groove+

Sodick

create your future

ALC400G
ALC600G
ALC600GH
ALC800G
ALC800GH

ALC Series

Smart Pulse & Smart Linear

THE SPIRIT OF "CREATE,
AND OVERCOME DIFFIC

Motivated by the ethos of "fostering customer product development," Sodick has been attentive to every customer demand, regardless of its scale, and has fearlessly tackled and conquered challenging technical issues to provide solutions. The company has consistently maintained a proactive approach, developing in-house solutions whenever the required answer is not found elsewhere in the world.

LINCHPIN OF MAN

The name Sodick originates from the spirit of "Create (So), Implement (di), and Overcome difficulties (ck)" for customers, representing the core values and motto of the company.(ck)" for customers, and has become the company motto of Sodick.

The Japan Quality

10-Year Positioning Accuracy Guarantee

Positioning Accuracy
10 years guarantee

Sodick Wire EDM has made previously deemed impossible applications achievable by adopting the linear motor drive system instead of the conventional ball-screw drive system. This technological advancement enables a wide range of applications. Remarkably, the accuracy of the machine remains constant throughout its life span of over 15 years, ensuring consistent precision. The initial machine accuracy is also maintained semi-permanently, providing long-lasting reliability.

, IMPLEMENT
ULTIES"

Pioneering the Future: Shaping New Possibilities

Driven by the founding philosophy of "Create, Implement, Overcome Difficulties," Sodick is steadfast in its commitment to becoming a company that actively contributes to society. With determination, Sodick endeavours to lead the way in "future creation" by providing an extensive range of cutting-edge machines. This vision encompasses the creation of an energy-efficient, safe, and eco-friendly future propelled by state-of-the-art technology and aspirations for progress.

UFACTURING OF THE WORLD

Message from Management

It is our mission to create and deliver machine tools that clients find rewarding to use. In our ceaseless commitment to our corporate principles of "Create, Implement and Overcome Difficulties", all the Sodick EDM machines are developed and manufactured in their own facilities and benefit from Sodick's unique in-house produced technologies; NC units, linear motors, ceramic components, discharge units and control systems.

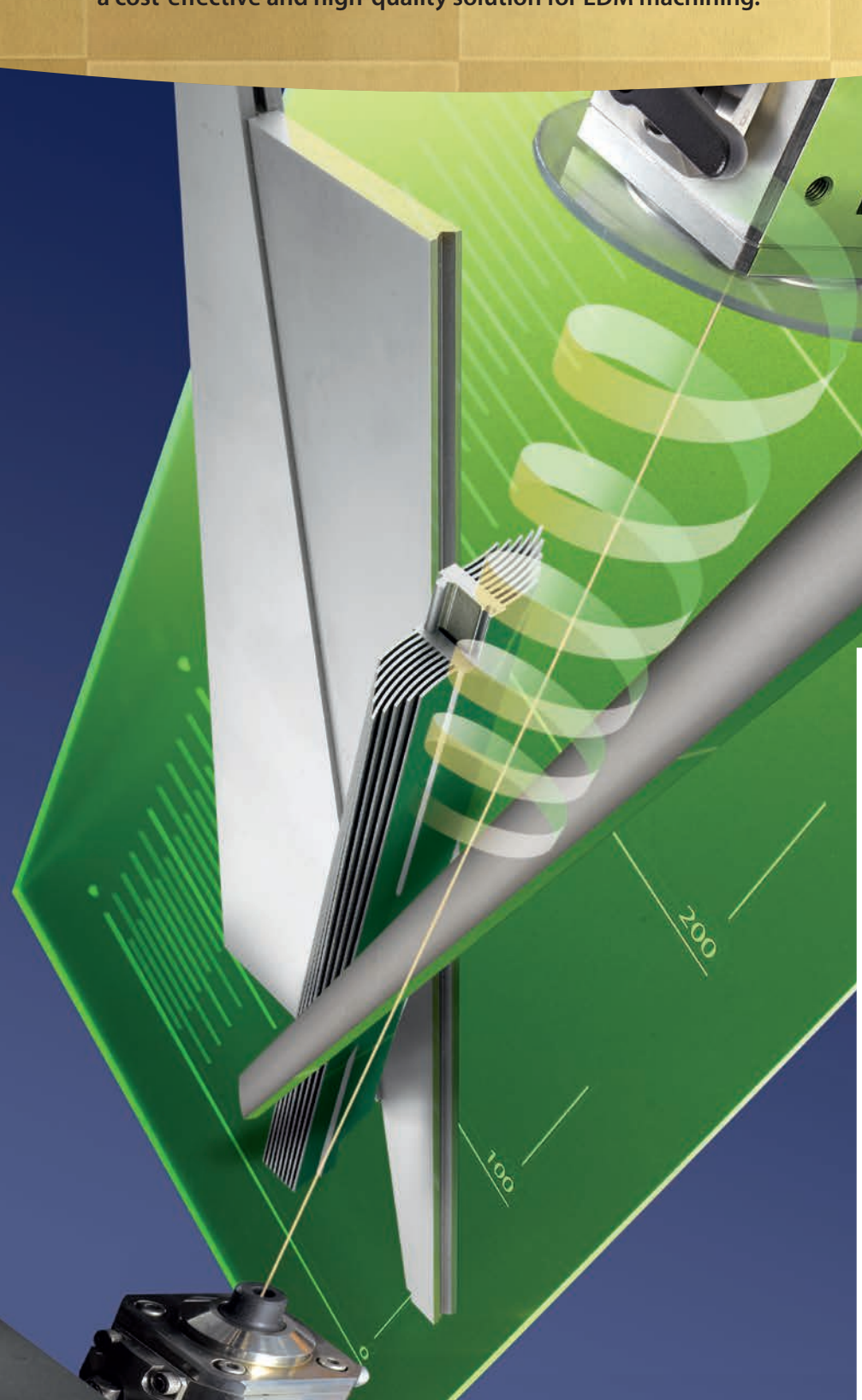
Sodick has made continuous growth in the European market thanks to the extremely high reliability levels of the machines with advanced performance. Sodick Europe's European headquarters is located in Warwick, UK from where we provide all the technical support, spare parts and consumables for our European partners.

Peter Capp, CEO of Sodick Europe Ltd.

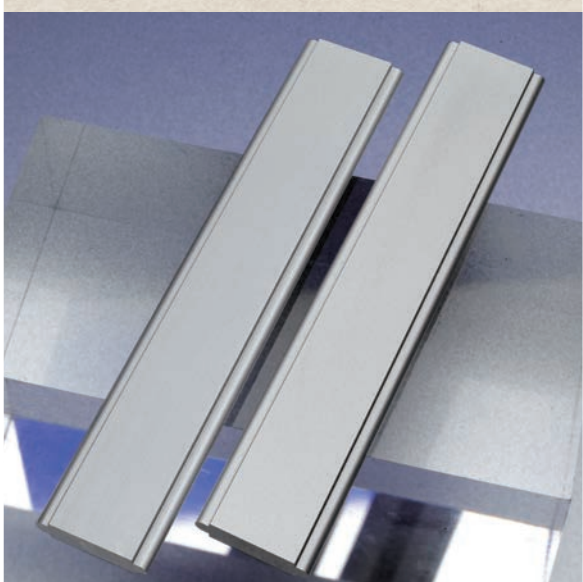
NEW WIRE ROTATIO

Sodick's patented technology rotates the wire during the skim cut operation, allowing workpieces to be machined from top to bottom, utilising the "unused" surface of the wire.

In traditional wire electrode control, tension and running speed are the only factors considered, with the wire being limited by a die. However, Sodick's iGroove rotation mechanism offers more control over the wire, leading to better surface quality and geometric accuracy. This also helps minimise wire usage, making it a cost-effective and high-quality solution for EDM machining.

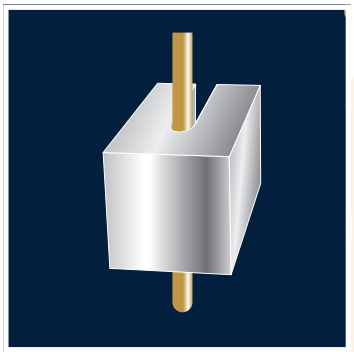


Work-piece:	Steel, 100 mm height
Number of cuts:	3
Wire:	Brass, Ø 0.25 mm
Accuracy:	+/- 1.5 µm
Wire consumption:	35 % less on finishing cut



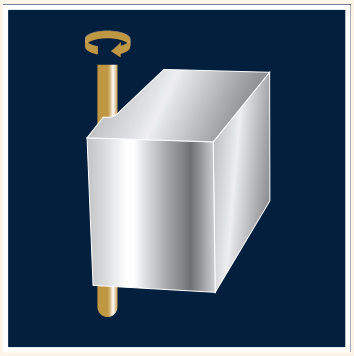
N MECHANISM

Rough/Approach cut



On rough cut, no wire rotation is applied.

