

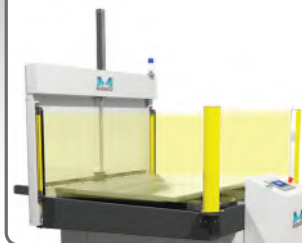
# Automatic Pallet Systems



Optional Midaco Fan for  
Automated Chip Cleaning



CE Light Curtain Option



Retrofits to Any  
NEW or EXISTING  
Machining Center

Change Parts **OUTSIDE**  
the VMC WHILE Your  
Spindle is Cutting!

## AUTOMATIC PALLET SYSTEMS

*Quality control tested with over 250,000 pallet changes before bringing product to market.*



- Load, unload, inspect parts and set up jobs 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.



- Heavy/large workpieces easily loaded outside the machine.
- Single shuttle systems up to 8000 lb (3636 kg) capacity\*
- Dual Shuttle systems up to 32,000 lb (14,528 kg) capacity\*
- Jobs can be easily interrupted for emergency.
- Increase machine and operator productivity.
- Equipped with Mitsubishi controls.

*\*with part weight evenly distributed*

## STATE OF THE ART VERSATILITY



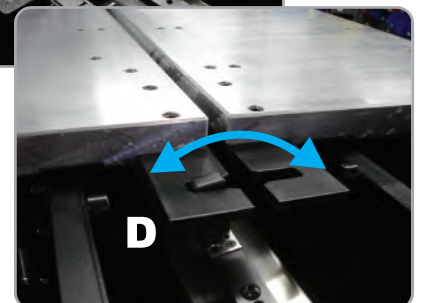
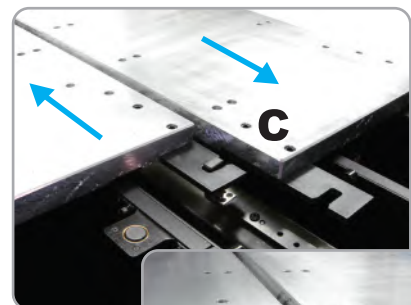
- MIDACO's PLC is fully integrated with the machine.
- While the alternate pallet is on the machine, the operator sets up the next pallet. Once ready, the operator pushes the "Pallet Ready" button (A) and walks away to attend other activities. When the pallet in the machine is complete, the next pallet 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:

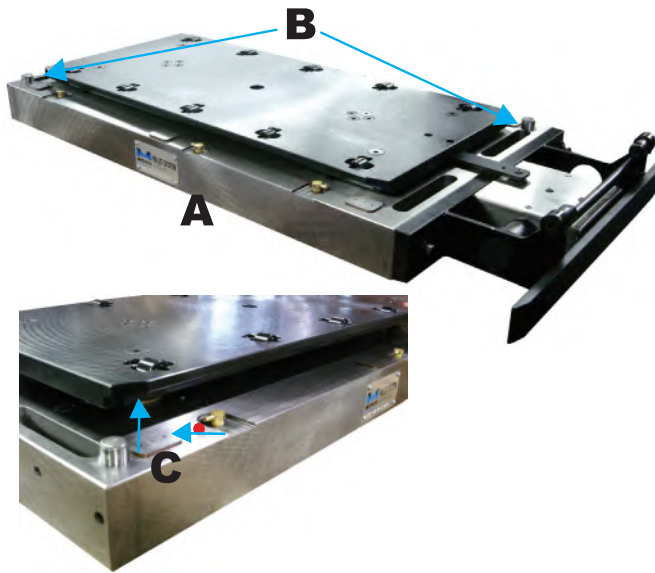
- Password protected access
- Parameters page access
- Manual functions access
- Current I/O status
- Diagnostic pages

### Electric Servo Drive Provides Proven Reliability

MIDACO's precision engineered Servo Drive assembly (C) extends into the machining center, tilts and engages with the pallet coupler (D) to remove the pallet from the machining center. The Servo Drive then delivers the next pallet into the machine in seconds.



## RECEIVER

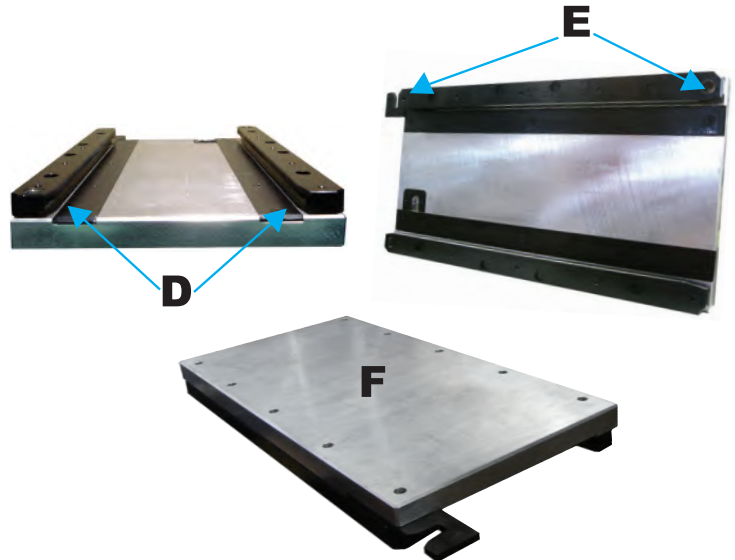


(A) Cast Iron receiver mounts directly to the machine table.

(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.

