

ONA WE ARE EDM



NEW

AD

AD25/ AD35
WIRE EDM AD RANGE
CATALOGUE

ONA, WE ARE EDM

KNOWLEDGE AND EXPERIENCE

at the client's service.

At **ONA** we are pioneers in EDM technology. Our over **65 years of history** have made us the most specialised manufacturer in the world. With ONA, the client is guaranteed a highly qualified team, experts in the manufacture of EDM machines and precision assemblies. A history full of technological advances and improvements with over **15000 machines installed** all over the world. We are present in 60 countries thanks to a wide network of **distributors around the world ensuring fast and efficient service at any time.**

over 65 years of history

over 15000 machines installed

present in more than 60 countries

Our long experience makes us a reference in EDM in the most competitive industrial sectors:



AUTOMOTIVE ENERGY AEROSPACE MOULD AERONAUTICS



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MACHINE PRESENTATION

PROFITABILITY AND PRECISION AT AN AFFORDABLE PRICE



AD25

HIGH PRODUCTIVITY

An affordable machine that guarantees maximum productivity in precision work.

RELIABILITY

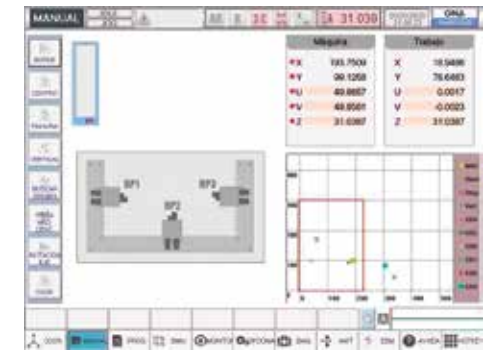
Moreover, the **ONA AD25** guarantees a reliability in the erosion of parts.

TECHNOLOGICAL TABLES FOR PRECISION CUTTING

The **ONA AD25** machine includes technological tables especially designed for precision cutting. Using tables, the operator can be sure of the levels of precision in wire EDM.

WINDOWS-LIKE INTERFACE

The windows-like graphical interface makes life easy for the operator, while providing a automation capability.



CONTROL

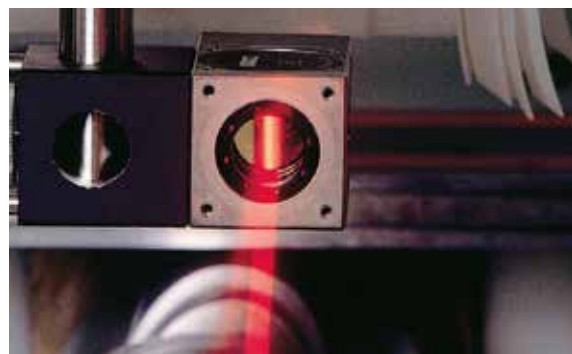
QUICK AND EASY OPERATION

A simple effective tool for programming



CERTIFIED ACCURACY

Each machine is laser-tested according to the VDI 3441 (axes positioning) and ISO 230-4 (circularity) standards.



PROGRAMMABLE CONTROL OF THE Z AXIS

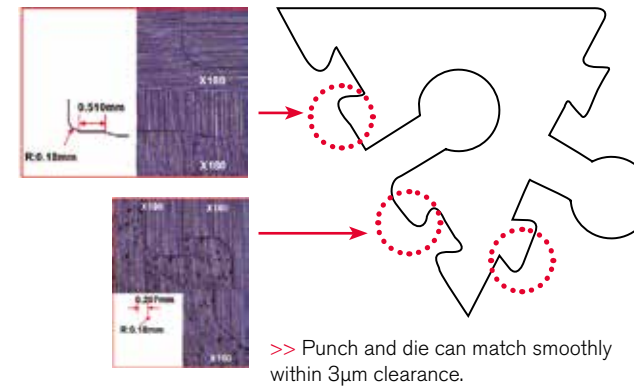
CNC control of the Z axis is standard on all ONA AD25 machines. It is very useful in the cutting of workpieces of various heights, since the Z positioning and the correspondent cutting strategy can be programmed.