Skim cut (2nd cut onwards)

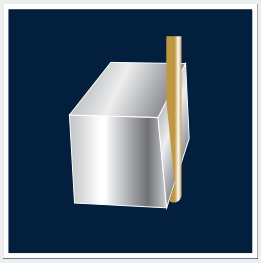


clock-wise rotation

counterclock-wise rotation

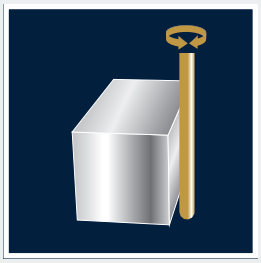
For skim cuts, CNC automatically defines the rotation direction of wire (clockwise or counter-clock wise) depending on offset side, by analising the cutting program.

Benefit of the new Wire Rotation Mechanism



With the conventional machining method, wire electrode wears as it runs which creates "taper" on the surface, especially when cutting a thick work-piece.

To obtain a straight surface, taper compensation is required. Otherwise, increasing the wire feed rate would be another solution but it may cause frequent wire breakage and more wire consumption.



By rotating the wire electrode, work-piece is cut with unused surface of wire, improving the geometric accuracy and surface quality without having taper compensation nor higher wire feed rate.

The Japan Quality

To meet the world's strictest standards for product quality, Sodick diligently develops advanced core technologies in-house. The development philosophy at Sodick is rooted in the belief that if a solution does not exist elsewhere, we will create it. This commitment to innovation stems from day-to-day problem-solving, as Sodick strives to overcome barriers that current technologies and products cannot surpass. Technologies like NC EDM and linear motor drive EDM, now integral to the creative process, were pioneered by Sodick to empower customers in realising their ambitions and producing high-quality goods for societal enrichment.

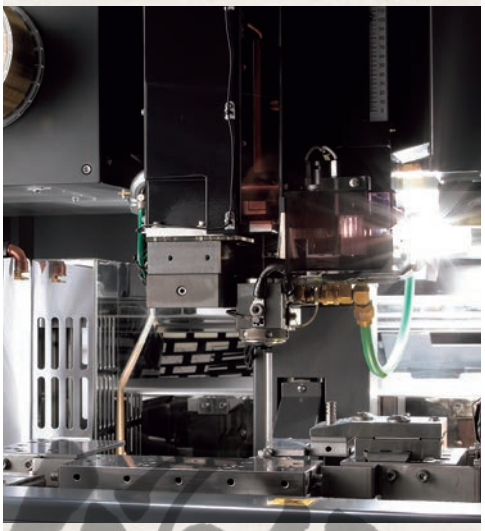
Sodick's technology revolution in the field of EDM is encapsulated by the concept of "Total Manufacturing Solution," offering comprehensive support from design to final production. Continuously attentive to customer feedback, Sodick persistently challenges its limitations, contributing to a future of abundance and driving global progress in innovation and creation.

NC Unit

Sodick specialises in creating NC units that are user-friendly and can be operated by anyone, while still providing excellent machining performance. They achieve ultra-precision machining by integrating state-of-the-art electrical-discharge machining technologies with built-in artificial intelligence. This combination allows for precise control of the drive system using advanced components like the K-SMC (Smart Master Controller), electrical discharge power supply, and wire running system.

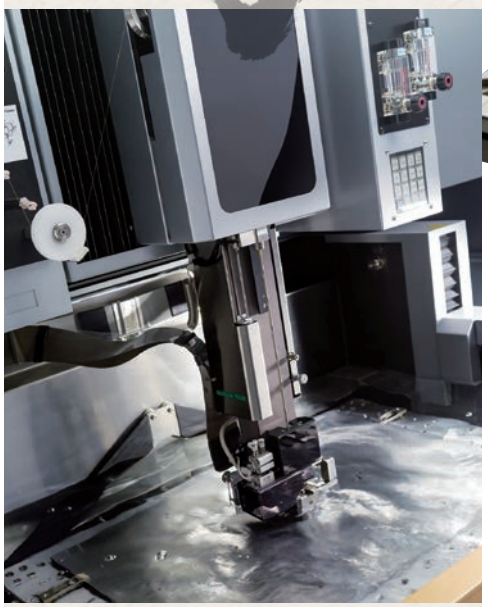
Electrical Discharge Power Supply Unit

The unit comprises multiple circuits that are meticulously designed to optimise the control of electrical discharge energy. By employing an ideal discharge pulse, the unit achieves high-speed and high-quality rough cutting, essential for achieving superior surface and form accuracy in finishing processes. Additionally, the electrical discharge power supply unit, which houses these circuits, features an energy-saving design that minimizes unnecessary energy loss, promoting efficient operation.



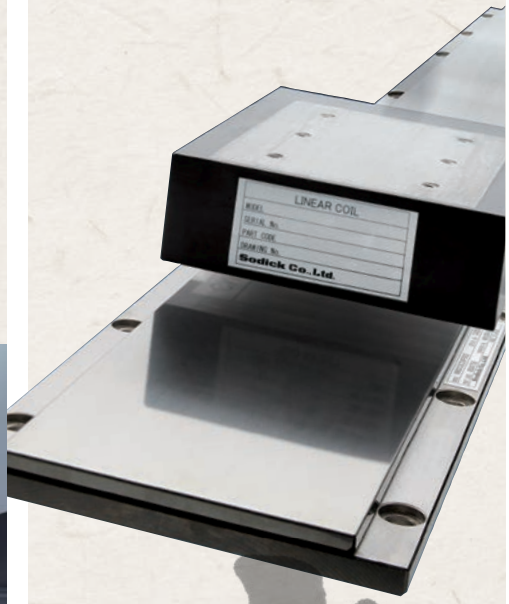
FIVE CORE-TECHNO

REALIZING PRE



SMC
(Sodick Motion Controller)

The Sodick Motion Controller (K-SMC) plays a pivotal role in accurately controlling the high-speed and precise movements of the linear motor drive, based on commands from the NC unit. Through extensive research and development, the K-SMC brings forth new technical innovations in the field of electrical discharge machining. It excels at accurately controlling high-speed operations, rapid acceleration, and precise positioning, enabling enhanced performance and productivity.



Linear Motor

Sodick's linear motor offers remarkable acceleration and positioning accuracy, eliminating backlash through a direct drive mechanism that ensures instantaneous response without any delay in commands. Its outstanding dynamic response and stability ensure consistent machining accuracy, even during long periods of operation without the need for maintenance. The performance of the linear motor remains reliable, maintaining optimal functionality over extended periods of use.

Ceramics

Ceramic, with its minimal thermal displacement, is the ideal material for electric discharge machines. Not only does ceramic possess excellent hardness, lightweight nature, heat resistance, and low wear properties, but it also exhibits electric insulation characteristics crucial for electrical discharge machines. The utilisation of ceramic components enables the achievement of high-quality machining surfaces in small areas, eliminating the requirement for special jigs or fixtures.

LOGIES FOR
CISION MACHINING

NC UNIT

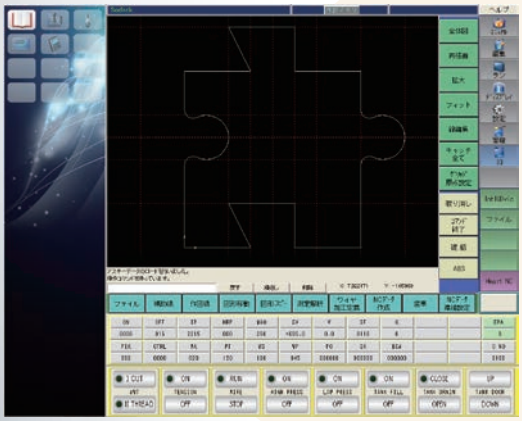
The ALC Series is equipped with the all-new "SPW Power Supply Unit" with a Multi-touch LCD monitor to bring new innovations in operability. In addition, the unit is equipped with a high-speed dual core processor. With operability optimised with a LCD monitor system, the unit creates an innovative environment in which workers can perform all necessary work through simple touch operations.

S-Viewer

It is possible to access production status remotely. The intelligent process monitoring enables reliable quality control.

