

**Ingenia GmbH**

Hauptstrasse 72 · DE 56858 Altlay

Phone +49 6543 5049-0

Fax +49 6543 5049-29

Mail [info@ingenia-gmbh.de](mailto:info@ingenia-gmbh.de)

Web [www.ingenia-gmbh.de](http://www.ingenia-gmbh.de)

**Technical Data - Butt Welding Machine Model S easy**



**INGENIA 30.15 S easy**

MASSGESCHNEIDERTE MASCHINEN FÜR THERMOPLASTISCHE MATERIALIEN & HALBZEUGE

## Butt welding machinery S easy

INGENIA butt-welding machinery, **model S easy**, are flexible all-round machines from lower to medium of application. The welding cycle is running automatically operated by a PLC. The smallest model shows 1 m working width (model 10.xx S easy), the largest available machine has a working width of 4 m (model 40.xx S easy); the maximum weldable thickness is 15 (20 mm). The machines are designed to weld all standard thermoplastics as PE, PP, PVC- U and PVDF. INGENIA machines are designed according the requirements established by DVS e. V. (German Association for Welding Techniques) and CEN standards.

### **Structure of the machine:**

The main frame is designed as a solid rectangular- hollow- steel profile construction. The welding tables are machined after the machine has been assembled. It is also of solid steel construction. The tables are designed to avoid misalignment of the resulting weld by torsion and load stress even in high frequent usage. The machine is driven directly by pneumatic cylinders. Permanent lubricated ball bearings with solid dimensioning guarantee precision for lifetime.

The clamping beam consists of solid hollow steel profile with integrated pneumatic cylinders. The forces are transferred by non- rotating aluminum- plates with anti- skid covering. The Teflon- coated heating- element is designed for long-term applications. 260°C.

The simple to operate push button controls and standard PLC- panel is integrated in a control desk. It is located at the front of the machine.

### **Control of the machine:**

A standard Moeller easy PLC- processor executes the welding process. All operating elements are located in the control desk.

The main cycle times will be inserted manually via integrated display. The welding pressure will be adjusted manually by pressure control valves.

For clamping easy to use foot switches are included in the basic equipment.

However, with any grade of automation, the machine is performing in automatic cycle.

**Technical Data of standard machine, Model range xx.15 S easy:**

	unit	10.15 S easy	15.15 S easy	20.15 S easy	30.15 S easy
<b>Main dimensions</b>					
Length	mm	2000	2600	3000	4000
Width	mm	1000	1000	1000	1000
Height/ height of table	mm	1200/850	1200/850	1200/850	1200/850
Machinery weight	to	1	1,2	1,4	1,6
<b>Working range</b>					
Maximum working width	mm	1050	1550	2050	3050
Weldable thickness	mm	2-15 (20)*	2-15 (20)	2-15 (20)*	2-15 (20)*
Gap between beam and table	mm	27	27	27	27
Minimum square pipe	mm	210 x 250	210 x 250	210 x 250	230 x 290
Minimum cylindrical pipe	mm	500	500	500	500
Clamping range per beam		1	1	1	1
<b>Energy supply</b>					
Electrical		50 – 60 Hz			
Performance	kW	2	3	4	6
Plug for connection	A	230V	230V	CEE 16 /400V	CEE 16 /400V
Pneumatic	bar	7	7	7	7
<b>Forces</b>					
Clamping at 7 bar / 10 bar	kN	8 / 12	9,5/14	11 / 16	16 / 23
Minimum welding forces	N	300	300	300	400
Maximum welding forces	N	2250(3000)*	3375(4500)*	4615(6150)*	6865(9150)*
<b>Heater unit</b>					
Electrical heater plate		25 x 50 mm	Teflon	T <sub>max</sub> = 260°C	



**Basic equipment of the machinery:**

Fixed control panel, opposite of opening side

Integrated Moeller Easy PLC

Temperature setup via display

Temperature control integrated in start process of weld cycle. If temperature is out of tolerated temperature range the machine will not release start.

Possibility to interrupt or extend actual program step

Clamping beam with quick releasing bolts to take out welded pipes

Couple mounted clamping plates, non-rotating, with anti-skid covering

Heating element with Teflon- coating 25 x 50 mm,  $T_{max} = 260^{\circ}C$

Integrated alignment beam made of stainless steel

Extension arms with Polyethylene covering

Paint: red / grey

**\*\*\* Change of technical data always possible \*\*\*\***