Turn Block 24 Specification

AUTOBLOCKS
Modular Automation Solutions

1.1 SPECIFICATIONS

General

Model: Turn Block 24
Table Diameter (sold separately): 24"
Size: 24W X 28"
Standard 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 steel base, pillars, and reinforced gear box support.
Mounting: Support pillars support other machine blocks w/ tool pin interlocks
Cover: Aluminum
Drive: Precision Gear box
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: 16 mm
Station Air supply Lines: 12 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 connects 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.

UTILITIES REQUIRED
POWER: 230/1/60 @ 20 AMPS
AIR: 1/2" SUPPLY LINE @ 80 PSI

12MM STATION AIR OUTLET

16MM AIR INLET

MAIN POWER IN

2x14 PIN STATION I/O PORT

STATION POWER OUT PORT

REMOTE START PORT

CIRCULATION FAN

RJ45 COMM. PORT

6MM DOWEL

1.00

2.00 TYP.

16.00 TYP.

22.125

12MM STATION AIR OUTLET

2x14 PIN STATION I/O PORT

STATION POWER OUT PORT

ETHERNET CONNECTION

POWER DISCONNECT

E-STOP

RJ45 COMM. PORT

7" TOUCH SCREEN DISPLAY

START

STOP

25.71

22.00

LIGHT CURTAIN LEFT/TRANSMITTER

LIGHT TOWER

TABLE POSITION SENSOR

PART PRESENCE SENSOR

DOOR SWITCH

LIGHT CURTAIN RIGHT/RECEIVER

LIGHT CURTAIN OUT

27.51

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31 FAIRFIELD PLACE
WEST CALDWELL, NJ 07006
PHONE: 917.557.6858

UNLESS OTHERWISE SPECIFIED:
DIMENSIONS ARE IN INCHES

STANDARD TOLERANCES:

DECIMAL:
X .030
XX .010
XXX .005
XXXX .0005

FRACTIONS: ± 1/64
ANGLES: ± 2°

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MATERIAL

FINISH

QUANTITY: 1

DO NOT SCALE DRAWING

	NAME	DATE
DRAWN	BSC	9/29/23
CHECKED	JS	
ENG. APPR.		
MFG. APPR.		

TITLE:

SIZE: B
DWG. NO. Turn Block 24 envelope
REV: A

SCALE: 1:8   WEIGHT: 85 lbs   SHEET 1 OF 1