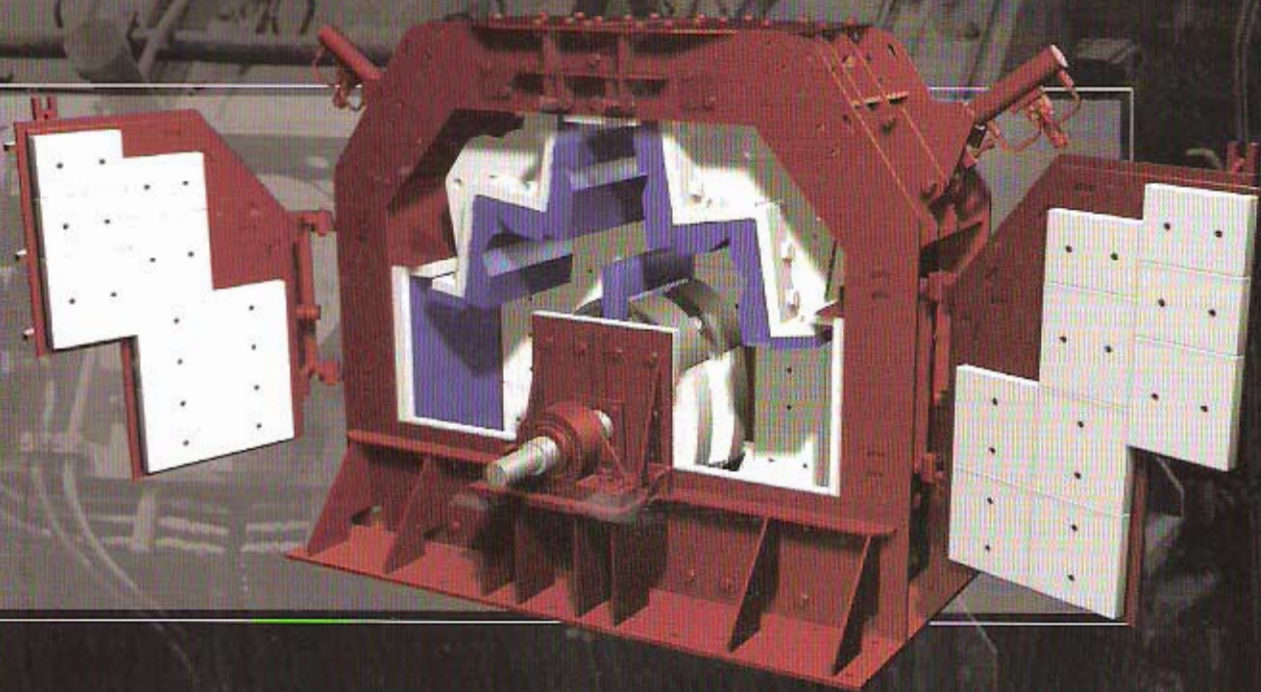


HAZEMAG



APKVH, APVMH

SAND IMPACTORS

HAZEMAG



APKVH, APVMH – SAND IMPACTORS

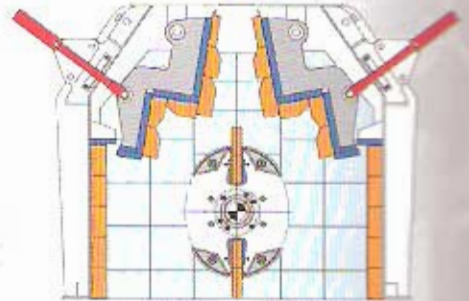
Since our modest beginning back in 1946, HAZEMAG has grown to become the world leader in impactor design and control technology. Having now sold over 75,000 machines for almost every possible application, the Andreas HAZEMAG APKVH & APVMH Series Sand Impactors (tertiary impactors) are widely accepted as the machine of choice for the North American Aggregate and Cement Industries.

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 APKVH and APVMH Sand Impactors.

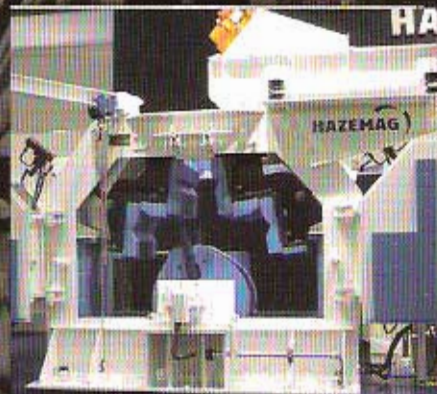
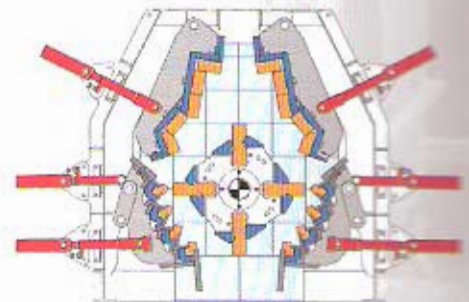
HAZEMAG APKVH & APVMH Series Impactors are designed as tertiary reduction units for processing materials of medium to lower silica contents such as limestone, dolomitic limestone and gravels.

HAZEMAG Tertiary Impactors are available in a capacity range of 40 – 150 short ton/hour, depending on the machine selection. Individual lumps of feed materials up to 6 inch (APKVMH) can be processed.

The HAZEMAG APKVH - Series Tertiary Impact Crusher is ideally suited to crush medium-hard materials down to a highly cubical, well graded product size of 0 – 1/2 inch (80% passing 4 mesh) in a single pass based on typical limestone. This machine is normally offered within a plant/system where tertiary crushing is also present. Depending on the application needs, the APKVH can also be fitted with an optional 4 row rotor.



