

# WIDOS Sheet welding machine



sheet welding machine

## WIDOS sheet welding machine PSM series

The new generation of WIDOS sheet welding machines has been developed in order to fulfill the highest demands in the field of sheet and board processing of all customary thermoplastics. The machines stand out due to the highest stability and precision of the basic machine with all necessary supplements and include the latest innovative gear conceptions for the realization of the most different demands. Pneumatic or servo-based systems are available for all machine types as driving power for the welding movement. The combination of a high-quality drive unit and the most modern controlling technology is setting new standards regarding velocity, exact position placing as well as power adjustment. It enables welding methods with welding force limitations or pressure adjustment as well as their special linking. An innovative system for a safe sheet clamping has been developed with a single-sided quick-action unlocking system that can increase the highest clamping forces of over 100 KN even with the smallest version. The pneumatic pressures needed here-with are located in a standard area of 6 bar in order that no special high pressure provision is necessary. For

special demands it is possible to shift the clamping bars on the tables or supplement them in duplicate. Vacuum systems as position aid and support resp. for the gentle clamping of delicate pieces are available with all machines. Additional systems with adjustable dimension pre-selections enable a comfortably vertical clamping for the production of angles. Lateral jibs with ball-bearing supports and sloping stops as well as facilities for the rounding are of course available. The non-bending heating elements that compensate the heat-conditioned stretching are anti-stick coated and exactly adjusted in several zones. The standard volume includes a stageless height adjustment for the production of angles besides an integrated adjustment plate for a simple sheet position placing. A further highlight is the outstanding process control WIDOS CNC 3.0 (see page 23). The machines are available with different configurations in order that a suitable version can be offered for every possible application case. Special configurations are available on request.

### Set composition

type	key	conditions
<b>drive type</b>		
pneumatic	- 1 P	in the basic configuration at 6 bar provision pressure up to max. ca. 7,5 KN
servo-controlled (only with CNC)	- 2 P	extension up to max. ca. 15,0 KN
	- 3 P	extension up to max. ca. 22,5 KN
	- S 10	in the basic configuration up to max. appr. 10 KN
	- S 20	extension up to max. ca. 20,0 KN
	- S 30	extension up to max. ca. 30,0 KN
- S 40	extension up to max. ca. 50,0 KN	
<b>control unit</b>		
manual (only possible for drive - P)	- M	manual control unit resp. all machine movements are executed by pressing a key. Only the needed time parameters can be entered in a simple SPS.
CNC-controlled (possible for drive - P, compulsory for drive - S)	- CNC	A fully automatic process control unit based on the WIDOS CNC 3.0 with multiple adjusting and recording functions.
<b>additional options</b>		
lateral jibs	- 6x SA	2 m width up to max. 6 pcs (3 pcs/page) 3 m width up to max. 6 pcs (3 pcs/page) 4 m width up to max. 8 pcs (4 pcs/page) 5 m width up to max. 8 pcs (4 pcs/page) additional widths on request, also available as supplement!
printing zones	- 2x DZ	A pressure zone per clamping bar is planned in the basic configuration, up to max. two pressure zones per bar available!
print booster	- DB	Increases the available starting pressure by two, in order to reach twice the welding force with pneumatic machines and twice the clamping force with all machines, also available as supplement!
vacuum support	- V	Is divided into several zones that can be switched in manually.
remote controlled clamping bar	- FB	Additional mobile keyboard with carrying belt for the clamping and loosening of the clamping bars besides the standard operation by display resp. foot pedal.
rounding aid	- RH	Electrically driven facility based on chains for the turn-over of the first single-sided clamped sheets for the fabrication of round receptacles.
sheet lifting device	- PA	Pneumatic system for lifting the welding bead above table level.
vertical clamping plate	- SP	Facility for the vertical mounting of the sheets when welding angles instead of the standard bars.