

PRIMARY AND SECONDARY CRUSHERS

 **URALMASHPLANT**

Uralmashplant crushers are widely used in the following industries: ferrous and nonferrous mining, mining and beneficiation, diamond mining, coal mining, cement production, chemical mining, and road construction.



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Uralmashplant offers the wide range of primary and secondary crushers with feed opening size ranging from 500 to 1500 mm.

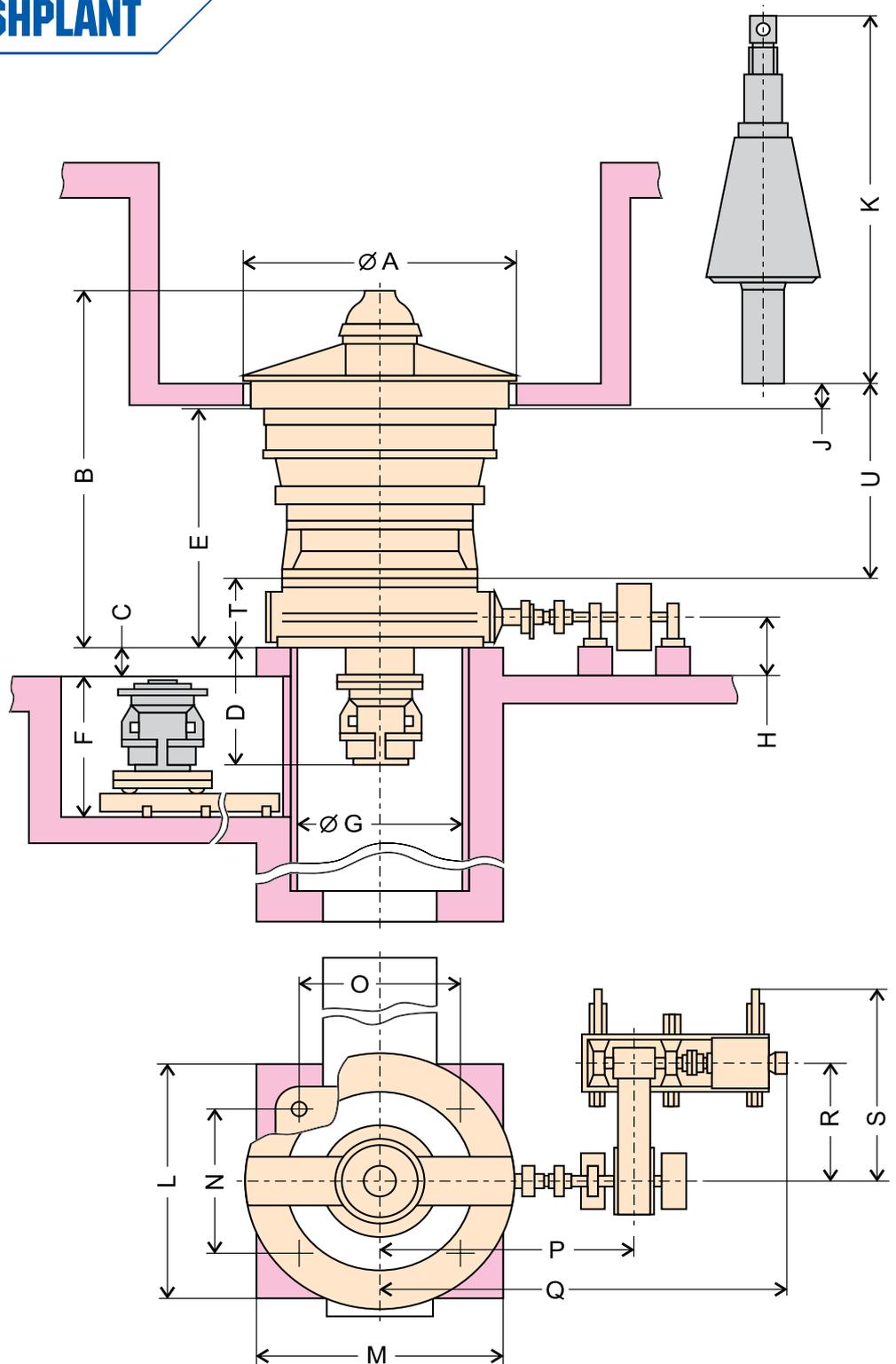
All crusher components undergo thorough acceptance procedures at all manufacture stages ending with the assembly and testing of a crusher on a special testing stand to ensure the highest quality of our equipment.

Our crushers are designed for reliable operation in different climatic conditions (including above the Arctic Circle and tropics) in open-pit mines and crushing plants, and for crushing different ore types, from tough titanium magnetite ores to clay kimberlites with no need for standby units.

The primary crushers are designed for the coarse crushing of ores and rock products at the first crushing stage.

The secondary coarse crushers are designed for the installation after primary crushers in 4-stage crushing lines. Due to their high reduction ratio they allow significantly increasing the efficiency of secondary and tertiary crushers installed after them.

Upon the Customer's request the following modifications of the crushers are possible: for mounting in pits on a movable platform, for crushing extra-hard and tough materials, and materials with low surface friction coefficient.

