



BUTT-WELDING MACHINE  
**CNC ECO+ 2.0**

**The high-quality and durable CNC-controlled butt-welding machine.**

PP-R, PP-H, PP-Pure, Polypure,  
PE 100-RC & Poly-Flo

Code	Dimension
SAGCNC20160	OD 40 - 160 mm
SAGCNC20315	OD 90 - 315 mm
SAGCNC20355	OD 90 - 355 mm
SAGCNC20500	OD 200 - 500 mm
SAGCNC20630	OD 315 - 630 mm

The **AGRU CNC ECO+ 2.0** is a high-quality and durable, next-generation CN-controlled plastic pipe butt-welding machine that has been developed in compliance, as applicable, with the machinery directive 2006/42/EC as amended. The design of the machine is such that with 12 basic machine chassis models, pipes from O.D. 40 through 1200 mm can be jointed.

The welding machines ship with a fully encased CNC hydraulic and control box of ingress protection IP 54 managing pressures up to 220 bar. Both the anti-stick-coated heating element and the facing tool are hooked up along with the machine chassis on the hydraulic and control box. No additional power distribution is needed.

Furthermore, all AGRU CNC ECO+

machines of the next generation allow an optional upgrade with a hardware-based input voltage monitor, inclusive of the associated voltage recording capabilities.

Heating element temperature and pressure control throughout the welding process is implemented as provided for by the applicable standard (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.

It is absolutely unique and a first in butt-welding technology that user identification and access control does not rely on bar codes and scanner

with these machines, as in the past, but makes the data available to the hydraulic and control box by the totally error-proof and extremely user-friendly RFID technology.

Of course, the tried and tested input devices, scanning pen and handheld scanner, continue to be available as options. All AGRU CNC ECO+ machines also 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 AGRU DataWork format.

In their CNC ECO + 2.0 model version, all machines additionally feature the HDC – AGRU Distance Control – sensing system for accurate verification of proper welding and welding process preparation.

### All components are covered by the AGRU warranty.

Technical Specs	160 mm	200 mm	250 mm	315 mm	355 mm	500 mm	630 mm	800 mm	1000 mm	1200 mm
P/N 200-701-...	-160	-200	-250	-315	-355	-500	-630	-800	-100	-120
Welding range, O.D. (mm)	40 - 160	63 - 200	(63) 75 - 250	90 - 315	90 - 355	200 - 500	315 - 630	500 - 800	630 - 1000	630 - 1200
Power Supply	230 V 50 Hz	230 V 50 Hz	230 V 50 Hz	230 V 50 Hz	230 V 50 Hz	400 V 50 Hz, 3 P	400 V 50 Hz, 3 P	400 V 50 Hz, 3 P	400 V 50 Hz, 3 P	400 V 50 Hz, 3 P
Rated power (kW)	3.94	4.68	4.94	5.44	5.45	12.54	13.00	19.54	23.6	24.6
Overall weight with all components (kg)	80	91	125	179	216	372	581	1233	1397	1775
Reducer inserts	40, 50, 63, 75, 90, 110, 125, 140	63, 75, 90, 110, 125, 140, 160, 180	(63) <sup>1)</sup> , 75, 90, 110, 125, 140, 160, 180, 200, 225	90, 110, 125, 140, 160, 180, 200, 225, 250, 280	90, 110, 125, 140, 160, 180, 200, 225, 250, 280, 315	200, 225, 250, 280, 315, 355, 400, 450	315, 355, 400, 450, 500, 560	500, 560, 630, 710	630, 710, 800, 900	630, 710, 800, 900, 1000
Welding neck support <sup>1)</sup>	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙
Automatic, "jumping" heating element <sup>1)</sup>	⊙	—	⊙	⊙	—	—	—	—	—	—
<b>Included standard delivery:</b>										
CNC ECO hydraulic controller	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙
Basic machine chassis	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙
Facing tool with micro-switch	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙
PTFE-coated heating element	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙
Carrying rack	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙
AGRU transport box for reducers and machine optional	⊙	⊙	⊙	⊙	—	—	—	—	—	—
AGRU aluminium reducers <sup>1)</sup>	—	—	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙
AGRU steel reducers <sup>1)</sup>	⊙	⊙	—	—	—	—	—	—	—	—

<sup>1)</sup> Modified design: Screw-Fastened

<sup>1)</sup> Available as an option



### Movement Pushbutton

The AGRU movement pushbutton fitted to the basic machine chassis allows moving the machine carriage when the welder stands next to the chassis. This enables convenient welding without constant back-and-forth between the hydraulic and control box and the machine chassis.



### 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.



### Front Panel

The standard version of the machine ships with a next-generation, high-resolution, temperature range-extended character display. The novel GT keyboard enables convenient input of both required component parameters and traceability data.

## AGRU CNC ECO 2.0 CHARACTERISTICS

• Automatic data logging	10,000 reports
• Data input	RFID transponder, manually, bar code scanner <sup>2)</sup>
• System self-monitoring	Hardware-base input voltage monitor <sup>2)</sup> incl. data recording, system check, computerized maintenance management, including recording
• Welding monitoring system	Welding pressures, welding times, ambient temperature, input voltage, memory control, motor operating temperature, heating element temperature, service schedule management, welding road/length
• Traceability	Commission number 32 alphanumeric characters, RFID-fed ISO welder ID code, additional data 20 and 15 alphanumeric characters, ISO pipe codes, fitting data, pipe length, weather conditions, installing company, joint number, inventory number, display of maintaining company
• Welding standard	DVS, WIS, SEDIGAS, UNI, UNI, NEN, and others upon request
• Data output	USB A port for data transfer as short abstract or extended report in the PDF format to a USB stick or a label tag printer, incl. tag printer menu; transfer also possible in the HÜRNER DataWork format, CNC ECO 2.0 now with powerful download menu with date range selection, commission number selection, and download of all reports in memory
• Languages	DE, EN, FR, BG, CS, ZH, NL, FI, GR, IT, NO, RO, SK, TR, RU, and others upon request
• Display elements	Robust, high-resolution and temperature range-extended display screen with font size 8 mm, welding diagram with LED indicators
• Miscellaneous	Keyboard switching, menu-controlled report review incl. search capability, ViewWeld feature, interactive carriage mover pushbutton on machine chassis, special memory backup feature
• Standards, approvals, quality	Machinery directive 2006/42/EC (as applicable), DVS 2207, WEEE Reg. No. DE74849106, ISO 9001:2008, RoHS-compliant
• Manufacturer warranty	12 months

<sup>2)</sup> optional