

... from development to  
implementation



Czech manufacturer of testing machines and automation



Drop weight tester **DPFest 250-2** of DP.2  
series for impact testing of plastic pipes  
according DIN, EN, ISO, ASTM

...from development to implementation



Production of testing machines and automation



Every small detail matters...

## Key features of the DP.2 – DPFest 250-2

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

Drop weight tester DPFest 250-2 is used for testing the impact resistance of plastic pipes according to **DIN UNE EN 744, ISO 3127, EN 1411** 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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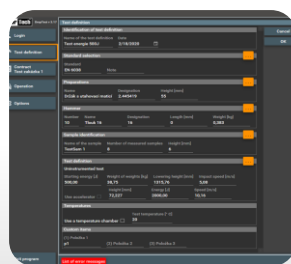
# Software DROPTest

Intuitive impact test software you'll love...

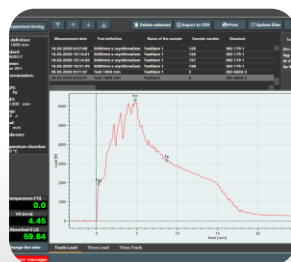
| Test definition | Standard   | Hammer       |
|-----------------|------------|--------------|
| 3 mm            | ISO 6603-2 | Striker 20-I |
| 2               | ASTM D5628 | Tlouk FA     |
| 3               | ISO 179-1  | BRt 179-1    |
|                 | EN 6038    | Tlouk 16     |
| Test      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



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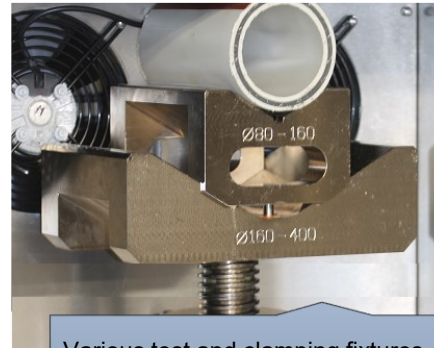


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## Choose your own accessories!

### Test everything with our range of accessories...

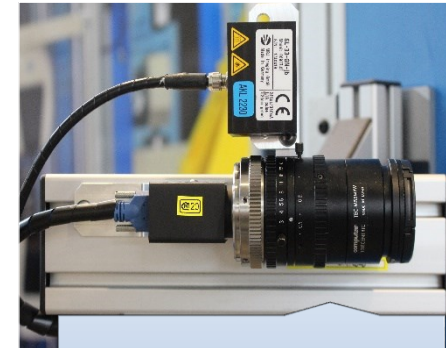
A wide range of various accessories, including software, will allow you to configure the machine exactly according to your ideas, technical requirements and standards. All you have to do is fill in the simple form [HERE](#) and we will send you a price offer immediately. We offer both standard accessories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



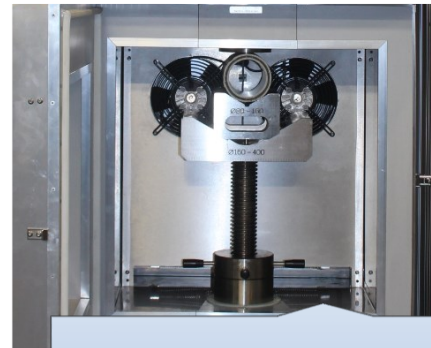
Various test and clamping fixtures for temperature chambers according to norms and standards.



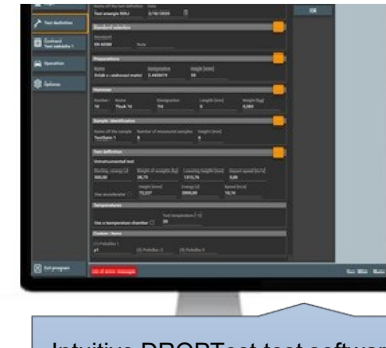
Various strikers and mandrels according to DIN, EN, ISO and ASTM norms and standards.



