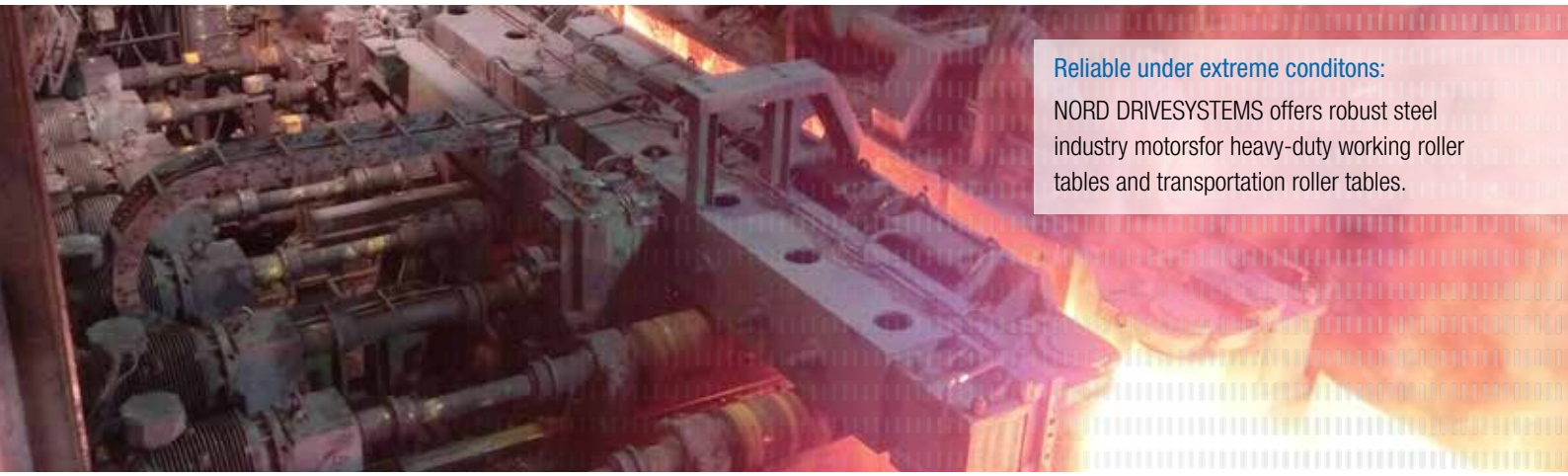
NORD DRIVESYSTEMS

Heavy-duty drive solutions for working roller table applications



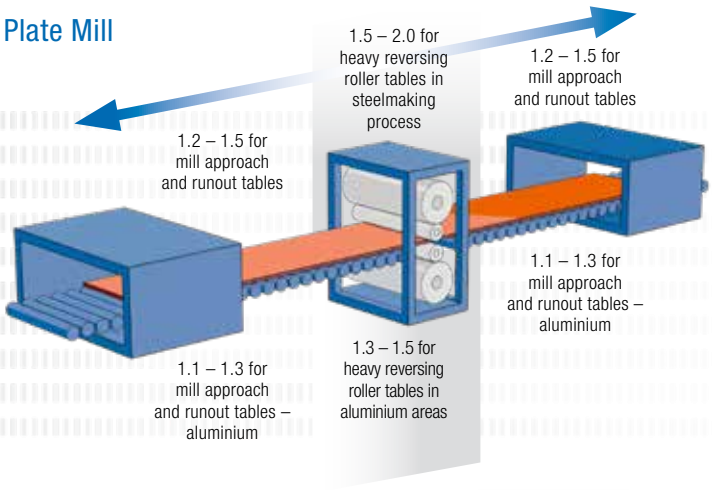
Reliable under extreme conditons:

NORD DRIVESYSTEMS offers robust steel industry motorsfor heavy-duty working roller tables and transportation roller tables.

