

## M400 -100232 / machine M632-208 swing arm atc ( 24 tools)

### AuxKeys:

Aux 1 Key -  
Aux 2 Key -  
Aux 3 Key -  
Aux 4 Key - Chip auger Motor Selection (Left/Right)  
Aux 5 Key - Conveyor Chip REV  
6 Key - Conveyor Chip FWD  
Aux 7 Key - WorkLight  
Aux 8 Key - Tool Index -  
Aux 9 Key - Tool Index +  
Aux 10 Key -  
Aux 11 Key -  
Aux 12 Key -  
Aux 13 Key - Rear Chip Wash Key  
Aux 14 Key - ATCOVERRIDE Key

### CNC11 Parameters:

PARAMETER\_6 - ATC enable - 1 = enable  
PARAMETER\_160 - Random or Non Random ATC  
PARAMETER\_161 - ATC Max Bins  
PARAMETER\_85 - Door Closed input #. 0 - disable  
PARAMETER\_170 - Keyboard Jogging. 1 - enable  
PARAMETER\_171 - Dual Chip Auger motors selection. 1 - enable  
PARAMETER\_175 - Chiller Off Timer  
PARAMETER\_179 - Lube timer - MMss - MM=off time in min, ss=lube pump time.

### M-codes:

M3 (1)-Spindle CW  
M4 (2)-Spindle CCW  
M8 (3)-Flood On  
M10(4)-Clamp  
M7 (5)-Mist  
M6 (6)-Tool Change  
M21(7)-Chip Pump on  
M22(7)-Chip Pump off  
M18(10)-ATC Reset  
M19(11)-Spindle Orient  
M13(13)-Swing Arm Cycle with ATCOVERRIDE Key  
M14(14)-Pot Down with ATCOVERRIDE Key  
M15(15)-Pot Up with ATCOVERRIDE Key  
M11(16)-Rotary Table Unclamp  
M31(17)-Auger Forward

M32(18)-Auger Reverse  
M33(19)-Auger Stop  
M88(20)-Spindle thru tool coolant

NOTE

Changes to keyboard jogging bmp needed. See MEM400+  
"Invalid key" messages will need to be suppressed..

Function:

1. ATC Swing Arm

- a. P6 = 1 to activate ATC stages and restart control+MPU11
- b.

2. Door interlock

If door is open or not set correctly, control will be limited to slow jog only.

If door is open and MDI or program running, control will display WAIT FOR DOOR CLOSE message and feed hold condition. End-user will have to close the door and press cycle start to resume.

After 10 seconds () control will fault with DOOR NOT LOCKED message (E-Stop condition)

- a. P85 must be set to the door closed input number
- b. P85 = 0 to disable doorinterlock stage and function.
- c. DoorInterlock\_Override\_M (M136) can be set when probe is connected and Aux13 + Aux14 at same time.

3. Dual Chip Auger

- a. forward - Aux 5 and M31, M33 to Stop
- b. reverse - Aux 6 and M32, M33 to stop
- c. P171 = 1 to enable the chip auger 1 or 2 selection, Aux4Key is the selection key

4. Tool Thru Coolant

- a. M88 - to turn it on. M89 - to turn it off