

TECHNICAL SPECIFICATIONS

FOR PPC

<u>Clinker</u>	%	:	60
Feed size	mm	:	90%<30 mm Max. 40 mm
Moisture	%	:	1.0 (Max.)
<u>Gypsum</u>	%	:	5
Feed size	mm	:	90%<30 mm Max. 50 mm
Moisture	%	:	10.0 (Max.)
<u>Flyash</u>	%	:	35
Feed Blaine	cm ² /gm	:	2500
Moisture	%	:	Nil
Capacity (PPC)	TPH	:	210 @ 4000 Blaine
Clinker Grindability basis	KWh/T	:	29.0 @ 3000 Blaine on open circuit ball mill basis at meters
Temperature of feed material	Deg.C	:	100 (max.)

Local Conditions:

Altitude above MSL	m	:	214
Corresponding pressure	mbar	:	988
Ambient Temperature	Deg C	:	-2 (min.) 48 (max.)

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The existing Ball mill system is envisaged to be used in combination with Roller Press and VSK separator in semi finish mode. The rejects from VSK separator will go to Roller press. The product from the VSK separator will go to mill via a solid flow meter. The existing O-SEPA separator along with product collection bag filter is envisaged to be used.

Battery limits: - From cement mill hoppers to product discharge airslide, which feeds the material to silo feed elevator.

Modification in flyash extraction and feeding system upto mill inlet / outlet.

711 HP1

1 FEED HOPPER FOR CLINKER (EXISTING) - RCC

Capacity MT : 260

711 HP2

1 FEED HOPPER FOR GYPSUM (EXISTING) - RCC

Capacity MT : 80

721 NG1-2

2 NEEDLE GATE (EXISTING)

Fabricated in steel construction, under the feed hoppers.

721 WF1-2

2 BELT WEIGH FEEDERS (EXISTING)

For clinker and gypsum

Type of feeder : Belt weigh feeder
Control range : 10: 1
Feed material : Clinker & Gypsum

Capacity (Requirement)

- Clinker TPH : 25-250
- Gypsum TPH : 2.5-25
Accuracy % : $\pm 1.0\%$ of full scale

721 BC1

1 BELT CONVEYOR (EXISTING) – FROM WEIGH FEEDER TO 3-WAY CHUTE

Capacity TPH : 325
Material being conveyed : Clinker / Gypsum

531 MS1

1 MAGNETIC SEPARATOR – SUITABLE FOR 721 BC1

Suitable for separating magnetic particles

531 MT1

1 METAL DETECTOR – SUITABLE FOR 721 BC1

531 DG1

1 THREE-WAY DIVERTING GATE, MOTORISED (NEW) – FOR CALIBRATION, REJECT AND FEED TO ROLLER PRESS BUCKET ELEVATOR

REJECT HANDLING SYSTEM:

751 HP1

1 REJECT HOPPER FOR MATERIAL (WITH LOAD CELLS)

Capacity	MT	:	25
Diameter	mm	:	3000
Hopper total height	mm	:	4000

751 NG1

1 NEEDLE GATE

751 VF1

1 VIBRO FEEDER

751 BC1

1 BELT CONVEYOR – FROM VIBRO FEEDER TO DIVERTER

Capacity	TPH	:	25
Length	Mtr	:	28 (approx.)
Material being conveyed		:	Clinker / Gypsum
Belt width	mm	:	650
Motor	KW/RPM	:	3.7 / 1500

751 MT1

1 METAL DETECTOR – SUITABLE FOR ABOVE

751 MS1

1 MAGNETIC SEPARATOR, PERMANENT TYPE – SUITABLE FOR ABOVE

721 DG1

1 DIVERTING GATE, PNEUMATIC – FOR REJECT BIN AND FEED TO RP BE
(Existing gate suitability to be checked)

751 BC2

1 BELT CONVEYOR – FROM DIVERTER TO 541 BC2

Capacity	TPH	:	25
Length	Mtr	:	30 (approx.)
Material being conveyed		:	Clinker / Gypsum
Belt width	mm	:	650
Motor	KW/RPM	:	3.7 / 1500

