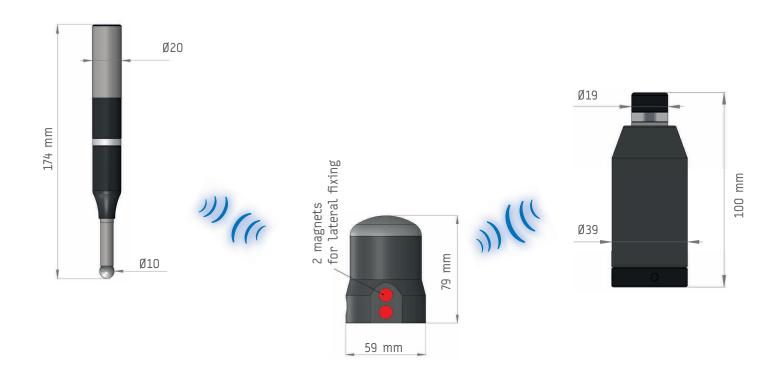
# Smart automation for a small price!

# TSEHORN<sup>®</sup> 4.0



# Smart automation for a small price!





Article no.	Description	Price / piece
00SYSOKTO	System TSCHORN 4.0: edge finder 3D Delivery contains: edge finder 3D for workpiece measurement, receiver, incl. Fanuc or Siemens macros (cycles)	995 €



Article no.	Description	Price / piece
OOSYSONEO	System TSCHORN 4.0: zero setter Delivery contains: zero setter for tool measurement, receiver, incl. Fanuc or Siemens macros (cycles)	995 €



Article no.	Description	Price / piece
00SYS1020	System TSCHORN 4.0: complete system Delivery contains: edge finder 3D for workpiece measurement, zero setter for tool measurement, receiver, incl. Fanuc or Siemens macros (cycles)	1.495 €



### The smart solution for your zero point!

#### Manual probing belongs to the past!

There are different testers, e.g. mechanical edge finders, optical edge finders or 3D Testers. They all have one thing in common:

- the manual probing process depends on the user
- it requires a lot of intuition
- it carries risks such as transmission or typing errors

In the end, working hours and potential mistakes cost a lot of money!



## Automation has never been that easy!

### TSCHORN<sup>®</sup> 4.0



- Manually pre-position the probe in X
- Start the cycle
- That's it!



#### What happens in the background?

Position the tester at the corner which you want to measure. You just define the edge which you want to measure and simply start the cycle. That's it! Now, the cycle starts in X axis and probes the workpiece.

During the probing movement, the machine control waits until the edge is reached. At this moment, the probe transmits the probing signal via radio signal to the receiver and to the machine control. The movement stops immediately and picks up the actual position.

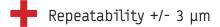
After that, the cycle goes to the Y axis and measures it as well as the Z axis. Finally, it automatically writes all measured values into the currently active workpiece offset.

# Small investment - big benefits!

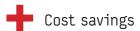








The accuracy is independent from the user



The receiver can flexibly be placed outside

The user has a good overview of the status LEDs at all times



## Cycles / makros for Fanuc or Siemens

#### Axis X, Y or Z



Position the tester in front of the edge.

Preselect axis X, Y or Z, as well as the direction + or - .

After starting, the cycle probes automatically and writes into the offset - that's it!

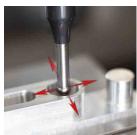
#### Measure the corner automatically



Position the tester in the X axis in front of the edge.

Preselect the edge 1, 2, 3 or 4. Start: the cycle automatically measures first X, then Y, then Z, and automatically writes all axes into the offset - that's it!

#### Circle centre (inside/outside)



Position the tester approximately on the centre of the circle.

Preselect if you want to probe inside or outside and give an approximate diameter.

After starting, the cycle automatically probes in

X axis, Y axis and automatically writes into the offset - that's it!

#### Groove centre (inside/outside)



Position the tester approximately on the centre of the slot or the key.

Then you chose if you want to measure inside or outside, preselect the axis and give an approximate width.

After starting, the cycle

automatically probes the centre in the X axis or Y axis and automatically writes into the offset - that's it!

#### Tool breakage detection



Chose the milling tool you want to check and start the cycle. After starting, the cycle au-

tomatically probes the tool length. If the tool is broken, the cycle does not find any probing signal and stopps the machine. Additionally, you can

preselect a confidence range as a tolerance. Is the tool out of tolerance, the machine stopps. Otherwise, the machine goes on working.

#### Tool length



Chose the milling tool you want to measure and start the cycle. After starting, the cycle automatically probes the tool length and writes the tool length into the tool offset of the machine.



Easy!

#### Software installation

Simple copying of sub program files (simple copy-paste).

Installing the software on the machine control is extremely easy. All you have to do is to copy all the sub program files from the USB flash drive to the subprogram directory of the machine.

precise. pioneering. worldwide.

# Installation - quick & easy



# Easy!

#### **Electrical connection**

- Connect power supply 12V-24V (DC)
- Connect the probing signal
- That's it!

Basically, every machine control has an input terminal for the probing signal as a standard. We even succeeded in installing many older models.

Thus, only two wires have to be connected for a simple power supply and a third wire with just this probing signal.

# Successful!

#### Many installations - many satisfied customers

We have already successfully installed the system on many different machines.



Anayak plus 4000 - Heidenhain











LK-Machinery - Siemens 828



Fanuc MXP-100i









