

ALC Series

Smart Pulse & Smart Linear

ALC400G

ALC600G

ALC800G

ALC800GH

The Japan
Quality



THE SPIRIT OF "CREATE AND OVERCOME DIFFICULTIES"

Based on the mindset of "assisting in the product development of customers", Sodick has listened to the demands of customers no matter how insignificant, and has challenged and overcome every difficult technical issue to solve problems. The company has also maintained the stance where Sodick even develop products in-house to solve a problem, if its solution is not available anywhere in the world.

LINCHPIN OF MAN

The origin of Sodick the company name, is derived from the spirit of not hesitating to "Create(So)", "Implement (di)", and "Overcome difficulties (ck)" for customers, and has become the company motto of Sodick.

The Japan
Quality

10-Year Positioning Accuracy Guarantee



By adopting the linear motor drive system, array of applications previously deemed impossible with conventional ball-screw drive system was made possible by Sodick Wire EDM. Throughout machine life (over 15 years), accuracy will not diminish over time, and initial machine accuracy is maintained semipermanently.

E, IMPLEMENT CULTIES"

Creating Future

Based on the founding philosophy "Create, Implement, Overcome difficulties", Sodick strives to be a company that contributes to society by providing products of various kinds for "future creation": creating a future that is energy-efficient, safe, and eco-friendly, a future with the state-of-the-art technology and with high hopes.



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.

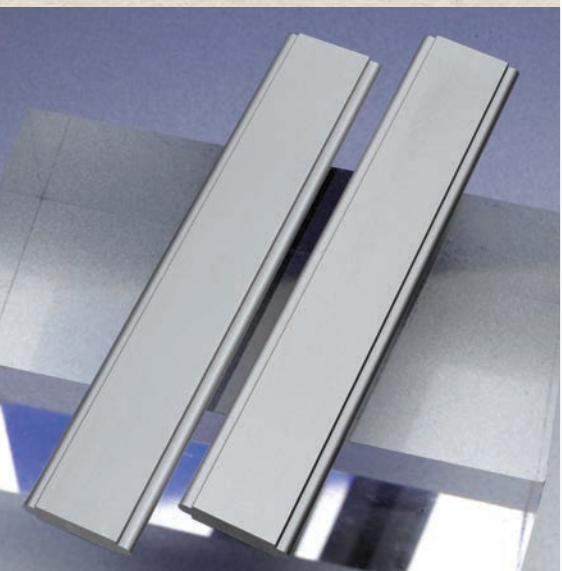
NEW WIRE ROTATIO

This newly developed technology, patented by Sodick, rotates the wire during the skim cut operation, so that workpieces are machined from top to bottom with the “unconsumed” surface of the wire.

Conventionally, wire electrodes are controlled solely by tension and running speed, while being constrained by a die. Sodick’s iGroove rotation mechanism provides additional control over the wire, resulting in increased surface quality and improved geometric accuracy, whilst at the same time minimising wire consumption – combining the best ecological solution with the highest quality of EDM machining.

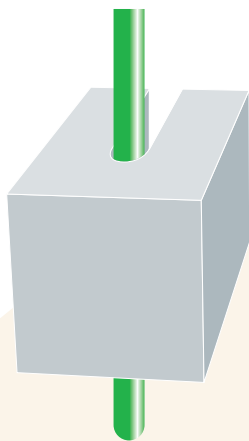


Work-piece:	Steel, 100 mm height
Number of cuts:	3
Wire:	Brass, Ø 0.25 mm
Accuracy:	+/- 1.5 µm
Wire consumption:	35 % less on finishing cut



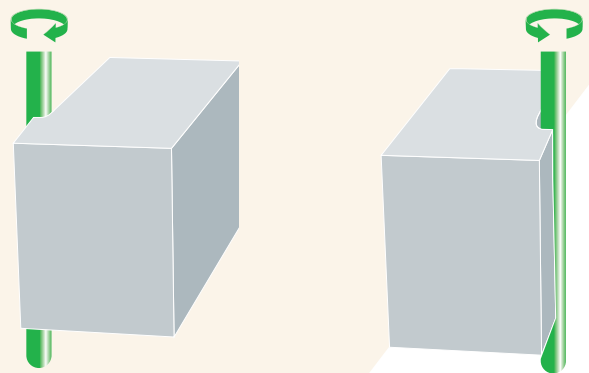
WIRE MECHANISM

Rough/Approach cut



On rough cut, no wire rotation is applied.

Skim cut (2nd cut onwards)

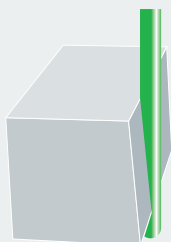


clock-wise
rotation

counterclock-wise
rotation

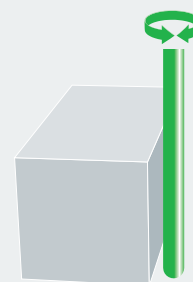
For skim cuts, CNC automatically defines the rotation direction of wire (clockwise or counter-clock wise) depending on offset side, by analysing the cutting program.

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 the straight surface, taper compensation is required. Otherwise, increasing the wire feed rate would be the 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 wire rotating function is available for ALC400G and ALC600G

The Japan Quality

To realise products satisfying the world's strictest standards, Sodick develops the advanced in-house made core technologies. The development philosophy created by Sodick is "If it does not exist anywhere in the world, we will create it." It is not an exaggeration to say that "creation" is the result of day-to-day problem solving. But, when we try to solve problems, we are blocked by barriers which we cannot break through with our present technologies and products. To break through these barriers, we "have no choice but to create the means ourselves." NC EDM, linear motor drive EDM and other technologies, which are now a familiar part of the process of "creation", were developed by Sodick so that all our customers can realise their ambitions; their "desire to produce good products to enrich society." The process of Sodick's technology revolution embodied by its innovations in the field of EDM, is now expressed with the words, "Total Manufacturing Solution", and is a long process including total support for every step in "Creation", extending from design to final production. Sodick will continue to listen to the voices of its customers, and constantly challenge its limitations, to contribute to the "achievement of an abundant future" and the advance of "creation" in the world.

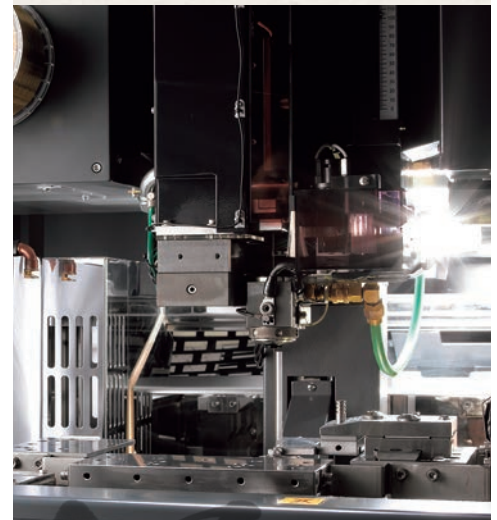


NC Unit

Sodick develops and manufactures user-friendly NC units easily operable by anyone, and yet provides supreme machining performance. In order to achieve ultra precision machining, a built-in artificial intelligence is combined with state-of-the-art electrical-discharge machining technologies, which precisely controls the drive system through K-SMC, electrical discharge power supply, and wire running system.

