CG GANZ FACILITY
Hungary
The History: The glorious past Inventions

<table>
<thead>
<tr>
<th>Event</th>
<th>Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Abraham Ganz established GANZ factory</td>
<td>1844</td>
</tr>
<tr>
<td>Electric dept was established</td>
<td>1878</td>
</tr>
<tr>
<td>Electric public transport by Kálmán Kandó</td>
<td>1892</td>
</tr>
<tr>
<td>Creation of the 1st Transformer in the world</td>
<td>1884</td>
</tr>
<tr>
<td>Production of 3ph Induction motor (3HP)</td>
<td>1896</td>
</tr>
<tr>
<td>Production of Turbo-generators in GANZ by Otto Blathy (900kVA)</td>
<td>1903</td>
</tr>
<tr>
<td>Ganz Ansaldo was formed (motors, generators, service)</td>
<td>1991</td>
</tr>
<tr>
<td>Transelektro group acquired Ganz Ansaldo (motors)</td>
<td>2000</td>
</tr>
<tr>
<td>Ganz became part of CG – production of large motors</td>
<td>2006</td>
</tr>
<tr>
<td>Resumed generators</td>
<td>2008</td>
</tr>
</tbody>
</table>
**Locations of the facilities**

**Budapest**
- Central administrative functions
- Sales
- Design
- Purchasing

**Tápiószele**
- Transformer, electric motor manufacturing
- 41000 m2 factory
Hungary - Factories in Tápiószele

Rotating machines

Transformers
PUMP DRIVES: Desalination Plants

Desalination Plant, Middle East, 2011

FTA 710 K4 type
(5 x 3100 kW, 13800 V, 1788 r.p.m.) Slip-ring induction

Shoiba Water SWCC, Saudi Arabia, 1995

FRC 560J2
(9 x 3000 kW, 6000 V, 3000 r.p.m.)
One of the largest Supplier for Pumping Stations in Egypt

Tolombat PS Egypt, 2000, 2010

Reggio Emilia, Italy 2006
FHCV 800 Lw18/24 type
(: 800 kW, 3150 V, 331rpm)
(400 kW, 3150 V, 248rpm)
Dual-speed vertical motor for pump-drive

Applications
Automatic Brush lifting
Back stop
High Axial thrust bearings

Salheia & ELshabab East Delta, 2010

Helwan Water, Egypt, 2012
PUMP DRIVES: Thermal Power Plant

FVKZ 716 V16 type (31 x 1300 kW, 6000 V, 367 r.p.m.)
FVKO 716L14 type (9 x 1100 kW, 6600 V, 423 r.p.m.)

Applications

- Cooling Water Pumps
- Boiler Feed Pumps
- Condenser Pumps
- Cooling Tower Pumps

Boiler-feed pump drive

FDKZ 806x4 type
(3 x 7000 kW, 6600 V, 1480 r.p.m.)

FDKZ 806W4 type
(3 x 6000 kW, 6600 V, 1480 r.p.m.)

Esfahan Power Plant, Iran 1981, 83, 93
Shahid Radjai Power Plant, 1990

Obrenovac Power Plant, Yugoslavia, 1978
Kardia Power Plant, Greece 1979

Alstom India, NTPC Vidhyachal, 2016
4 x 1100 kW, 2 x 315 kW

Esfahan Power Plant

Shahid Radjai Power Plant
PUMP DRIVES: Nuclear PP
PUMP DRIVES: Nuclear PP

Applications
Cooling Water Pumps

South Ukraine NPP, Ukraine, 2012

FTC 450Hm8
(6 x 630 kW, 6000 V, 750 r.p.m.)


FRC 560 J2
(2 x 2500 kW, 6000 V, 3000 r.p.m.)
(9 x 3500kW 6000V 300 r.p.m)
PUMP DRIVES: Nuclear PP

ROSTOV NPP 1, Russia, 2011
FRCV 560Hs8
(2 x 1350 kW, 6000 V, 300 r.p.m.)

ROSTOV NPP 3, Russia, 2013
FVDZ1126 V20, FVDZ 1126V22
(3 x 3300 kW, 6000 V, 300 r.p.m.)
(4 x 4500 kW, 6000 V, 272.7 r.p.m.)

ROSTOV, NPP Belarus, 2016
FVDZ 1126V16
(8 x 5400 kW, 6000 V, 275 r.p.m.)
PUMP DRIVES: Mines

Zambia

8 x 1300kW, 1500rpm, 11kV Interchangeable
8 x 2500kW, 1500rpm, 11kV Interchangeable

"4 different old makes of 16 motors, we need identical designs which can replace all makes mechanically. CG designs was excellent and successful to fit in."
Mr. Benjamin Miti, Resident Engineer Electrical

Applications

Underground Mines
Surface mines
Custom made designs

Special design for 400m underground Copper Mine in high speed (4pole), with Oil Self lubricated design (no Lube oil was allowed)
HAZARDOUS AREA MOTORS
COMPRESSOR DRIVE - Oil & Gas

Explosion-proof motors of

*EExe, EEExp and EEExn types* as per European IEC, DIN, EN

Hungarian National Oil Co.

