

# FPM

## Flexible Pallet Magazine



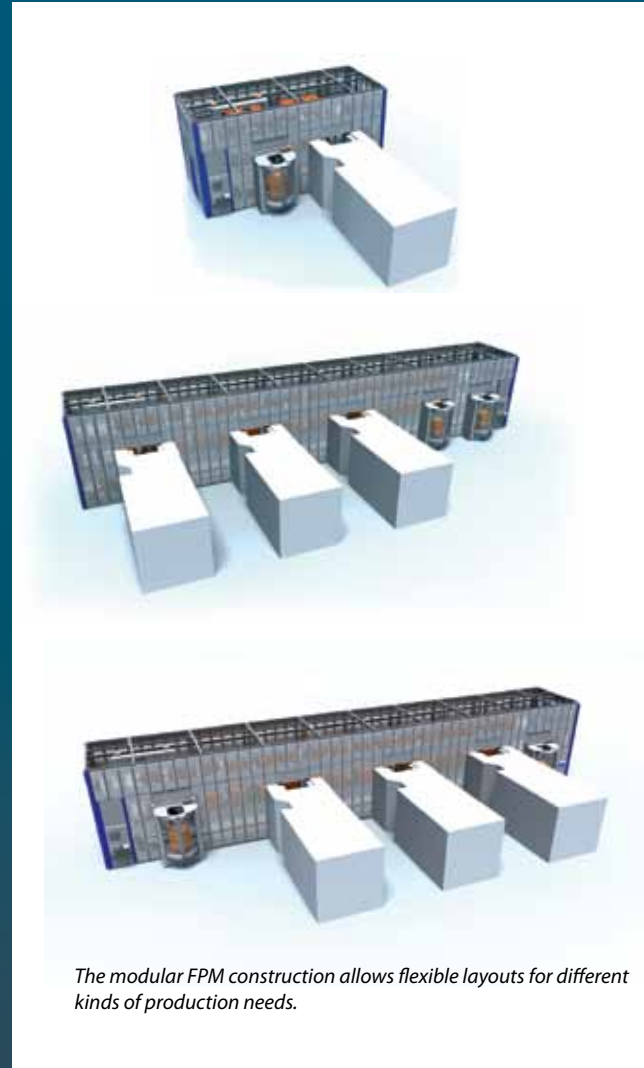
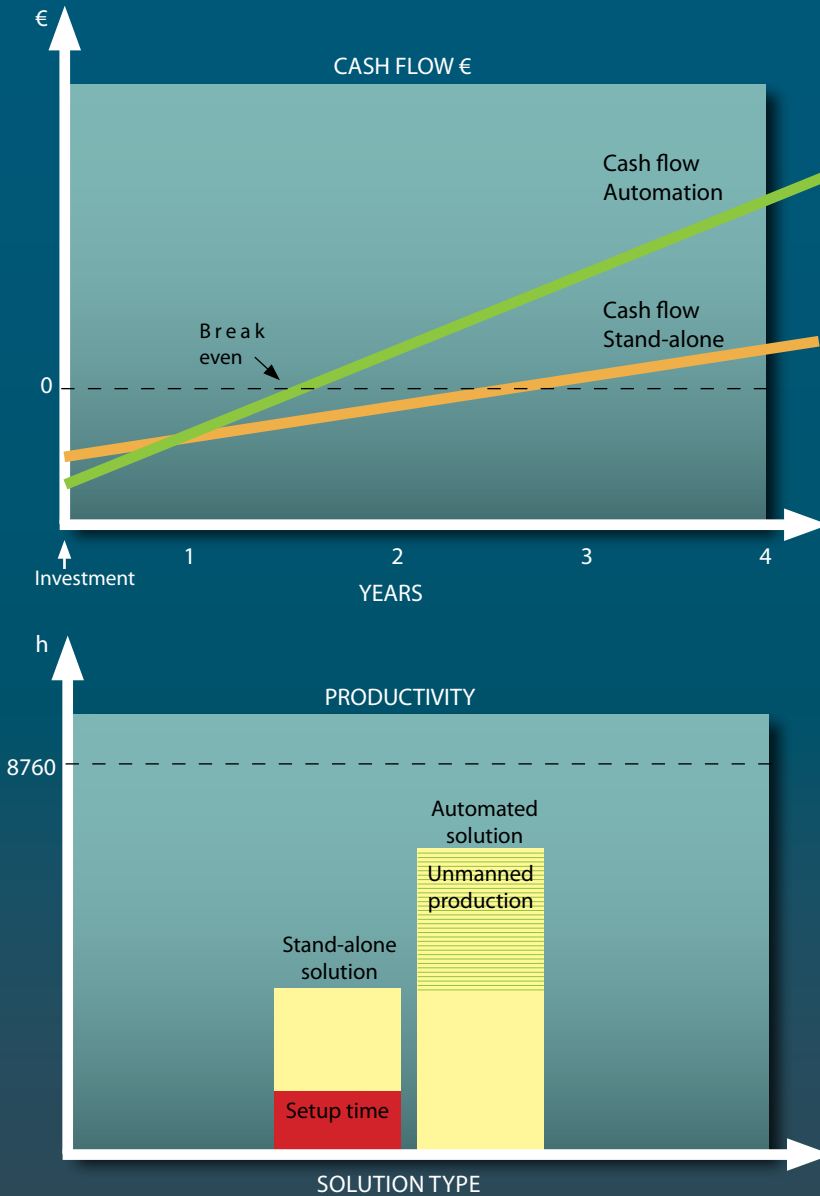
**Fastems**  
FACTORY AUTOMATION

