

Automatic Pallet Systems



*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.



Retrofits to Any New or Existing Machining Center

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

Increase machine and operator productivity

Up to 8000+ lbs. (3636 kgs.) capacity

Dual air blast at each contact pad

Equipped with Mitsubishi controls

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.

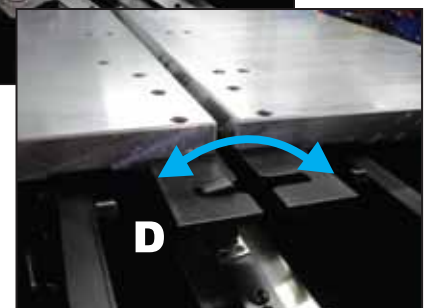
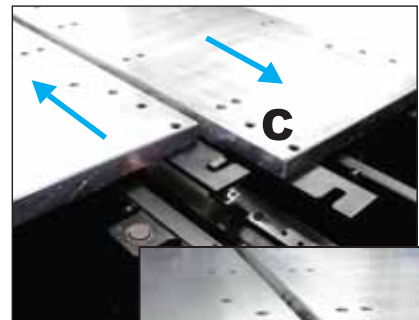
The PLC allows the operator to program pallet acceleration and deceleration according to the weight of the fixture to optimize performance.

Keypad (B) Provides:

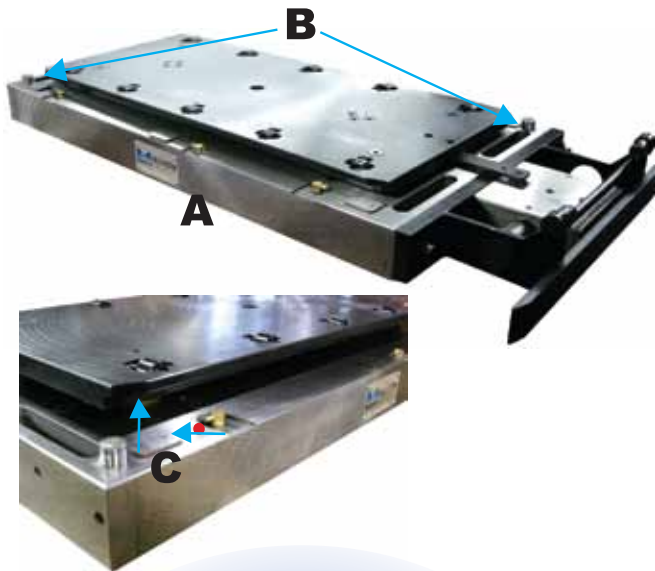
- Optional modem for online diagnostics or upgrades
- Password protected access
- Parameters page access
- Manual functions access
- Single block functions
- Current I/O status
- Diagnostic pages

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

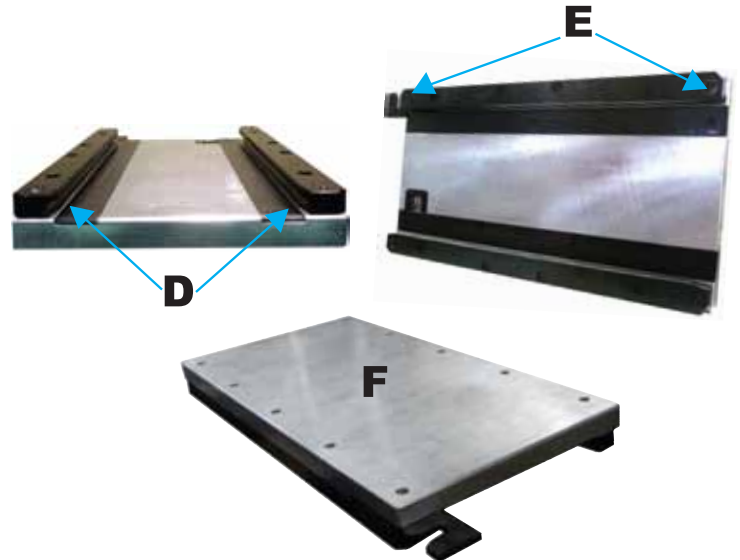


(A) Cast Iron receiver mounts directly to the machine table.

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

OPTIONAL € ENCLOSURE



- ◆ 3-sided enclosure includes hinged doors that open Down (A30SD and smaller) or Out (A40SD and larger). End door is removable.
- ◆ Pallet change will not occur if any of the doors is opened.
- ◆ 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

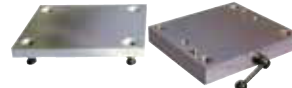
Various pallet sizes, manual, rotary and double systems are available along with other accessories designed to meet your needs.



