### Pedax A/S, 3490 Kvistgaard, Denmark

# New fast roller straightening machine

High-speed reinforcing steel straightening machines generate additional flexibility and relieve the pressure on rebar cutting systems in a major way. This, in turn, permits metal bending companies to achieve greater flexibility and more production output. In concrete and precast production facilities, modern straightening systems are quite often the pivotal means of production in operation.

The situation in the steel reinforcing business is characterised by external costs and tight deadlines. It is becoming increasingly more difficult to find personnel for such very exacting physical work. There have been signs of greater willingness to invest in straightening and cutting plants in recent times. Nowadays, diameters up to 20 mm can be processed from a coil. This has brought about substantial changes to the stock of machinery and production structures.

A distinction must be made between rotary straightening machines and roller straightening systems. Rotary straightening systems stand out because of their outstanding straightening qualities due to the nature of the process, whereas rotors with hyperbolic rollers feature on top of this gentle treatment of the reinforcing steel without any significant rib or surface wear.

Roller straightening systems work rapidly and safely. They delivery good straightening quality that is satisfactory for most specifications but does not attain the quality and consistency that can be achieved with rotary straightening machines. In return, roller straighteners are substantially less expensive to purchase and boast high straightening speeds. This makes them a cost-effective alternative solution for metal

bending companies and precast concrete production facilities. Pedax can supply both systems: complex straightening systems with hyperbolic rotor technology as well as fast roller straightening machines in various models.

### New Twincut 12 roller straightening machine

Pedax has now added the new Twincut 12 roller straightening machine to its programme. This machine is equipped with upto-date servo, drive and control technology from B + R and can process reinforcing steel up to 12 mm in diameter. Twincut 12 is a machine for processing reinforcing steel from coils. It can handle diameters from 6 to 10 mm simultaneously in two lines and diameters up to 12 mm in a single line.

The servo technology with this Twincut 12 roller straightening machine features low energy consumption, minor maintenance costs and quiet operations. Two roller straightening units, each with nine pairs of straightening rollers, generate excellent results. The straightening units are adjusted automatically by means of electric motors.

Settings for the complete straightening unit or each pair of rollers can be controlled separately. This makes for optimum straightening results. The programmed settings can be reproduced at any time. Corrections can be easily made during the workflow; corrected values are adopted and saved automatically after approximately 5 seconds.

The drawing force of the transport rollers lies between 10,000 and 20,000 N. With



Twincut 12 roller straightening machine equipped with a rebar storage unit for lengths that have already been straightened and cut



Tough, powerful drives, plus measuring system for precise lengths



A logically structured user interface with a B & R touchscreen and, as an option, a laser scanner for transferring data directly from the label

4 to 6 kW, average power consumption is very low. The feed unit, situated between straightening units 1 and 2, is composed of two pairs of rollers driven by a servo-motor. Measurements are carried out with utmost precision by means of measuring wheels with pneumatic infeed.

The cutting system consists of an electrically driven shear, which is equipped with a wire guide for both single and double wires. The shear is set up for rapid cycle frequencies and is extremely tough. Its process-oriented user interface can be mastered intuitively. Operating the machine is very easy and can be learnt in the shortest of times. The operator is guided through the menu in logical steps.

Tailored to the basic machine, Pedax can supply differing coiling systems - free running or driven -, automatic wire changing machines, varying rebar storage units, con-



## METAX GXE/GXN

Fast. Precise. Energy-efficient.

Metax GXE and GXN bar cutting machines, even more powerful, servo hydraulics, energy cost savings up to 80%, high measuring accuracy,







The Twincut 12 is set up to process double wires up to 10 mm in diameter. The electro-mechanically driven shear is particularly tough and designed for rapid cutting sequences



An additional feed unit facilitates inserting the wires into both roller straightening units, which are set up both vertically and horizontally. These roller straightening units have been well tried and tested in Pedax stirrup bending machines

### Technical data

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Steel grade	max. 700 N/mm²
Wire diameter	Single wire : 6 - 12 mm Double wire: 6 - 10 mm
Weight	approx. 2.600 kg
Dimensions (L x B X H)	3.000 x 1.300 x 2.145 mm
Operating voltage	3 x 400 V/ 50 Hz
Installed power	24 kW
Average consumption	4 - 6 kW
Main fuse	63 Amp.
Air pressure/ average consumption	max. 8 bar / approx. 200 l/min
Recommended compressor output power	min. 520 l/min.
Transport roller drawing power	10.000 - 20.000 kN
Production tolerances	Rebars +/- 1 mm/m

We reserve the right to make modifications without notice

veyors, pallet systems and collection facilities to aid in manufacturing and packaging cut reinforcing steel. Its all-round modular design offers many possibilities for individually customising the system to particular wishes and local circumstances.





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