5 AXES CONTROLLED

All ONA **AD25** machines can control up to 5 axes simultaneously.

CORNER CONTROL

According to different cutting data, wire diameter, angle and workpiece thickness, the control automatically optimizes parameters to maintain the best corner cutting performance with accuracy, as well as cutting speed. Even on the small and continuous corners, ONA still can meet corner accuracy.



CORNERS AND CIRCLES

Precision at the critical points of the workpiece (corners and circles) is increased thanks to new compensation algorithms and to the control of the lateral discharge during reruns. The new generator was designed to maintain precision at these points where change in direction is critical and the optimisation of braking ramps helps prevent losing time on the curves.

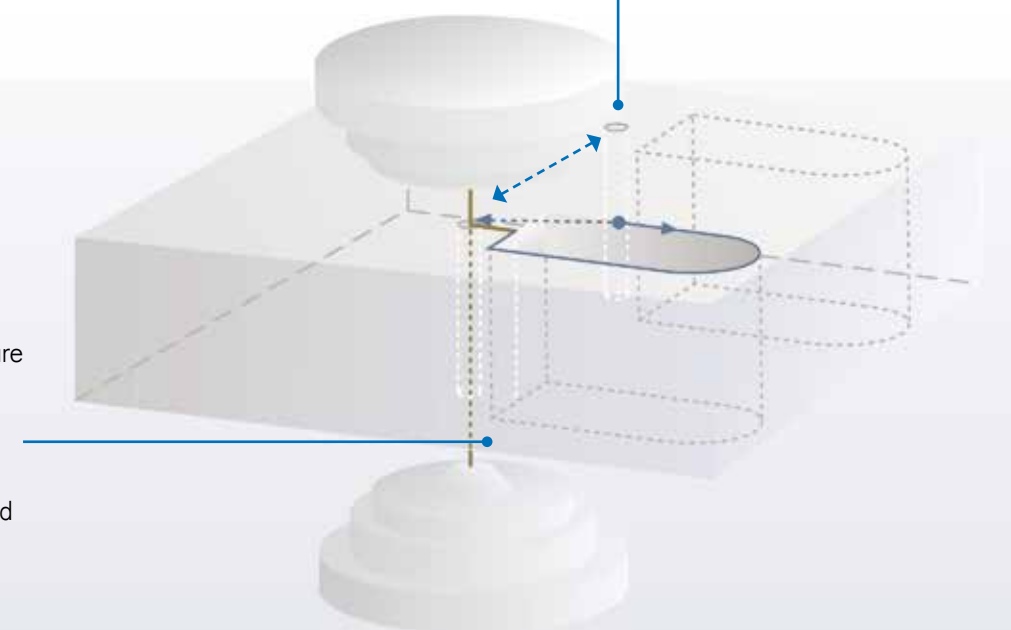


JUMP function:

if a workpiece cannot be realized, the machine moves on to the next

Threading in flushing mode:

1. Automatic recovery of during immersion erosion point following power failure
2. Control of corners and rounding. Optimized strategies for roughing and finishing.

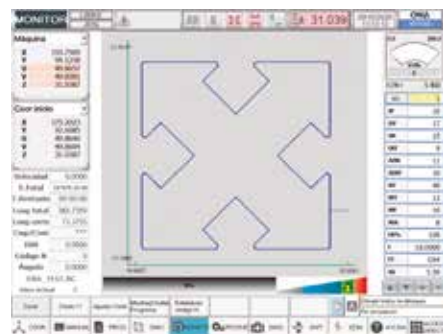


GENERATOR

RELIABILITY



\ PRODUCTIVITY AND SURFACE FINISH



- Material: steel
- Punch thickness: 100 mm - 4 inches
- Wire type: uncoated brass of diam. 0.25 mm - 0.010 inches.
- Number of cuts: 1 cut and 1 skim cuts
- Vertically precision 2 µm/side



\ PRECISION TAPER CUTTING

An automatic system is built into the CNC for compensating the deflection point of the wire in the guides. This ensures precision in taper cuts and simplifies the job for the operator.

