

... from development to
implementation

Labor Tech[®]

Czech manufacturer of testing machines and automation



Drop weight tester for impact testing of
plastic pipes according to
DIN, EN, ISO, ASTM
DPFest 300-2 of DP.2 series

...from development to implementation



Production of testing machines and automation



Every small detail matters...

Key features of the DP.2 – DPFest 300-2

A first-class product with top-level parameters as standard

Drop weight tester DPFest 300-2 is used for testing the impact resistance of plastic pipes according to **EN ISO 3127:2017**, **EN ISO 11173**, **EN ISO 2507** and **ASTM D2444**. The machine has a wide range of test strikers (mandrels) ranging from **0.5 kg / 25 mm** diameter to **16 kg / 90 mm diameter**. The test set includes a temperature chamber for testing at sub-temperatures of -20 °C.



Robust vertical stand design with high rigidity, resistance against to dynamic interference, long-life guarantees high repeatability of results. Maintenance-free operation places low demands on service and preventive maintenance of the machine. The machine includes durable vibrating pads to prevent the transmission of vibrations.



High operator comfort at a very high level is ensured thanks to the control and management of the machine from the SIEMENS touch screen LCD panel, which is integrated into the machine frame and is also easy and clear to operate. The machine is ergonomically designed so that the handling of samples and fixtures is simple and above all safe.



The machine is controlled by measuring and control safety electronics SIEMENS S7-1200 with intuitive software DROTest-S. This software enables automatic lifting of the support according to the required energy, speed or trajectory, with precise electronic travel to a defined position and subsequent control of the entire test. Connection to PC - communication via Modbus TCP.



Based on their concept and construction, LABORTECH machines comply with all the above-mentioned ES directives on machines and equipment. Only state-of-the-art safety techniques and proven industrial components are used that work in accordance with the new safety functions according to ENB ISO 13850-SIL 1 / PL.



Integrated devices such as shock absorbers, secondary anti-reflection devices, triggering devices for connecting a high-speed camera. Preparations for the delivery of a temperature chamber or high-temperature furnace are in the basic configuration for individual types of machines.



The integrated intuitive SIMPLE Impact test software provides machine control, display of measured and set values and partial data collection. DROTest software, which guarantees you reliable testing, serves as a higher form of data collection, database storage, generation of own methods, etc.



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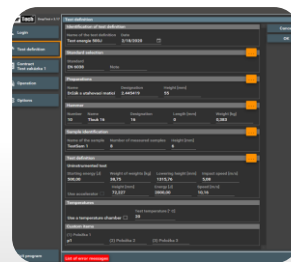
Software DROPTest

Intuitive impact test software you'll love...

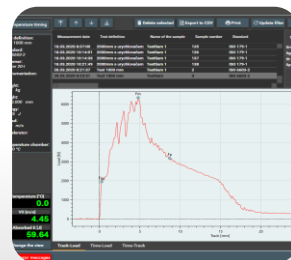
Test definition	Standard	Hammer
1 mm	ISO 6603-2	Striker 20-I
2	ASTM D5628	Tlouk FA
3	ISO 179-1	BRt 179-1
	EN 6038	Tlouk 16
Test	ISO 6603-2	Striker 20-I
Energy 2000J	ISO 6603-2	Striker 20-I
Energy 500J	ISO 6603-2	Striker 20-I

Vlastnosti software DROPTest – BASIC

DROPTest - BASIC will help you increase the productivity and quality of testing in your test rooms and testing laboratories. You can streamline, refine, and speed up the performance of your tests and adapt your testing environment to make it easy for operators to measure the mechanical properties of materials by the free-falling weight method, regardless of their skills. Below you will find the basic features of the DROPTest software in a few points:



- Intelligent, intuitive and powerful software designed for fast vertical falling shock tests weights, accelerators or instrumented tests.
- Digital display of all current values.
- Editable sample types and test standards, including item name modification.
- Graphic recording of products for individual standards and working procedures.
- Storing measured data in a database with the possibility of filtering by definition, order, data, etc.



