

system 3R

TOOLING | AUTOMATION | SOFTWARE

WorkPal 1



Design and quality by System 3R

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AUTOMATION MADE SIMPLE

- Smallest footprint
- Loading the table of your Milling, WEDM, Laser or grinding machine
- Easy to operate, glass doors gives maximum visibility and access to the magazine.

ACHIEVE GREATER RETURN ON YOUR INVESTMENT!

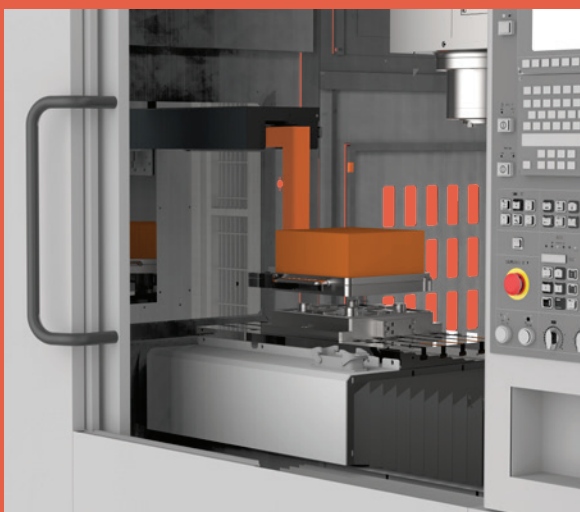
Small footprint

WorkPal 1 is a pallet changer that requires minimal floor space. It is designed for automatic changing of pallets in chucks on machine tables in:

- milling machines
- wire EDM machines
- laser machines
- grinding machines.

With glass doors across one full side, the WorkPal 1 gives maximum access to the magazine. This greatly facilitates the loading and unloading of pallets.

Milling

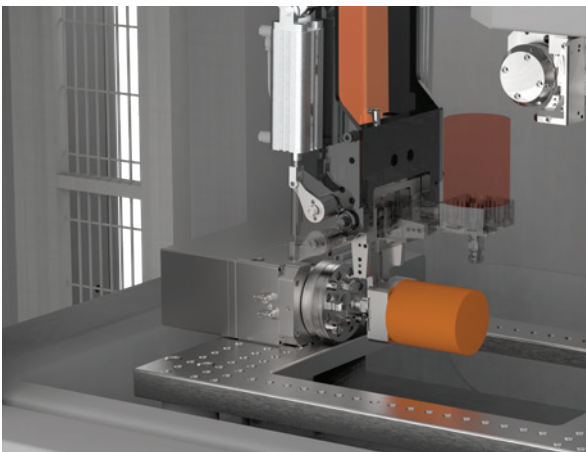


Loading Milling machine with Dynafix pallet.

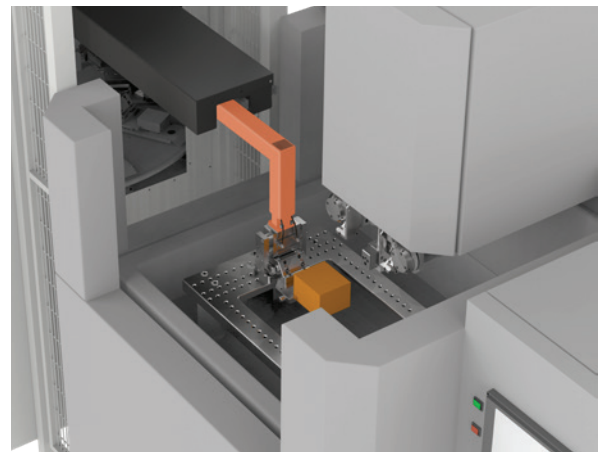


The design allows loading of heavy work pieces with an overhead crane. In this case 5 Dynafix pallets.

