

ONA / WE ARE EDM



VAV

AV RANGE
CATALOGUE
WIRE EDM

Changing times for EDM.

We and our products are represented by eco philosophy as a way of being; this is the future.

Eco technology, used in our product design processes, combine power and precision, with special attention paid to every detail, and at no time affecting efficiency in performance and consumption.

A new generation of top-of-the-range machines with revolutionary and intuitive control including a touch screen, to make our clients' lives easier.

A new concept for new needs. Welcome to the future.

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ON A - WE ARE EDM

Knowledge and experience at the client's service.

At ONA, we are pioneers in EDM technology. Throughout our over **65 years of experience** we have always been closely linked to this technology which has made us the world's most specialized manufacturer.

With ONA, the client is guaranteed a highly qualified team of experts in the manufacture of EDM machines and precision assemblies. We are characterised by our proximity and accessibility, which is why we are present all over the world with a wide range of distributors. At our main production centre, with 11,000 m², we design and create customised solutions for each client; we own a major infrastructure designed to provide efficient support for our clients and to cater for each individual project.



EUROPEAN TECHNOLOGY, GUARANTEEING MAXIMUM RELIABILITY.

Our machines are 100% manufactured in Europe using top-of-the-range components. We are leaders in technology and provide the best performance with maximum reliability.



CLIENT-ORIENTED CUSTOMISED SOLUTIONS.

Not only are we experts, we are also flexible. Our aim is to guarantee our clients' competitiveness, by creating long-term alliances, providing advisory services throughout the entire process in order to ensure the optimum performance of each machine installed. Each project is unique, and we are totally committed to the end result. We are world leaders in the manufacture of EDM machines for large pieces and we excel in special solutions. Each client has their own objectives and, at ONA, they will find the partner to help fulfil them.

INNOVATION AT THE SERVICE OF PROFITABILITY.

In our R&D center, we work on a daily basis to develop the technology necessary for increasing the profitability of our clients' projects. We collaborate with a range of technology research centres (ILT-Fraunhofer and WZL-Aachen, in Germany, and Tekniker, Tecnalia, Ideko and the University College of Industrial Engineers of Bilbao, in Spain, among others) and we participate in European research and development projects, constantly seeking improvements to apply to the solutions required by each client. We innovate to create more productive, reliable and robust machines.

GUARANTEE AND SUSTAINABILITY.

We are committed to the environment. We do day-to-day research on new cleaner production processes which are respectful of people and their environment. All our machines are designed from the industrial eco-design point of view, with an aim to optimising performance and energy efficiency. Our clients place our general efficiency rating at 98%, one of the highest in the market. The machines manufactured in ONA's production centre are certified to ISO 9001 and ISO 14001 in accordance with EC electromagnetic safety and compatibility standards.



ISO 9001



ISO 14001



INSPIRED BY TECHNOLOGY

High technology with the greatest precision.

The AV range wire machines combine cutting-edge technology within the EDM sector with great robustness in their mechanics and design. Their great precision and capacity to obtain excellent surface finishes make these machines the perfect solution. They include an advanced numerical control with an intuitive interface designed to simplify production processes, thus guaranteeing maximum productivity. Their new generator ensures low roughness surface finishes even in the most complicated materials, and guarantee maximum productivity with full traceability.



The most advanced technology with more intuitive control.

INNOVATION AND SIMPLICITY WITH THE BEST NUMERICAL CONTROL.

We have taken the final step for optimising EDM work processes, making them simpler and more intuitive. The new machines in the AV wire cutting range have a very powerful numerical control whose main advantage is its easy operation. All users can obtain excellent results thus improving performance and optimising times. Yet another example of innovative development aimed at designing increasingly perfect machines adapted to the demands of the current market.

The new numerical control, designed on the concept of usability, has:



A 23" touch interface.



Intuitive and visually friendly menus.

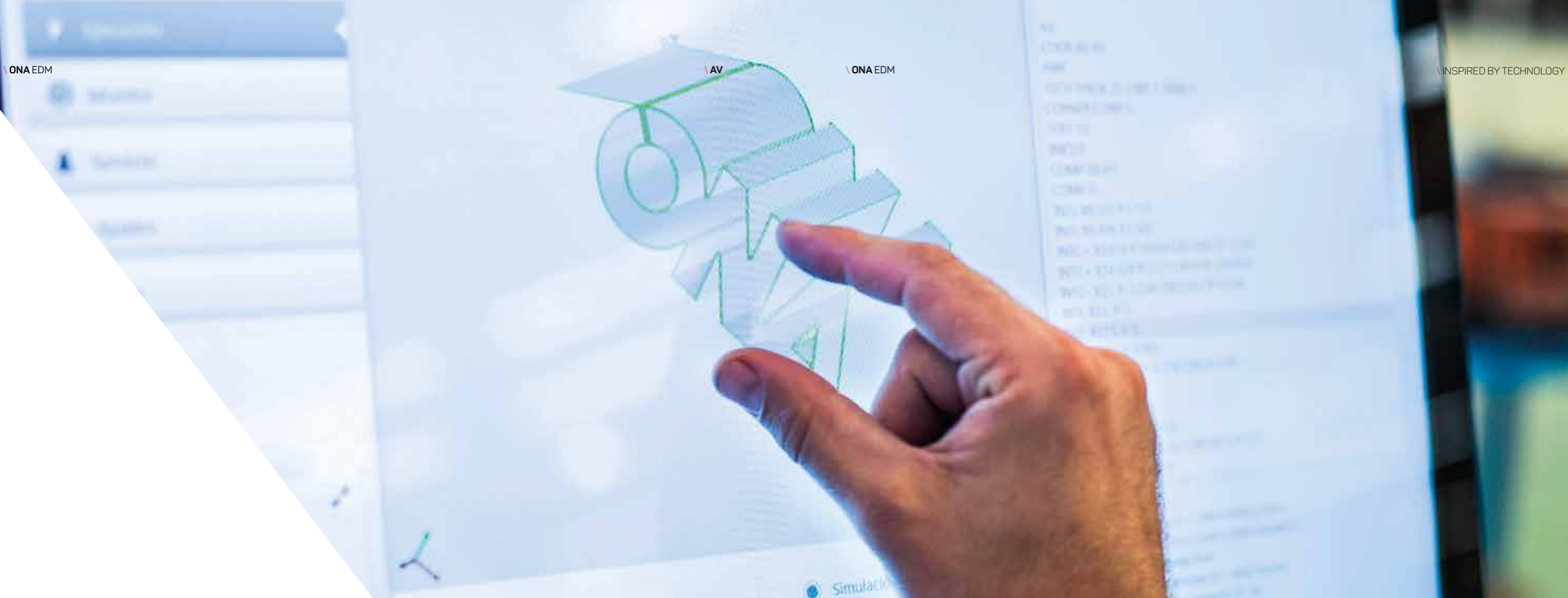


Applications represented by icons.



