

GIANT

MINERAL PROCESSING SYSTEMS



GC CONE CRUSHER SERIES



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The GC Cone Crusher Series

Market performance and reliability



As part of our innovative portfolio of crushing and screening solutions, Giant Mineral Processing Systems has developed a new range of robust and reliable cone crushers – the GC Cone Crusher Series.

The advanced engineering and improved crushing capabilities of the GC Cone Crushers mean these machines deliver significant benefits over those of most existing equipment.

The GC Cone Crushers are guaranteed to deliver high performance and dependability, and are manufactured from high endurance quality materials at our UK headquarters.

The GC Cone Crushers meet exacting product quality demands. The crushers produce material of excellent shape and high quality. Setting adjustments can be made during production in seconds to ensure optimum material size. The unique hydraulic system provides automatic overload protection by allowing the head assembly to drop, to permit the passage of tramp iron and other non-crushable material. The system then automatically returns the head assembly to its original position. The unique design of the hydraulic system means the crusher operates at a definite setting with less setting drift and greater stability throughout the circuit.

The crusher setting is instantaneously maintained even after passing a piece of tramp iron.

A combination of high motor power, large throw and higher speed mean these crushers are highly efficient and in most cases operate at an increased capacity than other crushers of comparable size.

The GC Cone Crusher Series consists of four machines in total; the GC300 Cone Crusher and the GC400 Cone Crusher, both of which are available as a XC version.

The GC-Series XC crushers are specifically designed for use in secondary crushing applications. They have very large intake capability and high capacity in relation to its size. This is achieved with a very long crushing chamber. To give optimal operation economy the long chamber is divided in three sections - upper concave, lower concave and mantle – which can be exchanged at different intervals. Replacing a conventional secondary cone crusher with a GC-Series XC cone crusher will revolutionize the performance of the whole plant. The setting of the primary crusher can then be increased, resulting in higher capacity, lower operation cost and higher reliability.

Performance & Economy

Crushers are competitively priced with the following features included in the purchase price:

- GC Series Cone Crusher
- Drive Motor
- Drive and Guards
- Support Frame
- Lubrication and Hydraulic System
- Crusher Control System
- Mains Electrical Starter Panel

Crusher Control System

The GC Series Crushers come with a fully integrated crusher control system that controls all aspects of the crushers' operation. The automatic start up routine incorporates cavity calibration to compensate for liner wear; automatic adjustments are made to the crusher setting to give consistent and reliable product shape. Pressure and power in relation to load are automatically adjusted to suit rock properties, moisture etc. This PLC system automatically monitors all health functions and provides the operator with information via a touch screen. This screen can be located anywhere and is networked to the crusher control system via an Ethernet connection.

The GC Series protects your investment

The remote touch screen allows for full process control displaying real time monitoring and logging of all parameters. The system records kilowatt hours used so operating hours and energy costs can be seen at a glance. The touch screen also stores PDF versions of all operator manuals, spare parts lists and electrical layouts. Main and auxiliary starters are also stored, eliminating the need for any third party electrical equipment.

Benefits of the GC Cone Crusher Series

- Ease of installation, service and maintenance. Integrated touch screen means minimal electrical installation work prior to commissioning.
- The concave requires no backing compound meaning changing wear parts can be accomplished efficiently minimising downtime.



- Standard top shell is used for all crushing chambers.
- The GC Series crushers are designed to give high performance in relation to their size and weight.
- The option for variable eccentric throw and the range of crushing chambers allow for maximum versatility to suit all product requirements.

The available crushing chambers are:

Standard Cavity Types

EF	Extra fine
F	Fine
MF	Medium fine
M	Medium
MC	Medium Coarse
C	Coarse
EC	Extra Coarse

XC Cavity Types

C	Coarse
EC	Extra Coarse

Weights

Description	Crusher Size (Kg)			
	GC300	GC300-XC	GC400	GC400-XC
Hopper Assembly	311	311	450	500
Topshell Assembly including C Concave	2980	4790	4860	7600
Bottom Shell Assembly Including Eccentric & Hydraulic Cylinder	3510	3510	5800	5800
Main Shaft Assembly Including Mantle	2195	2700	3500	5100
Counter Shaft Assembly	250	250	310	310
Electric Drive Motor	1185	1185	1185	1185
Live Frame Assembly	1080	1080	1650	1650
Cooler Assembly	58	58	98	98
Lubrication Tank Assembly Excluding Oil	370	370	500	500
Total Weight Excluding Oil Tank & Cooler	11511	12826	17755	22145