The HAZEMAG APVMH - Series Secondary / Tertiary Impact Crusher is ideally suited to crush medium-hard materials down to a highly cubical, well graded product size of 0 – 1 inch (up to 70% passing 4 mesh) in a single pass based on typical limestone. The versatility of this machine permits its application within a plant/system where the secondary production of concrete stone (chippings) is required and (or) the tertiary production of manufactured sand is needed. The APVMH is also fitted with a 3rd crushing path, a tool that offers the ability to influence the product gradation to the highest possible level. Depending on the application needs, the APVMH impact crusher can be fitted with a 2 or 4 row rotor design.



APKVH



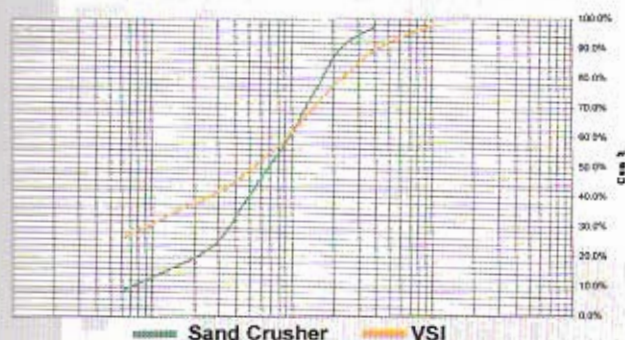
APVMH



APVMH

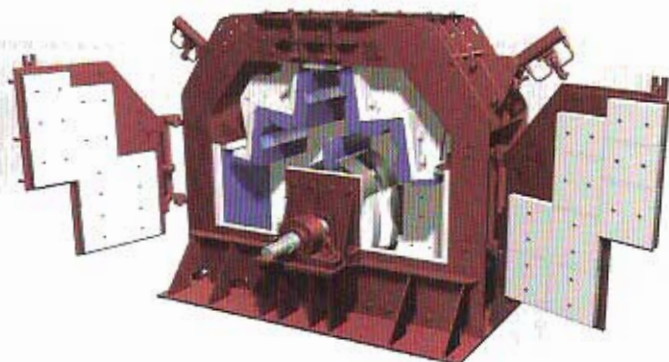
FLEXIBILITY / EFFICIENCY / EASE OF SERVICE

It's time to think differently. Compared to a typical tertiary impact crusher, the HAZEMAG Sand Impactor offers some notable benefits in the area of operational flexibility, efficiency and ease of service. Benefits are realized by higher product size yields, a reduction in maintenance costs, easy and safe maintenance and a level of machine flexibility that is outstanding. The HAZEMAG Sand Impactor offers an excellent alternative to a typical tertiary crusher (such as the VSI) for the processing of typical, mildly abrasive materials.



Reduced Maintenance Costs: Compared to the sand impactor, other machines often operate with a higher recirculating load. Under this condition, the total volume (ton/hour) of material being processed is high; however the amount of finished product actually being produced is notably lower. When considering its operating cost, we can say that the cost/ton is low when it is based on the total volume of material that was processed; however, it is notably higher when it is based on the amount of finished product that was actually produced. The benefits (operating cost) of the HAZEMAG Sand Impactor are found in its ability to achieve a high reduction ratio (first pass) and its excellent level of operating flexibility (described below); both ensuring the economical production of a consistent, high quality finished product.

- Variable rotor speed to achieve the needed product size.
- Symmetrical design permitting crushing in both directions.
- Ability to adjust the aprons and 3rd crushing path at the touch of a button.
- HAZtronic control system for optimum performance is available on every machine.
- Total accessibility to the internal parts for easy and safe maintenance, resulting in reduced downtime.



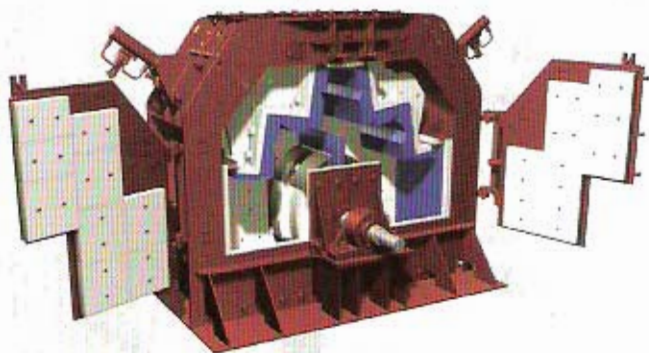
Typical Product Size: A notable feature of the Sand Impactor is found in the product gradation that it produces. As the graph illustrates, the curve for the sand impactor (green line) is normally steeper or more vertical (compared to a VSI) resulting in a higher percentage of the desired product (higher percentage passing the upper end with less fines). The result is its increased efficiency and performance. Material testing is always recommended.



Processing Flexibility & Efficiency: In short, nothing comes close. The design of the HAZEMAG Sand Impactor is symmetrical allowing its operation in the clockwise or counter clockwise direction. This means that the blowbars are working with an optimum leading edge (profile of the blowbar) throughout their wear life. This results in a higher level of efficiency while increasing the overall performance in meeting the needed product size demands. Access to the internal wear parts is obtained through very large doors that are hinged for ease of function and safety. Internal parts are fully exposed for inspection and maintenance.



