



## Advanced Digital Ultrasonic Welders

# ADG 20



**ADG 20 1000 – 1000watts**

**ADG 20 1500 – 1500 watts**

**ADG 20 2000 – 2000 watts**

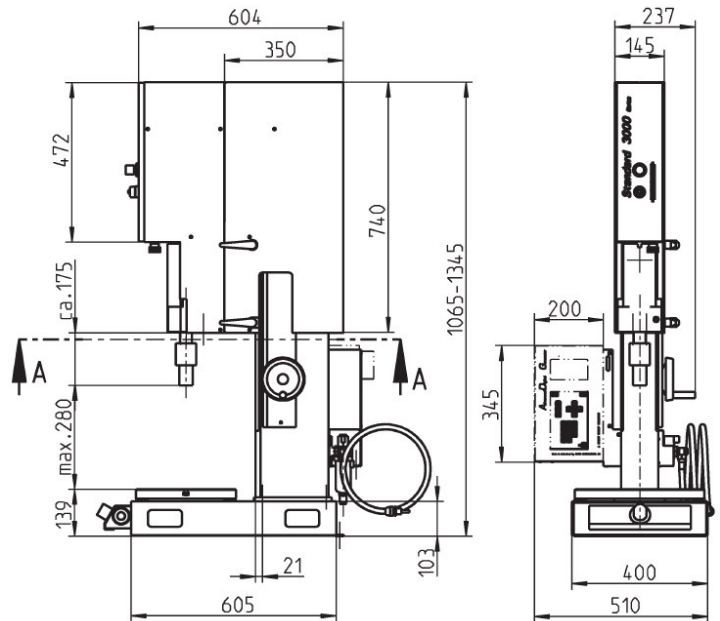
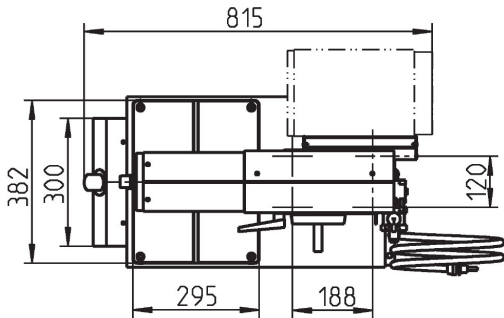
**ADG 20 3000 – 3000 watts**

### FEATURES:

- **32 Bit Microprocessor** capable of complete weld control and weld data monitorization
- **Line and Load Regulation** Maintains constant output amplitude despite incoming voltage fluctuations.
- **Single Phase input** power supply 200/ 230 V input with inbuilt protection for  $\pm 10\%$  input variations
- **Phase Lock Loop Automatic Tuning** with Last Cycle Memory Closed-loop feedback of frequency allows faster, more efficient ultrasonic stack start-up
- **Overload protection** with inbuilt safety circuit and devices for preventing damage to vital components.
- **Digital Frequency Indication** allows user to monitor track changes in stack characteristics such as horn fatigue or loosening of stack components.
- **Digital Soft-Start Ramp Control** (5msec-200msec) allows use of larger horns on lower wattage generators, shorter soft-start on high-speed applications
- **Digital Amplitude control** 40%-100% allows user to vary the output amplitude in 1% increments based on the application.
- Weld by **Time, Energy, Collapse Distance, Absolute Distance** allows user enhanced control for applications requiring precision welding.
- **Limit Window and Warning Window** for Time, Energy, Collapse Distance, Absolute Distance, Power Defect allows user to set min/max alarm limits for both bad and suspect parts.
- **Built-In Ground Detect with Scrub Time** allows user to quickly change between welding and ultrasonic cutting applications.
- **Built-In Cycle Counters** allows user to track number of acceptable and rejected production cycles. Production-Stop counter alerts operator when production run is complete.
- **Password Protection** Limits parameter access to qualified personnel only.
- **Auto Self-Test** of Stack/Generator automatically test for ultrasonic stack/generator faults prior /after to performing the actual weld cycle.
- **Start-Delay Function** allows user to program a delay time between cycles on high-rate production to permit complete "ring-down" of large horns
- **32 Date Set Memory** allows user to store / recall setup parameters
- **Alphanumeric Naming** allows user to enter unique program names for easier program selection.
- **Data History** of 25 Previous Cycles allows user to view data results for analysis.
- Optional **External Program Select** Allows user to externally switch between programs via users PLC.
- **Data Output/Printing** via RS232 Port Allows user to output data to PC for SPC purposes.
- **CE Compliant\*** Allows user to operate in various countries.
- **25 Inputs and 25 Outputs** Allows for ease of automation

## PRESS – STANDARD 3000

- **Ultra-Rigid Rectangular Steel Column** eliminates deflection of the system under even the highest pressures.
- **X-Y Axis Position** maintained when Changing Head-Height.
- **Head-Height Adjustment via Ball-Screw** Movement Allows user to change with minimal effort.
- **Precision Monorail Ball** Slide on Actuator for precise carriage alignment.
- **Removable Actuator** from Press allows the user simple conversion from press system to automation.
- **3.15" (80mm) Dia. Air Cylinder**, the largest standard air cylinder on 20kHz equipment in the industry.
- **Digital Pressure Gauge** allows precise control of cylinder pressure
- **Air Filter Assembly** with Shut-off valve for incoming air to be filtered.
- **Variable Slow Head-Speed** Zone with Adjustable speed prior to the horn contacting the part saving cycle time.
- **Lockable Mechanical Micrometer Stop** for precise stop setting.
- **3000W+ Rated 20kHz Converter** eliminates need to stocking multiple spare converters.
- **One-Piece Converter Cable** Reduces likelihood of interference by minimizing connections.
- **Variable Trigger Settings** by time, delay time, distance, and differential pressure for a wide range of applications.
- **Rigid-Mount "O"-Ring Free Booster** minimizes deflection of the system under even the highest pressures.
- **Levelling Base-Plate with T-Slot** Fixture Clamping feature allows easy fixture mounting and levelling.
- **Application Help-Chart** attached to base of the welder for quick access to material amplitude and compatibility guides



### Technical Data:

#### Generator

- Power options 1000, 1500, 2000, 3000 watts
- Supply Voltage 1 phase 200v/230V 50/60Hz
- Interface RS 232
- LCD Display 5 inch, 16 X 40 font size
- Parameter Database 32 weld data sets
- Measured Values Last 25 weld sets
- Weight Approx 16 kgs

ADG fulfils the following basic technical norms for industrial use;

- EN 61000-6-4 EMV, emitted interference area
- EN 61000-6-2 EMV, interference resistance industry area
- EN 55011 class A/ group 1, High frequency equipment radio interference
- Low voltage guidelines 73/23/EWG

#### Press

- Drive Cylinder Double acting, diameter 80mm
- Input air supply 6 bar, clean, non-lubed dry air
- Total Stroke 100 mm
- Power at 6 bar 3000 N
- Travel Measurement +/- 0.01 mm
- Height Adjustment 10-290 mm
- Throat Depth 220 mm
- Depth Stop 0.1 mm indexed vernier scale

- Trigger by Differential Pressure, Time, External
- Safety Switch at 6 mm
- Base is made of corrugated steel construction
- Tool clamping table with T-Slot and parallel alignment mechanism
- Two-hand safety start with emergency stop button
- Low voltage guidelines 73/23/EWG
- Weight 120 Kgs without Generator

#### Options

- Sound Enclosure
- Data Bank Switching
- Device Switch Box
- Foil Transport
- Special Actuators
- Rotary Index Table