751 HP2

1 REJECT HOPPER FOR SCRAP (EXISTING TO BE RELOCATED, WITH LOAD CELLS)

Capacity (existing)	MT	:	10
Diameter	mm	:	2000
Hopper total height	mm	:	4000

751 SH2

1 SLIDE GATE, MOTORISED – TO DISCHARGE INTO TRUCKS

759 BF1/FN1/RF1

1 BAG FILTER FOR REJECT HANDLING SYSTEM

Medium		:	Air
Temperature	Deg.C	:	Ambient
Flow rate	M3/hr	:	5,000
Dust concentration	g/m3	:	25
Type of dust		:	Clinker / additives

Filter with automatic pulsejet cleaning through compressed air. Bag filter provided with Rotary air lock.

Fan

Flow rate	M3/hr	:	5,500
Pressure	mbar	:	25
Motor	KW/RPM	:	7.5 / 1500

531 BC2

1 BELT CONVEYOR – FROM THREE WAY CHUTE TO 541 BC2

Capacity	TPH	:	325
Length	Mtr	:	9 (approx.)
Material being conveyed		:	Clinker / Gypsum
Belt width	mm	:	1000
Motor	KW/RPM	:	5.5 /1500

711 BF4/FN4/AC4

1 BAG FILTER (FOR HOPPER VENTING, EXISTING)

721 BF3/FN9/AC4

1 BAG FILTER (FOR WEIGH FEEDER GROUP, EXISTING)

541 BE1

1 BUCKET ELEVATOR

Capacity	TPH	:	1250
C-t-C distance	Mtr	:	42 (approx.)
Speed	Mtr/Sec	:	1.6
Material being conveyed		:	Clinker / Additives
Bulk density	T/M3	:	1.6
Motor	KW/RPM	:	2 x 132 / 1500

- Elevator provided with pin bush type double strand chain.
- Tail axle complete, including tension bearings with self-aligning roller bearings and sprockets.
- Bucket elevator & boot casing in welded steel construction.
- Drive motor, hollow shaft gearbox, hydraulic input couplings, backstop, base frame foundation bolts.
- Zero speed switch and level sensor at boot.
- Barring device.

541 MH1

1 MONORAIL HOIST FOR ELEVATOR

541 BC1

1 BELT CONVEYOR – FROM RP BUCKET ELEVATOR TO VSK SEPARATOR

Capacity	TPH	:	1250
Length	Mtr	:	15 (approx.)
Material being conveyed		:	Clinker/additives
Belt width	mm	:	1600
Motor	KW/RPM	:	18.5 / 1500

541 MS1

1 MAGNETIC SEPARATOR, PERMANENT TYPE – SUITABLE FOR ABOVE

541 FV1

1 FLAP VALVE (DOUBLE PENDULUM)

541 VSK1/CN1-2/FV3-4/FN1

1 VSK – SEPARATOR

(Cascade separator with cage wheel, type VSK)

Separator consisting of two classifying stages.

Stage A - Separating cascade type VS – 80/20:

Static classifier without any moving parts.
Cut point variable by airflow adjustment.

This cascade separator type VS is especially suited for:

- Extracting of fines from feed material of very wide particle size distribution, as originating from crushing machines, such as jaw-, gyratory- and roller presses/crushers. In these cases, the VS-separator eliminates the high overhang of coarse material for immediate return to the crushing machine. Only the remaining fine fraction is passed on for further processing.
- Dedusting operations, where a dust free coarse product is required.
- Combined classifying and drying/cooling.

Principle of VS-operation:

The feed enters the VS-separator by gravity from above. The material cascades over a steeply inclined array of steps. The actual classifying takes place between the array of steps and an opposing array of baffle plates. Classifying air enters this space transver-

Annexure - V

sely to the material flow, dragging the fine fraction in between the classifying baffles to the exit for fines and air. The coarse fraction cascades to the bottom discharge of the classifier. The cascading movement causes repeated impact to the passing material. The result is an efficient degglomeration, liberating the fine particles for efficient separation.

