

Technical parameter

Item	Unit	iT 35	iT 35L	iT 50
Max. cutting dia.	mm	Φ360	Φ360	Φ500
Max. cutting length	mm	350	500	500
Max. swing over bed	mm	Φ580	Φ580	Φ580
Max. swing over slide	mm	Φ360	Φ330	Φ320
<b>Spindle</b>				
Spindle nose		A2-6	A2-6	A2-8
Front bearing dia.	mm	100	100	120
Spindle taper and hole size		1:20; Φ70	1:20; Φ70	1:20; Φ90
Dia.of spindle hole	mm	Φ65	Φ65	Φ80
Max.dia.of bar	mm	Φ50	Φ50	Φ65
Chuck size	inch	8	8	10
Spindle speed	r/min	4000	4000	3500
Spindle rated torque	N·m	158 (666r/min)	158 (666r/min)	243 (588r/min)
Max.spindle torque	N·m	215 (666r/min)	215 (666r/min)	300 (588r/min)
Main motor output power continuous/30min	kW	11/15	11/15	15/18.5
<b>X/Z axis</b>				
X/Z rapid traverse	m/min	30	30	24
X axis travel	mm	200	200	260
Z axis travel	mm	350	510	505
<b>Tailstock</b>				
Tailstock travel	mm	-	400	400
Tailstock taper	Morse	-	MT-5	MT-5
<b>Turret</b>				
Turret type		Horizontal 8 positions servo turret	Horizontal 8 positions servo turret	Horizontal 8 positions servo turret
Center height	mm	80	80	100
Rotary positioning	Sec.	±1.6	±1.6	±1.6
<b>Others</b>				
Weight	kg	3300	3600	3700
Overall dimensions(LxWxH)	mm	2330×1675×1760	2550×1675×1760	2550×1675×1820

Tandard specifications

GSK988TA controller  
Solid chuck&cylinder Chinese brand  
8 positions turret  
Hydraulic station Chinese brand  
Chip box

Options

Side conveyor  
Rear conveyor  
Special chuck  
Special cylinder  
Special turret

Note: The parameters provided in the table are for reference only. In case of any change, please refer to the actual object

[www.smtcl.com](http://www.smtcl.com)

# Industrial iT Series CNC Horizontal Lathe



Address: No.1.17-A, Kaifa Avenue, Shenyang Economic & Technological Development Zone, Shenyang, China  
Service line: 400-615-9999  
Scan QR code to follow official WeChat

The explanation, diagram and technical parameters are varying with continuous technology development without further notice.



# Industrial **iT series**

## CNC Horizontal Lathe

High price ratio industrial CNC horizontal lathe  
**iT35/iT35L/iT50**

### Introduction

iT series CNC lathe suit for various disk and short shaft workpiece, especially in automobile, bearing, construction machinery and Non-ferrous metals industries.

This machine can do end face, end face groove, cylinder, internal thread, groove and surface of revolution, which goods in effective, precision and mass production.



### High rigidity

- ◆ Optimized by FEA
- ◆ Machine with premium casting
- ◆ Large span, strong torque improves cutting rigidity
- ◆ Precision scraping technology

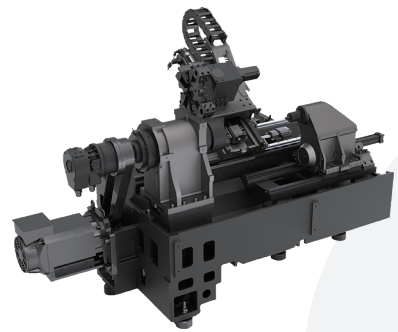
### Effective

- ◆ Servo turret, tool change fast, high efficiency
- ◆ X/Z axis by servo motor drive, rapid traverse
- ◆ Big chip removal interface
- ◆ User-friendly design, easy to operate and maintain

### Stable

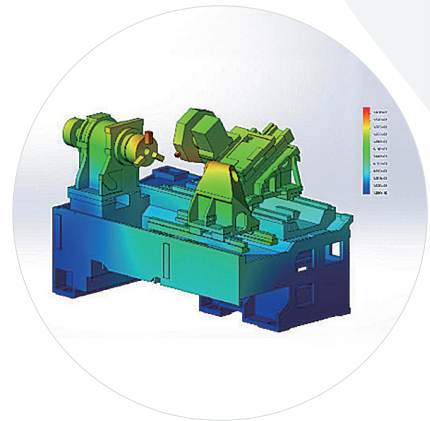
- ◆ Feeding system with double support feed mechanism
- ◆ Good quality guideway & leadscrew
- ◆ Whole body tailstock, more stable
- ◆ Quantify process indicators and strictly inspect standards

# High rigidity



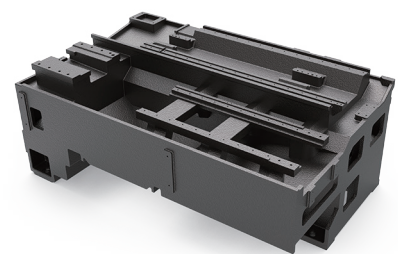
## Whole body design

All the structure optimized by FEA, optimal spindle and scraping technology greatly improves processing performance.