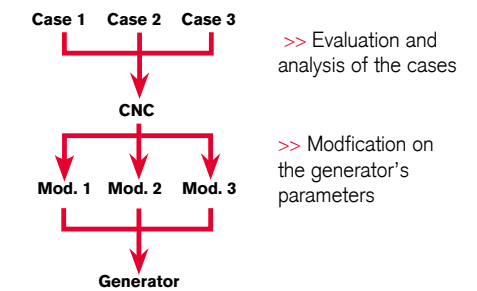
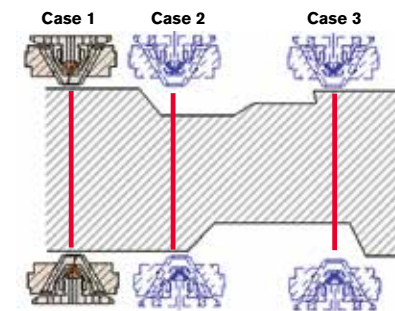
Tapered workpieces, even those with a geometry entailing various taper angles, can be handled automatically and with high precision.



\ EXPERT EROSION SYSTEM

The expert erosion system allows for an effective control of the cutting process, automatically modifying the programmed parameters of the power supply, ensuring optimum machine performance at each stage.

The expert erosion system is of special importance when cutting complex pieces, as staggered pieces, pieces with wide angles of taper cut, etc.



\ ACCURATE REPEATABILITY

Repeatability in accuracy by applying the same cutting data on different machines, the consistence enhances the quality of workpiece and simplifies management procedure.



MECHANICS

MECHANICAL STRUCTURE THAT ASSURES A LASTING ACCURACY

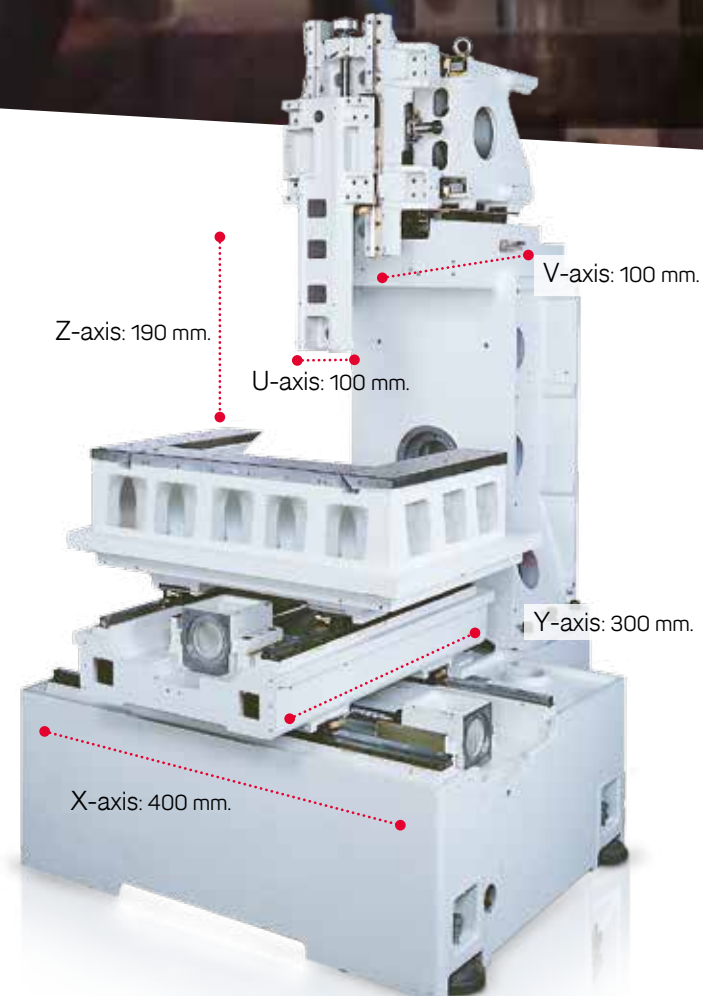
ONA, robustness and reliability since 1952

MECHANICAL STRUCTURE . T-BASE CONSTRUCTION

The longer X-axis is located on the base. The shorter Y-axis is located on top of X-axis.

