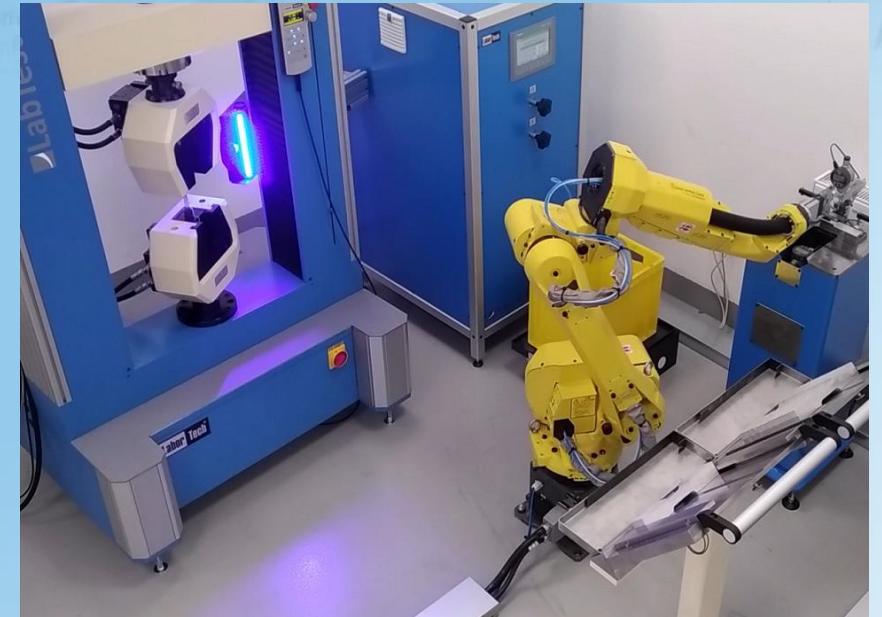


... From development to  
implementation

**Labor Tech<sup>®</sup>**

## Production of materials testing equipment and automation

Automated robotic  
test systems  
**YELLOW RUNNER**  
series AZS.1



Made in Czech Republic

The logo for Labor Tech, featuring the words "Labor" and "Tech" in a bold, white, sans-serif font on a black rectangular background.

Production of materials testing  
equipment and automation

## Automated robotic test systems YELLOW RUNNER AZS.1

... From development to  
implementation

### Basic description

LABORTECH's X Runner automated test systems are designed to perform unmanned tensile tests on metal specimens of different lengths and thicknesses. These systems have been designed to meet ASTM E8, EN ISO 6892-1, GOST 1497, JIS Z2201 and other standards for tensile testing of metals. To meet most of our customers' testing requirements, LABORTECH has developed standard AZS.1 automated test systems with capacities of 100 kN to 600kN in various modifications. AZS.1 for other load capacities are also in our offer.

### Advantages of robotic systems X Runner

- Low operating and maintenance costs including 100 % machine utilization (3 shift operation).
- Possibility to control more machines with one robotic system (up to 3 test machines) with possibility to increase testing productivity by up to 300 %.
- Modular and economical system with possibility of customization (number of tests per 24 hours, number of containers, measurement of dimensions, etc.).
- Multiple increase in test room performance in excellent price/performance ratio.
- Reduce the cost of testing samples with a payback period of one to two years.
- X Runner's automated test systems are not subject to wear; they are maintenance-free and designed for three-shift operation.
- High reproducibility of test results with no operator influence during measuring and loading samples.

- The modular system ensures economical adaptation according to specific customer requirements depending on the frequency and range of test samples.



- Contactless measurement of specimen elongation (ONE-x system) using a video extensometer with automatic contraction measurement and measurement of  $r$  (normal anisotropy coefficient) and  $n$  (strain hardening exponent).
- The automatic data logging system ensures secure archiving of results and allows long-term statistics including process monitoring (statistical process control).
- For manual tests, the robot arm can be moved to the "Parking position", which allows the operator to have free access to the test machine.
- The use of the most modern technologies ensures constant process control, remote control and control, including diagnostics of the X Runner robotic test system. Results as well as status reports can be sent via the LABWEBServis interface.

### NEW for systems X Runner

- Possibility to extend the robotic workstation X Runner with the WACUJET system. It is an automatic preparation of samples by water jet cutting including automatic marking and handling. For more information, please contact our sales managers.

