system 3R

TOOLING I AUTOMATION I 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 visability and access to the magazine.

ACHIEVE GREATER RETURN ON YOUR INVESTMENT!

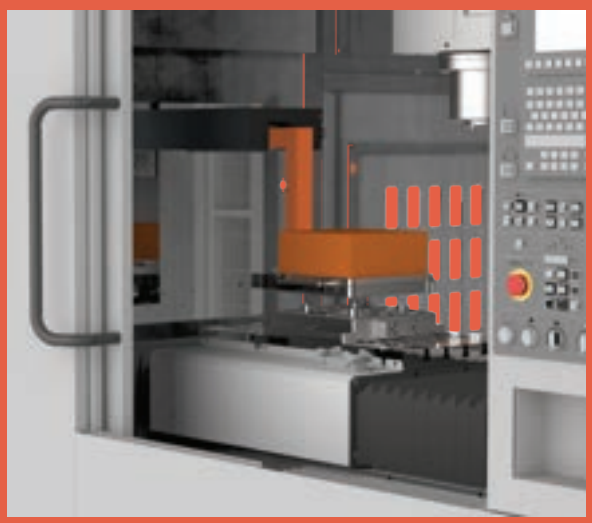
# Small footprint

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.

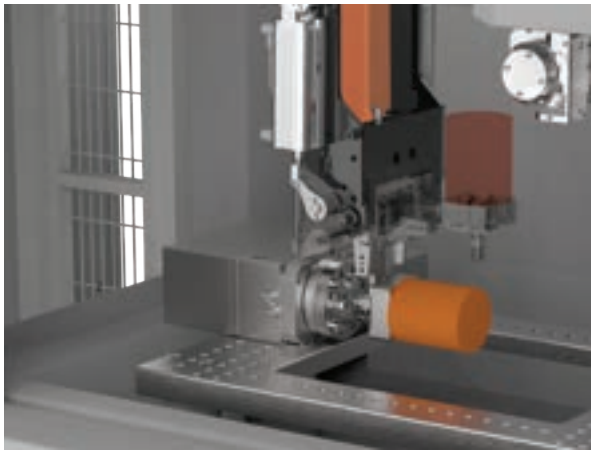
## Milling



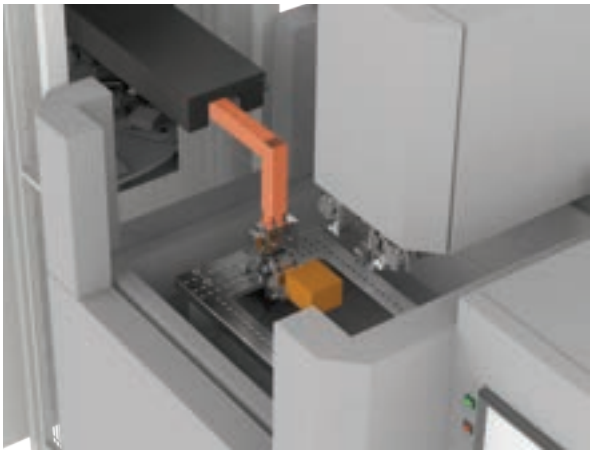
Loading Milling machine with Dynafix palllet.

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

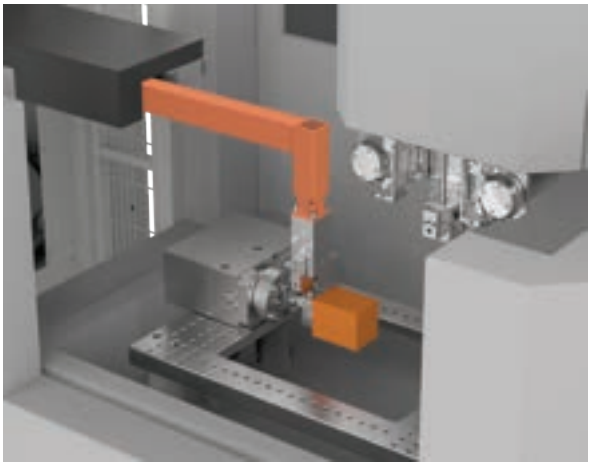
# Wire-cutting EDM (wireEDM)