COLLISION PROTECTION SYSTEM

All machines feature as standard a collision protection system



DIRECT CONTROL POSITIONING

High precision glass scales are used in all ONA AD25 machines.



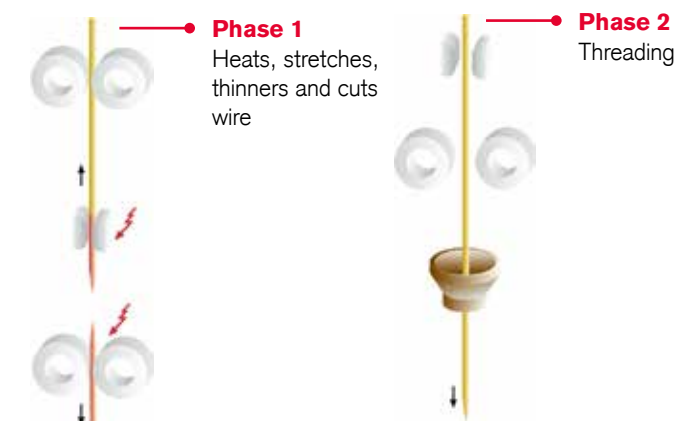
NEW GENERATION SHAFT LINEAR MOTOR

Lower maintenance cost. Excellent low power consumption characteristics.



HIGH REALIABLE AUTOMATIC THREADING

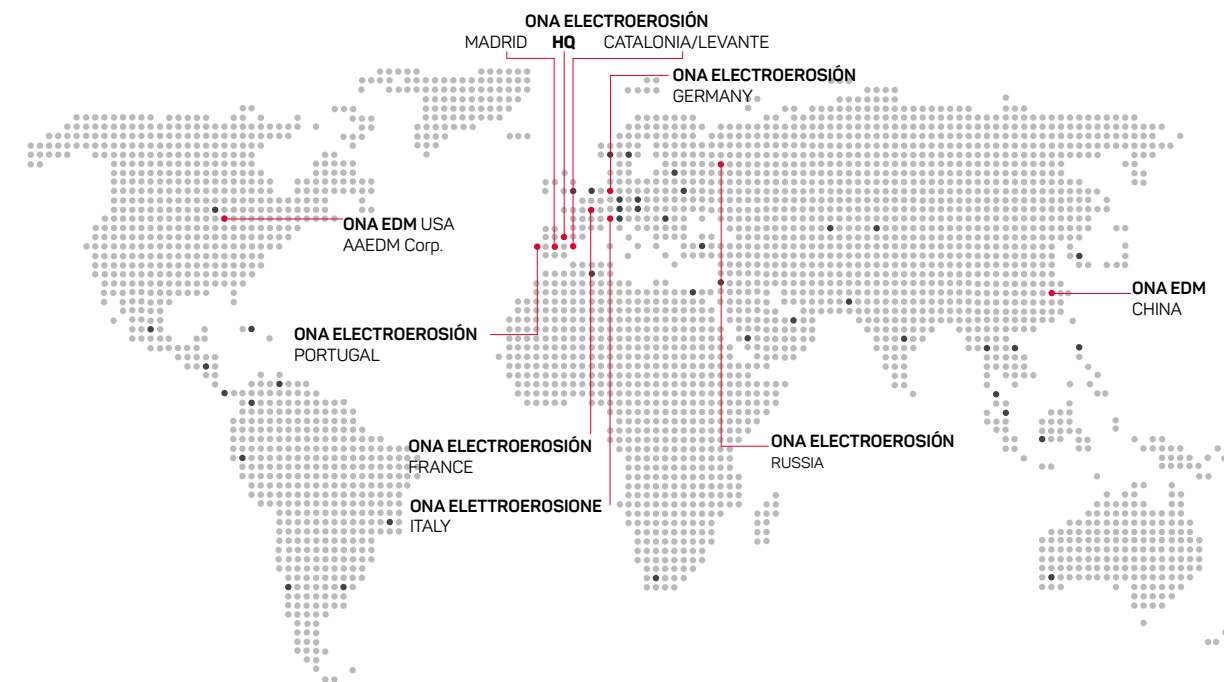
- The maximum height for threading is equal to the maximum travel on the Z axis.
- Minimal maintenance required due to wear-resistant elements and optimized design.
- Minimum threading hole diameter: 0.5mm (0.02 inches)