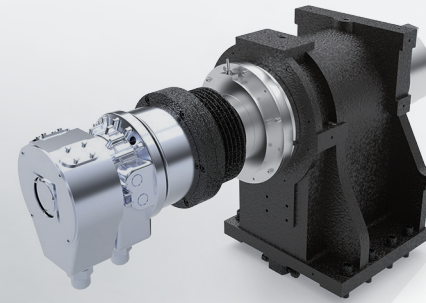
## Whole machine FEA analyse

Optimize machine structure and improve rigidity, anti-vibration by FEA analyse and topology design, also get can mass production for swing type workpiece.



## Machine body with good casting, reasonable design

The bed body is made of high-quality casting, integrated casting, with high rigidity and mechanical properties. The internal reinforcement of the bed is reasonably arranged, and the bed has stable support rigidity under the condition of large cutting depth and high feeding.

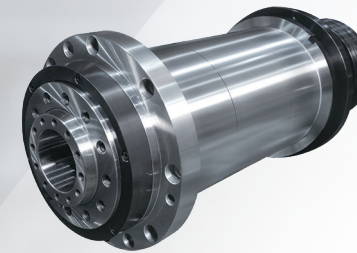


## Large span and torque spindle

Large span sleeve type spindle unit has double line bearings and ball bearings support to enhance the spindle's rigidity and torque, can get excellent heavy cutting result.

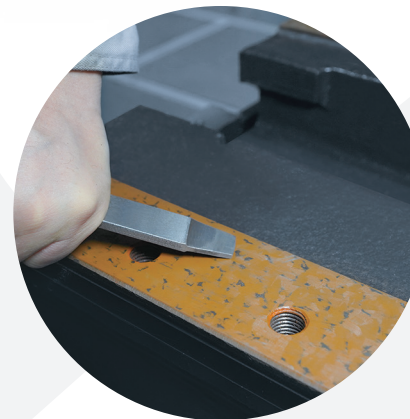
## Motor power

11/15kW (continuous/30min) (iT35/iT35L)  
15/18.5kW (continuous/30min) (iT50)



## Spindle torque

215N·m (iT35/iT35L)  
300N·m (iT50)



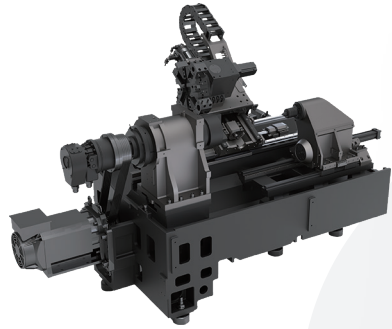
## High standard scraping technology, improve contact rigidity

All the contact surface with skilled scrap, fully contact to ensure the rigidity

Contact rate: more than 80%

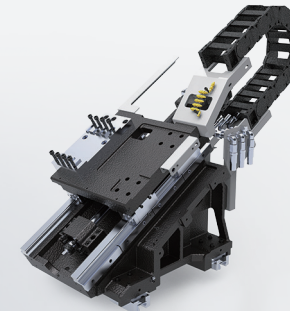


# High efficiency



## Overall structure

Adopts servo driven turret, high rapid traverse, the bed with large chip removal interface and user-friendly design, improve machine features

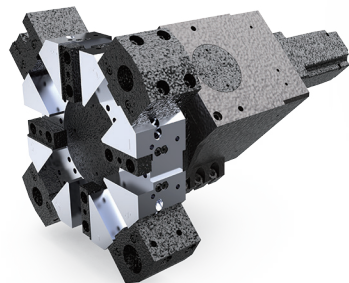


## Effective feeding

Coupling and ballscrew contact by servo motor driven without gap. X/Z axis both installed import linear guideway to ensure the high rigidity, excellent dynamic ability and precision, improve running speed and production efficiency.

## Rapid traverse

30m/min (iT35/iT35L)  
24m/min (iT50)

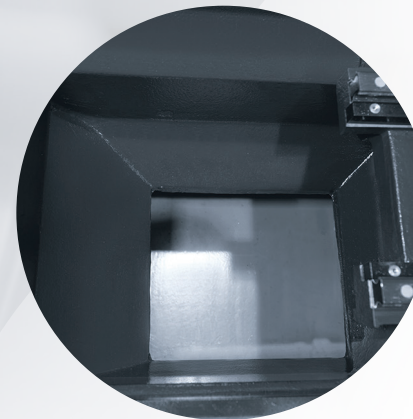


## High efficiency servo turret

Servo turret can continuously rotate and be fast, bidirectional, especially suitable for frequent tool change.

