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SMART PLASTIC WELDING

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Model Sample

OMISA WhiteLine HWT 400 CS

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OMISA HWT 400 CS characteristics

P/N	HWT400 C
HWT 400 CS w/ cast-aluminum clamping jaws, metric	
HWT 400 CS w/ cast-aluminum clamping jaws, inches¹⁾	
Technical specs	
Input voltage	3 ph., PE, 400 V AC
Frequency	50/60 Hz
Overall rated power	9 kW
Heating element rated power	5 kW
Facing tool rated power	1.85 kW
Servomotor rated power	1.7 kW
Changeover time	< 2 Sec.
Dimensions, weights	
Dimensions (W x D x H)	approx. 1100 x 1500 x 1600 mm
Weight inclusive of clamping jaws	570 kg
Approvals, quality, ingress protection	CE, ISO 9001:2015, IP54, WEEE reg. no. DE 74849106, RoHS-compliant
Accessories	User's manual DE, EN, FR, operator ID card, tools

Optional components		
Label tag printer	P/N:	200-230-050
Replacement blade	P/N:	315-109-026
Handheld scanner (Barcode / QR Code)	P/N:	406-840-001
Welding neck support clamping system	P/N:	406-010-001
Clamps for Tees / crosspieces ³⁾	P/N:	200-260-403
Set of reducers for Tees / crosspieces ³⁾	P/N:	200-260-404
Clamps for Ys (60 deg.) ³⁾	P/N:	200-260-407
Set of reducers for Ys ³⁾	P/N:	200-260-408
Additional servo-operated Cylinder	P/N:	510-266-000
Operating characteristics		
Heating element temperature range	max. 290°C max. 555°F	
Force rating	max. 9500 N	
Ambient temperature (operation)	±0°C thru +60°C 32°F thru 140°F	
Ambient temperature (storage)	-10°C thru +70°C 15°F thru 160°F	
Operating range w/ straight pipe, segments	90 - 400 mm 3" IPS - 16" IPS	
Operating range w/ Tees, crosspieces, Ys	90 - 315 mm (model version w/cast-aluminum jaws only) ²⁾ 3" IPS - 12" IPS	

¹⁾ under construction
²⁾ requires system fitted with clamping jaws made of cast aluminum
³⁾ metric, inches on request

OMISA HWT 400 CS servo-operated workshop system for manufacturing PE, PE 100 RC, PP, PVDF, and PVC-U, PVC-C pipes, segmented bends, and fittings, fitted with cast-aluminum clamping jaws.

The design of the machine is such that also segments of up to O.D. 400 mm, 16 In. with any SDR ratio can be processed. The system was developed under the the machinery directive 2006/42/EC as amended and is set on a welded and bolted, totally heavy-duty support frame resistant to warping by design. Both the movable carriage of the system and the console carrying the heating element and the facing tool travel on precision-engineered, heavy load-bearing trapeze-shaped guides constructed with precision-matched runner blocks. Inserting the PTFE-coated heating element manually is as convenient as it is effortless. It will be removed from in-between the component butts in no time by a pneumatic cylinder, thus enabling rapid changeover of < 2 seconds.

The swiveling clamping jaws on both sides can

be rotated by up to 2 x 22.5 deg. and feature horizontal adjustability, to allow for compensating any misalignments. The facing tool has a rugged chain drive mechanism and can be inserted and fastened between the component butts easy as ABC thanks to a gas-pressure cylinder.

The heating element temperature is managed, and the welding force is precision-controlled by a servomotor, in compliance with the standard applicable to the operation (DVS, UNI, WIS, NEN, etc.). Of course, all welding-related parameters that matter for a high-quality and reproducible joint are monitored for the full duration of the process and saved to the internal memory with a capacity of 10,000 reports. In its standard delivery, the machine features a high-resolution color display touchscreen. This device allows entering and displaying both all required component parameters and the needed traceability information.

Additionally, the HWT 400 CS can be used both as an automated CNC system and, with

the Manual Welding Cockpit, fully manually, thereby providing the utmost flexibility required in workshop applications.

Something unique in butt-welding technology is the user identification and access control that does not rely on bar codes and scanners, but makes the data available to the controller by the totally error-proof and extremely user-friendly RFID technology.

The tried and tested input device, handheld scanner, continues to be available as option. Additionally, all **OMISA** CNC welding systems feature a USB interface port for download of the welding data to a USB stick as a short abstract or an extended report in the PDF format or for archiving them in the **OMISA** DataWork Professional format. Combining this to the app **OMISA** WeldTrace, which ships ready with a QR code-on-label scanning functionality, you can be sure of end-to-end project and welding data tracing even years after a job was completed. An additional, servo-operated cylinder for optimum welding outcome is also available.

All components are covered by the 12-month OMISA warranty.



Welding Cockpit



Horizontal adjustability of both carriages



Tag printer and label tags

Immediate quality labeling of every welded joint is possible with the optional dedicated tag printer that delivers an abrasion-proof plastic sticker which can be used as a label on the fitting or joint.

OMISA HWT 400 CS control system specs

Automatic data logging	10,000 welding operations
Data input	Touchscreen, RFID reader
System self-monitoring	Hardware-base input voltage monitor including data recording, System check, Computerized maintenance management including recording
Welding monitoring system	Welding forces, welding times, memory control, distance covered during fusion, heating element temperature
Standard-compliant ISO 12176 traceability	Commission number with 32 alphanumeric characters, ISO-compliant RFID welder ID code, additional (user-defined) data alphanumeric characters, ISO-compliant pipe parameters, fitting parameters, pipe length, weather conditions, installing company, joint number, inventory number, display of maintaining company; supported welding standards DVS, WIS, SEDIGAS, UNI, NEN, others upon request
Data download with print menu	USB port (USB A) for data transfer as short abstract or extended report in the PDF format to USB stick or (optional) label tag printer, incl. tag printer menu; transfer also possible in the OMISA DataWork Professional format
Working languages	DE, EN, FR, others upon request