The HAZEMAG APK impactor

Several years ago we developed our APK range for crushing highly abrasive materials such as gravel, granite, basalt and gneiss. Machines of this type are also installed for reducing glass, refractory rejects and cement clinker.

Satisfactory service in past years amply proves the suitability of the APK impactors for all these duties, and for many others involving hard, tough and abrasive feed-materials. Two important features:

1. **a cubical product, largely free of tension and cracks, in the desired granulations and**
2. **easy and rapid access for servicing.**

High serviceability

For you, this means fewer maintenance fitters doing more in less time.

This is why the housing opens up at both ends.

This is why the side liners are not bolted on, but fixed by wedges.

This is why the blow bars slide into the rotor assembly without wedge or bolt attachment.

This is why the housing of the larger models opens up hydraulically.

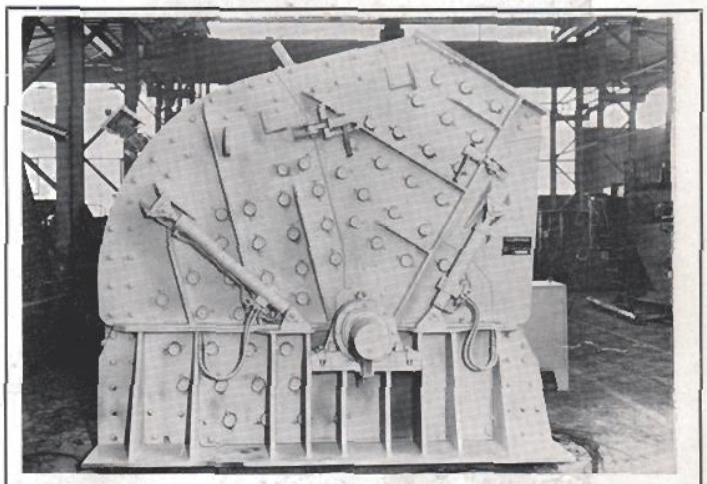
Design

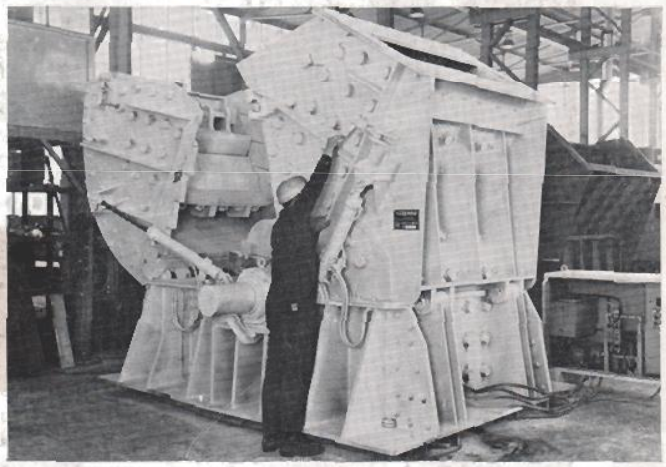
All APK and APK-100 machines are built to the same design principles. A rotor mounted in an all-steel welded housing catches the feed and hurls it against two impact arms or aprons. Apart from aiding reduction, these angled aprons guide feed material back into the *rotor tip-circle*.

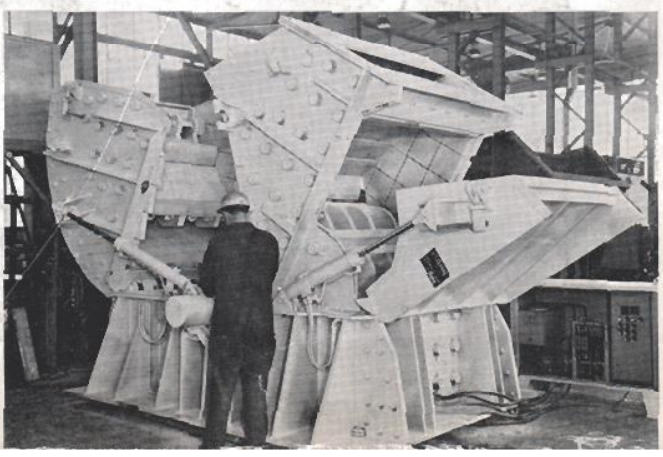
Blow-bar design and special steel-alloys combine to keep wear to blow bars, impact plates and wear liners surprisingly low. The maximum feed-size is 8" (200 mm) for the smaller, and 12" (300 mm) for the larger models. The product will generally be less than 2" (50 mm) in size.

and the APK 100 series

This range of machines has the same characteristics as the APK series with the addition of a grinding path. It is employed where oversize limitation and increased fines are demanded. The grinding path upgrades slabby material to meet roadbase cubicity specifications.







