

## CNC Drehmaschine HYUNDAI WIA L280



Baujahr  
Steuerung

2017  
SIEMENS 828D

AUSSTATTUNG - Alle technischen Angaben, Abbildungen und Inhalte sind unverbindlich und ohne Gewähr. Änderungen, Irrtümer vorbehalten

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SIEMENS 3D Simulation

SIEMENS Shop Turn Dialogprogrammierung

C-Achse

Scharnierbandspäneförderer mit seitlichem Auswurf

10 Werkzeugplätze (BMT55)

Dreibackenspannfutter Ø 310 mm

Fußschalter Spannfutter

Manueller Werkzeugtaster

Manueller Reitstock mit hydraulischer Pinole

Kühlmittel tank 180 L

Standard Kühlmitteldüse

USB und Ethernet Schnittstelle

Einfarbige Signalleuchte

**Im Lieferumfang enthalten:**

Kompletter Satz VDI-Aufnahmen

Sortiment an Drehwerkzeugen

Körnerspitze

Werkzeugschrank mit Inhalt

Betriebsanleitung/Dokumentation

Maschinenparameter auf USB-Stick

TECHNISCHE DATEN - Alle technischen Angaben, Abbildungen und Inhalte sind unverbindlich und ohne Gewähr. Änderungen, Irrtümer vorbehalten

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|                  |                        |
|------------------|------------------------|
| Dreh-Ø über Bett | 590 mm                 |
| Dreh-Ø max.      | 410 mm                 |
| Drehlänge        | 720 mm                 |
| Spindelnase      | A2-8                   |
| Spindeldrehzahl  | 3.000 U/min.           |
| Spindel          | 22/18,5 (30min) kW     |
| Drehmoment       | 729,5/613,5 (30min) Nm |
| Verfahrweg X     | 220 mm                 |
| Verfahrweg Z     | 750 mm                 |

HERSTELLERPROSPEKT - Alle technischen Angaben, Abbildungen und Inhalte sind unverbindlich und ohne Gewähr. Änderungen, Irrtümer vorbehalten

## Technical Leader

L280 series, designed by Hyundai WIA with years of expertise and the latest technology, is a Turning Center that maximizes productivity and performance.



| MODEL  | Chuck Size | Bed      |      | Turret   |           |
|--------|------------|----------|------|----------|-----------|
|        | 10"        | Standard | Long | Standard | Turn Mill |
| L280   | •          | •        |      | •        |           |
| L280L  | •          |          | •    | •        |           |
| L280LM | •          |          | •    |          | •         |

## New Leader in Middle/Large CNC Turning Center

# L280 Series

- Utilizes roller bearings of  $\varnothing 140$  ( $\varnothing 5.5''$ ) and double angular contact bearings for the main spindle
- Highly sturdy and reliable servo turret
- Main body designed to achieve high rigidity and accuracy
- A powerful tailstock with a thrust of 7,252 N·m (5,348.8 lbf·ft)
- Highly efficient HYUNDAI iTROL (Option) - L280/280L



# 01

L280 Series

## Basic Features

The Best Productivity Popular 10 inch CNC Turning Center



01

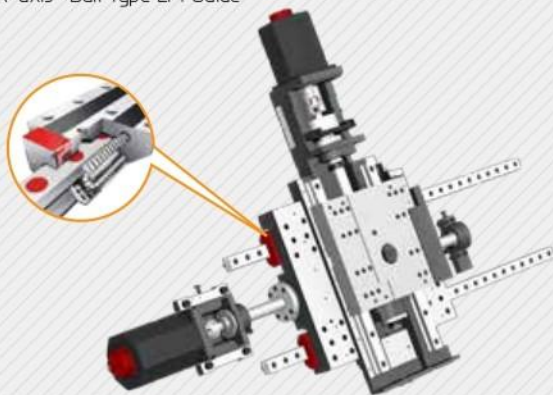
### High Precision, High Rigidity All in One Structure

The L280 features a 60° slant bed design which was developed using finite element analysis (FEA) to effectively absorb vibration for stable and precise machining.

