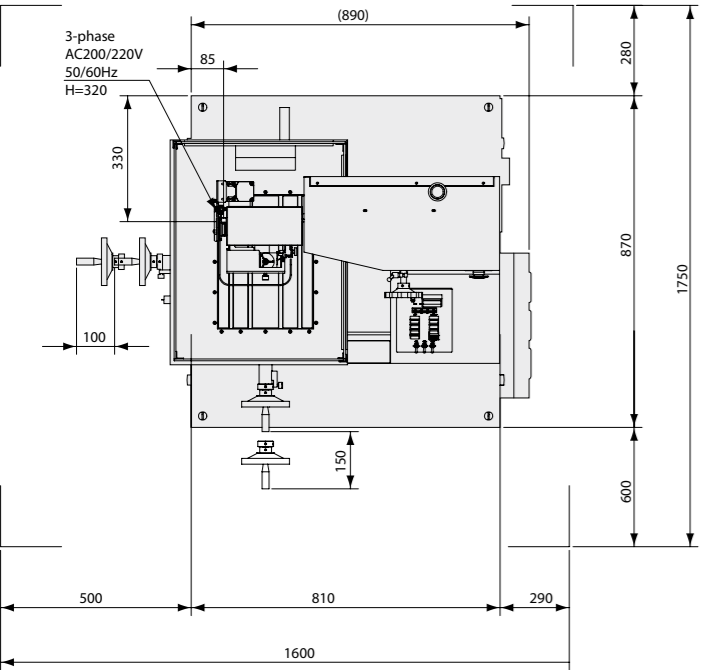


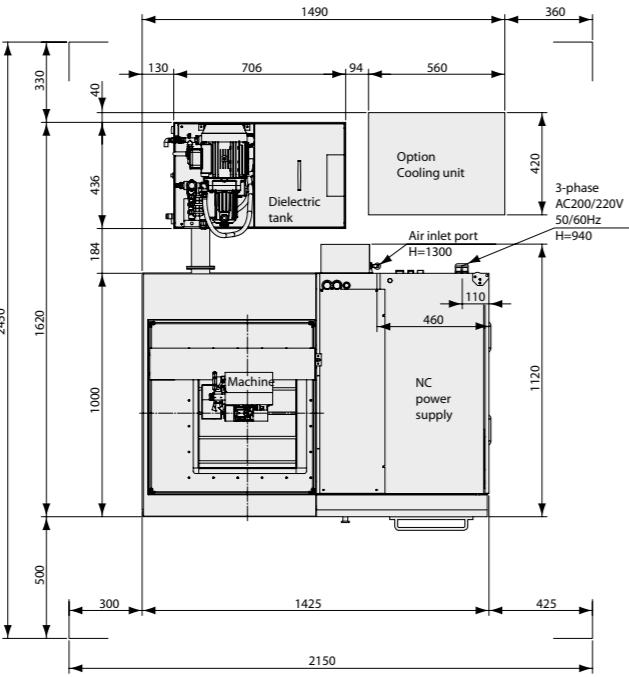
Floor Layout

K1C



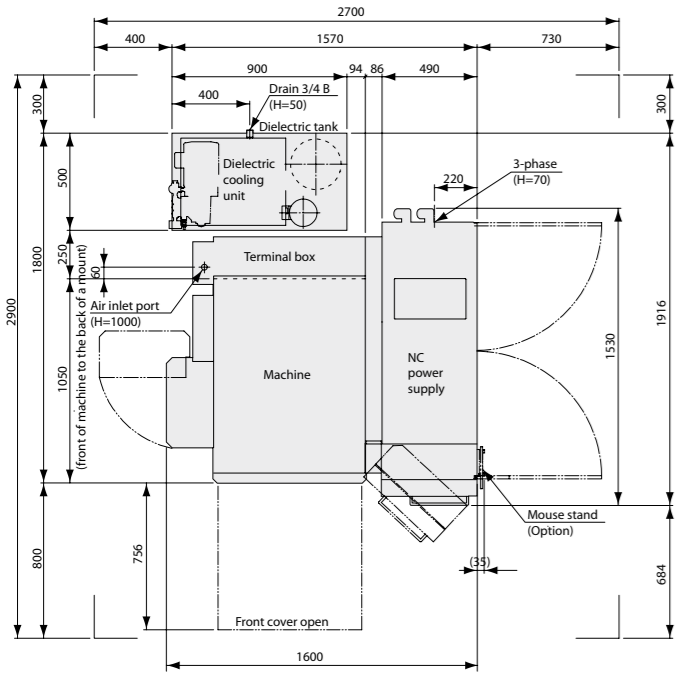
Total height of machine is 79.33" (2,015 mm)