Harnessing the Power of the NEW "SPW" Controller

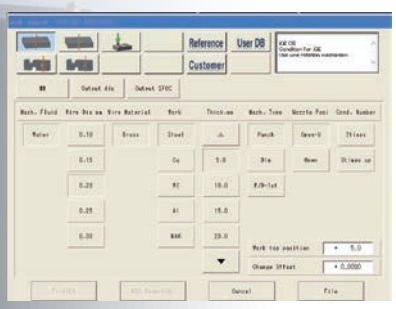
- Newly developed High-speed motion controller
- 1 Gbit/sec high-speed serial communication K-SMC LINK
- Equipped with high-speed Dual Core processor
- Low power consumption
- Improved linear motor control performance
- New user interface



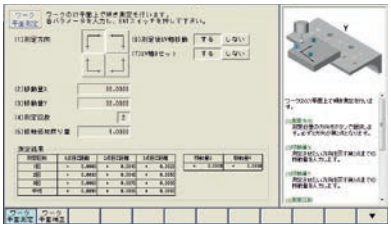
NC Unit employs 19" Multi-touch LCD

Coordinate Setup Screen

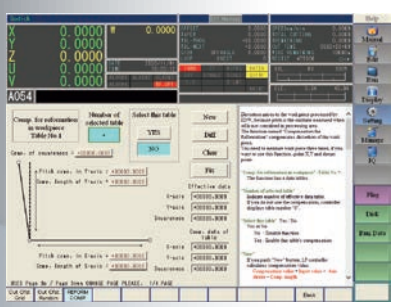
Maintenance Screen



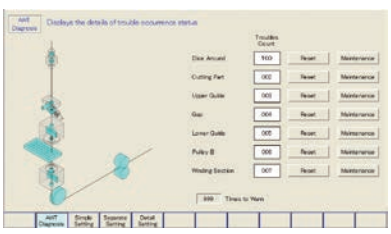
Machining Condition Screen



Workpiece Allignment Screen



Pitch Compensation function



AWT diagnostic function

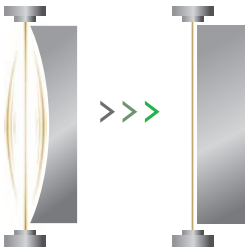
SMART PULSE

Utilising the latest digital innovations in generator technologies, the Sodick ALC series showcases outstanding advancements in cutting speed, accuracy, and surface finish. These achievements are a testament to Sodick's extensive know-how and experience in the field of EDM, accumulated over decades. The machine is equipped with the most advanced and cutting-edge features available in the market today.

Electrical Discharge Power Supply Unit

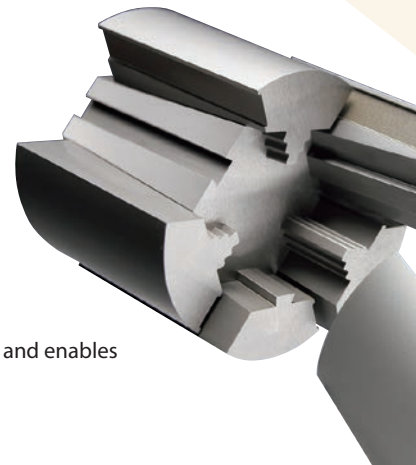
The unit incorporates multiple circuits to optimally regulate electrical discharge energy. High-speed and quality rough cutting, crucial for finishing, are precisely controlled through an optimised discharge pulse to achieve superior surface and form accuracy. The electrical discharge power supply unit, housing these circuits, is designed with energy efficiency in mind, effectively minimising unnecessary energy loss.

- TMP II Control:
  This feature refines the surface roughness during the second machining pass.
- Straightness Error Elimination Control:
  This enables high-precision and high-speed machining of thick plates.

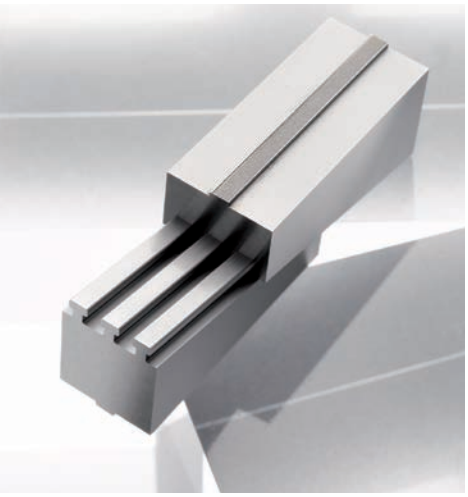


Conventional control

Straightness error elimination control



- Digital PIKA Circuit:
  This improves the surface finish quality and enables optimum surface machining.

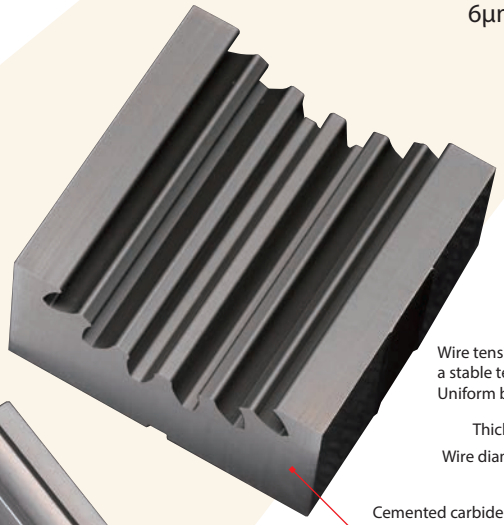


Ultra Surface Finish

The ALC series features the standard inclusion of "Digital PIKA W Plus." This advanced technology optimises the transistor-generated current, resulting in energy-efficient machining and effectively preventing corrosion through an electrolysis-free circuit. By utilising Smart Pulse, which ensures high-speed operation without electrolysis, the ALC series delivers industry-leading surface quality.

Machining Speed

The ALC series offers the "Smart Pulse - TM circuit" as a standard feature, delivering ultra-high speed and electrolysis-free machining. This innovative technology effectively prevents oxidation, weakening, and corrosion that can occur when using deionised water. By controlling the ionic current and providing high-frequency bi-polar short pulses into the electrode gap, the ALC series achieves exceptional machining speed while maintaining an electrolysis-free environment.



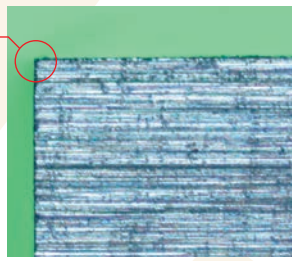
Wire tension servo function: Wire travels at a stable tension Digital PIKA W Plus Circuit: Uniform best surface roughness

Thickness	15 mm
Wire diameter	Ø 0.2 mm

Cemented carbide Ra 0.04 µm (Rz 0.34 µm)

Steel Ra 0.09µm (Rz 0.91 µm)

6µm



TMP II Control Corner shape 6 µm

The TMP II Control of the Smart Pulse (SPW power supply) not only excels in high-speed machining during the first cut but also showcases exceptional capability in refining surface roughness during the second cut. With the TMP II Control, the surface roughness is improved by 50% of the Ra value, resulting in superior surface quality and precise shape accuracy, even in corners. This advanced control technology enables the realisation of "precision fitted components" during the second cut, ensuring remarkable machining performance.

Superior Corner Control

Machining has been enhanced to prevent corner wear on both inner and outer corners. The predictive control optimises control at angles and corner shapes before starting the machining process. The corner control feature allows for simultaneous automatic modification of intricate machining parameters. This advancement ensures precise corner control and eliminates corner wear.

High Speed Step-shape Machining

Stepcut Technology

Sodick's new ALC series introduces new groove and step machining functions, specifically designed to effortlessly address issues like "streaky" precision errors that commonly arise when there are sudden changes in plate thickness, such as in counterbores or holes. These new functions enhance convenience and enable smooth machining in such challenging situations.

Taper Cutting Control

Taper Flex Neo* (Option) enables high-precision fitted machining, delivering accurate cut shapes for varying top and bottom shapes.

Since its initial introduction to the industry in 1998, the linear motor drive system has achieved a significant milestone with over 60,000 machine products delivered worldwide. With a track record spanning nearly 25 years, these machines have demonstrated long-term reliability and exceptional performance.

