

# Automatic Y-Shift Pallet Changer

Available with CE  
Light Curtain Option



**For traveling column machining centers which do not move in Y-axis**



**The Automatic Y-Axis Shift Pallet Changer** is mounted on one side of your VMC and shifts the pallet along the Y-axis on the shuttle before transferring it into the machine. While one of the two pallets is being milled inside the VMC, the other can be prepared by the machine operator — reducing idle time and maximizing productivity. Once the machining is finished, the pallet changer switches the pallets automatically.

# Automatic Y-Axis Shift Pallet Changer



- Load, unload, inspect and set up parts while alternate pallet is in the machine.
- Reduce set up time on repeat jobs by dedicating tooling onto pallets.
- Exchange pallet in seconds with +/- .0001" (.0025 mm) repeatability.
- Pallets easily interchanged between machines or departments.
- Fully integrated with CNC machine by using two M-Functions.

**Retrofits to Any  
New or Existing  
Machining Center**

- Heavy/large workpieces easily loaded outside the machine.
- Single shuttle systems up to 8000 lb (3636 kg) capacity.\*
- Jobs can be easily interrupted for emergency.
- Increase machine and operator productivity.

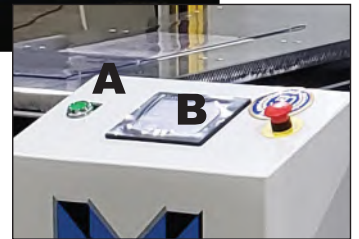
*\* with part weight evenly distributed*



## MIDACO's PLC is Fully Integrated with the Machine

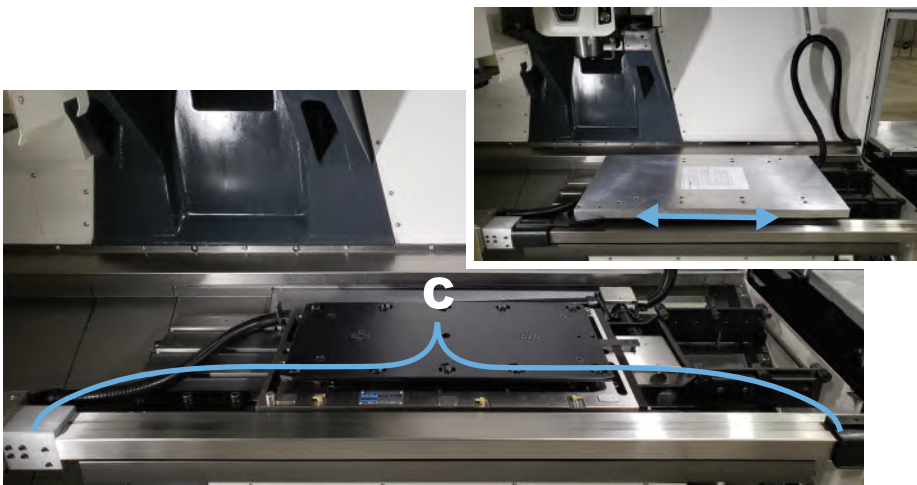
While the alternate pallet is on the machine, the operator sets up the next pallet. Once ready, the operator pushes the "Pallet Ready" button (A) and walks away to attend other activities. When the pallet in the machine is complete, the next pallet shuttles in automatically.

The PLC allows the operator to program pallet acceleration and deceleration according to the weight of the fixture to optimize performance.



### Keypad (B) Provides:

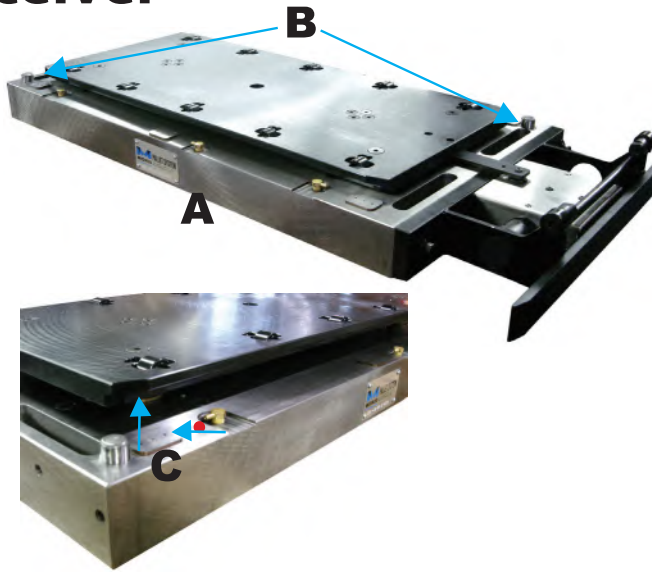
- Password protected access
- Parameters page access
- Manual functions access
- Single block functions
- Current I/O status
- Diagnostic pages



### Electric Servo Drive (C) Provides Proven Reliability

MIDACO's precision engineered Servo Drive assembly moves the pallet in and out of the the machining center in seconds.

