

Capability profile in
Cement industry and construction
material

Table of content

1. Main activity	1
2. Some pictures and equipment parameter of typical project had implemented:	2
2.1. Designing, manufacturing, installing equipment system:	2
2.2. Spare part supplying.....	12
2.3. Supply automatic control system	15
2.4. Technical service supplying	17

1. Main activity

NARIME has been designing, manufacturing and supplying an amount of equipment and spare part for rotary kiln cement plant with the capacity of 1,4 – 2,4 million ton per year, main activity includes:

- ✓ Designing, manufacturing, installing equipment system:
 - Cement unloading system, clinker unloading system, gypsum system, JUMBO packaging system and cement production system;
 - Conveying equipment: Bucket elevator, screw conveyor, belt conveyor, chain conveyor, airslide;
 - Weighing and feeding system: Belt- scale conveyor; weigh feeder, silo weighing system;
 - Silo, cement or material tank;
 - Bag packaging system;
 - Ball mill, bag filter, electrostatic precipitator.
- ✓ Supplying spare part:
 - Conveyor chain, roller;
 - Hot fan wing with big diameter, Roots fan recovery;
 - Manufacturing, recovering weighing dish, coal injector nozzle.
- ✓ Supplying control automatic system
- ✓ Supplying technical service

Beside designing and manufacturing, NARIME is a consultant about mechanical engineering, automation for cement plant during operation, maintenance and supplying equipment.

NARIME's products are highly evaluated by customer and abroad consultant. Some cement plant have become traditional customers of NARIME, such as:

- ✓ Nghi Son cement corporation
- ✓ Vicem But Son cement joint stock company
- ✓ Vicem Bim Son cement joint stock company
- ✓ Vicem Ha Tien cement joint stock company
- ✓ Vicem Thai Nguyen cement joint stock company
- ✓ Vicem Hai Phong cement joint stock company

- ✓ Vicem Ha Long cement joint stock company
- ✓ Vicem Tam Diep cement joint stock company
- ✓

2. Some pictures and equipment parameter of typical project had implemented:

2.1. Designing, manufacturing, installing equipment system:

Bulk cement unloading system with the capacity of 300 Ton/h

EQUIPMENT PARAMETER OF SYSTEM		
No.	Equipment name	Parameter
1	01 Bucket elevator	Q=300 T/h
2	01 Airslide system	B=400 mm
3	02 Steel silo	V=200 Ton
4	02 Telescopic	Q=150 Ton/h
5	01 Bag filter	Q=10.000 m ³ /h
6	02 Bag filter	Q=7.000 m ³ /h
7	01 Compressed air system	Q=5 m ³ /phút m ³ /min.

