



Aristo[®] 1000 AC/DC SAW

DESIGNED FOR REAL-WORLD APPLICATIONS

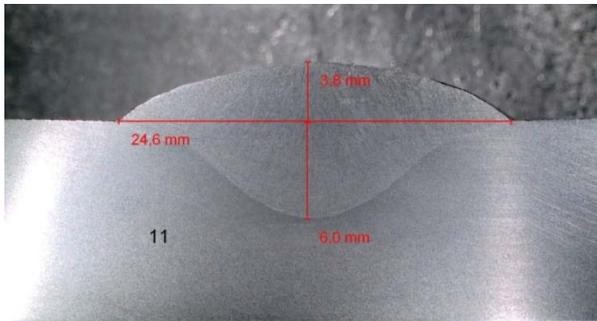


Productive
High quality
Reliable
Easy to use
Efficient

High productivity for real-world welding

The Aristo® 1000 AC/DC power source provides high productivity and high quality to meet real-world welding challenges. Innovative features ensure reliability, efficiency and ease of use in a machine designed to satisfy the most demanding of welding requirements.

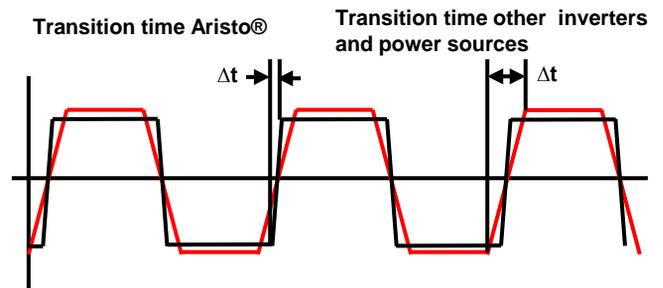
- **Multi-purpose heavy duty AC/DC** provides a flexible solution for any welding job – DC, balanced AC or unbalanced AC. The 1000A @ 100% duty cycle and the ability to control penetration and deposition make this machine the only SAW power source you need.
- **Increase productivity up to 65%** compared to DC+ welding by using the higher deposition rate of unbalanced AC with the same heat input.



DC+ 650A, 29V, 45cm/min
 Deposition rate: 7,2kg/h
 Unbalanced AC 650A, 39V, 45cm/min
 Balance 25%, Offset -3V, Frequency 100HZ
 Deposition rate: 11,6kg/h

61% higher deposition rate with unbalanced AC

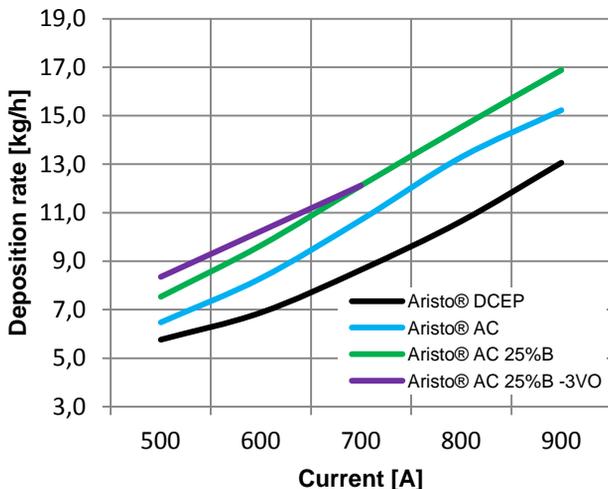
- **CableBoost™** patent-pending technology ensures the performance of the power source is unaffected even when long welding cables are used. What you set is what you get.
- **Non-stop root to cap welding** allows change over from DC welding to AC welding “on the fly.”
- **True Square Wave Technology™** delivers the optimum wave form to overcome issues traditionally impacting AC welding. This technology increases process stability compared to conventional AC power sources.



High quality and consistent reliability

- **Cable protection** ensures there are no production stops because of damaged cables or connectors. All connectors are positioned behind an enclosed door located at the front of the unit for protection and easy access.
- **SoftStart™** sequence reduces the risk of weld defects. This specially designed start sequence provides secure quality, saves cost and down time by avoiding repair.
- **Critical component protection** is provided by a cooling channel design that guards all sensitive power source components from dust and particle contamination, ensuring extended component life.
- **Minimal maintenance** keeps uptime at a maximum with re-usable air filters that are easily accessed at the front of the machine and cooling channels that are quickly cleaned using compressed air.
- **Cooling on demand** keeps dirt out to ensure a long product life. The cooling fans operate only when needed, reducing energy consumption and cost.