SMART LINEAR

World-Standard Heidenhain Linear Scale Included

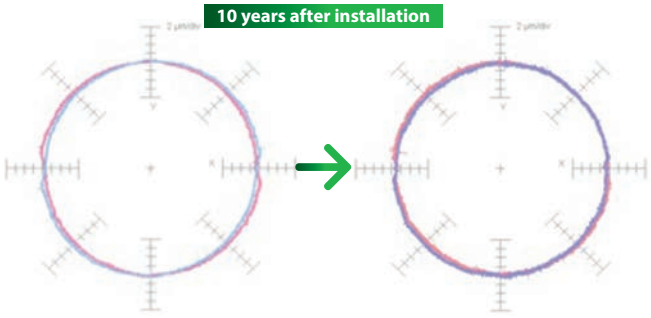
The projection method linear scale uses projected light as a signal. → Encoder scale with an extremely fine grid interval → Guarantees minimum position error.

As soon as the power is switched ON, the position data is acquired from the encoder. → Origin position search motion is unnecessary. → Reduction of origin return time

For the X,Y,U, & V axes (4 axes)

Sodick's Linear Technology – Attaining High Precision & Sensitivity

The linear motor has demonstrated exceptional reliability and durability for over 10 years after installation. Unlike ball-screw systems, it does not incur maintenance costs associated with ball-screw replacements, making it a cost-effective and dependable choice.

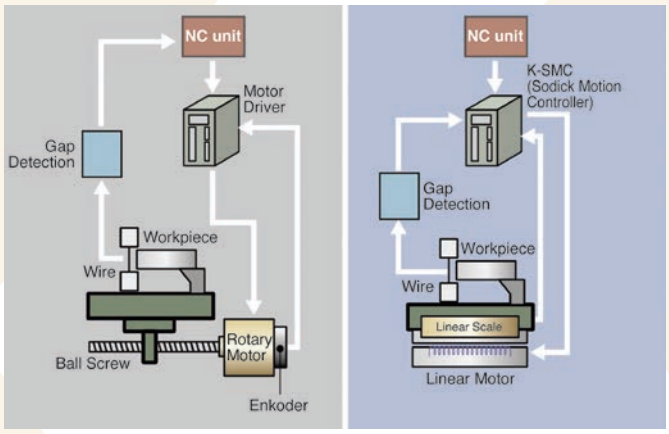


High Durability in drive performance

Sodick Motion Control - Real-Time Precision

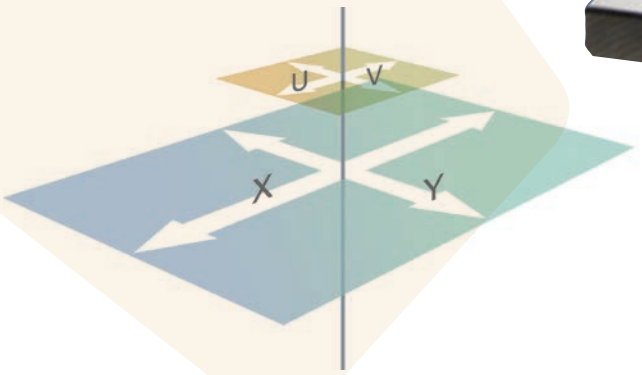
In contrast to traditional position control systems that rely on the NC controller to monitor the discharge gap and provide feedback through the motor driver, Sodick's motion controller offers real-time control with optimal gap control by directly monitoring discharge energy conditions. This unique approach ensures high-precision positioning with exceptional sensitivity.

K-SMC (Sodick Motion Control) – Achieving the Ultimate Gap Control



The Axis movement performance with a Ball-Screw Drive system will deteriorate over time due to lost-motion caused by mechanical backlash, whereas a Linear Motor Drive offers smooth and backlash-free movement. The simple non-contact structure of the Linear Motor Drive eliminates mechanical wear or deterioration. As a result, the initial accuracy of the Direct Linear Drive is sustained over a long and productive period, without the need for costly maintenance.

Linear Motor Drive Machines – Nearly 25 Years, with 60,000 Units Worldwide



4-axis linear motor drive

The cleverly designed linear motor drive system ensures trouble-free operation for many years. When used in conjunction with an absolute linear scale by Heidenhain, it exhibits exceptional position detection performance and stability. The absolute linear scale boasts an impressive resolution of 0.01µm, contributing to precise and reliable machining operations.

MACHINE CONSTRUCTION

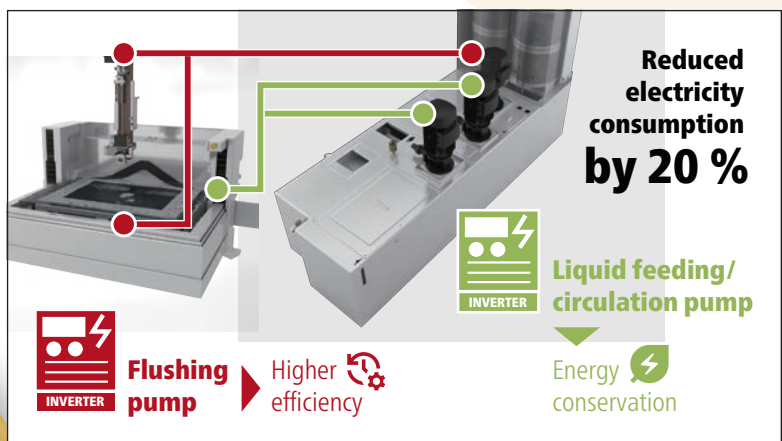
The machine comes equipped with a range of standard built-in functions, such as the new tension servo function, auto fluid-level control, and the innovative FJ-AWT (Automatic Wire Threader). Emphasisng accessibility during work preparation, it features a square-shaped work stand, ceramic stand base, and a 3-sided machining tank with an automatic lifting door, among other components. The inclusion of quadruple filters and other enhancements ensures increased productivity. Additionally, the unique full-cover machine structure prioritises comfort and safety in the work environment, ensuring a seamless and secure operation.

Quadruple Filter (Dielectric tank) and O-Shape Worktable

With a keen focus on machine accessibility for work preparation in the field, the ALC series features quadruple filters and an O-shape worktable as standard.

Efficient Energy Conservation with Advanced Pump Technology

A newly developed energy-saving pump system has been integrated into the dielectric tank. Additionally, a circuit that monitors the vertical flushing flow rate during machining has been included as standard equipment. This intelligent monitoring system helps reduce the pump drive energy required for flushing. As a result, the ALC series achieves an impressive 20% reduction in power consumption, including standby, compared to the standard models. This advancement in energy efficiency ensures cost savings and environmental benefits without compromising on performance.



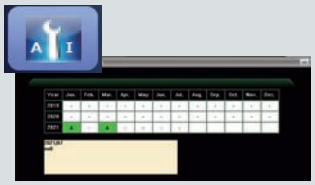
Temperature-synchronized machine

"TH COM"

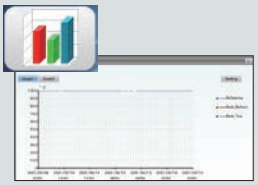
High-Precision Thermal Displacement Correction and Total Temperature Control System

All models in the series come with standard features like the AIM (AI Maintenance) environmental temperature diagnosis function and TH COM thermal displacement correction function. These advanced functions allow the machines to operate efficiently in a wide range of temperature environments, from high accuracy to rough conditions. Additionally, the series includes a logging function and temperature display of the machine surroundings, providing valuable information for optimal performance and maintenance.

Furthermore,, the full-cover specification machine features a temperature equalisation system to provide a more stable machining environment.

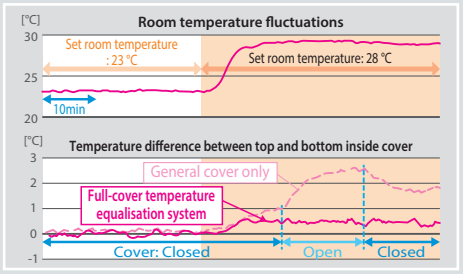


AIM environmental temperature diagnosis



TH COM temperature logging

Full-cover specification machine
Example of temperature equalisation system



Superior Insulation with Sodick's Own Ceramic

		Sodick's Ceramic	Granite	Cast Iron
Specific gravity		**3.5 – 3.9**	3.0	7.8
Water absorption ratio	%	**0**	0.03 – 3.0	•
Hardness	Gpa (HV10)	**13 – 16**	5.9 – 10	6.2
Bending strength	MPa	**300 – 390**	300 – 500	400
Young's moldulus	GPa	**280 – 370**	30 – 90	110
Thermal conductivity	W/m-k	**13.8 – 23.0**	1.3	46.0
Linear expansion coefficient	x10-6/ °C	**5.7 – 5.8**	8	11

Ceramic work stand ensures high rigidity and long life accuracy.
Sodick's dedication to innovation is evident in the development of its own Ceramic table for work stands and guides on all machines. This Ceramic work stand ensures long-term accuracy, and exceptional insulation properties, offering unparalleled longevity in the manufacturing process. The low thermal distortion of ceramics further contributes to achieving higher machining accuracies, making Sodick machines a reliable choice for precision-focused applications.

