



The OMEGA Series



THE OMEGA SERIES

ARO have devised and designed a new series of modular bench mounted machines that offer a wide range of possible assembly combinations.

A FULLY ADAPTIVE PRECISION WELDING SOLUTION

Imagine your needs

ARO will create the product to meet those needs:

Power level

Pressure levels

Welding

Programming

Ease of use

Price

Field of application

- **ΩMEGA 10**
(11 kVA power level at 50%, 50Hz AC)
- **ΩMEGA 25**
(25 kVA power level at 50%, 50Hz AC)
- **ΩMEGA 32 MFDC**
(32 kVA power level at 50%, 1000Hz)

- single cylinder welding units
- double cylinder welding units
- force / pressure levels from 0,48 kN / 6 bar

- The ability to offer different combinations of welding units from 50 mm between electrode centers.
- The slim designs of the heads make it possible to keep the air, water and current supplies within the overall dimensions of the welding head.

- Easily programmed by the AR. 01 weld control.
- Flexibility and precision are ensured by the 2X16 III 10T16P timer (10 modes and 16 programs).

- Ergonomically designed hardware with various contact being easily accessible and clearly marked.
- Numerous options are offered (load sensor, pressure sensor, etc).

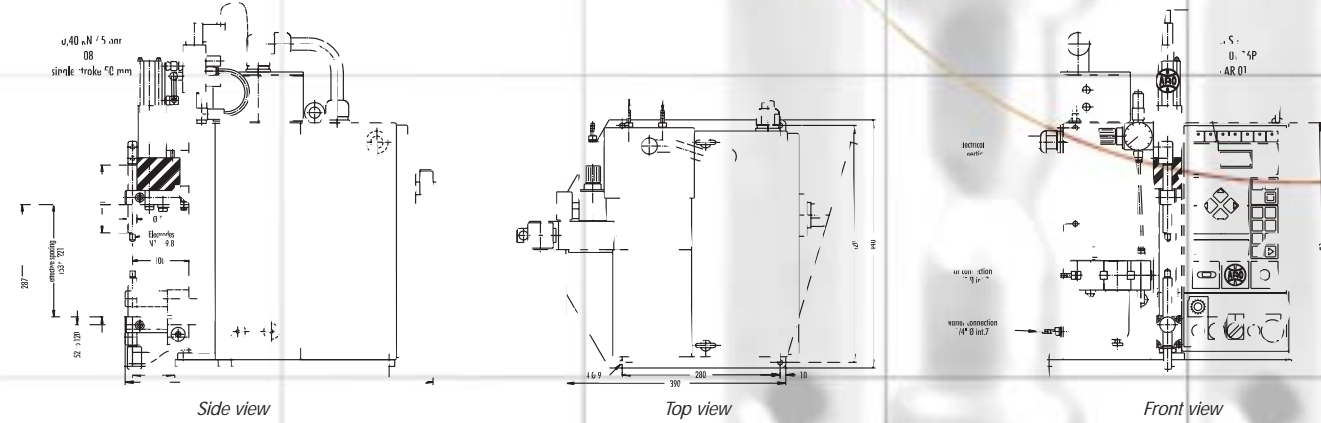
- Machines are assembled to meet your requirements using standardized subassemblies

- all precision welding jobs
- large scale production work



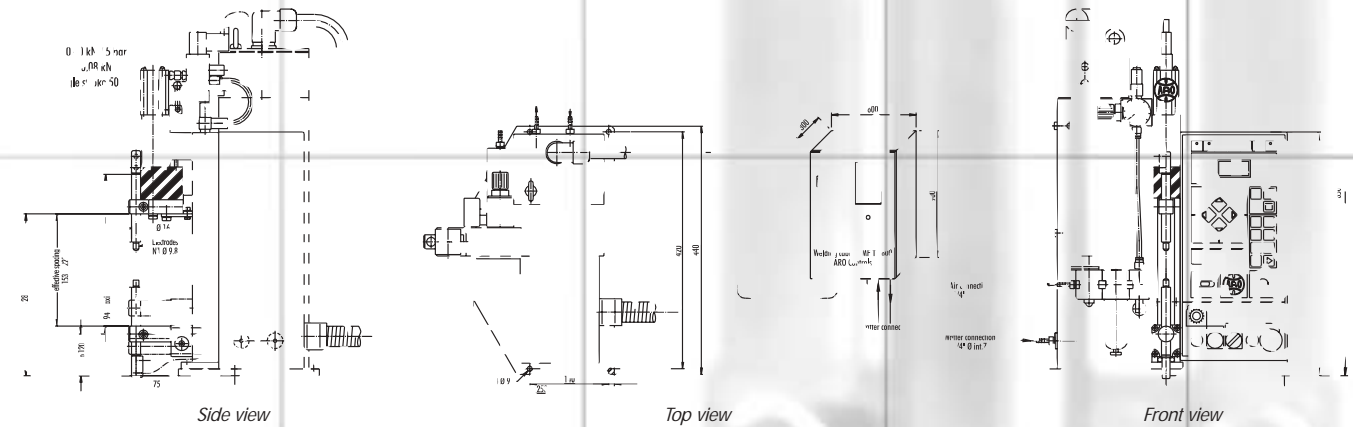
A : example of the slim design of the head
B : exemple 2 welding units side by side

