

*create your future*



High Speed, Small Hole Drilling Machines

*K1C/K3HS*

# K1C – Best Selling Hole Driller

Best selling model for over 30 years



## Proven Reliability

The K1C was introduced into the market over 30 years ago. Decades of experience and know-how have made this model not only the most reliable small hole driller available on the market, but also the most wanted model on the second hand machine market.

## Operability

The operation panel and display are centralised at the front, in order that the machine can be operated easily without moving their standing position. A tray for the tools is also provided, and can be found underneath the work tank.

## The Latest Servo Technologies

A new servo function has been developed by accumulating knowledge over several years. Here, optimised servo control is realised which improves the cutting speed by up to 200%.

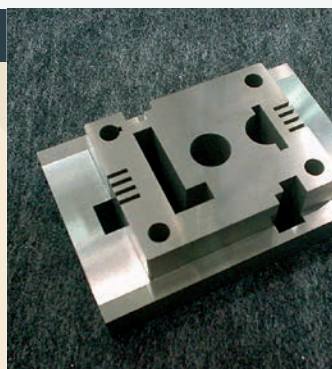
## Wide Range of Cutting Conditions

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

- Work-piece: Steel, WC, Aluminium, Copper, Graphite
- Material thickness: 10, 20, 50, 100mm
- Electrode diameter: 0.25, 0.30, 0.50, 1.0, 2.0, 3.0mm

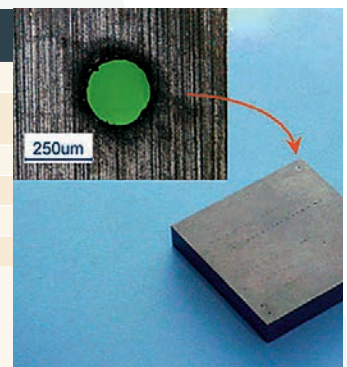
### Start Hole Drilling

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



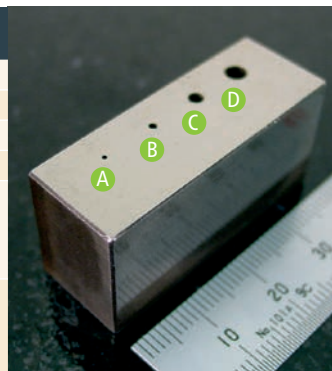
### Through machining

|                    |                      |
|--------------------|----------------------|
| Material           | WC                   |
| Thickness          | 10 mm (through hole) |
| Electrode          | Copper pipe          |
| Dielectric fluid   | Vitol Fluid          |
| Electrode diameter | ø 0.2 mm             |
| Machining time     | 3 min 38 sec         |



### Through-hole

|                    |                                                          |
|--------------------|----------------------------------------------------------|
| Material           | WC                                                       |
| Thickness          | 20 mm                                                    |
| Electrode          | Copper pipe                                              |
| Dielectric fluid   | Vitol Fluid                                              |
| Electrode diameter | A: ø 0.6 mm<br>B: ø 1.0 mm<br>C: ø 2.0 mm<br>D: ø 3.0 mm |
| Machining time     | A: 5 min<br>B: 6 min<br>C: 7 min<br>D: 6 min             |



### K1C Options

- Column up (100/200mm)
- 100 litre tank
- 30A booster (electrode up to ø 6.0mm)
- Z-axis digital display

# K3HS – The NC Controlled High Speed Hole Driller

LN Assist is Equipped as Standard for Automatic Programming Automatic Continuous Cutting is Possible

## High Speed Drilling

By coming equipped with "KSMC; Sodick Motion Controller", optimised servo control is realised which improves the cutting speed by up to 200%.

## Fine Feeding

Accurate fine feeding is controlled for stable cutting.

## Features for Unrivalled Performance

- **Automatic Depth Measurement function** is available for blind hole cutting.
- **Through-hole detection:** The K3HS machine comes with through-hole detection function which is ideal for vane and blade production environment.
- **Dielectric fluid:** Customer can choose either de-ionised water or Vitol fluid on factory specification.



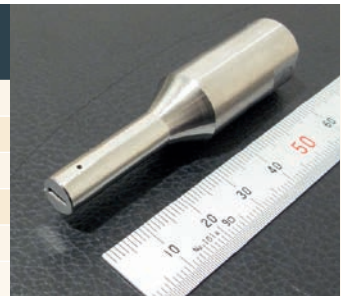
### Automatic Electrode Feeder

AEF (Automatic Electrode Feeder) comes equipped as standard on the K3HS. It enables continuous cutting with several electrodes.



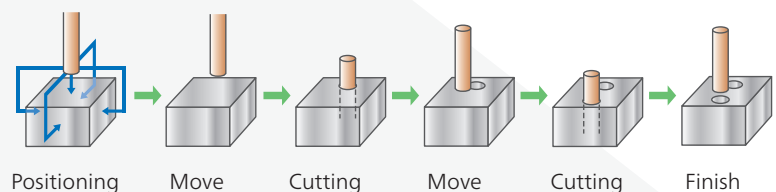
### Hollow titanium, electrolytic corrosion free

|                  |                  |
|------------------|------------------|
| Material         | 64Ti (titanium)  |
| Electrode        | BS pipe          |
| Dielectric fluid | De-ionized water |
| Machining time   | 12 sec.          |
| Thickness        | 6.5 mm (hollow)  |

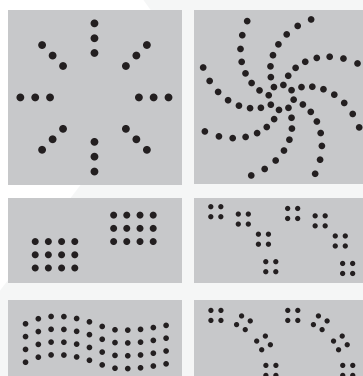
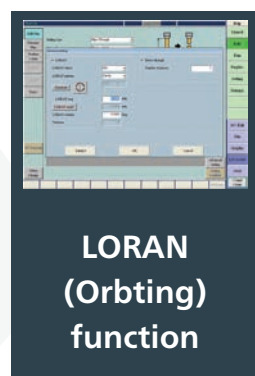


## LN Assist – Easy Operation with Graphic Screen

An automatic programming system, LN Assist, comes as standard on K3HS. Its simplified graphic 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 programmes. A customised function is available where operators can register their own programmes as a utility.