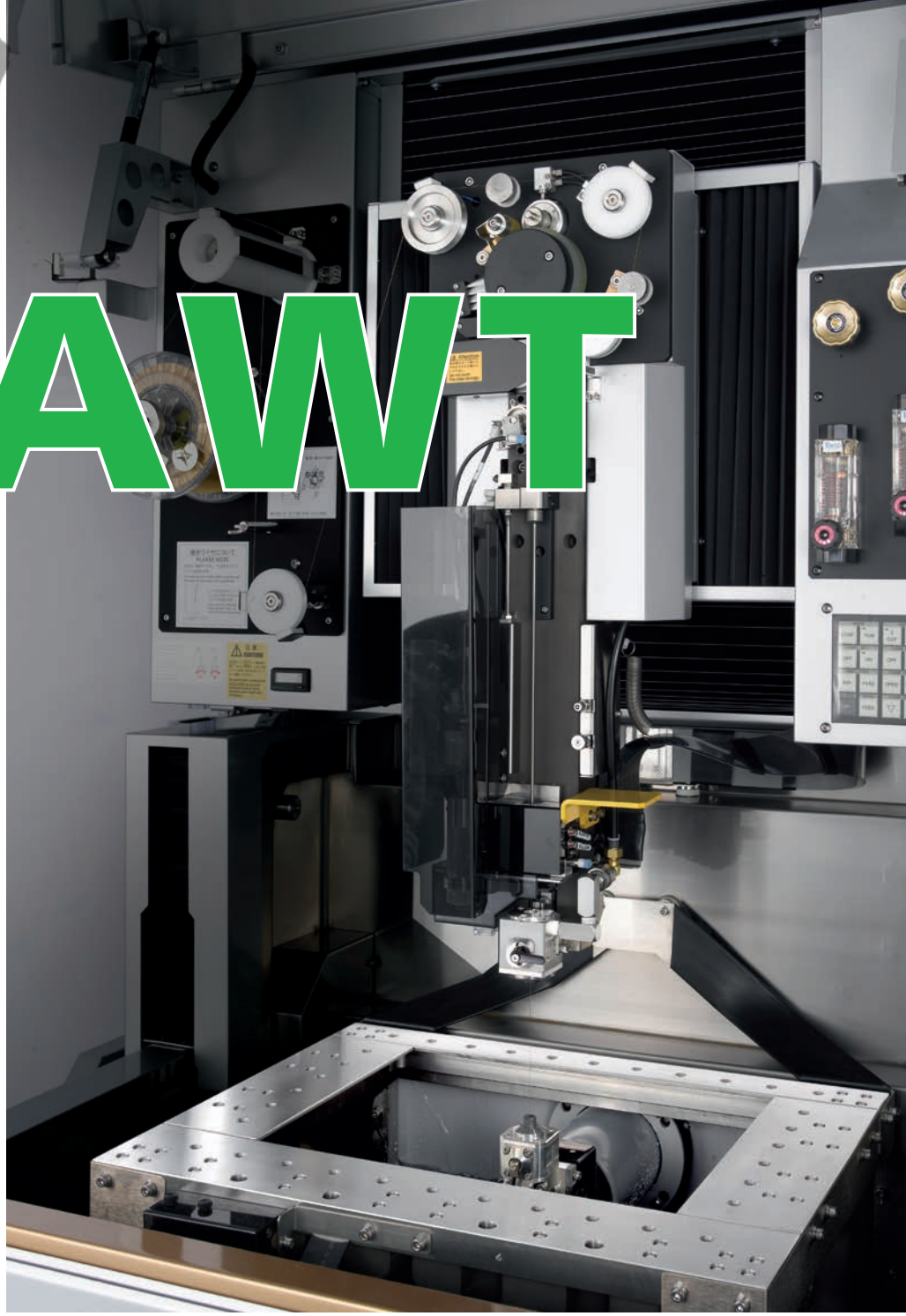
Slide-plate Cleaning Function (Flushing) for Prolonged Sealing Life

The work tank is equipped with a self-cleaning system to ensure the longevity of its sealing.

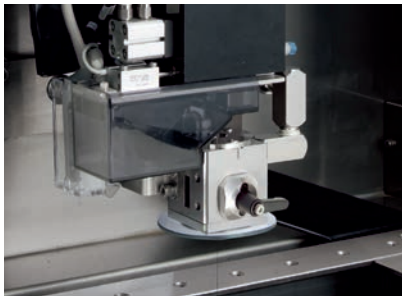
Automatic 3-side Vertical Sliding Tank Door

ALC Series equipped with 3-slided vertically sliding machining tank door for operator accessibility. This feature also facilitates future automated operation with robot systems.

FJ-AWT



The FJ-AWT (Fixed Jet AWT) demonstrates outstanding wire success rate and connection speed, complemented by an annealing system that enhances wire threading rate and straightness.



Streamlined Operation

The quick-release locking nut enables faster and easier movement of the conductivity piece position.

Wire Threading on Curved Surfaces

FJ-AWT performs wire threading without the need for water-jet support

Jet-less threading mode enhances threading reliability on slopes and curved workpieces, eliminating the need for water submersion.

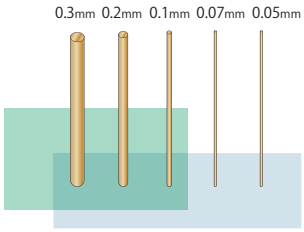
Precision in Narrow Clearance

Enhanced machining performance achieved through wire guides with narrow clearance.

0.05 wire AWT

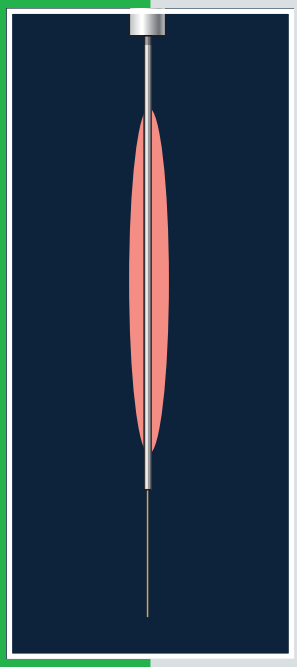
Optional Automatic Wire Threading for Thin Wire (ø0.07 and 0.05mm) is available, featuring the HTP circuit (high-voltage circuit) for applying a higher voltage.

Wire diameters



Standard AWT (Automatic Wire Threading) supports a range of wire diameters

AWT (Automatic Wire Threading) with HTP circuit is available as an option for wire diameters of 0.05mm.



1 Straightens the wire

Wire annealing function

The application of Joule heating to the wire improves its straightness, making it excellent in terms of alignment. The jet-less threading method is recommended for wire threading even when submerged in water.

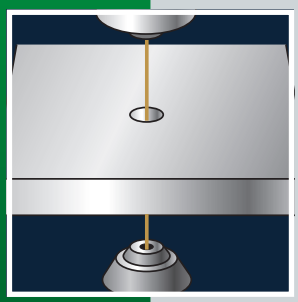
Wire tip processing

In cases where the wire cannot be threaded within a specified number of attempts, the wire's tip is cut and melted using heat to create a shape that facilitates easy threading. This modified wire can then run through the start hole successfully.

2 Inserts wire into the start hole

Wire thread retry function

The retry function can be configured when the wire faces challenges in smooth threading, such as a curled wire or a poorly formed start hole.



3 Threads the wire

Pop-up search function

The wire is repeatedly lifted and lowered with the force of air, enabling it to pass through the lower hole with precision.

Wire breakage recovery function

In the event of a wire break during machining, the machine will automatically thread the wire and resume the machining process.

