

OMNI edge

Eliminate loss from tool changes, defects,
and rework with **AI that evolves!**



Industrial IoT Service

OMNI edge

Tool Monitoring AI Solution

Detect damage



+

Monitor wear



Cutting Tool Problems

Problem
1

Broken and chipped tools lead to costly defects and rework.

Problem
2

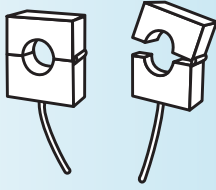
Managing tool life by piece count is expensive.

[Learn how OMNI edge can help!](#)

There's a solution for all your cutting tool troubles
that can be installed easily on equipment, with no configuration required.

Tool Monitoring AI Solution Features

1 Just add a sensor!



All you have to do is clamp a CT (current sensor) onto the motor cable, which makes installation easy. No CNC connection is required.

2 No complicated settings!



The settings tool doesn't require any complicated configuration. The system can immediately start collecting data from the day you install it.

3 Boost accuracy with AI that evolves!



The AI automatically analyzes data to detect abnormal conditions. No threshold values are required, and the accuracy improves as the AI learns.

Benefits

Reduce frequency of tool changes



By using this system to optimize tool life, you can reduce the frequency of tool changes and save on tooling costs.

Prevent machining defects



The system detects tool problems in real time, allowing you to promptly take appropriate action and prevent machining defects.

Support Available before and after Installation

THK provides support when you need it, so you can install the system with peace of mind.

Before

Model selection

Site inspection

ROI proposal



After

Installation support

Advice
for acquired data

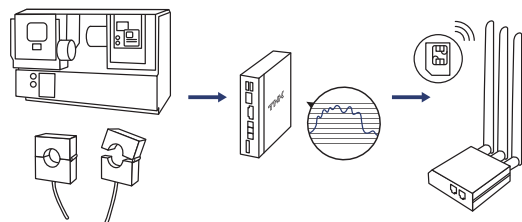


Hardware and Software Package Available

THK provides all the infrastructure you need, from the sensor to the communication environment, including the SIM card.

Easy Set-Up

The network is automatically set up as soon as you install the CT on the machine tool and turn it on.

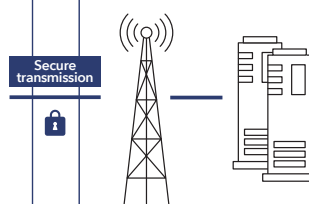


The sensor visualizes the tool's status.

Edge AI extracts the feature values and transmits them over a 4G/LTE network.

Secure Operation

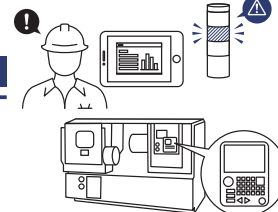
Securely collect data via a closed network.



Global expansion is also supported.

Tooling Management

AI estimates the amount of damage, chipping, and wear on the tool.



Notifications are provided by rotating light. (Status can also be monitored by tablet.) (Signals can also be sent to NC.)

* For global communications, the optimal service provider is selected for each country.
* The customer only needs to provide the tablet for inputting the tool change history.