APKVH – SAND IMPACTOR



APKVH Impactor

The APKV(H) is ideally suited to crush medium-hard, mildly abrasive materials such as limestone, dolomite and some gravels. APKVH machine is predominantly utilized in the tertiary stage of processing for the production of manufactured sand or agricultural lime. Compared to other tertiary crushing machines, the APKVH offers some very notable benefits such as: higher product size yields (less unwanted fines), a reversible design for higher efficiency throughout the wear life of the blowbars, easy & safe maintenance.

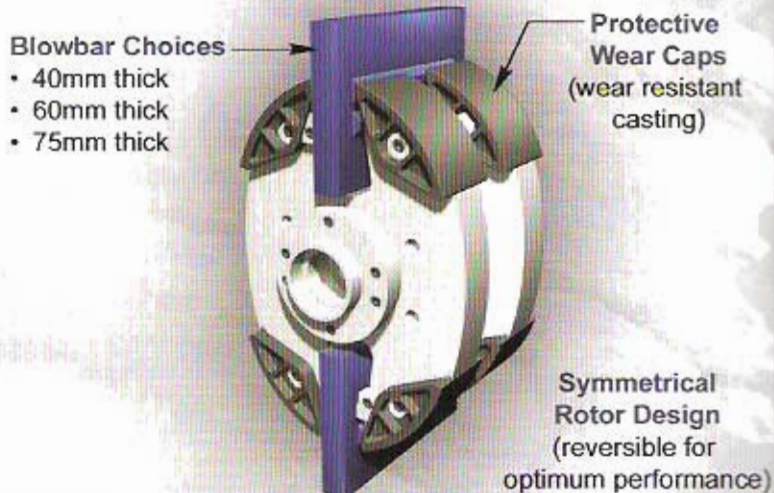
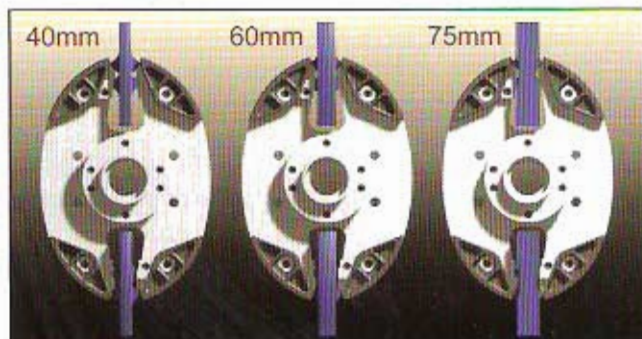
Rotors

The rotor is the "heart" and the most severely tested part of the impact crusher. During the course of HAZEMAG's 60 plus years of experience, particular emphasis has been placed on the rotor design, development and field of application.

Tertiary crushing requires heavy duty rotors with rugged, stress free rotor bodies that provide a very high moment of inertia. The latest HAZEMAG rotors are designed and manufactured of high quality discs that are joined together along a center tube by a special, high quality welding process. The rotor body is stress relieved and dynamically balanced to increase its service life and provide workmanship of the highest quality.

"VR" Rotor (standard) - 2 Row Design

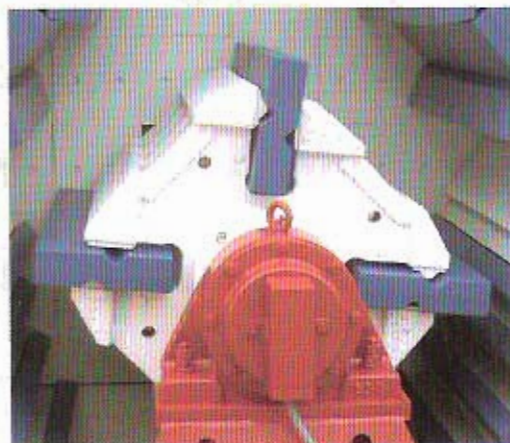
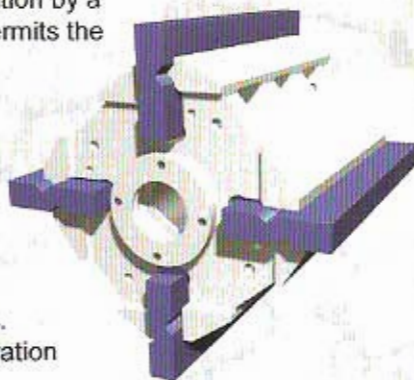
The VR Rotor (2 row design) is offered for the production of manufactured sand or agricultural lime. In this system, the blowbars are secured into position by a single piece locking brace system. This design permits the removal of the blowbars in the side direction. The blowbars, which can be rotated 1 time, have a metal utilization rate of approximately 50%. Exchange time, varying with the machine size, takes approximately 20 minutes per row. The rugged design of the "VR" rotor system, combined with its operational flexibility permitting the installation of various thickness blowbars, is an ideal choice for the tertiary processing of raw materials. A major benefit of the "VR" rotor system is its symmetrical shape which permits its operation in the clockwise or counter clockwise direction.



The "VR" rotor offers a very high level of operational flexibility. In addition to its reversible design, the rotor system can accommodate three (3) different blowbar designs that vary in their thickness. For example, when processing 1 inch clean stone down to manufactured sand, the 40mm thick blowbar is the optimum choice. For larger feed materials, up to 3 inch, the 75mm thick blowbar (available in ceramic alloy) is utilized.

“VR” Rotor (optional) - 4 Row Design

In this system, the blowbars are secured into position by a single piece locking brace system. This design permits the removal of the blowbars in the side direction. The blowbars, which can be rotated 1 time, have a metal utilization rate of approximately 50%. Exchange time, varying with the machine size, takes approximately 30 minutes per row. The rugged design of the rotor system, combined with its operational flexibility (4 rows crushing or 2 rows crushing) is an ideal choice for the tertiary processing of raw materials. A design of this rotor system also permits its operation in the clockwise or counter clockwise direction.