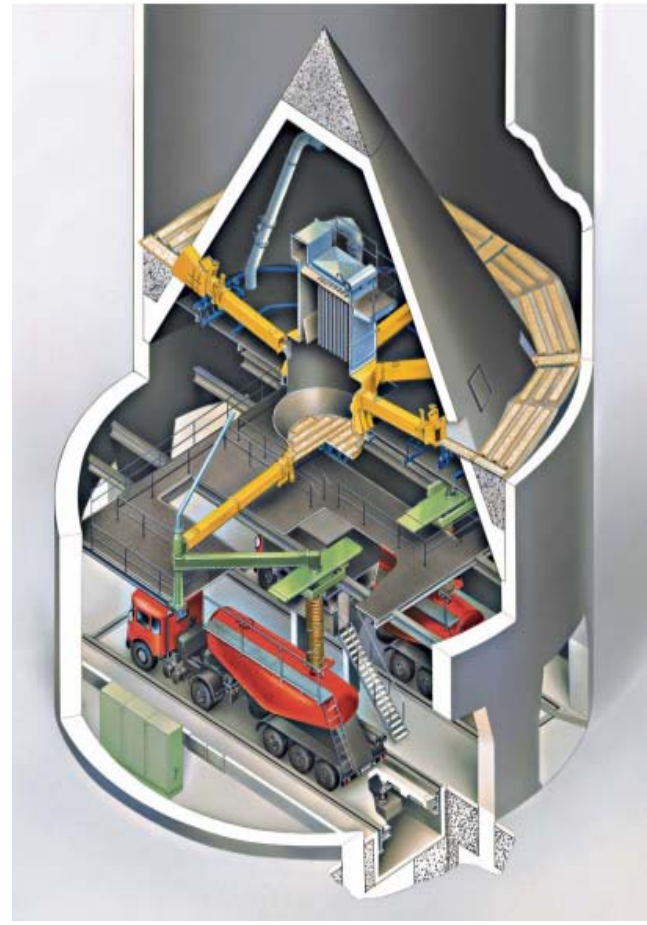


Clinker unloading system with the capacity of 450 Ton/h

EQUIPMENT PARAMETER OF SYSTEM		
No.	Equipment name	Parameter
1	01 Two- way damper 800x600 (mm)	Q=450 T/h
2	01 Conveyor system B=900; L=20,1 (m)	Q=450 T/h
3	01 Conveyor system B=900; L=85,6 (m)	Q=450 T/h
4	01 Telescopic for vessel	Q=450 Ton/h D=1000; L=16,5 m
5	02 Bag filter	Q=7.000 m3/h



Equipment system of 5000 ton silo



EQUIPMENT PARAMETER OF SYSTEM

No.	Equipment name	Parameter
1	02 Cement piping system DN5350	Q=700 ton/h
2	01 Silo unloading system: 06 unloading gate	Q=300 ton/h
3	01 center silo	V=15 m ³
4	Concrete silo	V=5000 ton
5	02 Telescopic	Q=150m ³ /h
6	01 Airslide system B=400 mm	Q=250 ton/h
7	01 Bag filter at silo bottom	Q=4500m ³ /h
8	02 Bag filter at silo top	Q=24.000 m ³ /h

JUMBO packaging system with the capacity of 60 ton/h

PARAMETER OF SYSTEM	
Bag packaging equipment	02
Capacity	20 Bag/h
Bag weight	1,5 ton



De- NOx system

EQUIPMENT PARAMETER OF SYSTEM	
Mixing tank	V=30 m3
Solution pump	Q=60m3/h
Compressed air system	Q=3,9 m3/min. ; P=8 kG/cm2
Storage tank	V= 40 m3
Feeding pump	Q=180 l/min.
High pressure nozzle	04 set



Gypsum discharge system include weighing scale with the capacity of 2÷25 ton/h

EQUIPMENT PARAMETER OF SYSTEM	
Volume of hopper	V= 18 m ³
Weighing scale conveyor	Rubber belt
Belt width	B=1400 mm
Conveyor velocity	n= 0.45 ÷ 4,5 m/ph. m/min.



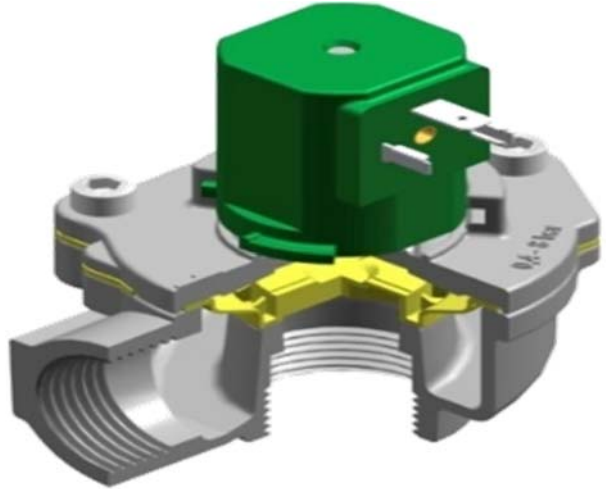
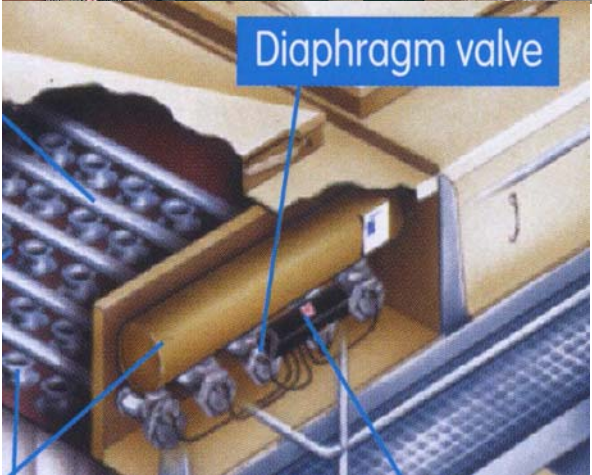
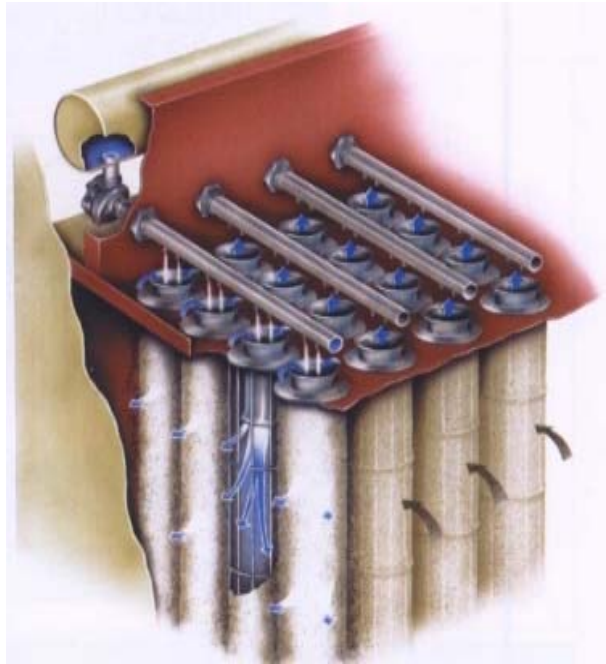
Material flow control system for truck discharge system



