

Automatic Pallet Systems



***Retrofits to Any
NEW or EXISTING
Machining Center***

***Affordable
State of the Art
Technology***



Shown with CE guarding

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

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**

**(with part weight evenly distributed)*

Retrofits to Any New or Existing Machining Center

Dual air blast at each contact pad

Equipped with Mitsubishi controls

Increase machine and operator productivity

Jobs can be easily interrupted for emergency

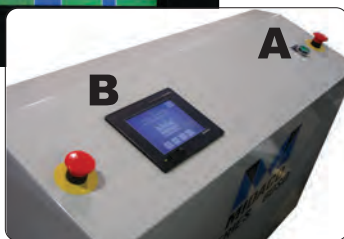
Fully integrated with CNC machine by using two M-Functions

Pallets easily interchanged between machines or departments

Exchange pallet in seconds with +/- .0001" (.0025 mm) repeatability



STATE OF THE ART VERSATILITY



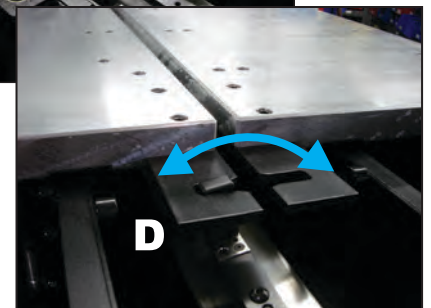
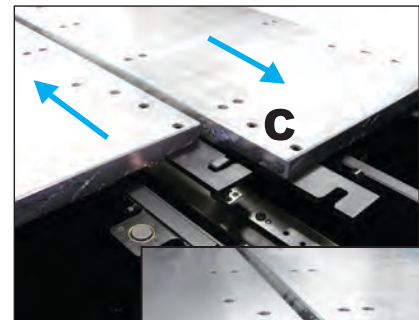
- ◆ MIDACO's PLC is fully integrated with the machine.
- ◆ While the alternate pallet is on the machine, the operator sets up the next pallet. Once ready, the operator pushes the "Pallet Ready" button (**A**) and walks away to attend other activities. When the pallet in the machine is complete, the next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

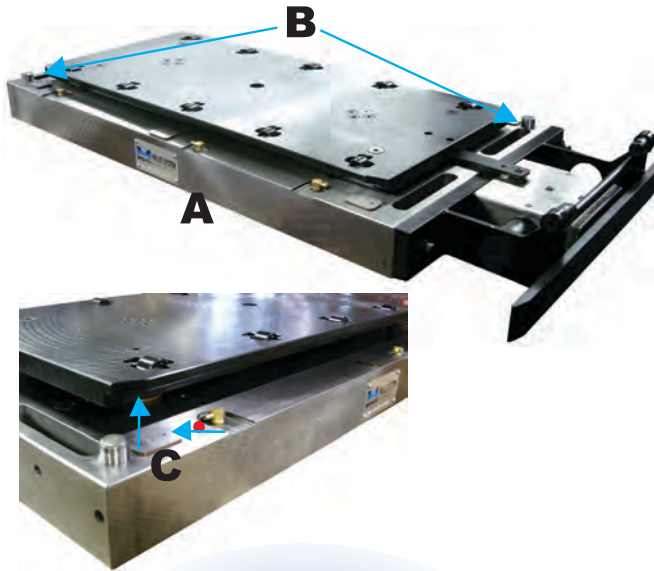
- Password protected access
- Parameters page access
- Manual functions access
- Current I/O status
- Diagnostic pages

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

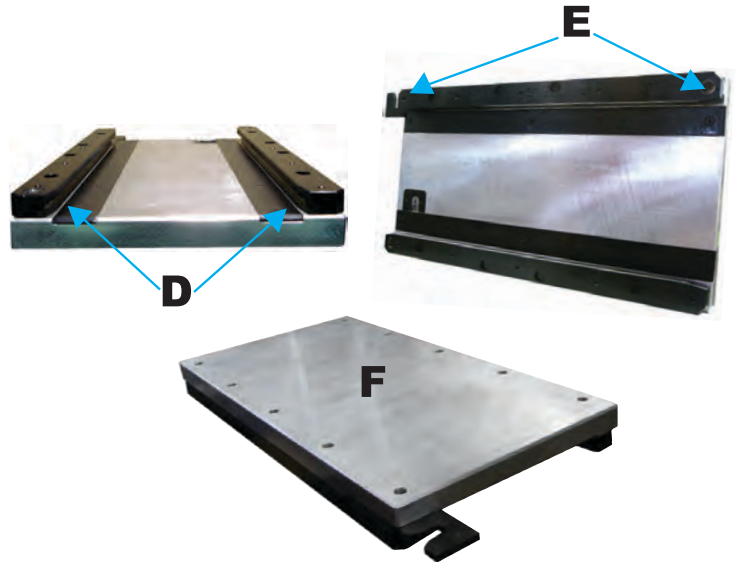


(A) Cast Iron receiver mounts directly to the machine table.