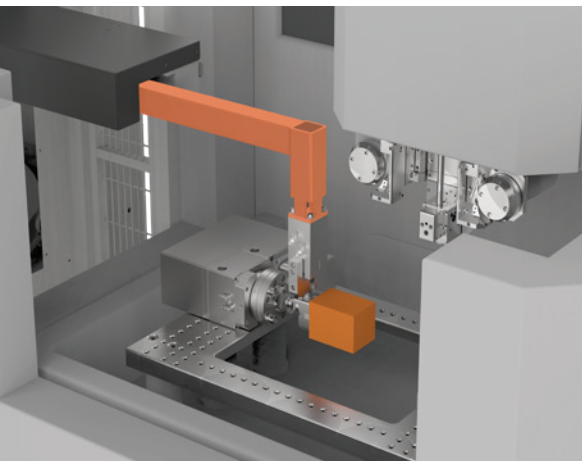
Wire-cutting EDM (wireEDM)



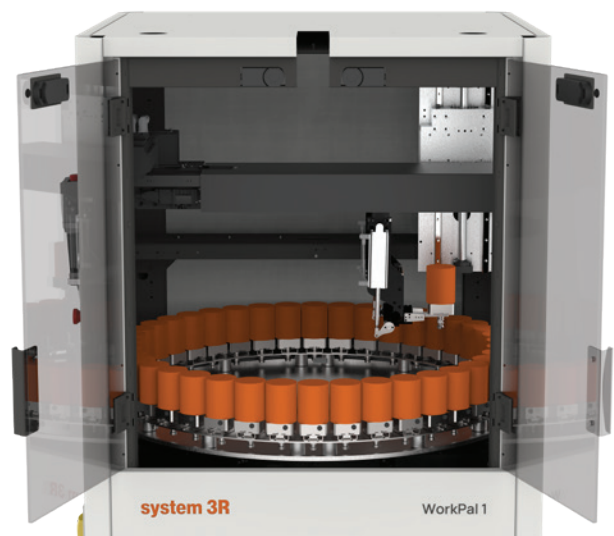
Tilt gripper for Wire-cutting EDM (wire EDM).



The changing arm lifts the pallets over the tank in WEDM machines.

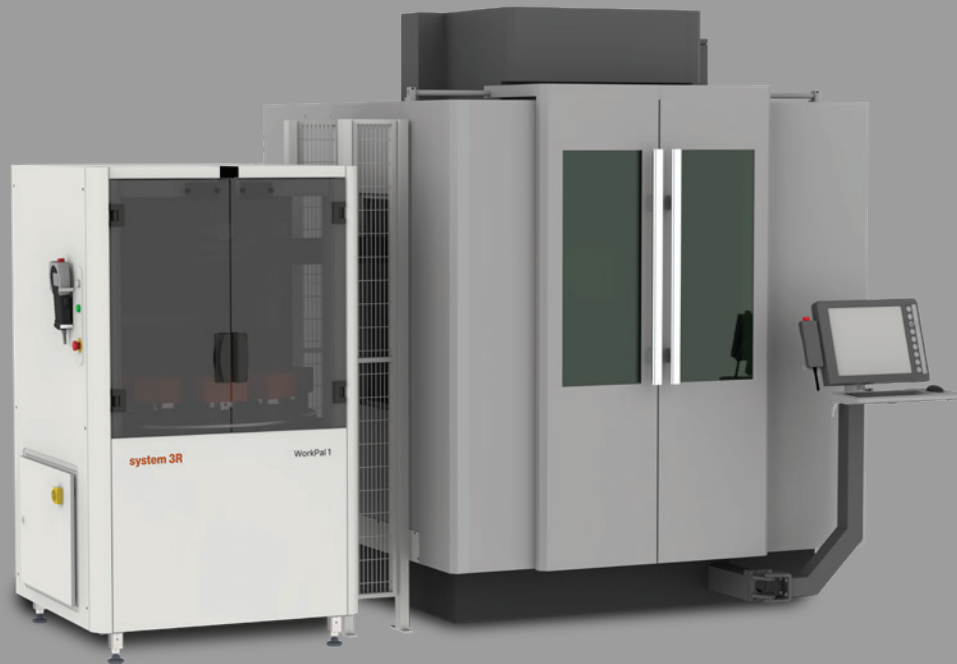


B-axis for Wire-cutting EDM (wire EDM).

