







Efficient three-stage crushing operations

Application

Double-shaft hammer crushers are mainly used in the cement industry for the comminution of soft to medium-hard, but also moist and tough materials: Limestone, gypsum, chalk, clay and marl, as well as lignite and pit coal. The crushing of the feed material is effected by percussion, impact and shear forces.

Equipment

Two counter-rotating rotors crush feed material of up to 63 inches edge length. An anvil is located centrally between the two rotors, which directs the processed material onto grate baskets. These grates, which serve to restrict the amount of oversize, are mounted on a grate carriage and can be completely withdrawn from the crusher housing for servicing and maintenance purposes.

Rotor

The rotor body together with shaft and bearings forms the "heart" of the impact crusher. Each rotor comprises a central shaft onto which discs are affixed. Between the discs, free-swinging hammers are mounted on hammer bolts extending over the full width of the crusher and secured at both ends to the outer discs. Turning and replacement of the hammers are facilitated by a hydraulic hammer bolt removal device together with a special lifting tool.

Method of operation

The feed material is processed in three stages:

- The first stage is effected by percussion and impact as the material is gravity-fed into the tip circle of the hammers.
- The material then passes onto the anvil, where it is crushed further by percussion and shear forces.
- The material flow is spread over the following discharge grates, where the product granulometry is separated and discharged through the grates. Any remaining material continues to be processed until it can pass through the grate gap. The grate bar gap spacing determines the final product size.



Assembly aids

HAZEMAG HDS-type hammer crushers are provided with a rotor turning device, by means of which the rotors can be moved and locked in the appropriate position for hammer changing. For hammer changing, the hammers are fitted into a holding device and secured in position. With a hydraulic aid, the hammer bolts can then be extracted and/or inserted.

The use of a grate carriage enables the grates to be withdrawn from the crusher housing and returned to their original position afterwards.

Granulation curve HDS





HAZEMAG Hammer Crusher | HDS

Hammer Crusher HDS – HAZEMAG is the specialist

	Rotor			Capacity*		Installed Power*		
Туре	Diameter [Inch]	Width [Inch]	max. Edgelength of Lump [Inch]	95% < 0.98 In [t/h]	95% < 3.54 ln [t/h]	Product 95% < 1.18 In [HP]	Product 95% < 3.54 In [HP]	Weight [t]
HDS 1412	55	47	40	200	300	2 x 200	2 x 200	35
HDS 1414	55	55	40	250	350	2 x 200	2 x 300	40
HDS 1416	55	63	40	300	450	2 x 300	2 x 350	40
HDS 1418	55	70	40	350	500	2 x 350	2 x 400	45
HDS 1613	63	52	45	350	550	2 x 350	2 x 400	60
HDS 1615	63	60	45	450	600	2 x 400	2 x 500	65
HDS 1618	63	70	45	500	750	2 x 400	2 x 600	70
HDS 1620	63	78	45	600	900	2 x 600	2 x 700	70
HDS 1818	70	72	55	600	900	2 x 600	2 x 700	95
HDS 1821	70	80	55	750	1,100	2 x 700	2 x 900	100
HDS 1823	70	90	55	900	1,400	2 x 900	2 x 1,000	115
HDS 1825	70	100	55	1,000	1,600	2 x 1,000	2 x 1,200	125
HDS 2019	78	75	63	1,100	1,600	2 x 1,200	2 x 1,200	125
HDS 2022	78	85	63	1,300	1,800	2 x 1,200	2 x 1,500	130
HDS 2025	78	100	63	1,500	2,000	2 x 1,500	2 x 1,500	150
HDS 2028	78	110	63	1,700	2,400	2 x 2,000	2 x 2,000	150
HDS 2032	78	125	63	1 900	2 700	2 x 2 000	2 x 2 000	160

* values are variable and can be aligned to the particular requirements