Real-time information, greater control of the process.

It includes the maximum number of functions with an aim to optimising the production cycles and reducing programming and set-up times. By simplifying each EDM job, we get greater capacity for improvement and enhance the performance of each piece of equipment.



PERFECT RESULTS. CNC-CAM WITH 3D GRAPHIC ENVIRONMENT.

The AV machines include very simple programming thus reducing possible human error. Their technology was designed for all kind of users, and achieves top quality results without the need of being experts, and necessary work near the machine itself is reduced. With an aim to increasing performance, we have optimised processes and times, thus guaranteeing a perfect result from the start. Technology aimed at achieving maximum automation, with centralised control software and integration with CAD/CAM for the automatic generation of programs.



Maximum automation.



Centralised control software.



Integration with CAD/CAM for the automatic generation of programs.

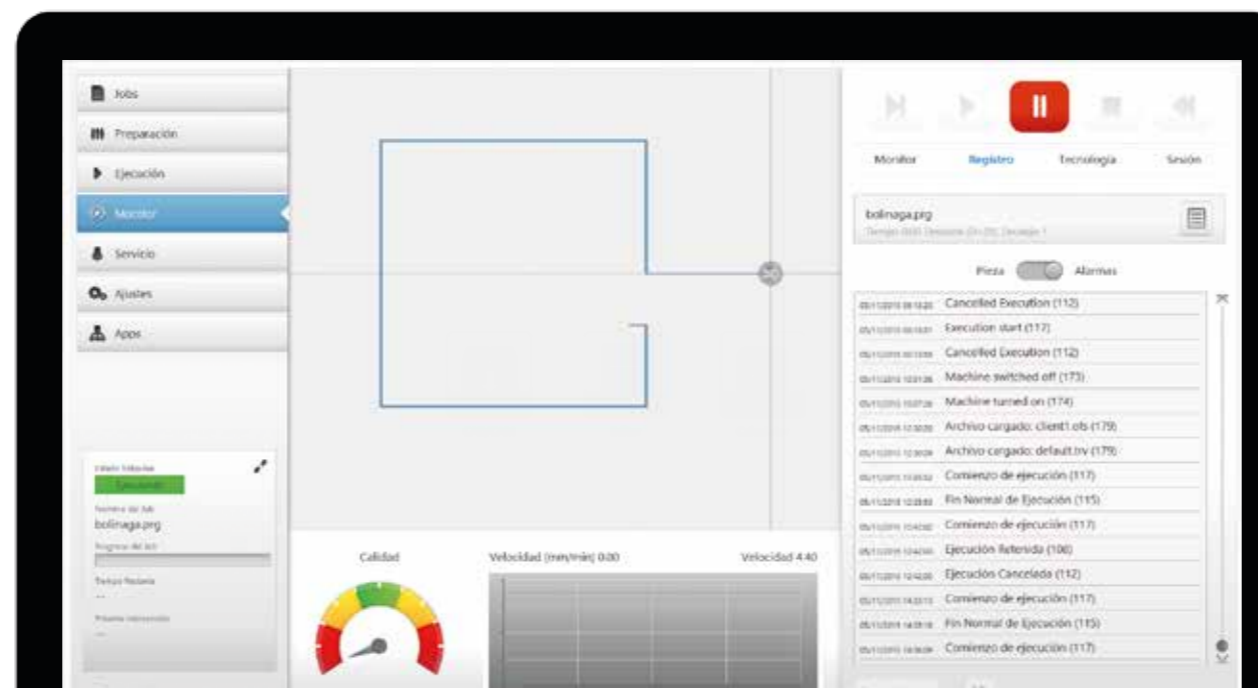
The new interface displays the workpiece in 3D and allows the operator to rotate and move it according to their requirements with a simple tap on the screen thanks to its tactile technology. This screen also displays the execution in real time of the wire cutting process on the workpiece, and provides information on the location of the wire and the completion time for each piece.

TASK PLANNING.

The optimisation of work times is another of the main functions of the AV machines. The system allows you to view the list of jobs (JOBS list). Each user can order their tasks according to their priority. In addition, they can bring jobs forward, thus ensuring the greatest autonomy possible to each machine.

ONA SCRIPT PROGRAMMING.

For the very demanding, customised setup cycles can be created, actions conditioned to a series of premises can be carried out, programming with variables is possible and personalised dialog boxes can be generated, etc. In addition, as it includes *in-process measurement*, thanks to auxiliary elements, it can optimise the workpiece measurement process without the need to remove them from the machine, as it has the autonomy to take decisions depending on the result.



\ GREATER CONTROL, RAPIDITY AND EFFICIENCY. UP TO 8 AXES.

AV wire cutting machines have a very powerful control with up to 8 interpolable axes working simultaneously. They are quicker and more efficient and can self-adjust in order to always obtain the best possible performance with minimum operating costs.

Their high resolution ensures excellent finishes with perfect precision due to the precise control of the positioning of the machine at every moment. Its interface allows a display resolution of up to 0.0001 mm.

\ MAXIMUM COMPATIBILITY WITH FUTURE NEEDS.