### Guideway

L280 series applies roller type LM guideway on Z-axis which shows excellent performance in travel. Great repeatability accuracy makes it suitable for precise machining.

❖ X-axis : Ball Type LM Guide



02

### Main Spindle

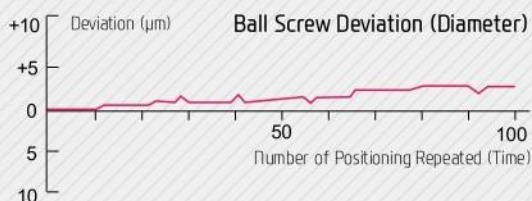
By enlarging the diameter and thickening the width of the spindle, it has become more rigid. Also, highly precise angular ball bearings help maintain rigidity and precision.



03

### Ball Screw

Large diameter ball screws with preloading prevent deformation due to heat. Also double-anchor support method improves rigidity.



### Turret

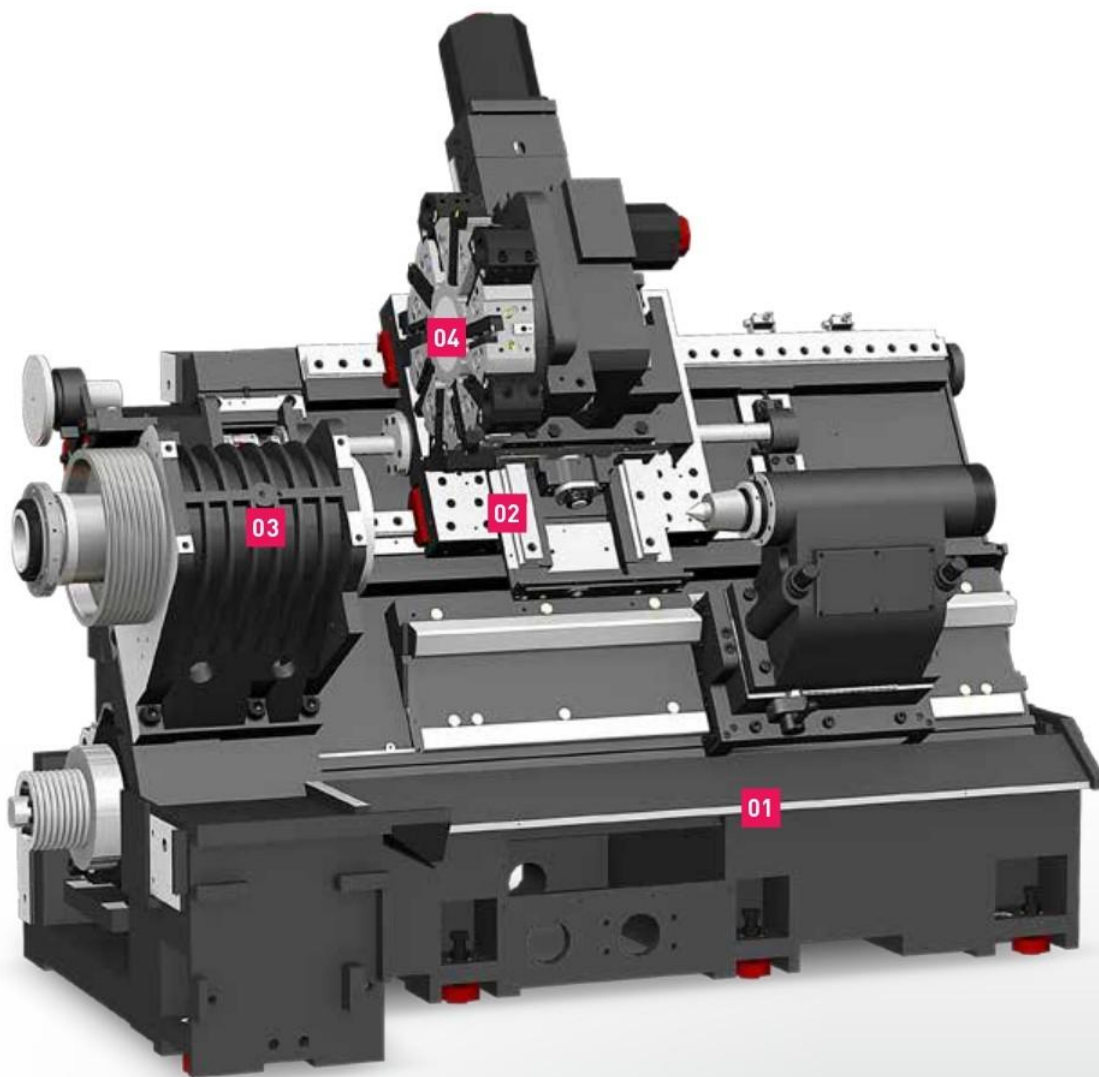
Turret is installed with a 3-piece coupling to ensure high indexing accuracy.