## Receiver

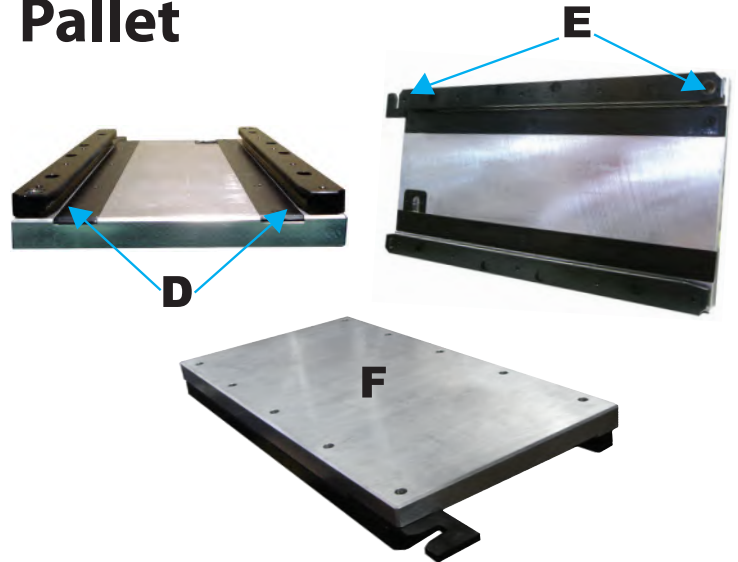


(A) Cast Iron receiver mounts directly to the machine table.

(B) Hardened and ground locating pins assure +/- .0001" (.0025 mm) repeatability.

(C) MIDACO's patented "Dual Air Blast" blows air up through and across the contact pads for chip removal. (see inset)

## Pallet



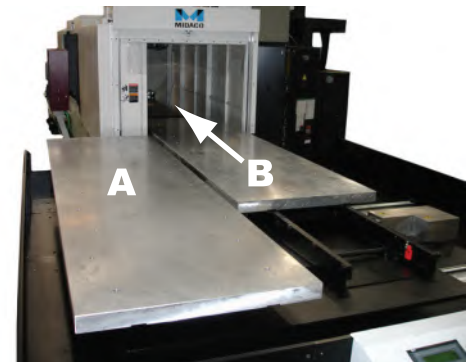
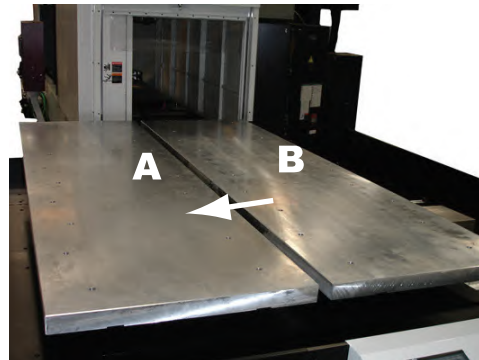
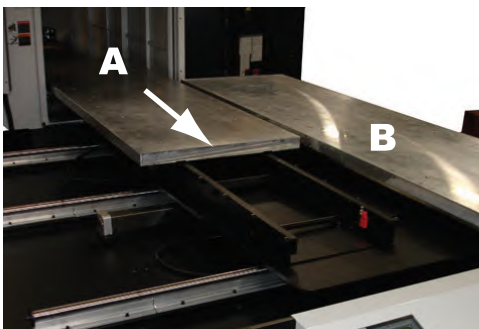
Precision ground steel rails (D) include hardened and ground bushings (E) to assure accuracy and durability.

Standard Plain cast aluminum pallets (F) offer extreme versatility.

Cast Iron, T-Slotted, Tapped Hole and custom pallets are optional.

## For Traveling Column Machines Where the Table Does Not Move in "Y"

When Pallet **A** comes out of the machine the shuttle moves to put Pallet **B** in position and sends Pallet **B** into the machine. This operation is reversed for the next pallet change.



*Since 1969, MIDACO has been a leader in providing innovative and quality solutions to improve manufacturing efficiency for companies worldwide.*



## Customer Satisfaction

"Since I've added 5 MIDACO pallet changers, I've increased my productivity OVER 600%."

"100% plus increase in productivity without suffering quality."

"Productivity has increased over 90% and downtime due to loading and unloading parts was greatly reduced."

"25% savings in job set up time, eliminating lifting of heavy devices such as vises and rotary heads."

"We have achieved a 2 hour savings in production during an 8 hour shift, a 25% increase in productivity."

"I've been in the industry for over 25 years and have seen a lot of different machines and pallet changers. MIDACO's product is the best and most user friendly I've seen."

## Various Systems Available

Various pallet sizes, manual, rotary and double systems are available along with other accessories designed to meet your needs.