Starts machining

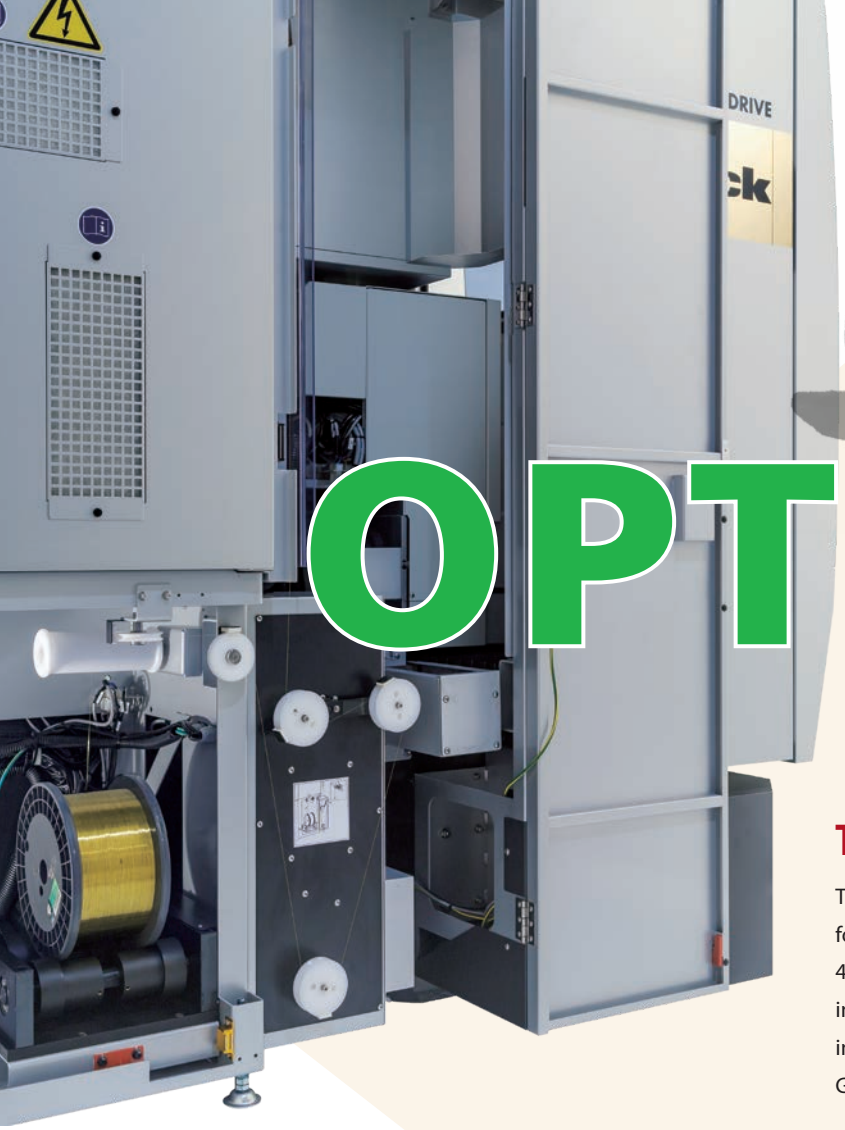
Sludge removal function

The sludge removal function, using air or fresh water on the upper and lower guides, plays a vital role in preserving accuracy and ensuring consistent threading.

AWT dice guide
AWT Dice(FJ)

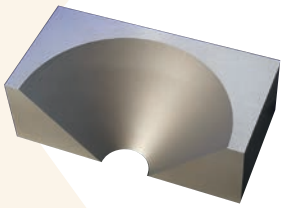
Upper side wire guide
Dice AQ-1U (T)

Lower side wire guide
Dice (Color)



OPTIONS

Taper flex Neo 45



The optional Taper Flex Neo 45 is designed for precise large angular machining of up to 45°. It offers user-friendly operation, requiring no specialised training. The option includes three components: High Angle Guides, a Calibration Jig, and Software.

20kg Wire Feeder

The built-in wire feeder is a standard feature, accommodating wire bobbins of up to 20kg, enabling uninterrupted and continuous operations.

Multi-Axis Capability

Sodick's "SPW-E" Power Supply Control has the capability to control up to 8 axes simultaneously, offering exceptional flexibility and precision. The Multi-Axis Control option is available for factory installation.

Touch Probe Unit

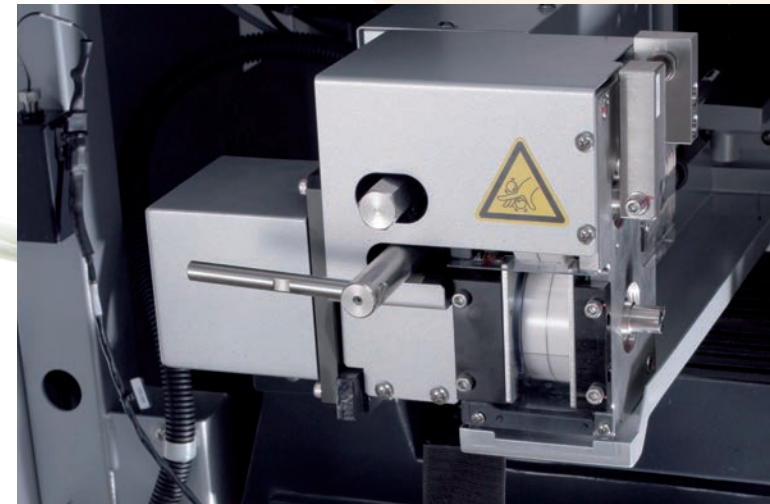
Datum points can be easily set on the workpiece, enabling precise measurement of its geometry.

WS-4P/5P

Sodick's proprietary Rotary Table, developed in-house, offers an optional A or B axis that provides indexing or simultaneous contouring capabilities. This versatile addition enhances the machine's functionality, allowing for more intricate and precise machining operations.

L-Cut (wire chopper)

The ejected wire is chopped into small pieces for easy disposal. (Optional)



S³CORE

New automatic core processing device

Recently developed based on the principles of Simplicity, Stability, and Safety, the automatic core collection device features a main unit consisting of a magnet and a cylinder. It is user-friendly, easy to handle, and maintain. The device ensures stable operation without causing any damage to the workpiece.

Machining material: Specially designed for ferromagnetic workpiece materials like steel.

Machining form: Machining with upper and lower guide in close contact.

Equipment parts: Equipment installation to upper guide and collecting box.

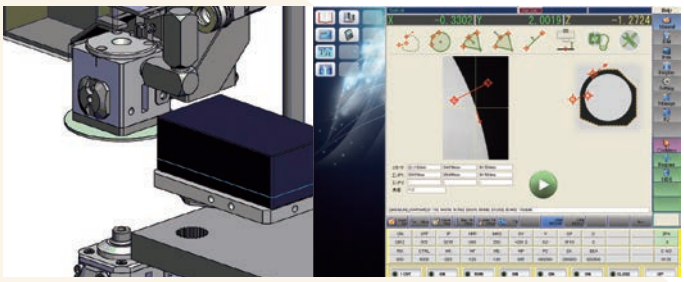
* The travel has limitations.

ANCS (Anti Corrosion System)

The ANCS (Advanced Non-Corrosive System) prevents rust, corrosion, and discolouration on workpieces both electrically and chemically during machining or when left in the dielectric. This advanced rust-free system is highly effective for steel, carbide, and alloys, and it is available as a factory option.

Optic Measurement System

The system imports image data captured by the camera mounted on the head of the unit to measure the accuracy of the processed shape. Additionally, it allows for a comparison of the cutting results with DXF data, ensuring precise and reliable machining outcomes.



High Column
(Extended Z stroke)

The extended Z-axis stroke is available as a factory option for ALC600G and ALC800G machines. The ALC600GH can handle workpieces with a height of up to 500 mm, while the ALC800GH has a maximum workpiece size of 1300 x 1040 x 800 mm. This option provides increased versatility and capability for machining larger and taller workpieces.

