "Partnership Unlimited – The HAZEMAG Way."

Today, HAZEMAG continues its commitment toward developing and introducing new, innovative ideas to improve the impactor performance, efficiency, adjustability, product size control and safety. This commitment is easily realized throughout our line of HPI and HPC Primary Impact Crushers.

HAZEMAG HPI and HPC Series Impactors are designed as primary reduction units for materials of medium to low silica contents such as limestone, dolomitic limestone and gypsum.

HAZEMAG Primary Impactors are available in a capacity range of 600 – 2,500 t/h, depending on the machine selection. Individual lumps of feed materials up to 3 m3 and minus 1,900 mm in size can be processed.



HAZEMAG HPI – Series Primary Impact Crusher is ideally suited for crushing medium-hard rock down to a well graded product size of O – 150 mm. Due to its operational flexibility, economical operation and excellent product size control, this machine is widely accepted as the machine of choice for the Aggregate Industry.





HAZEMAG HPI – Series Primary Impact Crusher, fitted with its third crushing path, is ideally suited for crushing medium-hard rock down to a well graded product size of 0 – 80 mm. With its unique design, excellent control over the product grading and proven success, this machine is the preferred choice within cement plants where raw grinding is performed by a vertical roller mill.



HAZEMAG HPC – Series Primary Compound Impact Crusher is ideally suited for crushing medium-hard rock down to a well graded product size of 0 – 30 mm. With its unique double rotor design, very high material reduction ratio and its proven operational benefits, this compound crusher is widely utilized within cement plants where raw grinding is performed by ball mills.



# **HPI Rotor System**

## Rotors

The rotor is the "heart" and the most severely tested part of the impact crusher. During the course of HAZEMAG's +70 years of experience, particular emphasis has been placed on the rotor design, development and field of application.

Primary crushing requires heavy duty rotors with rugged, torsion-free rotor bodies providing a very high moment of inertia. Thus, the latest HAZEMAG primary rotors (patent protected) are engineered and produced as a welded steel construction, where individual cast discs are joined together under a special process to form the rotor body. This rotor body serves the purpose of holding and securing the impact elements; commonly called hammers or blowbars.

#### **GSK Rotor**

The success of the HAZEMAG GSK rotor can be found around the world. Its massive construction, combined with its smart and fully functional design, has resulted in a primary rotor system that delivers positive and beneficial results on every level. Its blowbars, offering a utilization factor of 50%, are secured into place by means of a massive backing bar and wedge. The forward profile design of the blowbar delivers excellent and consistent gradation results throughout the lifetime of its wearing zone.

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The hydraulic clamping device is used as a "wedge substitute" to hold the blowbar in place as the remaining wedges are removed.



This wedge extraction device assists in the removal of the wedges.

Blowbar Exchange Safety & Function The exchange or removal of the blowbars in the GSK rotor is assisted by the means of a blowbar lifting device. This lifting device is standard with all GSK rotors and it ensures the safe and secure handling of the blowbars. Once the wedge clamping elements have been removed (a process facilitated by a hydraulic wedge clamping device and wedge extraction device) the blowbars are now ready for rotation or exchange, followed by their repositioning back into the rotor body. Due to the extreme size and weight of the GSK rotor system, an external hydraulic rotor positioning device is standard. The rotor turning device is utilized to easily and safely move the rotor body into its appropriate position to permit the blowbar exchange process to happen.

**Blowbar Lifting Device** 





## Housing System

The primary crusher housing is a rugged, fabricated steel plate construction with heavy external bracing for increased strength. For quick and easy inspection of the internal wear parts, the housing is fitted with large doors which are secured/ opened by a special dovetail locking mechanism. The HPI is also equipped with a service platform for easy and safe accessibility to its roof area. The rear housing section opens hydraulically, permitting complete access to the internal wear parts. With emphasis on safety, the weight of the housing (open position) is transferred over center preventing it from closing on its own.