- Extensive calibration mode is already standard.
- Automatic cooling timing before testing according to EN ISO 148-1 and ASTM E23.
- Data transfer from temperature chamber, thermometer, etc.
- Multilingual version (CZ, EN, POL, RU, ESP etc.).
- Print the report in PDF format.
- Data export to CSV - BASIS, or to MYSQL and MS SQL.
- Unlimited time license.
- Modules DROPTest – IF, IFS, M, YR a BR.

Test definition

Defined machine parameters

Hammer	Cage weight	Maximum load	Height
Striker 20-I	0,46 kg	8.35 kg	38.81 kg
			1994 mm

Lowering height / Impact speed

Range of values:

<5.00 .. 1994.00> mm

Height [mm]

1000,00

Use

Range of values:

<0.31 .. 6.25> m/s

Speed [m/s]

4,43

Use

Weight of weights

Range of values:

<0.00 .. 30.00> kg

Weight of weights [kg]

0.25

Use

Range of values:

<8.81 .. 38.81> kg

Total weight [kg]

9.06

Use

Starting energy

Range of values:

Energy [J]

88,85

Use

Calculated value

Accelerator

Height of springs	Slope of springs
95 mm	380000 N/m

<177.16 .. 992.25> J

<6.25 .. 14.80> m/s

Increase energy to [J]

Increase speed to [m/s]

414,12

9,56

Height used 51.222 mm

Cancel

OK

...from development to implementation

all base corners
radius R 125



Production of testing machines and
automation

customer support
free of charge
within 24 hours
of the day



Every small detail matters...

Choose your own accessories!

Test everything with our range of accessories...

A wide range of various accessories, including software, will allow you to configure the machine exactly according to your ideas, technical requirements and standards. All you have to do is fill in the simple form [HERE](#) and we will send you a price offer immediately. We offer both standard accessories and "tailor-made" accessories.



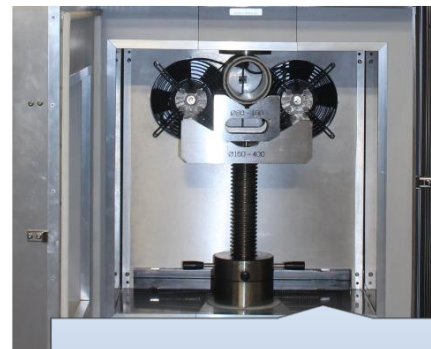
Various test and clamping fixtures
for temperature chambers
according to norms and standards.



Various strikers and mandrels
according to DIN, EN, ISO and
ASTM norms and standards.



High speed camera with triggering



Temperature chamber with a
range from - 20 ° C to + 20 ° C.