Electrical Discharge Power Supply Unit

The unit contains numerous circuits to optimally control electrical discharge energy. High speed, quality rough cutting essential for finishing is controlled through an optimum discharge pulse to achieve superior surface and form accuracy. The electrical discharge power supply unit containing these circuits is based on energy saving design that works to minimise wasteful energy loss.

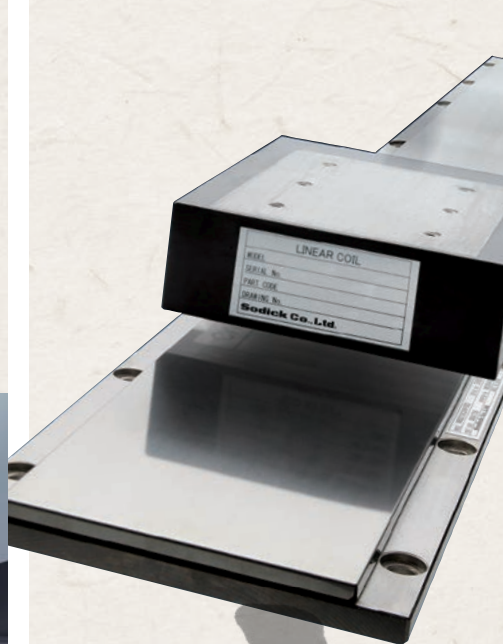


FIVE CORE-TECHNO REALIZING PRE



SMC (Sodick Motion Controller)

"The Sodick Motion Controller (K-SMC)" which accurately controls the high-speed and precise linear motor drive movements through commands from the NC unit, was heavily researched and developed to bring about new technical innovation to electrical discharge machining. Accurately controls high-speed, rapid acceleration, and precise positioning.



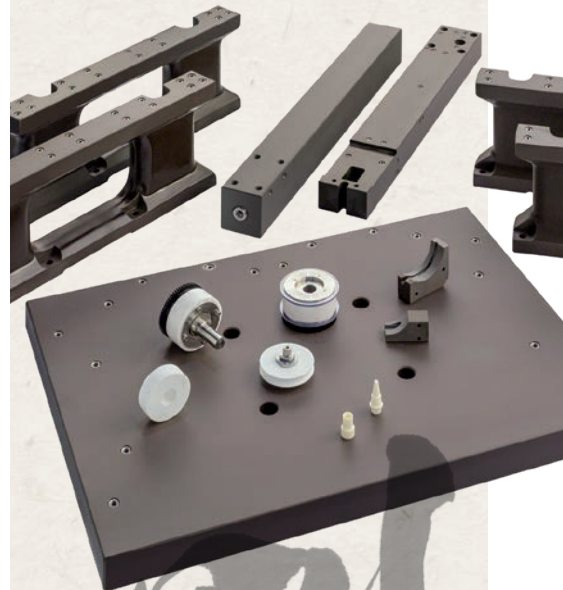
Linear Motor

Sodick's linear motor provides high acceleration and positioning accuracy without backlash, by a direct drive mechanism without any single command delay. The excellent dynamic response, stable machining accuracy and its performance does not deteriorate over long periods of operation without any maintenance.



Ceramics

Due to the extremely small thermal displacement, ceramic is ideal material for use in electric discharge machines. In addition to perfect hardness, light weight, heat resistance, and low wear characteristics, ceramic has electric insulation properties as well, which is important for electrical discharge machines. By using ceramic components, high quality machining surface can be ensured in small areas without the need for any special jigs.



LOGIES FOR CISION MACHINING



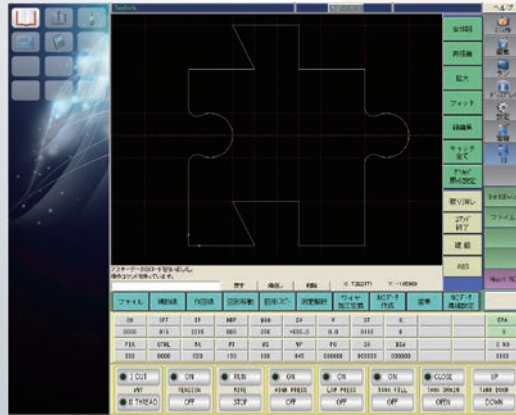
NC UNIT

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 optimized with a LCD monitor system, the unit creates an innovative environment in which workers can perform all necessary work through simple touch operation.



Equipped with 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



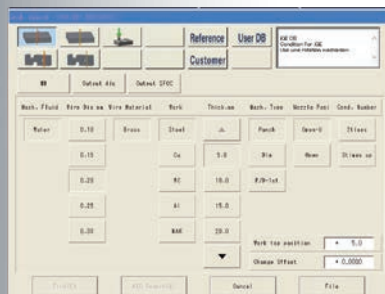
NC Unit employs 19" Multi-touch LCD



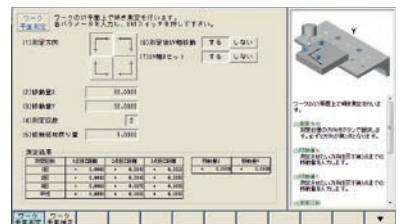
Coordinate Setup Screen



Maintenance Screen



Machining Condition Screen



Workpiece Alignment Screen



Pitch Compensation function



AWT diagnostic function



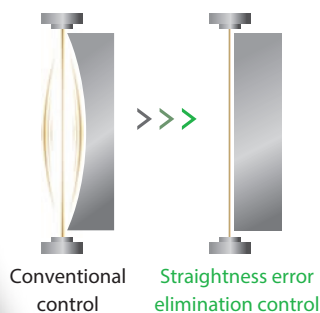
SMART PULSE

Based on the latest digital innovations in generator technologies, the Sodick ALC series demonstrates considerable advances in cutting speed, accuracy and surface finish. The achievement was made possible through decades of Sodick's know-how and experience in EDM field. The machine comes with the latest and the most advanced features in the market.

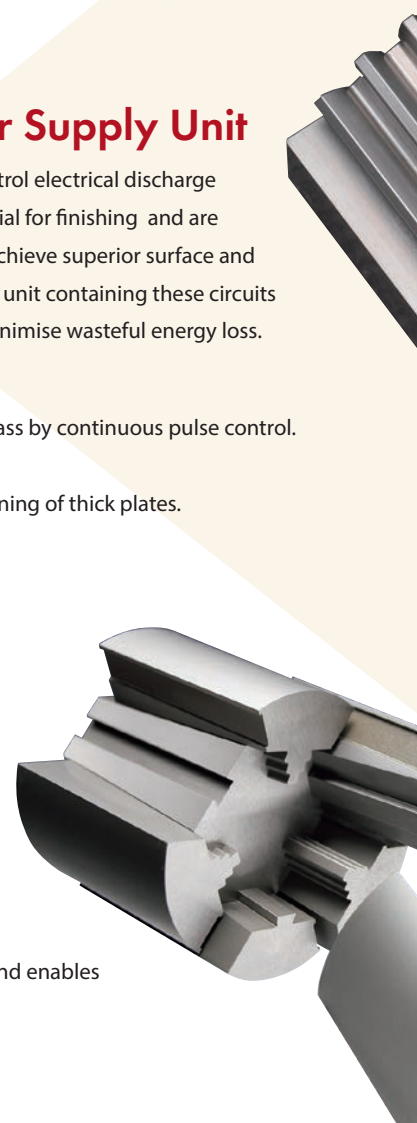
Electrical Discharge Power Supply Unit

The unit contains numerous circuits to optimally control electrical discharge energy. High speed, quality rough cutting are essential for finishing and are controlled through an optimum discharge pulse to achieve superior surface and form accuracy. The electrical discharge power supply unit containing these circuits is based on an energy saving design that works to minimise wasteful energy loss.