(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.

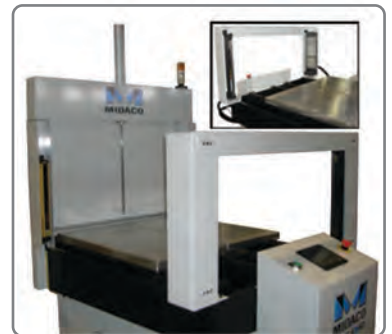
Standard plain cast aluminum pallets (F) offer extreme versatility.

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

OPTIONAL CE ENCLOSURE



- ◆ CE 3-sided enclosure includes hinged doors that open downward (end door is removable), or CE Light Curtain safety package for 3-sided shuttle guarding via a light emitter, mirrors and sensors.
- ◆ Pallet change will not occur if any door is opened or light breached.
- ◆ With no overhead obstructions, an overhead crane can easily load parts.



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

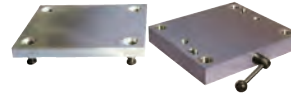
Various pallet sizes, manual, rotary and double systems are available along with other accessories designed to meet your needs.



Manual Pallet System



Dual Automatic System



Micro Pallet System - MPS31



Automatic Door System

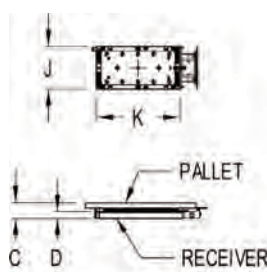


Manual "Lift Off" System

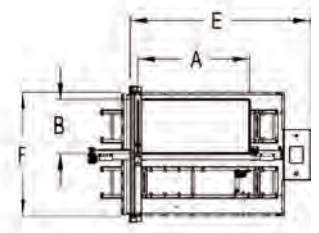
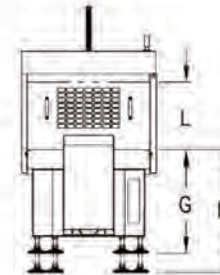
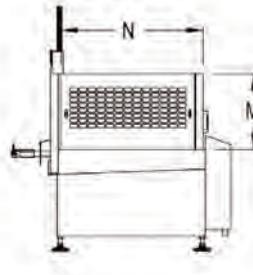


Trunnion System for 4th Axis

AUTOMATIC PALLET SYSTEMS



NOTE: Diagram Shows Optional CE Package.



Automatic Series	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
Clamping Force*	4500	2043	5200	2360.8	5200	2360.8	7500	3405.0	7500	3405.0
Receiver Weight	95	43.1	243	110.3	243	110.3	243	110.3	594	269.7
Pallet Thickness	1	25.4	1.5	38.1	1.5	38.1	2	50.8	2	50.8
Pallet Load Cap**	250-500	125-227	1000†	454	1000†	454	2000	908	2000	908
A (Pallet X Dim)	22-27	559-686	30	762	40	1016	45	1143	50	1270
B (Pallet Y Dim)	14-15	356-381	15.5-19	394-483	19-24	483-610	24	609.6	19-24	483-610
C	4.13	104.9	5.17	131.3	5.17	131.3	5.67	144.0	5.67	144.0
D	2.5	63.5	2.56	65.0	2.56	65.0	2.56	65.0	3.75	95.3
E	45	1143.0	54.5	1384.3	68	1727.2	74.8	1899.9	78	1981.2
F	35.2	894.1	45	1143.0	45	1143.0	54.2	1376.7	57	1447.8
G (Min Height)	34.8	883.9	38	965.2	38	965.2	38	965.2	38	965.2
H (Max Height)	44.8	1137.9	49	1244.6	49	1244.6	49	1244.6	52	1320.8
J (Receiver)	13	330.2	15.5	393.7	15.5	393.7	15.5	393.7	19.5	495.3
K (Receiver)	18	457.2	30	762.0	30	762.0	30	762.0	50	1270.0
L (Door Opening)	16	406.4	20	508.0	20	508.0	20	508.0	28	711.2
M (Optional CE Package)	20	508	24	609.6	24	609.6	30	762.0	30	762.0
N (Optional CE Package)	33	838.2	42	1066.8	51	1295.4	61	1549.4	61	1549.4

*At 100PSI (6.9 bar) **At 120PSI (8.2 bar) with part weight evenly distributed

† Optional 2000 lb (909kg) load capacity with part 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.



MIDACO CORPORATION
2000 E. Touhy Avenue
Elk Grove Village, IL 60007 USA
phone: 847.593.8420
fax: 847.593.8451
email: midaco@midaco-corp.com

See how we fit your application
www.midaco-corp.com