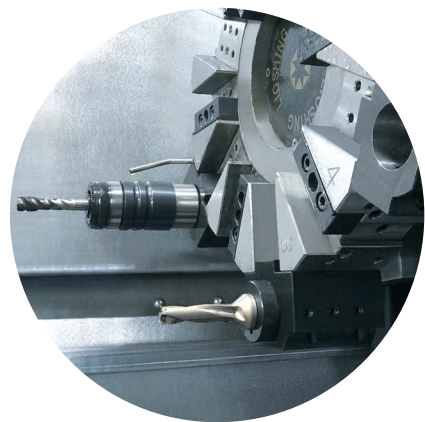
Turret rotary driven by reduction motor, locked well in the right location. The internal design is simple, not easy to brake.

Tool change time: 0.4s



## Big chip removal interface

Big chip removal hole located below machine body, conveyor width increases 30% to get better result.



## Coolant through turret as option

Inner coolant turret as options to realize efficient chip removal during internal hole processing and ensure processing quality

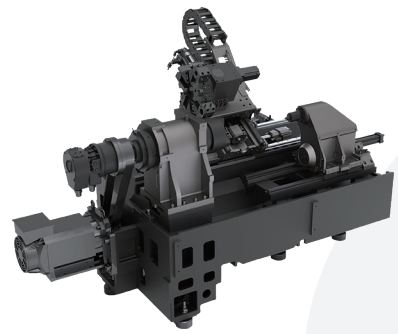


## User-friendly design, easy to operate and maintain

Operator near to spindle, easy to load and unload workpiece. There's extra space for engineer to maintain.



# High stability



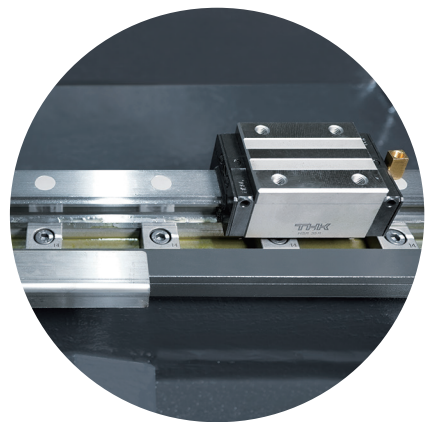
## Overall structure

Optimized feeding structure with high quality guideway&screw and whole tailstock, which can ensure machine stability.



## Double support feeding mechanism design

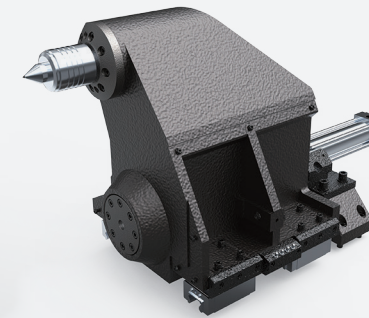
X axis adopts double supporting mechanism, deducing the impact of temperature on accuracy, improve the machine's processing accuracy and stability



## Good quality imported guideway&leadscrew

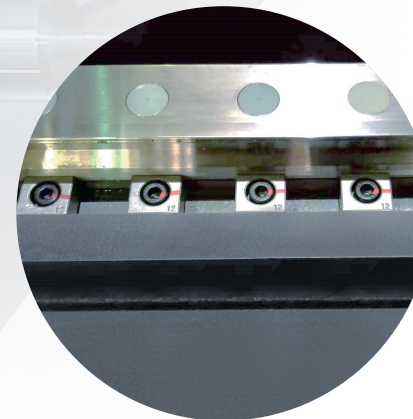
C3 class screw and H class guideway driven by servo motor, warranty precision.

Accuracy class of lead screw: C3



## Full body tailstock, more stable

Driven by linear guideway, clamped by hydraulic power, simple structure with precious and fast operation.

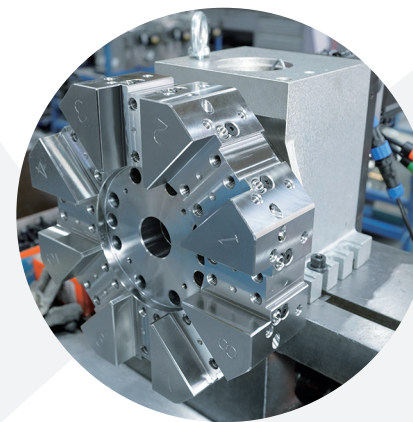


Anti-loosening standard

## Assemble quantitative technology

Quantify the assembly index of each core component and key process, and use torque wrench, tension instrument, dynamic balance instrument, laser interferometer and other equipment to ensure the high-precision assembly effect of the whole machine.

