

## Product information

### Drop Weight Testers for Impact Tests – DPFest xxx K

#### Machine use

Drop weight tester machines produced by LABORTECH Company are designed for testing falling weight. Weights can be tested in free fall, or accelerated by linear springs and they are automatically adjusted to a defined position. We offer standard drop weight testers for various applications that can be adapted to a variety of impact energy and impact speed up to 100KJ.

#### Machine description and main advantages

- Robust vertical test frame with high stiffness, durability, good ergonomic design and maintenance-free operation.
- The device meets all necessary safety requirements such as DIN 51333, EN ISO 13489 and other European standards.
- Unique combination of magnetic protection system in cooperation with the electro-hydraulic system ELHY allows optimization of the hammer bounce-back.
- Automatic specimen insertion into the test zone
- Modular configuration of the machine with the ability to add any accessories of LABORTECH company, including temperature chambers, special tools, punch plugs, clamps, external sensors etc.
- Possibility of performing tests at reduced and increased temperatures
- Measuring electronics with a highspeed card up to 12MHz
- 16 Bit electronics in combination with a load cell and a track sensor allows performing a very precise testing at speeds up to 20m/s.
- Control safety system via SIMATIC S7.
- High level of testing comfort due to operating panel with an LCD touch-screen and software DropTest.
- Support for standards DIN, EN, ISO, ASTM, GOST.

#### The machine base includes:

- A machine frame incl. sensors and engine displacement of weights
- A set of calibrated weights according the type of drop weight tester
- Protective safety cover
- Measuring and control electronics SIMATIC S 7300 in Rittal design
- Basic software DropTest

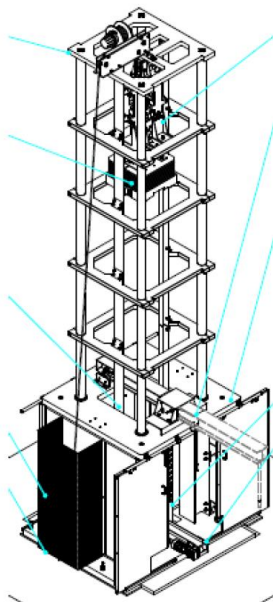
#### Supplements and accessories:

- Fixtures (blades, abutments, punches) according to EN ISO 148-1, ISO 179, ISO 9854, ISO 14556, ISO 3351: 1975 49 0117, EN ISO 6603, ASTM D3763, ASTM E23, ASTM D6110 etc.
- Pneumatic centering device
- Temperature chambers and furnaces

#### Description of software DropTest

Drop Test is a complete software for the drop tester that supports DIN, EN, ISO, ASTM, GOST standards and other industry standard testing methods. The program consists of management tools, a record of the tests performed, a database of test results and subsequent data filtering ability. The program uses MS Windows 7 and higher. The application is designed not only for traditional PCs and LCD monitors but also for industrial systems, which are controlled by touch LCD monitors. DropTest software is designed for serial measurement in impact tests with speeds up to 20m / s.





Technical data	Units	DPFest 60K	DPFest 80K	DPFest 100K
Energy range	J	117,7 - 60 000	294,2 - 80 000	294,2 - 100 000
Impact speed	m/s	1,981 – 9,877	2,426 -9,877	2,426 – 9,853
Dimensions for weights	kg	60 - 1230	100 - 1640	100 - 2 060
Range of drop height	m	0,2 - 4,974	0,3 - 4,974	0,3 – 4,95
Weight accuracy	%	<1%		
Accuracy of impact sensor	%	<1% - EN ISO 7500-1		
Supply and air control	bar	5 - 8		
Weight	kg	10 800	14 200	16 200
Colour finish		RAL 1015, 5015, (switchboard 7035)		
<b>Dimensions</b>				
Height of the Machine (A)	mm	8 560		
Width of the Machine (B)	mm	1 800		
Depth of the Machine (C) <sup>3</sup>	mm	1 800		
<b>Environmental conditions</b>				
Operating temperature	°C	10 to 35		
Storage temperature	°C	- 35 to 55		
Humidity of workplace	%	< 90		
Noise level	dB	< 65		
<b>Electrical connection</b>				
Supply voltage	V	3Ph/N/PE/400/50-60Hz		
Fuse	A	25	25	25
Power input (without accessories)	kVA	12	12	12

### Software DropTest features:

- Simple, inductive, efficient
- Intuitive control via LCD
- Quick and efficient testing
- Modification of item names
- Editable types of specimens and test standards
- Digital indication of all current standards
- Automatic temperature evaluation
- Data export into CSV – BASIS, or MY SQL and MS SQL
- Data transfer from temperature chamber, thermometer etc.
- Automatic temperature evaluation before testing acc. EN ISO 148-1 and ASTM E23
- Saving of measure data into a database with optional filtration
- Extensive calibration mode
- Dynamic linearization for ASTM tests
- Linearization of instrumented blades travel
- Multilanguage versions (English, Polish, Russian etc.)
- PDF protocol printing
- Record of multiple curves, zooming using the ZOOM - detection of x, y coordinates of individual samples etc.
- Adjusting of the starting position of the ram depending on the required power and speed

<sup>1</sup> Speed at max. height and energy

<sup>2</sup> The accelerator can be used to determine the speed

<sup>3</sup> Dimension of the stand only

Technical changes are reserved by manufacturer

### Manufacturer:

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