FHC 450 K2 type
(1000 kW, 6000 V, 2984 r.p.m.)
Cage-rotor induction motor
for gas-turbine starting –

(2900 kW, 6000 V, 368 r.p.m.)
Piston-compressor drive –
EExe, EExp and EExn types as per European IEC, DIN, EN

Petrofac Al- Badra Iraq, 2011

FTCn 450 Hy4, FTCn 450Hy4
(6 x 280 kW, 2 x 355kW, 2 x 750kW)
COMPRESSOR DRIVE - Oil & Gas

Explosion-proof motors of

*EExe, EExp and EExn types* as per European IEC, DIN, EN

**FDDRp 903 L24 type**
(1150 kW, 3300 V, 24 P, 248 r.p.m.)
Pressurized type cage-rotor motor in hazardous environment

Petrochemical plant, Middle East
SATORP, SAUDI ARABIA - 2019

Ex p motor

FTCp 710G4 type

4000 kW, 13800 V, 1791 rpm
CEMENT INDUSTRY MOTORS

DOUBLE CAGE motors for cement twin mill drives

- Wound-rotor induction mill-motor at Sinai Cement, Egypt
  - (4720 kW, 6300 V, 993 r.p.m.)

- Wound-rotor induction mill-motor at Binani Cements Dubai
  - (3000 kW, 3300 V, 993 r.p.m.)
Cement industry – Motor replacement

7500 kW, 11 kV, 6 pole wound rotor motor for cement mill
Customer: ASI-Egypt

4600 kW, 3.3 kV, 6 pole cage rotor cement mill motor
Customer: Tillbury Cement Plant, UK
Cement industry – Motor replacement

LAFARGE – GREECE – 2013
Heracles General Cement Company
3500 kW, 1000 rpm, 6,6 kV, SR – 1 pc

LAFARGE – ALGERIA – 2013
Algerian Cement Company
3500 kW, 1000 rpm, 3,3 kV, SC – 1 pc
Cement industry – Motor replacement

LAFARGE – IRAQ 2013
Karbala Rehabilitation Project

- 2800 kW, 1000 rpm, 6,6 kV, SR – 4 pcs
- 2300 kW, 1000 rpm, 6,6 kV, SR – 4 pcs
- 1250 kW, 1500 rpm, 6,6 kV, SR – 2 pcs
- 700 kW, 850 rpm, 6,6 kV, SR – 1 pc

LAFARGE – NIGERIA – 2012
ASHAKA Cement Plant

- 2250 kW, 750 rpm, 11kV, SR – 2 pcs
- 5500 kW, 6 Pole 6.6kV
Cement industry – Motor replacement

850 kW, 900 rpm, 11 kV, SR – 1 pc
1400 kW, 900 rpm, IC511, 11 kV, SR – 1 pc
3500 kW, 900 rpm, 11 kV, SR – 1 pc

POLYSIUS, GERMANY – 2011
Ohorongo Cement Plant (NAMIBIA)
Cement industry – Motor replacement

FIVES FCB, FRANCE 2012
Barosso (BRAZIL)

3400 kW, 900 rpm, 13,8 kV, SR – 1 pc
360 kW, 900 rpm, 13,8 kV, SR – 1 pc
220 kW, 1800 rpm, 440 V, SR – 2 pc
1900 kW, 900 rpm, 13,8 kV, SR – 1 pc

VICAT, FRANCE 2012
Saint Egreve Plant

650 kW, 950 rpm, 5 kV, SR – 1 pc
Cement industry – Motor replacement

**Peru Cement Plant**
1800 kW, IC81 cooling 714 rpm

**ENCI Cement, Switzerland**
1700 kW 12 pole, 10kV
Cement industry – Motor replacement

MEFTAHI – ALGERIA 2014
Lafarge Cement plant

2 X 3300 kW, 5500 V, 744 rpm, 50 Hz, FRA
710 Hm8
Cement industry – New motors

POLYSIUS, GERMANY – 2015

Alswafa 2 New line Lafarge plant (Saudi Arabia)

1 x 1500kW, 11kV, FTA 630 Hv6
1 x 1200kW, 11kV, FTA 560 Es6
1 x 5000kW, 13.8kV, FBAO 909 X6
4 x 4000kW 13.8kV, FTA 800 Hs6
2 x 315kW, 11kV, NG450L
Cement industry – New motors

FIVES FCB FRANCE – 2015
CHELF CEMENT PLANT, ALGERIA
11 nos MV Motors

- 2 x 1500kW, 11kV, FTA 500 D6
- 2 x 1250kW, 11kV, FTA 560D6
- 2 x 2300kW, 11kV, FTA 630 G6
- 1 x 1850kW, 11kV, FTA 710 Kt8
- 1 x 700kW, 11kV, FTA 560 Eu8
- 3 x 5400kW, 11kV, FTA 800 Hm6
STEEL DRIVE MOTORS

SPECIAL APPLICATION MOTORS
STEEL INDUSTRY MOTORS

FCAO 1126V8 type, 8350 kW, 6600 V, 8 pole
Roller Mill (motor replacement)
MATTEX – National Iron & Steel IRAN
STEEL INDUSTRY MOTORS

FTC 560 Hm10 type
1100 kW, 6000 V, 592 rpm
Shredder-drive
EMZ - Germany

2013/10/21
3 pcs of FRC 450 Hm8 type
850 kW, 690 V, 744 rpm
Fan application
Paul Wurth – Czeh Republic
Recent Steel Supplies – Motor Replacement

FBA 906 W16 type 4410 kW, 4800 V, 446 rpm

Shredder-drive
Recent Steel Supplies – Motor Replacement

FHA 710 Hm10 type 2942 kW, 6000 V, 595 rpm

Shredder-drive

EMZ - Germany
Thank you