The V-separator operates with once through-fresh air for cooling, or hot gases for drying. If appropriate, all or only part of the airflow can be recycled. The cut is decided by setting the air velocity. Cut size ranges normally from 90 to 1500 μm .

Stage B - Cage wheel separator type 2750 SK

The combination of VS-separator with SK-cage wheel to form the VSK, produces three fractions: fines, medium and coarse.

Separation of the coarse fraction has already been described above under VS-separator. Fine- and medium fractions are separated by the SK-type cage wheel attachment.

Principle of VSK-cage wheel operation:

The pre classified fine fraction as discharged by the VS, is airlifted directly to the circumference of the horizontally arranged cage wheel. The air flow passes in between the cage bars of the revolving wheel, dragging all fine particles to the centre of the cage wheel for discharge to the fines collecting system (cyclones or filter).

Additional feed may also enter from the top of the cage wheel unit.

The remaining medium fraction is constantly skimmed off near the cage wheel periphery, for discharge by gravity at the "middling" outlet.

This medium fraction can be, if appropriate, discharged separately from the other two fractions, or run together with the VS-coarse for combined discharge.

The cut is decided by setting the cage wheel speed.

Cut size ranges normally from 25 to 150 μm .

Design details of the VSK-separator:

Transition box for air intake.

Mild steel casing with perforated plate insert for even distribution of the incoming airflow and access ports for inspection and maintenance.

Array of cascade steps followed by a similar array of upwards directed classifying channels. Both, cascade steps and classifying channels formed by identically sized and individually replaceable plate elements.

Transition casing between VS-separator and cage wheel unit.

Casing for the cage wheel unit with flange connection for fines discharge and underneath arranged outlet spout for the medium fraction. Bypass chute for common treatment/processing of medium- and fine fraction if required.

Annexure - V

Cage wheel for separation of final product with cantilever supported shaft on roller bearings. Wheel drives via either V-belt transmission or totally enclosed precision gears. Elastic couplings for input- and output shaft of gearbox.

Technical data

Cage wheel			
Outer Dia	mm	:	2750
Height	mm	:	1650
Drive motor	KW	:	100
Motor speed	RPM	:	375 -1000

Accessories

- Weight operated pendulum flap, serving as air lock at the feed inlet.
- Weight operated pendulum flap, serving as air lock at the coarse discharge point.
- 2 high efficiency cyclones of 3800 mm Ø for collecting the fine fraction from the separator.
- 2 double pendulum flap valves under cyclones
- Cyclones with wear lining made of Ceramite.

1 SEPARATOR FAN

With single/double entry design. Airflow adjustment by throttle / vane controller.
Process control damper

Fan rating:

Air flow at inlet	M ³ /HR	:	250,000
Dust load	gm/M3	:	40-60
Temperature	°C	:	90
Stat. pressure at inlet	mbar	:	45
Motor required	KW	:	500
	RPM	:	250-750

Duct connection

Separator to cyclone/s
Cyclone/s to fan
Fan to separator
Duct to filter
Exhaust duct
Silencer

541 FV2

1 FLAP VALVE (DOUBLE PENDULUM)

541 LD1

1 LOUVRE DAMPER

541 MH2

1 HOIST FOR SEPARATOR

541 LD2

1 LOUVRE DAMPER

521 BF5/FN5/RF5/LD3

1 BAG FILTER FOR SEPARATOR VENTING

Medium		:	Air
Temperature	Deg.C	:	90
Flow rate	M3/HR	:	50,000
Dust concentration	g/m3	:	50-60
Type of dust		:	cement

Filter with automatic pulsejet cleaning through compressed air. Bag filter provided with Rotary air lock.