### System configuration

- Industrial robotic 6-axis standard system.
- Electromechanical or hydraulic machine fitted with pneumatic or hydraulic jaws with wedge or side pressure.
- Use of optional extensometer – MFX series – contact measurement or ONE series – contactless measurement.
- Use of optional trays according to type of test specimens - flat, round, special.
- Barcode reader, compatible with 1D or 2D barcodes or DATAMATRIX.
- Biaxial device for measuring sample sizes.
- X Runner - BASIS control system with integrated 7" LCD display and SIEMENS S7 1500 electronics and T-Control software.
- Branded PC with remote access using LABWEBServis system for 24 hours service.
- Software for testing materials T&M - AUTOMATIC.

### Safety and durability requirements

- Based on their design and construction, LABORTECH AZS systems comply with all the machinery and equipment EC directives.
- The customer always receives the EC declaration of conformity.
- Only the most modern technology and proven industrial components operating in accordance with the new safety functions according to ENB ISO 13850-SIL 1/PL are used.
- Spare parts are available 10 years after the end of production of the machine type.



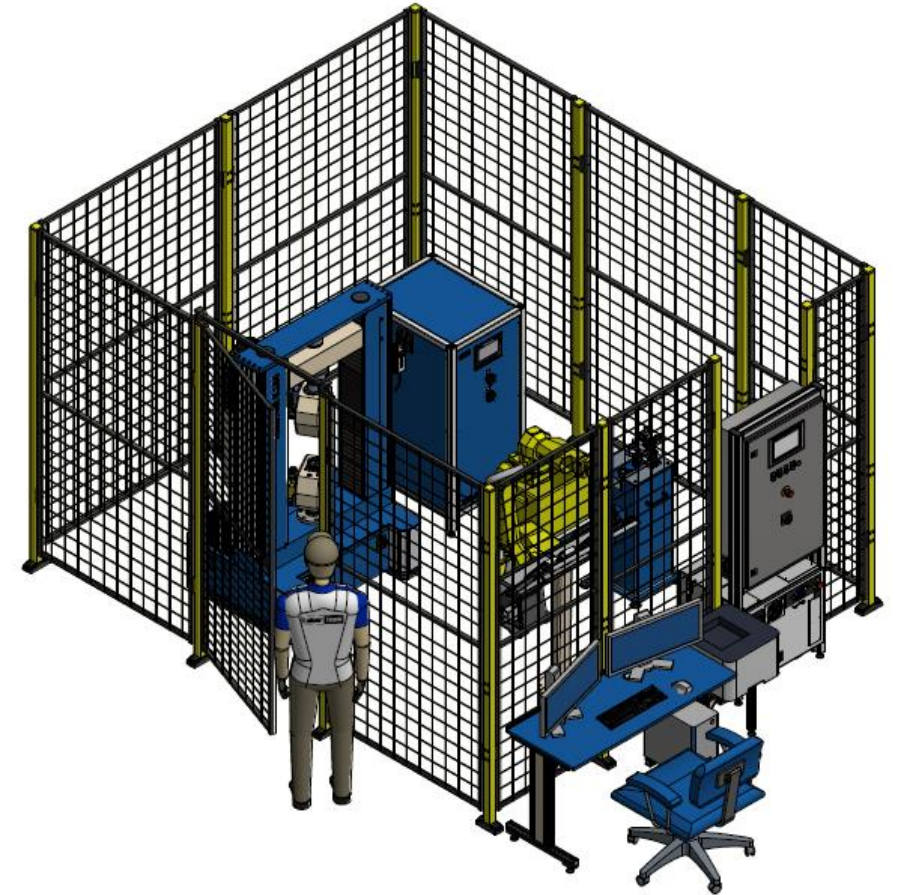
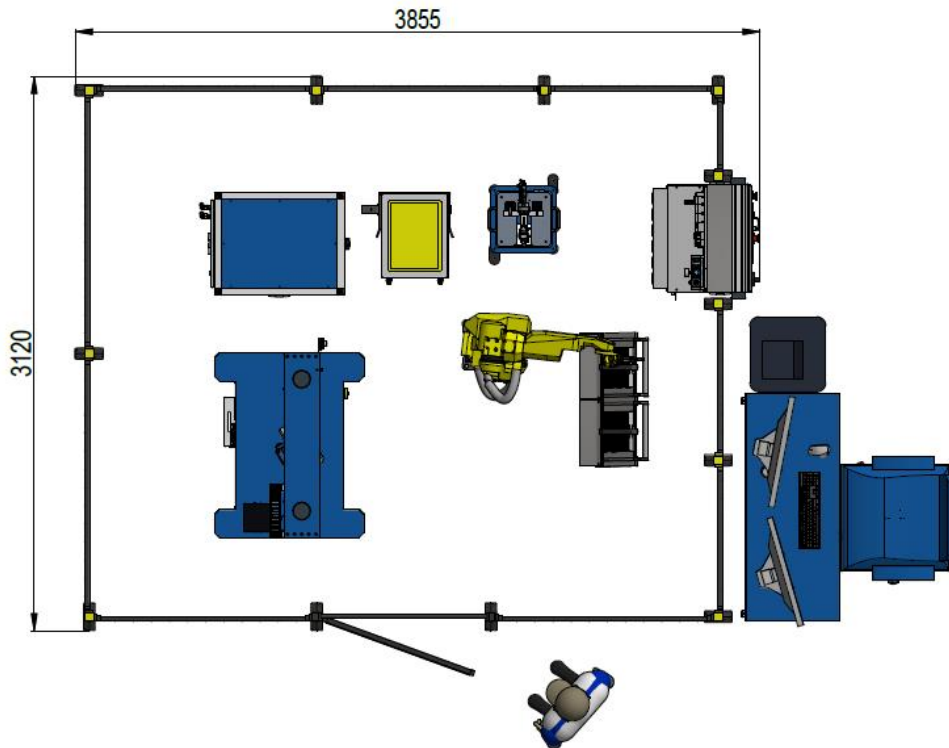
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Production of materials testing equipment and automation