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



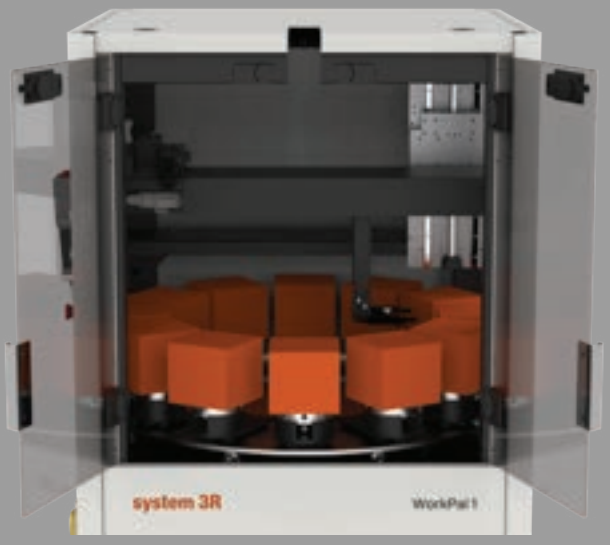
The changing arm lifts the pallets over the tank in WEDM machines.



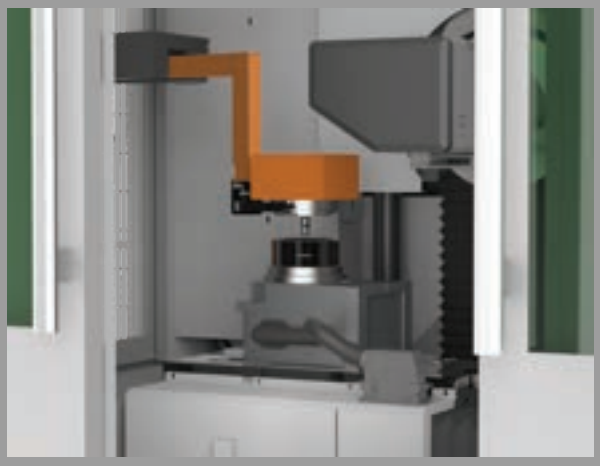
B-axis for Wire-cutting EDM (wire EDM).

WorkPal 1 with tilt gripper and open doors.

# Laser

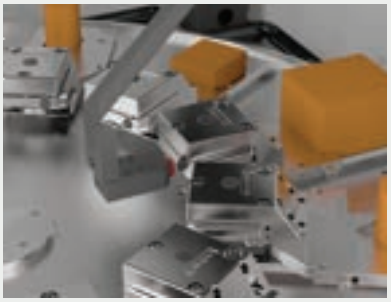



Magazine prepared with 12 MacroMaganum pallets.



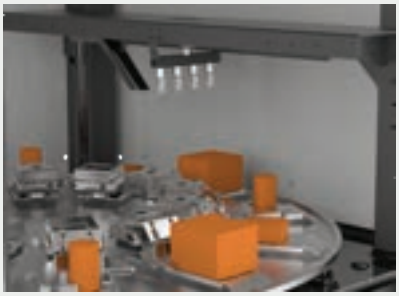
Loading MacroMagnum pallets into a Laser machine.

# Options



ID-system with or without automatic scanning.

Cell PC included.



Drying station

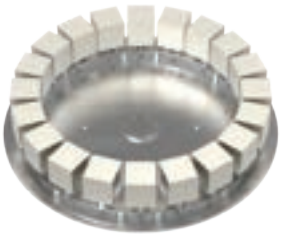
In-built LED lighting

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 | U-50167.55 |
| Code carrier | 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

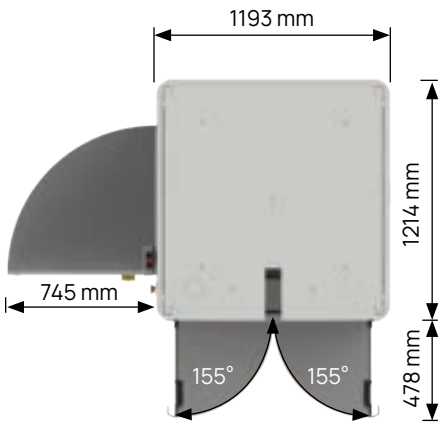
**Optional:** Magazine disc for Tilt gripper.

| 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 |
| | ITS 148 | 6, 10, or 12 |
| Table chuck – wire EDM | Macro EDM | 12 |
| | Macro Twin WEDM | 4 |
| | PSW (RCS gripper) | 12 |
| Wire EDM B-axis | Macro 54 & 70 | 12, 24 or 40 |
| | ITS 50 | 12, 24 or 40 |

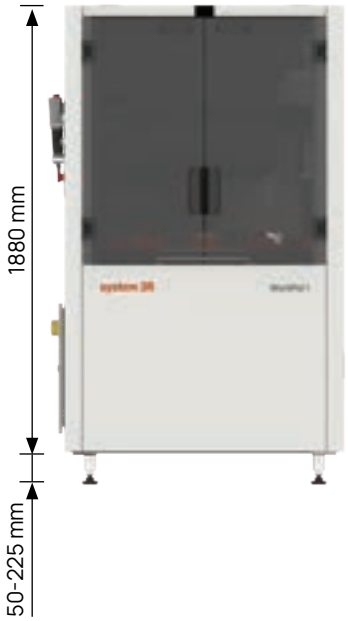
No expensive machine modifications are required.
The changing arm lifts pallets over the tank in wire EDM machines.