Fan

Flow rate	M3/HR	:	55,000
Pressure	mbar	:	30
Motor	KW/RPM	:	75 /1500

541 HP1

1 PREBIN FOR ROLLER PRESS ON LOAD CELLS

541 SH1

1 SHUT OFF GATE, PNEUMATIC

541 RP1

1 ROLLER PRESS

Technical data

Type	:	RP13-140/140
Roller diameter	mm :	1400
Roller width	mm :	1400
Roller speed	m/s :	1.6
Throughput	TPH :	720
Motor with GRR for speed control	KW :	2 x 1000
	RPM :	900 -1500

Roller Press Description:

Machine frame

Machine frame is build as a multipart welded design, carrying the rolls with bearing assembly, the housing, feeding device and other components.

Bearing and Lubrication

The rolls are carried in the machine frame in multi-row cylindrical roller bearings as well as two self-aligning roller thrust bearings. The bearing housings are guided by pivoted feather keys. To minimize friction, the guide system for the bearing housings consists of a pair of slide elements that require very little maintenance. They consist of enclosed sliding plates and chromium plates.

Rubber supports and hydraulic cylinders warrant optimized load application and distribution over the cylindrical roller bearings.

The roller bearings are greased lubricated and protected against fouling by shaft seals and grease-lubricated labyrinths. Grease is continuously supplied to the main roller bearings by the lubrication system. Reliable lubricant supply is achieved by uniform distribution of the grease at all contact points of the main roller bearings. The grease piping is heated, the heater are part of Supplier's Scope. The grease barrel head is heated.

Rollers (Bandage type)

Two rolls made of high-quality tempering steel will be used. The roll surfaces have been provided with a welded surface and profiles.

Hydraulic System

The force needed is applied by a hydraulic-pneumatic system and introduced over the movable roller. The system consists of hydraulic cylinders with spherical pistons, the bladder-type accumulators with safety devices, the hydraulic set with tank and electrical pump, as well as control elements (solenoid valves etc.).

All hydraulic components are easily accessible and quick to service. Assembly and maintenance of the hydraulic cylinders do not require dismantling of the frame structure.

Additional protection of the roller press by means of two proximity initiators which disconnect the main drive motors after the rollers travelled 2/3 of the total displacement distance. The pistons of the pressing cylinders can be swiveled in any direction. The pressing cylinders can be disassembled without dismounting the roller press.

Feeding device

The feeding device has moreover been equipped with a dosing gate. This gate ensures optimal deaeration of fine-sized material within the material entry zone, enables changing the material feed rate and regulating the slab thickness. The dosing gate is electrically operated.

Electrical control elements measure essential mechanical and process data: gap left and right, pressure left and right, temperatures, rotation. For more details see the electrical consumer and measurement device lists.

The inside of the rolls is water-cooled, rotary transmission lead through are supplied. Piping outside the Roller press is included in Supplier's scope

The bearing blocks are water-cooled.

Drive

The roller press drive consists of:

- 2 Precision planetary gearboxes, slipped onto the press rollers incl. oil cooling system
- 2 Torque supports
- 2 Hydraulic shrink discs
- 2 Fluid couplings with integrated overload protection
- 2 Cardan shafts

For maintenance or inspection a sprocket chain drive will be delivered. The speed is variable.

- 2 Guards for the shrink discs

2 Guards for the cardan shafts

A platform with ladder and handrail to DIN standards is installed on top of the Roller press.

One set of special tools for roller presses consisting of:

1 Nitrogen Testing device
2 Bearing withdrawal devices
1 Grease pump for 200 l barrel
Pneumatically operated and
Various small parts.

Foundation bolts for the Roller press frame will be delivered.
Foundation bolts for the torque arms will be delivered.

Pipes with fittings for the grease lubrication and hydraulic will be delivered, installation by the purchaser.