K3HN



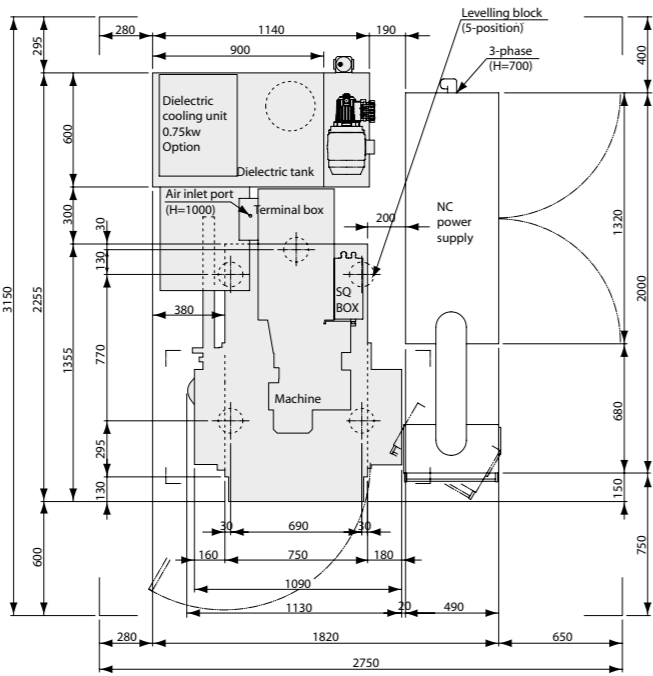
Total height of machine is 81.89" (2,080 mm)

K1BL



Total height of machine is 90.75" (2,305 mm)

K3BL



Total height of machine is 92.91" (2,360 mm)