Aristo® 1000 AC/DC deposition rate chart
 A6, 4mm wire, ESO 32mm



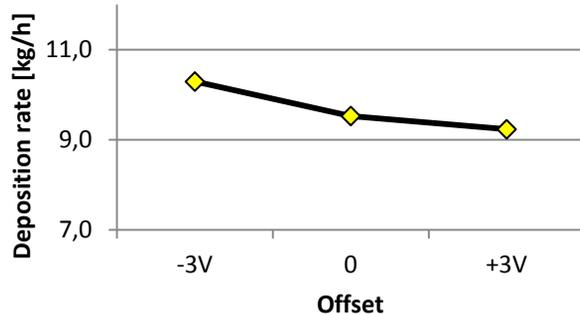
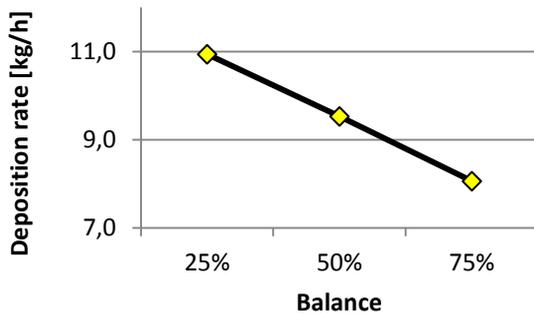
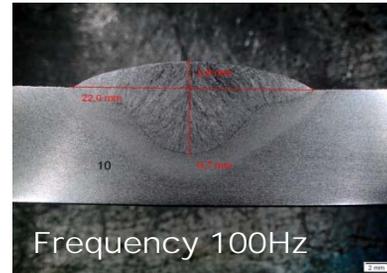
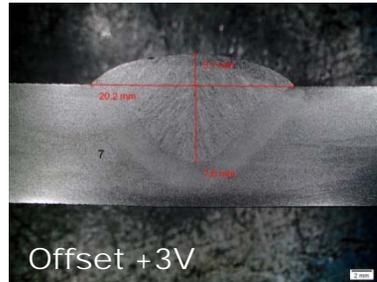
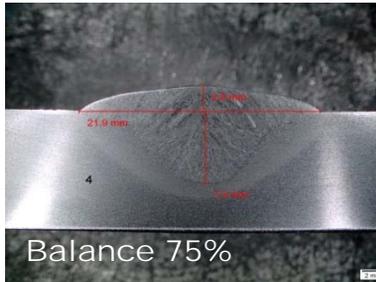
High quality and consistent reliability

- **Bead Profile Modelling™** provides adjustable AC settings for precise control of penetration profile and depth, dilution, arc stability and weld appearance to achieve the best productivity and quality for each weld.

Balance: Lowering balance will mainly increase deposition rate. Increasing balance will increase penetration.

Offset: Lowering offset will mainly increase deposition rate. Increasing offset will increase penetration.

Frequency: Adjusting frequency will stabilize the process, help improve side wall wetting and increase flare angle, decreasing large grain structure in the flares.



Easy to use

ESAB's standard PEK weld controller is used to control all SAW power sources, welding heads, tractors and hard automation such as Column and Booms. Use of a standard control increases flexibility and simplifies user training.

- **Easy job changeover** with 255 programmable parameter memories that allow individual settings for all stations to be stored in each unit, making it easy to find and change the right parameter settings for each job.
- **Control your heat input** using heat input displayed in real time during welding.
- **Dedicated PLC interface PAB for direct communication with power source** provides control and interface with any ESAB SAW power source using a PLC, PC or other control unit.



- **Reduce risk of welding defects and secure compliance to procedure** by limiting user access to the parameter settings required for the specific job. The PEK also indicates if welding parameters are outside the set limits.
- **Easy to replicate parameters** using a USB memory device from one welding station to the other without the need for a laptop and Ethernet connection.
- **Weld and quality data** is stored for monitoring purposes.
- **Uses your language** with a standard PEK control menu of 17 different languages.
- Extendable sun cap improves visibility in sun light
- Mechanical protection prevents damage to unit
- Quick buttons for easy change of pre-programmed weld parameters are adapted to individual application needs
- Large knobs allow quick adjustment of parameters even when wearing gloves
- Large, easy-to-read display

Energy efficient and environmentally friendly

ESAB's unique patent-pending technologies reduce energy consumption, are environmentally friendly, and save you money.

