



360° Extendable Automation for 4 and 5 Axis Machine Tools.

Flexible Pallet System FPS

Extendable automation for high mix manufacturing.



- **4 AND 5 AXIS MACHINES**
with and without APC units
- **CONFIGURABLE SOLUTION**
for any shop floor
- **EASILY SCALABLE**
from a single-machine solution into a multi-machine linear FMS
- **GLOBAL SERVICE**
to maintain, extend and develop your FPS today and tomorrow

Flexible Pallet System is a modular CNC automation solution that enables lights-out manufacturing and high spindle utilization with 4- and 5-axis milling and mill-turn machine tools. What sets it apart from other solutions are its modular and extendable 360-degree design, integration capability with over 90 machine brands, and state-of-art MMS production planning capabilities. FPS can be extended or upgraded if there is a change in production needs.

Productivity Comparison with 3 Machine Tools

	No automation	with FPS
Investment cost 3 machine tools*	\$ 1,200,000	\$ 1,200,000
Investment cost automation	\$ 0	\$ 800,000 *
Machine tool utilization rate	40 %	85 % ***
Machining hours / year****	4,800 h	15,300 h
Total income per year (machining sales price \$ 100 / h)	\$ 480,000	\$ 1,530,000
Payback time	2y 6m	1y 4m

* calculated with a 5-axis HMCs
** includes automation, 18 pallets and needed machine tool modifications
*** no spindle time loss due manual setup changes + unmanned night shift
**** 50 weeks, 5 days per week, 2 manned shifts (+1 unmanned when automated) per day



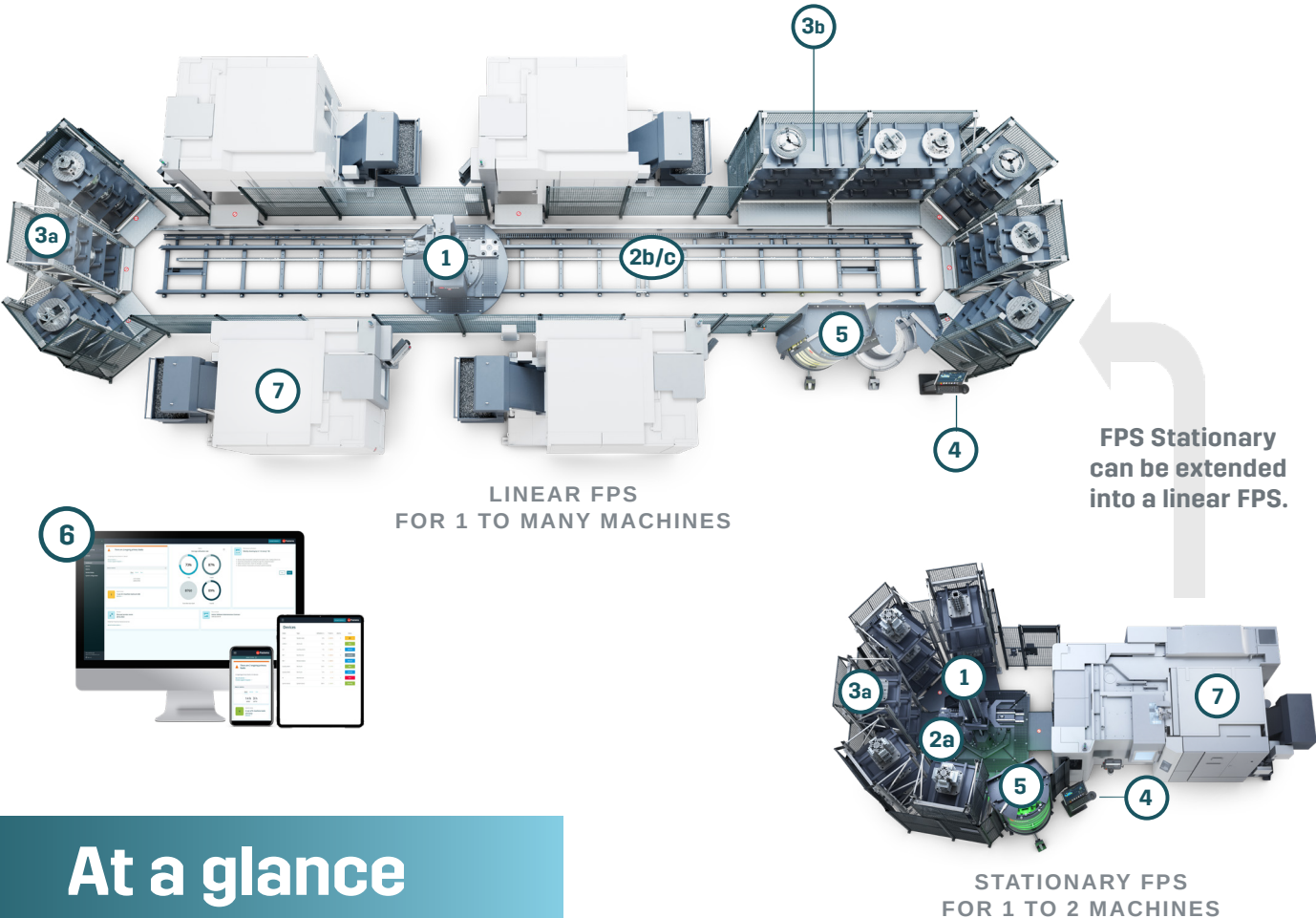
Comparison on 3 types of standardized automation systems