Powerful hydraulic tool clamping enables heavy duty cutting by minimizing the displacement of the tool tip.



04

## Basic Features



### Reduction of non-cutting time by fast rapid speed

- ⦿ **Rapid Travel** (X/Z axis) : **25/30** m/min (**984/1,181** ipm)  
- Compare to Previous Model, rapid travel is improved by X-axis **5**m/min (**197** ipm), Z-axis **6**m/min (**236** ipm)
- ⦿ **Travel** (X/Z axis)  
L280 : **220/750** mm (**8.7"/29.5"**)    L280L : **220/1,100** mm (**8.7"/43.3"**)  
L280LM : **220/1,020** mm (**8.7"/40.2"**)

# 02 High-Precision Spindle

L280 Series Long Lasting High Accuracy & Excellent Performance  
CNC Turning Center



## Main Spindle

The main spindle unit is designed with  $\varnothing 140$  ( $\varnothing 5.5''$ ) roller bearings and double angular contact bearings to maintain stability during high speed machining.

The unit is able to maintain precision for a long time where the outer bearing part is assembled to the highest precision standards. Also, stable machining is possible by AC motor which controls spindle at constant speed.

## C-Axis Control

C-axis of L280LM can be controlled to  $0.001^\circ$  which makes it possible to machine various shapes.

## (MT#5) Tail Stock



- The large (MT#5) tail stock ensures high accuracy even during heavy duty cutting.
- The quill travel can be operated by foot pedal, or program.
- The tail stock body can be manually moved by using JOG button or MPG.

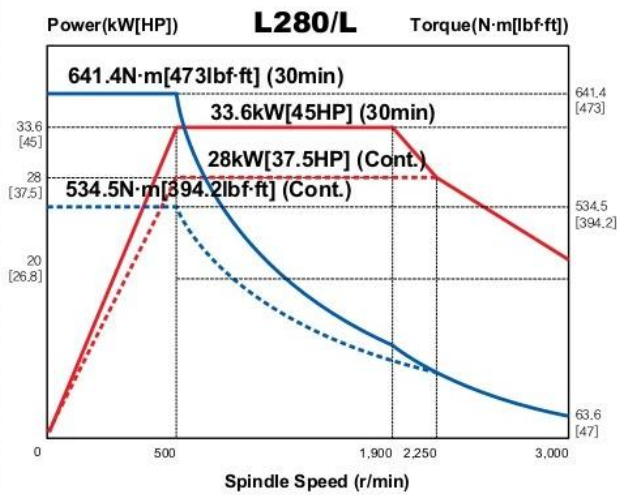


Taper : **MT#5** Diameter :  $\varnothing 100$  ( $\varnothing 3.9''$ ) Quill Travel : 120 mm (4.7")