Set scientific and reasonable procedures and steps, and strictly set various inspection standards to achieve high quality of the whole machine.



Turret test

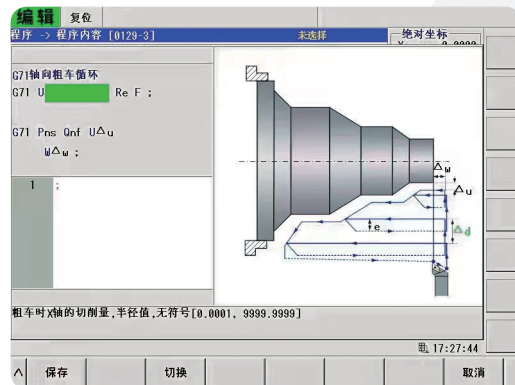
## Strict testing standard

Strictly testing the core functional components such as the spindle, turret, hydraulic station according to standards to ensure the stability of the machine.



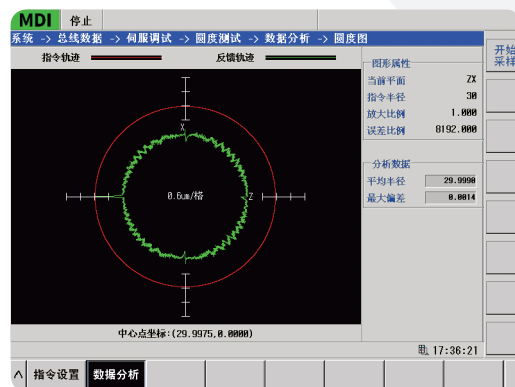
# Electrical system

GSKLink industrial ethernet can get fast and precision control, up to 100m/min, support nano compensation. Servo motor as standard with GR-L servo device and HD absolute encoder, which can connect linear scale, magnetic resistance, magnetic grid and circle grating encoder to reach full closed feeding axial and precious Cs control.



## Conventional programming assistance

Guide to circle code, insert data on the drawing, simulation programming, no need to remember complicated program codes, support program pre-checking.



## Servo running adjusting & monitoring

Online monitoring, adjust data online. Analyse ontime data to improve performance.



## Intelligent electrical panel

Smaller space, lower heat generation, motor switch control without arc generation, higher safety factor, and longer service life.

## Industries application

### Circular cone roller bearing internal & external ring

Industry	Bearing
Material	GCr15
Machining part	Cylinder, internal ring
Machine model	iT35



### Gearbox gear raw

Industry	Gear
Material	20MnCr5
Machining part	Cylinder, internal ring
Machine model	iT35



### Automobile ball cage

Industry	Automobile
Material	40r
Machining part	Cylinder
Machine model	iT35L



### EU & US belt pulley

Industry	Belt pulley
Material	45#
Machining part	Internal hole
Machine model	iT50