Manual Pallet System



Dual Automatic System



Micro Pallet System - MPS31



Automatic Door System



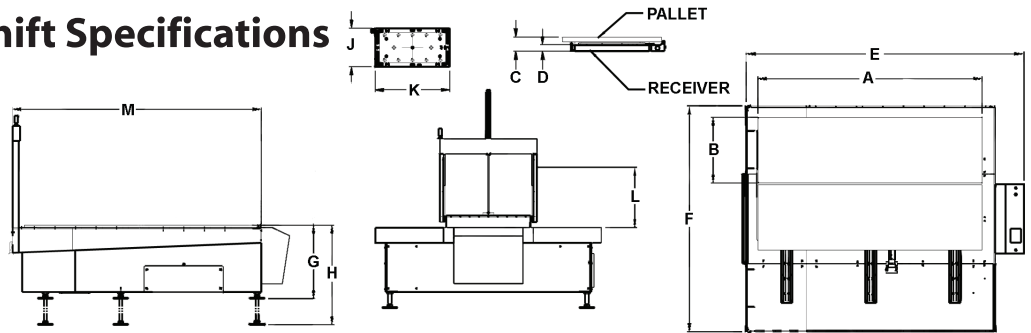
Midaco CNC Chip Fan



Manual Rotary System - MRPC



## Y-Axis Shift Specifications



Y-Shift Series	A30SDY		A40SDY		AS50SDY		A50SDY		A60SDY		A80SDY		A90SDY		A120SDY		A140SDY		A150SDY	
Specifications	lbs. / in	kg / mm	lbs. / in	kg / mm	lbs. / in	kg / mm	lbs. / in	kg / mm	lbs. / in	kg / mm	lbs. / in	kg / mm	lbs. / in	kg / mm	lbs. / in	kg / mm	lbs. / in	kg / mm	lbs. / in	kg / mm
Clamping Force*	5200	2360.8	5200	2360.8	5200	2360.8	15400	6991.6	15400	6991.6	20500	9307	20500	9307	20500	9307	20500	9307	20500	9307
Receiver Weight	243	110.3	243	110.3	243	110.3	610	276.9	610	276.9	1260	572.0	1260	572.0	1260	572.0	1260	572.0	1260	572.0
Pallet Thickness	1.5	38.1	1.5	38.1	1.5	38.1	2	50.8	2	50.8	2.5	63.5	2.5	63.5	2.5	63.5	2.5	63.5	2.5	63.5
Pallet Load Capacity**	1000 †	454	1000 †	454	1000 †	454	4000	1816	4000	1816	8000	3632	8000	3632	8000	3632	8000	3632	7000	3178
A (Pallet X Dim)	30	762	40	1016	50	1270	50	1270	60-64	1524-1626	80	2032	90	2286	120	3048	144-149	3658-3785	150	3810
B (Pallet Y Dim)	20	508	20-25	508-635	20-25	508-635	25	635	25-40	635-1015	30-50	762-1270	50	1270	30-60	762-1524	40	1016	50	1270
C	5.17	131.3	5.17	131.3	5.67	144.0	6.91	175.5	6.91	175.5	8.1	205.7	8.1	205.7	8.1	205.7	8.1	205.7	8.1	205.7
D	2.56	65.0	2.56	65.0	2.56	65.0	3.75	95.3	3.75	95.3	4.25	108.0	4.25	108.0	4.25	108.0	4.25	108.0	4.25	108.0
E	55	1397.0	55	1397.0	71	1803.4	78	1981.2	89	2260.6	110	2794.0	110	2794.0	154	3911.6	184	4673.6	184	4673.6
F	70	1778.0	70-85	1778-2159	72-87	1829-2210	87	2209.8	87-132	2210-3353	106-166	2692-4216	166	4216.4	106-196	2692-4978	136	3454.4	166	4216.4
G (Min Height)	35	889.0	35	889.0	35	889.0	43	1092.2	43	1092.2	43	1092.2	43	1092.2	43	1092.2	43	1092.2	43	1092.2
H (Max Height)	47	1193.8	47	1193.8	47	1193.8	57	1447.8	57	1447.8	57	1447.8	57	1447.8	57	1447.8	57	1447.8	57	1447.8
J (Receiver)	15.5	393.7	15.5	393.7	15.5	393.7	19.5	495.3	19.5	495.3	25.5	647.7	25.5	647.7	25.5	647.7	25.5	647.7	25.5	647.7
K (Receiver)	30	762.0	30	762.0	30	762.0	50	1270.0	50	1270.0	75	1905.0	75	1905.0	75	1905.0	75	1905.0	75	1905.0
L (Door Opening)	20	508.0	20	508.0	20	508.0	28	711.2	28	711.2	30	762.0	30	762.0	30	762.0	30	762.0	30	762.0
M	45	1143	45	1143	60	1524	68	1727.2	79	2006.6	99	2514.6	99	2514.6	143	3632.2	173	4394.2	173	4394.2
Optional CE Light Curtain	Contact MIDACO for specifications																			

\*At 100PSI (6.9 bar) \*\*At 120PSI (8.2 bar). Pallet load capacity with weight evenly distributed on pallet. † Optional 2000 lb (909kg) pallet load capacity with weight evenly distributed on pallet.

Patented. Specifications subject to change without notice.

MIDACO pallet systems are designed for machines with stationary guarding. Some machines require options or customization.

Contact your sales representative to confirm model and specifications for all applications.



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