Specifications

Specifications	K1C	K3HN	K1BL	K3BL
Table Size (W x D)	9.84" x 13.78" (250 x 350 mm)	15.75" x 17.72" (400 x 450 mm)	7.87" x 9.84" (200 x 250 mm)	23.62" x 11.81" (600 x 300 (ceramics) mm)
X/Y/Z Axis Travel	7.87" x 11.81" x 11.81" (200 x 300 x 300 mm)	11.81" x 15.75" x 11.81" (300 x 400 x 300 mm)	4.72" x 5.91" x 11.81" (120 x 150 x 300 mm)	11.81" x 7.87" x 11.81" (300 x 200 x 300 mm)
W-Axis Travel	9.84" (250 mm)	9.06" (230 mm) (NC control: option)	6.30" (160 mm)	9.84" (250 mm)
Max. Workpiece Weight	220.5 lbs (100 kg)	440.9 lbs (200 kg)	110.2 lbs (50 kg)	661.4 lbs (300 kg)
Applicable Electrode Diameter	ø.008" ~ .118" (ø.2 ~ 3 mm)	ø.008" ~ .118" (ø.25 ~ 3 mm)	ø.003" ~ .008" (ø.08 ~ .25 mm)	ø.003" ~ .118" (ø.08 ~ 3 mm)
Distance from Guide Bottom to Table Top	1.97" ~ 11.81" (50 ~ 300 mm)	2.76" ~ 11.81" (70 ~ 300 mm)	2.36" ~ 8.66" (60 ~ 220 mm)	2.36" ~ 12.20" (60 ~ 310 mm)
Distance from the Floor to Table Top	40.16" (1,020 mm)	35.43" (900 mm)	35.83" (910 mm)	31.89" (810 mm)
Machine Dimensions (W x D x H)	35.04" x 34.25" x 79.33" (890 x 870 x 2,015 mm)	56.10" x 44.09" x 81.89" (1,425 x 1,120 x 2,080 mm)	62.99" x 60.24" x 90.75" (1,600 x 1,530 x 2,305 mm)	44.49" x 64.76" x 92.91" (1,130 x 1,645 x 2,360 mm)
Machine Installation Space (W x D) (not including maintenance space)	62.99" x 68.90" (1,600 x 1,750 mm)	56.10" x 63.78" (1,425 x 1,620 mm)	106.30" x 114.17" (2,700 x 2,900 mm)	71.65" x 88.78" (1,820 x 2,255 mm)
Machine Weight	1,212.5 lbs (550 kg)	1,873.9 lbs (850 kg)	2,182.6 lbs (990 kg)	3,306.9 lbs (1,500 kg)
Air Pressure	—*	0.5 MPa/30 NL/min	0.5 MPa	0.5 ~ 0.6 MPa
Total Power Input	3 phase 50/60Hz 3.3 kVA	3 phase 50/60Hz 4.0 kVA	3 phase 50/60Hz 3.3 KVA	3 phase 200/220V 0.75 kw
Work Tank Size (W x D x H)	—	—	15.75" 20.08" x 7.87" (400 x 510 x 200 mm)	30.47" x 25.16" x 10.63" (774 x 639 x 270 mm)
Dielectric Fluid	VITOL-KS	VITOL-KS	VITOL-V2 (oil-based)	VITOL-V2 (oil-based)
Dielectric Tank Total Capacity	5.28 gallon (20 liter)	29.06 gallon (110 liter)	45.44 gallon (172 liter)	64.72 gallon (245 liter)
Dielectric Fluid Filtration Method	Replaceable Sponge Filter	Replaceable Paper Filter HF-17	Replaceable Sponge Filter	Replaceable Paper Filter (MF-2400, Pressurised)
Linear Motor	—	—	Standard on Z Axis	Standard on Z Axis
Operation	Manual	NC Control	NC Control	NC Control
Automation	Not available	AEF (Automatic Electrode Feeder)	AEC (Automatic Electrode Changer)	ATC 18 / AEF + ATC 15
30A Booster (up to ø.24" (ø6 mm) electrode available)	Available as Option	Available as Option	Not Available	Not Available
Rotary Table	Not Available	Available as Option (Required 8-axis control)	Available as Option	Available as Option
LN Assist	Not Available	Standard Feature	Standard Feature	Standard Feature

*K1C has no Air pressure, no work tank. K3HN has no Work Tank. Due to on-going research, specifications are subject to change without prior notice.



K-Series

High Speed Small Hole Drilling Machines



Sodick Inc.
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Schaumburg, IL 60173
USA

Phone 847-310-9000
Fax 847-310-9011

create your future

Sodick Contact
email info@sodick.com
online www.sodick.com



create your future

K1C – High Speed Hole Driller

Cost-Friendly, Top Selling Model

Operability

The operation panel and display are centralized at the front of the machine to enable the operator to run the machine easily without changing positions. A tool tray is also provided and can be found underneath the work tank.

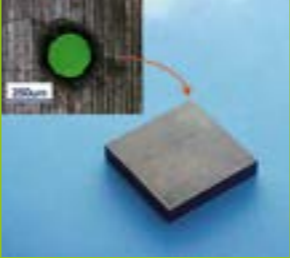
The Latest Servo Technologies

The K1C features the latest servo function technology available. This optimized servo control improves the cutting speed by up to 200%.



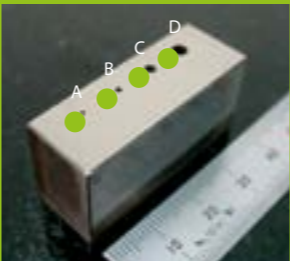
Start Hole Drilling

A start hole for wire cut EDM can be easily and quickly made by the K1C. Neither specialized skills nor experience are required to work with this machine.



