Scope of Supply

Tertiary Double Roll Mill (Overview)

ITEM	DESCRIPTION	QTY
BASE CRUSHER		
C-1	Double Roll Mill – DRM 925 - 2000	1
	Base frame (common frame for machine and auxiliary equipment)	1
	Automatic hydraulic gap setting device	1
	Automatic Central Grease Lubrication System	1
	Drive Components	1
	Drive Motor - SCIM, TEFC, Low Voltage	2
OPTIONS		
O-1	Cavity level sensor Inlet	1

Detailed Basis of Design

Site Location and Climatic Condition

DESCRIPTION	DETAILS
Site Location	Germany
Altitude, m.a.s.l	< 1,000 m a.s.l. (assumed)
Temperature, °C (Min / Max)	-20°C to +35°C (assumed)

Design Data

DESCRIPTION	DETAILS
Material Type	Unknown
Material feed Description	Free flowing (assumed)
Ore specific gravity (minimum)	2.5 t/m^3 (assumed)
Ore Bulk Density	1.6 t/m^3 (assumed)
Moisture content	3 %
Clay Content (maximum):	Nil (assumed)
Bond Work Index	10 kWh/t (assumed)
Bond Abrasion Index (Design)	0.5 (assumed)
Unconfined Compressive Strength (Average)	120 MPa
Feed material screened (Yes/No)	Yes
Gap setting CSS	8 mm (Range: 0 - 30 mm)
Max. feed size (F100)*	40 mm

Feed size distribution (typical)	Size [mm] 40 25 20 15 8	Passing [%] 100 98 61 36 7
Product size (P95)*	≤ 14 mm	
Throughput capacity – Nominal 8mm	≥ 250 tph (simulated)	

Electrical and Instrumentation

DESCRIPTION	**DETAILS**
Standards	IEC
HT Voltage	Not Applicable
LT Voltage	380 V (-/+ 5%)
Frequency	50 Hz (-/+ 2%)
Control Voltage	24 VDC / 240 VAC

Technical Description

C-1 : Double Roll Mill - DRM 925 - 2000

Technical Information:	
Model	Double Roll Mill DRM 925 - 2000
Year of manufacturing	2020, in operation until 2022
Condition	Used, partly assembled
Roll circle diameter	Approx. 925 mm
Roll width	Approx. 2,000 mm
Construction	Welded and bolted design
Feed opening	approx. 2,040 mm x 510 mm
Centre distance	approx. 933 mm
Number of rolls	2
Drive	Helical-spur gearbox
Direction of rotation	centre
No. of main drives per DRM	2 off

Hydraulic Power Unit

The Hydraulic Power Unit supplies the automatic gap setting system with hydraulic pressure. The Hydraulic Power Unit is mounted on the common base frame. The piping integral to the machine is included in Seller`s scope supply.

Seller provides information as mentioned above for the Customer to operate the hydraulic power unit from its central control system.

Central Grease Lubrication Unit

The central grease lubrication system ensures an automatic and continuous grease supply to the lubrication points of the crushing roll shafts' bearings. The automatic central grease lubrication unit is placed next to the Double Roll Mill on the common base frame. Piping integral to the machine is included in Seller´s scope of supply.

Figure: Exemplary Central Grease Lubrication unit

Drive system

The crushing rolls are individually driven by one motor each. The drive system is executed with a helical sour gearbox and coupling.

Main Drive Motors

Motor Type	:	Squirrel Cage
No of units	:	2 (two) off
Kilowatts	:	160 kW
No. of Poles	:	4 (four) off
Supply	:	380 V (-/+ 5%), 3-phase @ 50 Hz (-/+ 2%)
Enclosure	:	IP 56
Mounting Type	:	Horizontal Foot
Insulation	:	Class F
Cooling	:	Fan Cooled With Built-in-Air Cooler
Service Factor	:	1.0 P.U. at Class B rise
Bearing Type	:	Anti-friction
Bearing Lubrication	:	Grease