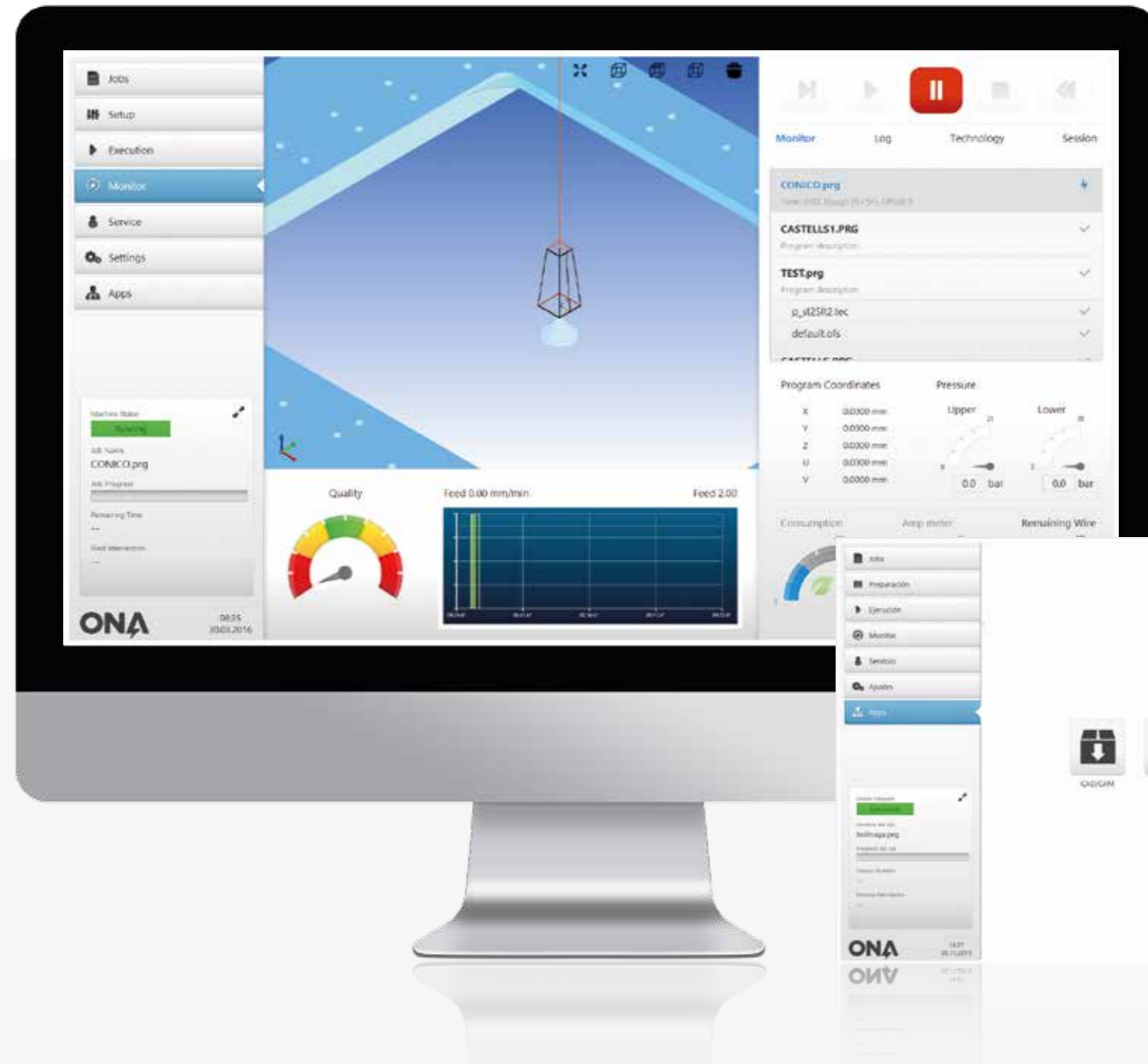
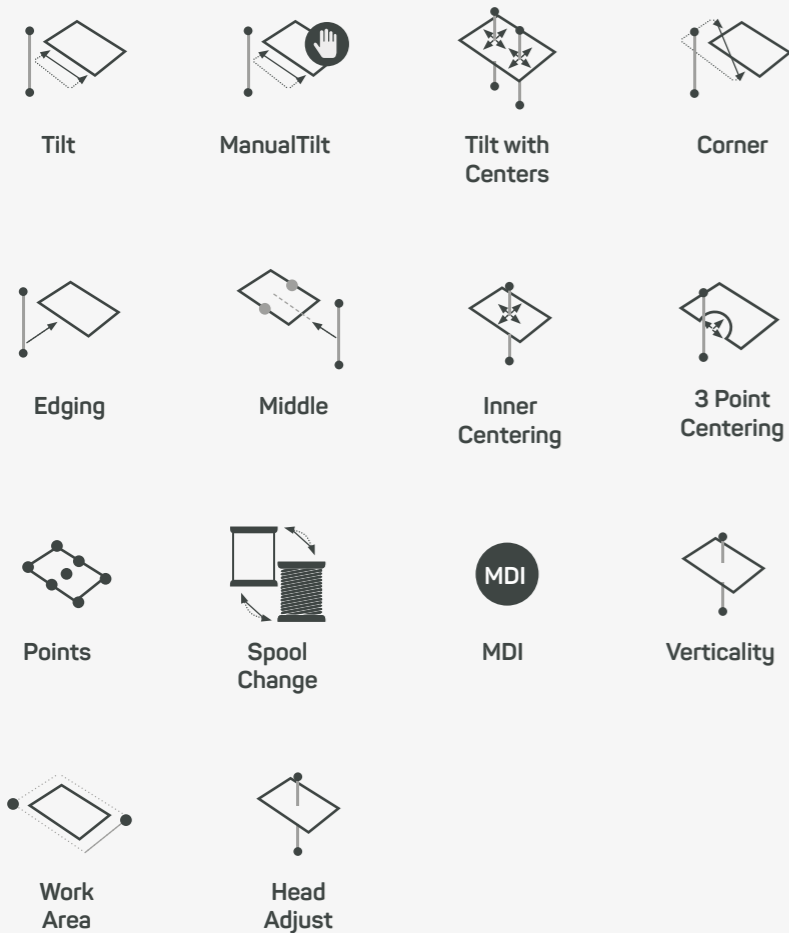
AV machines are designed to adapt to possible future requirements. They include proven and highly reliable architecture which is compatible with the installation of any software responding to future demands relating to measurement, display systems of the erosion process, etc. We are therefore in the position to offer our clients a guarantee for the future with more flexible machines with a great capacity to update.

\ DOCUMENT MANIPULATION.

The control includes direct accesses to the different programs in order to easily run them. Everything is digitalised. All the flow of information relating to the machining of workpieces is stored digitally, thus avoiding the loss of data and errors.

\ VOLUMETRIC COMPENSATION.

Much more precise than linear compensation, it guarantees maximum precision and delivers excellent quality finishes. Thanks to the measuring of the mechanics of the axes, the program is capable of automatically compensating any deviation.



Digital generator.

The AV range machines have a digital generator which optimises speed and precision by up to 50%, thus enhancing their performance.