Automatic System with CE



Dual Automatic System



Micro Pallet System - MPS31



Manual Pallet System

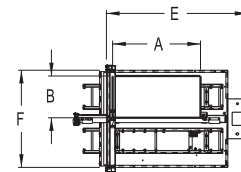
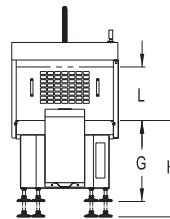
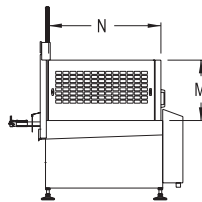
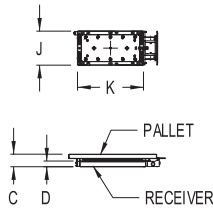


Manual "Lift Off" System



Manual Rotary System - MRPC

AUTOMATIC PALLET SYSTEMS



NOTE: Diagram Shows Optional CE Package.

	SERIES 16SD™	SERIES 30SD™	SERIES 40SD™	SERIES S5020/25SD™	SERIES 5020/25SD™	SERIES 60SD™	SERIES 80SD™	SERIES 120SD™
Clamping Force: ^a	4500 (2043)	5200/7500*** (2360/3410)	5200/7500*** (2360/3410)	7500*** (3410)	15400 (7000)	15400 (7000)	20500 (9318)	20500 (9318)
Receiver Weight	95 (43)	243 (110)	243 (110)	243 (110)	610 (277)	610 (277)	2075 (942)	2075 (942)
Pallet Weight:	48 (22)	140 (64)	170 (80)	250 (113)	340 (155)	455 (207)	790 (359)	1100 (498)
Pallet Thickness:	1.0 (25.4)	1.50 (38.1)	1.50/2.00*** (38.1/50.8)	2.00 (50.8)	2.00 (50.8)	2.00 (50.8)	2.50 (63.5)	2.50 (63.5)
Pallet Load Cap. ^{**}	250 (125)	1000/2000*** (454/908)	1000/2000*** (454/908)	2000 (908)	4000 (1818)	4000 (1818)	8000 (3636)	8000 (3636)
A (Pallet X Dim)	22/24 (559/609)	30 (762)	40 (1016)	45/50 (1143-1270)	50 (1270)	64-60 (1524-1625)	80-84 (2032-2134)	120-150 (3048-3810)
B (Pallet Y Dim)	14/15 (356/381)	15.5-19 (394-482)	19-24 (482-610)	19-24 (482-610)	19.5-24 (495-610)	24-32 (610-812)	29-39 (736-990)	29-39 (736-990)
C	4.13 (105)	5.17 (132)	5.17/5.67*** (132/144)	5.67 (144)	6.85 (174)	6.85 (174)	8.10 (205)	8.10 (205)
D	2.50 (63)	2.56 (65)	2.56 (65)	2.56 (65)	3.75 (95)	3.75 (95)	4.25 (108)	4.25 (108)
E	45.0 (1143)	54.5 (1384)	68 (1727)	78 (1980)	78 (1980)	88 (2235)	116 (2946)	161/192 (4090/4877)
F	35.2 (894)	45 (1143)	45 (1143)	57 (1448)	57 (1448)	67 (1702)	73/92.5 (1854/2350)	73/92.5 (1854/2350)
G (Min Height)	34.8 (884)	38 (965)	38 (965)	38 (965)	38 (965)	38 (965)	40/45 (1016/1143)	40/45 (1016/1143)
H (Max Height)	44.8 (1138)	49 (1245)	49 (1245)	49 (1245)	52 (1321)	52 (1321)	60/65 (1524/1650)	60/65 (1524/1650)
J (Receiver)	13.0 (330)	15.5 (394)	15.5 (394)	15.5 (394)	19.5 (495)	19.5 (495)	25.5 (648)	25.5 (648)
K (Receiver)	18.0 (457)	30 (762)	30 (762)	30 (762)	50 (1270)	50 (1270)	75 (1905)	75 (1905)
L (Door Opening)	16 (406)	20 (508)	20 (508)	20 (508)	28 (711)	28 (711)	32 (813)	32 (813)
M (Optional Package)	20.0 (508)	24 (528)	24 (528)	30 (762)	30 (762)	30 (762)	30 (762)	30 (762)
N (Optional Package)	33.0 (838)	42 (1067)	51 (1295)	61 (1549)	61 (1549)	71 (1803)	91 (2311)	140/171 (3556/4343)

Weight capacities shown in Lbs (kgs). Dimensions shown in inch (mm)

^aAt 100 PSI (6.9 bar) ^{**}At 120 PSI (8.2 bar) ^{***}Optional 2000 lb (909kg) Pallet load Capacity Includes 2" pallets on 40 Series.

Patented. Specifications subject to change without notice. Manual systems are also available.

- 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.