- **TMP II Control:**
This refines the roughness at the 2nd machining pass by continuous pulse control.
- **Straightness Error Elimination Control:**
This enables high-precision and high-speed machining of thick plates.



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



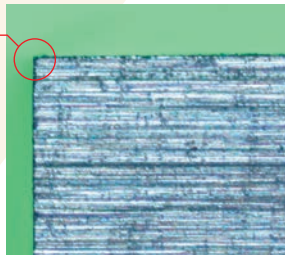
Ultra Surface Finish

ALC series provides "Digital PIKA W Plus" as Standard. The transistor-generate current is optimized to save machining energy, also to prevent corrosion by electrolysis free circuit. Using Smart Pulse (High-speed & no electrolysis), Industry's best surface is given.

Machining Speed

ALC series provides Ultra high speed & electrolysis free "Smart Pulse – TM circuit" as standard. "Smart Pulse" prevents oxidation, weakening and corroding which occurs when using deionized water. Ionic current is controlled while providing high-frequency bi-polar short pulse into electrode gap, resulting in ultra high-speed & electrolysis free machining.

6 μ m



TMP II Control Corner shape 6 μ m

In addition to the high-speed machining performance of the first cut, the TMP II Control of the Smart Pulse (SPW power supply) demonstrates its out-standing ability in refining the surface roughness of the second cut by 50% of the Ra value.

The surface quality and shape accuracy including corners with the TMP II Control, realises "machining of precision fitted components" in the second cut.

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

Thickness | 15 mm
Wire diameter | \varnothing 0.2 mm

Cemented carbide Ra 0.04 μ m (Rz 0.34 μ m)

Superior Corner Control

Machining is improved to prevent corner wear on both in & out corner. The predictive control processes optimal control at angle and corner shape before machining. The corner control can control while simultaneously modifying the complicated machining parameters automatically.

Steel Ra 0.09 μ m (Rz 0.91 μ m)

High Speed Step-shape Machining

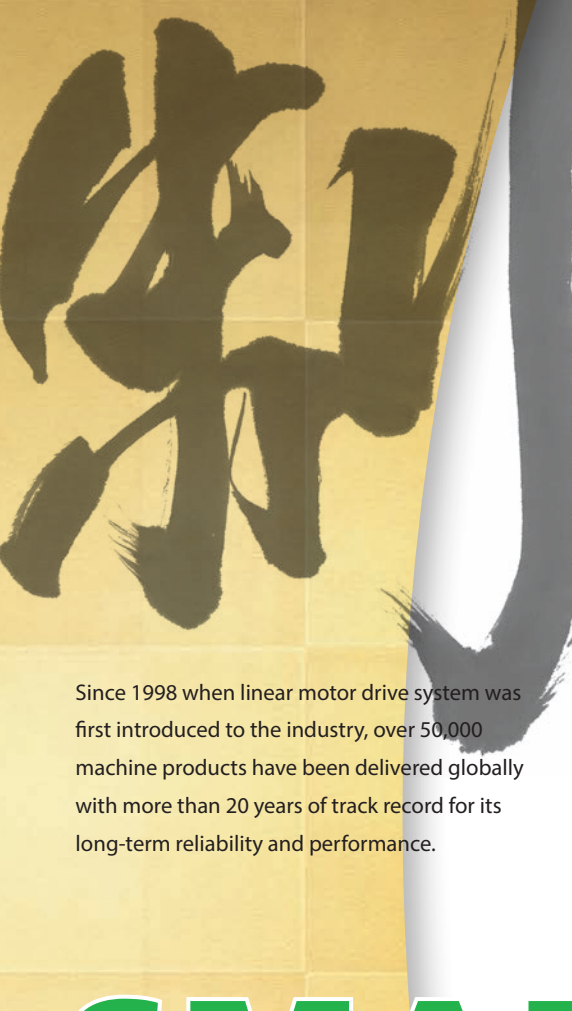
Stepcut Technology

Sodick's new ALC series incorporates Sodick's new groove and step machining functions, developed to easily and conveniently overcome issues such as the typical "streaky" precision errors that can occur where the plate thickness changes suddenly, for example at a counterbore or a hole.



Taper Cutting Control

High precision fitted machining
(Varying top and bottom shapes)
cut shape accuracy by Taper Flex Neo* target (*Option)



Since 1998 when linear motor drive system was first introduced to the industry, over 50,000 machine products have been delivered globally with more than 20 years of track record for its long-term reliability and performance.

SMART LINEAR

Comes with world standard Heidenhain linear scale

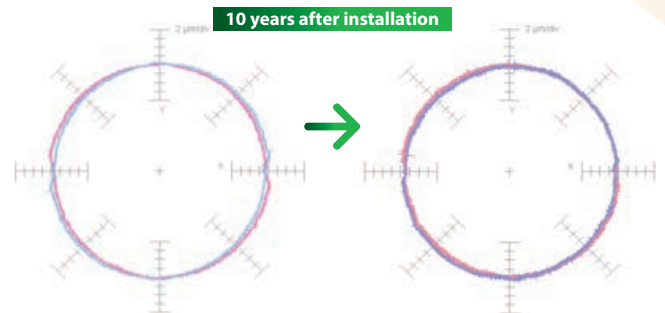
Employs a projection method linear scale which uses projected light as a signal. → Encoder scale with extremely fine grid interval → Guarantees minimum position error.

As soon as the power is switched ON, 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 — High Precision & Sensitivity

The linear motor has proven to be highly reliable and durable for over 10 years after installation. It does not require the maintenance-cost for replacing the ball-screws



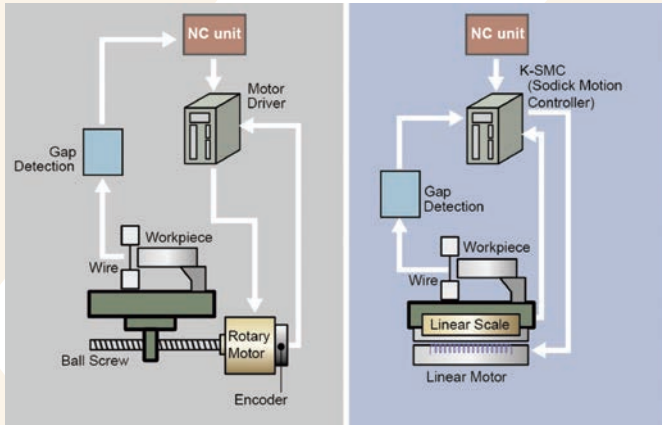
High Durability in drive performance

Sodick Motion Control – In Real-Time

Unlike traditional position control system where NC controller monitors discharge gap and sends feed back through motor driver, Sodick motion controller delivers real-time control with optimal gap control while direct-monitoring discharge energy conditions.