1. Standard specification/electrical system for roller press (ROLCOX®) –Software supply

1.1 Monitoring, interlocking and control of the roller press with grease lubrication of the roller bearings – Software

Consisting of:

- Hydraulic pressure control with pressure/gap control
- Gap monitoring
- Monitoring and correction of gap geometry
- Monitoring of motor current and load reduction at overload situation
- Monitoring of bearing temperatures
- Monitoring of gear oil temperatures
- Monitoring of grease labyrinth sealing
- Monitoring of pre-bin level
- Control of roller drives
- Control and supervision of grease labyrinth sealing
- Control and monitoring of gear oil pumps
- Control of hydraulic pump
- Control of solenoid and proportional valves of the hydraulic system
- Control of solenoid valve for shut-of gate underneath the pre-bin
- Indication of measured values, alarm messages and operation status of the roller press on a LCD display unit
- Keyboard for parameter input (set points, limit values)

1.2 System Description

1.2.1 Control

The system is designed to control following drives of the roller press:

- 2 Roller drives
- 2 Gear oil pumps
- 1 Grease pump
- 1 Hydraulic pump
- 2 Proportional and 6 solenoid valves for the hydraulic system
- 1 Solenoid valve for shut-off gate underneath pre-bin
- 1 Dosing gate

2. Scope of supply

2.1 Documentation

The documentation consist of:

- Loop diagrams (for control panel and sensors only)
- Terminal diagrams (for control panel and sensors only)
- Interlocking diagrams (Interface between control panel and purchaser's control system)
- Data transfer list (only when data interface is installed)
- List of measuring points of the roller press
- Description of the ROLCOX system
- Manuals of electrical equipment

2.2 Exclusions from the scope of supply

Following supplies and services are not in this scope of supply:

- Low voltage switchgear for all motors
- Medium/low voltage switchgear for roller drives
- Transformers
- Roller drive motors and GRR
- Control desk for grinding plant
- Programming of the purchaser's control and visualization system
- Drive-specific interlocking and local control switches
- Power control and instrument cables
- Installation material, cable support systems and fastening material
- Local control switches

Special Notice

Annexure - V

Visual inspection of the rolls for possible damage shall be carried out by the Purchaser as specified below:

- Every 1000 service hours
- Every 2 months at a minimum

The results of such visual inspection shall be taken down by the Purchaser (date, service hours, photographs of the roll surfaces) in case damage is noticed, the suppliers shall be advised in writing without delay so that the necessary measures can be taken.

The guarantee does not apply to roll surface or liners damage due to the penetration of foreign matter (metal objects) and/or inadmissibly large feed lumps or to improper operation and/or inadequate inspection, maintenance and repair work done to the roller press.

A precondition for the assumed guarantees is that the roller press is exclusively operated with the contracted parameters, that the necessary inspection, maintenance and repair work is carried out as laid down in the technical machine documentation and the records of these jobs are worked out. Since there are danger that metal objects and/or inadmissibly large feed lumps penetrate into the grinding process, suitable safety devices (magnetic separator, metal detector with foreign matter removal) and screens are installed and their correct functioning to be ensured.

For roller profile building one automatic welding machine should be supplied along with Roller Press.

541 CA1

1 CRANE FOR ROLLER PRESS MAINTENANCE

541 CM1-3

3 COMPENSATORS / EXPANSION JOINTS

521 BF3/FN3/RF3/LD1

1 BAG FILTER FOR ROLLER PRESS VENTING

Medium		:	Air
Temperature	Deg.C	:	70
Flow rate	M3/HR	:	35,000
Dust concentration	gm/M3	:	80
Type of dust		:	Cement

Filter with automatic pulsejet cleaning through compressed air. Bag filter provided with Rotary air lock.

Fan

Flow rate	M3/HR	:	38,500
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Annexure - V

Pressure	mbar	:	25
Motor	KW/RPM	:	45 / 1500

541 BC2

1 BELT CONVEYOR

Capacity	TPH	:	1250
Material being conveyed		:	Clinker/additives
C-t-C- distance	Mtr	:	22 (approx.)
Belt width	mm	:	1600
Motor	KW/RPM	:	18.5 / 1500

541 LD3-4

2 LOUVRE DAMPER (FOR RECIRCULATION AIR AND FRESH AIR)

541 AS1/FN2-4

1 PNEUMATIC TRANSPORT BY FLUIDSLIDE

Capacity	TPH	:	350
Size	mm	:	500
Slope	°	:	8
Length	Mtr	:	50 (approx.)

