

<b>Client:</b>
<b>Plant</b>
<b>Contact person:</b>
<b>Address / phone / fax:</b>
<b>Date:</b>

## 1.) GENERAL INFORMATION

**Supplier of the mill:**

**Years in operation:**

**Description of the mill:**

- Raw Mill:
- Coal Mill:
- Cement Mill:

**Technical Data:**

- Open circuit mill:
- Closed circuit mill:  
(bucket elevator)
- Air swept mill:

**Pregrinding:**

- no
- yes

Please complete the enclosed questionnaire



## 2. BALL MILL

Installed Power of Mill Drive: \_\_\_\_\_ kW

Actual Power of Mill Drive: \_\_\_\_\_ kW

Speed of mill: \_\_\_\_\_ rpm

Rotation:

(see from inlet to outlet)

left

right

Type of discharge (middle, end, air) \_\_\_\_\_

Diameter without lining \_\_\_\_\_ mm

Cylindrical length of mill shell \_\_\_\_\_ mm

Filling degree and Length of the grinding chambers:

Chamber 1 \_\_\_\_\_ % \_\_\_\_\_ mm

Chamber 2 \_\_\_\_\_ % \_\_\_\_\_ mm

Chamber 3 \_\_\_\_\_ % \_\_\_\_\_ mm

Ball charge:

Diameter	Chamber 1	Chamber 2	Chamber
	t	t	t
100	_____	_____	_____
90	_____	_____	_____
80	_____	_____	_____
70	_____	_____	_____
60	_____	_____	_____
50	_____	_____	_____
40	_____	_____	_____
30	_____	_____	_____
25	_____	_____	_____
20	_____	_____	_____
17	_____	_____	_____

Description of diaphragm and outlet wall (Supplier, type, slot size):

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Drying chamber installed:     yes     no

Length of drying chamber \_\_\_\_\_ mm

Type of lining, (lifting, classifying etc.)

Chamber 1                      Chamber 2                      Chamber 3

Supplier: \_\_\_\_\_

Dimension: \_\_\_\_\_ mm

Thickness: \_\_\_\_\_ mm

Thickness of mill cylinder \_\_\_\_\_ mm

Drilling diameter of the holes in the mill cylinder \_\_\_\_ mm

Type of bearing, ( neck bearing, slide shoe etc.)

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### *Control of the Mill*

- Electrical ear
- Separator
- Bucket elevator



**Mill Ventilation and drying:**

Hot gas to mill (from preheater or cooler)

	Design	Operation
Gas quantity:		nm <sup>3</sup> /h
Temperature:		°C

Fresh air to mill

	Design	Operation
Gas quantity:		nm <sup>3</sup> /h
Temperature:		°C

Hot gas generator installed, yes/no

Type of firing: \_\_\_\_\_

Capacity: \_\_\_\_\_

Installed Mill Fan:

	Design	Operation
Air quantity:		nm <sup>3</sup> /h
Pressure difference:		mbar
Temperature		°C
Speed		rpm
Speed range		rpm

Mill dedusting:

Cyclone installed yes/no, (number, size, air quantity, temperature, pressure loss)  
 \_\_\_\_\_

Filter installed yes/no, (type, air quantity, temperature, pressure loss)  
 \_\_\_\_\_



**Separator:**

Supplier: \_\_\_\_\_

Type of Separator (static or dynamic, first,- second or third generation)

\_\_\_\_\_

	Design	Operation
Installed Power of Separator:		kW
Air quantity:		nm <sup>3</sup> /h
Pressure difference:		mbar
Maximal feed		t/h
Speed		rpm
Speed range		rpm

**Separator Fan:**

	Design	Operation
Air quantity:		nm <sup>3</sup> /h
Pressure difference:		mbar
Temperature		°C
Speed		rpm
Speed range		rpm

**Separator Circuit:**

Cyclone installed yes/no, (number, size, air quantity, temperature, pressure loss)

\_\_\_\_\_

\_\_\_\_\_

Filter installed yes/no, (type, air quantity, temperature, pressure loss)

\_\_\_\_\_

\_\_\_\_\_

# Grinding Plant with Ball Mill Datasheet



**Production:**

	Design	Operation
Capacity:		t/h
Fineness:		% 90µ residue
		% 200µ residue
Cement production (cement type, capacity t/h, fineness cm <sup>2</sup> /g acc. to Blaine):		
Cement temperature:		°C
Specific Power Consumption of Mill:		KWh/t
Specific Power Consumption of total Grinding Plant:		KWh/t
Reject quantity:		t/h

## Description of the feed material:

Type of material: \_\_\_\_\_

Moisture content of feed material % H<sub>2</sub>O: \_\_\_\_\_

Grindability (Bond/Index/HG/kwh/t): \_\_\_\_\_

Particle size, average, max.: \_\_\_\_\_ mm

Additives: (slag, fly ash, gypsum, iron ore, etc.)

