

TECHNICAL SHEET

Investment: HOT SHEAR FOR ROUND BARS ROLLING MILL

Machinery, technological equipment: hot shear for rebars located between intermediat train section and finishing train section.

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 system shall be installed in Donalam Targoviste /LPMici ROLLING MILL plant, part of AFV BELTRAME Group. The new Shear will be dedicated to the dinamic cutting of hot material between stand 12 and stand 13. The scope of the shear is to cut the head of the rolled billed and to chop the rolled billet in case of emergency. The machine shall follow the latest safety regulations applicable in Romania. Operating conditions: Site data: ▪ Minimum temperature: -20°C ▪ Maximum temperature: +40°C ▪ Location: inside the existing rolling mill between stands 12 and 13 ▪ Environment: metallurgical plant ▪ Lay-out of the rolling mill LPMici: Dwg.LPM-0000-0000-01 Electricity supply: Supply voltage 400V ±10%, three-phase alternating current, 50Hz; Rolling mill productivity: ▪ Billet weight: up to 2066 kg ▪ Billet cross section: 150x150 mm and 180x180 mm ▪ RH furnace nominal capacity: 100 t/h ▪ Interbillet: 5s Working time: 3 shifts/ days, 24h/day - 7days/week, 7500 h/year		

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	Required production capacity: ▪ Ability to cut round with max diameter 32 mm ▪ Material speed up to: 8 m/s. ▪ Material to cut: quality B500C and B600C ▪ Average cutting temperature +950°C ▪ Cutting force 20 tons ▪ Main motor size max 200 kW ▪ Lubrification requirements: ISO VG 220 Design data ▪ Drive: AC controlled by VFD ▪ Safety brake/block for blade changing operation ▪ Cold shear minimum requirements.: ○ Blades = 4 ○ Knives width: 180 mm, ○ Mechanism type: START- STOP ○ Preliminary weight: 6.200 kg ▪ inlet chute ▪ Outlet chute ▪ driven diverter flap for scrapped material on the exit trough. ▪ Blades material: ○ To be specified in the proposal ○ Metallic shear guard ▪ Supplier shall consider reusing as much as possible the foundation of existing shear to minimize civil works and installation time ▪ Supplier shall consider reusing as much as possible the existing chute and boxes to collect the scrap material. Equipment / materials included: ▪ Shear for hot bars ▪ Drive system ▪ On board blade holders ▪ Shear guard ▪ On board blades ▪ Motor baseplate and coupling guard ▪ HMI - Application software to be integrated in the existing rolling mill HMI		

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	▪ Low Voltage Main AC Motors ▪ Motor Control Drives & Starters Switchboards ▪ Main AC/DC/AC Frequency Converter Service/assistance included: ▪ Supervision to mechanical and electrical equipment erection ▪ Commissioning of machine and software		
2	Performance specifications and operational safety conditions Quality requirements according to ISO 9001 or equivalent; Environmental management system certification according to ISO 14001 or equivalent; Mandatory minimum standards that must be respected: Machinery Directive 2006/42/EC II A, Low voltage 2014/35/EU or equivalent, Electromagnetic compatibility directive: 2014/30/EU or equivalent;		
3	Conditions regarding compliance with relevant standards It will be delivered with a CE declaration of conformity for the installation and certificate Machinery Directive 2006/42/EC II A		
4	Warranty conditions Warranty certificate for a period of 1 year for the system from the date of commissioning; Services provided (technical assistance, services, guarantees, post-guarantees);		
5	Other technical conditions Will be provided in the language Romanian: - Technical documentation of process design and assembly design for installation with safety distances; - Civil works basin engineering - Technical documentation provided with the equipment; - Documents related to the installation; - General diagrams and functional diagrams;		

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	- Circuit diagrams; - Technological process diagram (piping and instrumentation diagram); - Operating manual of the shear unit; - Maintenance, maintenance and current repair manuals; - List of components; - List of spare parts; - Inspection and maintenance schedule; - Licenses and operating software included; - Civil works basin engineering shall be provided within 5 months from coming into force of the contract It will be compatible with the other equipment and software in the facility.		
6	Main exclusion - Civil works - Erection - Cables - MV/LV transformers - Power center		
7	Compatibility and Interoperability Requirements To ensure the equipment's compatibility and interoperability with the factory's existing systems, it is required: AC/DC/AC Frequency Converter ABB ACS880 series or equivalent PLC, Control Logix or equivalent		
8	Reference and capabilities The Tenderer shall demonstrate that, within the last 10 years, it has supplied and commissioned at least 2 similar items of equipment. The bidder shall complete the form attached to the procurement documentation (Form no. 2).		

Beneficiary,

Note:

Values with will be completed by the bidder.