

... from development to realization



## Production of materials testing equipment and automation

Pendulum impact testers series CHK.2  
LabTest CHK 450J

Made in Czech Republic





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### Basic description

Pendulum impact testers type Lab Test CHK 450J for impact tests are devices for short-time tests that give us important information about **absorbed amount of energy** and material behaviour with optional settings of **various initial energy, speed, angle (series IA) and changing temperature including instrumentation (series I)**. With pendulum impact testers CHK series, it is possible to perform tests according to Charpy, Izod, Dynstat, Brugger and also perform impact tensile tests according to all standard EN, ASTM, ISO, DIN.

### Main advantages and functions

- Very rigid base construction with 4 levelling holes
- Centrally positioned controls ensuring easy machine control and testing
- Automatic hammer lift using a special magnetic bevel-helical gear unit with integrated AC motor controlled by an inverter with an electronic brake (AC servo-motor for accurate initial angle setting – series IA)
- Protective safety cover made from ITEM profiles and polycarbonate with electronic monitoring of the door
- High safety acc. to EN ISO 13849-1/2
- Continuous monitoring of safety during hammer impact
- Allows to start the pendulum both by the button and immediately after closing the door within 0.5 seconds
- Detection of operation errors and their displaying in the program
- Integrated touch LCD screen with PC in the machine frame
- Digital control and evaluation unit SPEED with highly accurate data recording with speed of up to 12MHz
- Intuitive and efficient software IMPACTTest - BASIS in the machine base with option of data storage in the database
- Incremental sensor with high resolution for accurate angle measuring
- Preparation for use of various testing supports/strikers
- Fast exchange of supports and the pendulum, ensures simple and comfortable operation even in harsh industrial environments
- Preparation for a collector box designed for broken specimens removal with efficiency up to 95% intended for further use (metallography analysis etc.)
- Optional data import from the system OPTOLab 55 II.

### Series LabTest CHK 450J

Standard pendulum impact tester complying to standards EN ISO 148-1, ASTM E 23, GOST 9454-78, ASTM A 370, ASTM E2298 BS 131-1, JIS-Z 2242, DIN 50115 with integrated software IMPACTTest-BASIS.

### Series LabTest CHK 450J-I

Standard INSTRUMENTED pendulum impact tester complying to standards as the series CHK 450J and EN ISO 14556:2015 with integrated software IMPACTTest-BASIS and the module IMPACTTest – I.

- Automatic results recording of the instrumented test including reverse modification and evaluation acc. to EN ISO 14556:2015
- Record of more curves, magnifying via ZOOM – search for x, y coordinates at individual samples etc.
- dynamic linearization for tests acc. to ASTM
- Linearization of instrumented strikers course
- Calibration of individual instrumented strikers EN and ASTM

### Series LabTest CHK 450J-IA

INSTRUMENTED pendulum impact tester with optional setting of **ANY initial angle**, initial energy and impact speed complying to standards as the series CHK 450J and EN ISO 14556:2015, ASTM 2298 with integrated software IMPACTTest-BASIS and the module IMPACTTest – IA – a software upgrade of the module I.

- **JOINT** initial settings of angle, energy and speed without limitation.

### Warranty and post warranty service

For every pendulum impact tester we deliver, we guarantee customer service. **EXPERTISE**, **ACCURACY**, and **SPEED** is our priority.



Every customer can choose: Standard Service, Service 24 or LABWEBServis 24.

### Features of software ImpactTest - BASIS

IMPACTTest is an integral part of the pendulum impact testers LabTest CHK supplied by LABORTECH. This software will help increase productivity and quality testing at your test facilities and test laboratories. You can streamline, clarify and accelerate the implementation of your tests and adapt them to testing environments in a way to make your measurement of mechanical properties of materials by methods of impact toughness easy for your operators, regardless their skills.



- Simple, inductive and efficient with control via touch LCD
- Fast and rational testing
- Modification of item names and measured values (module I, IA)
- Editable specimen types and testing standards
- Digital displaying of all current values
- Data export into CSV or MY SQL and MS SQL
- Stores measured data in a database with filtration
- Extensive calibration mode
- Multi-language (Cz, En, Fr, Ru, Esp, etc.)
- Protocol printing in PDF
- Statistical evaluation
- Modular design of the IMPACTTest enables to upgrade various modifications of the machines by unlimited number of upgrades and customer variants.



### Security and Update Requirements

- LABORTECH pendulum impact testers, based on their design and structure, comply with all of the above EC Machinery and Equipment Directives.
- High safety acc. to EN ISO 13849-1/2
- Continuous monitoring of protective safety covers and doors in accordance with new safety features.
- Continuous software update according to customer requirements.