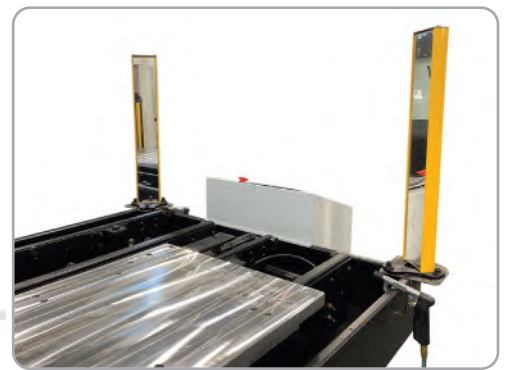
Cast Iron and T-Slotted Cast Iron custom pallets are optional.

## CE Light Curtain



All models of the Automatic Pallet Changer System are available with a **Light Curtain** package for CE compliance.

With 3-sided guarding via a light emitter, mirrors and sensors, a pallet change will not occur if the invisible light beams surrounding the shuttle system are breached.



*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 and dual 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



Industrial CNC Vacuums

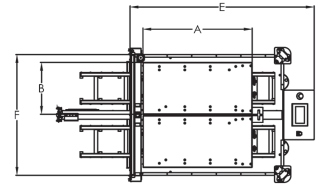
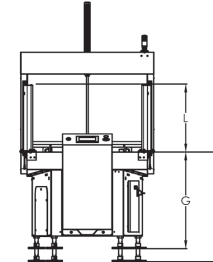
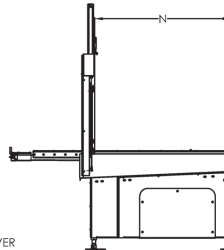
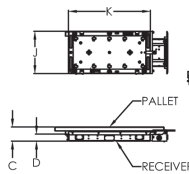
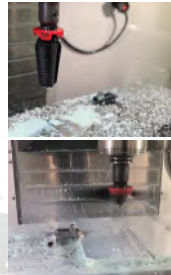


Trunnion System for 4th Axis

## Specifications

■ Optional Midaco Fan for Automated Chip Cleaning

Note: Diagram shown with optional Light Curtain



	A16SD		A30SD		A40SD		AS40SD		AS50SD		A50SD		A60SD		A80SD		A120SD		A150SD	
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*	4500	2041.2	5200	2358.7	5200	2358.7	7500	3401.9	7500	3401.9	15400	6985.3	15400	6985.3	20500	9298.6	20500	9298.6	20500	9298.6
Receiver Weight	95	43.1	243	110.2	243	110.2	243	110.2	243	110.2	594	269.4	594	269.4	1539	698.1	1400	635	1400	635
Pallet Thickness	1.0	25.4	1.5	38.1	1.5	38.1	2.0	50.8	2.0	50.8	2.0	50.8	2.0	50.8	2.5	63.5	2.5	63.5	2.5	63.5
Pallet Load Cap**	250-500	113-227	1000†	454	1000†	454	2000	907	2000	907	4000	1814	4000	1814	8000	3629	8000	3629	8000	3629
A (Pallet X Dim)	22-27	559-686	30	762	40	1016	45	1143	50	1270	50	1270	60-64	1524-1626	80-84	2032-2134	120	3048	150	3810
B (Pallet Y Dim)	14-15	356-381	15.5-19	394-483	19-24	483-610	24	609.6	19-24	483-610	24	609.6	24-39	610-991	29-39	737-991	29-39	737-991	31-49	787-1245
C	4.1	104.9	5.2	131.3	5.2	131.3	5.7	144	5.7	144	6.9	174	6.9	174	8.1	205.7	8.1	205.7	8.1	205.7
D	2.5	63.5	2.6	65	2.6	65	2.6	65	2.6	65	3.8	95.3	3.8	95.3	4.3	108	4.3	108	4.3	108
E	45	1143.0	54.5	1384.3	68	1727.2	74.8	1899.9	78	1981.2	78	1981.2	88	2235.2	120	3048	161	4089.4	183	4648.2
F	35.2	894.1	45	1143.0	45	1143.0	54.2	1376.7	57	1447.8	57	1447.8	67	1701.8	73-92	1854-2337	73-92	1854-2337	73-112	1854-2845
G (Min Height)	34.8	883.9	38	965.2	38	965.2	38	965.2	38	965.2	38	965.2	38	965.2	45	1143.0	38	965.2	38	965.2
H (Max Height)	44.8	1137.9	49	1244.6	49	1244.6	49	1244.6	49	1244.6	52	1320.8	52	1320.8	57-65	1448-1651	52	1320.8	52	1320.8
J (Receiver)	13	330.2	15.5	393.7	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
K (Receiver)	18	457.2	30	762	30	762	30	762	30	762	50	1270	50	1270	75	1905	75	1905	75	1905
L (Door Opening)	16	406.4	20	508	20	508	20	508	20	508	28	711.2	28	711.2	32	812.8	32	812.8	32	812.8
M (LC Height)	24	621	24	621	24	621	24	621	24	621	24	621	24	621	24	621	24	621	24	621
N (LC Opening)	30-36	769-922	39.9	1014	49.9	1269	59.9	1522	59.9	1522	58.9	1497	73.7	1871	99.2	2518	139.4	3541	169.4	4303

\*At 100PSI (6.9 bar)

\*\*At 120PSI (8.2 bar) with weight evenly distributed

† Optional 2000 lb (909kg) pallet load capacity with weight evenly distributed

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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