Housing



The crusher housing is a rugged, fabricated steel plate construction with external bracing for increased strength. With simplicity and function in mind, the housing is fitted with thick, interchangeable, wear resistant liners that have been designed as a common shape. The housing system is stress relieved to increase its service life and to provide workmanship of the highest quality.



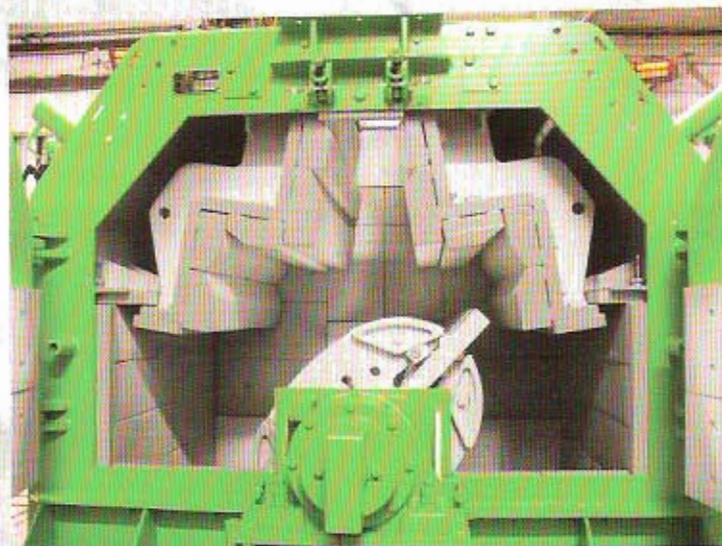
Closed Position



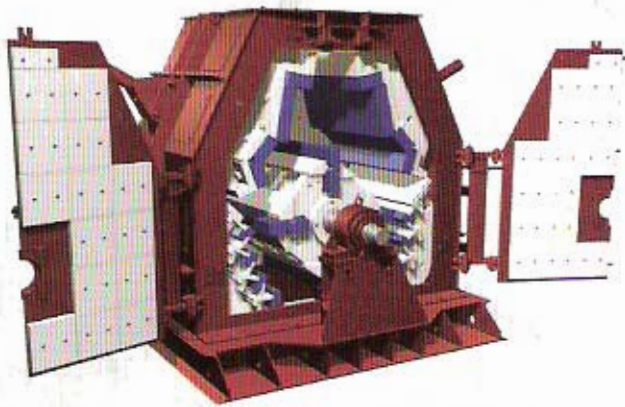
Open Position

Impact Aprons

The impact aprons (right / left) are a heavy-duty fabricated component equipped with thick, replaceable bolt-on impact plates of high quality, wear resistant cast alloy. The aprons are identical (base frame / impact liners) which helps to reduce inventory costs along with lowering the impactor cost of operation. With function and simplicity in mind, adjustment of the impact aprons is achieved by a hydraulic cylinder / control panel. Reaching the desired gap setting only takes a few minutes and no tools are required.