	Machine tool with APC	Pallet pool / tower	Flexible Pallet System (FPS)
Pallets per machine tool	2	12	Unlimited
Machine tool brands	–	Limited	Any
New or existing machine tools	New	New	Both
Machine tools controlled by 1 operator	1	1	Many
Shared fixtures between machine tools	–	No	✓
Extendable system	–	No	✓
Cost of extension	Buy a new machine	Buy a new system	Cost effective extension
Unmanned production capacity (pallets)	1	12	Unlimited
Production reports	No	Per machine	Entire system
Real-time automatic KPI reports	–	No	✓
Order priority	Manual	Manual	Automatic
Auto-scheduling	–	No	✓
Production order management	–	No	✓
System efficiency	Low	High	Very high
Tool data & scheduling	No	No	Yes
Cutting tool automation	-	-	Can be integrated
Automated fixture loading	-	-	Can be integrated

Build your own FPS

FPS is modular system that handles machining pallets and zero-point plates of 300-630 mm. Its unique 360-degree design ensures a fit for any shop floor – the machine tools, pallet storage units, and operator loading stations can be

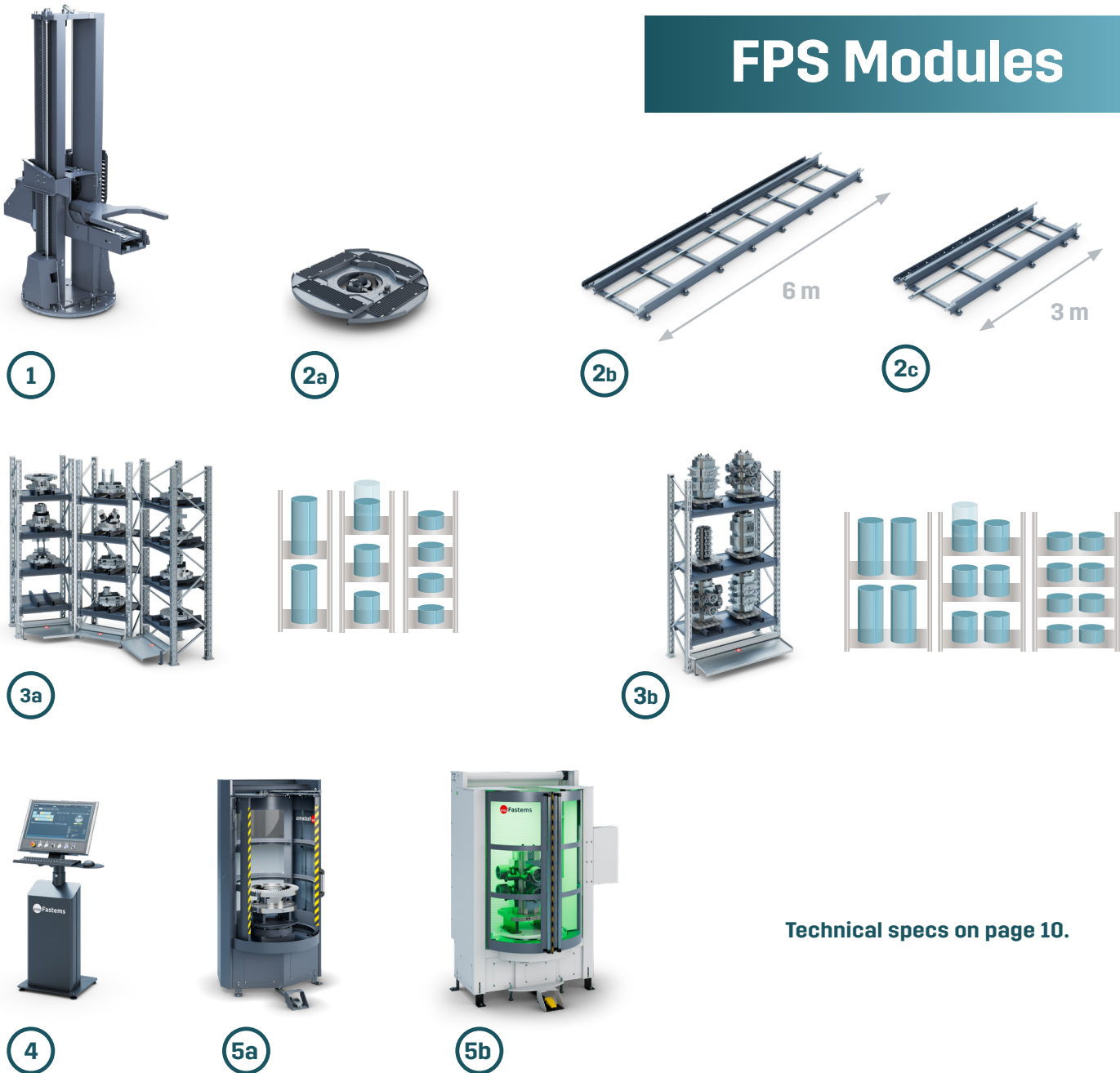
placed flexibly on all four sides of the system. If you want, you can begin with FPS Stationary, a pallet tower like solution - and extend it later to a full-scale linear FPS. Build yours!