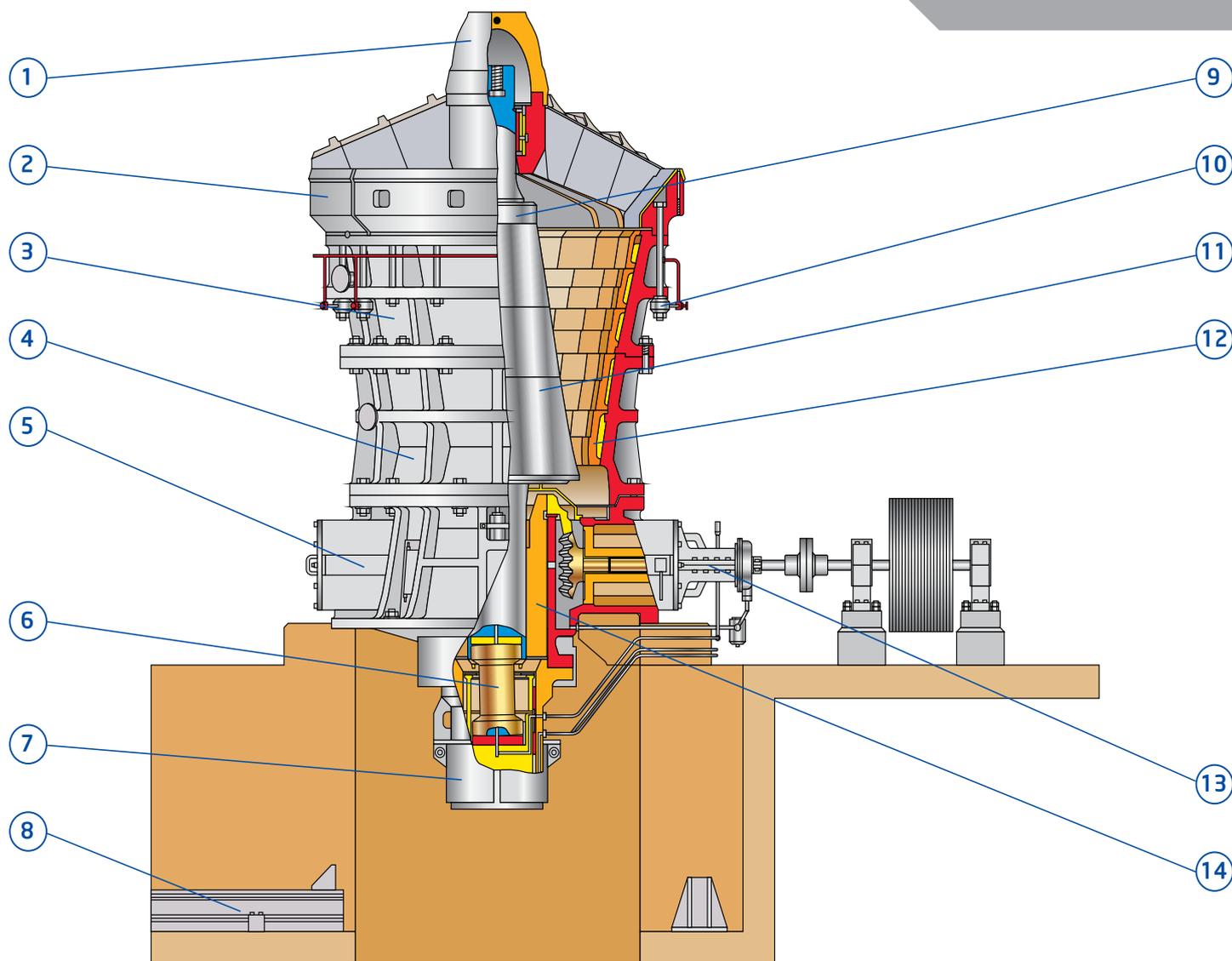


Overall dimensions*

Crusher designation	Dimension, mm																			
	A	B	C	D	E	F	G	H	J	K	L	M	N	O	P	Q	R	S	T	U
Primary crushers																				
KKD-500/75	2450	3540	650	1365	1910	1400	2080	850	150	3920	2750	2750	1900	1900	1955	3230	2570	3140	-	-
KKD-1200/150	4640	6635	600	2130	4240	2760	3110	1200	200	7115	4600	4600	2960	2960	5080	8065	3185	4815	-	-
KKD-1500/180	5894	7645	650	2480	4825	3200	3730	1300	200	8100	5500	5800	3400	3400	5630	9310	2705	4385	-	-
KKD-1500/230	6160	7760	650	2345	4830	3100	3730	1300	200	7705	5500	5800	3500	3900	5630	9310	2665	4345	-	-
Secondary coarse crushers																				
KRD-700/75	3400	5580	570	1875	3140	-	2900	1105	-	6265	3600	2700	2700	2700	4105	6805	3500	4920	1750	200
KRD-700/100	4360	6830	200	1510	4005	2650	3200	1300	-	6070	5500	5200	3200	3200	5915	9590	2770	4670	2375	200

* Tentative only

Primary crusher KKD-1500/180



1. Spider cap; 2. Spider; 3. Top ring; 4. Bottom ring; 5. Frame; 6. Support shaft; 7. Hydraulic cylinder; 8. Rail track; 9. Mainshaft assembly; 10. Hydraulic jack; 11. Mantles; 12. Concave liners; 13. Countershaft; 14. Eccentric.