SERVICE AND EXPERT ADVICE

TOTAL AVAILABILITY

At any time and anywhere in the world



LOCAL SERVICE TEAM

ON A places a network of local service points at the disposal of our clients with highly qualified native personnel for delivering quick and customised service which is tailored to the clients.

OWN EXPERT SERVICE

At ON A, we are committed to developing our own machines, CNC, generator and technology included. Our team of experts ensure that we are able to manage our clients' demands directly.

KNOWLEDGE AT CLIENT'S SERVICE

We have an **excellence centre** in our plant where all the machines are subjected to **performance tests** to guarantee **compliance with each and every one of the client's demands**. It is only after all the tests have been passed and the production process ordered by the client has been verified is the machine deployed and commissioned on their premises.

APPLICATION ENGINEERING

We place the knowledge and experience of our team of experts at the disposal of our clients **to optimise the different key parameters** of the manufacturing processes. We work together with the client to develop **alternative work flows** to help make the most of each application



TRAINING

Committed to the training of future experts in the sector.

We have developed a training programme, offering basic instruction and more advanced training, in order to bring EDM closer to each client and make the processes both intuitive and simple. These training sessions can take place at ON A premises or at the client's own premises in other parts of the world.



APPROVED CONSUMABLES

ON A guarantee with each consumable.

We have always been in favour of using approved top-quality consumable products and original replacement parts. Their use guarantees optimum production and prolongs the useful life of each piece of equipment while optimising costs. In addition, it ensures maximum efficiency and the best results.