- **Reduced energy consumption and cost** is the result of higher deposition rates that complete the job faster using less energy.
- **Remote On/Off Control** makes it quick and convenient to turn off the power source to avoid unnecessary use of energy. It also provides freedom for power source placement.
- **Lower power installation cost compared to conventional AC power source** with a 3-phase connection that lowers grid installation cost over conventional 2-phase AC power sources. Connect to a three phase mains supply from 380 to 575 V, 50 or 60 Hz.
- **Cooling on demand** uses cooling fans only when needed, saving energy.

Technical Data

Mains Supply 3ph V, Hz	380-575, 50/60
Mains Voltage (DC load), V	380/400/415/440/460/ 500/550/575
Mains current (DC load), A	86/82/79/74/71/66/59/57
Rated output at 100% A/V	1000 / 44
AC Balance,%	25-75
AC Offset	± 300A, ±10 V
AC Frequency, Hz	10-100
Output range, A	200-1000

EMC Filter	Included
Parallel connection	Available
Cable requirements	2x95 mm ² / 2x120mm ²
Welding cable length (total)	Up to 100m
Remote On/Off input	Available
Digital welding regulator	3rd generation

Open circuit voltage, VDC	130
Idle power, W	200
Efficiency at max output	88%
Power factor	0.93
Enclosure class	IP23
Dimensions LxWxH mm	865x610x1320
Weight, kg	330
Certification	CE certified
3rd party approvals	CSA, CCC and Ghost R

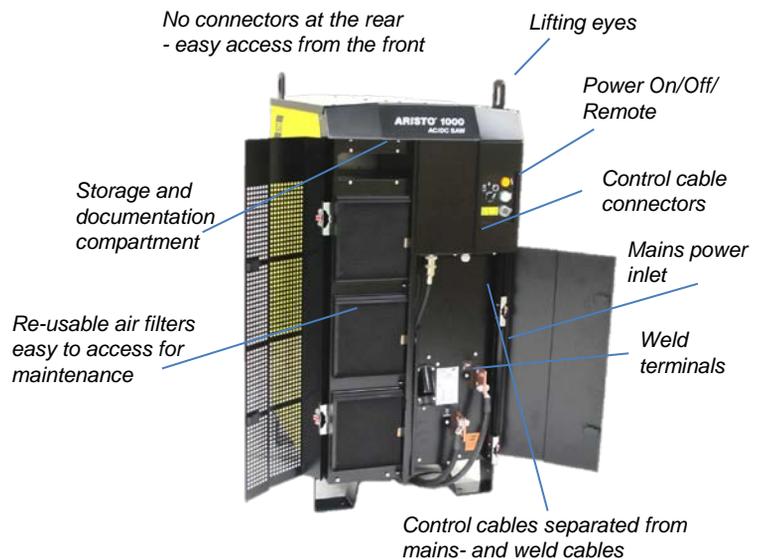
This welding power source complies with the requirements of IEC-/EN 60974-1 and IEC-/EN 60974-10

Ordering information

Aristo® 1000 AC/DC SAW	0462 100 880
Control cable, 15 m	0460 910 881
Control cable, 25 m	0460 910 882
Control cable, 35 m	0460 910 883
Control cable, 50 m	0460 910 884
Interconnection cable 4 m (for parallel/tandem operation)	0463 282 880
Installation manual (for parallel/tandem operation)	0740 801 030
A2/A6 Process controller PEK	0460 504 880

Applications

- Power Station and Nuclear Components
- Wind Tower Structures
- Structural Steel and General Fabrication
- Shipbuilding and Offshore
- Pipe Mills
- Single or Multi-wire Applications



2014-07-01 / ESAB reserves the right to alter specifications without prior notice

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COMPANY WITH
MANAGEMENT SYSTEM
CERTIFIED BY DNV
= ISO 9001 =
= ISO 14001 =
= OHSAS 18001 =