

User Manual: NexBot Robotics 842-004 Conveyor Section 1500mm

SKU: NXB-GEN-842-004 | Version: 1.0 | Brand: NexBot Robotics

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1. Safety Information

READ ALL SAFETY INSTRUCTIONS BEFORE OPERATION. Failure to follow safety procedures may result in serious injury or equipment damage.

DANGER: Isolate all hazardous energy before servicing NexBot Robotics 842-004 Conveyor Section 1500mm; stored electrical or mechanical energy may remain present after shutdown.

WARNING: Operate NXB-GEN-842-004 only within its intended Accessories & Mounting > Workstation Equipment > Conveyor Sections duty profile and published specification limits.

CAUTION: Use only approved tools, mating parts, and installation hardware to prevent premature wear or unsafe operation.

NOTICE: Protect the product from contamination, impact, and environmental exposure beyond IP54 during installation and service.

2. Product Overview

The NexBot Robotics 842-004 Conveyor Section provides a reliable and efficient solution for transporting parts and products within an automated manufacturing

environment. This powered conveyor section is engineered to integrate seamlessly with NexBot Robotics systems, enabling continuous material flow for applications such as pick-and-place, assembly, inspection, and packaging. Its modular design allows it to be used as a standalone unit or connected with other sections to create a complete material handling line tailored to specific workcell layouts. Constructed from a heavy-gauge, powder-coated steel frame, the 842-004 section is built for durability and stability in demanding industrial settings. The unit measures 1500 x 400 x 900 mm, providing ample surface for a wide range of product sizes. The high-grip polyurethane surface ensures consistent part movement and positioning, which is critical for precise robotic interaction. The integrated power system allows for variable speed control, which can be synchronized with robot operations via its EtherCAT communication interface, ensuring parts arrive at the correct time and orientation. Key benefits include increased throughput, reduced manual handling, and improved process consistency. The IP54 rating protects the internal components from dust and water splashes, making it suitable for general factory environments. Installation is straightforward, with adjustable-height legs to ensure level alignment with other machinery. This conveyor section is an essential piece of workstation equipment for creating fully automated production lines, facilitating efficient machine tending, and moving finished goods away from the robotic cell. By automating material transport, facilities can redeploy human operators to more value-added tasks, enhancing overall operational efficiency.

3. Getting Started

1. Confirm product identity

Verify the installed item is NexBot Robotics 842-004 Conveyor Section 1500mm with SKU NXB-GEN-842-004. Cross-check the unit against project documentation before applying power or connecting it to the host system.

2. Review operating context

Understand how the product is used within the Accessories & Mounting > Workstation Equipment > Conveyor Sections workflow, including any upstream and downstream dependencies, service intervals, and operator responsibilities.

3. Complete initial startup

Power up the unit under controlled conditions, observe indicator states, and verify the product initializes cleanly with the expected 480VAC operating setup.

4. Operation

Normal operation

Run NexBot Robotics 842-004 Conveyor Section 1500mm within the documented workload, environmental, and service conditions. Track alarms, unusual noise, heat, or vibration so corrective action can be scheduled before unplanned downtime occurs.

Interface and controls

Use the supported electrical and control interfaces to commission, monitor, and troubleshoot the device. Validate all signal mappings and control behavior after maintenance or part replacement, especially where EtherCAT communication is required.

Tip: Capture a baseline of healthy status indicators after commissioning so later diagnostics can be compared quickly.

Load and application limits

Keep the product within the published ratings for speed, force, load, and environmental exposure. Where applicable, confirm mounting, routing, and attached tooling do not compromise access, cooling, or serviceability.

Change management

Whenever hardware, firmware, wiring, or connected tooling changes, repeat the relevant verification and commissioning checks before returning the equipment to production service.

Tip: Update maintenance records immediately after any wiring, parameter, or parts change.

5. Maintenance Schedule

Interval	Task	Notes
Daily	Inspect NexBot Robotics 842-004 Conveyor Section 1500mm for visible wear, damage, contamination, loose hardware, and abnormal status indicators.	Record any abnormalities before the next production cycle begins.
Monthly	Verify mounting integrity, connector condition, and cable routing or strain relief points.	Retorque or reseal hardware only to the documented service specification.
Quarterly	Review diagnostic logs, event history, and operational trends for early signs of degradation.	Escalate recurring warnings before they develop into hard faults.
Annually	Perform a full service inspection covering mechanical condition, electrical connections, and functional verification.	Coordinate annual service with planned downtime to minimize production disruption.

6. Troubleshooting

Symptom	Possible Cause	Solution
Unit does not initialize or remain ready	Incoming supply, controls wiring, or commissioning parameters do not match the documented 480VAC configuration.	Verify power quality, wiring continuity, protective devices, and startup parameters before restarting the unit.
Intermittent communication or status loss	Loose connectors, damaged cabling, or interface mismatch on EtherCAT.	Inspect physical connections, confirm interface settings, and replace damaged cables or connectors as needed.
	Mechanical loading, contamination,	Inspect the installation, restore proper alignment

Symptom	Possible Cause	Solution
Unexpected wear, vibration, or overheating	misalignment, or duty cycle exceeds the intended application conditions.	and cooling, and verify the product is being used within its published operating limits.
Connected equipment performance is inconsistent	The installed product is not configured correctly for the host system or compatible robot series (R-20, R-50, C-10).	Validate the configuration, confirm compatibility, and rerun the functional verification procedure after any corrections.

7. Technical Specifications

Parameter	Value	Unit
Weight	95.0	kg
Material	Powder-Coated Steel Frame, Polyurethane Belt	
Voltage	480VAC	
IP Rating	IP54	
Country of Origin	KR	
Protocol	EtherCAT	
Dimensions	1500 x 400 x 900 mm	