

## Sampling of important references for drives for steel and rolling mills

Technical design: Frequency converter with current link(CSI)  
Frequency converter with voltage link (VSI)  
Thyristor converter (DCC)

### 2009

PWU for Salzgitter Flachstahl GmbH / Germany	1 piece	Drive system for Induced draft the sintering strip dedusting Rating: 2250 kW
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### 2008

SMS Demag AG / Germany for NLMK / Russia	1 complex	Extended Modernisation of the automation system with SIMATIC TDC-hardware and software application for new and existing hydraulic roll adjustments and bends of working roll of the stands finishing train of the hot-strip-mill 2030
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### 2007

NLMK AG Lipezk/ Russia	1 complex	Modernisation of the 7- stand finishing train of the hot-strip-mill 2000, including complete automation machinery with 8 new water cooled DC thyristor converters, 14200 A, for main drives of the stands
SAO Makeewkaer Metallurgisches Werk / Ukraine	1 plant	Construction of the Electrical automation machinery for the 390 middle and fine steel mill with kiln group, 18 stand rolling mill, cooling zone and finishing line with 18 DC stand drives, 4 shears and diverse AC and DC auxiliary drives
SMS DEMAG AG / rolling mill	1 complex	Transfer an Quarto-Aluminium-millstand form Koblenz to Duffel Delivery complete AC-drives for roller table and helper drives. Under: - 3 regenerative infeed converter 400 V/ 1780 A - 18 inverter for roller table - 14 inverter for helper drives and pumps up to 355 kW - MCC-cabinets for not variable-speed drives
Pipe plant Vyksa V-Va/ Russia	1 complex	Complex drive and automation system for a pipe mill for pipe work up to 1420 mm diameter with 31 frequency converters, 13 desks, 4 field stations and 6 PLC
ACC Ilsenburg via Alstom Power Conversion / Germany	1 plant	DC- Converter plant for roller table drives for rolling mill line 2,800 with several DCC-S 525.....

## 2006

Novolipezker Hüttenkombinat / Russia via Lloyd Dynamo Werke /Germany	1 plant	Excitation equipment for synchronous motor, Motor rating: 10MW of the hot-strip-mill 2000
Metallurgical plant Severstal Cherepovets/Russia	4 pieces	4 thyristor converters, 2000 A each, with smoothing reactor for vertical stand of a rolling mill

## 2005

Hoesch Spundwand und Profile Dortmund via LDW Germany	2 pieces	DC-millstand-tandem drive rating: 2 x 2500 kW with water cooling
Stell works Bremen via Alstom Power Conversion / Germany	1 plant	Reconstruction of drive control for four stand tandem mill with several thyristor converters DCC... with different powers and frequency converter
Pipe plant Vyksa II-IV/ Russia	1 complex	Complex drive and automation system for a pipe mill for the pipe work up to 1420 mm diameter with several frequency converters

## 2004

Metallurgical plant Severstal Cherepovets/Russia via VAI / Austria	1 plant	145 dc drives for a transport system of 4 walking beam furnaces
Metallurgical plant Stupino/Russia	1 plant	Reconstruction of Aluminium cold rolling mill 112 with system control and operation; - main drive stand 3000 KW - 2 coil box drives 1000 KW
Metallurgical plant Vyksa / Russia via Elektrostal ESTM	1 complex	280 drives with frequency converters and automation for a pipe mill
Hatch Steltech / Canada Zaporozhe / Ukraine	1 plant	Coilbox for sheet bending machine, 18 AC-drives with VSI-RP frequency converter

## 2003

LDW for NLMK Lipezk/Russia	1 piece	Excitation system for synchronous motor Motor rating: 10 MW
Metallurgical plant Severstal/Russia	1 piece	Excitation system for synchronous motor Motor rating: 13 MW
Pipe rolling mill - India via Elektrostalwerk / Russia	1 piece	Converter plant with motor inverter Rating: 22 kW;16.5 kW;11 kW; 3.15 kW; 70 kW
Novolipezk Metal plant/ Russia /	1 piece	Modernization of 5 cold-rolling mill stand plant 5 twin-drives 2x1780 kW 2 winders 2x 1065 kW 1 shear 1x 205 kW and several aux. drives

## 2001

LDW for NLMK Lipezk/Russia	1 piece	Excitation system for synchronous motor Motor rating: 10 MW
Zaporozhstal / Ukraine	18 pieces	Drives for roller table Rating: 300 kW
Steel works Stupino / Russia	1 piece	Drive for a aluminium hot rolling stand Rating: 5,150 kW

## 2000

NLMK Lipezk/Russia	3 pieces	Belt conveyor for blast furnace 3 Rating: 110 kW
Iron and steel work Svobodny Sokol / Lipezk / Russia	1 complexes	Elevator for blast furnace 2 variable a.c.drives Rating: 4 x 125 kW
Metallurgical plant Severstal/Russia	2 pieces	Roller table groups for a 2,800 rolling mill Rating: 252 kW
Metallurgical plant Severstal/Russia	3 pieces	Modernization of main drives for a 2,000 rolling mill motor rating: 6.3 MW, 6 MW, 5MW
Konverter steel works Cosipa/Brasilia	1 piece	Fan drive Rating: 1,600 kW