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



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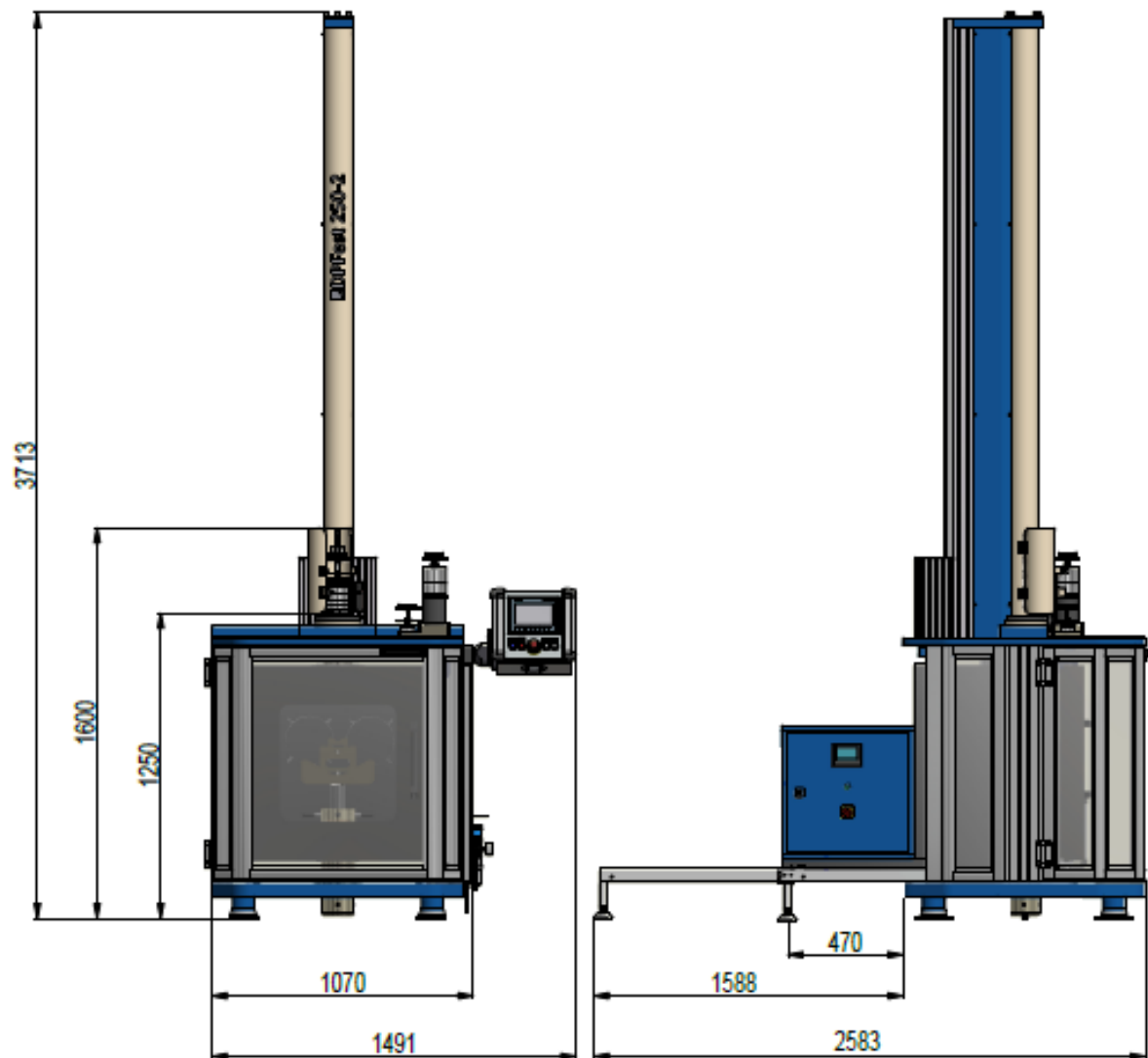
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## DP.2 series - DP.Fest 250-2

| Technical data                          | Units | DP.Fest 250-2 |
|---|-------|---------------|
| Product code                            |       | 1.04021020    |
| Max. impact energy                      | J     | 245           |
| 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    | 12,5          |
| Accuracy calibration of the test weight | %     | ±0.5          |
| Position approach accuracy              | mm    | ± 0.05        |
| Machine weight                          | kg    | 1165          |
| <b>Temperature chamber TTK6-20</b>      |       |               |
| 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           |
| <b>Environmental conditions</b>         |       |               |
| Working environment temperature         | °C    | +10 ... +35   |
| storage temperature                     | °C    | -25 ... +55   |
| Humidity                                | %     | <90           |
| <b>Electrical connection</b>            |       |               |
| Supply voltage / frequency              | V/Hz  | 230 / 50-60   |
| Number of phases                        |       | 1Ph/N/E       |
| Power consumption                       | VA    | 850           |
| <b>Others</b>                           |       |               |
| Color combination                       | RAL   | 1015, 5015    |