50.0 m fluidslide

with

- Inlet socket
- Air supply socket
- Vent socket
- Inspection cover top box
- Inspection cover lower box
- End plates
- Gaskets, connecting belts

51.5 m special synthetic fabric

Size	mm	:	550
Thickness (approx.)	mm	:	4.5

1 discharge spout

With connecting flange

1set fluidslide support

Supporting height	m	:	0.5 (max)
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3 High Pressure Fan

Flow rate	M ³ /min	:	25
Pressure	mbar	:	63
Motor	KW/RPM	:	7.5 / 3000

With air intake filter, cover, counter flange, throttle valve and anti vibration pads.

1 set air supply piping

For fan including elbows, fittings, flanges, and gaskets and connecting bolts.

1 set connecting chute

Including flanges, gaskets and connection bolts

541 DG1

1 DIVERTING GATE, MOTORISED

541 AS2/FN5

1 PNEUMATIC TRANSPORT BY FLUIDSLIDE

Capacity	TPH	:	350
Size	mm	:	500
Slope	°	:	8
Length	Mtr	:	15 (approx.)

15.0 m fluidslide

with

- Inlet socket
- Air supply socket
- Vent socket
- Inspection cover top box
- Inspection cover lower box
- End plates
- Gaskets, connecting belts

16.5 m special synthetic fabric

Size	mm	:	550
Thickness (approx.)	mm	:	4.5

1 discharge spout

With connecting flange

1set fluidslide support

Annexure - V

Size	mm	:	550
Thickness (approx.)	mm	:	4.5

1 discharge spout

With connecting flange

1set fluid slide support

Supporting height	m	:	0.5 (max)
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1 High Pressure Fan

Flow rate	m ³ /min	:	23
Pressure	mbar	:	63
Motor	KW	:	5.5
	RPM	:	3000

With air intake filter, cover, counter flange, throttle valve and anti vibration pads.

1 set air supply piping

For fan including elbows, fittings, flanges, and gaskets and connecting bolts.

1 set connecting chute

Including flanges, gaskets and connection bolts

721 BM1

1 SINGLE CHAMBER BALL MILL (EXISTING)

Technical data

Tube diameter	Mtr	:	4.6
Grinding path length	Mtr	:	14.25 (After conversion)
Mill speed	RPM	:	15.6
Motor power	KW	:	2 x 2400

Ball charge is to be modified. The mill is to be modified to single chamber and liners to be provided to fill the gap after removal of diaphragm.

The mill should be complete in all respects including feeding, discharge and internal arrangements as per standards.

721 EA1

1 ELECTRONIC EAR COMPLETE WITH PANEL (EXISTING)

1 BUCKET ELEVATOR (EXISTING)

Capacity	TPH	:	500
C-t-c distance	Mtr	:	40 (approx.)
Material being conveyed		:	cement
Motor	KW/RPM	:	90 / 1500

572 DG1

1 DIVERTING GATE (To be decided during detailed Engineering)

572 AS1/FN1 (To be decided during detailed Engineering)

1 PNEUMATIC TRANSPORT BY FLUIDSLIDE

Capacity	TPH	:	350
Size	mm	:	500
Slope		:	8°
Length	Mtr	:	20 (approx.)

20.0 m fluidslide

With

- Inlet socket
- Air supply socket
- Vent socket
- Inspection cover top box
- Inspection cover lower box
- End plates
- Gaskets, connecting belts

21.5 m special synthetic fabric

Size	mm	:	550
Thickness (approx.)	mm	:	5.0

1 discharge spout

With connecting flange

1set fluidslide support

Supporting height	m	:	0.5 (max)
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1 High Pressure Fan

Flow rate	M ³ /min	:	30
Pressure	mbar	:	63
Motor	KW	:	7.5
	RPM	:	3000

With air intake filter, cover, counter flange, throttle valve, AV pads.