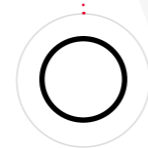
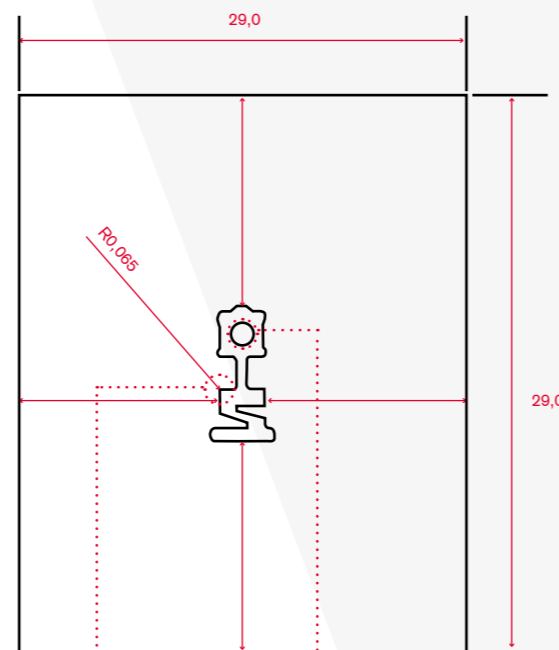


GREAT PRECISION IN THE CUTTING PROFILE.

As it can select the discharges, the new digital generator allows you to select only those with the best quality. The discharges are monitored to obtain statistics in order to evaluate the status of the process. This means that it is an intelligent generator that adjusts automatically.

All the technological improvements in the process implied by the new generator mean you can work with high voltages without breaking the wire, which improves verticality precision. The combination of the new generator with the automatic corrections of the new intelligent CNC prevents errors being made in relation to conicity or the appearance of curvatures in the central part of the workpiece.

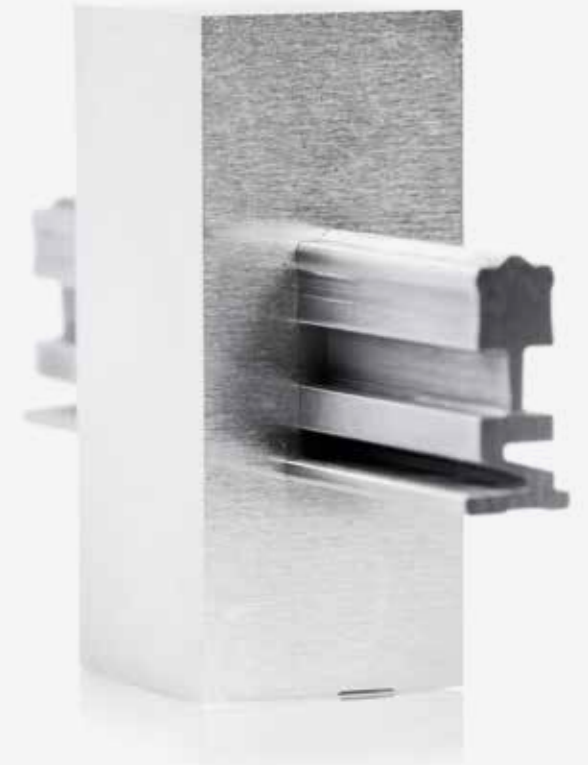
The client can create pieces with very complex geometries with great speed and precision thanks to all these improvements which are standard in all ONA's AV range.



In addition, 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.

GUARANTEED SURFACE INTEGRITY.

The control of each of the digital generator's discharges ensures the surface integrity of the workpieces even in the strictest conditions. The AV machines deliver perfect finishes without micro-crack, thus preventing the appearance of the recast layer (white layer). The material does not undergo any changes in properties and maintains its original hardness. The new generator significantly reduces brass waste even in roughing conditions.



LOW SURFACE ROUGHNESS AND PERFECT FINISHES.

The greatest accomplishment of the new generator is undoubtedly its capacity to deliver micro-fine surface roughness of 0.1 µm Ra. We can achieve even better results if the conditions are right and with more complicated materials like steel.

The impeccable result of the finish is ensured by the fact that the table is insulated with ceramic materials and by the addition of a super-finish module. AV machines can guarantee this precision in processes at great speed due to the fewer reruns required.

GREATER SPEED, MAXIMUM PERFORMANCE.

The new generator enables cutting at high speeds and guarantees great efficiency of the machines. Savings of 30% are obtained in production time with excellent precision. In record time, with fewer reruns, finishes of 0.1 Ra are achieved, with a guaranteed reduction in the cost of each piece.



SAVINGS OF
30%
IN TIME

Savings of up to 30% in time with fewer reruns.

Our machines can work with all kinds of wires and cut all kinds of materials even those which are particularly complicated to erode, like Inconel, in the aeronautical sector, or tungsten carbide. Moreover, the new technology means that we can work with Moldmax.

74	183,85	1,7
Ct		
TUNGSTEN CARBIDE		
3380	5930	19,26

Tungsten carbide

29	63,54	1,9
Cs		
CERAMIC MATRIX COMPOSITES (CMC)		
1083	2595	8,96

Ceramic Matrix Composites (CMC)

03	05,83	1,9
Si		
SISIC		
1983	3417	9,11

SiSic

14	28,086	1,8
Cb		
CBN		
1410	2690	2,33

CBN

95	98,478	1,3
Cm		
CMC		
1590	2589	20,3

CMC

04	07,08	1,6
Mo		
MOLDMAX		
3306	5069	2,58

Moldmax

98	3,569	1,4
Dp		
POLYCRYSTALLINE DIAMOND		
4869	2658	2,73

Polycrystalline diamond

Great robustness in mechanics and design.

\ TABLE FOR WORKPIECES OF UP TO 10 TONS.

The AV range enables working with large workpieces of up to 10 tons. The machine's fixed table ensures the automation of the process and the adaptation of each machine to the client's requirements, by helping to enhance the machine's accuracy.

\ FAIL-SAFE PRECISION OF POSITIONING.

Linear scales with direct measuring of positioning which guarantees precision throughout the machine's entire useful life. Direct measurement of position using linear scales with a resolution of 0.1 μm . We have designed an error detection process guaranteeing foolproof verification of positioning in real time, thus preventing precision errors. In addition, it removes the need for periodic maintenance and calibration operations.



\ HIGHLY RELIABLE ANTI-COLLISION SYSTEM.

The machine has a quicker, more reliable anti-collision system, with the capacity to detect collision forces of just 0.8 kg (8 N), thus guaranteeing the perfect condition of the machine and preventing damage caused by human error. The machine always stops just in time, and prevents the workpiece from being damaged.

