

# ±1 KN MECHANICAL FATIGUE-RATED WEDGE-ACTION GRIPS

2742-102

Designed to suit the ElectroPuls® test instruments, the 2742-102 mechanical wedge action grips are suitable for tension, compression and reverse-stress testing on a wide range of specimens and materials. The grips are mechanically operated and the open-fronted design provides easy specimen insertion, positioning and clamping.

## PRINCIPLE OF OPERATION

The wedge action principle of the grips allows them to be tightened easily, by hand (or spanner for additional gripping force), onto the specimen without altering the vertical position of the faces in relation to the specimen. This Instron® design of a moving grip body, not jaw face, makes it possible to pre-select the exact point at which the specimen is gripped, with a consistent gauge length and with no compressive force being applied, which may cause specimen buckling.

The open front design allows for quick and easy changing of the jaw faces. The jaw faces are serrated for optimum gripping performance and the serrations are designed to minimize damage to the specimen surface.

Attachment kits to suit ElectroPuls instruments and other systems are available.

## APPLICATION RANGE

- Types of loading: Tension, compression or reverse stress testing
- Specimen geometries: Flat or round specimens
- Specimen material: Metallics, plastics, composites, biomaterials
- Temperature range: -30 to +100°C (-22 to 212°F)



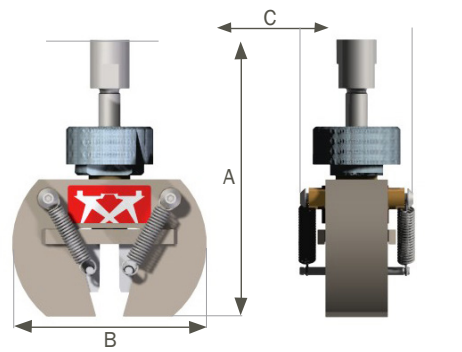
±1 kN mechanical fatigue-rated wedge-action grips

## FEATURES

- Rated capacity: ±1 kN
- Suitable for tension and compression, including full reverse-stress dynamic testing
- Open-fronted design for quick and easy specimen insertion from the side
- Self-tightening wedge design eliminates slippage and prevents specimen loading
- Interchangeable jaw faces for gripping different materials and specimen sizes
- Spanner tightening adjustment, applies additional gripping force when needed

## SPECIFICATIONS

|                                  |     |                         |
|----------------------------------|-----|-------------------------|
| Catalogue Number                 |     | 2742-102                |
| Maximum Capacity                 | kN  | ±1                      |
|                                  | lbf |                         |
| Grip Mass                        | kg  | 0.35                    |
|                                  | lbs | 0.77                    |
| A                                | mm  | 89 min to 101 max       |
|                                  | in  | 3.5 to 3.9              |
| B                                | mm  | 70                      |
|                                  | in  | 2.7                     |
| C                                | mm  | 40.5                    |
|                                  | in  | 1.5                     |
| Operating Temperature            | °C  | -30 to +100             |
|                                  | °F  | -22 to +212             |
| Internal Thread (For Attachment) |     | M6 x 1 RH female thread |

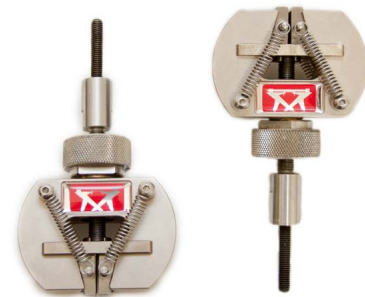


1 kN Mechanical Wedge Grip (2742-102)

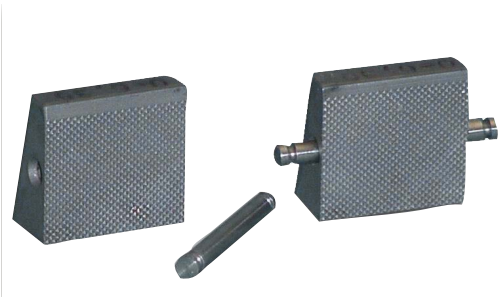
Scope of supply: Grip catalogue number provides two grips

## ADAPTORS

|          |  |
|----------|--|
| 8000-127 | One set (pair) of Fatigue-Rated Adaptors for attaching accessories with M6 RH female thread to system with E1000/E3000 Systems (to Dynacell with M6 or M20 thread) |
| 8000-128 | One set (pair) of Fatigue-Rated Adaptors for attaching accessories with M6 RH female thread to system with M20 RH female thread in Dynacell and actuator           |



1 kN Mechanical Wedge Grips



Flat Serrated Jaw Faces - 2703-901

## JAW FACES

| Catalog Number | Specimen Type | Specimen Thickness |              | Clamping Area (W x H)           |
|----------------|---------------|--------------------|--------------|---------------------------------|
|                |               | mm                 | in           |                                 |
| 2703-901       | Flat          | 0 to 6.35          | 0 to 0.25    | 19 mm x 19 mm (0.7 in x 0.7 in) |
| 2703-902       | Round         | ∅ 3.0 to 7.8       | 0.12 to 0.31 | 19 mm x 19 mm (0.7 in x 0.7 in) |

- Notes:
1. Jaw face catalogue number provides four faces
  2. Jaw faces are hardened to 48 to 52 Rc, unless otherwise specified
  3. All faces are diamond serrated 45°

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