

# Automatic welding head RAPIDOR QF

## Automatic welding head RAPIDOR with patented fully automatic length compensation system for different length of studs and optional digital stud length measurement system

### Areas and applications

The digital automatic welding head "RAPIDOR QF" is designed for semi and fully automatic stud welding of threaded studs, inthreaded studs and pins according to the following procedures (ISO 4063: 2008):

- Capacitor discharge / peak ignition No. 786 n. ISO 4063: 2008
- short-cycle and drawn arc stud-welding acc. no. 783 and no. 784 n. ISO 4063: 2008

Due to the patented and fully automatic stud length adjustment system of the different stud lengths, based on each stud diameter, all dimensions from 6mm to 30mm can be feeded and welded without time-consuming retooling. Components with a large amount of studs of the same diameter but different lengths can thus be processed even more economically and efficiently.

### Advantages

- Fast set-up because of to the proven digital display of lift and immersion;
- High position accuracy, as always maximum guidance of the stud in the chuck;
- No correction in Z-direction required because the stud always has the same projection;
- Program-controlled preselection of the different lengths in the respective program block of the machine control;
- High durability and precision due to encapsulated, outside the welding area lying ball guide
- fast switching to the required stud length, thus no long residence times;
- Particularly suitable for robust everyday use on CNC coordinate tables
- Manual adjustment for semi-automatic operation

### Integrated digital stud length measuring system

- Effective reduction of defective welded end products, thereby significantly measurable increase in productivity;
- Digital monitoring of the total stud length for all stud welding processes for standard welding elements;
- Monitoring and control of length of the tip;
- Very easy and highly visible adjustment of the tolerance levels before and after welding in 0.1mm increments by means of a single reference welding element;
- Reliable detection of not okay- weldings with plain text display on superordinate control with simultaneous program stop;



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### Technical data

<b>Welding area</b>	studs und pins $\varnothing 3 - 12\text{mm}$ and length from 6 to 30mm (other length on request)
<b>Ground material</b>	Carbon steel, stainless steel, aluminium, brass
<b>Position accuracy</b>	$\pm 0,2\text{mm}$
<b>Compressed air</b>	5 - 7 bar, not oiled
<b>Welding rate</b>	Depending on the welding process, diameter and current source (power unit), stud feeding rate up to approx. 30 studs / min
<b>Length compensation system</b>	Full automatically, programm controlled
<b>Digital stud length measuring system</b>	Digital monitoring of stud length; Monitoring and control of tip length; Detection of faulty and out-of-tolerance length dimensions of DIN welding elements f. all stud welding procedures
<b>Automatic Chucks / guide jackets</b>	Guarantees fast conversion to other stud diameter by using the proven components, no special parts required
<b>Adjustment of lift and depth of immersion</b>	0 - 8 mm in increments á 0.25 mm per manual lift adjustment, digital display
<b>Dimensions (width x height x depth), Measurement without working lift and feeding tube</b>	65 x 440 x 90mm
<b>Weight</b>	3,8 kg

Compliance with the requirements of the Low Voltage Directive 2014/35 / EU and EMC Directive 2014/30 / EU as part of the manufacturer's declaration.