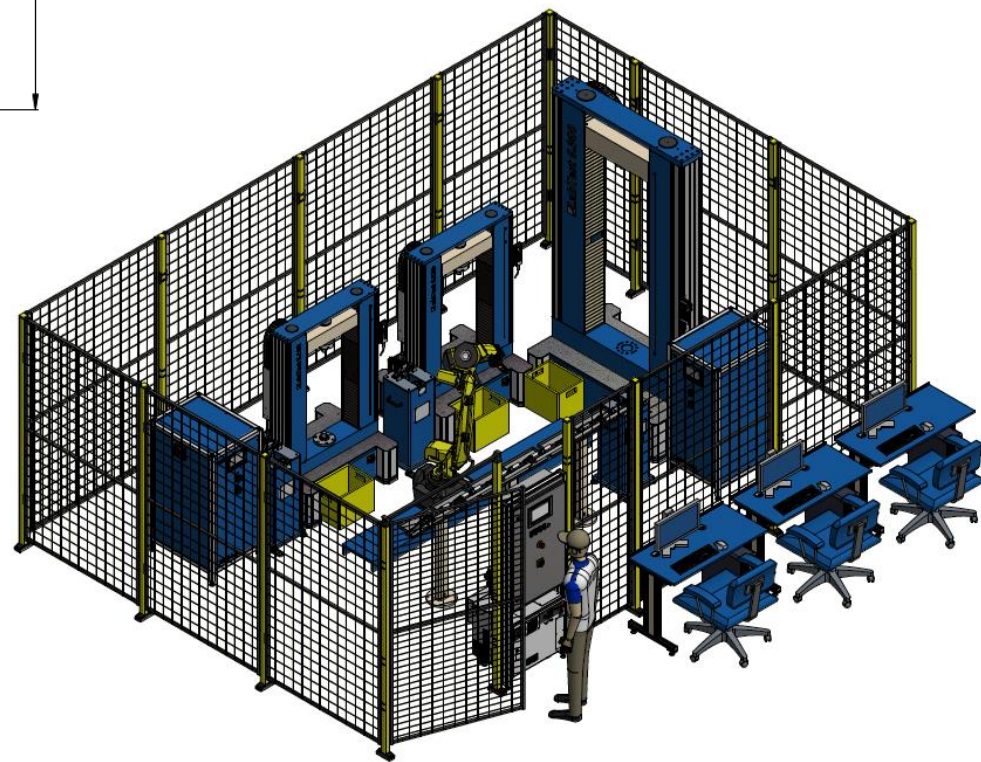
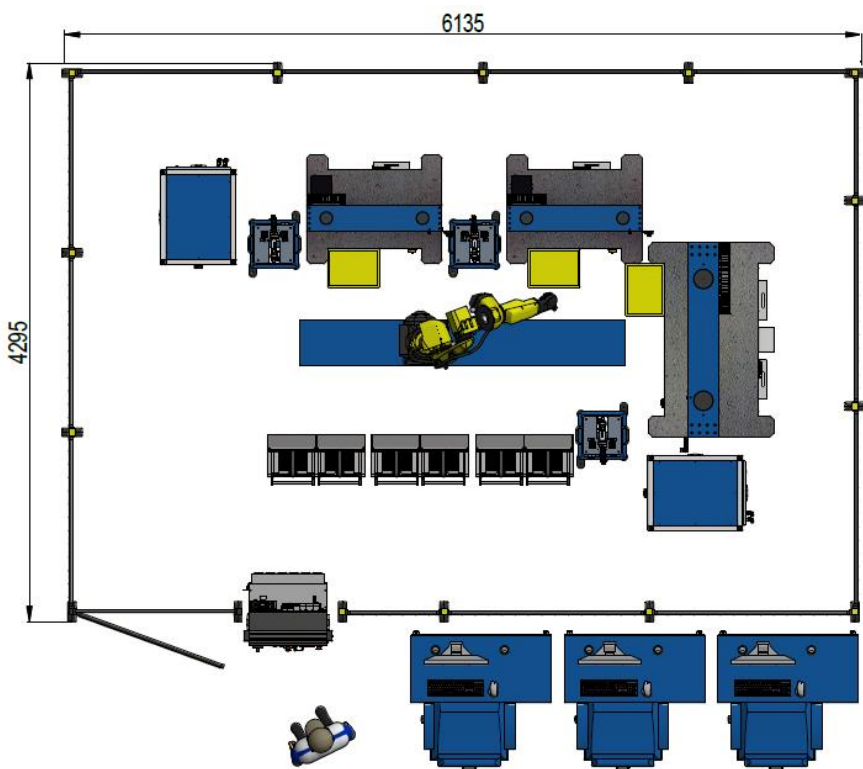
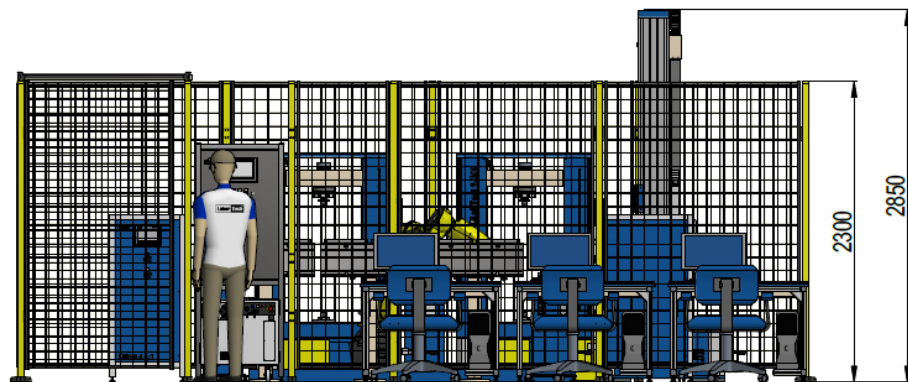
Automated robotic test systems  
**YELLOW RUNNER**  
AZS.1

... From development to implementation

## Informative arrangement of robotic workplace AZS.1 – one



# Informative arrangement of robotic workplace AZS.1 – three / one +running rail



**Labor Tech**

Production of materials testing equipment and automation

Automated robotic test systems  
**YELLOW RUNNER**  
AZS.1

... From development to implementation



## LABORTECH in the world



### Contact:

#### **LABORTECH s.r.o.**

Rolnická 130a, 747 05 Opava, Česká republika

Tel: +420 553 731 956, +420 553 668 648

E-mail: [info@labortech.cz](mailto:info@labortech.cz)

Web: [www.labortech.cz](http://www.labortech.cz)

GPS: 49°57'05.1"N

17°54'04.4"E

#### **LABORTECH TRADING s.r.o.**

Areál VVÚD Praha, Na Florenci 1686/9, 111 71 PRAHA 1, Česká republika

Tel: +420 731 656 723, +420 724 020 052

E-mail: [trading@labortech.cz](mailto:trading@labortech.cz)

Web: [www.labortech.eu](http://www.labortech.eu)

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