

Sampling of important references Modernization of automation and drive systems

Technical design: Automation systems (PLC, SCADA, HMI, MES)
Frequency converter with voltage link (VSI)
Thyristor converter (DCC)
Compact electronics Simoreg CM

2010

Klaus Schaller Consulting für Lafarge Cement plant Voskresensk / Russland	2 pieces	Modernization of the ID Fan's drives for Kiln power: 500 und 750 kW
Vattenfall HKW Mitte / Germany	2 pieces	Modernization of the slave cooling water pumps for the pressure increase of the pumps power: 90 kW
Klaus Schaller Consulting for Lafarge Cement plant Korkino / Russia	1 piece	Modernization of the kiln drive power: 630 kW

2009

Vattenfall HKW Mitte/ Germany	2 pieces	Retrofitting from uncontrolled to controlled drives for slave cooling water pumps power: 500 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, WinCC 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
OAO ZSMK Zapsib / Russia	1 complex	Modernisation of the complete automation system (PLC, SCADA, Siemens TDC) for the 250 small Section rolling mill with 24 stands and 6 shears, Interface to "old plant"

2007

NLMK Lipezk / Russia	1 complex	Modernization 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
Rolling Mill ST390 Makeevka/Ukraine SAO Makeevka Metallurgical Plant / Ukraine	1 complex	Erection of complete automation (S7-400, TDC, WinCC) and drive system for the mill ST390 consist of 6 control pulpits, furnace group, 18 stands mill train, cooling bed and finishing shop with 18 DC-stand drives, 4 Shears and various AC- and DC-aux. drives, Material tracking system, HV switchgear, LV-switchgear
Rolling Mill plant Duffel /	1 complex	Modernization of the removed aluminium quarto

Belgium via
SMS DEMAG AG / Germa-
ny

rolling mill stand with different DC and AC drives
with 1780 A, 18 inverters for roller tables, 14 in-
verters for aux. drives and pumps till 355 kW and
MCC cabinets

2006

Pipe plant Vyksa V-Va/ Russia	1 complex	Complex drive and automation system for a pipe mill for the pipe work up to 1420 mm diameter with 31 frequency converters, 13 desks, 6 field stations and 4 PLC
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2005

Hoesch Spundwand and Profile Dortmund via LDW / Germany	2 pieces	DC millstand-tandem drive rating: 2 x 2,500 kW with water cooling
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Steal 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
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Pipe plant Vyksa II-IV / Rus- sia	1 complex	Complex drive and automation system for a pipe mill for the pipe work up to 1420 mm diameter with 106 frequency converters, 34 desks, 5 field stations and 7 PLCs
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2004

Metallurgical plant Severstal / Russia	1 plant	Reconstruction of main drive for the Quarto stand №2 of the rolling mill 2800. Excitation systems for dc motor 7 MW and synchronous motor 13 MW
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Metallurgical plant Severstal / Russia via VAI / Austria	1 plant	145 dc drives for a transport system of 4 walking beam furnaces
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Pipe plant in India via Elektrostal – ESTM / Russia	1 complex	5 drives with frequency converters, system control and operation for the pipe plant
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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
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Metallurgical plant Vyksa / Russia Via Elektrostal ESTM / Russia	1 complex	280 drives with frequency converters and auto- mation systems for pipe mill
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Norilsk Nickel / Russia via Elpro / Berlin	1 plant	Excitation system for synchronous motor, rating: 0.8 MW
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2003

Novolipezk Metal plant / Russia	1 piece	Modernization of 5 cold-rolling mill stand plant 5 twin-drives 2x1,780 kW 2 winders 2x 1,065 kW 1 shear 1x 205 kW and several aux. drives
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2002

Metallurgical plant Severstal / Russia via Sulzgitter / Switzerland	2 pieces	Roll table drives 2 frequency converters
Thyssen Umformtechnik and Guß / Germany	1 piece	Modernization frequency converter of press lines , 4 quadrant drive rating: 250 kW
Metallurgical plant Severstal / Russia	2 pieces	Laminar-cooling for pumps rating: 800 kW
Siemens AG I&S/PG Gene- ratorwerk Erfurt/ Germany	1 piece	1x 6000 A Thyristor converter for d.c. drive for balance equipment

2001

NLMK Lipezk/ Russia via LDW / Germany	1 plant	New excitation unit for synchronous motor motor rating: 10MW
Zaporozhstal / Ukraine	18 pieces	Revamping of roller table drives: replacement of frequency converters rating: 300 kW
Rolling mill Stupino / Russia	1 plant	Reconstruction of a drive for aluminium hot rolling stand rating: 5,150 kW
Norilsker Nickel / Russia	4 pieces	Reconstruction of sub-synchronous converter cascade rating: 500 kW
Metallurgical plant Severstal / Russia	1 plant	Revamping of excitation units for two d.c. mo- tors, each 5 MW and one synchronous motor 13 MW for main drive of a mill stand

2000

NLMK Lipezk / Russia	3 pieces	Replacement of belt drives for blast furnace rating: 110 kW
Metallurgical plant Severstal / Russia	2 pieces	Replacement of converter drives for roller table groups for 2,800 rolling mill rating: 252 kW

Metallurgical plant
Severstal / Russia

4 plants

Reconstruction of main drives for a 2,000 rolling mill: replacement of analog electronics, adaption to power sections, excitation unit for synchronous motors 5 MW, 6 MW, and 6.3 MW