Capacities

GC300 Crusher Capacity (tons per hour) Open Circuit

Cavity Type	Motor Power		Max Feed Size mm	Closed Side Setting (mm)									
	KW	HP		6	8	10	13	16	19	22	25	32	38
EF	162	210	25	For Extra Fine Crushing please contact Giant									
F	162	210	45	45-80	45-103	50-130	55-100	60-110	65-110	65-100	70-80		
MF	162	210	60		55-65	60-130	65-120	70-130	75-130	80-120	85-95		
M	162	210	80		55-70	60-90	65-150	70-150	75-160	80-170	85-160	100-110	
MC	162	210	105			50-60	55-90	60-160	65-187	70-190	75-200	90-150	
c	162	210	135				65-150	65-170	70-180	75-190	80-210	90-210	100-160
EC	162	210	170				65-110	70-170	75-180	80-200	85-230	100-236	110-243

GC300-XC Crusher Capacity (tons per hour)

Cavity Type	Motor Power		Max Feed Size (mm)		Closed Side Setting (mm)										
	KW	HP	AF	TS	19	22	25	29	32	35	38	41	44	48	51
C	132	150	210	300	99	108-135	116-145	127-200	135-254	144-270	152-285	161-301	169-264	180	
HC	162	210	250	360		117	126	138-173	147-230	156-244	165-310	174-327	183-344	196-306	205-256

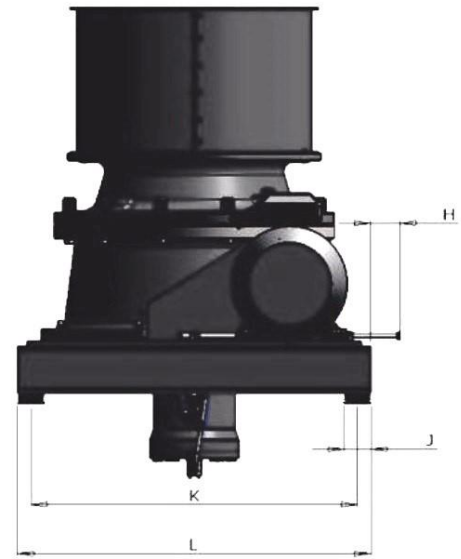
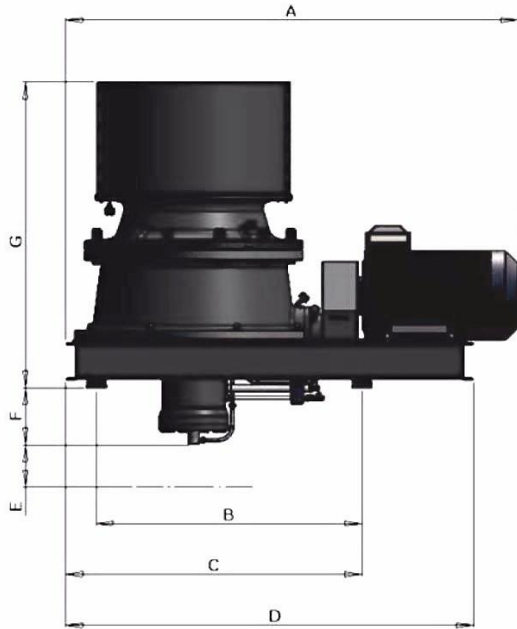
GC400 Crusher Capacity (tons per hour) Open Circuit

Cavity Type	Motor Power		Max Feed Size mm	Closed Side Setting (mm)												
	KW	HP		8	10	13	16	19	22	25	29	32	35	38	41	44
EF	250	300	25	For Extra Fine Crushing please contact Giant												
F	250	300	45	90-135	96-170	104-190	112-206	120-221	129-236	137-250	148-208					
MF	250	300	60		114	124-227	134-245	144-263	453-281	163-300	176-264	186-248				
M	250	300	80			117-187	126-278	136-298	145-318	154-340	166-300	176-281	185-222			
MC	250	300	105			97-122	105-262	113-282	120-301	128-320	138-346	146-328	154-307	161-242		
C	250	300	135				109-218	117-292	125-312	133-332	143-359	151-378	159-359	167-335	175-263	
EC	250	300	170				114-200	122-276	131-294	139-313	150-338	159-357	167-380	175-395	184-413	192-384

GC400- XC Crusher Capacity (tons per hour)

Cavity Type	Motor Power		Max Feed Size (mm)		Closed Side Setting (mm)									
	KW	HP	AF	TS	25	29	32	35	38	41	44	48	51	54
C	162	150	270	400	205	225-281	239-300	544-381	269-405	284-511	298-450	318-400	333	
HC	250	210	300	450		236	251	267-333	298-450	298-450	313-470	334-600	349-525	365-455

GC Cone Crusher Series Technical Data



Dimensions

Dimensions	Model			
	GC300	GC300-XC	GC400	GC400-XC
A	3220	3220	3553	3553
B	1890	1890	-	-
C	2108	2108	-	-
D	2900	2900	3475	3475
E	300	300	500	500
F	407	407	520	520
G	2177	2740	2520	3175
H	372	372	372	372
J	163	163	163	163
K	1804	1804	2052	2052
L	1950	1950	2200	2200
P	640	640	745	745
Q	1750	2020	2000	2420