Through Machining

Workpiece Material	Cemented carbide
Workpiece Thickness	.3937" (10 mm) (through hole)
Electrode Material	Copper pipe
Dielectric Fluid	Vitol KS
Electrode Diameter	ø.0079" (ø.2 mm)
Machining Time	3 min 38 sec
Machine Tool	K1C



Through-Hole

Workpiece Material	WC
Workpiece Thickness	.7874" (20 mm)
Electrode Material	Cu pipe
Dielectric Fluid	Vitol KS
Electrode Diameter	A: ø.0236" (ø.6 mm), 5 min B: ø.0394" (ø1 mm), 6 min C: ø.0787" (ø2 mm), 7 min D: ø.1181" (ø3 mm), 6 min
Cutting Time	
Machine Tool	K1C

K1BL/K3BL – High Precision Small Hole Driller

Accuracy and Speed

Machine Operation

LN Assist is standard on both the K1BL and K3BL. Operators will easily be able to create cutting programs with complex contours and multi-cutting locations.

Assist software that positions cutting locations and coordinates settings is also standard.

Sodick Motion Controller (SMC) comes equipped on the K1C and K3HN in order to maximize the efficiency of the Linear Motor on the Z Axis.



K3HN – NC Controlled High Speed Hole Driller

LN Assist is Standard for Automatic Programming

Automatic Continuous Cutting is Made Possible

High Speed Drilling

Since the K3HN is equipped with KSMC, Sodick Motion Controller, the optimized servo control is activated and improves cutting speed by up to 200%.

Fine Feeding

Accurate fine feeding is controlled for stable cutting.

Automatic Depth Measurement

The Automatic Depth Measurement function is available on the K3HN, this function is ideal for blind hole cutting.



K3HN Options

- Column Up (3.94"/7.78" (100/200 mm))
- 30A Booster (electrode up to ø.24" (ø6 mm))
- Rotary Table

Wide Range of Cutting Conditions

In order to cover potentially limitless demands from customers, Sodick offers a wide range of cutting conditions.

Workpiece: SKD11, WC, Aluminum, Copper, Stainless Steel, Graphite
Material Thickness: .39", .79", 1.97", 3.94" (10, 20, 50, 100 mm)
Electrode Diameter: .0094", .0118", .0197", .0394", .0787", .1181" (.25, .30, .50, 1, 2, 3 mm)

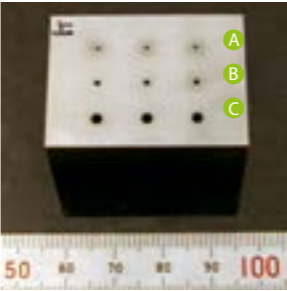


AEF

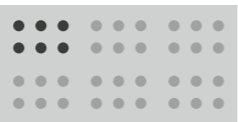
AEF (Automatic Electrode Feeder) comes standard on the K3HN. It enables continuous cutting with several electrodes.

Through-Hole Cutting

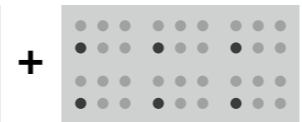
Workpiece Material	STAVAX
Workpiece Thickness	.7874" (20 mm)
Electrode Material	Cu pipe
Electrode Diameter	A: ø.0197" (ø.5 mm) B: ø.0394" (ø1 mm) C: ø.0787" (ø2 mm)
Dielectric Fluid	Vitol KS
Cutting Time	A: 40 seconds B: 40 seconds C: 1 min 40 sec
Electrode Wear Rate	A: 146% per hole B: 80% per hole C: 58% per hole
Machine Tool	K3HN



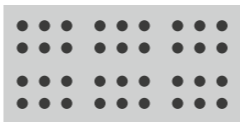
Easy to Make Cutting Programs Without Any Difficult Calculations