# TECHNICAL SPECIFICATIONS – WORKPAL 1

Top view

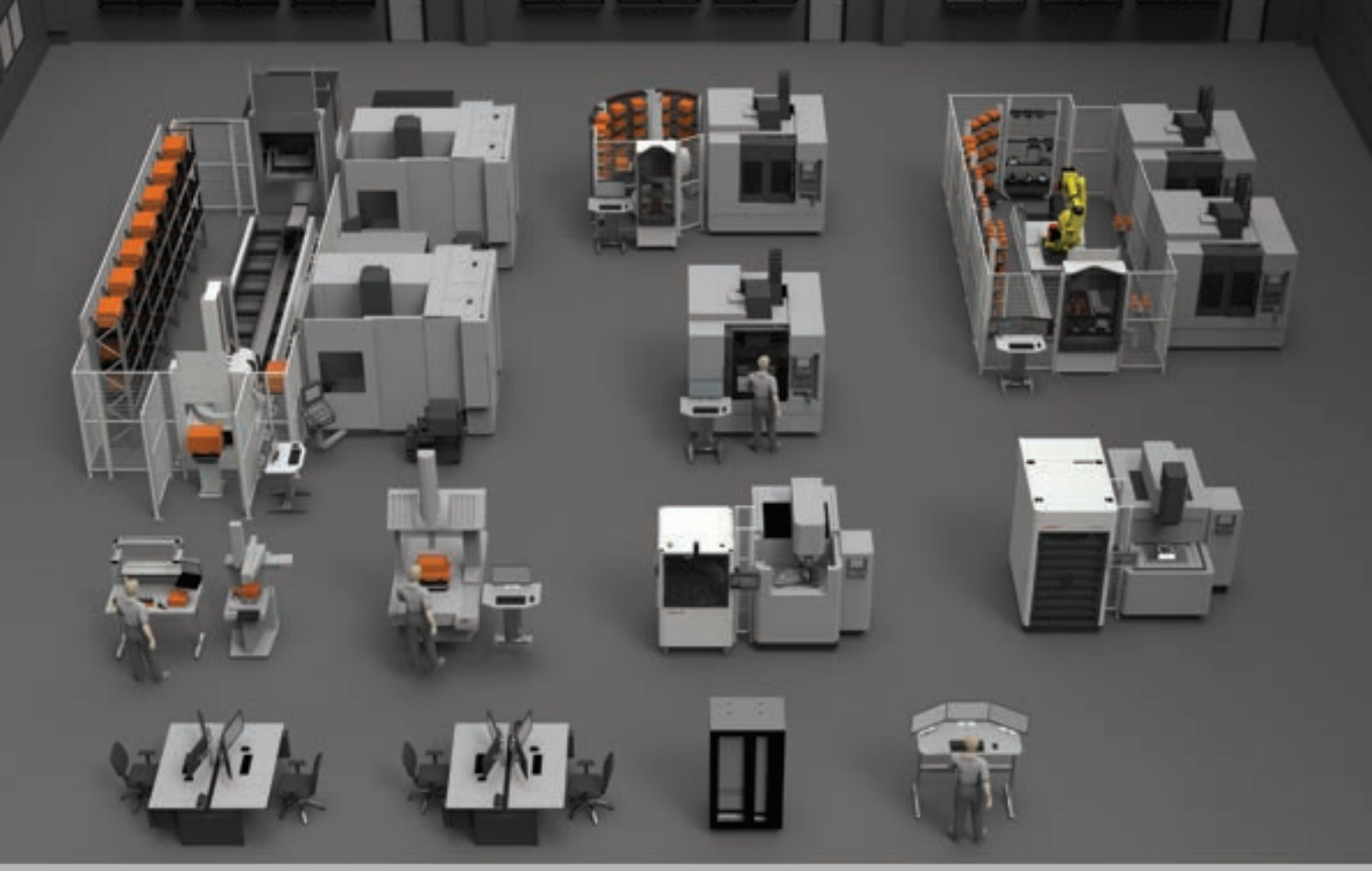



Front view




| 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

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# 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.

**www.system3r.com**

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System 3R Int'l AB, 2025.
Subject to modification.

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