TECHNICAL SPECIFICATIONS



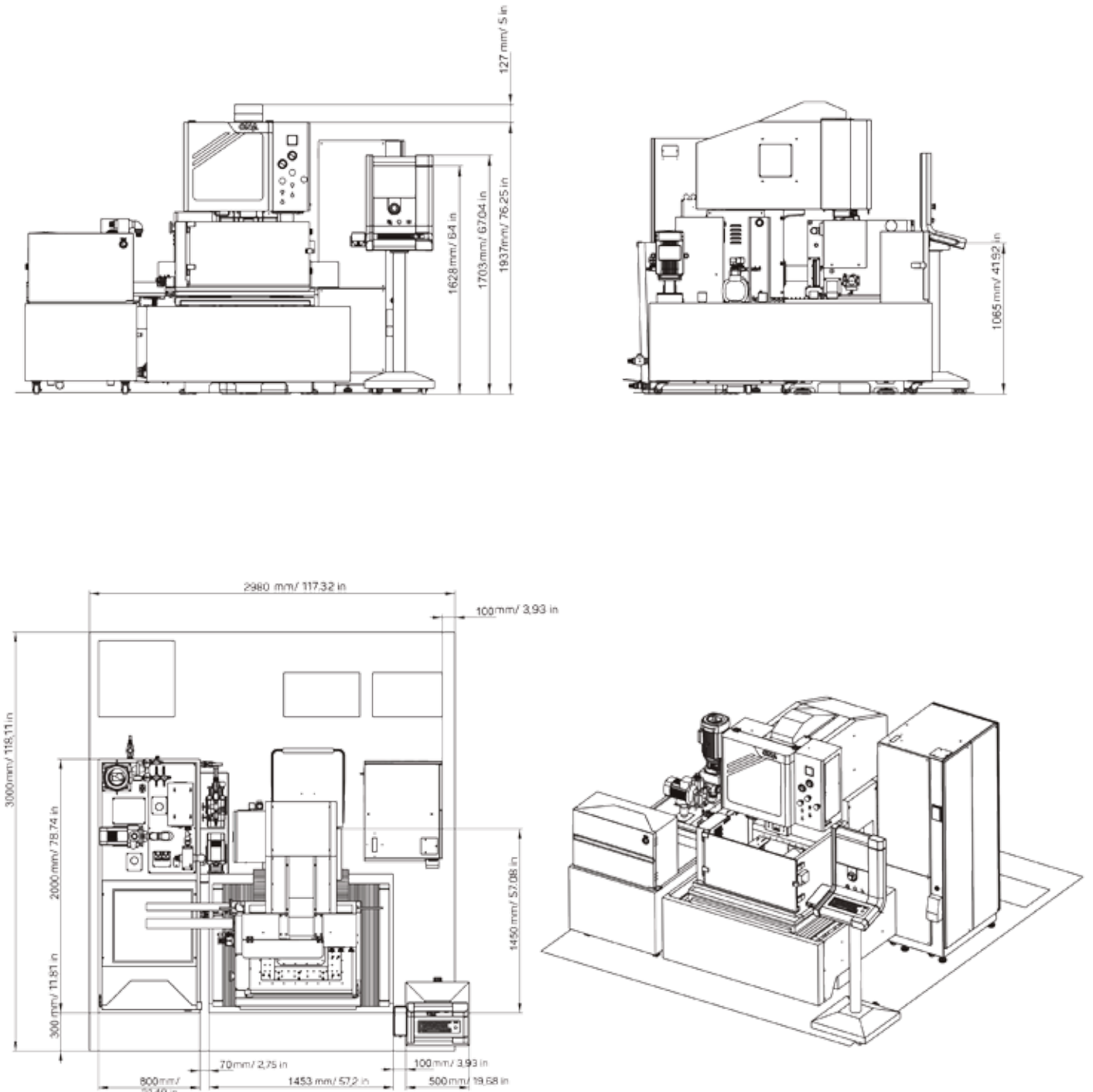
SPECIFICATIONS

| | ONA AD25 | | ONA AD35 | |
|---|------------------------|------------------------|------------------------|------------------------|
| | mm / Kgs | in (") / lb | mm / Kgs | in (") / lb |
| Max. Workpiece dimension | 790 x 560 x 190 mm | 31.1 x 22 x 7.4 in | 990 x 620 x 290 mm | 38.9 x 24.4 x 11.4 in |
| Max. Workpiece weight | 700 kgs | 1543 lb | 1000 kgs | 2204 lb |
| Max. Workpiece height | 190 mm | 7.4 in | 290 mm | 11.41 in |
| X/Y axis traveling | 400 / 300 mm | 15.7 / 11.8 in | 600 / 400 mm | 23.6 / 15.7 in |
| U / V axis traveling | 100 / 100 mm | 3.9 / 3.9 in | 100 / 100 mm | 3.9 / 3.9 in |
| Z axis traveling | 190 mm | 7.4 in | 290 mm | 11.41 in |
| Wire size range | 0.2, 0.25, 0.30 mm | 0.007, 0.009, 1.1 in | 0.2, 0.25, 0.30 mm | 0.007, 0.009, 1.1 in |
| AWT function | Standard | Standard | Standard | Standard |
| Anticollision function | Standard | Standard | Standard | Standard |
| Wire spool | 16 Kgs | 35.27 lb | 16 Kgs | 35.27 lb |
| Working table | U Shape | U Shape | U Shape | U Shape |
| Max. Tapper | ±21° / 100 mm | ±21° / 3.93 in | ±21° / 100mm | ±21° / 3.93 in |
| Machine power consumption | 15 KVA | 15 KVA | 15 KVA | 15 KVA |
| Max. Axes speed | 800 mm/min | 31.49 in/min | 800 mm/min | 31.49 in/min |
| Wire guide type | Closed type | Closed type | Closed type | Closed type |
| Autolubrication system for X and Y axis | YES | YES | YES | YES |
| Linear Motors X and Y axis | YES | YES | YES | YES |
| Glass scales resolution on X and Y axis | 0.1 μm | 0.1 μm | 0.1 μm | 0.1 μm |
| Encoder in U, V and Z axis | 0.1 μm | 0.1 μm | 0.1 μm | 0.1 μm |
| Best Roughness | 0.4 Ra | 0.4 Ra | 0.4 Ra | 0.4 Ra |
| Filter | Cartridges | Cartridges | Cartridges | Cartridges |
| Filtering quality | 3 μm | 3 μm | 3 μm | 3 μm |
| Cutting technology | Flushing and submerged | Flushing and submerged | Flushing and submerged | Flushing and submerged |

