### **Stud Welding Equipment - ARC**

#### A 12 M - NUT & STUD WELDING GUN



#### A 12 M

For welding on weld nuts type Hex<sup>Nut</sup>
For welding on perforated and unperforated sheet metal
Particularly suitable for workshop and assembly areas

Technical Data	
Welding range	MARC welding nuts type HexNut M6 to M12 Hexagon nuts DIN 934 M6 to M12 SC welding elements M5 to M10, dia. 5 to 8 mm / 3/16" to 3/8", dia. 3/16" to 5/16" CD welding elements M5 to M10, dia. 5 to 8 mm / 3/16" to 3/8", dia. 3/16" to 5/16"
Sheet metal thickness	Nut welding: I to 3 mm / 0.04" to 0.12" Stud welding: min. I mm / min. 0,04" (other sheet thicknesses on request)
Welding elements material	MARC welding nuts type HexNut: Stainless steel (A2-50) Hexagon nuts DIN 934: Stainless steel (A2-50,-70 / A4-50,-70, A5-50,-70) SC welding elements: Mild steel, stainless steel, type PT / UT / IT CD welding elements: Mild steel stainless steel, type PS / US / IS
Welding elements type	MARC welding nuts type HexNut, hexagon nuts according to DIN 934 SC welding elements and CD welding elements according to DIN EN ISO 13918
Welding sequence	Up to 4 weld nuts/min.  The maximum welding sequence is limited by a large number of parameters.
Length compensation	3 mm / 0.12", automatic
Lift	Adjustment range 3 mm / 0.12", arresting
Spring force	Adjustable, arresting
Welding cable	Welding gun: 4.85 m connecting cable, 35 mm $^2$ 1.73 m field former cable, 10 mm $^2$ (0.61 m welding current connection, 0.85 m control cable connection) Ground cable: 5 m, 25 mm $^2$
Workplace noise level	Up to 90 dB (A) may occur during welding
Dimension L x W x H	$200\times65\times140$ mm / $7.87"\times2.56"\times5.51"$ (without cable, with leg assembly) Shielding gas leg assembly D = 60 mm Protective hose L = 4300 mm
Weight	0.8 kg / 1.76 lbs (without cable)

### General Information

#### Design

- Robust housing made of impact resistant plastic
- Backlash-free ball linear bearing for guiding the welding piston
- Sealed welding piston guide
- Integrated lift and spring force adjustment

#### Safety

- Locking spring adjustment
- High safety against unintentional change of selected settings
- Guide protected against welding spatter

### Welding

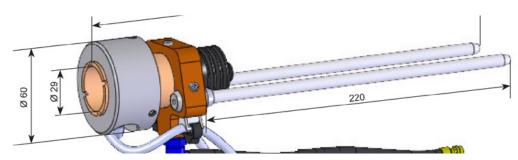
Automatic length compensation

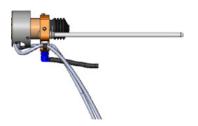


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Equipment for A 12 M





Shielding gas leg assembly with field former

D = 60, Legs 8 x 220 With shielding gas connection

Order number: 88-26-880



Protective hose for A 12 M to protect the welding cables and the field former cable from dirt, dust and welding sparks

Length: 430 cm Width: 13.5 cm

Order number: 80-10-2769



### **Stud Welding Equipment - Arc**

### MARC NUT WELDING SYSTEM

# Nut welding systems for welding with magnetic rotating arc

- For welding of welding nuts of type Hex<sup>Nut</sup>
- For welding on perforated and unperforated metal sheets
- Especially suitable for workshop and assembly area
- Up to 4 welding nuts/min