At a glance

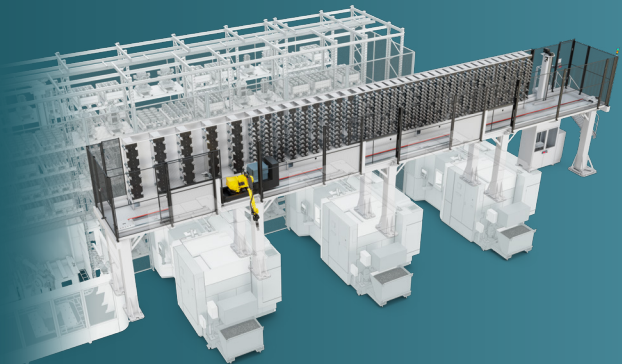
- 1 Load handler**
 - 360-degree pallet transportation
 - long reach
- 2 Platform or track**
 - build the system that fits on your floor
 - a) FPS-S platform
 - b) linear 6-meter module
 - c) linear 3-meter module
- 3 Pallet storage**
 - configurable for different load heights
 - two different heights per system
 - a) FPS-S base module/ linear system end module for 4-12 pallets
 - b) linear system side module for 4-8 pallets
- 4 Cell controller**
 - touch operating panel
 - ergonomic with adjustable height
- 5 Loading station**
 - ergonomic operation
 - clamping and unloading the parts
 - at a glance system status
 - a) for 500-1000 kg
 - b) for 1500 kg
- 6 myFastems**
 - easy system maintenance with immediate connection to Fastems service
- 7 Machine tool(s)**
 - with or without automatic pallet changer
 - 300 to 630 mm pallets
 - over 90 brands already integrated with Fastems

FPS Modules



Technical specs on page 10.

+ INTEGRATE MORE PROCESSES INTO YOUR FPS



Cutting Tool Automation

Save time & cost in high tool demand. Tool automation stores cutting tools centrally and shares them between machine tools just-in-time.



Fixture Auto-Loading Cell (ALD)

When automating, you need to power up your raw material logistics. ALD keeps your fixtures loaded and machine tools running lights out, 24/7.