SYSTEM PARAMETER	
Max capacity of measure equipment	600 Ton/h
Equipment tolerance	$\leq \pm 5 \%$

Bag filter system

Max capacity of equipment: 80.000 ÷ 100.000 m³/h



Electrostatic precipitator system



Airslide system with the capacity of 400 ton/h

EQUIPMENT PARAMETER OF SYSTEM	
Width	B=400 mm
Incline angle	8 degree
Max capacity	400 ton/h



Screw conveyor with the capacity of 200 ton/h

EQUIPMENT PARAMETER	
Diameter	D=400 mm
Pitch	t=350 mm;
Velocity	V= 150 RPM



Vibrating screen 120 ton/h

EQUIPMENT PARAMETER	
Velocity	980 RPM
Motor power	N= 3 kW



Package cleaning equipment

EQUIPMENT PARAMETER	
Capacity	100 ton/h; (2000 package/h)
Weight of package	50 kg



2.2. Spare part supplying

Inner guiding ring



Nozzle – coal injector



Hot air propeller

- Diameter $\Phi=3200$ mm;
- Max velocity: 1450 rpm



Coal injector

Material: 2 components – abrasive resistance steel



Manufacture, restore coal weighing disc



Chain of bucket conveyor for clinke, limestone, cement



PARAMETER OF CHAIN OF BUCKET CONVEYOR FOR CLINKE, LIMESTONE, CEMENT	
Pitch	t=250 mm
Velocity	0,5 m/min
Warranty policy	≥24 month

