

TECHNICAL SHEET

Investment: 4 Electrical Motors for round bars rolling mill stands

Machinery, technological equipment: / 4 Electrical motors for stands 13, 14, 15 and 17/
Electrical motors

No. crt.	Technical specifications requested by Tender book	Correspondence of the technical proposal with the technical specifications imposed by Tender book	Producer
1	Technical and functional parameters The 4 new motors shall be installed in Donalam Targoviste /LPMici ROLLING MILL plant, part of AFV BELTRAME Group. The new motors will be installed from stand 13 to stand 17 with exclusion stand 16. The motors shall follow the latest safety regulations applicable in Romania. Minimum Energy Efficiency Requirement: The offered motors shall comply with a minimum energy efficiency aprox. 94 % in accordance with the applicable standard for the type of motor offered. Operating conditions: Site data: ▪ Minimum temperature: -20°C ▪ Maximum temperature: +40°C ▪ Location: inside the existing rolling mill ▪ Environment: metallurgical plant Existing electricity supply: Medium voltage side 6kV $\pm 10\%$, three-phase alternating current, 50Hz; Low Voltage side: 700 V $\pm 10\%$, three-phase alternating current, 50Hz; DC Voltage Motors: 600 V DC $\pm 10\%$		

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	Rolling mill productivity: ▪ Billet weight: up to 3 tons ▪ Billet cross section: from 150x150 mm to 180x180 mm ▪ RH furnace nominal capacity: 100 t/h ▪ Interbillet: 5s Working time: 3 shifts/ days, 24h/day - 7days/week, 7500 h/year Technical data: Insulation class: H with delta F Temperature rise: 105 C according to class F Protection degree: IP23 Cooling method: IC86W the temperature of the incoming water must be at 30 C. Duty class: S3/S4 Current gradient at nominal load and base speed: 200 In/ s Nominal overload applied: 160%. Occasionally overload applied: 180%. Motors stand 14; 15 & 17 ▪ Drive: DC controlled ▪ Power motors 630 kW ▪ Rpm 320/960 ▪ weight min: 9.000 Kg Motors stand 13 ▪ Drive: DC controlled ▪ Power motors 800 kW for ▪ Rpm 320/960 ▪ weight min: 10.000 Kg Equipment / materials included: ▪ Encoder ▪ Water cooled exchanger ▪ Motor baseplate ▪ I/O cards for the additional motor signals in the existing ABB drives ▪ starter for motor fan and heat exchanger shall be added in the existing ABB drives		

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	Service/assistance included: ▪ Supervision to mechanical and electrical equipment erection ▪ Commissioning of machine and software ▪ Implement the input from motor's auxiliary device into the existing ABB drives		
2	Performance specifications and operational safety conditions The supplier shall have the following certification: Quality requirements according to ISO 9001 or equivalent; ISO 45001 health and safety management system or equivalent Mandatory minimum standards that must be respected for the supply: Low voltage 2014/35/EU		
3	Warranty conditions Warranty certificate for a period of 1 year for the system from the date the Preliminary Acceptance Certificate is signed; Services provided (technical assistance, services, guarantees, post-guarantees);		
4	Other technical conditions shall be provided: - Technical documentation of process design and assembly design for installation with safety distances; - Technical documentation provided with the equipment; - Documents related to the installation; - General diagrams and functional diagrams; - Circuit diagrams; - Technological process diagram - Operating manual - Maintenance, maintenance and current repair manuals; - List of components; - List of spare parts included; - Inspection and maintenance schedule; - Licenses and operating software included;		
5	Main exclusion		

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	- Civil works - Erection - Cables - MV/LV transformers - Power center		
6	Compatibility and Interoperability Requirements To ensure the equipment's compatibility and interoperability with the factory's existing systems, it is required: Full interfacing with currently existing drivers, model ABB DCS880.		
7	Reference and capabilities The Tenderer shall demonstrate that, within the last 5 years, it has supplied and commissioned similar item for each lot. At least 4 Electrical motors for metallurgical industrial equipment preferably stands, used in continuous-process applications (rolling mills, steel plants, or the metallurgical industry for construction applications or similar). The bidder shall complete the form attached to the procurement documentation (Form no. 2).		

Beneficiary,

Note:

Values with will be completed by the bidder.