

# Horizontal Metal Machining Center

This high-precision horizontal machining center is designed for versatile metal cutting applications. The robust machine features a rigid frame construction ensuring stability and accuracy during heavy-duty machining operations.



## Overview

### High-Efficiency Horizontal Machining Center

The SCALAR4050 is a high-performance horizontal machining center engineered for maximum productivity and precision in metalworking. Featuring a robust FEM-tested cast-iron construction and a fully functional 4th-axis rotary table, it enables efficient 4-sided machining in a single clamping. Equipped with an automatic pallet changer and a 24-station arm-type tool changer, this machine is designed to minimize downtime and maximize throughput for complex industrial applications.

## Performance Metrics

### Key Performance Indicators

**18.4 kW**

Main Motor Power

**7000 rpm**

Max Spindle Speed

**20 m/min**

Rapid Feed Rate

**500 kg**

Max Loading Weight

## Technical Specifications

### Work Table Specifications

Feature	Specification
Quantity	2
Dimensions	400 x 500 mm
Max Loading Weight	500 kg
Table Change Time	~20 s

### Precision & Accuracy

- Positioning Accuracy (X/Y/Z):  $\pm 0.01\text{mm}$
- Repeatability (X/Y/Z):  $\pm 0.005\text{mm}$
- Rotary Table Positioning Accuracy:  $0.01^\circ$

### Travel Dimensions (X/Y/Z)

550mm / 515mm / 515mm

## Tooling & Spindle

### Automatic Tool Changer (ATC)

- Type: Arm type
- Capacity: 24 tools
- Tool Taper: BT40
- Tool Changing Time: 2.5s
- Max Tool Weight: 10kg

## Equipment Features

### Optional Equipment

Coolant Through Spindle • High-Speed Spindle

### Standard Equipment

Pallet Changer, 4th Axis Rotary Table, Chip Conveyor, Coolant System, Electronic Hand-wheel, Automatic Central Lubrication, Work Lamp, Fully Enclosed Housing