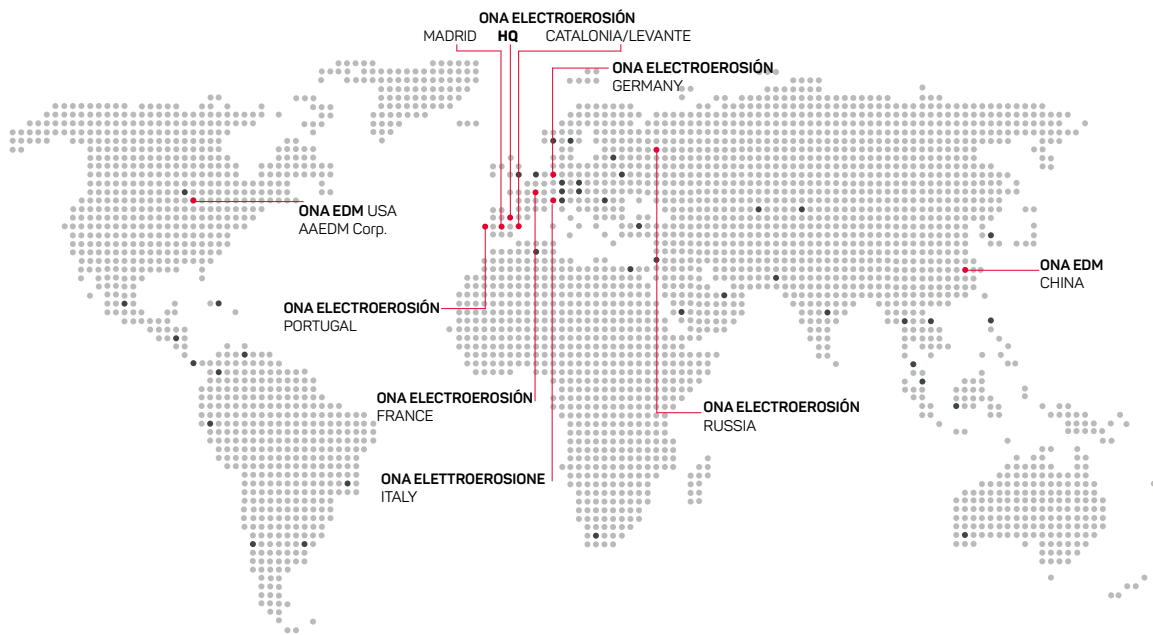
DIMENSIONS

| | ONA AD25 | | ONA AD35 | |
|----------------------|-----------------------|-------------------------|-----------------------|-----------------------|
| | mm / Kgs | in (") / lb | mm / Kgs | in (") / lb |
| Foot print W x D x H | 2980 x 3000 x 2063 mm | 117.3 x 118.1 x 81.2 in | 3440 x 3140 x 2210 mm | 135.4 x 123.6 x 87 in |
| Total machine weight | 3000 kgs | 6614 lb | 3700 kgs | 8157 lb |
| Water capacity | 850 Litres | 850 Litres | 850 Litres | 850 Litres |
| Resin capacity | 14.4 Litres | 14.4 Litres | 14.4 Litres | 14.4 Litres |

Dimensions



We are at your service anytime and anywhere in the world



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