## Housing Liner System

Again, with simplicity and function in mind, the housing is fitted with interchangeable, wear-resistant liners that have been designed as a common shape. The liners have an interchangeability level of approximately 80%. A further benefit with this liner design is realized in the form of increased wear metal utilization. A worn liner, for example, can be repositioned from a high wear zone (within the rotor circle), to a low wear zone (outside the rotor circle), thus extending its service life. The standardized design of the housing liner system helps to further reduce the impactor cost of operation.



Interchangeable Wear Liner





# **HPI Apron System**



#### Front Apron

The front apron (primary impact zone) is an extra heavy duty, fabricated component that is utilized for the initial flow control & reduction of the feed material. In its lower wear zone, the apron is fitted with a bolt-on, 80 mm thick wear-resistant impact liner. With simplicity and function in mind, these liners have been standardized to a common shape; interchangeable with the rear apron liners.





## Rear Apron

The rear apron (secondary impact zone) is a heavy duty, fabricated component that is utilized for the secondary flow control & reduction of the feed material. In its lower wear zone, the apron is fitted with a bolt-on, 80 mm thick wear-resistant impact liner. With simplicity and function in mind, these liners have been standardized to a common shape; interchangeable with the front apron liners.



Third Crushing Path (Patented Design) The third crushing path is designed as a series of impact steps, which provide an excellent level of control and consistency over the product grading. Each step is fitted with interchangeable, high chrome, replaceable wear caps. The patented design of the third crushing path is found in its unique, but highly advanced retraction system. When needed, the third crushing path reacts and retracts out of its working position, thus helping to eliminate potential damage, unscheduled downtime and excellent tramp iron control.







# HPI Apron Control / Positioning System

## HAZtronic®

The exclusive and unique computer-controlled hydraulic adjustment system for the impact aprons (and third crushing path) allows for quick gap adjustments, optimum control over the product size, smoother crusher operation, tramp iron protection, reduced downtime and reduced operating costs. In our technically advanced HAZtronic system, the impactor performance can be optimized with recipes or pre-programmed apron settings, which further enhance the quality and consistency of the product. The HAZtronic system also allows you to optimize the correct apron settings with the varying material characteristics within the quarry. When fitted with either system, the HPI impactor achieves a level of performance and economical operation that remains second to none. You are in control-producing the products you sell the most!

## "Operation, adjustment and control"

With simplicity and function in mind, optimizing the performance of the HPI impact crusher is enhanced by a touch screen control panel. Opening the impactor housing and adjusting the impact aprons is performed at the touch of a button. This system also monitors and visually displays the apron positions, bearing temperatures, hydraulic fluid temperatures and hydraulic fluid levels.







# **HPI Primary Impactor**





# **Crusher Specifications**

Model	Capacity t/h	Power Requirements kw	Inlet Size mm (H x W)	Maximum Feed Size m³ (mm)	Rotor Size mm (D x W)	Weight kg
HPI-1622	770	710	1,290 x 2,270	1.4 (1,200)	1,640 x 2,250	65,000
HPI-1822	1,100	1,000	1,600 x 2,270	2 (1,400)	1,800 x 2,250	76,000
HPI-2022	1,350	1,250	1,830 x 2,270	2.2 (1,600)	2,000 x 2,250	94,500
HPI-2025	1,550	1,400	1,290 x 2,520	2.3 (1,600)	2,000 x 2,500	102,500
HPI-2030	2,000	1,900	1,290 x 3,020	2.4 (1,600)	2,000 x 3,020	119,000
HPI-2225*	1,650	1,500	2,000 x 2,520	2.4 (1,600)	2,200 x 2,500	117,000
HPI-2230	2,150	2,000	2,000 x 3,020	2.5 (1,700)	2,200 x 3,000	129,000
HPI-2530	2,500	2,250	2,125 x 3,020	3 (1,900)	2,500 x 3,000	162,500

Note: Performance details relate to medium-hard limestone.

\* Up to HPI-2225, hydraulic assistance is possible as an alternative to fully hydraulic apron adjustment.