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Uralmashplant crushers are able to provide the user with the following benefits:

- high quality of crushed product;
- easy erection and maintenance;
- low operating costs.

Tentative weight of crusher components

Description	Weight for different models					
	KKD-500/75	KKD-1200/150	KKD-1500/180	KKD-1500/230	KRD-700/75	KRD-700/100
Assembled frame (w/o shaft housing)	10.2	43.1	76.8	81.3	29.0	51.7
Top shell with concaves	8.6	77.8	127.8	139.5	30.1	51.4
Upper ring with concaves	-	44.5	69.2	71.6	-	-
Lower ring with concaves	-	32.3	57.6	61.2	-	-
Spider (w/o cap)	7.6	42.2	55.3	59.3	18.4	42.0
Mainshaft assembly	7.5	42.6	79.5	81.9	34.0	44.7
Mainshaft assembly with spider (w/o cap)	15.5	85.4	135.9	142.5	-	-
Driven pulley with shaft and stanchions	-	3.2	5.3	5.3	3.4	4.4

Crusher specifications

Crusher model	Feed opening, mm	Max. dia. of mainshaft, mm	Eccentric throw, mm	Capacity (m ³ /h) with discharge opening setting of (mm)													Motor			Weight, t	
				55	65	75	85	100	115	130	150	165	180	200	215	230	250	Power, kW	PRM		Voltage, V
Primary crushers																					
KKD-1500/75	500	1270	30	200	225	250	270											110	985	380	40
KKD-1200/150	1200	1900	45							860	1030	1140	1220					320	590	6000	240
			36				520	610	690	795											
KKD-1500/180	1500	2520	45							1430	1680	1900	2100	2240				400	590	6000	406
			36						970	1190	1370	1520									
KKD-1500/230	1500	2550	45									2100	2300	2460	2620	2790		500	590	6000	459
			36						1060	1310	1510	1680									
Secondary coarse crushers																					
KRD-700/75	700	2040	38		360	480	540	610										250	980	6000	157
KRD-700/100	700	2340	45				880	1020	1160	1310								400	590	6000	236
			38			550	645	780	900	1020											

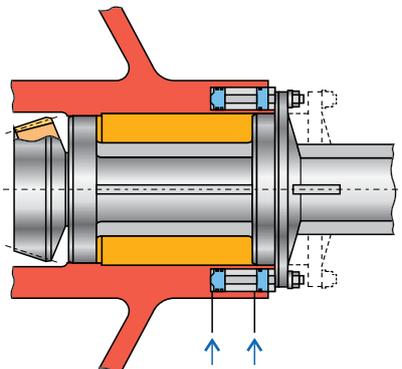
The capacity values are given for feed material with compression strength of 100...150 MPa with minimal content of moisture, clay, and fines.

In practice, the capacity may vary depending on the physical and mechanical properties of crushed material, such as feed size, moisture and clay content, etc.

Specialists of Uralmashplant are ready to consult you on choosing a crusher type suitable for your operating conditions.

Main drive motors with different power than is given in the table above are available under the Customer's request.

Built-in maintenance tools provide for saving time and operating costs



The pressure is applied for removing the countershaft. The pressure is applied for mounting the countershaft.

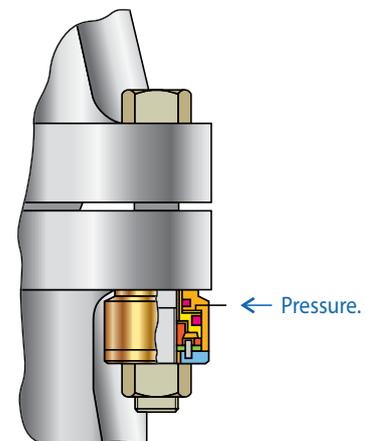
The delivery set of crushers equipped with a bottom hydraulic cylinder for discharge setting includes a special carriage with a lifting platform for installation or removal of the hydraulic cylinder.

Other options include:

- a device for tightening the crusher mantle nut;
- a crusher mantle removal device;
- a device for the disassembly of the threaded spider suspension of the mainshaft;
- hydraulic jacks to disconnect the taper connections of the crusher housing parts.

The Uralmashplant primary and secondary crushers are equipped with built-in maintenance means facilitating the time-consuming processes of installation and upkeep.

The hydraulic cylinders located at the bottom shell make the installation and removal of the countershaft easier and quicker. Special hydraulic nuts ensure a reliable tightening of large diameter threaded connections, such as fixing bolts, which attach the spider, top and bottom shells, as well as the hydraulic cylinder for the discharge setting.



The pressure is applied only during tightening or loosening the nut.

YOUR CRUSHING TECHNOLOGIES - OUR CRUSHERS!

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