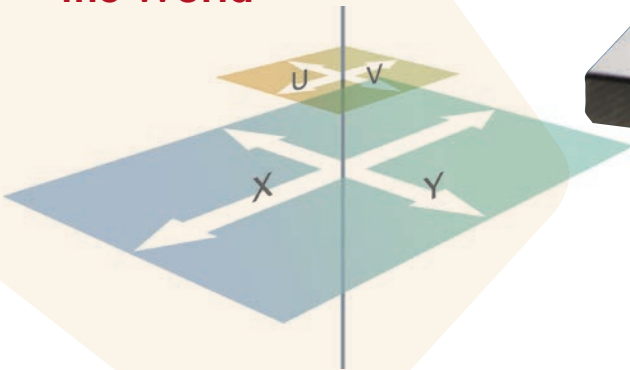
This provides high precision positioning with high sensitivity

K-SMC(Sodick Motion Control) provides ultimate gap control



The Axis movement performance with a Ball-Screw Drive system will deteriorate over time because of lost-motion due to mechanical backlash, whilst a Linear motor Drive delivers smooth backlash-free movement. Its simple non-contact structure does not suffer from mechanical wear or deterioration. The initial accuracy of the Direct Linear Drive is maintained over a long productive period without the need for expensive maintenance.

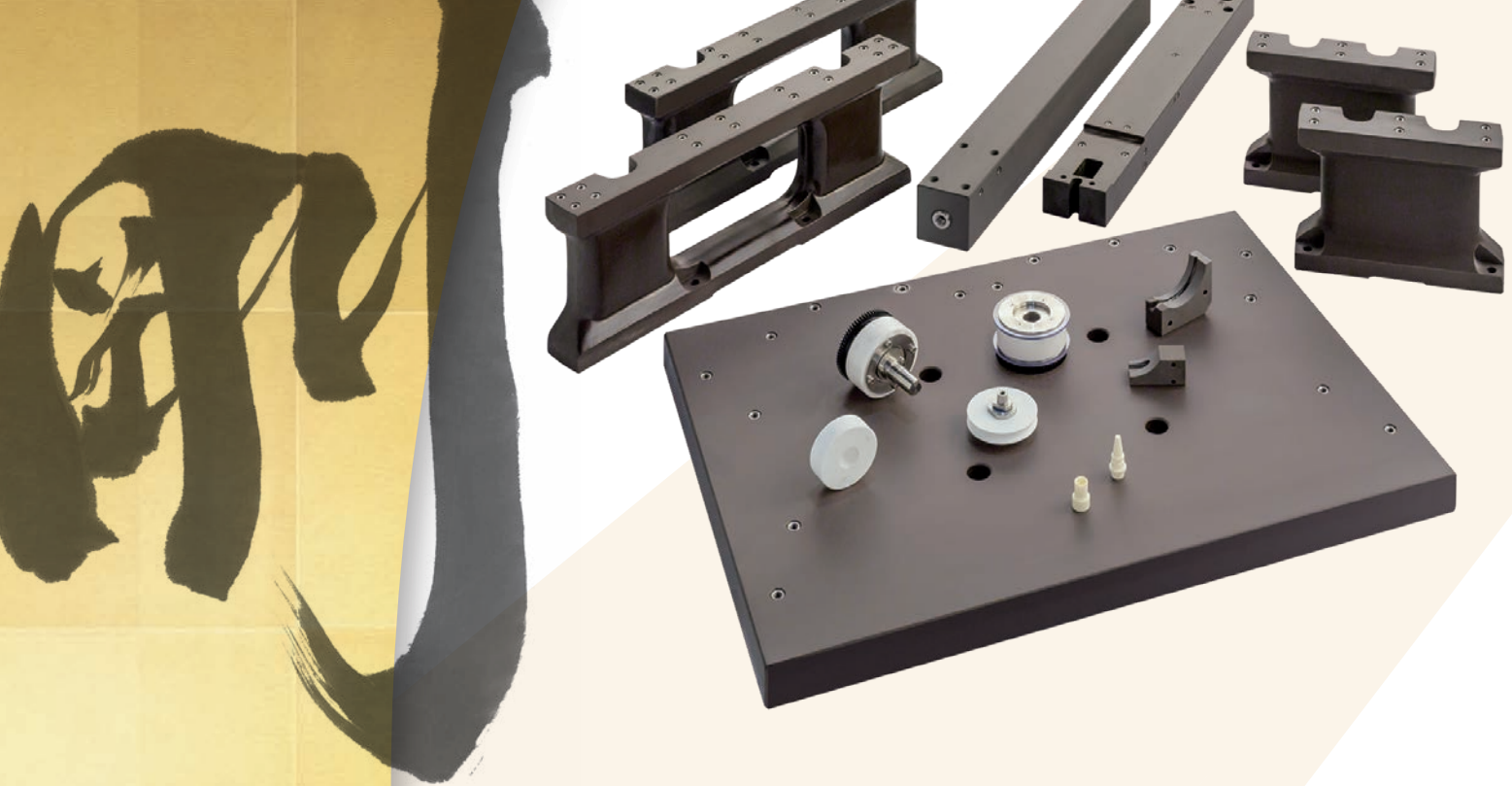
Linear Motor Drive Machines Over 20 years, More than 50,000 Units Around the World



4-axis linear motor drive

The linear motor drive system is cleverly designed to operate for many years trouble-free and used in conjunction with an absolute linear scale by Heidenhain. With excellent position detection performance and stability, the absolute linear scale has a resolution of 0.01 μm .





MACHINE CONSTRUCTION

The machine has a variety of standard built-in functions, including a new tension servo function, auto fluid-level control, and the new FJ-AWT (Automatic Wire Threader). Paying close attention to the machine accessibility for work preparation in the field, a square-shaped work stand, ceramic stand base, 3-sided machining tank with automatic lifting door, quadruple filters and many other features, all of which works to ensure improvements in productivity. Furthermore, by adopting a unique full-cover machine structure, comfort and safety in the work environment is not compromised.

Quadruple Filter (Dielectric tank) and O-Shape Worktable

Paying close attention to machine accessibility for work preparation in the field, quadruple filters and O-shape worktable comes standard.



Temperature-synchronized machine

"TH COM"

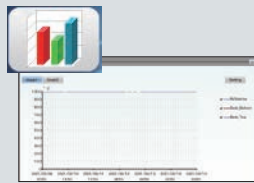
High-Precision Thermal Displacement Correction and Total Temperature Control System

All models in the series are equipped as standard with the AIM (AI Maintenance) environmental temperature diagnosis function and TH COM thermal displacement correction function that can handle everything from high-accuracy to rough temperature environments, in addition to a logging function and temperature display of the machine surroundings.