APVMH – SECONDARY / TERTIARY IMPACTOR

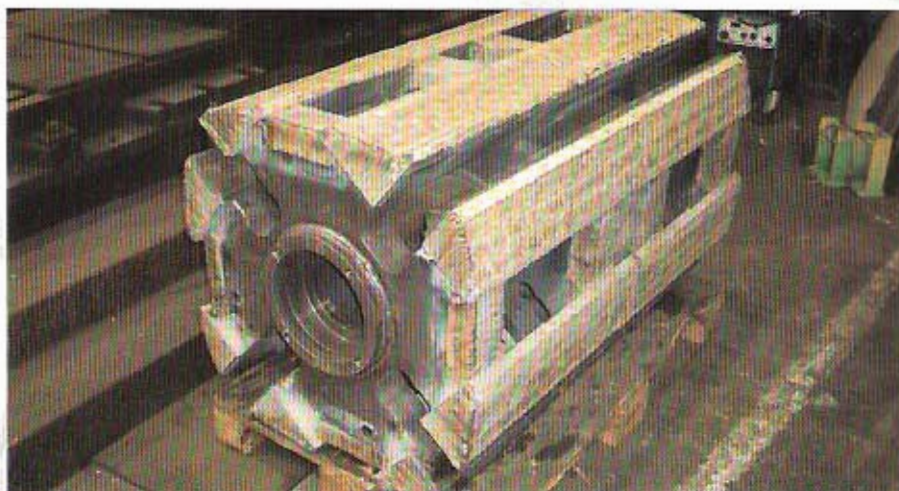


APVMH Impactor

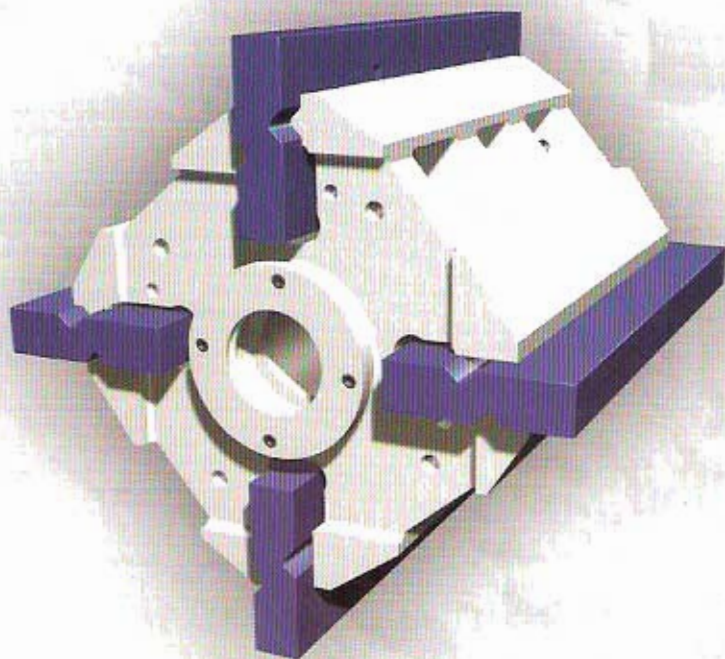
The APVMH is ideally suited to crush medium-hard, mildly abrasive materials such as limestone and gravel. The versatility of this machine permits its use as either a secondary or tertiary crusher. For example, in the secondary stage where the production of concrete stone may be needed this machine can be utilized for the processing of a feed size up to 6 inch. As a tertiary crusher for the production of manufactured sand, this machine can be utilized for the processing of a feed size up to 3 inch. Compared to other tertiary crushing machines, the design, operational flexibility and product size control of the APVMH machine truly stands out.

Rotors

The HAZEMAG secondary / tertiary rotor is a heavy duty, rugged design that provides a very high moment of inertia. The latest HAZEMAG rotors are designed and manufactured of high quality discs that are joined together along a common center tube. The rotor body is hard faced, stress relieved and dynamically balanced to increase its service life and provide workmanship of the highest order.



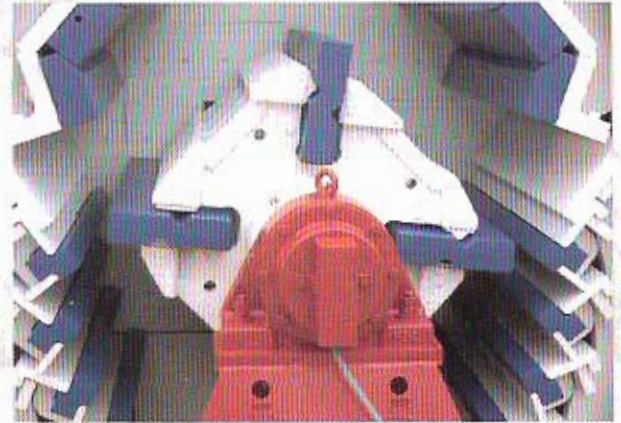
"VR" Rotor – 4 Row Design



The VR Rotor is a 4 row design that can be utilized for the production of concrete stone or manufactured sand. In this rotor system, the blowbars are secured into position by a single piece locking brace system. This design permits the removal of the blowbars in the side direction. The blowbars, which can be rotated 1 time, have a metal utilization rate of approximately 50%. Exchange time, varying with the machine size, takes approximately 30 minutes per row. The rugged design of the "VR" rotor system, combined with its operational flexibility, make it an ideal choice for secondary and (or) tertiary processing of raw materials.

“VR” Rotor - Flexibility to meet your production needs

The “VR” rotor system not only offers the operational flexibility of turning clockwise or counter clockwise, it can also operate with all rows crushing or in a slotted configuration (2 rows crushing). For example, as a secondary impactor reducing -6 inch material for the production of concrete stone, the rotor would operate at a speed of approximately 7,800 ft/min with all 4 rows working. As a tertiary impactor reducing -3 inch material for the production of manufactured sand, the rotor would operate at a speed of approximately 12,500 ft/min with only 2 rows working. In this set-up the non-working rows would be fitted with worn blowbars.



Housing



The crusher housing is a rugged, fabricated steel plate construction with external bracing for increased strength. With simplicity and function in mind, the housing is fitted with thick, interchangeable, wear resistant liners that have been designed as a common shape. The housing system is stress relieved to increase its service life and to provide workmanship of the highest quality.