Manufacturing Management Software MMS

- Automatic production scheduling
- Ready-made interfaces for hundreds of machine tools
- Recognizes resource bottlenecks in advance
- Automatic KPI reporting

Easy Production Control

The control system of FPS, Manufacturing Management Software MMS, is designed specifically for high-mix manufacturing needs. It is a tool for everyone working in production or managing it, giving a real-time view of production activities. Most importantly, it identifies exactly what needs to be done next to ensure timely deliveries and maximum spindle utilization.

Not only does the MMS consider the pallets that need to be loaded in the machine tools next, but it also checks and ensures that all the other machining resources are there in time – NC programs, cutting tools, and raw materials. When a rush job is received or anything sudden happens, MMS automatically adjusts the production plan.

Choose from 3 MMS Plans

STANDARD

Easy to operate - enabling continuous, unattended production for you.

- Pallets are machined based on order-based work queue or FIFO.
- Intuitive user interface with guidance helps operator to focus on the most important tasks.
- Optional ERP interface.

ADVANCED

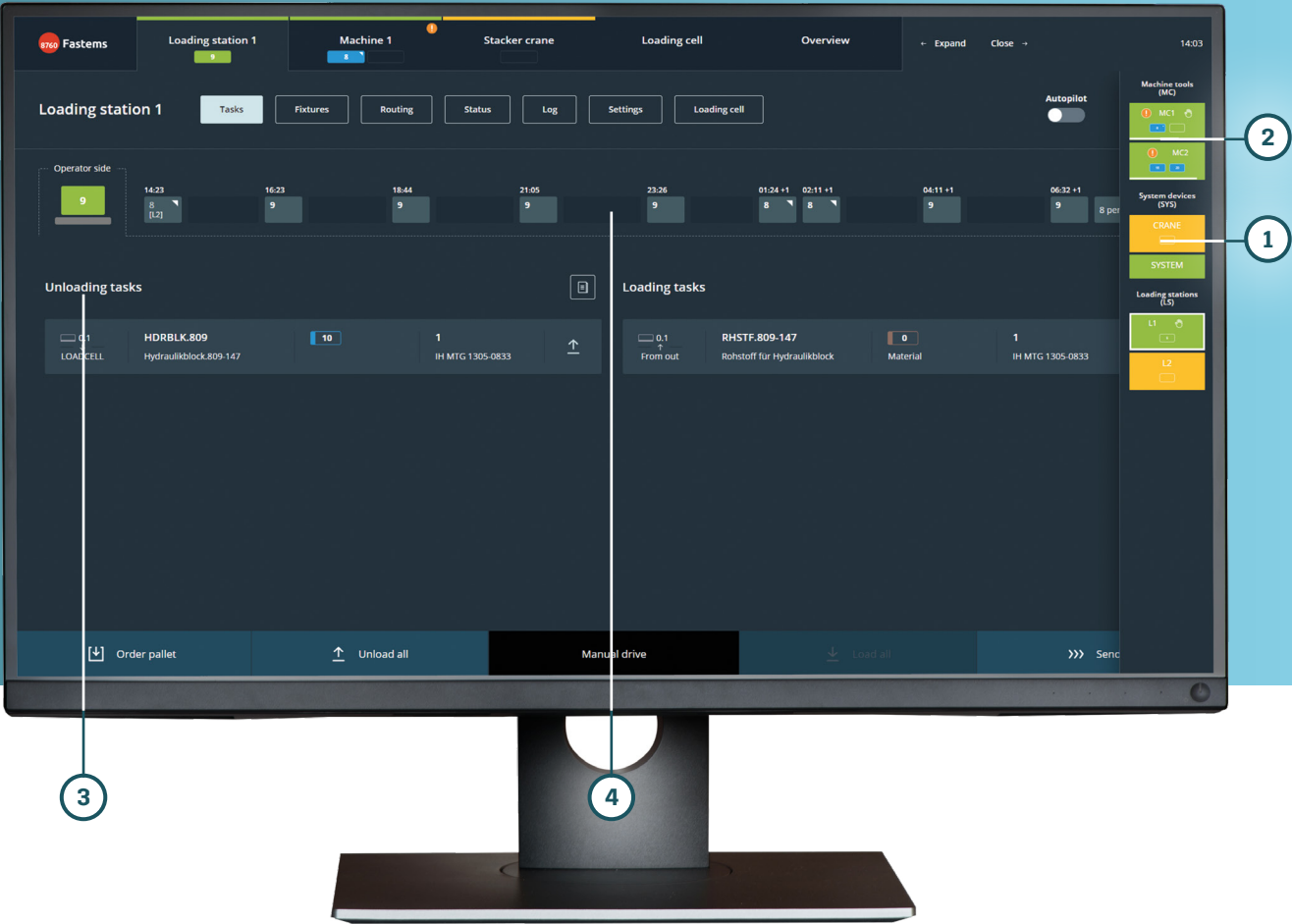
Offers transparent and predictive ways to keep you in control.