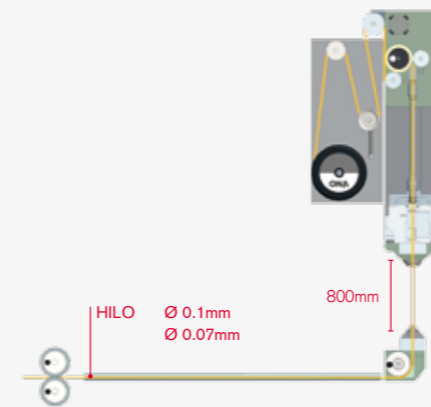
\ SELF-CLEANING SEALING SYSTEM.

The machines have a sealing system ensuring the proper functioning of the machine while preventing leaks. This system includes a self-cleaning system which ensures continuous operation, without downtime, thus maximising performance.

\ THREADING WITH ALL KINDS OF WIRE.

The AV machines include a threader that is leader in the market due to its simple design and its minimum number of mobile parts. Its simplicity implies savings in replacement parts and helps in its maintenance. Yet another step towards increasing profitability and reducing costs while guaranteeing its reliability even with soft and coated wires.

We have improved the movement of the wire, without stress or vibrations, to make it uniform so as to reduce wire breakage. It allows threading in groove and submerged.

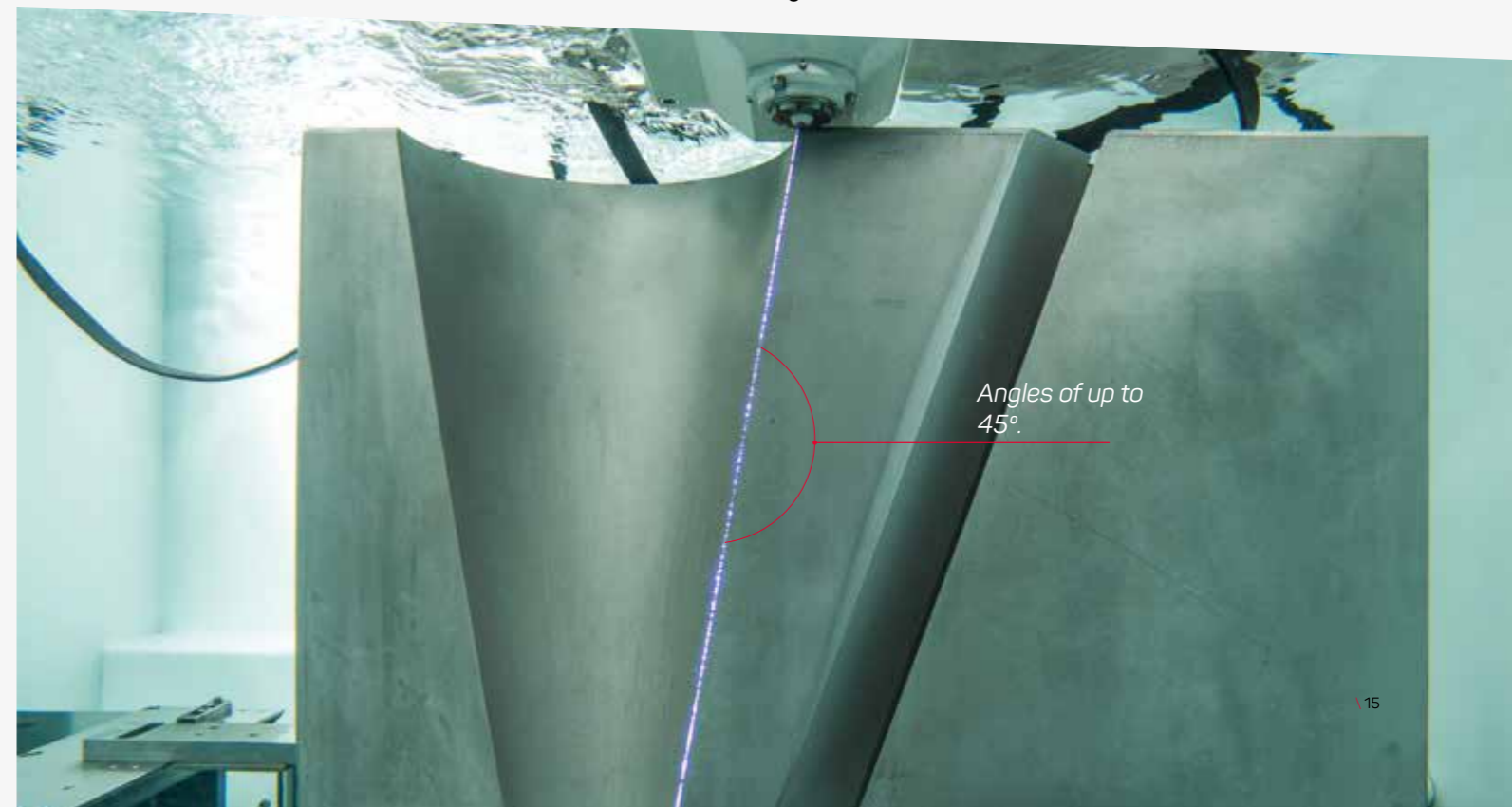


\ GREAT AUTOMATION WITH COLLAPSIBLE DOOR.

The new Smart Design with collapsible door enhances automation and increases the machine's autonomy. Access to the table is quick and easy, and was designed to raise performance and help in positioning the workpiece.

\ 3D SET-UP.