## Excellent performance in various industries



### Bearing



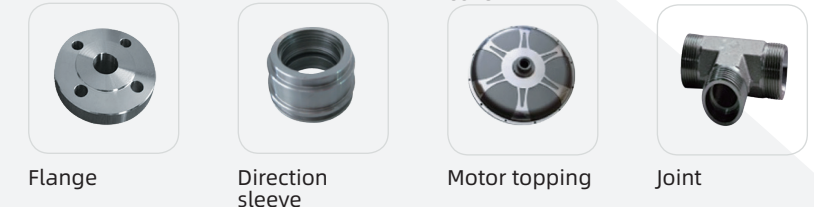
### Gear



### Automobile



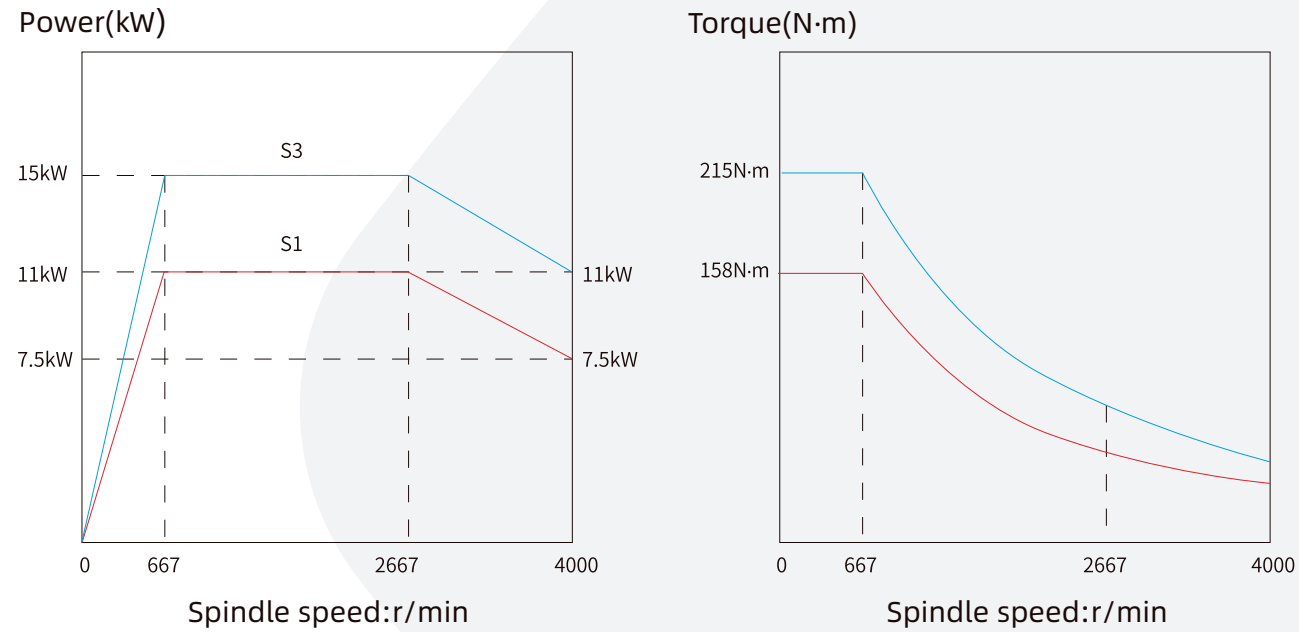