Nut and Stud Welding Gun - A 12 M

Stud Welding Unit - IT 1002

	Nuts M6 to M12 - Studs M5 to M10 / 3/16" to 3/8
Suitable stud welding unit	IT 1002
Welding process	Drawn arc welding with magnetically impelled electric arc and shielding gas
Welding range	MARC welding nuts type HexNut M6 to M12 Hexagon nuts DIN 934 M6 to M12 SC welding elements M5 to M10, dia. 5 to 8 mm / 3/16" to 3/8", dia. 3/16" to 5/16" CD welding elements M5 to M10, dia. 5 to 8 mm / 3/16" to 3/8", dia. 3/16" to 5/16"
Wall thickness	Nut welding: I to 3 mm / 0.04" to 0.12" Stud welding: min. I mm / min. 0,04" (other sheet thicknesses on request)
Welding element material	MARC welding nuts type HexNut: Stainless steel (A2-50) Hexagon nuts DIN 934: Stainless steel (A2-50,-70 / A4-50,-70,A5-50,-70) SC welding elements: Mild steel, stainless steel, type PT / UT / IT CD welding elements: Mild steel stainless steel, type PS / US / IS
Welding element type	MARC welding nuts type HexNut, hexagon nuts according to DIN 934 SC welding elements and CD welding elements according to DIN EN ISO 13918
Welding rate	Nut welding: up to 4 welding nuts/min. Stud welding: M10 = 25 studs/min The maximum welding sequence is limited by a number of parameters
Length compensation	3 mm / 0.12", automatic
Lift	Adjustment range 3 mm / 0.12", lockable
Spring pressure	Adjustable, arresting
Welding cable	Welding gun: 4.85 m connecting cable, 35 mm $^2$ 1.73 m field former cable, 10 mm $^2$ (0.61 m welding current connection, 0.85 m control cable connection) Ground cable: 5 m, 25 mm $^2$
IP Code	IT 1002: IP 23, A 12 M: IP 20
Workplace noise level	Up to 90dB (A) may occur during welding
Dimension LxWxH	$200\times65\times140$ mm / $7.87"\times2.56"\times5.51"$ (without cable, with leg assembly) Shielding gas leg assembly D = 60 mm Protective hose L = 4300 mm
Weight	0.8 kg / 1.76 lbs (without cable)
Order No.	93-20-242 (Welding gun AM 12A) 93-60-1202 (Welding unit IT 1002) 93-40-020 (Ground cable, 5m 25 mm2, 2 vice grips 10") Complete equipment for AM 12 A: 93-40-0030068 for HexNut M6 93-40-003008 for HexNut M8 93-40-003010 for HexNut M10 93-40-003012 for HexNut M12



### **Stud Welding Equipment - Arc**

#### MARC NUT WELDING SYSTEM

Order No. 93-20-242 (Welding gun AM 12A)
93-60-1202 (Welding unit IT 1002)
93-40-020 (Ground cable, 5m 25 mm2, 2 vice grips 10")

Complete equipment for AM 12 A: 93-40-0030068 for HexNut M6 93-40-003008 for HexNut M8 93-40-003010 for HexNut M10

93-40-003012 for HexNut M12

Accessories – Nut welding 88-16-881 Nut fixture DIN 934 M6 88-16-882 Nut fixture DIN 934 M8 88-16-883 Nut fixture DIN 934 M10

88-16-884 Nut fixture DIN 934 M12

### Dimension of welding element









	Dimension	М6	М8	M10	M12
	Height HexNut	8	8	9	11
	Width across flats	AFI4	AFI4	AFI7	AFI9
Bore diameter	Bore diameter - metal sheet (based on DIN EN ISO 4032)	10.6+0.1+0.4	10.6+0.1+0.4	12.6+0.1+0.4	14.9+0.1+0.4
Tightening torque	(μ - 0,18)	3.8	9.5	19.0	33.0



### **Stud Welding Equipment - Arc**

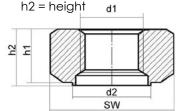
# MARC WELDING NUTS - TYPE HEX<sup>NUT</sup> MATERIAL A2-50

Equipping the Welding Gun

Select a chuck and the corresponding chuck adaptor suitable for your welding element.

Welding elements for nut welding (MARC welding nuts):

d1 = size of the metric thread WAF = width across flats h1 = height in welded state





A 12 M - Suitable welding gun for manual stud feeding

WAF	d1	d2 <sup>-0.1</sup> in mm	Suitable for d <sub>hole</sub> in mm	h1 in mm	h2 in mm
14	M6	10.5	10.7 to 11.0	7.5	8
14	M8	10.5	10.7 to 11.0	7.5	8
17	MI0	12.5	12.7 to 13.0	8.5	9
19	MI2	14.8	15.0 to 15.3	10.5	H

		Diameter			
		М6	М8	M10	M12
		Order No.	Order No.	Order No.	Order No.
Material	A2-50	60-06-0082*	60-08-0082A*	60-10-0092*	60-12-0112*

Sleeve Fixture	88-22-532	88-21-107	88-21-108	88-21-109

Chuck adapter - 88-26-647 for M8 - Internal thread





Hex <sup>Hut</sup>	Nut fixture (Hex <sup>Nut</sup> )
0 d <sub>1</sub>	
M6	88-22-532
M8	88-21-107
MI0	88-21-108
MI2	88-21-109



Chuck adapter for use with studs on only.

Minimum order quantity, delivery time and price upon request.