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



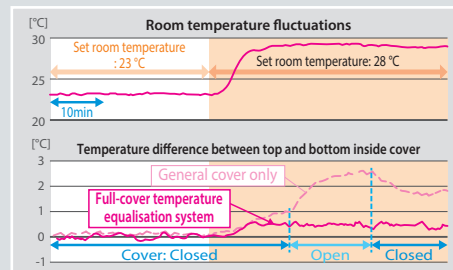
AIM environmental temperature diagnosis



TH COM temperature logging



Full-cover specification machine Example of temperature equalisation system



Sodick Own Ceramic with Excellent Insulation

		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 modulus	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 developed its own Ceramic table for work stands and guides on all machines, So, long life of high insulation and high accuracy are provided. Also low thermal distortion of ceramics helps higher machining accuracies.

Slide-plate Cleaning Function (Flushing)

To maintain long life of sealing on the work tank, self-cleaning system is equipped.

Automatic 3-side Vertical Sliding Tank Door

ALC series adopts 3 sided vertically sliding machining tank door as standard for operators accessibility.

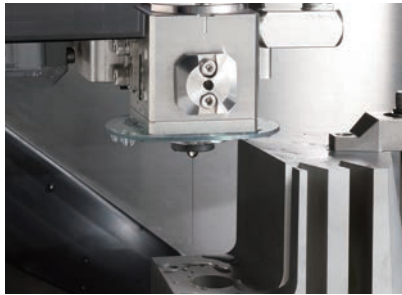
This also ensures the future automated operation with robot systems.





FJ-AWT

The FJ-AWT (Fixed Jet AWT) has excellent wire success rate and connection speed, together with annealing system, further improving the wire threading rate and the wire straightness.



Diamond guide

Diamond round guide with small clearances realises high-precision machining. * Please use genuine consumable supplies.

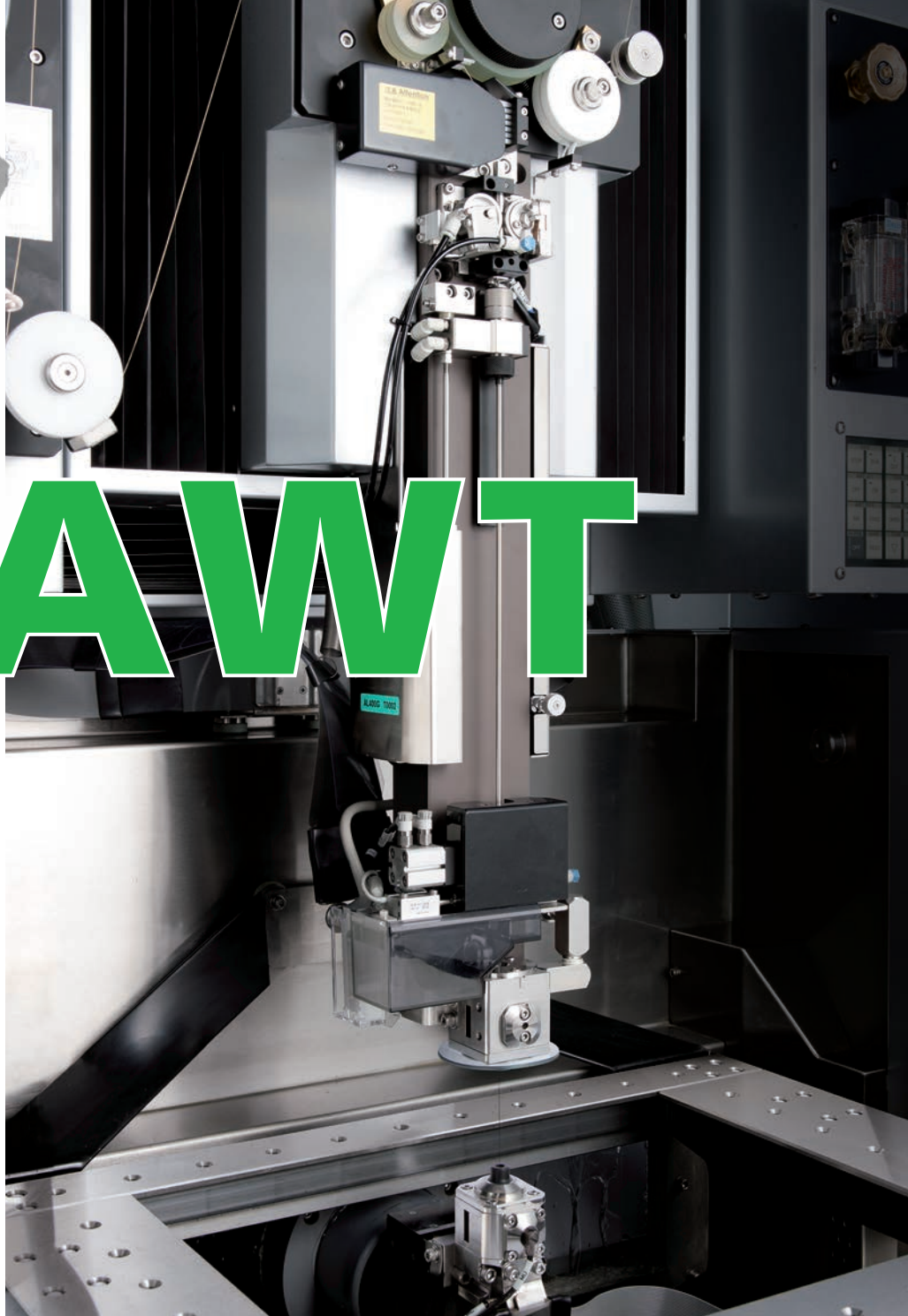
Threading into curved surface

FJ-AWT does not require the water-jet support for threading the wire.

Jet-less threading mode Threading reliability is improved in slopes and curved work-pieces whenever water-submerged is not used.

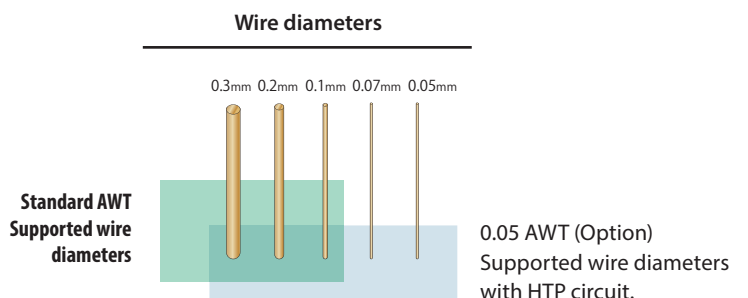
Narrow clearance

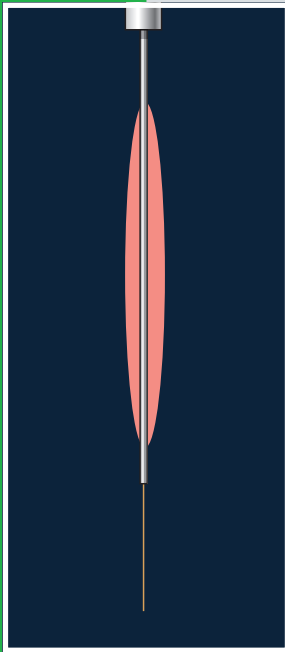
Improved machining performance thanks to wire guides with narrow clearance.



