

A21 PRB and PRC

Tube Welding Tools

The tools are based on the tried and tested clamp-on principle, which offers a user-friendly and time saving method of working. For easier handling the tools are small, flexible and light.

The operating ranges of the tools are 17-170 mm, external ISO tube diameter.

The PRB tools are available as water-cooled or air-cooled. They offer benefits in a number of application areas for welding stainless tubes in the food industry, process industry as well as heavy-duty engineering such as the energy and power industries.

The PRC tools are water-cooled. They are available in two configurations with arc length control or with arc length control and weave control of the arc. A tool equipped with arc length control can be quickly fitted with a weave unit.

The wire setting on the PRB and PRC tools facilitates controlled wire feed at the correct angle to the weld pool. The tool jaws are manufactured from stainless steel to avoid contamination to sensitive materials.

With the PRB tool it is possible to position the wire angle and electrode as in the case of fillet welding tube to a flange. In this case, an angular support is mounted between the electrode block arm and the wire holder.

The PRB tools can be used together with ESAB's TIG power source Aristo™ MechTig C2002i or power source Aristo™ MechTig 4000i combined with control box Aristo™ MechControl 2 or 4.

The PRC tools can be used together with ESAB's TIG power source Aristo™ MechTig 4000i combined with control box Aristo™ MechControl 4.



PRB tube to tube welding head



PRC tube to tube welding head

Technical data	PRB 17-49	PRB 33-90	PRB 60-170
Rate of rotation, rpm	0.1 - 2.4	0.1 - 1.6	0.05 - 0.95
Tube OD, mm (option)	17 - 49 (8 - 17)	33 - 90 (20 - 33)	60 - 170 (44 - 60)
Max welding current at 100% duty cycle, water-cooled, A	250	250	250
Max welding current at 100% duty cycle, air-cooled, A	100	100	100
Electrode diameter, mm	1.6/2.4	1.6/2.4	1.6/2.4
Weight (less cables) , kg	2.8	3.2	4.4
Minimum spacing required between two parallel tubes, mm	D/2+70 *)	D/2+70 *)	D/2x70 *)

*) Without fine adjustment wheel for wire. Electrode cap and spacer screw may need to be replaced with the shortest variant supplied with the tool.

Technical data	PRC 17-49	PRC 33-90	PRC 60-170
Rate of rotation, rpm	0.1 - 2.4	0.1 - 1.6	0.05 - 0.95
Tube OD, mm (option)	17 - 49 (8 - 17)	33 - 90 (20 - 33)	60 - 170 (44 - 60)
Max welding current at 100% duty cycle, water-cooled, A	250	250	250
Electrode diameter, mm	1.6/2.4	1.6/2.4	1.6/2.4
Weight with arc length control (less cables), kg	3.3	3.7	4.9
Weight with arc length control and weave unit (less cables), kg	5.1	5.5	6.7
Arc length control, Arc adjustment rate, mm/s	2.5	2.5	2.5
Oscillation: Adjustment range, mm	20	20	20
Amplitude, mm	± 6	± 6	± 6
Weave speed, mm/s	2 - 12	2 - 12	2 - 12
Minimum spacing required between two parallel tubes, mm	D/2+70 *)	D/2+70 *)	D/2x70 *)

*) Without fine adjustment wheel for wire. Electrode cap and spacer screw may need to be replaced with the shortest variant supplied with the tool.

Ordering information

Welding head PRB 17-49, water-cooled	0443 750 882
Welding head PRB 17-49, air-cooled	0443 750 883
Welding head PRB 33-90, water-cooled	0443 760 882
Welding head PRB 33-90, air-cooled	0443 760 883
Welding head PRB 60-170, water-cooled	0443 770 882
Welding head PRB 60-170, air-cooled	0443 770 883
Welding head PRC 17-49, with arc length control	0443 751 881
Welding head PRC 17-49, with arc length control and weave unit	0443 752 881
Welding head PRC 33-90, with arc length control	0443 761 881
Welding head PRC 33-90, with arc length control and weave unit	0443 762 881
Welding head PRC 60-170, with arc length control	0443 771 881
Welding head PRC 60-170, with arc length control and weave unit	0443 772 881
Rebuilding kit for PRB/PRC 17-49 for welding tubes with OD from 8 to 17 mm	0444 002 880
Rebuilding kit for PRB/PRC 33-90 for welding tubes with OD from 20 to 33 mm	0443 908 880
Rebuilding kit for PRB/PRC 60-170 for welding tubes with OD from 44 to 60 mm	0443 909 880

Accessories

Conversion kit, water-cooled to air-cooled	0443 857 880
Conversion kit, air-cooled to water-cooled	0443 858 880
Angular support	0443 875 880
Plate for angular support together with rebuilding kits for smaller diameters	0444 226 880
Wire holder complete with gas lens Ø24 mm with adjustable wire nozzle for PRB 33-170	0443 923 880
Wire nozzle straight for PRB/PRC 17-170 complete adjustable holder	0443 988 880
Arc length unit assembly PRB 17-49 **	0443 936 880
Arc length unit assembly PRB 33-90 **)	0443 936 881
Arc length unit assembly PRB 60-170 **)	0443 936 882
Weave unit assembly PRB 17-49/33-90 ***)	0443 937 880
Weave unit assembly PRB 60-170	0443 938 880
Drive unit complete with gear wheel to be used together with the rebuilding kit 8-17 mm if not the standard rate of rotation is sufficient.	
Rate of rotation : 0.22 - 4.40 rpm	0443 544 881

**) Can be used only together with Aristo™ MechControl 4

***) The weave unit can only be used together with arc length and Aristo™ MechControl 4



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