Inputting a basic pattern,



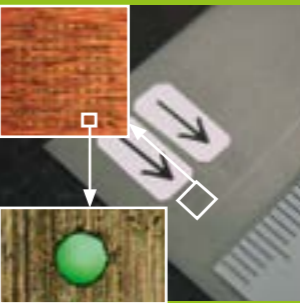
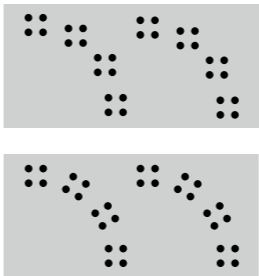
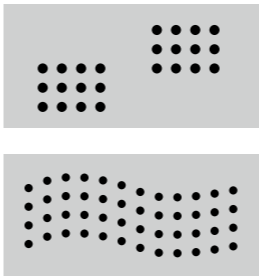
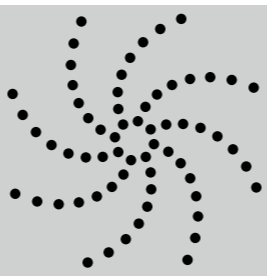
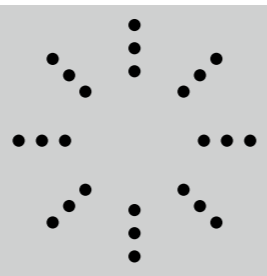
and positioning the pattern,



makes it easy to get a complete and complex cutting program with only two programming steps.

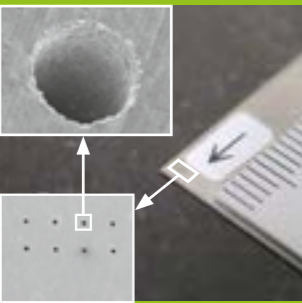
N	Pos X	nX	Pos Y	nY	Radius	Start A	Pr
1	+2.0000	3	+2.0000	2			
2	+8.0000	3	+5.0000	2			
3							

Even complex layouts with a large number of holes can be programmed easily!



Micro-Hole, 200 Holes ø.00217" (ø.055 mm)

Workpiece Material	WC/G5
Workpiece Thickness	.0197" (0.5 mm)
Electrode Material	Tungsten Rod ø.00118" (ø.03 mm)
Dielectric	Oil
Hole Diameter	in .00217"- .00244" (.055-.062 mm), out .00228"- .00256" (.058-.065 mm)
Cutting Time	2-5 min/hole
Machine Tool	K3BL



Micro-Hole, 10 Holes ø.00146" (ø.037 mm)

Workpiece Material	WC/G5
Workpiece Thickness	.0118" (.3 mm)
Electrode Material	Tungsten Rod ø.00079" (ø.020 mm)
Dielectric	Oil
Hole Diameter	in .00146"- .00150" (.037-.038 mm), out .00150"- .00157" (.038-.040 mm)
Cutting Time	6-8 min/hole
Machine Tool	K3BL



Micro-Hole .0051" (.13 mm) Diameter

Material	WC/G5
Thickness	.5906" (15 mm)
In Hole Dia.	.0050" (.127 mm)
Out Hole Dia.	.0054" (.137 mm)
Machining Time	17 min
Electrode Wear	294%
Electrode	Cu PIPE ø.0039" (ø.1 mm)
Fluid	OIL
Machine Tool	K1BL



Micro-Hole .0051" (.13 mm) Diameter

Material	SUS403
Thickness	.0118" (.3 mm) : .0118" (.3 mm)
In Hole Dia.	.0051" (.13 mm) : .0051" (.13 mm)
Machining Time	.00146"- .00150" (.037-.038 mm), 40 sec/hole: .00150"- .00157" (.038-.040 mm)
Electrode Wear	200%/hole: 6-8 min/hole
Electrode	Cu PIPE dia. .0039" (.1 mm)
Fluid	OIL
Machine Tool	K1BL

LN Assist – Easy Operation with a Simplified Graphics Screen

An automatic programming system, LN Assist, is standard on the K3HN, K1BL and K3BL. Its simplified graphics screen allows for easy operation. As LN Assist is also capable of a series of calculations and macro-functions, operators can easily work with any kind of complex cutting layouts and programs not dependant on their skills. A customized function is available where operators can register their own programs as a utility.