0.05 wire AWT

Automatic wire threading for thin wire ($\phi 0.07$ and 0.05mm) is available as an option. HTP circuit (high-voltage circuit) is also included to apply a higher voltage.

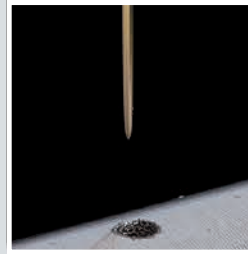




1 Straightens the wire

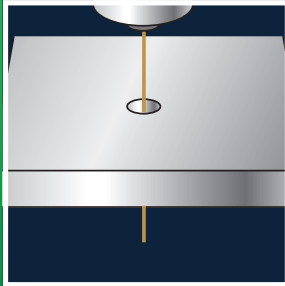
Wire annealing function

Heating the wire by Joule heating improves the straightness of the wire. Excellent in straightness, and the jet-less threading is recommended even for wire threading under water.



Wire tip processing

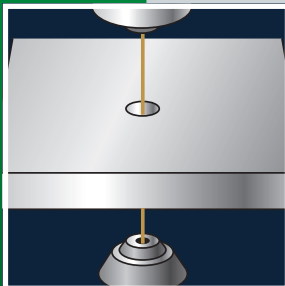
When the wire cannot be threaded within a specified number of times, the tip of the wire is cut and melted by heat to a shape that can be threaded easily then, the wire can run through the start hole.



2 Inserts wire into the start hole

Wire thread retry function

The retry function can be set when the wire cannot be threaded smoothly due to a curled wire or a poor start hole.



3 Threads the wire

Pop-up search function

Precisely repeated operations of lifting and lowering the wire by the force of air passes the wire through the lower hole.

Wire breakage recovery function

When a wire breaks while machining, the wire is automatically threaded and resumes machining.

Sludge removal function

The sludge removal function using air or fresh water on the upper and lower guides contributes to maintaining accuracy and consistent threading.



AWT dice guide
AWT Dice(FJ)



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



Lower side wire guide
Dice (Color)

Starts machining



OPTIONS

20kg Wire Feeder

Built-in wire feeder is available as standard for wire bobbin up to 20kg which allows continuous operation.

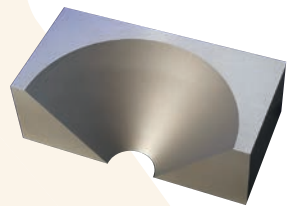
WS-4P/5P

Sodick's own Rotary Table developed In-house is available as an additional A or B axis for indexing or simultaneous contouring. (Optional)



Taper flex Neo 45

Taper flex Neo 45 is available as an option for accurate large angular machining up to 45°. Taper Flex Neo 45 is easy to use and requires no special training. The option consists of three parts: High Angle Guides, a Calibration Jig and Software.



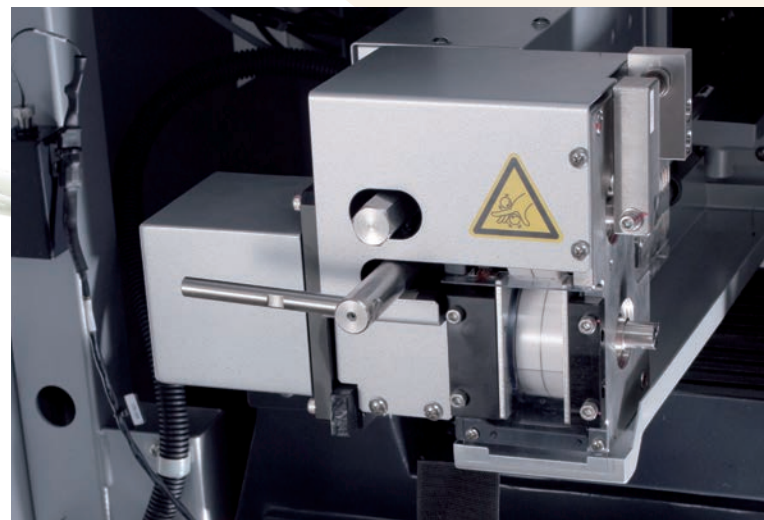
Multi-Axis Capability

Sodick's "SPW-E" Power supply Control is capable of controlling up to 8-Axis simultaneously. The Multi Axis Control is available as a factory-fit option.



L-Cut (wire chopper)

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



S³CORE

New automatic core processing device

An automatic core collection device that was recently developed according to the concepts of Simplicity, Stability, and Safety. The main unit comprises simply of a magnet and a cylinder, and is easy to handle and maintain. It enables stable operation with no damage to the workpiece.

Machining material: Corresponds to ferromagnetic workpiece material such as steel material.

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

Equipment parts: Equipment installation to upper guide, collecting box

* The travel has limitations.

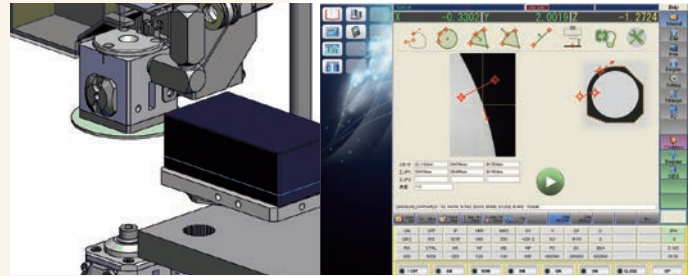
ANCS (Anti Corrosion System)

The ANCS prevents rust, corrosion and discoloration on workpieces electrically and chemically while they are being machined or left in the dielectric. This advanced rustfree system is effective for steel, carbide and alloys and available as a factory option.



Optic Measurement System

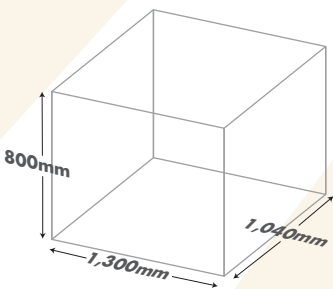
The system imports an image data captured by the camera mounted on the head of the unit to measure the accuracy of processed shape. It is also possible to compare the cutting results with DXF data.



High Column (Extended Z stroke)

Extended Z axis stroke of 800 mm is available for ALC800G, as a factory option (ALC800GH). It is capable of cutting the work-piece size of up to 1300 x 1040 x 800 mm submerged.