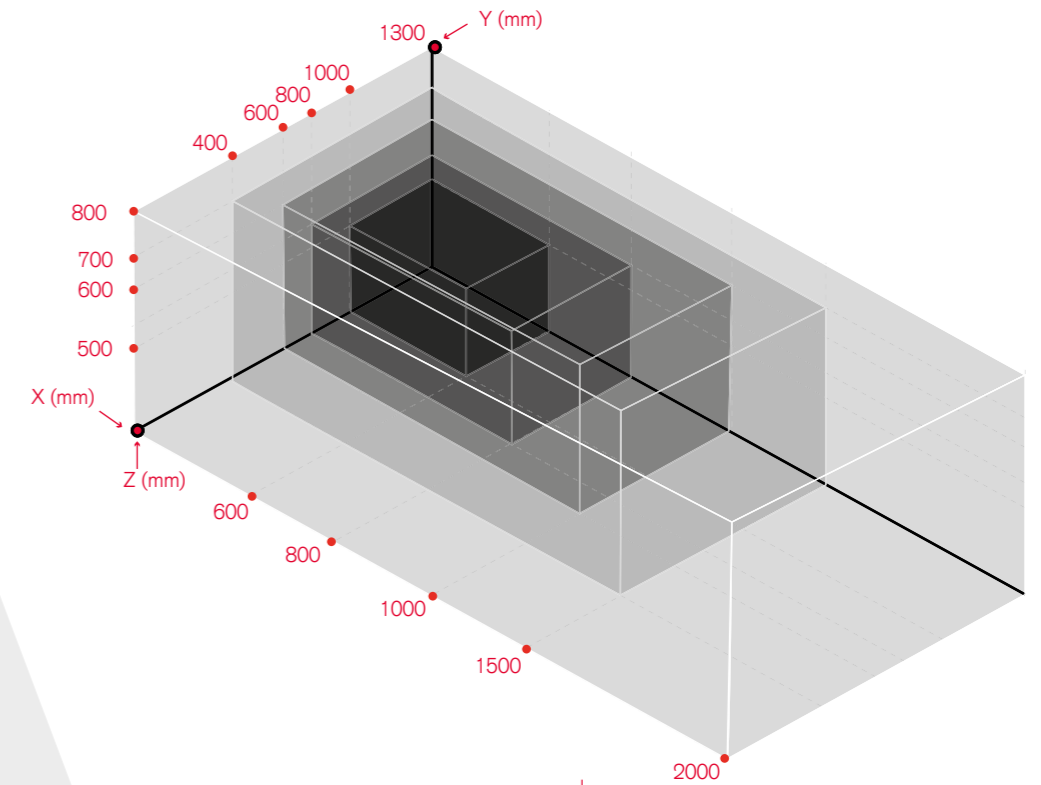
The alignment of the machine's axes with respect to those of the workpiece makes it easier to work on pieces in any direction and angle. The machine itself is in charge of setting the coordinates with respect to the workpiece, thus saving the user from having to do so manually, and optimising their work time.



MULTIPLE SOLUTIONS FOR DIFFERENT IDEAS

Unprecedented flexibility.

The versatile, modular design of our large machines allows more than **40 different combinations**. Each client can configure their own equipment depending on their needs and can work on workpieces of **up to 10,000kg**.



The data refer to the possible travel of the machine's axes.



\ ALL KINDS OF CUSTOMISED PROJECTS FOR EACH CLIENT.

We analyse what the client needs and offer the perfect machine for them.

At ONA, we always adapt to the specific requirements of each client. We offer all kinds of solutions; from highly flexible, versatile machines for various types of applications to machines designed especially in accordance with a client's needs with an aim to optimising their work process so as to improve their business's profitability. These machines can be designed to work with large workpieces.

They are incredibly flexible and there are no limits to their adaptation to the client's specifications. We offer the possibility to increase the automation of processes, including any accessory whatsoever from third parties, like rotary tables, sensors, display systems, etc.

\ MORE AUTONOMOUS AND EFFICIENT MACHINES.

Maximum number of hours without downtime thanks to process automation.

At ONA, we offer an integral automation service to each client to improve their work processes, with the possibility of integrating machines in flexible manufacturing cells. We work together with each client throughout the entire process, and carry out customised monitoring of the working of each machine and adapt to what each user requests. We are flexible and analyse the type of workpiece of each client and study how to manufacture it in the most efficient way possible.

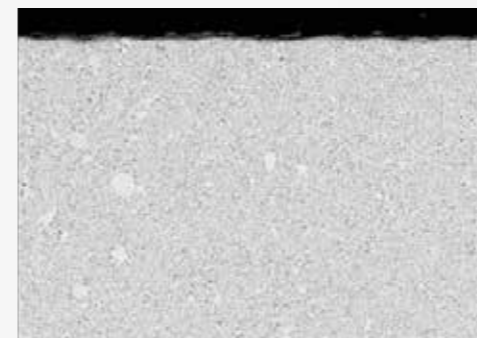
Our aim is to achieve maximum profitability by offering equipment with great autonomy. The 45-kg spool and min-

eral filter guarantee a significant reduction in manual tasks, and ensure that the machines work unattended for long periods of time, thus reducing human error. In addition, the machine's design facilitates access to the work area by robots, thanks to its collapsible door.

At ONA, we continue to advance towards monitoring and greater control of erosion with new services included in ONA Smart Connect, such as traceability.

\ EASY INTEGRATION OF TABLES AND ROTARY AXES.

Its robust mechanics and great control means it can work with up to 8 interpolable axes simultaneously, and can run applications requiring all kinds of rotary tables.



60µm



ECO DESIGN

Resource optimisation to raise productivity.

One of our objectives is to optimise resources while looking after the environment. The whole range of AV machines was conceived from the point of view of industrial **Eco Design** with the clear goal to improve their performance by designing more efficient and user-friendly machines. Our Innovation and Development team has done research for many years on new, cleaner production processes which respect people and their natural environment. We include two concepts under the term ECO: **Economics and Ecology**; offering the most profitable and environment-friendly solutions in the EDM field.



Optional eco filter system.

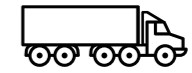
There is nothing but advantages when using the environment-friendly filter with hardly any maintenance costs.

- 100% environment-friendly: without any waste, apart from that from the erosion process itself.
- Lower maintenance costs.
- Suitable for all kinds of materials.
- Filtration quality of 3µm.
- Maximum productivity.



Long-lasting reliable machines.

The new generation of ONA AV machines maintains the traditional robustness and reliability that has always characterized ONA machines. Their robust design and the top quality of their manufacture guarantees a useful life of the machine of over 30 years. The quality of their assembly and materials make them "machines to last".



Smart Design: more compact and ergonomic.

Compact design. We focus on a compact design which helps reduce the carbon footprint from transport and packaging materials by 30%.

Ergonomic design: A more ergonomic and functional design thanks to the new head. The opening system has been renewed, making it more convenient and improving access for tasks like the handling of the wire, thus saving on maintenance time and user time.



Maximum profitability. The lowest operating cost in the market.

The AV range is the machine with the lowest operating cost on the market, guaranteeing unbeatable performance.

- A more efficient, low-energy generator. It allows for higher productivity and great energy savings with a reduction in losses from cable length. Its maximum electricity consumption is less than 7kva at full capacity.
- Optimum consumption adaptation of pumps. Designed to consume only the required energy at all times.
- Reduction in outlay on consumables. Low-energy wire technology.

ON A SMART SERVICE

Much more than the best service.

We are defined by the quality of our service. Our work is always aimed at improving the production processes of each business, and ensuring the future of EDM. Our professional record with contrasted experience makes us a reference in the sector and a trusted partner on the road to digital transformation.



Highly automated machines capable of working alone thus enhancing their cost-effectiveness and productivity.

Monitoring and remote control with network connection.

E-mail alerts on the working of each piece of equipment.