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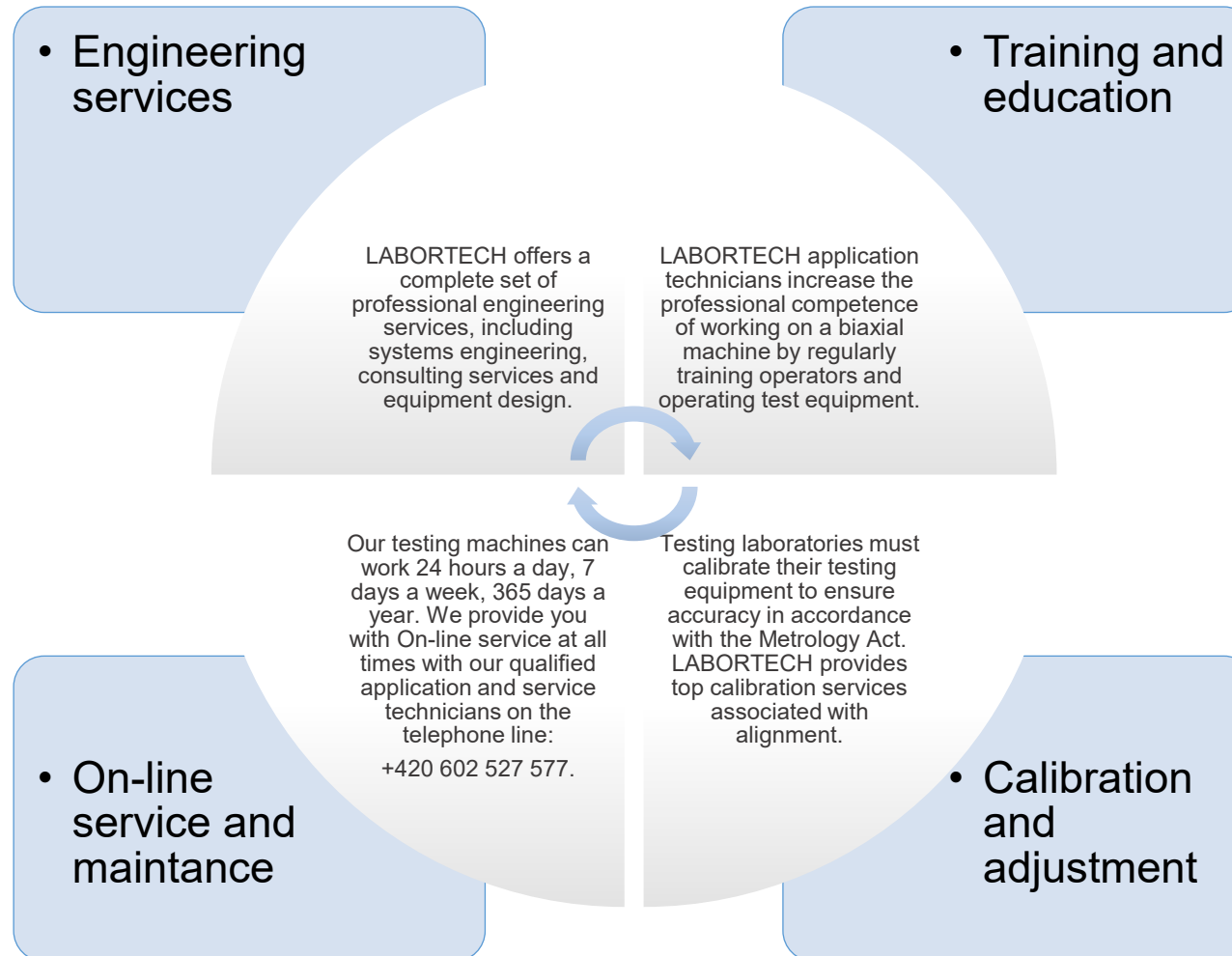
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## Why buy machine of DP series from LABORTECH?

Because we offer everything from A to Z, ie. from development to implementation...



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## LABORTECH in the world

Where to find LABORTECH representations...



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