# The FPM grows with your needs!

Fastems Flexible pallet magazine (FPM) is a standard flexible manufacturing system for one or multiple machine tools of the same make and model. With the FPM, you can utilize your machining capacity in the most optimal way. The spindle utilization of standalone machines can be almost doubled with the FPM!

The FPM consists of a high-speed stacker crane, storage rack with 2 or 3 levels, user-friendly loading stations, and the easy-to-use FPM control system. The system can be extended later on with new machine tools, loading stations, and pallet places according to your production needs.

One operator can easily control the production from one central place and prepare the system for unmanned shifts. Automatic production order processing and job management allows optimal production throughout the 8760 production hours available per year.



With automation, "zero" setup times and unmanned production periods provide higher productivity and cash flow. The payback period of an automation investment is usually less than 2 years!

## Benefits of investing in an FPM

- Increased production capacity by maximizing spindle utilization
- FPM fits with lean manufacturing objectives, shorter lead times, and the ability to manufacture single parts.
- Vertical storage leading to greater utilization of floor space
- Greater utilization of labor
- Flexible to last-minute changes



### High capacity

- high-speed stacker crane, capable of serving multiple machine tools with short cycle times
- Power supply to the stacker crane via an overhead bus and optical data transfer ensure reliable operation
- Factory-tested standard construction enables fast installation and startup
- Unique fork design allows easy access to different machine tool types
- Suitable also for handling zero-point fixtures