Work Piece Size



SAMPLES

Wide Range of Machining Applications

TMP Control II

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

Workpiece Material	Steel	Surface Roughness	Ra 1.37 μ m (Rz 9.76 μ m)
Thickness	40 mm	Wire	ϕ 0.2 mm
Machining Accuracy	$\pm 3\mu$ m	Machining Time	2 hour 25 min (per 1 component)

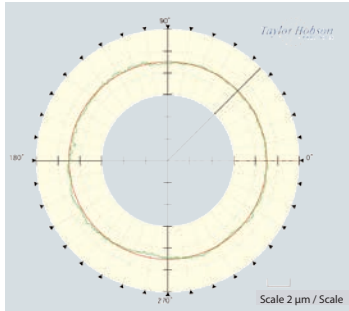


Roundness

Roundness accuracy 0.76 μ m

Workpiece Material	Hardened steel
Thickness	30 mm
Wire	ϕ 0.2 mm

ϕ 15 mm round machining



Roundness accuracy 1.86 μ m

Workpiece Material	Steel
Thickness	40 mm
Wire	ϕ 0.2 mm

ϕ 20 mm round machining

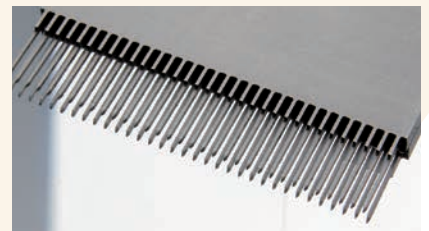


Micro Machining

2 layer core pin machining

Stacked core pin shape where the thickness changes from 0.3 mm to 1.0 mm can be machined stably with a high accuracy. 33 pins in 2 layers; Pitch: 0.6 mm

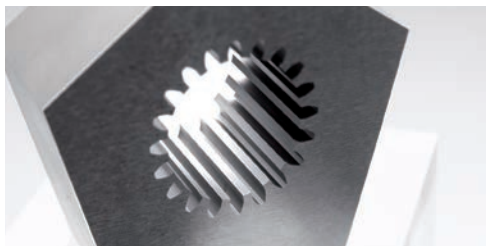
Workpiece Material	Steel
Thickness	0.3 to 1.0 mm (Thickness of machining portion)
Machining Accuracy	$\pm 2 \mu$ m
Surface Roughness	Ra 0.24 μ m (Rz 2.05 μ m)
Wire	ϕ 0.1 mm



Corner Machining

The improved machining accuracy of fine corners and outer corners accurately reproduces tooth tip shapes which require high accuracy.

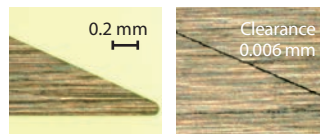
Workpiece Material	Steel
Thickness	20 mm
Machining Accuracy	$\pm 2 \mu$ m
Surface Roughness (Die)	Ra 0.23 μ m (Rz 2.03 μ m)
Surface Roughness (Punch)	Ra 0.35 μ m (Rz 2.75 μ m)
Wire	ϕ 0.2 mm



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	$\pm 2 \mu$ m
Surface Roughness	Ra 0.11 μ m (Rz 0.96 μ m)
Wire	ϕ 0.1 mm

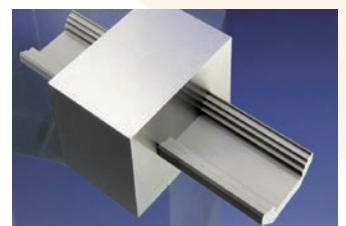
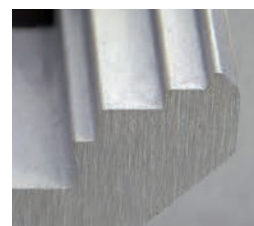
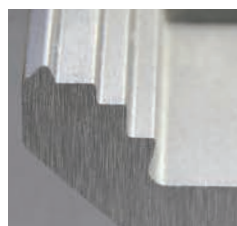


Improved small diameter corner R in 3 cuts

Shape: R0.15mm, R0.20mm, R0.5mm

Clearance 2 μ m/side

Workpiece Material	Steel
Thickness(Die)	20 mm
Thickness(Punch)	60 mm
Machining Accuracy	$\pm 2 \mu$ m
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	ϕ 0.2 mm

Barrel-free Effect Control II

Greatly improves shape accuracy of 1st cut

Workpiece Material	Steel
Thickness	100 mm
Wire	ϕ 0.25 mm

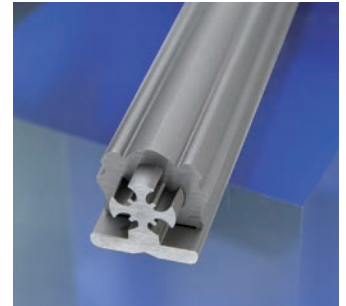


Accurate shape machining which allows fitting of thick spring shaped components

Workpiece Material	Steel
Thickness	250 mm
Surface Roughness	Ra 0.26 μm (Rz 2.09 μm)
Wire	ϕ 0.2 mm

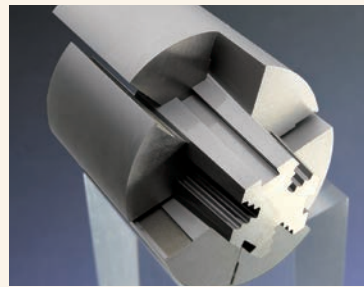
Stable shape accuracy which allows fitting in 3 cuts

Workpiece Material	Steel
Thickness	250 mm
Surface Roughness	Ra 0.61 μm (Rz 4.50 μm)
Wire	ϕ 0.2 mm



High Quality Slide Machining

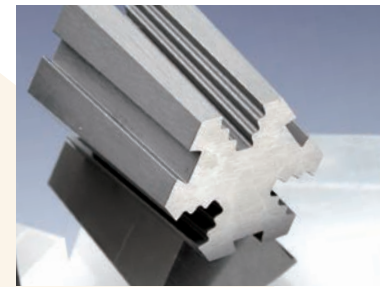
The "Taper Flex Neo: Option" supports improvement in the workability of long tapered fitting machining and different T/B shape machining with a high level of difficulty.



Slide core

5 degree tapered angle

Workpiece Material	Steel
Thickness	40 mm
Machining Accuracy	$\pm 2.5 \mu\text{m}$
Surface Roughness	Ra 0.35 μm (Rz 2.76 μm)
Wire	ϕ 0.2 mm



Tapered core

5 degree tapered angle

Workpiece Material	Steel
Thickness	40 mm
Machining Accuracy	$\pm 2.5 \mu\text{m}$
Surface Roughness	Ra 0.36 μm (Rz 2.71 μm)
Wire	ϕ 0.2 mm

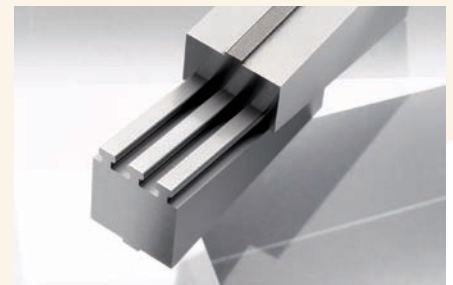
Tapered Machining

10 degree tapered angle thick plate high precision components

The secured excellent shape accuracy enables smooth fitting of narrow clearances even for the machining of long components of 250 mm.

