

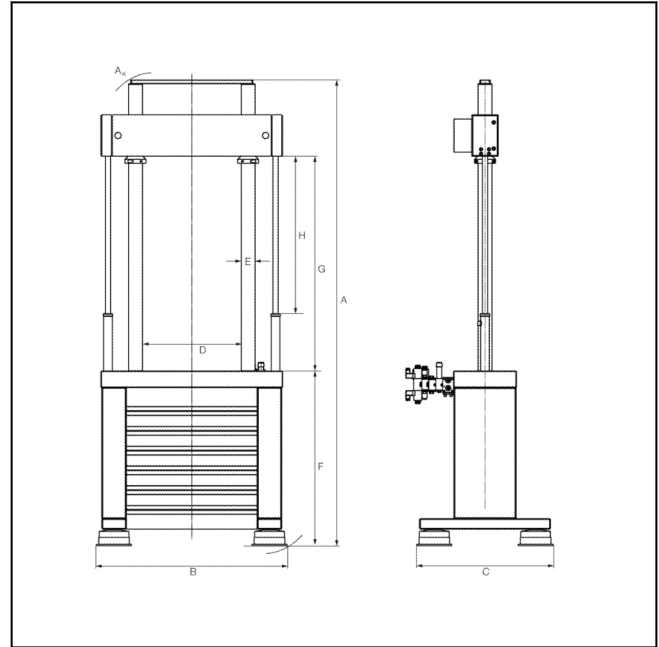
Product Information

HTM 2512 high-speed testing machine

CTA: 27510 27516



HTM 2512 with temperature chamber



Drawing of HTM showing dimensions

Application

The fracture behavior of many materials is dependent (among other things) on the loading rate. Numerical calculation of crash safety requires relevant data and constitutive equations. ZwickRoell's HTM range of servo-hydraulic high-speed testing machines enable strain-rate-dependent characteristic values to be determined over a wide speed range. High-speed punch and tensile tests plus peel and shear tests can be performed on plastics and metals as well as on glued and welded connections, while test speed can be adjusted continuously over a wide range.

Advantages

- Tests can be performed over a very wide loading-rate range from quasi-static to 12 m/s.
- The actuator plus accumulator are integrated into the machine table to save space.
- Clamping of very short tensile specimens also possible.
- With testXpert a uniform software platform is available, from test definition right through to evaluation.
- Easy integration of optical extensometers.
- Machine is mounted on pneumatic springs, allowing installation almost anywhere.

Features

- Effective piston stroke of 200 mm allows highly ductile specimens to be tested or especially long specimens used.
- Extremely stiff 2-column load frame designed to minimize the effects of high impulse peaks during high-speed tests.
- Hydrostatic bearing, double-rod actuator for tension and compression with enhanced end-cushioning.
- System pressure 280 bar for maximum dynamic response.
- Accumulators used to supply hydraulic energy are mounted directly adjacent to the actuator to minimize flow losses.
- Digital piston transducer is temperature-stable, possesses a very high dynamic response and requires no calibration.
- Electronics with integrated high-speed data-acquisition; four channels as standard (can be expanded to eight).
- The safety housing and hydraulic safety-circuit reflect the special demands placed on safety during high-speed tests.

Product Information

HTM 2512 high-speed testing machine

HTM Type	2512	
Nominal force	25	kN
Piston speed	12 / 0.001	max / min m/s
Total piston stroke	250	mm
End cushioning	2x25	mm
Effective stroke	200	mm
Nominal pressure	280	bar
Actuator design	double-rod actuator with hydrostatic bearings	
Force measurement	piezo-electric	
Displacement measurement	digital	
Dimensions ¹⁾		
A - Height of test frame	2670	mm
A _K - tople measure for installation	2850	mm
Max. width of test frame	1090	mm
Max. depth of test frame	780	mm
D - Distance between columns	565	mm
E - Column diameter	80	mm
F - Height of upper edge of lower crosshead	1000	mm
G - Max. test area height	1370	mm
H - Crosshead displacement range	1000	mm
Weight	1600	kg
Item No.		
HTM 2512 load frame	046216	
HTM 2512 actuator	014113	
HTM 2512 safety device	1014336	
HTM 2512 safety device (for temperature conditioning device)	031189	
Accessories required²⁾		
HTM A-I hydraulic distribution unit	072573	
Leakage oil pump	924785	

1) Dimensions without safety housing

2) The machine can be connected to a central 280 bar hydraulic supply or to a dedicated hydraulic power unit.

Measurement and control electronics

Description	Item number
testControl II	1050755
<ul style="list-style-type: none"> Mounted in an electrical cabinet Width x height x depth: 600 x 1000 x 600 Including load measurement amplifier and 4-channel transient memory 	
Workstation for two transient memory cards (009521)	3005235

Software

Description	Item number
testXpert [®] basic program, German	058388

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Description	Item number
testXpert [®] basic program, English	058389
Master test program 'Transient Recorder' <ul style="list-style-type: none">• Memory for performing tests with high-speed data logging	640034
Test program for performing HTM tensile / punch tests	935674

Accessories

Description	Item number
Data acquisition <ul style="list-style-type: none">• Additional transient memory card for 4 additional analog inputs	009521
Measurement amplifier <ul style="list-style-type: none">• Broadband measurement amplifier, DC frequency range up to 1 MHz (-3dB) e.g. for specimens with strain gages applied	009360
Module housing for up to 4 broadband amplifiers (009360)	009361
ProPact correction software <ul style="list-style-type: none">• For optimizing set-value signals, to achieve best-possible speed constancy	020926
Temperature chamber, -100 to +250 °C	035653
Guide rails for temperature chamber	064982