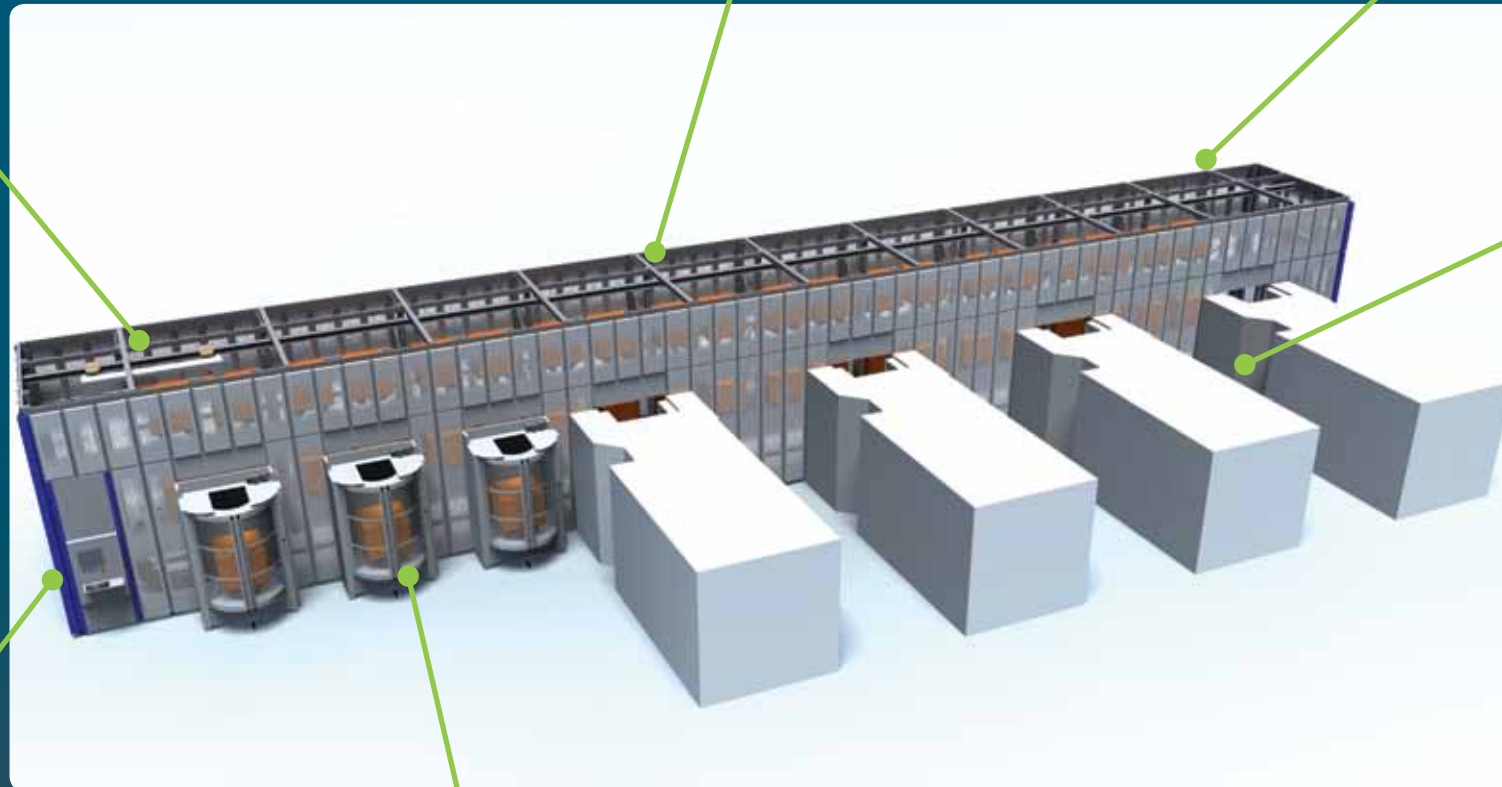
### Environmentally friendly

- Environmentally friendly
- Drip trays for cutting fluid in the stacker crane, storage rack, and loading station
- Large-diameter pipes ensure safe cutting fluid handling
- Automatic cutting fluid pumps as standard
- The aisle floor can be covered with protection plates



### Modular construction

- Modular storage rack with 2 or 3 levels
- Fast to install
- Easy to extend with new pallet places, machine tools, and loading stations



### Long experience in machine tool integration

- Fastems has delivered close to 1000 flexible manufacturing systems (FMS) during the past 30 years.
- Systems have been installed all over the world
- Fastems has ready interface solutions for hundreds of machine tool brands

### An intelligent way to produce

- The easy-to-use FPM control system adapts to your way of operation
- Support for both scheduled and visually controlled production (Kanban)
- Automatic manufacturing order processing optimizes throughput – just enter a new order and let the system produce!