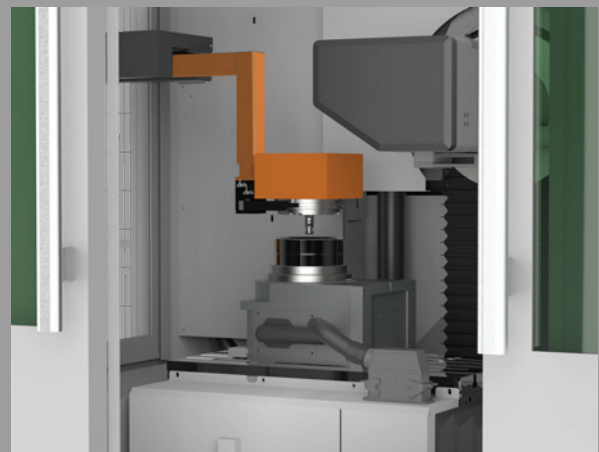


WorkPal 1 with tilt gripper and open doors.

Laser

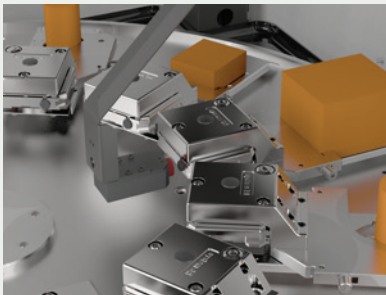


Magazine prepared with 12 MacroMagnum pallets.



Loading MacroMagnum pallets into a Laser machine.

Options



ID-system with or without automatic scanning.



Cell PC included.



Drying station



In-built LED lighting



Status lighting

Options & accessories

In-built lighting

Integrated drying station with/without thermostat for temperature control

ID-system with or without automatic scanning

Cell PC with WorkShopManager software

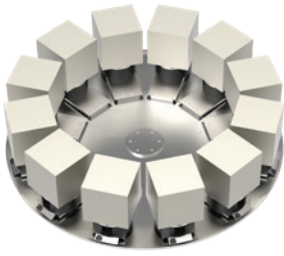
Chip guard for Macro 54 & 70

Code carrier

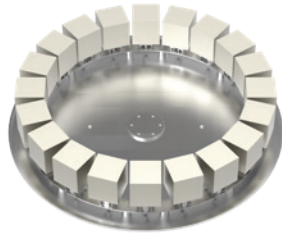
U-50167.55

3R-863.01-10, 3R-863.01-10M, 3R-863.25-10, 3R-863.30-10 or C690800

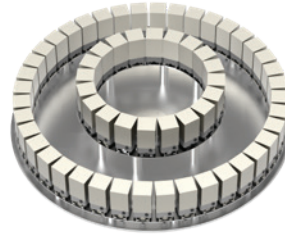
FLEXIBEL MAGAZINE CONFIGURATION



12 positions ...



20 positions ...