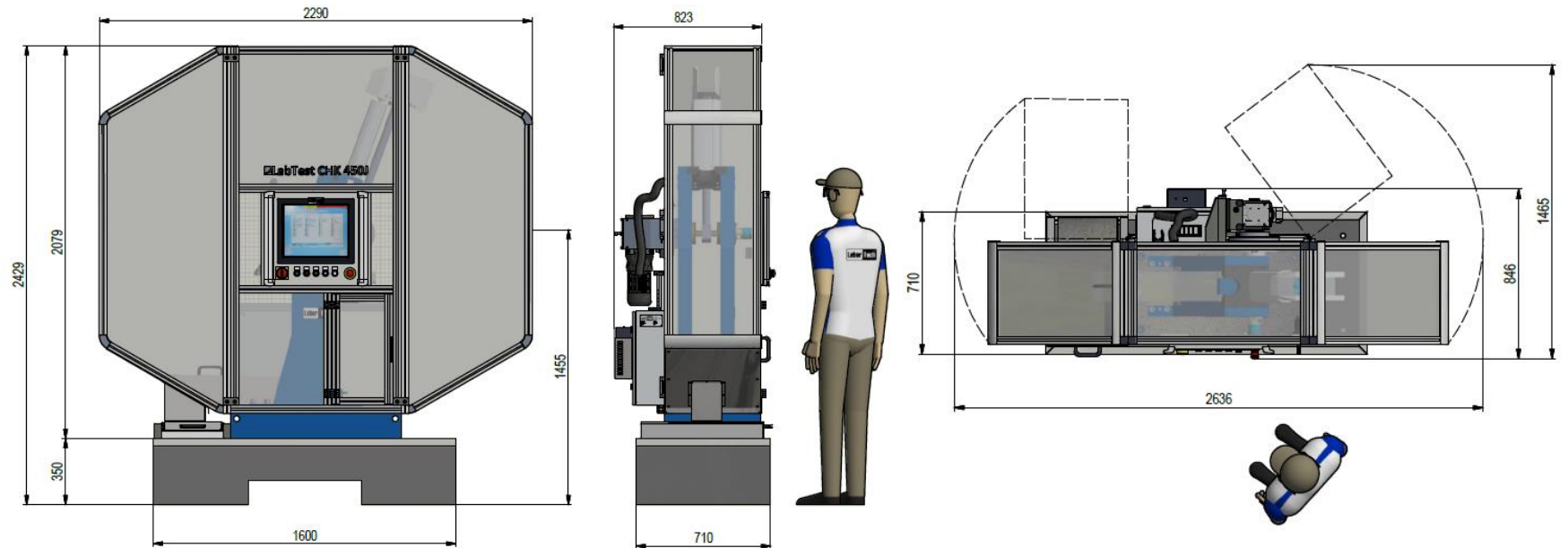
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Technical data	Units	LabTest CHK 450J	LabTest CHK 450J-I	LabTest CHK 450J-IA
Maximal operational range	J	450	450	450
Resolution of the scale range in PC	J	0,1	0,1	0,1
Resolution from	J	0,006	0,006	0,006
Pendulum impact speed	m/s	5,5	5,5	5,5 <sup>1</sup>
Joint settings of the initial angle in range:	%	-	-	15 to 100 <sup>2</sup>
Joint settings of the initial energy in range:	%	By hammer change	By hammer change	7 to 100 <sup>2</sup>
Settings of the impact speed in range:	%	-	-	3 to 100 <sup>2</sup>
Data recording speed	MHz	min. 0,25	12	12
Accuracy of the initial angle setting	°	-	-	0,05
Temperature of the work environment	°C	10-35		
Humidity of the work environment	%	20-70		
Testing machine weight	kg	1250	1250	1260
Machine dimensions H x W x D	mm	2079 x 2290 x 846		
Dimensions of the concrete fundament H x W x D	mm	350 x 1600 x 710		
Voltage	V	230V 50/60 Hz		
Power input	VA	550		650

<sup>1</sup>For standard test acc. to EN ISO 148-1 and ASTM E23. <sup>2</sup> The range is calculated from the hammer nominal energy





The logo for Labor Tech, featuring the words "Labor" and "Tech" in a bold, black, sans-serif font. "Labor" is on the left and "Tech" is on the right, separated by a small registered trademark symbol (®). The text is white and set against a black rectangular background.

**Labor Tech<sup>®</sup>**

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world**

## LABORTECH in the world



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implementation