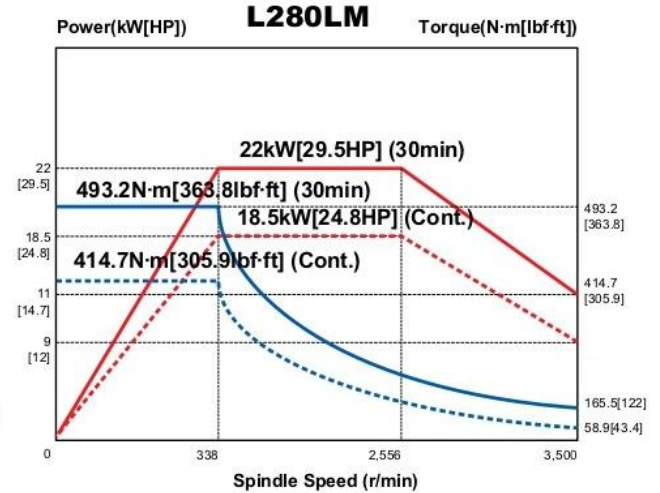
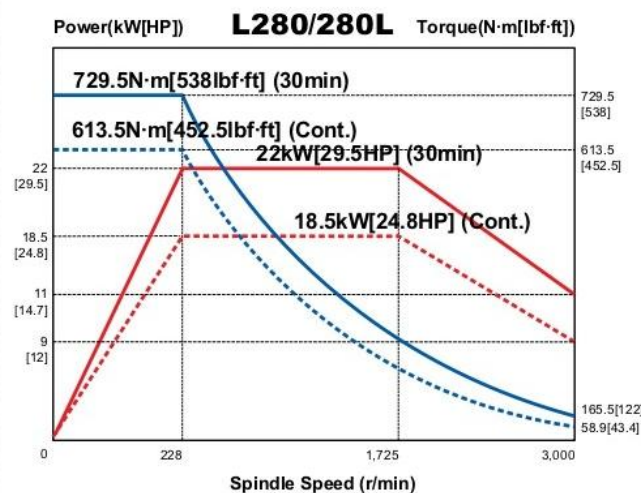
## Spindle Output/Torque Diagram

Continuously variable transmission is possible due to the AC conversion motor. Controlling the spindle at a certain speed is possible which is provided as a standard function.

### HYUNDAI-iTROL



### FANUC



# N3 Servo Turret

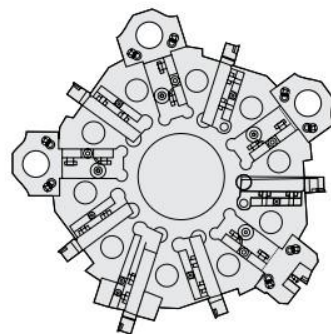
L280 Series

High speed, High Accuracy, Highly Reliable Servo Turret



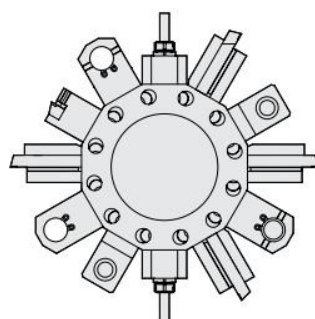
## L280

- Number of Tools : 10 EA
- Tool Size (O.D/I.D)  
□ 25/Ø50 ( □ 1"/Ø2")
- Indexing Time : 0.3 sec/step



## L280LM

- Number of Tools : 12 EA
- Tool Size (O.D/I.D)  
□ 25/Ø50 ( □ 1"/Ø2")
- Indexing Time : 0.3 sec/step



## Turret

The L280 series has a high performance AC servo motor and 3-piece coupling attached which enhances its machining reliability. Powerful hydraulic tool clamping minimizes tool tip deviation due to load, which enhances heavy duty cutting ability.

## HYUNDAI-iTROL



### Turret Guidance

- Turret reference point setup guide screen
- The turret reference point can be set quickly and easily with the simple touch of a button.
- Easy setting of milling tool direction enabled by a simple touch of the button in the event of a milling tool reference point error.



### Tool Setting

- Easy-to-use automatic tool measurement function for the turning center.
- Rapid detection of tool's length and wear/tear.
- Can be used in conjunction with the Q-setter.



### Coordinate Setting

- Workpiece coordinate setting is available for the turning center.
- Intuitive UI for enhanced convenience.
- Easy resetting with one touch of the button after shifting position.



