

# LÖVÅNGERS JÄRN & MASKIN

Tel: 0913-100 38  
www.lovangersmaskin.se



**ENVIROMENTAL**  
**QUIET – FAST - ACCURATE**  
*Up to 50% lower energy consumption*  
*No oil*  
*No valves*  
*Very silent*  
*Less maintenance*  
*Higher reliability*  
*Better working speed*  
*Shorter time between cycles*  
*"Block-laser" with high-speed closing*  
*down until 2mm*

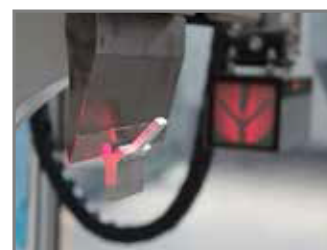


**STR**

VERDE is synonymous of ENERGY SAVING and this new electric press brake machine demonstrates it. The result of the design has achieved an excellent goal thanks to the use of selected materials and innovative components. The strong points of this machine are precision, reliability, silence, speed and energy saving in addition to the excellent ergonomic results achieved.

Thanks to the programmer, the bending force necessary for all kinds of work is calculated through the TORQUE electric motors. With this system the motors will use just the necessary pressure needs for the bend, saving a lot of energy, otherwise wasted with traditional machines, with consistent economic advantages.

VERDE is equipped with UNIMEC mod. S series back gauges, movement on ball screws and ball linear guides, AC brushless motors which guarantees high precision and speed. VERDE is available in many different sizes.



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## Control

S 500 PC, an innovative design, a modular hardware structure, in other words what's necessary to obtain the maximum from an essential control. Interactive 2D graphic editor for part programs and tools, direct connection to CAD/CAM systems are some features available on the controller. Windows® permits to easily integrate the controller into the factory local area network. Angle corrections data base in conjunction with specific sensors management achieve a good bending angle approximation. Programming of the axes positions in tabular mode with automatic syntactical checks, automatic calculation of the R, Z and A positions and of the bending and crowning tonnage Windows® XP Embedded operating system.

15" TFT Colour monitor, 20Gb harddrive, USB, Ethernet, LAN.

*\*Verde 850 has ESAS530 as standard control unit*

## Angle confirmation

High speed digital image processing technology measures the angle of the formed work piece on every cycle. Standard features include tolerance on bend angle, tolerance on 'warp' (bend inconsistency over length of the bend) and an out of tolerance alarm. When supported by the CNC system the data transfer can allow additional functions such as visual alert to the operator if a bend angle is out of tolerance and/or automatic correction to the bend program with re-bending.



## Backgauge and front support

Type Verde can be equipped with a variety of Backgauges and front supports, all of type UNIMEC Mod. S. These are constructed with ball screws and linear guides, which guarantees the highest precision and speed.



**Type 9S / 11S**  
2 or 4 axes backgauge



**Type ATFS**  
6-axes independent backgauge



**Type MT03**  
Front support arms with vertical and horizontal adjustment by handwheel and precision mechanical counter.



**Type MT04**  
Front support arms med vertical an horizontal adjustment.



**Type AP01**  
Front support arms CNC-controlled Med adjustable length up to 1500mm





The use of modern high-performance electric press brakes with robot allows reduced bending times as well as comprehensive energysaving.

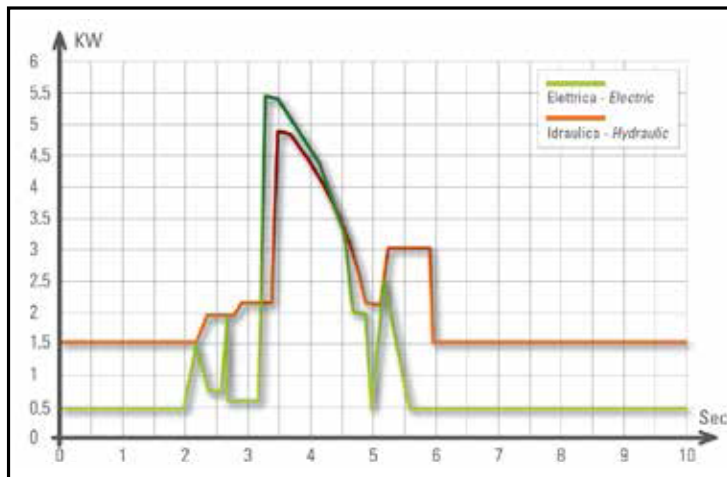
In collaboration with STR, we can offer a complete robotic solution where both press brake, robot and peripheral devices are coupled together in a single unit, enabling faster transport and simpler installation and setup. The robot and press brake has the same programming system, which means quick familiarization and large ease of use. Programming of the cell is highly flexible, and can be done off-line, while the cell is in use.

STR press brake is also available as a customized solution - This cell will be fitted to the customers needs, in terms of robot-type - offline software - peripherals etc.

Offline software can be offered from some of the industry's best producers; Robosoft and Starmatik. This creates bending programs and the programming of the robot at the same time, single - quickly and efficiently. Suitable for small series.

### The procedure is as follows:

- Import of 3D file or DXF file to the software program
- Define tools
- Define bending lines and bend sequence
- Check for collisions and browse graphic simulation
- Automatic generation of programs for both press brake and robot (and other peripheral equipment)



### Consumption comparison

Graph showing the consumption of Verde electric press brake and a conventional hydraulic press.

It can immediately be noted from the diagram that the Verde consumes power only when needed. It is particularly advantageous when the machine is stopped, when power consumption from Verde is 1/3 of the hydraulic press. The result is obtained with a bending of 20 tons and cycle duration of 4 seconds. As can be seen from the graph the results evident as Verde has an average consumption is more than 50% lower.

Art. no.	Type	Cap.	Working length	Stroke	Day-light	Throat	Dist. Btw. frames	X-axis	R-axis	Working speed	Rapid Approach	Rapid return	Motor	Weight
	Verde	kN	mm	mm	mm	mm	mm	mm	mm	mm/s	mm/s	mm/s	kw	kg
22900	850-15	150	850	230	450	200	750	420	150	10 / 25	260	260	4	2900
22901	850-20	200	850	230	450	200	750	420	150	10 / 25	300	280	4	2900
22902	1250-30	300	1250	230	450	240	1050	420	150	10 / 25	260	260	8	4200
22903	1250-40	400	1250	230	450	240	1050	420	150	10 / 25	300	280	8	4200
22904	2050-40	400	2050	230	450	240	1550	420	150	10 / 25	300	280	8,5	6300
22906	2050-60	600	2050	230	450	240	1550	420	150	10 / 25	200	260	8,5	6300
22908	3200-100	1000	3200	280	480	500	2550	600	150	10 / 25	160	160	13	12000