Restore, repair roots fan



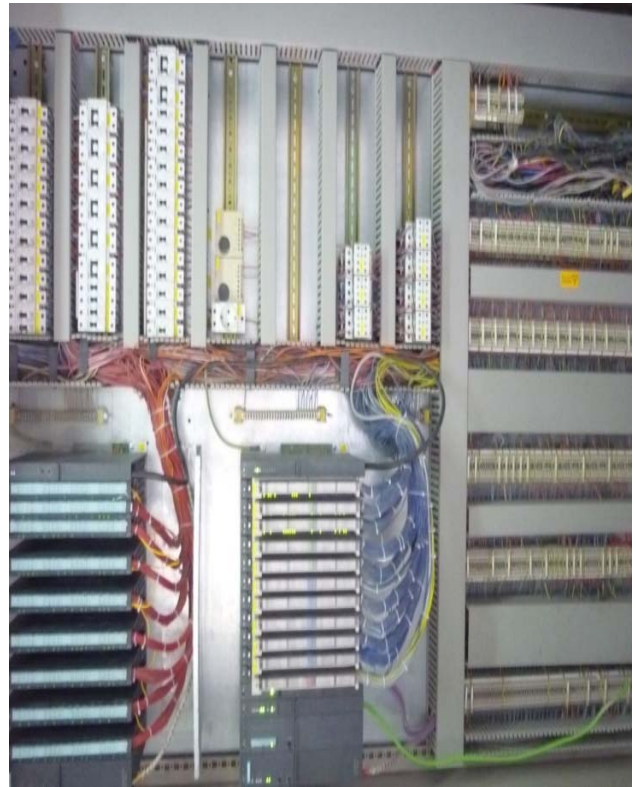
Sleeve casting

Material	SCH 13
Diameter	D=3600÷3750 (mm)
Working temperature	900 °C÷1050 °C



2.3. Supply automatic control system

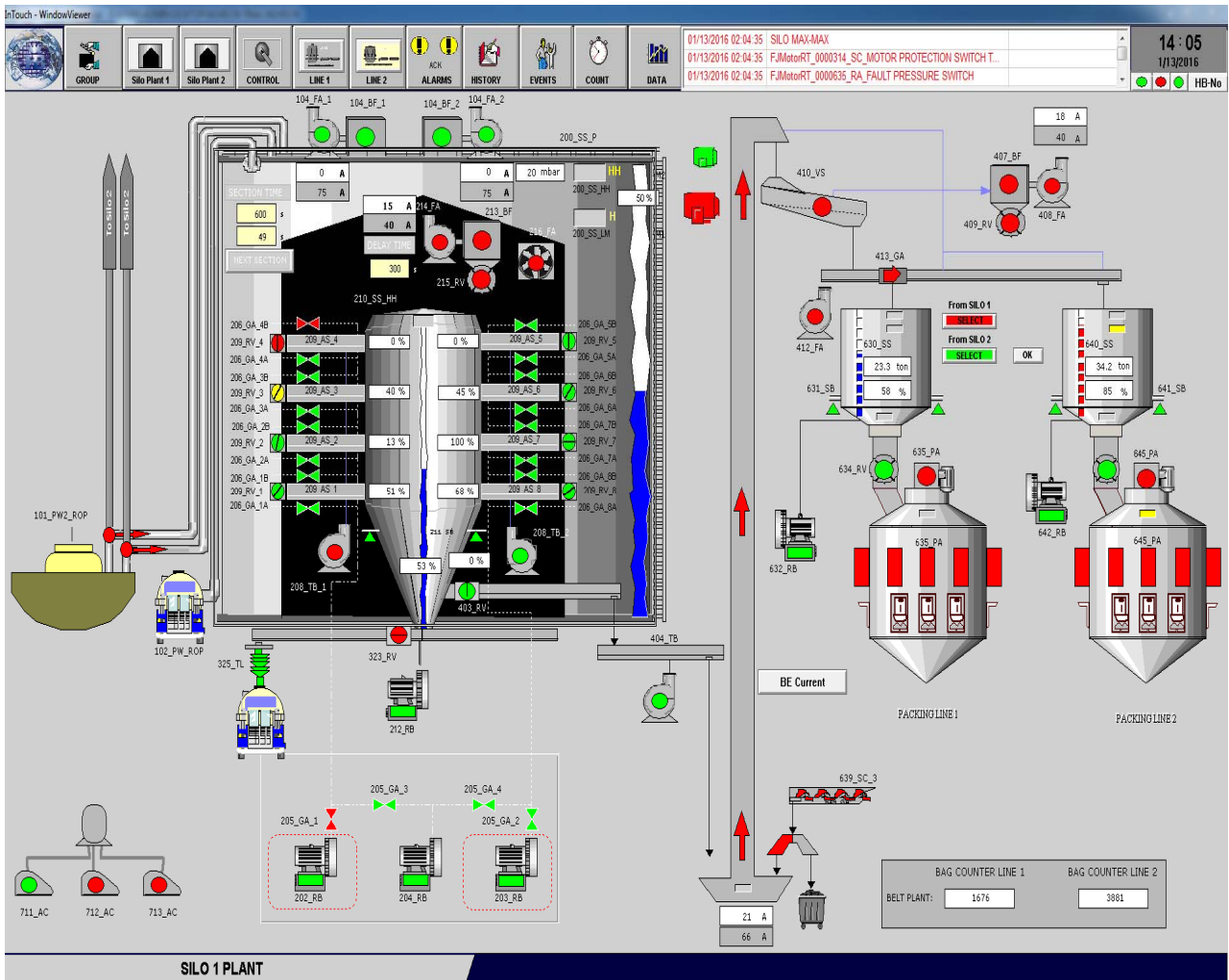
Power and control cabinet



PCS7 Siemens control system



SCADA controlling monitor-Cement distribution terminal



2.4. Technical service supplying

Ultrasonic scan roller ring of rotating kiln with diameter: $D= 3700$ (mm)



Material properties checking, damage diagnostic



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