



PULL TESTERS

Force testers for construction and safety



PULL TESTERS

COM-TEN provides digital pull testers, and has been doing more and more work with the building industry in USA and around the world since 1960. Nowhere is this more important than in the building industry. Subject continuously to the forces of wind, gravity, and even their own weight, not to mention events like earthquakes, buildings under construction need pull testers to measure every detail for the structure to be sound. Fasteners, membranes, foam, tiles that hold together must be checked with pull testers to make sure they hold under both normal and any possible abnormal conditions.

Adhesion testing of:

- ▶ Insulated foam
- ▶ Concrete
- ▶ Floor
- ▶ Painting
- ▶ Bitumen
- ▶ Tiling
- ▶ Carpet
- ▶ ...



ADHOR range



Tensile testing of:

- ▶ Dowel
- ▶ Screws
- ▶ Bolt
- ▶ Fasteners
- ▶ Anchors
- ▶ Safety life line
- ▶ Nails
- ▶ ...

EXTRACTOR range

ADHOR - Pull tester for adhesion testing



Com-Ten is an instigator in the validation of installation of insulation membrane, with the UPLIFT Tester, and the measurement of the bonding strength of coatings, with the ADHOR Tester. These products are designed to proof the good installation and adhesion properties in the field.

The ADHOR portable tester is ideal for your quality test on coating layer. It allows you to evaluate easily on the field the pull strength of your coating system on various substrates. The ADHOR is used in construction, roofing and in all the industrial and building companies when the bonding strength measurement is required.

Models	ADHOR 400D	ADHOR 1000D	ADHOR 2000D
Maximum capacity	1 500 N	4 500 N	9 000 N
Accuracy	+/- 7.5 N	+/- 22.5 N	+/- 45 N
Available units	N, kg, lb		
Accessories included	5 discs diameter 50 mm, one gripper for discs		
Carrying case	Included		
Certificate of calibration	Linked to COFRAC - Included		

Accessories for adhesion testing

Bond discs for adhesion testing



Models	Shape	Dimensions
ACC EXT DISC50	Disc	50 mm
ACC EXT DISC100	Disc	100 mm
ACC EXT SQR20	Square	20 mm
ACC EXT SQR50	Square	50 mm
ACC EXT SQR100	Square	100 mm

Special application - Uplift pull tester

Com-Ten is an instigator in the validation of installation of insulation membrane, with the Uplift tester. These products are design to proof the good installation and property of adhesion directly in the field.

The 24" x 24" uplift plate is glued to the tiles. The plate is grabbed by the pull tester using a female slotted adaptor which is attached to the Uplift pull tester. Then the plate is pulled off in direct tension using the hand crank of the Uplift pull tester and the corresponding pressure is applied. The gauge displays and registers the pull-out force.



How to perform a bond test

Com-Ten is an instigator in the validation of installation of insulation membrane, with the Uplift tester, and the measurement of the bonding strength of coatings, with the Adhor tester. These products are design to proof the good installation and property of adhesion directly in the field.

A clean disc is glued on the planed, cleaned surface (using an epoxy resin). A curing period of 24 hours is needed to ensure a good bonding of the adhesive. This disc is grabbed by the pull tester using a female slotted adaptor which stays at the base of the pull tester. Then the disc is pulled off in direct tension using the hand crank of the Adhor tester. The gauge displays and registers the peak pull out force break of the coating on its substrate.

EXTRACTOR - Pull tester for anchors



EXTRACTOR 1000DW
and EXTRATOR 2000DW

EXTRACTOR 4000DW
and EXTRATOR 6000DW

The EXTRACTOR portable pull-tester is ideal for your quality test on fixing fasteners. It allows you to evaluate easily in the field, the tensile pull-out force of your fixing system on various substrate materials.

The Extractor is specially designed for the following domains:

- ▶ Measure the pull-out force to validate a safe working load
- ▶ Check the correct installation of anchors
- ▶ Measure the withdrawal resistance of fasteners used for attachment of various components to various materials
- ▶ Proof the holding power of anchors

The Extractor fastener tester is an essential tool in building industries, where it is important to validate and check for faulty fixing anchors on both new and old construction.

Models	EXTRACTOR 1000DW	EXTRACTOR 2000DW	EXTRACTOR 4000DW	EXTRACTOR 6000DW
Maximum capacity	4 500 N	9 000 N	18 000 N	27 000 N
Accuracy	+/- 7.5 N	+/- 22.5 N	+/- 90 N	+/- 135 N
Available units	N, kg, lb			
Accessories included	4 slotted buttons, 4 threaded buttons and 4 threaded studs from M6 to M12		4 slotted buttons, 4 threaded buttons and 4 threaded studs from M8 to M16	
Carrying case	Included			
Certificate of calibration	Linked to COFRAC - Included			

Accessories for fixing testing

Accessories for bolt, thread and anchors



Size	Treaded stud	Threaded button	Slotted button
M6	ACC EXT TFM M6	ACC EXT BTM M6	ACC EXT BFM M6
M8	ACC EXT TFM M8	ACC EXT BTM M8	ACC EXT BFM M8
M10	ACC EXT TFM M10	ACC EXT BTM M10	ACC EXT BFM M10
M12	ACC EXT TFM M12	ACC EXT BTM M12	ACC EXT BFM M12
M16	ACC EXT TFM M16	ACC EXT BTM M16	ACC EXT BFM M16

Accessories for eye bolt and ring



Size	Part number	Description
M12	ACC EXT CHAPM12	Clevis adaptor for eye bolt size 12
M16	ACC EXT CHAPM16	Clevis adaptor for eye bolt size 16

Extented legs



Length	Part number	Description
150 mm	ACC EXT LEG	Set of 3 blue extension legs
75 mm	ACC EXT FEET	Set of 3 adjustable leveling feet

How to perform a pull test

The principal objective in the use of a pull-out tester system is to validate the withdraw resistance of fixings on substrate. During the last decade the use of pull testers has become more and more widespread. And for good reasons.

The usage of Com-Ten pull testers is a very simple, flexible and reliable method that can be used on various substrates: Brickwork, Concrete, Masonry and with almost any situation encountered during the fixings process.

A tensile load is applied to the fixing mechanically using the hand crank of the pull-out tester. The gauge displays and registers the peak pull-out force.

PULL TESTERS - Other applications

Foam compression testing

The Foam Portable Tester has been designed by Com-Ten for your quality test on spray applied polyurethane foam (SPF). It allows you to evaluate easily in the field the quality of the foam sample. With our foam tester, there is no more downtime waiting for laboratory results, do it yourself saving time and money.

The Foam Tester is specially designed for the following domains:

- ▶ Test the compressive yield strength of the foam
- ▶ Validate the quality of SPF



Special accessories and spare parts

We have a wide range of special or custom accessories and spare parts. We can also design and manufacture special brackets or rings for your applications. Do not hesitate to contact us so that we can study your request.

Some examples of realizations or accessories:

- ▶ Additional gauges: you mount different gauges on your pull tester if you want to have spares or different capacities
- ▶ Handles: we can provide spare handles or handles with different length
- ▶ Special pull accessories: we produce specific accessories that can, for example, simulate a tension of a waterproofing membrane or check the fixing points for the insulation.





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ISO 9001:2015 Certified

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