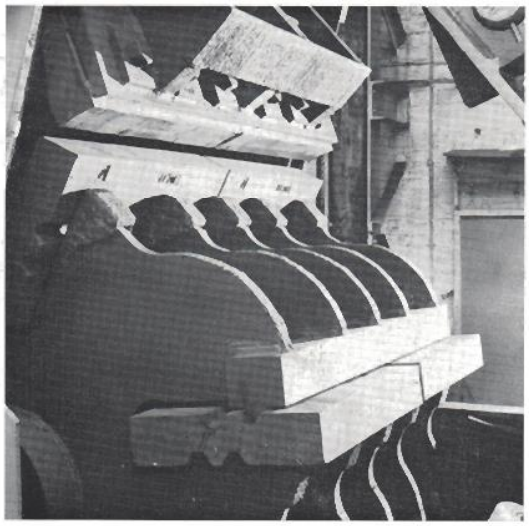
The impactor illustrated here, an APK 60, has a throughput of some 150 to 200 metric tph.

The photograph on the first page shows the same model in a basalt quarry.

Rotor

The heart of any impactor is its rotor. Depending on the duty, it is equipped with either two, four or six blow bars. In wider models, two or three bars are placed side by side in a row. This means that individual blow-bars are kept small enough to be handled by two men. The blow bars slide laterally into the slots in the rotor discs. No wedges or bolts are necessary; a pin in a guide slot secures each bar against movement. The bar itself is loose in the rotor.

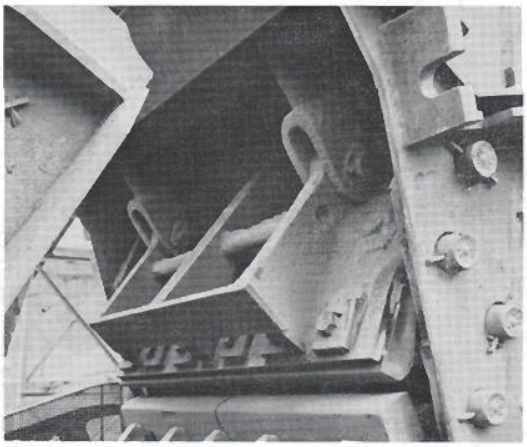
Worns bars can be turned and advanced into the crushing zone four times, resulting in very high wear-metal utilization. The blow bars are shaped and located in such a manner that the breaking edge does not become rounded and thus detract from comminuting efficiency. The rotor peripheral speed depends on the application. It ranges from 5,800 to 8,800 fpm (30—45 m/sec).



Impact arms

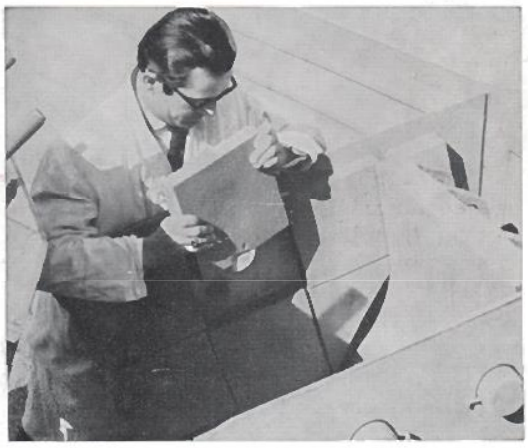
All ANDREAS-design impactors are equipped with two gravity-hung impact arms, or aprons, suspended in the upper part of the housing.

They are held by threaded spindles and can be speedily and simply adjusted from outside the housing. The gaps between impact arms and blow-bar tip-circle largely determine the product size. An impact arm consists of a welded frame to which heavy wear-liners, known as impact plates, are attached. The impact plates are all identical and thus interchangeable.



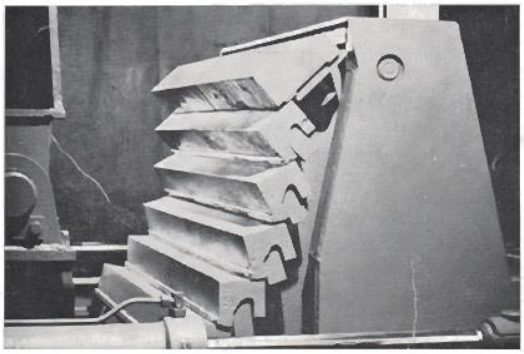
Wear liners

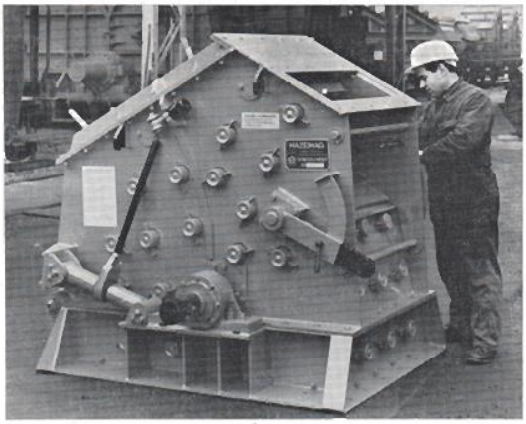
Most of the wear plates lining the impactor housing are square. These square liners are interchangeable. They are attached to the housing walls by wedges. This speeds up replacement and eliminates the risk of damage arising from bolt failure. The liners are cast in high-quality alloys.