Workpiece Material	Steel
Thickness	200 mm
Machining Accuracy	$\pm 5 \mu\text{m}$
Surface Roughness	Ra 0.32 μm (Rz 2.69 μm)
Wire	ϕ 0.25 mm

10 degree tapered angle high precision component

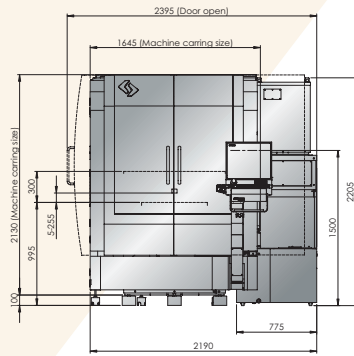


Workpiece Material	Steel
Thickness	40 mm
Machining Accuracy	$\pm 2 \mu\text{m}$
Surface Roughness	Ra 0.23 μm (Rz 2.18 μm)
Wire	ϕ 0.2 mm

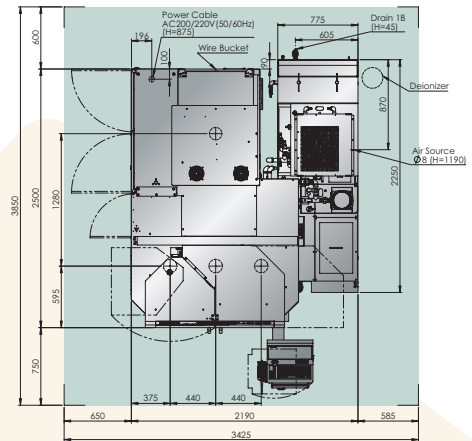
SPECIFICATIONS

(unit : mm)

ALC400G

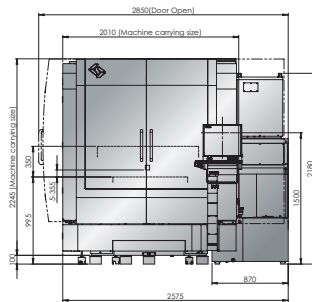


Front View

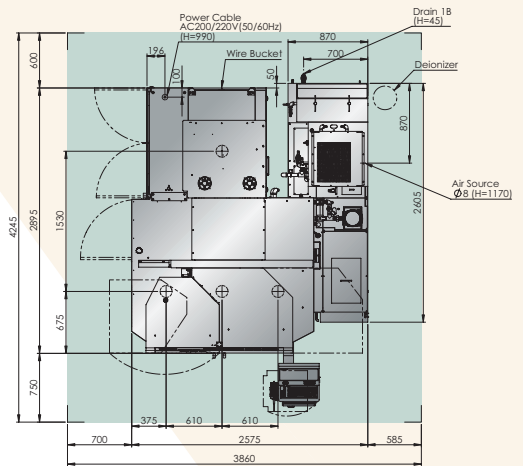


Top View

ALC600G

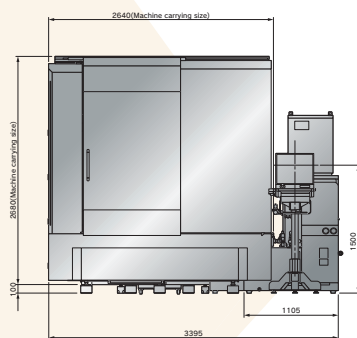


Front View

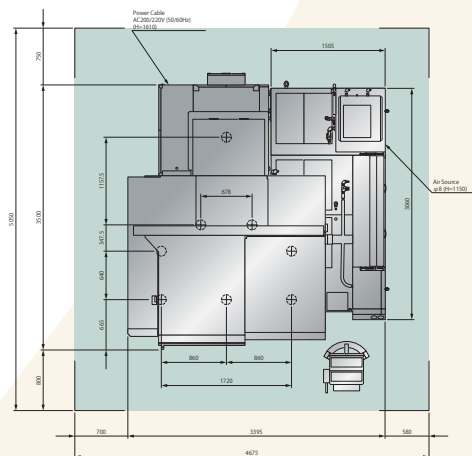


Top View

ALC800G



Front View



Top View

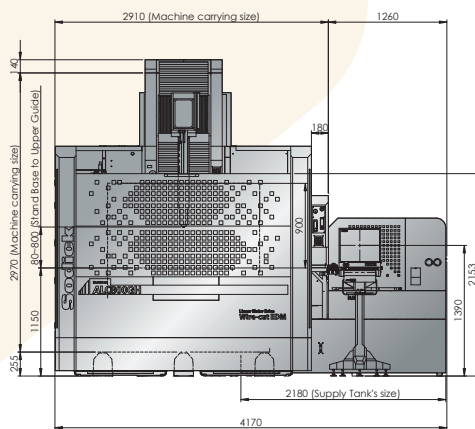
Machine tool	ALC400G	ALC600G	ALC800G	ALC800GH
X Axis travel	400 mm	600 mm	800 mm	800 mm
Y Axis travel	300 mm	400 mm	600 mm	600 mm
Z Axis travel	250 mm	350 mm (500 mm optional)	500 mm	730 (80 ~ 810) mm
U x V Axis travel	150 x 150 mm	150 x 150 mm	200 x 200 mm	200 x 200 mm
Taper angle (Work. thickness 130mm)	±25°	±25°	±25°	±30°
Work tank dimensions (W x D)	850 x 610 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	3,000 kg	3,000 kg
Wire diameter	0.1 ~ 0.3 mm	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
Max. wire speed	420 mm/sec	420 mm/sec	420 mm/sec	420 mm/sec
Distance from floor to table top	995 mm	995 mm	995 mm	1150 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	3,395 x 3,640 x 2,780 mm	4,200 x 3,590 x 3,390 mm
Machine installation dimensions	3,425 x 3,850 mm	3,860 x 4,245 mm	4,675 x 5,050 mm	5,500 x 4,600 mm
Machine tool weight	3,400 kg	4,600 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

Dielectric Tank	ALC400G	ALC600G	ALC800G	ALC800GH
External dimensions (W x D)	775 x 2,250 mm	870 x 2,605 mm	1,505 x 3,060 mm	2,280 x 3,150 mm
Empty weight	450 kg	500 kg	800 kg	1,100 kg
Capacity	790 lit	1,000 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 filter (Internal-pressure type)	4 replaceable paper filter (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)

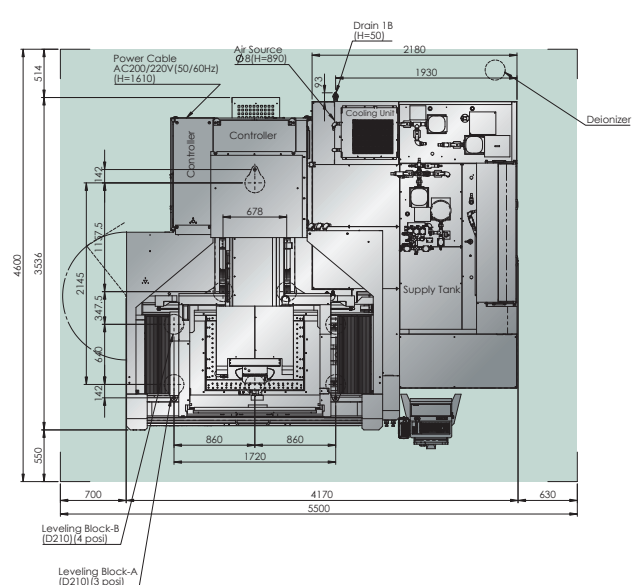
The dielectric chillers on Sodick machines contain either fluorinated greenhouse gas R410A or R407C.

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

ALC800GH



Front View



Top View



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