### General



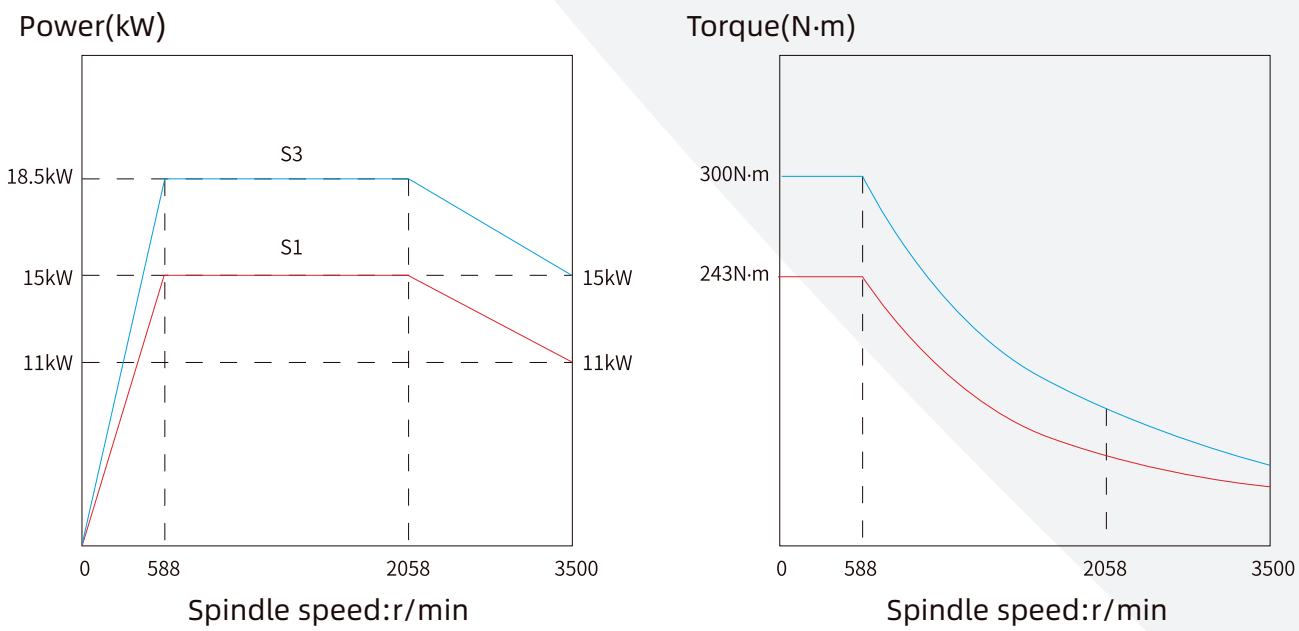


Features

Spindle power torque chart

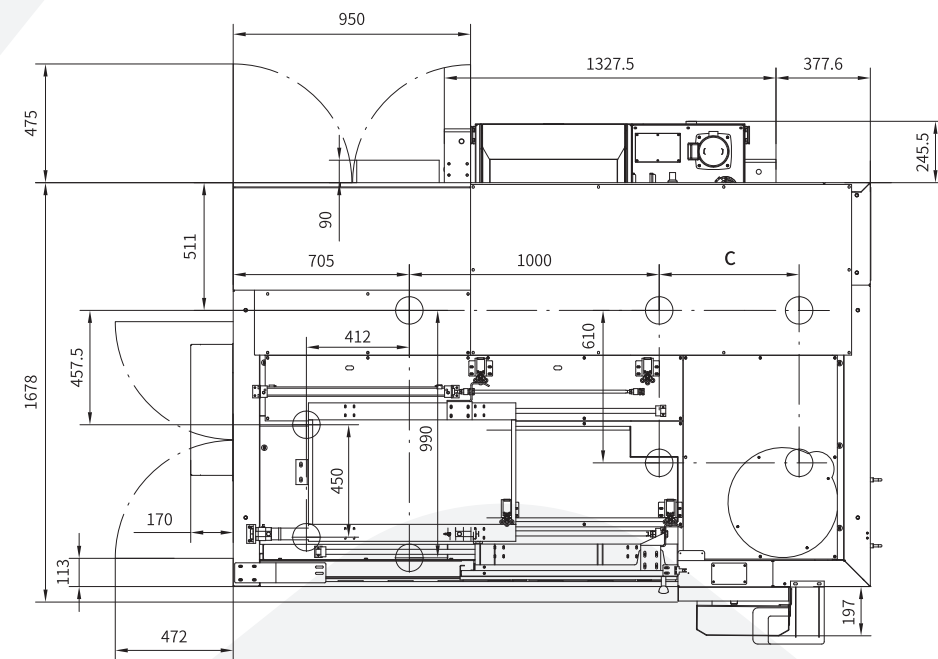
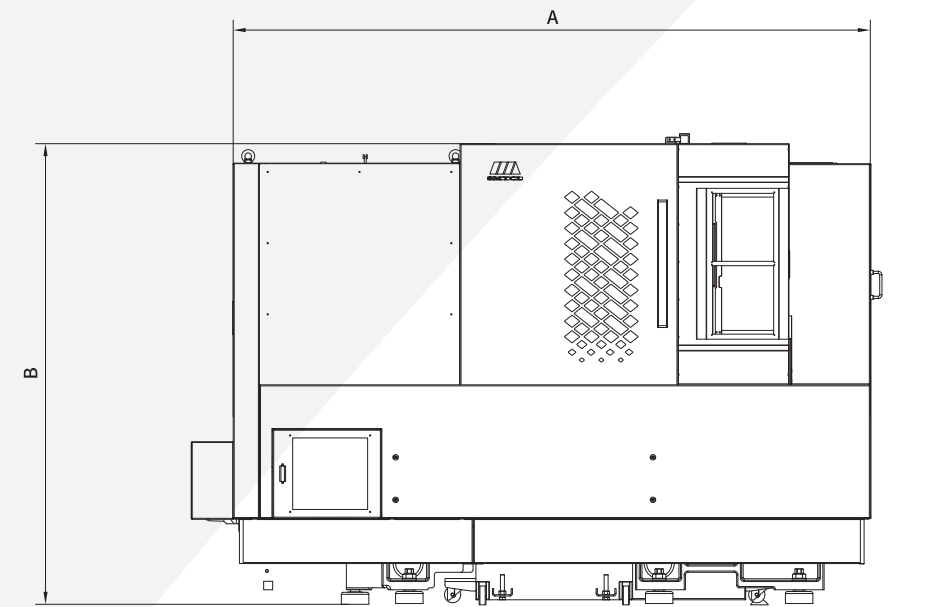