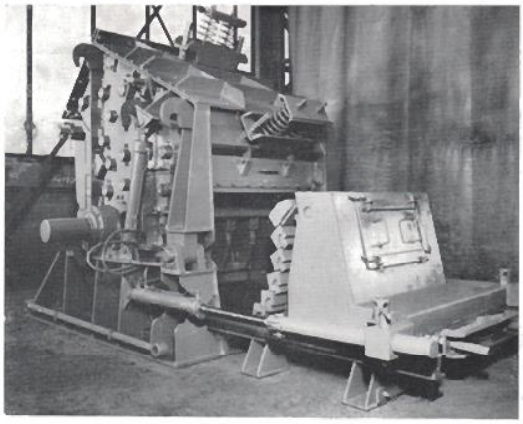
APK-100 grinding-path

In the APK-100 range, a grinding path situated in the lower part of the housing, supplements the two impact arms. Here once more, our designers have ingeniously simplified maintenance. Grinding-path bars are placed one upon the other without any kind of bolt attachment, the bar above holding the one beneath it in position. The grinding-path assembly of all models except the APK 103 and 104 can be run right out of the housing to facilitate servicing.

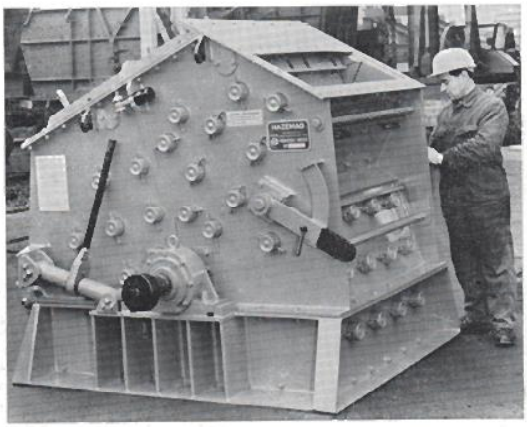




APK 20



APK 105



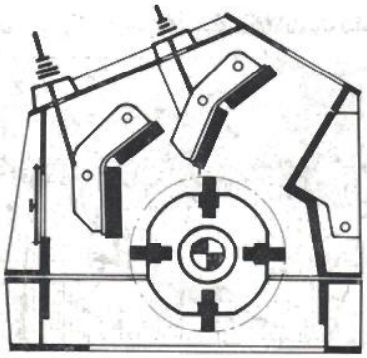
APK 40

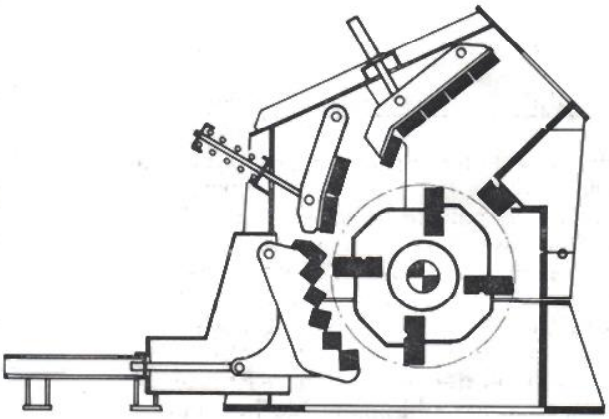
Portable APK 50

A valuable aid

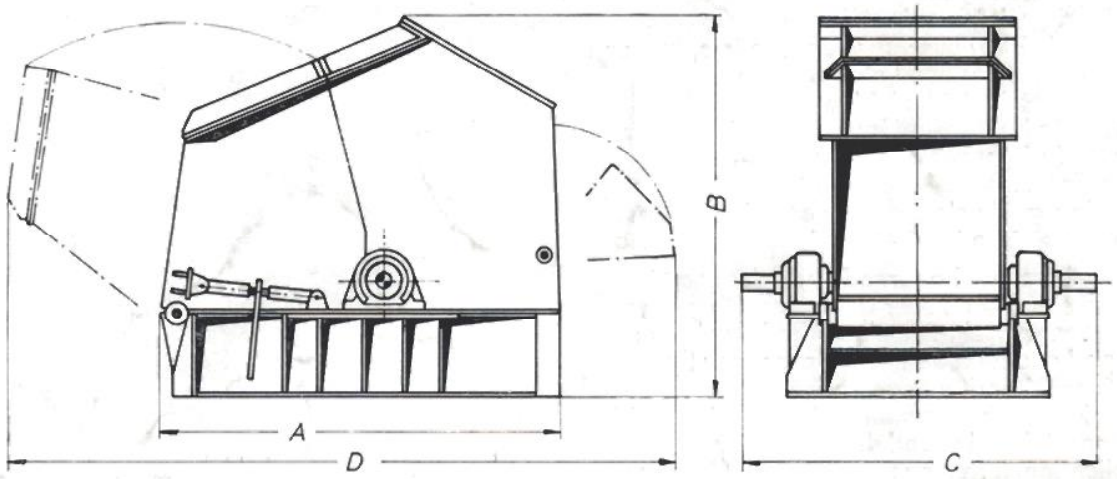
The APK-100 series is available with either a mechanical or a hydraulic setting-arrangement for grinding path and impact arms. Gap setting by hydraulics permits rapid adaption of the impactor to produce any desired range of sizings.

This is even possible without opening the machine. Hydraulics are standard on the APK 107 and larger machines. Smaller models can be equipped with hydraulics before or after supply at extra cost.



