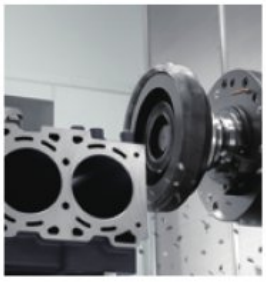
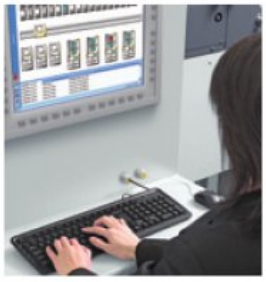
Linear Pallet Pool System

LPP SYSTEM

The LPP (Linear Pallet Pool) system is a highly automated system with specialist cell controllers and 2-level pallet shelves. The system configuration can be customized to suit your needs. An LPP will make a great contribution to improving your productivity and the rate of operation of your machines.

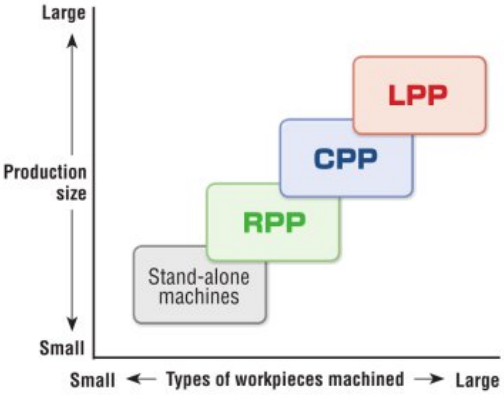




LPP's features

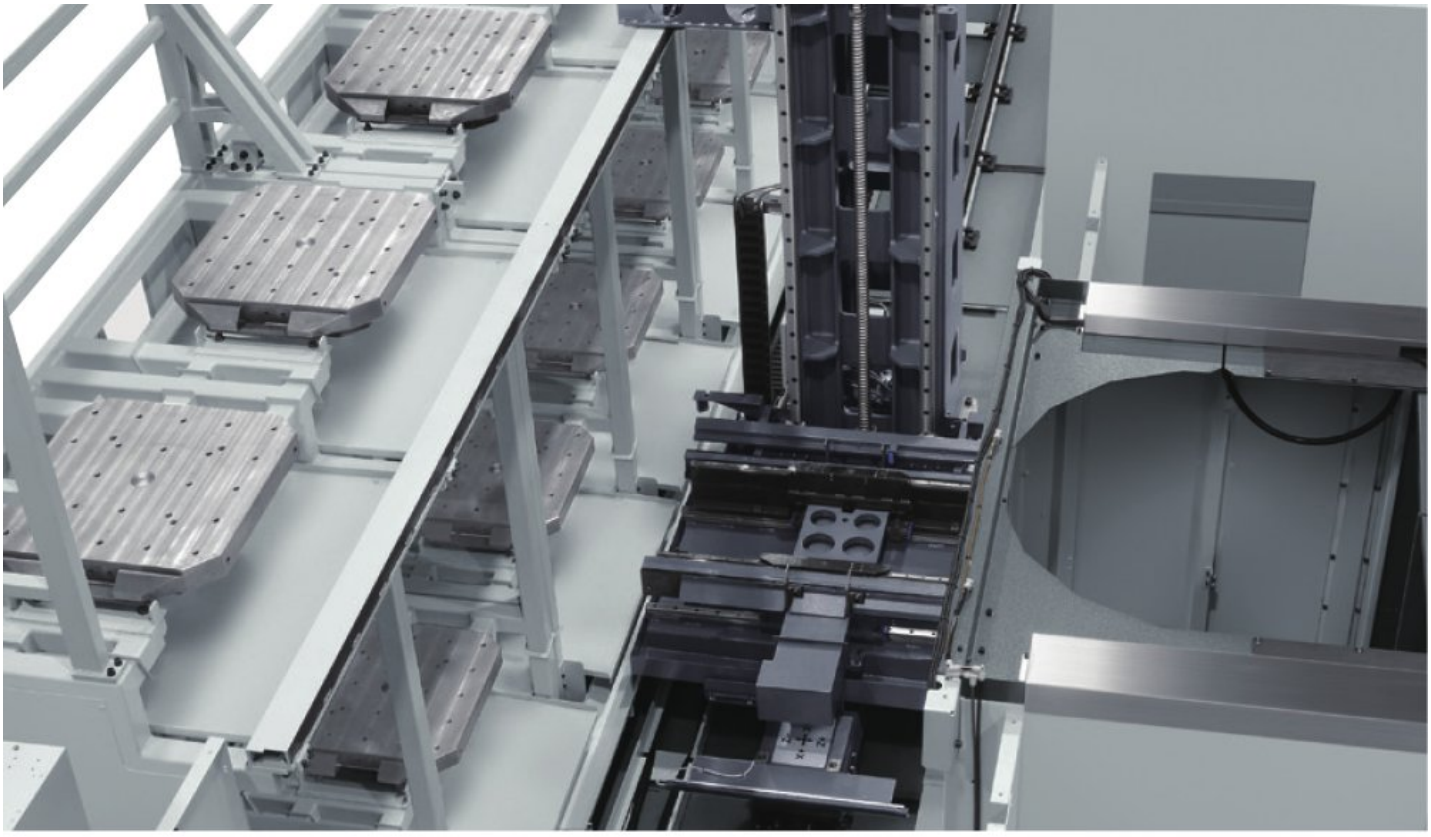
Among all the various systems which are available, the LPP system is the most suitable for multi-item, small to medium-lot production.

Characteristics of each system



Key points when selecting a system

		RPP	CPP	LPP
Scale	Number of machines	1 unit	Up to 4 units	Up to 8 units
	Number of workpiece setup stations	1 station	Up to 2 stations	Up to 5 stations
	Number of pallet stations	4 stations	Up to 29 stations	Up to 99 stations
	Number of pallet shelves	1 level	1 level	2 levels



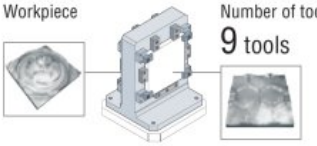
Comparison of operating rates and productivity

In order to help you understand the LPP's features, we have conducted a simulation comparing operating ratios and productivity under the same production conditions.

■ Assumptions:

We are making the comparison under the following operating conditions.

Workpiece



Number of tools used

9 tools

<cycle time/1 pcs.>

897 sec.×4,414 pcs.≒1,100 hours (3,960,000 sec.)/month

● When machining 2 kinds of workpieces at the same time. Material <JIS>: A5052 (Aluminum)

JIS: Japanese Industrial Standard

Items compared	Stand-alone machines <NHX5000> (with 2-station APC) 	CPP (12CPP) 	LPP (24LPP) 
Number of machine operating days/month A	22 days	24 days	28 days
Machine operating time (manned+unmanned) B	10 hours <8 hours + 2 hours>	20 hours <8 hours + 12 hours>	24 hours <8 hours + 16 hours>
Machine operating rate C	0.85	0.85	0.85
Actual operating time/day B×C=D	8.5 hours	17 hours	20.4 hours
Actual operating time/month D×A=E	187 hours	408 hours	571 hours
Number of machines required to run 1,100 hours/month (total)	6 machines	12CPP (1 machine)×3 sets	24LPP (2 machines)×1 set
Comparison of equipment costs	100%	70%	67%
Number of operators required	3	2	1
Comparison of personnel costs	100%	67%	33%
Comparison of floor space	100% <76 m² (818.1 ft²)>	182% <138 m² (1,485.4 ft²)>	176% <134 m² (1,442.4 ft²)>