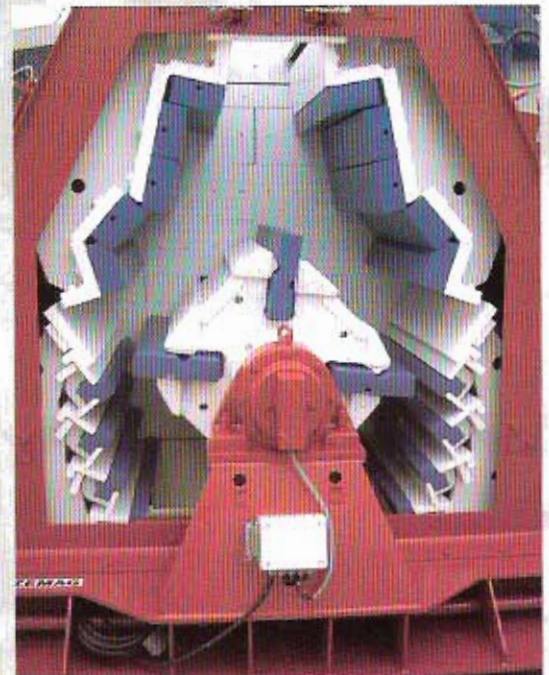
Closed Position



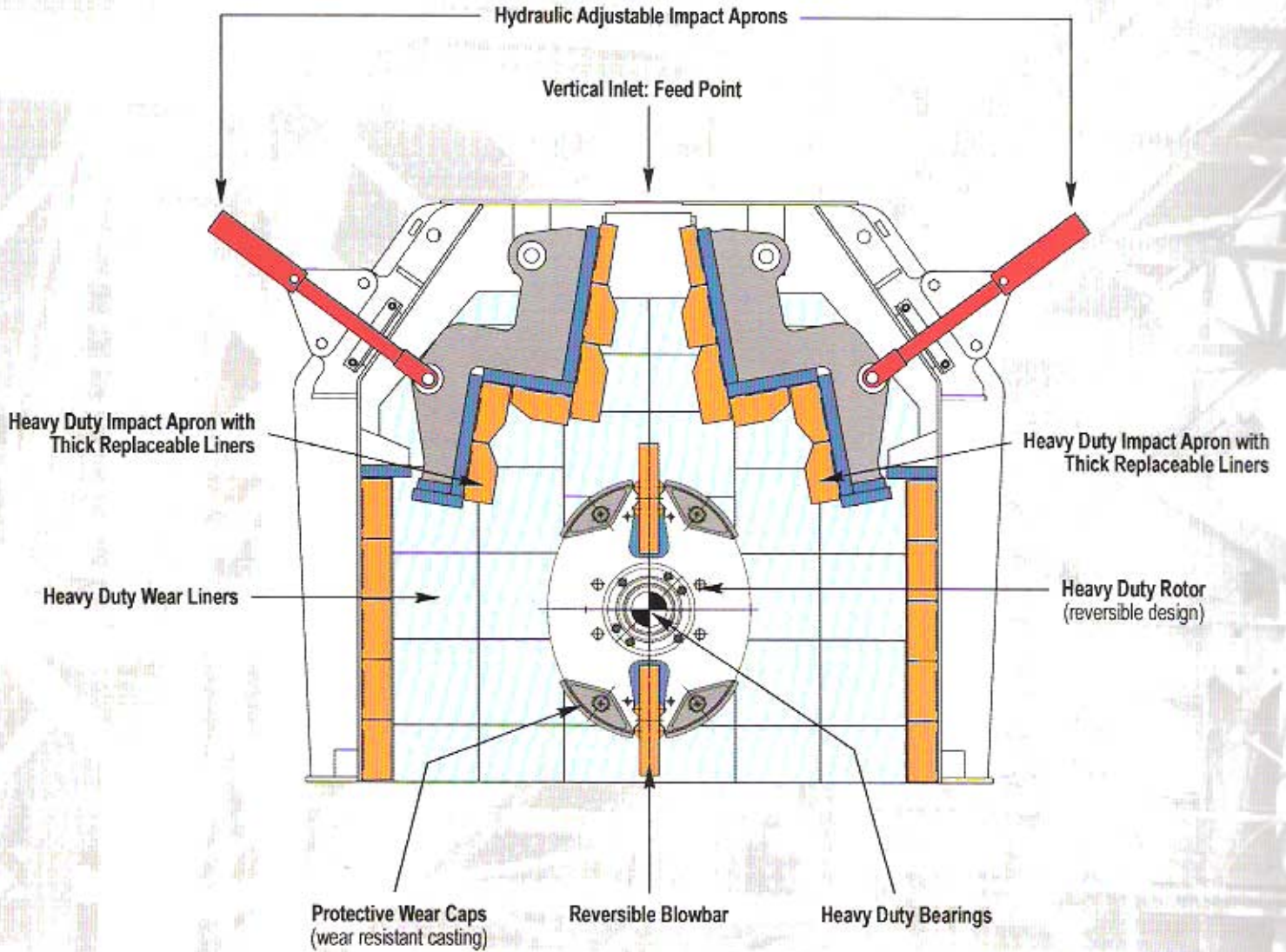
Open Position

Impact Aprons & Third Crushing Path

The impact aprons (right / left) are a heavy-duty fabricated component equipped with thick, replaceable bolt-on impact plates of high quality, wear resistant cast alloy. The aprons are identical (base frame / impact liners) which helps to reduce inventory costs along with lowering the impactors cost of operation. The third crushing path (right / left) is also a heavy-duty fabricated component. Each crushing path is fitted with interchangeable, wear resistant impact bars that can be reversed for extended service life. With function and simplicity in mind, adjustment of the impact aprons & third crushing path is achieved by a hydraulic cylinder / control panel. Reaching the desired gap setting only takes a few minutes and no tools are required.