### Tailstock Management

- Intuitive UI for easy tailstock setting in the automatic/manual mode.
- History Management function for predefined settings



### Monitoring of Operating Ratio

- Intuitive display uses distinctive colors to indicate the 4 stages of alarm, cycle, setup, and inactivity.
- Displays current activated status as "Activated".
- Options to export 10-day operation history as an PC file or to CF card (MS Excel compatible format)



### Soft MCP

- Displays the unused optional utility as "Option" for inactivation.
- The number of SoftMCP has been increased to 28 to respond to a variety of options.
- Usability has been enhanced by connecting/setting with F1 & F2.
- Addition of a new 'FUNCTION' button to the PPU shortcut button enables quick access to the SoftMCP function.

### Shop Turn

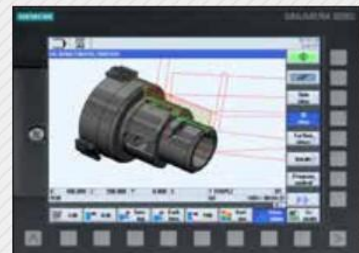
**OPTION**



- Dialogue-type programming, simple and convenient
- Effective specifications for small quantity/batch production
- Step-by-step operation possible without knowledge of the DIN/ISO code

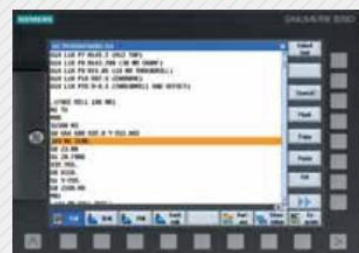
### 3D Simulation

**OPTION**



- 3D confirmation of the completed processing configuration of the NC program is possible.
- Offers standards for 2D simulation.
- Possible to confirm the simulation of the NC program during processing.

### ISO Code Programming



If the ISO Dialect (G291) is ordered, JIS-based G-code programs can be used. (Standard)