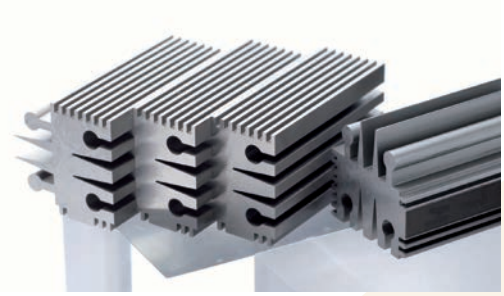
SAMPLES

Wide Range of Machining Applications

TMP Control II

High-speed and high accuracy of rough and semi-finish machining
Improves surface roughness and corner shape in rough and semi-finish machining

Workpiece Material	Steel	Surface Roughness	Ra 1.37µm (Rz 9.76µm)
Thickness	40 mm	Wire	φ 0.2 mm
Machining Accuracy	±3µm	Machining Time	2 hour 25 min (per 1 component)

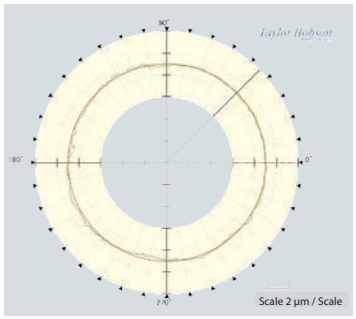


Roundness

Roundness accuracy 0.76 µm

Workpiece Material	Hardened steel
Thickness	30 mm
Wire	φ 0.2 mm

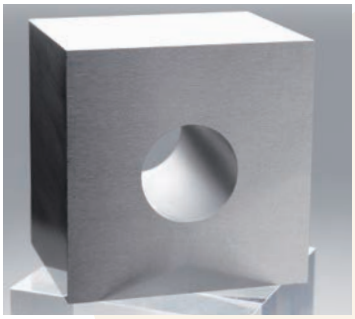
φ 15 mm round machining



Roundness accuracy 1.86 µm

Workpiece Material	Steel
Thickness	40 mm
Wire	φ 0.2 mm

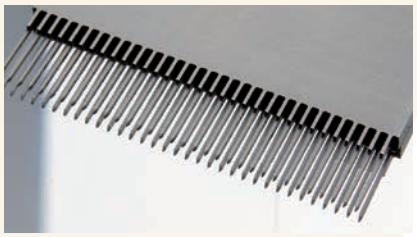
φ 20 mm round machining



Micro Machining

2 layer core pin machining
Stable and high accuracy machining of stacked core Pins with Varying Thickness (0.3 mm to 1.0 mm).
33 pins in 2 layers; Pitch: 0.6 mm

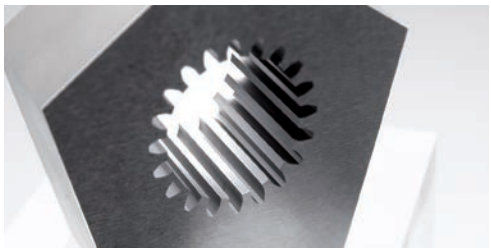
Workpiece Material	Steel
Thickness	0.3 to 1.0 mm(Thickness of machining portion)
Machining Accuracy	±2 µm
Surface Roughness	Ra 0.24 µm (Rz 2.05 µm)
Wire	φ 0.1 mm



Corner Machining

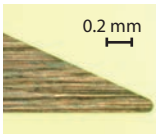
The enhanced machining precision for fine corners and outer corners, accurately reproduces tooth tip shapes which require high accuracy.

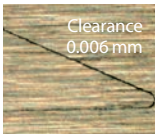
Workpiece Material	Steel
Thickness	20 mm
Machining Accuracy	±2 µm
Surface Roughness (Die)	Ra 0.23 µm(Rz 2.03 µm)
Surface Roughness (Punch)	Ra 0.35 µm(Rz 2.75 µm)
Wire	φ 0.2 mm



Corner R 0.06 mm
Accurate fine R shapes on tips can be reproduced. Machining with a clearance of 0.006 mm/side can be performed reliably.

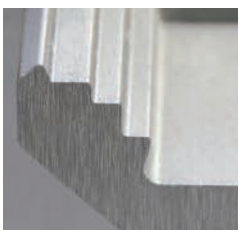
Workpiece Material	WC
Thickness	40 mm
Machining Accuracy	±2 µm
Surface Roughness	Ra 0.11 µm (Rz 0.96 µm)
Wire	φ 0.1 mm

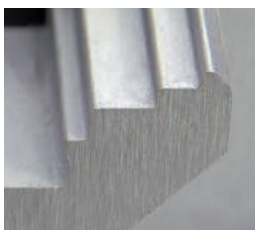


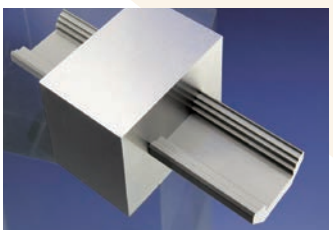


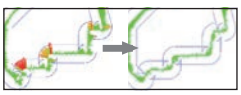
Improved small diameter corner R in 3 cuts
Shape: R0.15mm, R0.20mm, R0.5mm
Clearance 2 µm/side

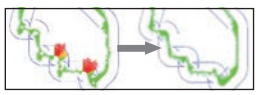
Workpiece Material	Steel
Thickness(Die)	20 mm
Thickness(Punch)	60 mm
Machining Accuracy	±2 µm
No. of Cuts	3
Wire	φ 0.25 mm

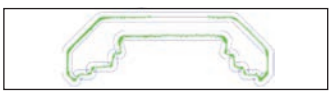












* The machining data indicated here is based on Sodick's specified conditions, machining environment and measurement standards.
* Options may be included in the contents. * The surface roughness unit Rz is used based on JIS B0601:2001 and ISO4287:1997/ISO1302:2002.

Thick Plate

Cemented Carbide Precision Shapes

Workpiece Material	WC
Thickness	80 mm
Surface Roughness	Ra 0.27 µm (Rz 2.35 µm)
Wire	φ0.2 mm

Barrel-free Effect Control II

Greatly improves shape accuracy of 1st cut

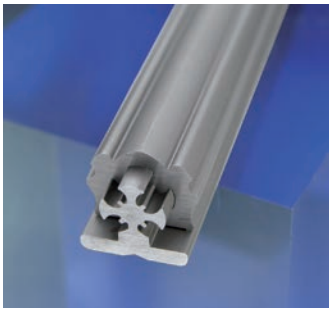
Workpiece Material	Steel
Thickness	100 mm
Wire	φ0.25 mm

Accurate shape machining for fitting thick spring-shaped components

Workpiece Material	Steel
Thickness	250 mm
Surface Roughness	Ra 0.26 µm (Rz 2.09 µm)
Wire	φ0.2 mm

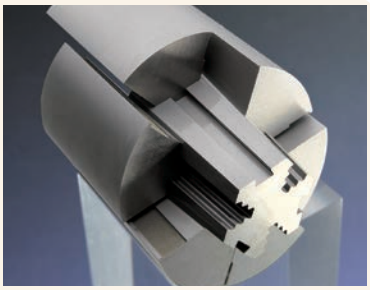
Stable shape accuracy enabling fitting in 3 cuts

Workpiece Material	Steel
Thickness	250 mm
Surface Roughness	Ra 0.61 µm (Rz 4.50 µm)
Wire	φ0.2 mm



High Quality Slide Machining

The "Taper Flex Neo: Option" enhances workability for long tapered fitting machining and different T/B shape machining with high difficulty levels.



Slide core

5 degree tapered angle

Workpiece Material	Steel
Thickness	40 mm
Machining Accuracy	±2.5 µm
Surface Roughness	Ra 0.35 µm (Rz 2.76 µm)
Wire	φ0.2 mm

Tapered core

5 degree tapered angle

Workpiece Material	Steel
Thickness	40 mm
Machining Accuracy	±2.5 µm
Surface Roughness	Ra 0.36 µm (Rz 2.71 µm)
Wire	φ0.2 mm

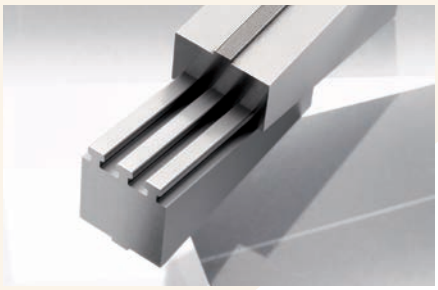
Tapered Machining

High-precision components with a 10-degree tapered angle and thick plate

The exceptional shape accuracy allows for seamless fitting of narrow clearances, even in the machining of long components up to 250 mm.