APKVH - TERTIARY IMPACTOR

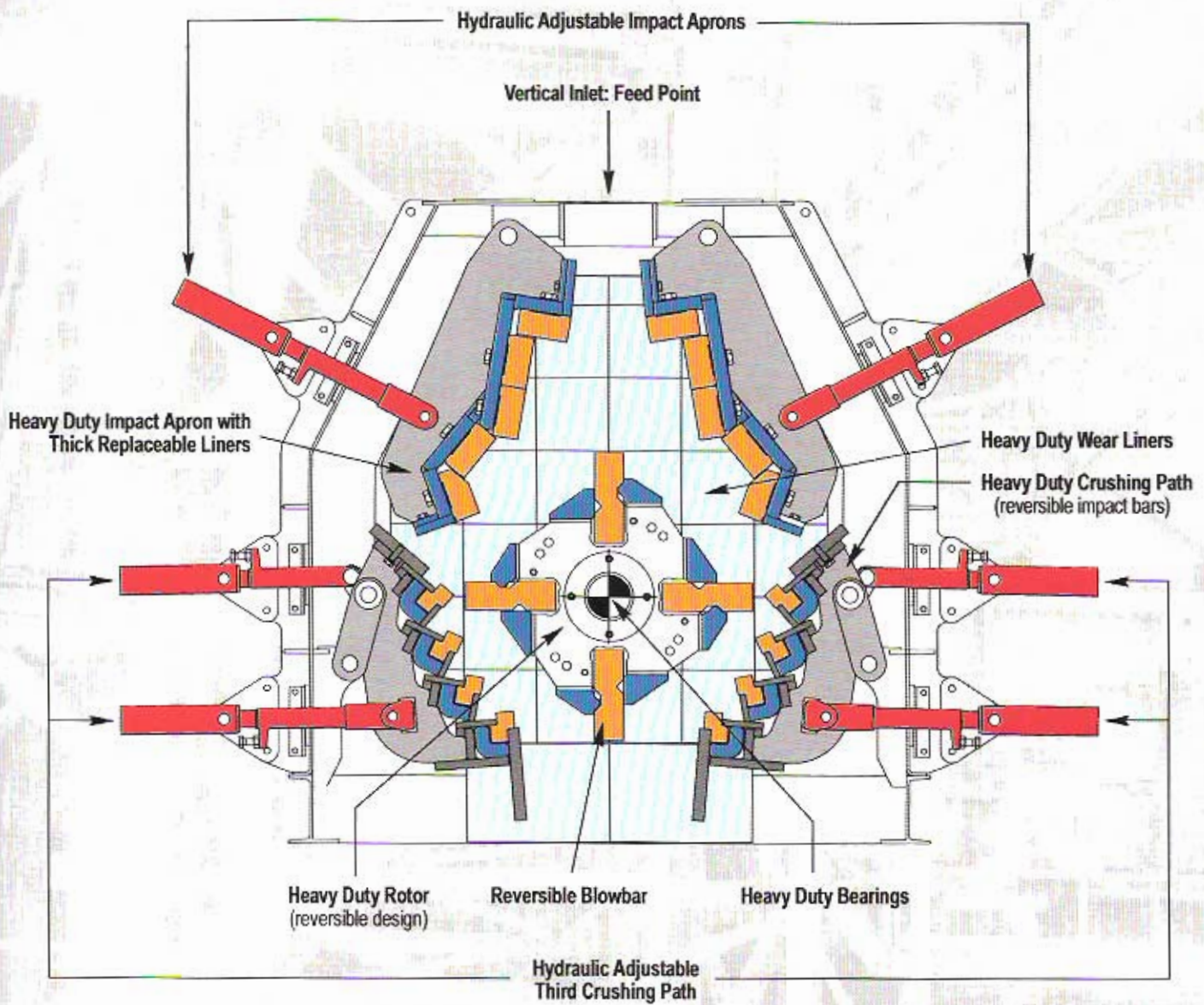


APKVH Crusher Specifications

Model	Capacity Tons / Hr (Tonnes)	Power Requirements HP (kw)	Inlet Size In (mm) (H X W)	Maximum Feed Size In (mm)	Rotor Size In (mm) (D X W)	Weight Lb (Kg)
APKVH 1005 R	45-65 (40 - 60)	125-200 (90 - 132)	6 x 20 (160 X 510)	3 (75)	40 x 20 (1000 x 500)	12,760 (5,800)
APKVH 1007 R	65-100 (60 - 90)	200-250 (132 - 200)	6 x 26 (160 X 680)	3 (75)	40 x 26 (1000 X 670)	14,960 (6,800)
APKVH 1010 R	100-130 (90 - 120)	250-300 (200 - 250)	6 x 40 (160 X 1020)	3 (75)	40 x 40 (1000 x 1000)	24,860 (11,300)

- 1) Maximum feed size for the production of manufactured sand.
 2) Raw material testing recommended.

APVMH - SECONDARY / TERTIARY IMPACTOR



APVMH Crusher Specifications

Model	Capacity Tons/Hr (Tonnes)	Power Requirements HP (kw)	Inlet Size In (mm) (H X W)	Maximum Feed Size In (mm)	Rotor Size In (mm) (D X W)	Weight Lb (Kg)
APVMH 1005 R	45-65 (40 - 60)	150-250 (110 - 200)	10 x 20 (260 X 510)	6 (150)	40 x 20 (1000 x 500)	16,940 (7,700)
APVMH 1007 R	65-130 (60 - 120)	200-400 (160 - 315)	10 x 40 (260 X 1020)	6 (150)	40 x 40 (1000 X 1000)	26,840 (12,200)
APVMH 1010 R	130-175 (120-160)	250-400 (200 - 315)	10 x 40 (260 X 1020)	6 (150)	40 x 52 (1000 x 1400)	31,680 (14,400)

- 1) Maximum feed size for the production of concrete stone is 6 inch.
- 2) Maximum feed size for the production of manufactured sand is 3 inch.
- 3) Raw material testing recommended.

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 the goal of exceeding your expectations.

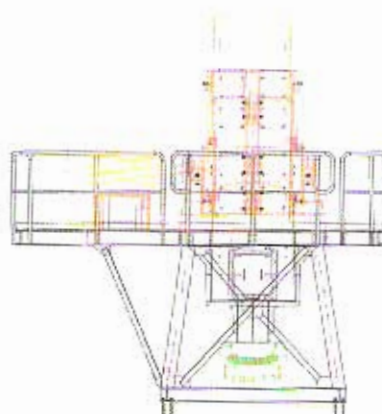
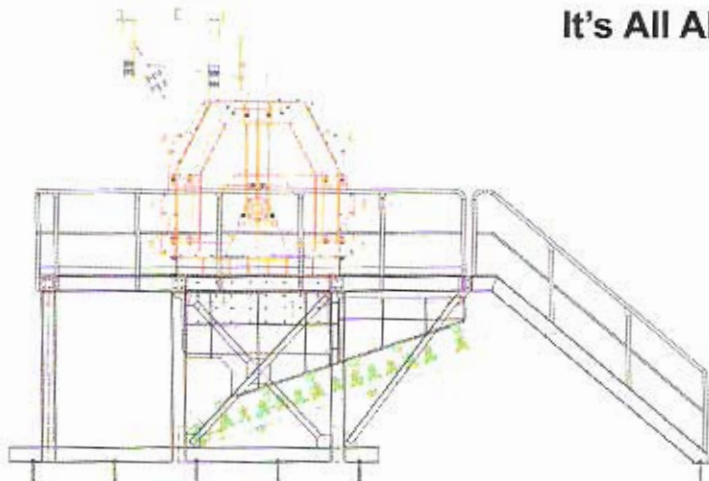
SALES: We are here to serve your needs with application assistance, machine selection, quotations and sales presentations. We are supported by a network of knowledgeable and experienced factory-trained representatives.

