FLSMIDTH CEMENT

Turntable Rack

QCX® TTR100 TURNTABLE RACK

The TTR100 Turntable Rack allows for efficient and safe handling of samples by providing an interface between operators and the automation environment.

Furthermore, the TTR has the functionality to buffer a large variety of samples and sample containers. It can also collect average samples that are used for physical tests, which reduces the complexity of quality control while improving confidence.

Samples can be stored in a registered, traced place which avoids mixing of samples.

ADVANTAGES

- **Safety**: the turntable rack has one dedicated side for human interaction and one for robot automation. This prevents users from making direct and potentially dangerous contact with automation equipment.
- **Efficiency**: the sample storage capabilities of the turntable rack allow you to enter and collect bigger sets of samples at one time, drastically increasing laboratory efficiency.
- **Compatibility**: the turntable rack is purposefully designed for use with the QCX/RoboLab automation system. The safe mechanical interface allows for improved work efficiency.

IMPROVED SAMPLE CAPACITY AND CONTROL

How it works

The TTR100 Turntable Rack holds a combination of sample rings, sample cups, and composite sample containers. Other containers can be included on request.

Your operators can access the rings, cups and containers in person, safely from the operator side. Access on the automation side can be handled by robot or another automated manipulator. Access from the operator side is blocked during automatic operation, providing an added layer of protection for users.

All containers, cups and rings are held in a fixed horizontal position. The Turntable Rack has ten positions controlled either remotely or locally. Sensors register the position of the containers.

The inside temperature of the turntable rack can be optionally controlled by an internal heating system.

Possible configuration

Robot automation

When integrated with Robot automation, the robot handles the containers on the automation side. The turntable rack is in the fencing that encloses the robot cell to safely prevent direct human and automation interaction.

Specification

Sample material	Up to 50°C
Supported containers	
Cups	Ø 50 mm, Ø 51.5 mm, max. 10 pcs / tray
Rings	Ø 51.5 mm, Ø 40 mm, max. 10 pcs / tray
Composite container	Ø 170 mm / 6 l, max. 5 pcs / tray
Number of trays	6 trays for the cups and rings (up to 12 on request) and 2 trays for composite container
Turning speed	360° / 30 sec
Power supply	100 – 240 V; 50/60 Hz; max. 0.2 kW
Operating conditions	Temperature: 5°C to 35°C Humidity: 20 – 80 % non-condensing
Weight	Approx. 350 kg
Dimensions (W x D x H)	670 x 760 x 1,820 mm
Options	Integrated heating system

ROBOT AUTOMATION

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