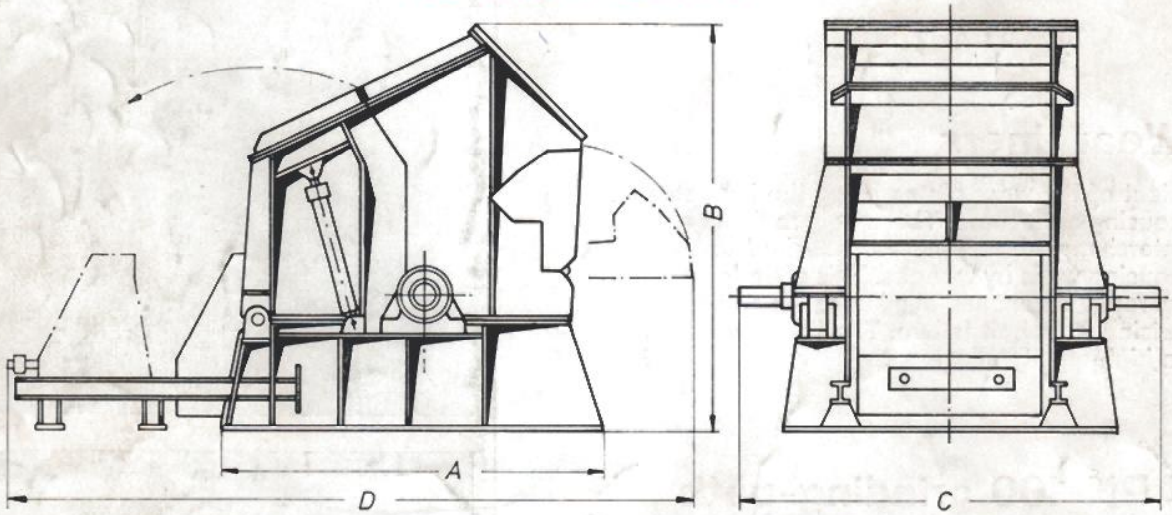


APK Series



Type	Throughput in metric tph	Drive hp	Weight lbs	Main dimensions A	B	C	D
APK 20	up to 25	30–40	10,600	5'7"	5' 4"	5' 5"	10'0"
APK 30	up to 40	40–70	12,600	6'3"	6' 0"	5' 7"	11'0"
APK 40	up to 80	60–120	16,500	6'3"	6' 0"	6' 8"	11'0"
APK 50	up to 130	120–210	35,300	10'6"	7'10"	9' 4"	16'0"
APK 60	up to 200	120–350	61,100	10'9"	9' 8"	10'4"	19'0"
APK 70	up to 400	350–500	93,700	10'9"	9' 8"	14'0"	19'0"

APK 100 Series



Type	Throughput in metric tph	Drive hp	Weight kg lbs	Main dimensions A	B	C	D
APK 103	up to 40	50–70	10,800	6' 0"	6'2"	4'10"	9' 3"
APK 104	up to 70	60–120	18,750	7' 5"	7'6"	5' 7"	10'10"
APK 105	up to 120	100–210	25,000	6'10"	7'3"	7' 6"	14' 0"
APK 106	up to 160	175–300	39,700	7'10"	8'8"	11' 1"	16' 6"
APK 107	up to 250	300–500	72,800	10' 5"	12'0"	12' 0"	20' 6"
APK 108	up to 350	500–600	137,800	10' 5"	12'0"	14' 0"	20' 6"

Printed in the German Federal Republic

Dimensions and weights subject to change
Throughput data for guidance only