- 'Flexible clamping' ensures optimal use of fixtures and machining pallets
- Automatic resource checking (machine tools, tools, fixtures, programs, raw materials)
- Production reporting provides accurate data on what has been done

### Good ergonomics - built for people

- One loading station can serve multiple machine tools
- The loading station is easy and safe to operate
- Reliable indexing mechanism is designed for long productive life
- The loading station can be equipped with a graphical touch screen



### Lifetime service

- 24/7 remote support
- Professional documentation for partners and end users
- Service options
- Spare part service



## Technical data

	FPM-750	FPM-750 Large	FPM-1100	FPM-1700
Pallet dimensions				
Nominal pallet size 1	400 x 400 or 400 x 500 mm	400 x 400 or 400 x 500 mm	500 x 500 or 500 x 630 mm	630 x 630 or 630 x 800 mm
Load size (X x Z)	660 x 660 mm	750 x 750 mm	900 x 900 mm	1125 x 1125 mm
Load height 2 (H)	1100 mm	1100 mm	1250 mm	1450 mm
Load rotational diameter (D)	750 mm	1000 mm	1000 mm	1250 mm
Load weight 2	750 kg	750 kg	1100 kg	1700 kg
Overall dimensions and storage capacity				
Length (base system)	9400 mm	8400 mm	9400 mm	8400 mm
Length (extension module)	3000 mm	2500 mm	3000 mm	2500 mm
Width	3100 mm	3200 mm	3300 mm	3500 mm
Height				
2 level	3700 mm	3700 mm	4000 mm	4450 mm
3 level	5100 mm	5100 mm	5600 mm	6200 mm
Storage capacity (base system)				
2 level	16	12	12	8
3 level	24	18	18	12
Storage capacity (extension module)				
2 level	8	6	6	4
3 level	12	9	9	6
Extendibility of the system				
Number of loading stations 3	1 or more			
Number of machines 4	1 or more			
Number of storage modules 5	2 or more			

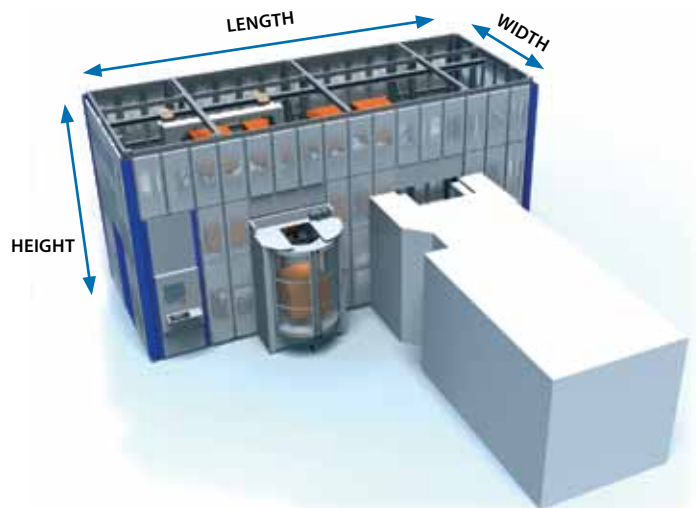
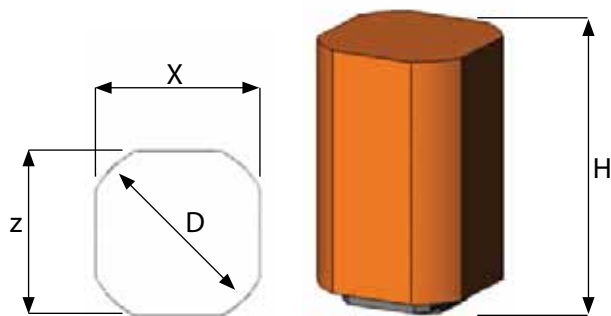
<sup>1</sup> Only one machining pallet size and type can be handled with one FPM system. Material pallets are not possible.

<sup>2</sup> Including machining pallet

<sup>3</sup> One loading station is included in the base system

<sup>4</sup> One machine tool interface is included in the base system

<sup>5</sup> Two storage modules are included in the base system



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