

Y-Axis Shift Pallet Systems



*Affordable
State of the Art
Technology*



Available 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.

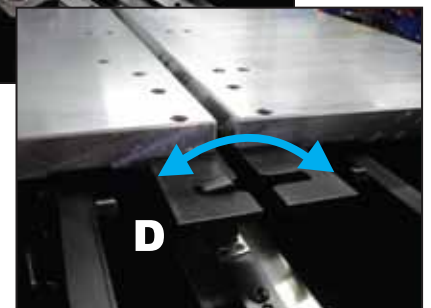
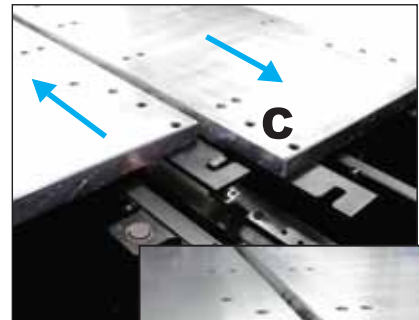
The PLC allows the operator to program pallet acceleration and deceleration according to the weight of the fixture to optimize performance.

Keypad (**B**) Provides:

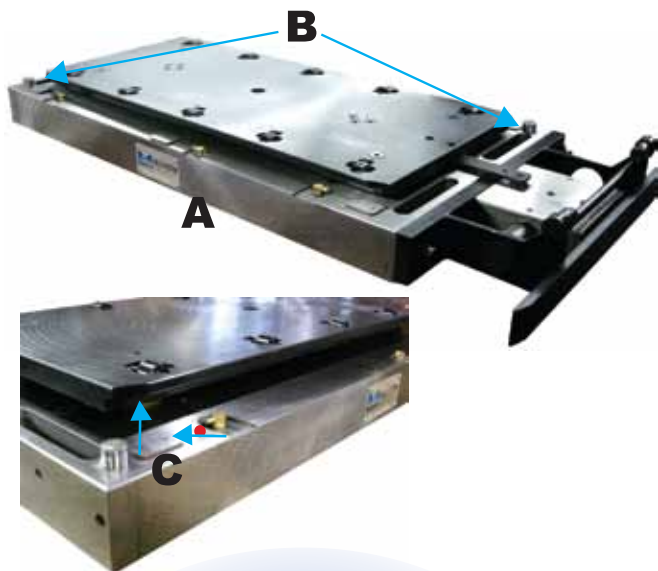
- Optional modem for online diagnostics or upgrades
- Password protected access
- Parameters page access
- Manual functions access
- Single block functions
- Current I/O status
- Diagnostic pages

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

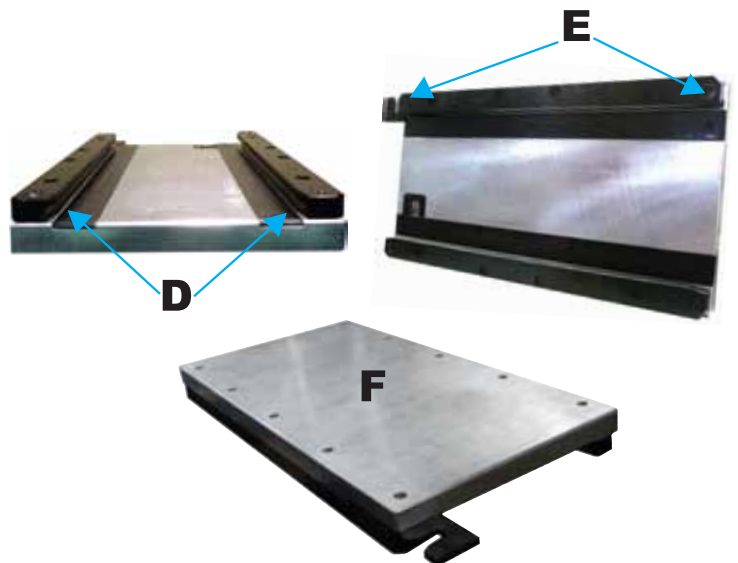


(A) Cast Iron receiver mounts directly to the machine table.