iT35/iT35L



iT50

Machine layout

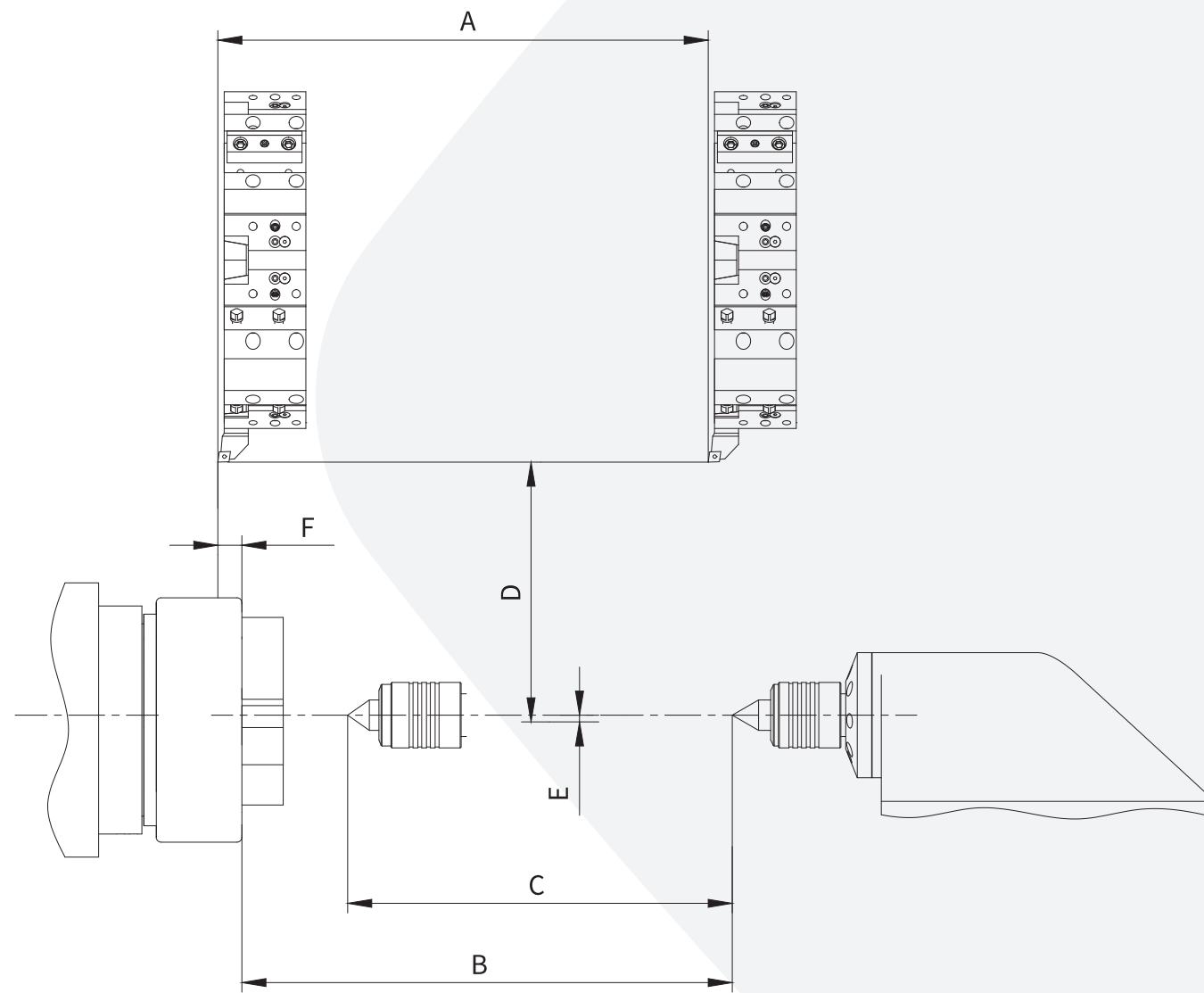


Unit: mm

Model	A	B	C
iT35	2330	1760	400
iT35L	2550	1760	560
iT50	2550	1820	560



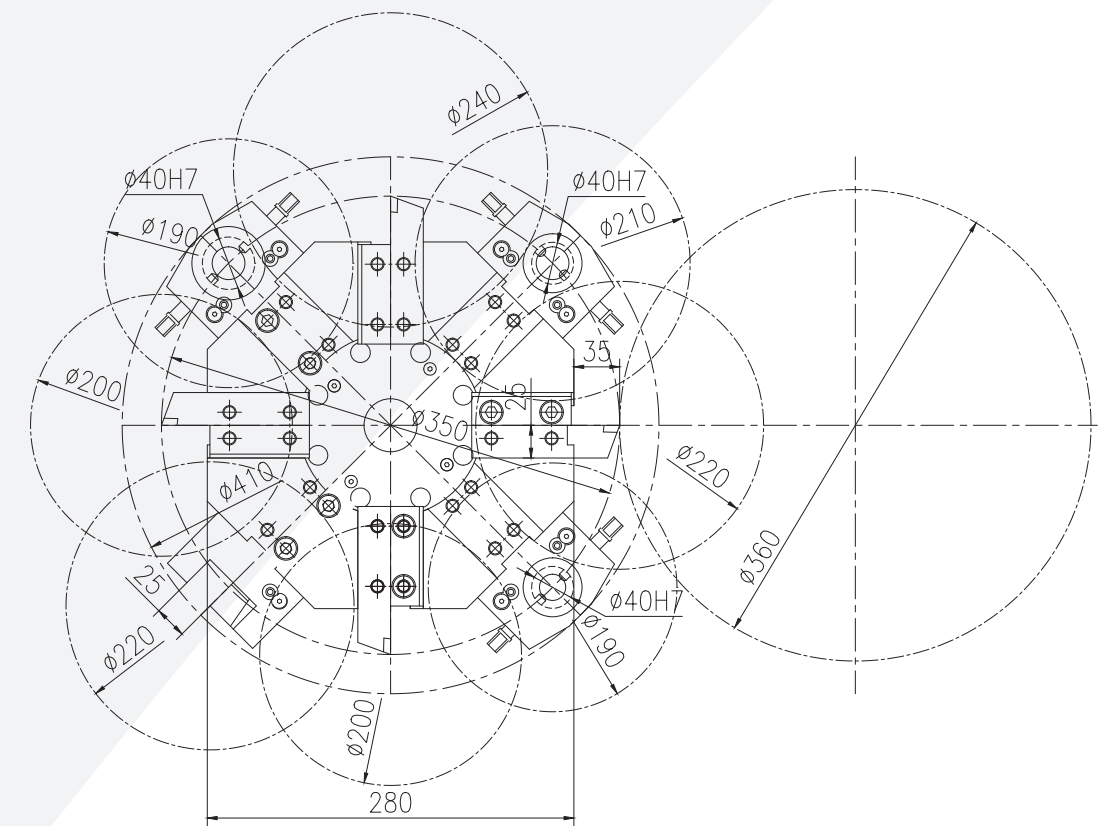