- Fine scheduling includes production order and resource simulation for up to 96 hours in advance.
- The MMS checks that all the needed NC programs and tools are available via machine tool integration.
- Order completion dates are calculated up to 6 months ahead.

ULTIMATE

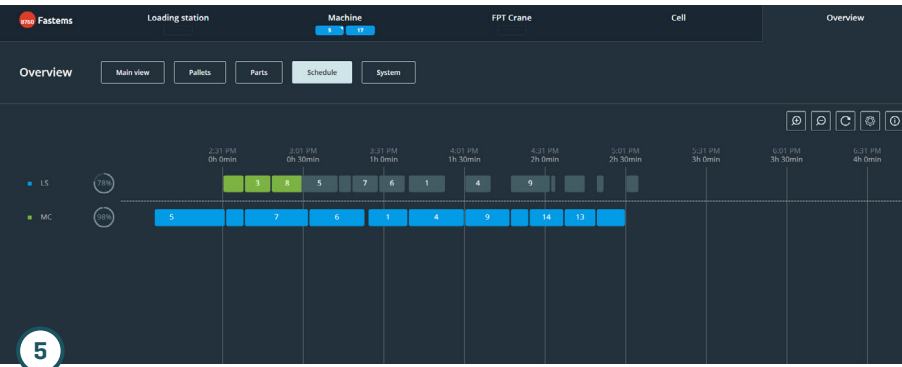
Utilize your existing manufacturing data.

- Define your key performance indicators and view them at a glance with customizable Dashboard.
- Real-time machine status monitoring for continuous production optimization.
- Real-time remote monitoring with alarm functionality for unmanned production.



At a Glance

- 1 Stacker crane status
- 2 Machine tool view
 - With or without APC
 - Current NC program and machined part details
- 3 Loading station status
- 4 Operator loading/unloading backlog tasks
- 5 Machining schedule
- 6 Cutting tool tasks