# SPECIFICATIONS

## Standard & Optional

| Spindle   |                               | L280    | L280L   | L280LM  |
|---|-------------------------------|---------|---------|---------|
| Main Spindle                                      | 10"                           | ●       | ●       | ●       |
| Hollow Chuck 3 Jaw                                | 12"                           | ○       | ○       | ○       |
| Main Spindle                                      | 10"                           | ☆       | ☆       | ☆       |
| Solid Chuck 3 Jaw                                 | 12"                           | ☆       | ☆       | ☆       |
| Standard Soft Jaw (1set)                          |                               | ●       | ●       | ●       |
| Chuck Clamp Foot Switch                           |                               | ●       | ●       | ●       |
| 2 Steps Hyd. Pressure Device                      |                               | ○       | ○       | ○       |
| Spindle Inside Stopper                            |                               | ☆       | ☆       | ☆       |
| Cs-Axis (0.001")                                  |                               | -       | -       | ●       |
| Chuck Open/Close Confirmation Device              |                               | ○(CE-●) | ○(CE-●) | ○(CE-●) |
| 2 Steps Chuck Foot Switch                         |                               | ○       | ○       | ○       |
| <b>Turret</b>                                     |                               |         |         |         |
| Tool Holder                                       |                               | ●       | ●       | ●       |
| 10 station Turret                                 |                               | ●       | ●       | -       |
| 12 station Turret                                 |                               | ○       | ☆       | ●       |
| Mill Turret                                       | VDI                           | -       | -       | ●       |
| Straight Milling Head (Axial)                     | Collet Type2ea                | -       | -       | ●       |
| Angular Milling Head (Radial)                     | Collet Type2ea                | -       | -       | ●       |
| Straight Milling Head (Axial)                     | Adapter Type                  | -       | -       | -       |
| Angular Milling Head (Radial)                     | Adapter Type                  | -       | -       | -       |
| Boring Sleeve                                     |                               | ●       | ●       | ●       |
| Drill Socklet                                     |                               | ●       | ●       | ●       |
| U-Drill Holder                                    |                               | ○       | ○       | ○       |
| U-Drill Holder Sleeve                             |                               | ○       | ○       | ○       |
| OD Extension Holder                               | For Out-Dia                   | ☆       | ☆       | -       |
| Angle Head  |                               | -       | -       | ☆       |
| <b>Tail Stock &amp; Steady Rest</b>               |                               |         |         |         |
| Quill Type Tail Stock                             | MT#5                          | ●       | ●       | ●       |
| Built in Tail Stock                               | MT#4                          | ○       | ○       | -       |
| Programmable Tail Stock                           |                               | ○       | ○       | ○       |
| Manual Type Steady Rest                           |                               | ☆       | ☆       | ☆       |
| Manual Type Hyd. Steady Rest                      |                               | ○       | ○       | ○       |
| Standard Live Center                              |                               | ●       | ●       | ●       |
| 2 Steps Tail Stock Pressure System                |                               | ☆       | ☆       | ☆       |
| Quill Forward/Reverse Confirmation Device         |                               | ○(CE-●) | ○(CE-●) | ○(CE-●) |
| Tail Stock Foot Switch                            |                               | ●       | ●       | ●       |
| <b>Coolant &amp; Air Blow</b>                     |                               |         |         |         |
| Standard Coolant (Nozzle)                         |                               | ●       | ●       | ●       |
| Chuck Coolant (Upper Chuck)                       |                               | ○       | ○       | ○       |
| Gun Coolant                                       |                               | ○       | ○       | ○       |
| Through Spindle Coolant (Only for Special Chuck)  |                               | ☆       | ☆       | ☆       |
| Chuck Air Blow (Upper Chuck)                      |                               | ○       | ○       | ○       |
| Tail Stock Air Blow (Upper Tail Stock)            |                               | ○       | ○       | ○       |
| Turret Air Blow                                   |                               | ☆       | ☆       | ☆       |
| Air Gun   |                               | ○       | ○       | ○       |
| Through Spindle Air Blow (Only for Special Chuck) |                               | ○       | ○       | ○       |
| High Pressure Coolant                             | 0.4Bar (5.8psi)               | ●       | ●       | ●       |
|   | 1.58Bar (21.7psi)             | ○       | ○       | ○       |
|   | 14.5Bar (210.2psi)            | ○       | ○       | ○       |
|   | 20Bar (290psi)                | ○       | ○       | ○       |
| Power Coolant System (For Automation)             |                               | ☆       | ☆       | ☆       |
| Coolant Chiller                                   |                               | ☆       | ☆       | ☆       |
| <b>Chip Disposal</b>                              |                               |         |         |         |
| Coolant Tank                                      | 180ℓ (47.6 gal)               | ●       | -       | -       |
|   | 200ℓ (52.8 gal)               | -       | ●       | ●       |
| Chip Conveyor (Hinge/Scraper)                     | Front (Right)                 | ○       | ○       | ○       |
|   | Front (Rear)                  | ○       | ☆       | ☆       |
| Special Chip Conveyor (Drum Filter)               | Standard (180ℓ (47.5 gal))    | ○       | ○       | ○       |
|   | Swing (200ℓ (52.8 gal))       | ○       | ○       | ○       |
|   | Large Swing (290ℓ (76.6 gal)) | ○       | ○       | ○       |
|   | Large Size (330ℓ (87.2 gal))  | ○       | ○       | ○       |
|   | Customized                    | ☆       | ☆       | ☆       |