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 over 75,000 of successful crusher installations.

SPARE PARTS: We serve your needs with a knowledgeable staff backed by a multi-million dollar 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.

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 & YOU!



Here are just a few of our satisfied customers:

Vulcan Materials Company

Consorcio Remix

Delphi Limestone

Cantera Green

Mustang Tampa

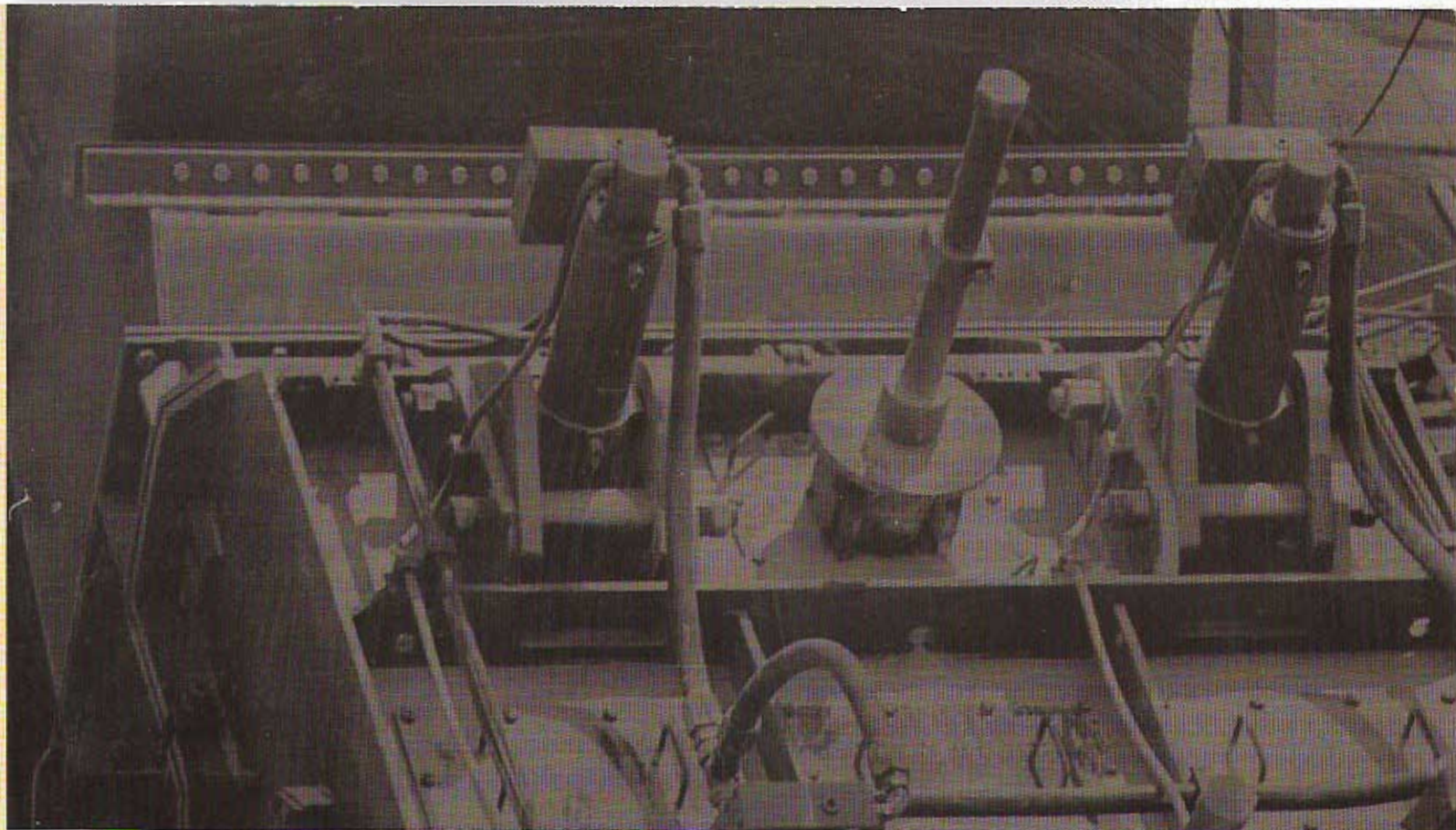
Fairfax Stone

Monterey Construction Company

Kilsaran Concrete

Tarmac

Roadstone Group



Contact HAZEMAG for further details.

Made in USA



HAZEMAG

MOVING FORWARD TOGETHER

visit our website www.hazemag.com

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HAZEMAG is the leading international name in crushing equipment. We manufacture primary, secondary and tertiary impactors for all industries where crushing is a required step in production.

Over 75,000 impactors sold tell the HAZEMAG success story. Over 60 years experience, coupled with continuing research and development, assures you of a quality impactor when you specify HAZEMAG.