

Turn Block 24 Specification

AUTOBLOCKS
Modular Automation Solutions



Turn Block 24 Specification
24 inch Diameter
Doc#: Turn Block Specification
Rev: 2
Date: 12/27/23

1.1 SPECIFICATIONS

General

Model: Turn Block 24

Table Diameter (sold separately): 24"

Standard Repeatability: 10 Arc Min backlash maximum.

Optional Precision Repeatability: 5 Arc Min backlash maximum.

Optional Precision Repeatability: 3 Arc Min backlash maximum.

Direction: Counterclockwise

Indexing positions: 4 and 8

Approximate Size: 24" W x 28" D X 9" H

Approximate Weight: 125 lbs.

Electrical Power: 20 amps @ 240/1/60

Compressed Air: 80-100 PSIG

Speed & Torque

Max. Table Speed: 20 RPM

Max Torque at max speed: 5.4 in-lbs.

Enclosures (Sold Separately or provided by others)

Mounting: Light weight safety enclosure may be mounted table tapped holes.

Door Switches/Interlocks: Up to 4 door switches connect via daisy chain.

Part Presence: Part presence sensor is required for manual loaded systems.

Light Tower: Red/Green light tower quick connect is supported.

Light Curtain: Light curtain connection is provided for Keyence GL-S and GL-R series for plug and play with internal safety relay built in.

Mechanical

Structure: Interlocked aluminum base, pillars, and reinforced gear box support.

Mounting: Support pillars support other machine blocks w/ tool pin interlocks

Cover: Aluminum

Drive: Precision Planetary Gear box

Motor: Closed Loop Servo

Table Mount: ISO 9409-1 output flange

Max Symmetrical Unsupported load: 50 lbs.

Max Unbalanced/Unsupported load: 30 lbs.

Max Supported Load (additional rollers or support blocks required): 300+lbs

Table Materials: Acrylic, Aluminum, Steel, Engineered Plastics.

Main Air Supply In: 8 mm

Station Air supply Lines Out: 6 mm

Electrical

Electrical Power: 20 amps @ 240/1/60

SCCR Rating: 10 kA rms SYMM, 240V MAX

Environment Rating: TYPE 1

Light Curtains: (2) Quick connections for receiver and transmitter.

Door Switches: (1) Quick connect for door sensor circuit.

Part Presence Sensor: (1) Quick connect for door sensor circuit.

Light Tower: (1) Quick connect for red/green light tower.

Station Power: (3) 240V single phase 6 A power circuits for each station. Max
FLA 7.5A

Station E-Stop: Each station is prewired for 24V safety circuit.

Communication

Station Digital Outputs: 3 (9 total)

Station Digital Inputs: 5 (15 total)

Analogue Output: (1) 0-10V (3 total)

Communication Protocol: Modbus TCP (4 RJ45 ports)

Bar Code: Prewired for (1) USB type A Bar Code Scanner

Controls

HMI: 7" Resistive Touch Screen PLC

Safety Relay: Built in & prewired for light curtain and door switches.

Circuit Breakers: Internal main, station and motor breakers.

Main Disconnect: Lockable power disconnect on front of machine.

Low Voltage Power Supplies: Built in 24 V and 5 V power supplies.

Homing Sensor: Built in induction homing sensor.

Station Control: 3 dedicated & 1 auxiliary.

Accessories: Controlled by Robots or PLC directly

Robots: Up to 3 simultaneous controlled.

Vision Systems: Controlled by Robot or PLC directly.

Software

Programming Specifications: IEC 61131-3

Warranty: 12 months against manufactured defects not including labor.

