

Welcome to the Instron® Materials Testing Accessories Newsletter

In This Issue: Fatigue-Rated Grips

Low Force

Our fatigue grip portfolio now includes light-weight mechanical and pneumatic grips. The grips are designed for use on the new ElectroPuls™ dynamic testing machines, as well as on 8870 machines with low load capacity requirements.

When used in conjunction with a Dynacell™ load cell, the fatigue-rated grips are ideally suited for biomedical industries and other low-capacity [applications](#).

What is a Fatigue Test?

Fatigue testing can be thought of as simply applying cyclic loading to your test specimen to understand how it will perform under similar conditions in actual use. The load application can be a repeated application of a fixed load or a simulation of in-service loads, and may be repeated millions of times up to several times per second.

Why Do a Fatigue Test?

In many [applications](#), materials are subjected to vibrating or oscillating forces. The behavior of materials under such load conditions differs from the behavior under a static load. Because the material is subjected to repeated load cycles (fatigue) in actual use, designers are faced with predicting fatigue life, which is defined as the total number of cycles to failure under specific load conditions. Fatigue testing gives much better data to predict the in-service life of materials.



1 kN Fatigue Grips



3 kN Manual Fatigue Grips



Pneumatic Fatigue Grips

These new grips join the already well-established [fatigue grip family](#).

- 2742-301 – ±30 kN Hydraulic wedge grip
- 2743-401 – ±100 kN Hydraulic wedge grip
- 2742-501 – ±250 kN Hydraulic wedge grip
- 2742-601 – ±500 kN Hydraulic wedge grip
- 2750 clevis grips suitable for crack propagation and K1C

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[Online Request](#)

Related Links

- Fourth Edition of the [Accessories Catalog for Materials Testing](#) is now available!



- Missed previous issues of the Accessories Newsletter? Catch up at the Instron [Library](#). Follow the link and select "Newsletter" as the Document Type.

Future Events

- For a list of upcoming shows that Instron will be attending, please visit the [Events](#) page of our website.

For more information on Accessories, visit us [on the web](#), submit an [online request](#), or call us at **+800 564 8378** (US only) or **+44 1494 456815** (Europe only)

Are you testing something a little different? Do you think more people should know about it? Would you like to submit an article for possible publication in the Instron accessories newsletter? If so, please [submit your story](#).

[What do you think? Tell us!](#)



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