● : Standard ○ : Option ☆ : Prior Consultation - : Non Applicable

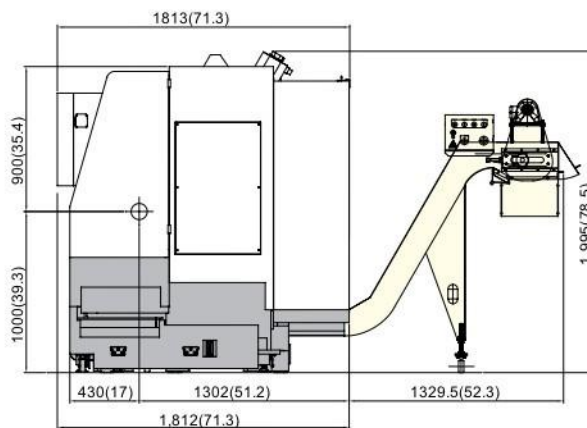
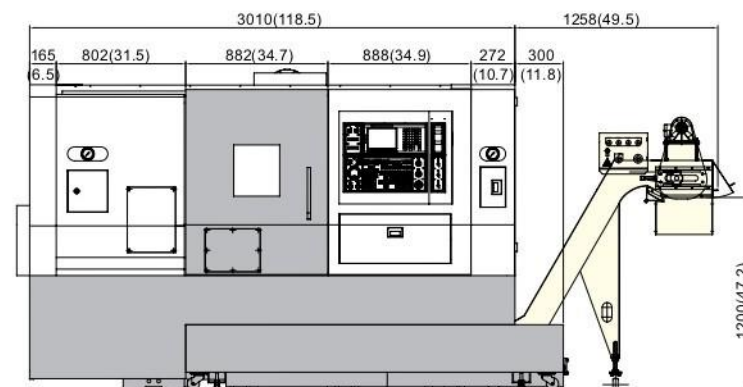
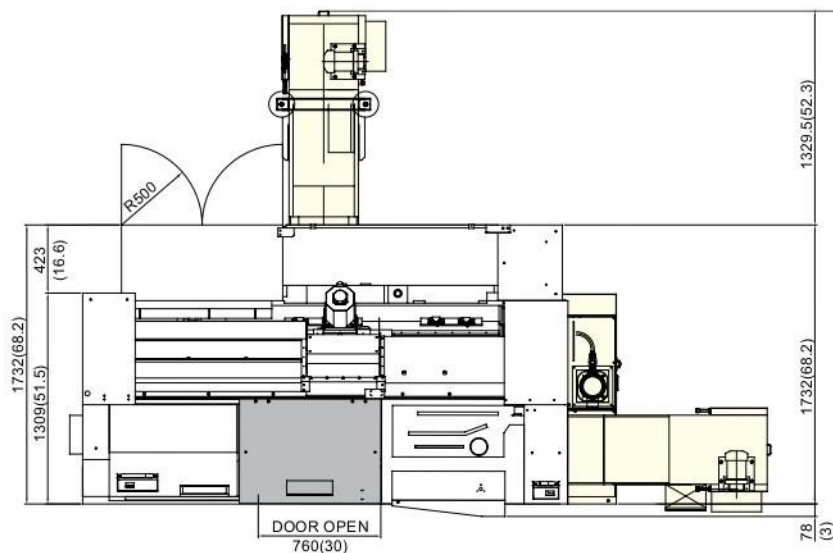
| Safety Device                                  |                                  | L280    | L280L   | L280LM  |
|--|----------------------------------|---------|---------|---------|
| Total Splash Guard                             |                                  | ●       | ●       | ●       |
| Chuck hydraulic pressure maintenance interlock |                                  | ○(CE-●) | ○(CE-●) | ○(CE-●) |
| <b>Electric Device</b>                         |                                  |         |         |         |
| Call Light                                     | 1Color : ●                       | ●       | ●       | ●       |
| Call Light                                     | 2Color : ●●                      | ○       | ○       | ○       |
| Call Light                                     | 3Color : ●●●                     | ○       | ○       | ○       |
| Call Light & Buzzer                            | 3Color : ●●● B                   | ○       | ○       | ○       |
| Electric Cabinet Light                         |                                  | ○       | ○       | ○       |
| Remote MPG                                     |                                  | ○       | ○       | ○       |
| Work Counter                                   | Digital                          | ○       | ○       | ○       |
| Total Counter                                  | Digital                          | ○       | ○       | ○       |
| Tool Counter                                   | Digital                          | ○       | ○       | ○       |
| Multi Tool Counter                             | Digital                          | ○       | ○       | ○       |
| Electric Circuit Breaker                       |                                  | ○       | ○       | ○       |
| AVR (Auto Voltage Regulator)                   |                                  | ☆       | ☆       | ☆       |
| Transformer                                    | 30kVA                            | ○       | ○       | ○       |
| Auto Power Off                                 |                                  | ○       | ○       | ○       |
| <b>Measurement</b>                             |                                  |         |         |         |
| Q-Setter                                       |                                  | ●       | ●       | ●       |
| Automatic Q-Setter                             |                                  | ○       | ○       | ○       |
| Work Close Confirmation Device                 | TACO                             | ○       | ○       | ○       |
| (Only for Special Chuck)                       | SMC                              | ○       | ○       | ○       |
| Work Setter (REANISHAW/MARPOSS)                |                                  | ○       | ○       | ☆       |
| Linear Scale                                   | X axis                           | -       | -       | -       |
|  | Z axis                           | ☆       | ☆       | ☆       |
| Coolant Level Sensor (Only for Chip Conveyor)  |                                  | ☆       | ☆       | ☆       |
| <b>Environment</b>                             |                                  |         |         |         |
| Air Conditioner                                | FARIUC                           | ○       | ○       | ○       |
|  | HYUNDAI-ITROL                    | ●       | ●       | ●       |
| Oil Mist Collector                             |                                  | ☆       | ☆       | ☆       |
| Oil Skimmer (Only for Chip Conveyor)           |                                  | ○       | ○       | ○       |
| MQL (Minimal Quantity Lubrication)             |                                  | ☆       | ☆       | ☆       |