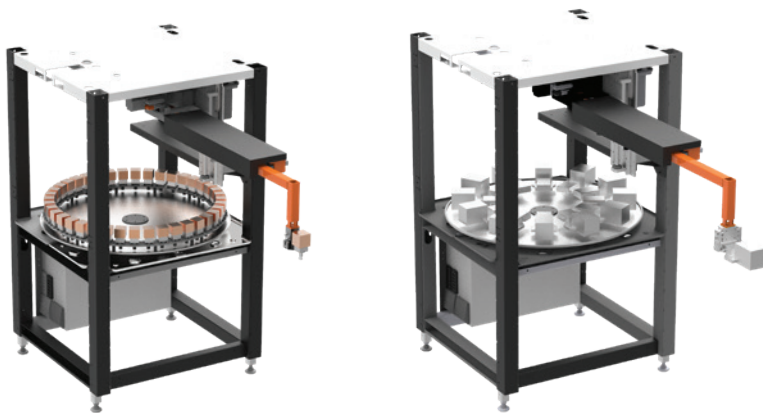


or 60 positions



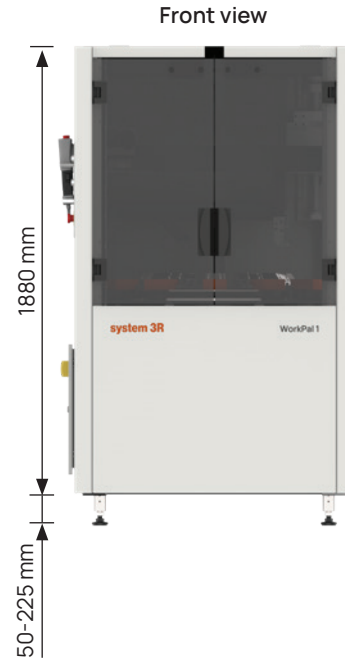
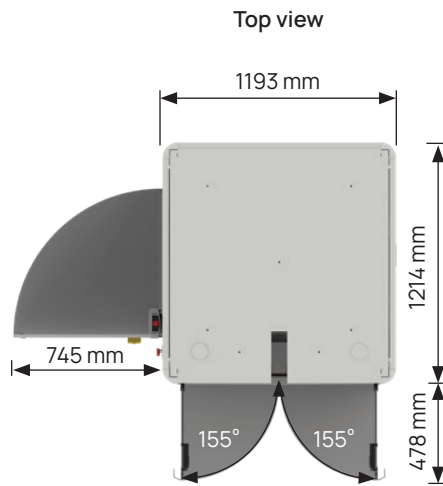
Optional: Magazine disc for Tilt gripper.

Magazine capacity/applications	Pallet system	No of positions
Table chuck – milling, grinding or EDM	Macro 54 & 70	24, 40 or 60
	Macro with chip guard	24
	MacroPT	60
	Matrix 110	20
	GPS 70	24, 40 or 60
	GPS 120	20
	GPS Ø 116	20
	MacroMagnum	6, 10 or 12
	Matrix 142	6, 10 or 12
	GPS 240	7
	Dynafix	5
	UPC (fork gripper or RCS)	4
	ITS 50	24, 40 or 60
Table chuck – wire EDM	ITS 148	6, 10, or 12
	Macro EDM	12
	Macro Twin WEDM	4
Wire EDM B-axis	PSW (RCS gripper)	12
	Macro 54 & 70	12, 24 or 40
	ITS 50	12, 24 or 40



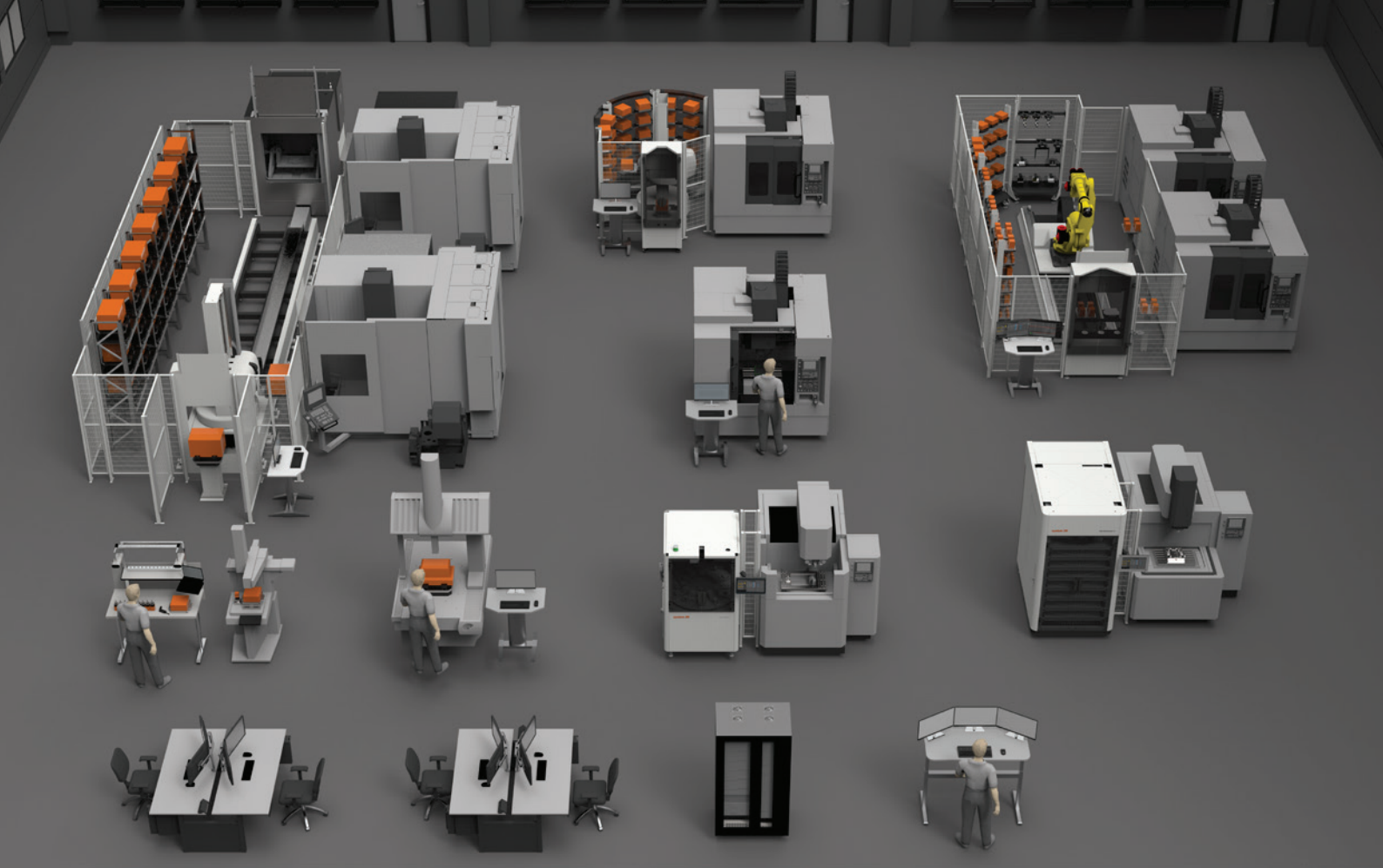
No expensive machine modifications are required.
The changing arm lifts pallets over the tank in wire EDM machines.