Quantity, particle size, moisture content

\_\_\_\_\_  
\_\_\_\_\_

## Coal

Lower heating value \_\_\_\_\_

Sulfur content of fuel \_\_\_\_\_

Volatile content \_\_\_\_\_

Ash content \_\_\_\_\_

## Grinding aid yes/no

Quantity \_\_\_\_\_

Water Injection:       yes       no

Quantity \_\_\_\_\_

inlet / outlet \_\_\_\_\_

*Safety devices for Coal Grinding Plant:*

explosion pressure resistant (Mill, Separator, Cyclone, Filter, Coal Dust Bin):

\_\_\_\_\_ bar

number and location of explosion vents:

\_\_\_\_\_

number and location of shut off flaps:

\_\_\_\_\_

description of inertizing system:

\_\_\_\_\_

number and location of analyser for CO and O2:

\_\_\_\_\_

Drawings:

***If it is possible please submit the following drawings:***

General arrangement drawing of the grinding plant  
General arrangement drawing of the mill incl. internal parts  
Process flow sheet

Remarks:

## Questionnaire for pregrinding plant

Supplier of the crusher: \_\_\_\_\_

### Type of crusher:

single rotor (hammermill), double rotor, roller press .....

\_\_\_\_\_

Online or closed circuit with separator – type of separator,

\_\_\_\_\_

discharge with bucket elevator or air

\_\_\_\_\_

Number of Drive: \_\_\_\_\_

Installed Power of Drive: \_\_\_\_\_ kW

Actual Power of Drive: \_\_\_\_\_ kW

Roller Discounter: \_\_\_\_\_ mm

Roller Width: \_\_\_\_\_ mm

Roller Speed: \_\_\_\_\_ rpm

Hydraulic Pressure: \_\_\_\_\_ bar

**Separator:**

Supplier: \_\_\_\_\_

Type of Separator (static or dynamic, first,- second or third generation)  
 \_\_\_\_\_

	Design	Operation
Installed Power of Separator:		kW
Air quantity:		nm <sup>3</sup> /h
Pressure difference:		mbar
Maximal feed		t/h
Speed		rpm
Speed range		rpm

**Ventilation and drying:**

Hot gas to crusher (from preheater or cooler)

Gas quantity \_\_\_\_\_ nm<sup>3</sup>/h  
 Temperature \_\_\_\_\_ °C

Fresh air to crusher

Air quantity \_\_\_\_\_ nm<sup>3</sup>/h  
 Temperature \_\_\_\_\_ °C

Hot gas generator installed     yes     no

Type of firing \_\_\_\_\_

Capacity \_\_\_\_\_



Installed Crusher Fan:

	Design	Operation
Air quantity:		nm <sup>3</sup> /h
Pressure difference:		mbar
Temperature		°C
Speed		rpm
Speed range		rpm

Crusher dedusting:

Cyclone installed yes/no, (number, size, air quantity, temperature, pressure loss)

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Filter installed yes/no, (type, air quantity, temperature, pressure loss)

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**Production:**

	Design	Operation
Capacity:		t/h
Fineness:		% 90μ residue
		% 200μ residue
Cement production (cement type, capacity t/h, fineness cm <sup>2</sup> /g acc. to Blaine):		
Cement temperature:		°C
Specific Power Consumption of Mill:		KWh/t
Specific Power Consumption of total Grinding Plant:		KWh/t
Reject quantity:		t/h

**Description of the feed material:**

Type of material: \_\_\_\_\_

Moisture content of feed material % H<sub>2</sub>O: \_\_\_\_\_

Grindability (Bond/Index/HG/kwh/t) \_\_\_\_\_

Particle size, average, max.: \_\_\_\_\_ mm

Additives: (slag, fly ash, gypsum, iron ore, etc.) \_\_\_\_\_

Quantity, particle size, moisture content \_\_\_\_\_

**Drawings:**

**If it is possible please submit the following drawings:**

General arrangement drawing of the grinding plant  
General arrangement drawing of the crusher  
Process flow sheet

**Remarks:**