1 set air supply piping

For fan including elbows, fittings, flanges, and gaskets and connecting bolts.

1 set connecting chute

Including flanges, gaskets and connection bolts

721 AS2/FN2

1 PNEUMATIC TRANSPORT BY FLUIDSLIDE (EXISTING)

Capacity	TPH	:	500
Size	mm	:	480
Slope	°	:	10
Length	Mtr	:	25 (approx.)

1 High Pressure Fan

Flow rate	M ³ /min	:	17
Pressure	mbar	:	80
Motor	KW/RPM	:	9.3 / 3000

571 NB1

1 NIBS TRAP ARRANGEMENT (NEW)

571 SG1

1 SLIDE GATE, MANUAL (EXISTING)

571 VN1

1 VIBRATING SCREEN

Capacity	TPH	:	10
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721 AS3/FN3

1 PNEUMATIC TRANSPORT BY FLUIDSLIDE (EXISTING)

Capacity	TPH	:	500
Size	mm	:	480
Slope	°	:	10
Length	Mtr	:	14 (approx.)

1 High Pressure Fan

Flow rate	M ³ /min	:	17
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Annexure - V

Pressure	mbar	:	80
Motor	KW/RPM	:	9.3 / 3000

721 BF2/AC3/FN8

1 MILL VENT BAG FILTER WITH FAN AND DUST TRANSPORT (EXISTING)

Medium		:	Air
Temperature	Deg.C	:	102
Flow rate	M3/hr	:	43800
Dust concentration	gm/M3	:	229
Type of dust		:	cement

1 Mill vent fan

Flow rate	M3/HR	:	44600
Pressure	mmWG	:	447
Power	KW/RPM	:	90 / 1500

541 LD5

1 LOUVRE DAMPER FOR RECIRCULATION AIR

721 SC1

1 SCREW CONVEYOR (EXISTING)

Capacity	TPH	:	12
Length	Mtr	:	3.5

721 SC2

1 SCREW CONVEYOR (EXISTING)

Capacity	TPH	:	12
Length	Mtr	:	10

721 SR1

1 DYNAMIC SEPARATOR (EXISTING)

Technical data:

Type	:	O-SEPA
Model	:	N 3500
Motor power	KW	: 260
	RPM	: 600 – 1500

721 FV2

1 FLAP VALVE (EXISTING)

721 FM1

1 FLOW METER (EXISTING)

Capacity	TPH	:	350
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721 BF1/AC1-2

1 BAG HOUSE FOR PRODUCT COLLECTION (EXISTING)

Medium	:	Air
Temperature	Deg.C	: 94
Flow rate	M3/hr	: 232,000
Dust concentration	gm/M3	: 738
Type of dust	:	cement

721 FN5 (existing to be retrofitted)

1 BAG HOUSE FAN

Parameters after retrofitting:

Flow rate	M3/hr	:	270,000
Pressure	mbar	:	50
Power	kW/RPM	:	550 / 1500
Temp	Deg C	:	100

Note: Existing Fan has to be retrofitted with new impeller and shaft to obtain the above mentioned parameters. Existing motor to be used.

721 AS5-6/BL2

1 PNEUMATIC TRANSPORT BY FLUIDSLIDE (EXISTING)

Annexure - V

Conveying capacity	TPH	:	150
Size	mm	:	350
Slope	Deg.	:	10
Length	m	:	10 (approx.)

1 roots blower (existing) for aeration of 721 AS5-6

721 AS7/FN6

1 PNEUMATIC TRANSPORT BY FLUIDSLIDE (EXISTING)

Conveying capacity	TPH	:	300
Size	mm	:	480
Slope	Deg.	:	8
Length	m	:	10 (approx.)