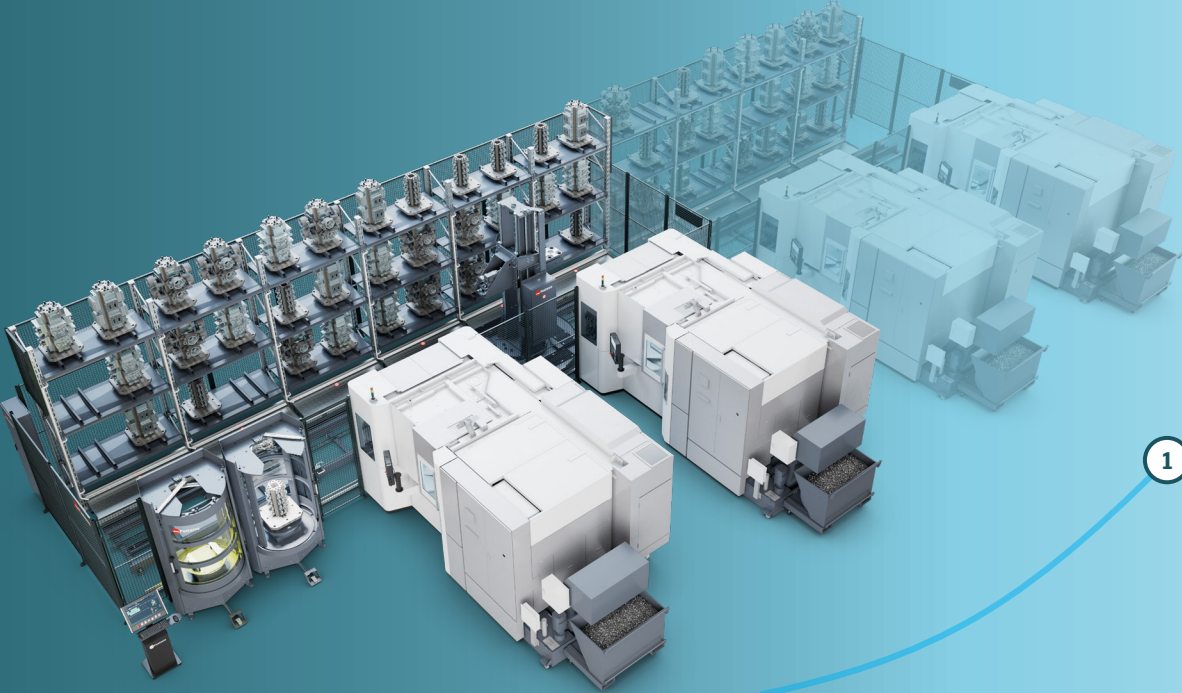


MMS can schedule production automatically based on production orders or FIFO.

WHEN	TOOL	REQUIRED	MISSING LIFE
2:38 PM	6001 Shoulder milling tool CoroMill 390	1 pcs	00:00:55
2:38 PM	6044 Ball nose cutter for roughing CoroMill® 216	16 pcs	05:40:05
2:38 PM	6056 Deep and narrow grooving CoroMill QD	3 pcs	02:10:10
4:41 PM	3006	3 pcs	03:07:16

MMS Advanced package enables tool planning and status views for the easier cutting tool maintenance.

Turn automation into everyday productivity.



Your Productivity Journey.

- 1 Accelerate Ramp-Up**
We help your team adopt the system efficiently, shortening the on-ramp time.
- 2 Optimize & Improve**
Regular productivity reviews reveal opportunities to increase spindle utilization, improve flow and eliminate bottlenecks.
- 3 Sustain Performance**
Preventive maintenance and 24/7 support help avoid unnecessary downtime and keep production running reliably year after year.

Stay aware & optimize your system

myFastems – Your Digital Service

BE INFORMED

- Real-time information and notifications, accessible anywhere and anytime
- First-aid tips and recovery instructions available for proactive problem-solving

WE ARE ONE CLICK AWAY

- Increase system' run time with direct access to our 24/7 assistance
- Get support more efficiently with error-coded support requests

ENHANCED SERVICE MANAGEMENT

- Easy access to service history and reports
- Guided spare part inquiries with photos
- Recommendations on replacing spare part key components

EXTENDED PERSPECTIVE

- Follow service KPIs (utilization, automation index, MTBF, MTTR) for improvement opportunities based on measured data)
- Utilize the full potential of your system with optional monthly reports for comprehensive system insights.

Productivity from day one, peace of mind for decades

FPS Service Agreement

Your automation journey doesn't stop at the installation - it starts there. We stay with you until you reach your productivity goals. That's why every FPS comes with FPS Service Agreement. With regular productivity reviews, preventive maintenance and 24/7 expert support, you can focus on manufacturing while we help keep your system performing at its best. The result is faster payback, higher availability and increasing productivity throughout the lifetime of your system.

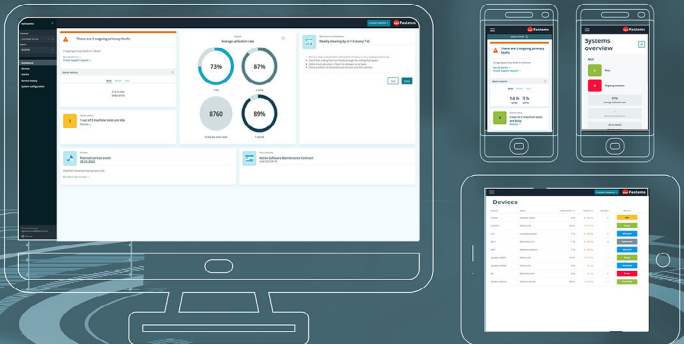
WHAT IS INCLUDED?