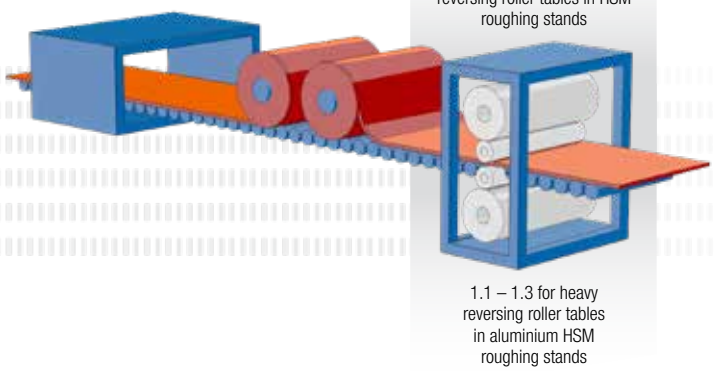
NORD selection guide

NORD recommendation: geared motors for working roller tables should be selected based on the acceleration torque in the application, but that torque should be adjusted by a specific minimum service factor as listed below:

Plate Mill



Hot Strip Mill



Demanding application: Working roller table

Roller tables in modern steel mills often use group-driven rollers. These require special motors with high dynamic torque ratings and a robust overall design to withstand the extreme heat and dirt of a steel mill. Especially on the reversing mill and the associated approach tables, operating duties are extremely demanding with constant starts/stops and instant reversal of directions.

The most important issue in operation is the reliable acceleration and deceleration of the material. The proper motor selection/rating is usually based on the starting torque.

Working roller tables are characteristically exposed to heavy shocks due to the heavy-duty reversing operation and material jams that may occur. For these harsh requirements, all motors must provide sufficient torque, be able to handle any start/stop frequencies, withstand extreme electrical and thermal stress, and tolerate or dissipate great heat originating from the load.

NORD DRIVESYSTEMS

Heavy-duty drive solutions for working roller table applications

Motor requirements

- Speed / torque characteristics to match the specific application
- Low rotor inertia
- Very high mechanical rigidity to withstand the constant reversals
- Robust mechanical design to withstand high loads, shock loads, rapid accelerations and reversals
- Large bearings and high-temperature lubrication
- Robust electrical design to withstand prolonged stall conditions
- Insulation to Class F or H
- Recognition of the high ambient temperature and suitable derating of motor performance
- Ready for 24×7 operation with minimal maintenance
- Totally enclosed design

Gear unit requirements

- Robust mechanical cast iron housing
- Heavy-duty bearings and shafts
- Double Viton shaft seal or alternative labyrinth sealing in descaling and working RT areas for increased dust and tinder protection
- Synthetic oil
- Heavy-duty coat / paint
- AUTOVENT / breather

metals.nord.com www.nord.com

Motor selection matrix for metall mill motors

Area		Application	Cast iron motor		Aluminium motor	IC410	IC411	IC416
			Straight fin	Ring fin				
								
Hot rolling	Plate mill Selection mill Beam rail mill Bloom mill	Heavy working RT (Mill stand)		✓		✓		
		Light working RT (Mill approach and runout)	✓	(✓)		✓		
		Transport RT	✓		✓	(✓)	✓	
	Bar / Billet / Wire / Rod / Tube mill		✓		(✓)		✓	
Cold rolling	Processing line		(✓)		✓		✓	✓
Aluminium / Non-Ferrous mill			(✓)		✓		✓	✓

NORD DRIVESYSTEMS Group

- Family business from Bargteheide near Hamburg with more than 4,100 employees
- Drive solutions for more than 100 branches of industry
- 7 production locations worldwide
- Present in 98 countries on 5 continents
- More information: www.nord.com

Headquarters:
Getriebebau NORD GmbH & Co. KG
Getriebebau-Nord-Str. 1
22941 Bargteheide, Germany
T: +49 45 32 / 289 0
F: +49 45 32 / 289 22 53
info@nord.com