1 High Pressure fan

Capacity	m ³ /min	:	12
Pressure	mbar	:	80
Power	KW/RPM	:	5.5 / 3000

721 AS8/FN7

1 PNEUMATIC TRANSPORT BY FLUIDSLIDE (EXISTING)

Conveying capacity	TPH	:	300
Size	mm	:	480
Slope	Deg.	:	8
Length	m	:	27 (approx.)

1 High Pressure fan

Capacity	m ³ /min	:	33
Pressure	mbar	:	80
Power	KW/RPM	:	9.3 / 3000

591 SM1

1 SCREW SAMPLER (NEW)

591 CP1-2

**2 COMPRESSOR
(1x Standby)**

With air dryer, air receiver, valves, piping and accessories

Capacity	M3/HR	:	180
Pressure	bar	:	10
Motor	KW/RPM	:	55 / 3000

FLY ASH FEEDING SYSTEM

761 SB1

1 FLY ASH SILO (EXISTING)

Capacity	MT	:	1000
Diameter	Mtr	:	10

761 SG5

1 SLIDE GATE, MANUAL (EXISTING)

761 PG5

1 SHUT OFF GATE, PNEUMATIC (EXISTING)

Size	mm	:	300
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761 JB1

1 JUNCTION BOX (NEW)

With 3 outlets; 2 blinded

771 AS1/FN1

1 PNEUMATIC TRANSPORT BY FLUIDSLIDE

Conveying capacity	TPH	:	110
Size	mm	:	300
Length	m	:	3

1 High Pressure fan

Capacity	m3/min	:	3
Pressure	mbar	:	63
Power	KW	:	3.7
Speed	RPM	:	3000

771 SG1

1 SLIDE GATE, MANUAL (EXISTING)

Size mm : 300

771 SH2

1 SHUT OFF GATE, PNEUMATIC (EXISTING)

Size mm : 300

771 DV1

1 DOSING VALVE (EXISTING)

761 HP2

1 AERATION BIN (EXISTING)

Capacity t : 25

771 SG2

1 SLIDE GATE, MANUAL

Size mm : 300

771 SH3

1 SHUT OFF GATE, PNEUMATIC

Size mm : 300

771 DV2

1 DOSING VALVE

771 FM1

1 FLOW METER (EXISTING TO BE MODIFIED)

Capacity TPH : 110

771 AS2/FN2

1 PNEUMATIC TRANSPORT BY FLUIDSLIDE

Conveying capacity TPH : 110
Size mm : 300
Length m : 17

1 High Pressure fan

Capacity	m3/min	:	16
Pressure	mbar	:	63
Power	KW	:	5.5
Speed	RPM	:	3000

771 DG1

1 DIVERTING GATE

771 SH4

1 SHUT OFF GATE, PNEUMATIC

771 AS3/FN3

1 PNEUMATIC TRANSPORT BY FLUIDSLIDE

Conveying capacity	TPH	:	110
Size	mm	:	300
Length	m	:	21

1 High Pressure fan

Capacity	m3/min	:	19
Pressure	mbar	:	63
Power	KW	:	5.5
Speed	RPM	:	3000

771 DG2

1 DIVERTING GATE

771 SH5

1 SHUT OFF GATE, PNEUMATIC

771 AS4/FN4

1 PNEUMATIC TRANSPORT BY FLUIDSLIDE

Conveying capacity	TPH	:	110
Size	mm	:	300
Length	m	:	5

1 High Pressure fan

Capacity	m3/min	:	5
Pressure	mbar	:	63
Power	KW	:	3.7

Annexure - V

Speed RPM : 3000

779 BF1/FN1/RF1

1 BAG FILTER

Medium : Air
Temperature Deg.C : 90
Flow rate m3/hr : 15,000
Dust concentration g/m3 : 50
Type of dust : Fly ash

Filter with automatic pulsejet cleaning through compressed air. Bag filter provided with Rotary air lock.

Fan

Flow rate m3/hr : 16500
Pressure mbar : 25
Motor kW : 18.5
rpm : 1500