# HPI Primary Impactor (with Third Crushing Path)



10



# **Crusher Specifications**

Model	Capacity t/h	Power Requirements kw	Inlet Size mm (H x W)	Maximum Feed Size m³ (mm)	Rotor Size mm (D x W)	Weight kg
HPI-1622	770	900	1,290 x 1,520	1.4 (1,200)	1,640 x 2,250	66,000
HPI-1822	1,100	1,200	1,290 x 2,270	2 (1,500)	1,800 x 2,250	78,000
HPI-2022	1,350	1,500	1,600 x 2,270	2.2 (1,600)	2,000 x 2,250	96,000
HPI-2025	1,550	1,700	1,830 x 2,270	2.3 (1,600)	2,000 x 2,500	104,000
HPI-2030	2,000	2,250	1,290 x 2,520	2.4 (1,600)	2,000 x 3,000	120,000
HPI-2225*	1,650	1,800	2,000 x 2,520	2.4 (1,600)	2,200 x 2,500	118,000
HPI-2230	2,150	2,400	2,000 x 3,020	2.5 (1,700)	2,200 x 3,000	130,000
HPI-2530	2,500	2,700	2,125 x 3,020	3 (1,900)	2,500 x 3,000	164,000

Note: Performance details relate to medium-hard limestone.

\* Up to HPI-2225, hydraulic assistance is possible as an alternative to fully hydraulic apron adjustment. Standard grinding path as an alternative to retractable grinding path is possible.

# **HPC Primary Impactor**



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# **Crusher Specifications**

Model	Capacity t/h	Power Requirements kw	Inlet Size mm (H x W)	Maximum Feed Size m³ (mm)	Rotor Size mm (D x W)	Weight kg
HPC-1414	230	250/315	950 x 1,420	0.5 (1,000)	1,340 x 1,340	28,000
HPC-1615	400	400/500	1,400 x 1,520	1.0 (1,200)	1,640 x 1,500	62,000
HPC-1618	470	500/560	1,400 x 1,820	1.2 (1,300)	1,640 x 1,800	70,500
HPC-1622	550	560/710	1,400 x 2,270	1.4 (1,500)	1,640 x 2,250	92,000
HPC-1822	850	900/1,000	1,500 x 2,270	2.0 (1,500)	1,800 x 2,250	101,000
HPC-2022	1,150	1,200/1,400	1,770 x 2,270	2.2 (1,500)	2,000 x 2,250	131,000
HPC-2025	1,325	1,300/1,600	1,770 x 2,520	2.3 (1,600)	2,000 x 2,500	160,000
HPC-2030	1,650	1,650/2,000	1,770 x 3,020	2.4 (1,700)	2,000 x 3,000	180,000

Note: Performance details relate to medium-hard limestone.



# HAZEMAG Partnership

## Partnership

What does it mean to you? At HAZEMAG we are committed to providing a level of partnership that is second to none. Everything we do from the initial presentation of our products, to the acceptance and processing of your order, to providing service and spare parts support after the sale, is done with a goal of exceeding your expectations.

### Sales

We are here to serve your needs with application assistance, machine selection, quotations and sales presentations. We are supported by a network of knowledgeable and experienced factory-trained representatives.

## **Spare Parts**

We serve your needs with a knowledgeable staff backed by a multi-million spare parts inventory. We will help you achieve the optimum level of machine performance and economical operation with the right part and the latest technology, in stock and shipped on time.

#### Engineering

We are here to serve your needs with engineering support, design guidance, project planning and management. Our dedication to impactor design excellence is backed by leading-edge computer design technology and proven by thousands (+75,000) of successful crusher installations.

#### **Customer Support**

We are proud of our dedicated staff who take pride in providing a level of after the sale support and service that is second to none. They are here to assist you with machine optimization, training, inspections and repair.

We call it "Partnership Unlimited – The HAZEMAG Way"



It's All About You! The HAZEMAG Customer.







# HAZEMAG - because quality matters.

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