Information storage and data analysis.

Real-time information on the equipment's performance.

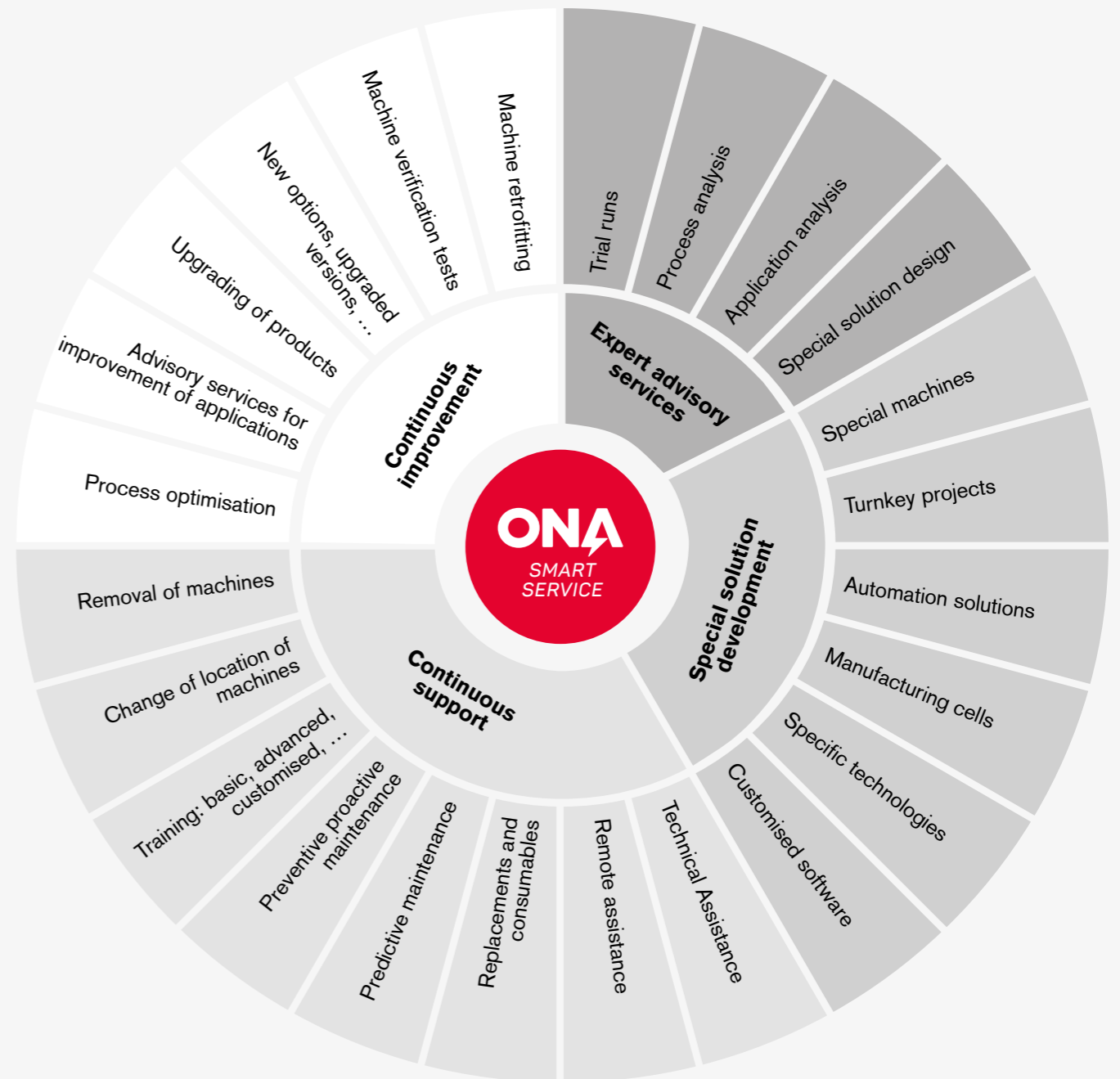
Traceability.

Touch screen with highly intuitive interface, user-friendly numerical control.

Complementary information on the condition of the consumables, the machine's consumption and erosion time.

AN EXPERT TEAM AT YOUR DISPOSAL.

We accompany our clients throughout the useful life of the machine, providing advisory services during the different stages with an aim to guaranteeing maximum efficiency of the machine and a relationship of mutual trust down through the years. With ON A, the client is guaranteed a team of experts at their disposal during the entire process, from the beginning, with the offer of perfect solutions for each client, and during each machine's years of operation.



The AV range's connectivity.



Connectivity and network operation. Ethernet connector, standard TCP/IP communication.



Different M2M connection options.



IoT ready, possibility to connect to other devices or platforms complying with Industry 4.0 standards.



The CNC includes a control and monitoring server allowing data and services to be offered to external clients via XML.



Plant Monitor, ONA Cloud Monitor... possibility of monitoring and registering data securely in the cloud or locally.



File transmission via FTP or FTPS.



Integration with main CAD/CAM software for simulation and automatic generation of programs.



Customised systems: Security Pack.

We design customised solutions for the client's specific needs, such as our Security Pack: A protection system to guarantee the security of the company's sensitive information. A system for creating an administrator, configuring different profiles, limiting deletion or modification of files as well

as external access blocking or recording the machine's On-hours and working hours. The most efficient way to protect our businesses by preventing data loss.

\ EXPERT ADVISORY SERVICES.

Greater efficiency of the machine.

From the very start of our relationship, we commit to the client to guarantee the success of the machine's installation process. Prior to the sale, our advisory team is in charge of finding the best option for each client. We analyse each client's needs, carry out a preliminary study and design a perfect customised solution for them. This preliminary analysis is essential in order to get to know each business, thus ensuring the greater productivity and enhanced efficiency of each machine.

Our goal is to guarantee that each machine is in the best working condition in the specific environment of each client.

\ CUSTOMISED DESIGN AND PROGRAMMING.

A competitive edge.

We accompany our clients throughout the entire deployment process. We carry out preliminary studies after which we can introduce improvements into the manufacturing process, thus optimising times and obtaining more precise finishes in workpieces. An integral customisation service adapted to each client for the purpose of improving their production processes and profitability. Within this philosophy of customisation and automation, we design customised machines, we work on projects to deliver turnkey solutions and we develop applications and software adapted to the needs of each client.



\ APPROVED CONSUMABLES.

ONA 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. Our catalogue has all the necessary consumables for the maintenance of the machine such as wires, filters, Ekoadd, resins, guideways, power taps, oils, blades and drilling electrodes.