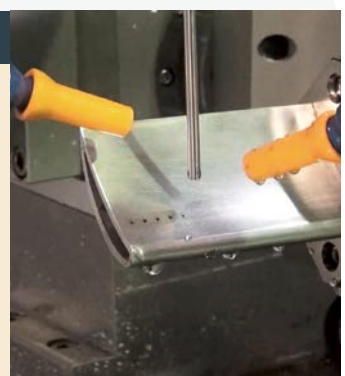


Even complex layouts with a large number of holes can be programmed easily!



### K3HS Options

- Column up (100/200mm)
- Intermediate guide
- Rotary table (WS-4P)
- Oscilloscope
- W-axis digital



# Specifications

| Specification                                                           | K1C                       | K3HS                               |
|-------------------------------------------------------------------------|---------------------------|------------------------------------|
| Table size (W x D)                                                      | 250 x 350 mm              | 480 x 790 mm                       |
| X-/Y-/Z-axis travel                                                     | 200 x 300 x 300 mm        | 300 x 400 x 300 mm                 |
| W-axis travel                                                           | 250 mm                    | 230 mm<br>(NC control: option)     |
| Max. workpiece weight                                                   | 100 kg                    | 300 kg                             |
| Max. workpiece size (W x D x H)                                         | 250 x 350 x 300 mm        | 470 x 780 x 285 mm                 |
| Applicable electrode diameter                                           | ø 0.2 ~ ø 3.0 mm          | ø 0.25 ~ ø 3.0 mm                  |
| Distance from guide bottom to table top                                 | 50 ~ 300 mm               | 55 ~ 285 mm                        |
| Distance from the floor to table top                                    | 1020 mm                   | 995 mm                             |
| Machine dimensions (W x D x H)                                          | 890 x 870 x 2,015 mm      | 1,495 x 1,340 x 2,255 mm           |
| Machine installation space (W x D)<br>(not including maintenance space) | 1,600 x 1,750 mm          | 1,495 x 1,740 mm                   |
| Machine weight                                                          | 550 kg                    | 1,280 kg                           |
| Dielectric fluid                                                        | VITOL-KS Fluid            | De-ionized Water or VITOL-KS Fluid |
| Dielectric tank total capacity                                          | 20 litre*                 | 150 litre                          |
| Dielectric fluid filtration method                                      | Replaceable sponge filter | Replaceable paper filter HF-17     |
| Rotary Table                                                            | Not available             | Available as option                |
| LN Assist software                                                      | Not available             | Standard Feature                   |

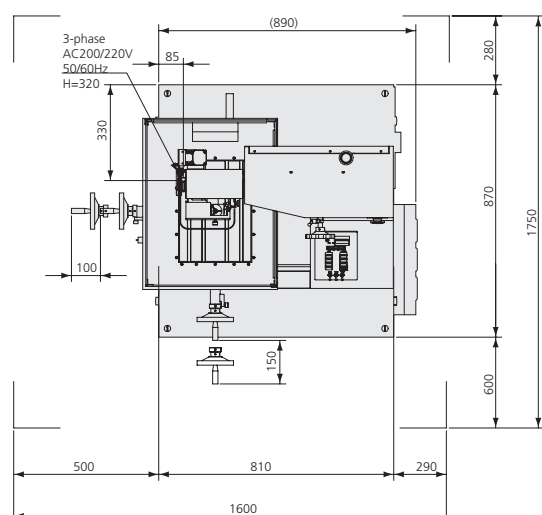
\*Additional 100 litre tank available as option on K1C

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.

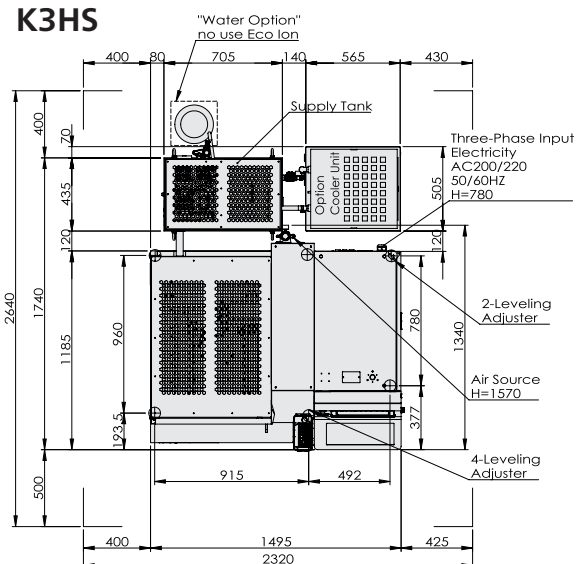
## Floor Layout

### K1C



Total height of machine is 2,015 mm

### K3HS



Total height of machine is 2,255 mm



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