

# Compact Butt Welding Machine Model SC



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The **WEGENER SC** Compact Welding Machines are based on a sturdy welded construction. Like all of the machines from **WEGENER International**, the components are matched to the relevant load case to ensure top-quality heated tool butt welding. The goal behind the development of the SC range of machines, which are available in the working widths 1 m, 1.5 m and 2 m,

was to transfer the innovative and quality-oriented performance of the larger ST and SM series of butt welding machines to the more compact dimensions of the SC series. The machine concept, in combination with the almost maintenance-free mechanical synchronisation of the working tables (parallel movement mechanism) developed and patented by **WEGENER**, creates the ideal requirements for quality-assured welding in accordance with DVS 2208. This parallel movement mechanism allows a constant welding pressure along the entire working length and differences in the welding pressure caused by an eccentric insertion of the panels or board to be processed are avoided by this patented system. This is an absolute novelty in the field of compact welding machines.

The SC series allows an automatic, quality-assured welding of thermoplastic sheets or panels in the smallest of spaces. Touch screen operation with an automatic calculation of the welding force needed for the materials saved in the database or a 90° welding device can be integrated in the machine as options. This allows it to be ideally adapted to the customers' needs.

Technical Data	SC 101	SC 151	SC 201
Machine length (mm):	1,430	1,930	2,430
Machine width (mm):	1,000	1,000	1,000
Machine height (mm):	1,250	1,250	1,250
Total weight approx. (kg):	350	450	550
Max. working width (mm):	1,050	1,550	2,050
Weldable sheet thickness (mm):			
PE [0.15 N/mm <sup>2</sup> ]	3 to 20	3 to 15	3 to 15
PP [0.10 N/mm <sup>2</sup> ]	3 to 20	3 to 20	3 to 20
PVDF [0.10 N/mm <sup>2</sup> ]	3 to 20	3 to 20	3 to 20
PVC-C [0.50 N/mm <sup>2</sup> ]	≤ 6	≤ 4.5	≤ 4.5
PVC-U [0.60 N/mm <sup>2</sup> ]	≤ 5	≤ 3.75	≤ 3.75
Min. channel cross section inside dimension (W x H in mm)*:	310 x 210	310 x 210	310 x 210
Min. cylinder diameter (mm)*:	400	400	400
Power supply standard:	230 V 1N/PE 50/60 Hz		
Power supply with option height adjustable clamping beams:	230/400 V 3N/PE 50/60 Hz		
Power consumption standard (kW):	1.5	2.0	2.5
Power consumption with option height adjustable clamping beams (kW):	2.5	3.5	4.5
Compressed air connection (bar):	6	6	8
Clamping force at full load pressure in kN:	5,9	8,2	9,8
Min. Table force (N):	250	280	380
Table force max. at full load pressure in kN:	3	3.4	4.5
Heating element standard Teflon coated, Tmax= 260 °C (W x H in mm):	20 x 50	20 x 50	20 x 50
Heating element with option height adjustable clamping beams, Teflon coated, Tmax= 260 °C (W x H in mm):	20 x 80	20 x 80	20 x 80

\* Option height adjustable clamping beam, sizes only valid for lower clamping beam position

	SC 101	SC 151	SC 201
Different working widths (m)	1	1.5	2
<b>Drive System</b>	Pneumatic		
<ul style="list-style-type: none"> <li>Patented mechanical synchronisation of the working tables; a must to achieve a homogeneous application of pressure in the weld seam area. An absolute novelty in the field of compact welding machines</li> </ul>			
<b>Control / HMI</b>	Siemens PLC with 2.8" display		
<b>Machine Features</b>			
<ul style="list-style-type: none"> <li>Sturdy welded construction</li> <li>Possibility of prolonging or shortening the process times during the welding cycle</li> <li>Very low space requirements</li> </ul>			
<b>Options</b>			
<ul style="list-style-type: none"> <li>Siemens PLC with 5.7" full graphics touch screen; Process forces regulated via proportional valve</li> <li>Height-adjustable, 2-stage clamping beam to process up to 20/15 mm thick panels (PE/PP); Hollow Sheets up to 58 mm</li> <li>90° welding device to produce corner welds only in combination with Siemens S7 1200 PLC with 5.7" touchscreen</li> <li>Material property data records (parameters) with automated choice of specific welding pressures, temperatures and times</li> <li>Foot switch</li> <li>Infinitely variable clamping force</li> <li>Special energy supply</li> <li>Special paintwork</li> </ul>			



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