Intuitive DROPTest test software
produced by LABORTECH with
various test modules

...from development to implementation

all base corners
radius R 125

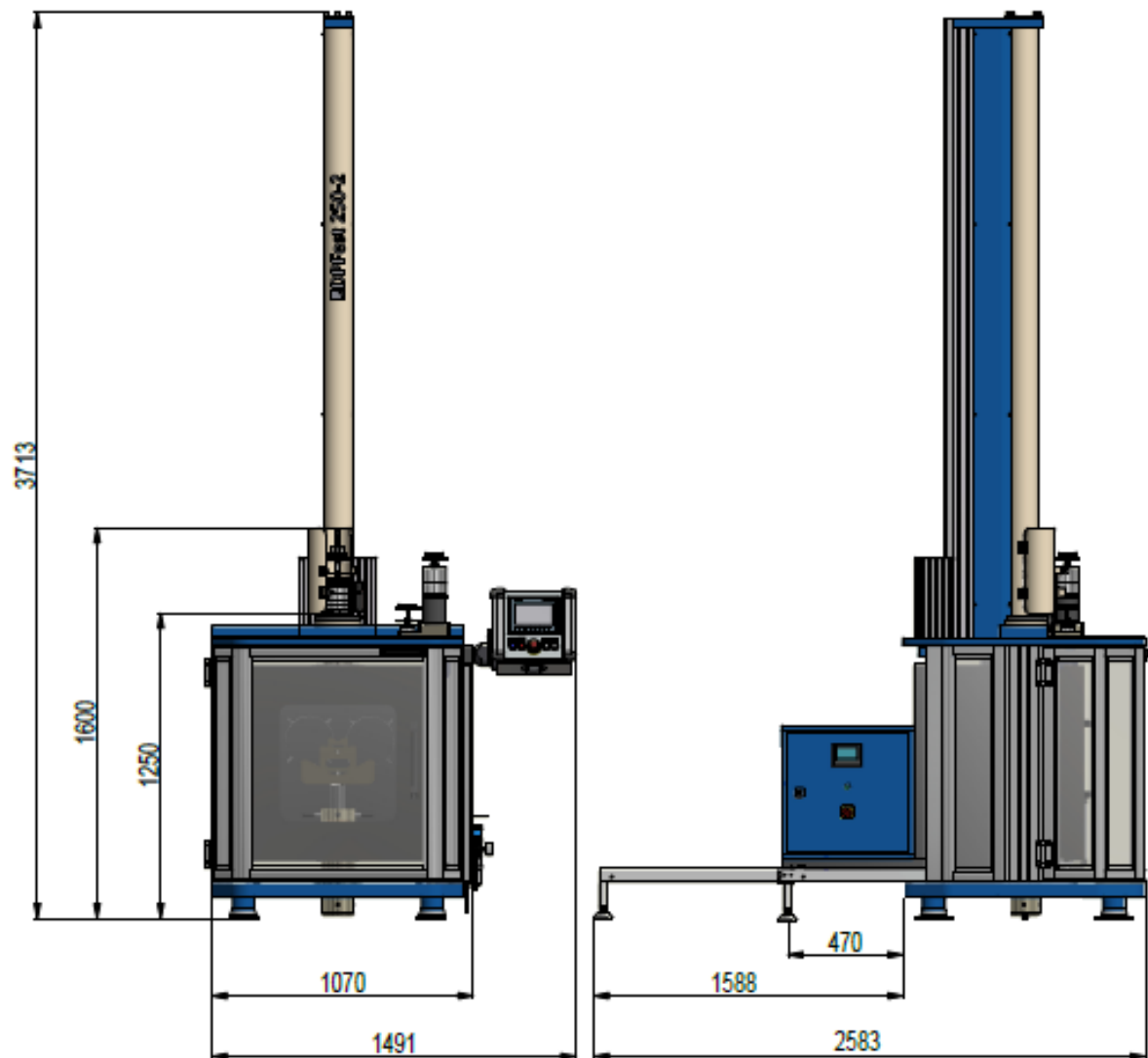
Labor Tech[®]

Production of testing machines and
automation

constant speed to power up for
free fall tests, automatic safety
release, 100% base corner R 125



Every small detail matters...



DP.2 series - DP.Fest 300-2

Technical data	Units	DP.Fest 300-2
Prodcut code		1.04021020
Max.impact energy	J	314
Min. fall height	mm	50
Max. fall height	mm	2000
Max. impact speed	m/s	6,26
Min. drop weight	kg	0,5
Max. drop weight	kg	16
Accuracy calibration of the test weight	%	±0.5
Position approach accuracy	mm	±0.05
Machine weight	kg	1165
Temperature chamber TTK6-20		
Cooling medium		Air
Temperature range	°C	-20 to 20
Temperature control accuracy	°C	±0.5°C
Internal dimensions	mm	500x500x600
Refrigerant		R449A/R170
Cooling speed (up to -20 °C)	min	< 30 min
Chamber weight	kg	195
Environmental conditions		
Working environment temperature	°C	+10 ... +35
storage temperature	°C	-25 ... +55
Humidity	%	<90
Electrical connection		
Supply voltage / frequency	V/Hz	230 / 50-60
Number of phases		1Ph/N/E
Power consumption	VA	850
Others		
Color combination	RAL	1015, 5015

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all base corners
tolerance 0.125



Production of testing machines and
automation

constant speed to power input
force to speed ratio to load capacity
webcam for force measurement
high speed camera for displacement



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LABORTECH in the world

Where to find LABORTECH representations...



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