

# ChronoCut

ChronoCut, featured in the V series, is now standard, enhancing the speed of Nakamura-Tome machines.



## What is ChronoCut?



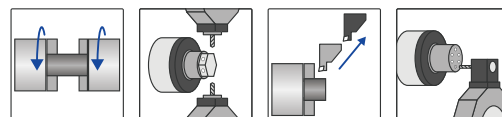
A unique function by Nakamura-Tome designed to reduce idle time. ChronoCut minimizes idle time during machine running without compromising accuracy, even without any changes to the cutting conditions.



## We have accelerated more than 15 functions.

- Spindle synchronization
- C-axis positioning
- Return to the reference point
- Rigid tapping
- Cutting off / Transfer
- Machine coordinate system positioning

We have sped up more than 15 functions, including those mentioned above.



## 3 Benefits

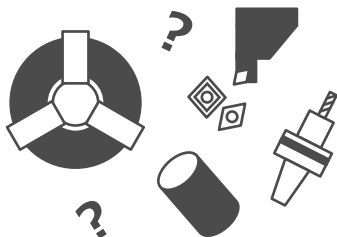
### Enhance productivity

ChronoCut reduces idle time during machining, leading to shortened cycle time and lead time.



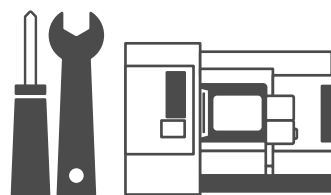
### Not necessary to modify the cutting conditions

ChronoCut shortens only the idle time. As cutting conditions remain unchanged, there is no effect on the machining accuracy of the workpieces.



### No complicated settings required.

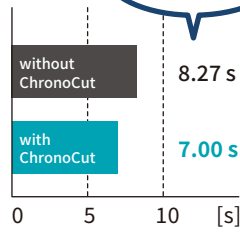
ChronoCut is a standard feature included in the designated machines. No special configuration is required, allowing you to use ChronoCut right from the day of purchase.



## Obtained Results

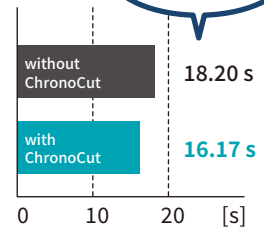
### Spindle synchronization

with both L and R spindles  
: 0 → 1,000min<sup>-1</sup>  
→ Dwell(5s) → Stop



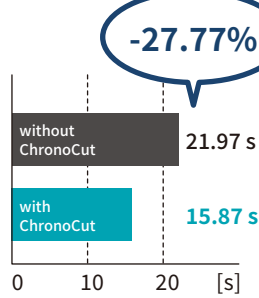
### C-axis positioning

Drilling 12 holes  
(Total 12 times C-axis positioning)



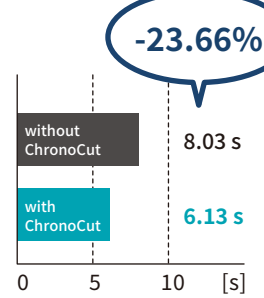
### Reference return motion (Total 10 cycles)

1 cycle  
: Approach → X-axis origin return  
→ Z-axis origin return



### Rigid tapping(2 holes)

**without** ChronoCut (with Dwell)  
: IN 1,600min<sup>-1</sup> / OUT 1,600min<sup>-1</sup>  
**with** ChronoCut  
: IN 1,600min<sup>-1</sup> / OUT 3,200min<sup>-1</sup>



\*1 The obtained results may vary depending on changes in cutting conditions and/or the user environment.

## Machine Models Equipped with ChronoCut (on machines shipped in May 2024 ex-factory)

Full

Basic



WY-100V



SC-100X<sup>2</sup>



SC-100



WT-100



WY-150



NTY<sup>3</sup>-100



MX-100



AS-200



SC-200 II



WT-150 II



WY-250L



NTY<sup>3</sup>-150



JX-200



AS-200L



SC-200 II L



WT-250 II



NTY<sup>3</sup>-250



JX-250



SC-300 II



WT-300



NEW TW-30



NTJ-100



NTRX-300



SC-300 II L



Super NTJ



NTRX-300L

\*2 ChronoCut will be standard equipment starting from the machines shipped in May 2024.

\*3 This function is not available for SC-250, SC-450L, and TW-8.

\*4 The full version of ChronoCut is installed only in the V Series, such as WY-100V.



<https://www.nakamura-tome.com>

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