\ ORIGINAL REPLACEMENT PARTS.

Immediate availability.

Our broad network of distributors around the world guarantee quick assistance in the face of any event. We can guarantee a stock of original parts in a period of 24 hours to almost anywhere in the world.



\ TECHNOLOGICAL UPGRADING.

Technology always at the ready.

At ONA, we work to maintain our machines in optimum condition to ensure maximum efficiency and optimum working of each machine. We analyse each case and lay down measures for optimising processes: software updates, data analysis, improvements in applications, quick replacement of damaged parts. All of the aforesaid together with the ONA guarantee and our experience as the manufacturer with the longest history in EDM sector in the world.

\ PERFECT MAINTENANCE OF THE MACHINERY.

Immediate availability of original replacement parts.

One of our most significant competitive edges is our customised preventive maintenance service for each client. We can anticipate the next change in parts, improving remote assistance and guaranteeing optimum working of the machine, thus avoiding unnecessary downtime which has a negative impact on production. We offer:

- Call centre.
- On-site assistance.
- Preventive and customised maintenance contracts.
- Network of technical service points in a variety of countries.

\ 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 ONA premises or at the client's own premises in other parts of the world.



TECHNICAL SPECIFICATIONS



SPECIFICATIONS	ON A AV25	ON A AV35
MACHINE		
X axis travel	400 mm	600 mm
Y axis travel	300 mm	400 mm
Z axis travel	250 mm	400 mm
U-V travel	120 x 120 mm	120 x 120 mm
Maximum dimensions of the workpiece	700 x 650 x 250 mm	1.060 x 750 x 400 mm
Maximum weight of the workpiece	700 kg	1.500 kg
Maximum speed of the axes	2.000 mm / min	2.000 mm/min
Maximum cutting cone angle	30°/87mm 27°/100mm ±45°/40mm	30°/87mm 27°/100mm ±45°/40mm
Wire diameter	0.1-0.33 mm	0.1-0.33 mm
Wire guide	High-precision enclosed diamond	
Automatic wire threader	Standard	
Wire cutter	Optional	
Cutting technology	By immersion	

Due to its continuous review of technology and design, ONA ELECTROEROSIÓN reserves the right to modify the specifications of this catalogue without prior notice.

SPECIFICATIONS	ON A AV25	ON A AV35
CNC		
Display	23" TFT colour touch	
Min. programmable and controllable increase	0.0001 mm/0.001°	
Max. programmable dimension	±9999.999 mm	
Memory capacity	8Gb RAM	
Keyboard	Flat, anti-dirt	
Remote control	Standard	
GENERATOR		
Maximum cutting speed	450 - wire Ø 0.33 (XCC) mm2/min	
Minimum final surface roughness	0,1 Ra	
FILTRATION UNIT		
Paper cartridges	2 cartridges	
Dielectric capacity	700 l	1,200 l
GENERAL CHARACTERISTICS		
Total weight	3,000 Kg	4,000 Kg
Maximum height	2.268 mm	2.560 mm
Floor surface area	2.327 x 3.072 mm	2.740 x 3.350 mm

OPTIONS

Automatic mineral filter (no replaceable cartridges). Working tank door with window.
 CAD CAM programming system. Rotary B axis.
 Wire guides: 0.07 0.1 0.15 0.20, 0.30, 0.33.
 Optional wire: 0.07
 Automatic ONApure/E.KO IONISER© machine for deionising water by Easymetal Prozesstechnik GmbH.

TECHNICAL SPECIFICATIONS



SPECIFICATIONS	ON A AV60	ON A AV80	ON A AV100	ON A AV130
MÁQUINA				
X travel	800 mm	1.000 mm	1.500 mm	2.000 mm
Y travel	600 mm	600/800/1.000 mm	1.000/1.300 mm	1.000/1.300 mm
Z travel	500/600/700 mm	500/600/700 mm	600/700 mm	600/700/800 mm
U-V travel	500 x 500 mm	500 x 500 mm	500 x 500 mm	500 x 500 mm
Maximum dimensions of the workpiece	1.300 x 1.040 x 500 mm(*)	1.500 x 1.040 x 500 mm(*)	1.950 x 1.600 x 600 mm(*)	2.450 x 1.600 x 600 mm(*)
Maximum weight of the workpiece	5.000 kg	5.000 kg	10.000 kg	10.000 kg
Maximum speed of the axes	2.000 mm / min	2.000 mm/min	2.000 mm / min	2.000 mm/min
Maximum cutting cone angle	±30°/400mm	±30°/400mm	±30°/400mm	±30°/400mm
Wire diameter	0.20-0.33 mm	0.20-0.30 mm	0.20-0.30 mm	0.20-0.30 mm
Wire guide	High-precision enclosed diamond			
Automatic wire threader	Standard			
Wire cutter	Optional			
Cutting technology	By immersion			

(*) Request the different configurations available. The data specified correspond to the configuration of the smallest machine in each of the models.

Due to its continuous review of technology and design, ONA ELECTROEROSIÓN reserves the right to modify the specifications of this catalogue without prior notice.

SPECIFICATIONS	ON A AV60	ON A AV80	ON A AV100	ON A AV130
CNC				
Monitor	23" TFT colour touch			
Min programmable and controllable increase	0.0001 mm/0.001°			
Max. programmable dimension	±9999.999 mm			
Memory capacity	8Gb RAM			
Keyboard	Flat, anti-dirt			
Remote control	Standard			
GENERATOR				
Maximum cutting speed	450 - wire Ø 0.33 (XCC) mm ² /min	360 - wire Ø 0.33 (XCC) mm ² /min		
FILTRATION UNIT				
Paper cartridges	2 cartridges			
Dielectric capacity	1,610 l (*)	1,980 l (*)	3,500 l (*)	4,500 l (*)
GENERAL CHARACTERISTICS				
Total weight (*)	7,500 Kg	9,000 Kg	15,500 Kg	21,000 Kg
Maximum height (*)	2.920 mm	2.920 mm	3.100 mm	3.280 mm
Surface area (*)	3.625 x 3.345 mm	4.140 x 3.345 mm	5.490 x 4.330 mm	6.200 x 4.330 mm

OPTIONS

Automatic mineral filter (no replaceable cartridges). Working tank door with window.
 CAD CAM programming system. Rotary B axis.
 Wire guides: 0.20, 0.30, 0.33.
 Automatic ONApure/E.KO IONISER© machine for deionising water by Easymetal Prozesstechnik GmbH.



YOUR PARTNER
FOR THE FUTURE



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