TECHNICAL SPECIFICATIONS – WORKPAL 1



Technical specifications	
Transfer weight (may be limited by the pallet system)	50 kg (pallet with workpiece)
Maximum total weight in the magazine	300 kg
MR, X and Z axes	AC servo motor
Maximum horizontal stroke (X) and speed	828 mm, speed 1200 mm/s
Maximum vertical stroke (Z) and speed	400 mm, speed 1200 mm/s
Maximum MR axis stroke and speed	360 °, speed 90 °/s
Required power supply	single-phase, 180-240 V AC, 14 A at 180 V AC, 20 A at 230 V AC
Required air pressure	6 ±1 bar, 150 litres/minute
Required floor space	1200 x 1214 mm
Interface – serial RS232/422, M function or parallel I/O	

Specifications	
Maximum handling weight (incl. gripper, pallet, etc.)	50 kg
Maximum number of machines served	1
Maximum number of tooling types	1
Chuck adapter support	-
Technology	Milling, wire EDMing, grinding, laser and CMM
Linear rail	■ Manual movement
Loading station support	-
Tilting and draining station support	-
Drying station support (wire EDM)	■
Batch Builder	■
CellManager	■
EasyCellManager (milling)	■
Hybrid station support (milling)	-
Pallet station support (milling)	-



WSM 5 – WorkShopManager 5

User-friendly Cell Management Software

- Necessary data is entered quickly and in a structured manner.
- Quick, precise overview of the entire process chain
- Increased flexibility: The order of priority can be changed at any time.
- Simpler, safer preparation of automated cells
- The risk of errors due to the human factor is minimized.
- Increased process security



Preparation – WorkCenter

- Create an order
- Assign operations and NC programs
- Retrieve offset values
- Release the order for production

Execution – CellManager

- Manages the pallet ID codes and magazine positions
- Creates priority lists
- Automatically starts available jobs in the order of the priority list
- Updates the information in the database with the status and machining times of individual orders

Monitoring – CellMonitor

- Display status of all cells
- Display status of individual machines and processes

Statistics – WSM 5 Statistics

- Retrieve and analyze cell utilization data
- Retrieve and analyze order data

Use our Customer Services to optimise your equipment uptime

System 3R's Customer Services department is uniquely positioned to help you maximise the availability, value, precision and productivity of your System 3R equipment. Our cost-effective, customer-centric and expert services put your success at the centre, ramp up your productivity and ensure predictable, uninterrupted uptime.

System 3R's service engineers are your expert partners for a wide range of success-triggering services. For further details, contact your local System 3R dealer.

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