Keep Your Production Running

- Extended system warranty
- 8760 Premium support with guaranteed response times 24/7
- Preventive maintenance visits every 6 months
- Condition and performance reviews
- Recommendations for lifecycle actions

Maximize Automation Value

- On-ramp productivity assessment & advisory
- Biannual productivity reviews
- Improvement recommendations based on system usage
- Additional user training sessions
- Guidance on best practices for your evolving manufacturing needs

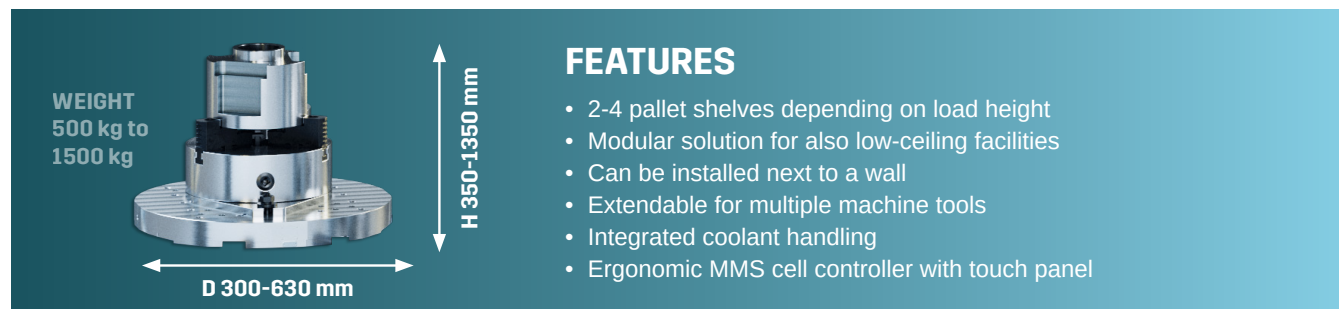


Technical Datasheet

☐	Both systems
☐	FPS Stationary
☒	FPS (linear)

Flexible Pallet System		FPS-500			FPS-1000			FPS-1500	
LOAD	Pallet sizes	300-500 mm			500-630 mm			500-630 mm	
	Maximum load diameter (D)	Ø 630 mm (24.80")			Ø 900 mm (35.43")			Ø 1100 mm	
	Maximum load weight ¹	500 kg (1,102 lbs)			1000 kg (2,205 lbs)			1500 kg (3,307 lbs)	
STORAGE CAPACITY	Maximum load height (H) ¹	1200 mm (47.24")	600 mm (23.62")	300 mm (11.81")	1200 mm (47.24")	800 mm (31.50")	450 mm (17.72")	1350 mm (53.15")	600 mm (23.62")
	Storage levels	2	3	4	2	3	4	2	3
	Max number of pallets (FPS-S)	12	18	24	10/12 ²	15/18 ²	20/24 ²	8	12
	Max number of pallets ³	100+			100+			100+	
LENGTH	System length (FPS-S)	4100 mm (161.42")			5600 mm (220.47")			5600 mm (220.47")	
	System length with 3-meter track	4170 mm (164.17")			4280 mm (168.50")			4660 mm (183.46")	
	System length with 6-meter track	7150 mm (281.50")			7380 mm (290.55")			7760 mm (305.51")	
	3-meter extension length	2980 mm (117.32")			3040 mm (119.69")			3040 mm (119.69")	
	6-meter extension length	5960 mm (234.65")			6120 mm (240.95")			6120 mm (240.95")	
	End storage length	800 mm (31.50")			1200 mm (47.24")			1250 mm (49.21")	
WIDTH & HEIGHT	Stationary system width ⁴	3500 mm (137.80")			4600 mm (181.10")			4500 mm (177.17")	
	Linear system width ⁴	3250 mm (127.95")			4050 mm (159.45")			4300 mm (169.29")	
	System height	3100-3650 mm (122.05-143.70")			3500-4100 mm (137.80-161.42")			3500-4150 mm (137.80-163.39")	
	Transport height	2800 mm (110.24")			2800 mm (110.24")			2800 mm (110.24")	

1 Including pallet 2 Depends on machine tool model 3 Depending on selected track length 4 Excluding loading stations



Plan Your System

Your high-mix productivity partner.

► In high-mix manufacturing, the difference between keeping up and staying ahead is how well you adapt.

Not just faster machines.
Not just automation.
But how your entire operation performs as one.

We help you uncover hidden capacity, eliminate constraints, and turn complexity into a competitive advantage. By combining decades of high mix expertise with intelligent automation, software, and end-to-end services, we make your production more predictable, more flexible — and much more profitable.

KEY NUMBERS:

- 40+ years of automation experience
- 5,000+ installations in Europe, North America, and Asia
- 24/7 customer support & 10 regional service hubs
- 90+ machine tool, device & software brands integrated

Read more at
www.fastems.com/fps