Workpiece Material	Steel
Thickness	200 mm
Machining Accuracy	±5 µm
Surface Roughness	Ra 0.32 µm (Rz 2.69 µm)
Wire	φ0.25 mm

10 degree tapered angle high precision component

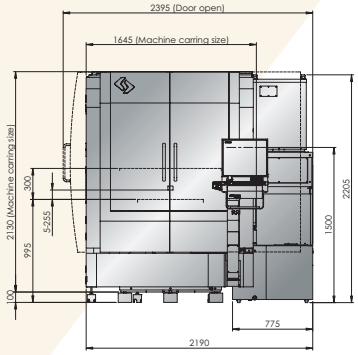


Workpiece Material	Steel
Thickness	40 mm
Machining Accuracy	±2 µm
Surface Roughness	Ra 0.23 µm (Rz 2.18 µm)
Wire	φ0.2 mm

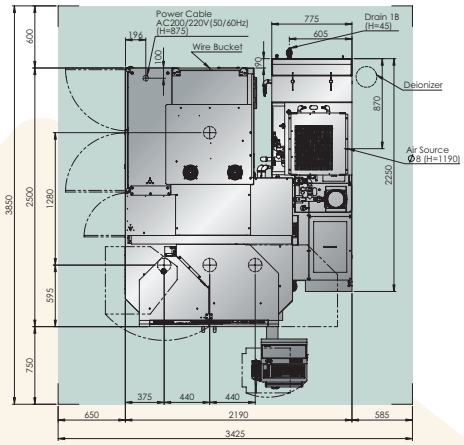
SPECIFICATIONS

(unit : mm)

ALC400G

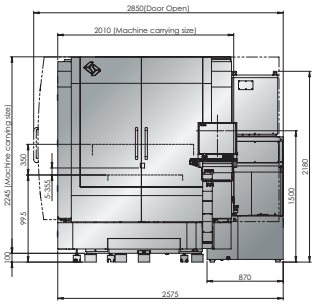


Front View

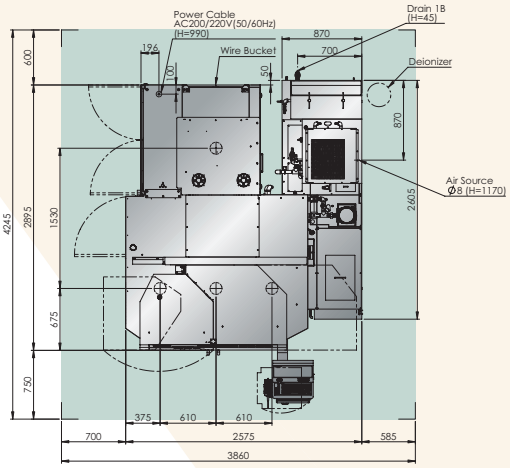


Top View

ALC600G

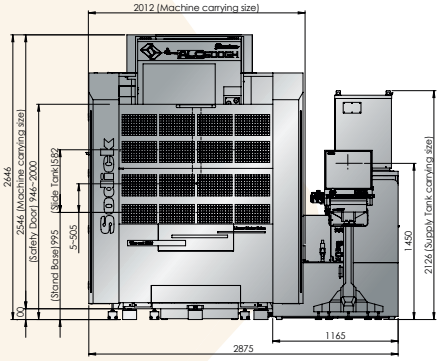


Front View

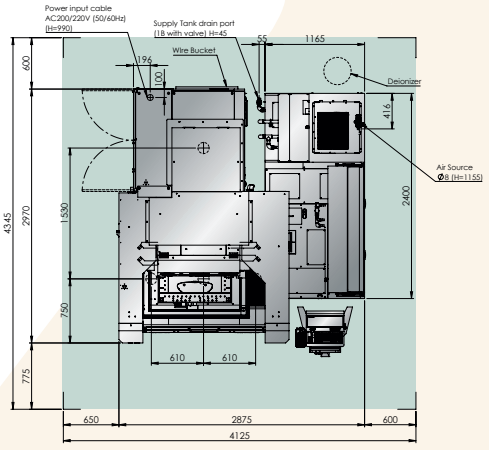


Top View

ALC600GH



Front View



Top View

Brochure disclaimer:- The products described herein this literature can be subject specification change without notice to improve capability, design or function.

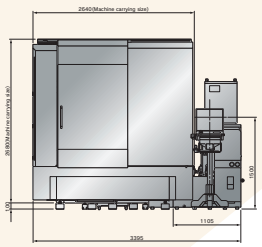
Machine tool	ALC400G	ALC600G	ALC600GH	ALC800G	ALC800GH
X Axis travel	400 mm	600 mm	600 mm	800 mm	800 mm
Y Axis travel	300 mm	400 mm	400 mm	600 mm	600 mm
Z Axis travel	250 mm	350 mm (500 mm optional)	500 mm	500 mm	730 (80 ~ 810) mm
U x V Axis travel	150 x 150 mm	150 x 150 mm	150 x 150 mm	200 x 200 mm	200 x 200 mm
Taper angle (Work. thickness 130mm)	±25° (±45° optional)	±25° (±45° optional)	±25° (±45° optional)	±25° (±45° optional)	±30° (±45° optional)
Work tank dimensions (W x D)	850 x 610 mm	1,050 x 710 mm	1,050 x 710 mm	1,410 x 1,110 mm	1,312 x 1,058 mm
Max. workpiece weight	500 kg	1,000 kg	1,000 kg	3,000 kg	3,000 kg
Wire diameter	0.1 ~ 0.3 mm (0.05 mm optional)	0.1 ~ 0.3 mm (0.05 mm optional)	0.1 ~ 0.3 mm	0.1 ~ 0.3 mm	0.2 ~ 0.3 mm
Wire tension	3 ~ 23N	3 ~ 23N	3 ~ 23N	3 ~ 23N	3 ~ 23N
Max. wire speed	420 mm/sec	420 mm/sec	420 mm/sec	420 mm/sec	420 mm/sec
Distance from floor to table top	995 mm	995 mm	995 mm	995 mm	1,150 mm
Machine tool dimensions (W x D x H)	2,190 x 2,590 x 2,230 mm	2,575 x 2,945 x 2,345 mm	2,875 x 2,970 x 2,646 mm	3,395 × 3,640 × 2,780 mm	4,170 x 3,590 x 3,385 mm
Machine installation dimensions	3,425 x 3,850 mm	3,860 x 4,245 mm	4,125 x 4,345 mm	4,675 × 5,050 mm	5,500 x 4,700 mm
Machine tool weight	3,400 kg	4,600 kg	5,080 kg	6,000 kg	6,600 kg
Total power input	3-phases 50/60Hz 13KVA	3-phases 50/60Hz 13KVA	3-phases 50/60Hz 13KVA	3-phases 50/60Hz 13KVA	3-phases 50/60Hz 13KVA

Dielectric Tank	ALC400G	ALC600G	ALC600GH	ALC800G	ALC800GH
External dimensions (W x D)	775 x 2,250 mm	870 x 2,605 mm	1,165 x 2,400 mm	1,505 x 3,060 mm	2,280 x 3,150 mm
Empty weight	450 kg	500 kg	705 kg	800 kg	1,100 kg
Capacity	790 lit	1,000 lit	1,010 lit	1,500 lit	2,500 lit
Dielectric fluid filtration system	4 Replaceable paper filters (internal pressure)	4 Replaceable paper filters (internal pressure)	4 Replaceable paper filters (internal pressure)	4 replaceable paper filters (Internal-pressure type)	4 replaceable paper filters (Internal-pressure type)
Deionizer	Ion exchange resin (18-lit. type)	Ion exchange resin (18-lit. type)	Ion exchange resin (18-lit. type)	Ion-exchange resin (18-lit.type)	Ion-exchange resin (18-lit.type)

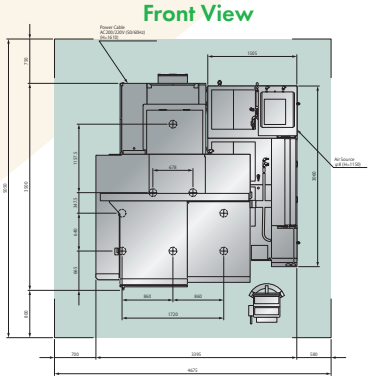
The dielectric chillers on Sodick machines contain either fluorinated greenhouse gas R410A or R407C.

*Due to ongoing research, specifications are subject to change without prior notice

ALC800G

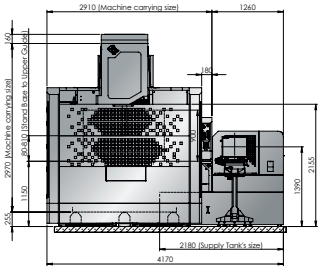


Front View

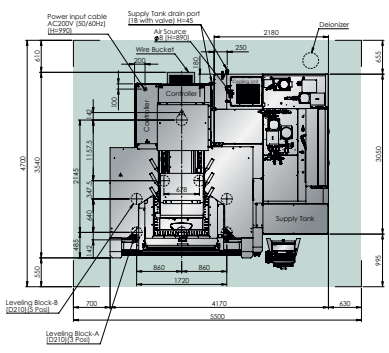


Top View

ALC800GH



Front View



Top View

The Japan Quality

Sodick

create your future

Sodick Europe Ltd.

Agincourt Road
Warwick, CV34 6XZ
United Kingdom

Sodick Contact

Phone +44 (0) 19 2669 8888
email europe@sodick.eu
online www.sodick.eu