

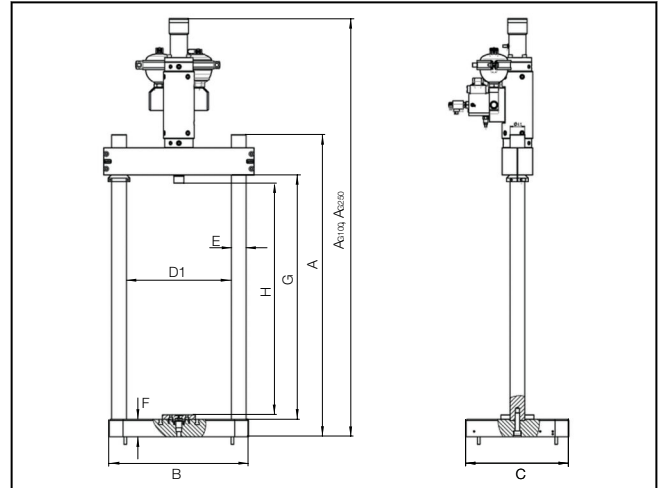
## Product Information

### Servo-hydraulic load frames - HC range

CTA: 157816 137521



HC load frame with base



Drawing: HC load frame

#### Range of application

The HC frame is designed as a table-top model for forces up to 25kN. With the testing actuator mounted in the upper crosshead, the testing machine can be used for both standard fatigue tests and flexure and component tests. The integrated hard-chromed T-slotted platform is suitable for tests with corrosive media, e.g. saline solutions, as frequently used in biomedicine.

#### Description of operation

These compact 2-column load frames are designed for materials and component testing under dynamic alternating loads in a closed force-flow. The frame is supported on vibration-isolating leveling units. Installation on a stable, sturdy table or workbench is suitable for normal operation. For critical tests or installation conditions and high test frequencies it is advisable to install the frame on the optional concrete base. A particularly space-saving arrangement is possible when the HC is used in combination with the 11-liter/minute low-noise power-pack, the noise-insulated power-pack serving as the base.

The load cell can be attached to the table top or the piston rod, depending on the type of test. If standard specimen grips are used, mounting on the fixed lower crosshead is advisable.

The frame possesses high axial and lateral stiffness, enabling lateral forces which may occur in compression and flexure tests to be absorbed without difficulty. The frame is also suitable for combined tension or compression/torsion loadings.

The frames also feature extremely precise alignment; following installation of the testing actuator and load cell, alignment accuracy is  $+0.1$  mm per meter separation; at distances below 350mm the offset is constant at 0.05mm. Plane-parallelity of mounting surfaces is equal to or better than 0.03 mm per 100 mm. All fixtures and ZwickRoell load cells are mounted via flanges with centering-spigot. An alignment unit is also optionally available in the product range.

#### Advantages and features

- 2-column frame for dynamic tests up to 25kN.
- Testing actuator located in upper crosshead.
- Suitable for 10 kN and 25 kN axial actuators.
- Suitable for combined tensile and compression/torsion actuator with maximum torque of 250 Nm.
- Hard-chromed T-slotted platform and columns for tests in corrosive media.
- The entire test, together with set-up and control of automatic extensometers and specimen grips, is run via the display-equipped remote control unit.
- Wide accessory range: temperature chamber, compression platens, specimen grips, flexure test kit etc.
- Optional hydraulic adjustment for easy positioning of upper crosshead.
- Safety housing for compliance with CE Machinery Directive depending on application.

## Product Information

### Servo-hydraulic load frames - HC range

#### Technical data

Test area height	Standard	Extended by 250 mm	Extended by 500 mm	
Dynamic nominal force	25	25	25	kN
A - max. height of test frame	1325	1575	1825	mm
A <sub>G100</sub> – max. test-frame height with 100mm-stroke actuator	1865	2115	2365	mm
A <sub>G250</sub> – max. test-frame height with 250mm-stroke actuator	2165	2415	2665	mm
B – max. width of test frame	660	660	660	mm
C – max. depth of test frame	450	450	450	mm
D1 - distance between columns	460	460	460	mm
E – column diameter	65	65	65	mm
F - height of top edge of lower crosshead	75	75	75	mm
G – max. test area height <sup>1)</sup>	1070	1320	1570	mm
H – max. working test area height <sup>2)</sup>	310 to 1010	560 to 1260	810 to 1510	mm
J - crosshead adjustment path <sup>3)</sup>	700			mm
K - weight <sup>4)</sup>	300	315		kg
Frame stiffness at 1000mm crosshead separation	300	300	300	kN/mm
<b>Clamping/ adjustment: manual/ manual</b>	<b>1037238</b>	<b>1037462</b>	<b>1037469</b>	
<b>Clamping/ adjustment: manual/ hydraulic</b>	<b>1036930</b>	<b>1036931</b>	<b>1037473</b>	

1) Distance between upper and lower crossheads

2) Distance between piston flange and base crosshead with piston retracted

3) For frames with hydraulic adjustment only

4) Weight without actuator, load cell, or any fixtures

#### Accessories

Description	Item number
Piston rod anti-rotation lock for HC frames	<b>1047951</b>
Base for HC load frames, concrete version - dimensions (H x W x D): 725 x 800 x 700 mm - weight: 830 kg	<b>1037475</b>
Torque support	<b>644085</b>

Frame height	Standard	Extended by 250 mm	Extended by 500 mm
Safety device, 4-sided	<b>1036932</b>	<b>1036933</b>	<b>1037670</b>
Safety device, 3-sided, in conjunction with a temperature chamber	-	<b>1037673</b>	<b>1037674</b>
Simple safety guard		<b>1036934</b>	