ΩMEGA 10 and 25

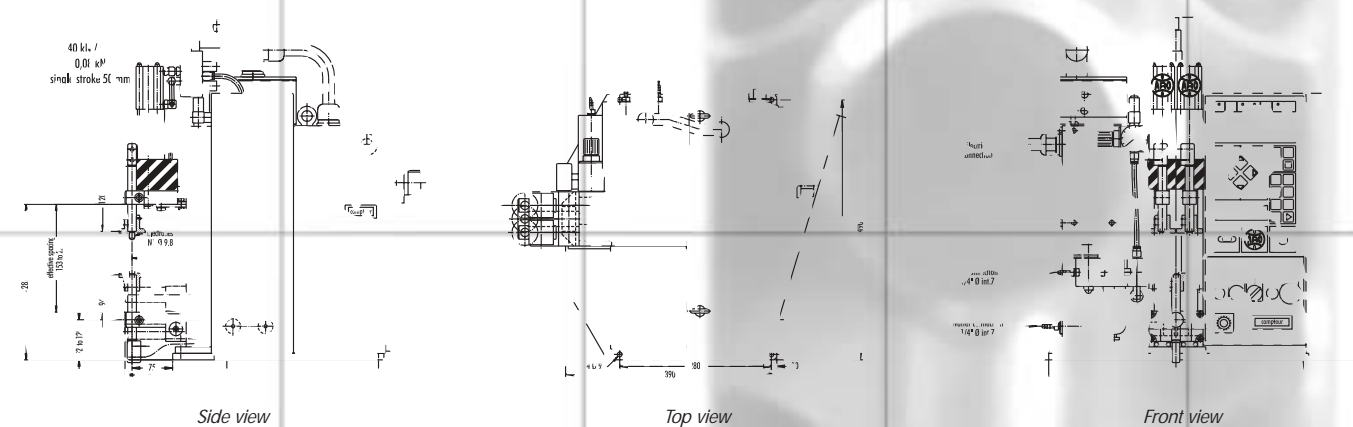


Ωmega 25 for special double series spot welding applications - 50 mm between electrode centers

ΩMEGA 32 MFDC



Special application for double series spot welding



Product specifications

PRODUCT SPECIFICATIONS	Units	ΩMEGA 10	ΩMEGA 25
Conventional power at 50 %	kVA	11,4	25
Effective depth	mm	100	100
Permanent power at 100%	kVA	8	18
Permanent current	A	2300	4000
Secondary no-load voltage	V	3,5	4,5
Maximum short circuit current (table up)	A	8000	12000
Primary voltage rating	V	400	400
Consumed power	kVA	17	32
Cable section (for 20 m)	mm ²	6	10
Fuse	A	20	50
Force Electrode at 6 bar	kN	0,48	0,48
Force Electrode at 1 bar	kN	0,08	0,08
Effective spacing	mm	153 to 221	153 to 221
Air connection	mm	1/4" int. dia. 7	1/4" int. dia. 7
Water connection	mm	1/4" int. dia. 7	1/4" int. dia. 7
Dimensions (H x W x D)	mm	660 x 440 x 546	660 x 440 x 546
Welding cabinet controller		AR.01 or 2X16III	AR.01 or 2X16III
ARO No. 1 male cone electrodes		yes	yes

ARO electrodes

For many users ARO electrodes have become an industry standard. On the strength of the company's unique experience built up since 1949 from a wide range of production facilities and after thousands of hours of laboratory testing, ARO is able to offer an advanced range of electrodes that ensure enhanced service life performance and work quality (please ask for document S1F).

- A standard features provided by the corresponding version.
- An optional features provided by the corresponding version. For other panels, please ask us.
- ⁽¹⁾ On request, a power supply from a separate network that can be backed up in the event of power circuit breaker tripping.
- ⁽²⁾ F: French, A: English, E: Spanish, I: Italian, Swedish, Finnish, Dutch/German
The language choice is made by programming. For other languages please ask us.

Welding cabinet controller AR.01 AND 2X16III FUNCTIONS

FUNCTIONS	AR.01	10T16P	
Software release version		7A	
Number of programs	2	16	
First squeeze	0 to 200 periods	●	
Squeeze	0 to 200 periods	●	
Welding	0 - 0,5 - 1 to 200 periods	●	
Hold	0 to 200 periods	●	
Interval	1 to 200 periods	●	
Upslope	0 to 20 periods	●	
Downslope	0 to 30 periods	●	
Pulses	1 to 20	●	
Pulse interval	1 to 200 periods	●	
Preheating	0 to 200 periods	●	
Cooling	0 to 200 periods	●	
Annealing	0 to 200 periods	●	
Current control in % without secondary current control	●	●	
Current control in % with secondary current control		●	
Current adjustment in kA with secondary current control		●	
Current adjustment in kA with monitoring of phase shift		●	
Duty cycle monitoring		●	
Welding spot counter with reset	●	●	
Electrode wear alarm		●	
Wear compensation by steps or by segments		●	
Link between electrodes and programs		●	
Single spot welding	●	●	
Series spot welding	●	●	
Servo valve control	1	2	
Programmable outputs		2	
Pressure program		●	
Control of a proportional valve		●	
Clamping without welding (SSS)	●	●	
With/without welding current (CSC)		●	
Programming/loading/off-line backup to PC		●	
ARONET network		○	
Servo valve power supply	as standard on request	24 VAC 24 VDC	24 VAC 24 VDC
Servo valve internal power supply	as standard on request	24 VAC 24 VDC	110 VAC 24 VAC
WCC power supply on power network	as standard ⁽¹⁾		●
Languages: (2) number of languages			7
Measurement coil size (10 to 2600 mV/kA)			●
Parity bit/Program choice			●
START - SV control link			●
Electrode wear compensation configuration			●
Date/Time			●



ARO S.A.S

1, avenue de Tours
72500 CHATEAU-DU-LOIR
FRANCE
Tél : 02 43 44 74 00
Fax : 02 43 44 74 01
Email : aro@aronet.com
http : //www.aronet.com

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