Working range



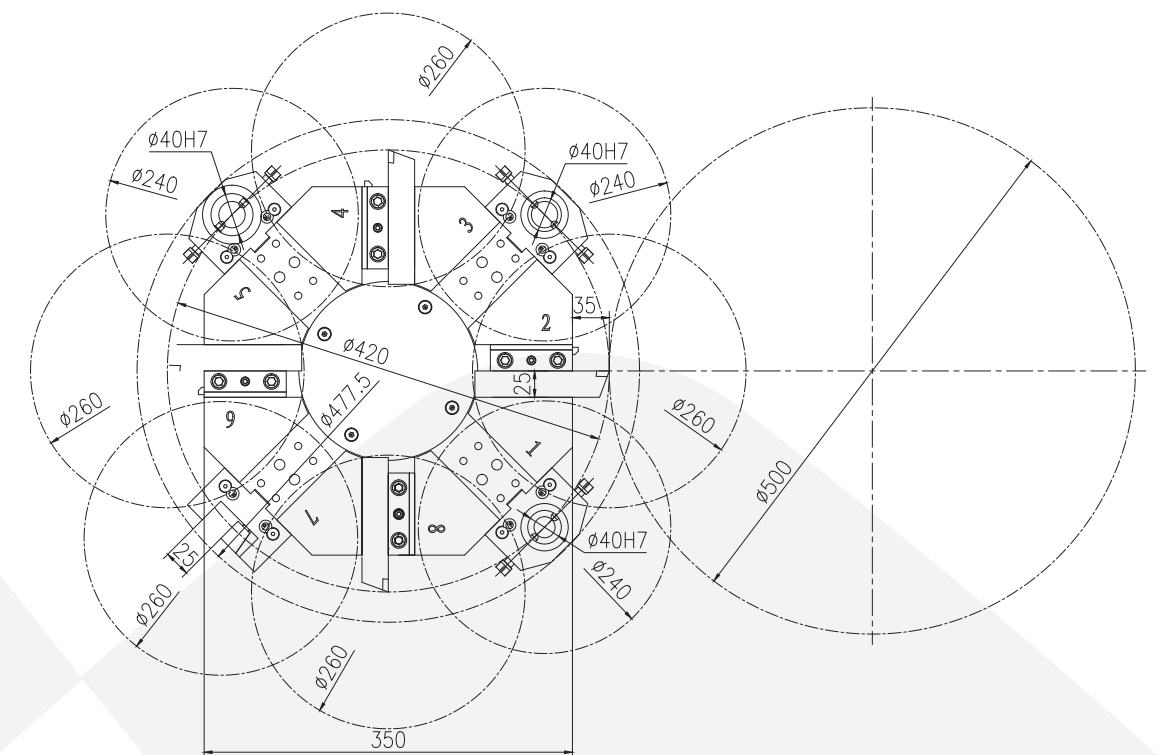
Unit: mm

Model	A	B	C	D	E	F
iT35	350	-	-	200	5	5
iT35L	510	517.5	400	200	5	5
iT50	505	504.5	400	260	5	5

Tooling interference diagram



iT35/iT35L



iT50