

DC Series and RC Series Pre-Installation Checklist

This checklist will help you to automate successfully and avoid common pitfalls. In our experience, customers run automated parts reliably when this checklist is followed. It minimizes installation time and allows for more testing, and end-user training.

Let's have a conversation about items that require deviation.

If these pre-installation steps are not completed upon arrival of the AWR service tech, we will reschedule until your process is ready for automation.

Always required CNC options:

Complete

Chuck air blow, operational and hard plumbed in the CNC.	
Spindle orientation, electric type (usually standard).	
Specify if the CNC has a single door (#AWR-1SENSOR-DOOR) or a double door (#AWR-2SENSOR-DOOR) \$0.00.	

Brand specific CNC requirements:

Complete

HAAS

Haas Next Generation Control (NGC)	
Confirm no auto door for Haas. The robot will open the single-door CNC. Part #AWR-ROBOT-1DOOR-KIT.	
Haas communication kit purchased. Part #LG-HAASPKG-00.	
Which CNC foot petal type do you have?	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> 

OKUMA

Complete

Automatic Door or "Robot Open Door Kit" for single-door CNCs only, #AWR-ROBOT-1DOOR-KIT.	
Robot interface with EtherNet/IP, Anybus X EIP. "Robot Loader interface type D, lathe, ABX EIP."	

HARDINGE, DMG MORI, DOOSAN, NIDEC, MAZAK, OTHER

Complete

Automatic Door	
Robot interface option must already be installed on the CNC.	
<u>IF an EtherNet/IP robot interface (preferred)</u> <ol style="list-style-type: none"> Add part #AWR-CNC-INTEGRATION-ETH. for integration. Provide a list of input and output signals from the CNC. Provide the EDS file (electronic data sheet) for the CNC EtherNet/IP device. <ul style="list-style-type: none"> It includes the vendor ID, Device type, product code, input size, output size, assembly instance input and output, configuration instance. 	
<u>IF a Discrete robot interface</u> <ol style="list-style-type: none"> Add part #AWR-CNC-INTEGRATION-DIS. for integration. Electrical schematic of the CNC robot interface. Provide a list of input and output signals from the CNC. **IMPORTANT** The local CNC distributor commits to wiring the required CNC signals to the Load & Go following our electrical drawings. Their commitment is important. 	
A certified CNC drawing is required to confirm reach and interference.	
***Lead time will increase by 3-4 weeks <u>which starts after</u> this information is provided to AWR. ***	

Load & Go Related:

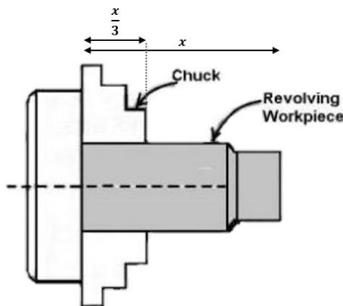
Complete

208-240VAC / 20A / 60Hz / 3-phase dedicated power. 10 ft cable with L15-20R and L15-20C provided.	
80-100 PSI air pressure with >1 cfm.	
Ethernet drop, CAT 5/6 cable, to Load & Go for remote support. Guest network is acceptable.	
Test the Ethernet drop with "Ewon Connection Checker" software. Instructions on the AWR website/DOCS .	
>6" deep concrete for anchoring.	

Cutting Process Related:

Complete

Workholding must have a hard stop for the robot to load against.	
Workholding has approximately 0.030" minimum load clearance and appropriate 0.030" plus a bullet-nose lead-in radius.	
Develop at least one (preferably several) cutting program(s) that are running good parts and ready to run full auto with the robot (machine goes to Home at end of program).	
Have parts available to run and test during installation.	
Load Monitoring is setup and utilized, at minimum, on the first tool used in CNC program	
Tool life management is setup and operational for all cutting tools.	
Cutting tool life is predictable and broken or chipped tools either do not happen or happen rarely.	
Chips from the cutting process do not build up on workholding or cutting tools.	
Coolant wash and blow off M-Codes are programmed into the cutting process to ensure part is free of chips at completion of cycle.	
Chuck air blow-off is programmed into the cutting process to ensure part is relatively free of coolant at the completion of the cycle.	
The ratio of the workpiece length in the chuck to total workpiece length should be at least 1:3.	



Updated 10/30/2023

Signature: _____ Date: _____