| <b>Fixture &amp; Automation</b>                |                                  |         |         |         |
| Auto Door                                      |                                  | ○       | ○       | ○       |
| Auto Shutter (Only for Automatic System)       |                                  | ☆       | ☆       | ☆       |
| Sub Operation Pannel                           |                                  | ☆       | ☆       | ☆       |
| Bar Feeder Interface                           |                                  | ○       | ○       | ○       |
| Bar Feeder (FEDEK)                             |                                  | ☆       | ☆       | ☆       |
| workpusher (Spring type)                       |                                  | ○       | ○       | ○       |
| Extra M-Code 4ea                               |                                  | ○       | ○       | ○       |
| Automation Interface                           |                                  | ☆       | ☆       | ☆       |
| I/O Extension (IN & OUT)                       | 16 Contact                       | ○       | ○       | ○       |
|  | 32 Contact                       | ○       | ○       | ○       |
| Parts Catcher                                  | MAIN SP.                         | ○       | ○       | ○       |
| Turret Work Pusher (For Automation)            |                                  | ☆       | ☆       | ☆       |
| Parts Conveyor                                 |                                  | ☆       | ☆       | ☆       |
| <b>Hyd. Device</b>                             |                                  |         |         |         |
| Standard Hyd. Cylinder                         | Hollow                           | ●       | ●       | ●       |
| Standard Hyd. Unit                             | 35bar (507.6 psi)/ 20ℓ (5.3 gal) | ●       | ●       | ●       |
| <b>S/W</b>                                     |                                  |         |         |         |
| Machine Guidance (HW-MCG)                      |                                  | ●       | ●       | ●       |
| Energy Saving System (HW-ESS)                  |                                  | ●       | ●       | ●       |
| Tool Monitoring (HW-TM)                        |                                  | ○       | ○       | ○       |
| Spindle Heat Distortion Compensation(HW-TDC)   |                                  | ○       | ○       | ○       |
| DNC software (HW-eDNC)                         |                                  | ○       | ○       | ○       |
| Machine Monitoring System (HW-MMS)             |                                  | ○       | ○       | ○       |
| Conversational Program (HW-DPRO)               |                                  | ○       | ○       | ○       |
| <b>ETC</b>                                     |                                  |         |         |         |
| Tool Box                                       |                                  | ●       | ●       | ●       |
| Customized Color                               | Need Munsel No.                  | ☆       | ☆       | ☆       |
| CAD & CAM                                      |                                  | ☆       | ☆       | ☆       |

◆ 4 channel of TDC(Thermal Displacement Compensation) device is recommended, when more than 6 bar of high pressure coolant is applied, for the high quality machining  
Specifications are subject to change without notice for improvement.

External Dimensions

unit : mm(in)

L280



*Vielen Dank für Ihr Interesse*

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maschinen  Team



\*Diese Unterlagen legen keinen Anspruch auf Vollständigkeit und Richtigkeit. Eigenschaftszusicherungen werden mit den hier enthaltenen Angaben ausdrücklich nicht übernommen. Es handelt sich um eine Gebrauchsmaschine.\*