(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



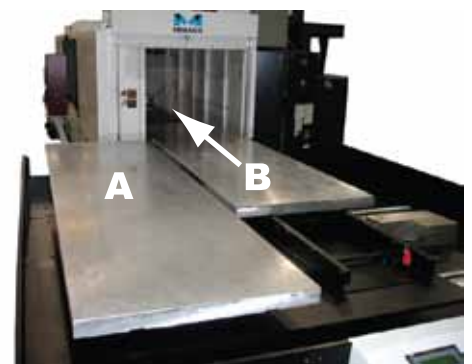
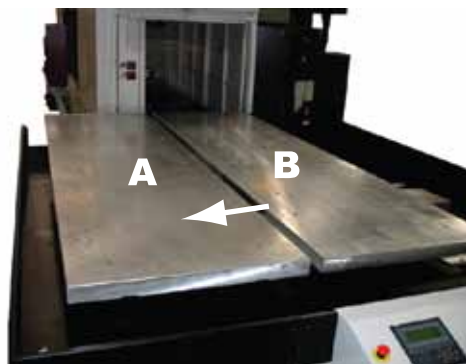
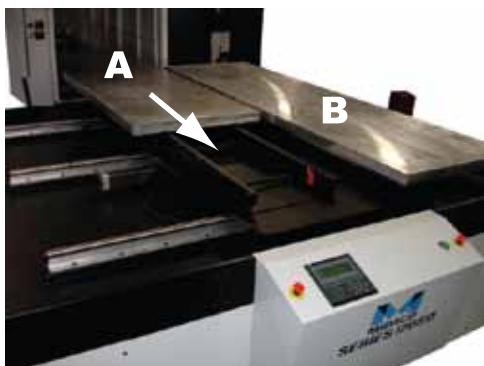
Precision ground steel rails (D) include hardened and ground bushings (E) to assure accuracy and durability.

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

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

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

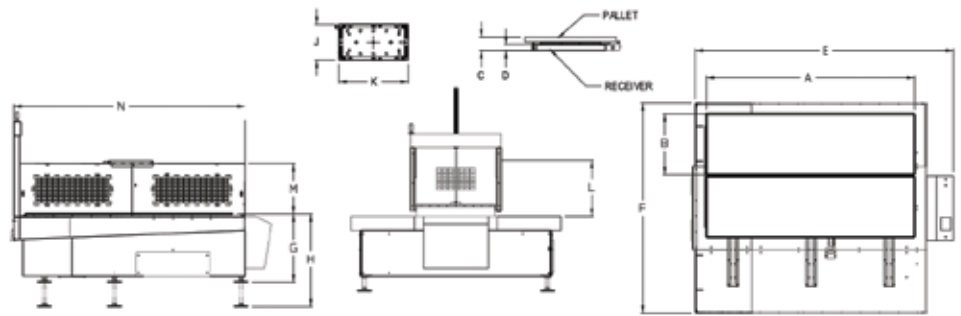


Manual "Lift Off" System



Manual Rotary System - MRPC

Y-AXIS AUTOMATIC PALLET SYSTEMS



Y-Shift Series	A16SDY		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	lbs. / in	kg / mm
Clamping Force*	4500	2043	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	95	43.1	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	25.4	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 Cap**	500	227	1000 †	454	1000 †	454	1000 †	454	4000	1816	4000	1816	8000	3632	8000	3632	8000	3632	8000	3632	7000	3178
A (Pallet X Dim)	27	685.8	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)	16	406.4	20	508	20	508	20	508	25	635	25-40	635-1015	25-40	635-1016	50	1270	30-60	762-1524	40	1016	50	1270
C	4.13	104.9	5.17	131.3	5.17	131.3	5.17	131.3	6.85	174.0	6.85	174.0	8.1	205.7	8.1	205.7	8.1	205.7	8.1	205.7	8.1	205.7
D	2.5	63.5	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	52	1320.8	71	1803.4	71	1803.4	71	1803.4	78	1981.2	89	2260.6	109	2768.6	120	3048.0	154	3911.6	184	4673.6	184	4673.6
F	54.5	1384.3	78	1981.2	78	1981.2	72	1828.8	87	2209.8	87-132	2210-3353	102-132	2591-3353	162	4114.8	102-192	2591-4877	132	3352.8	162	4114.8
G (Min Height)	36.5	927.1	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)	48	1219.2	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)	13	330.2	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)	18	457.2	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)	16	406.4	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 (Optional CE Package)	20	508	27	685.8	27	685.8	27	685.8	30	762	30	762	30	762	30	762	30	762	30	762	30	762
N (Optional CE Package)	42	1066.8	60	1524	60	1524	60	1524	65	1651	74	1879.6	95	2413	105	2667	133	3378.2	163	4140.2	163	4140.2

*At 100PSI (6.9 bar) **At 120PSI (8.2 bar) † Optional 2000 lb (909kg) Pallet Load Capacity 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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