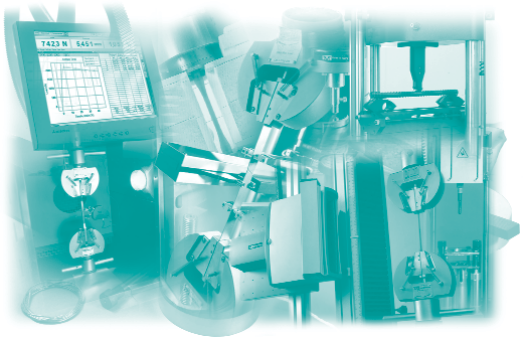


# 2716 Series
# Manual Wedge Action Grips
## Catalog Number 2716-015

## Features

- Rated capacity: 30 kN (3,000 kgf, 6,700 lbf)
- Quick set-up with rapid clamping and unclamping action
- Self-tightening wedge design eliminates slippage
- Interchangeable jaw faces for a range of specimen geometries and types
- Fixed faces and moving body during specimen loading
- Slack-free connection to test instrument
- Quickly change faces without tools
- Optional specimen centering device
- Temperature range: -73 °C to +250 °C (-100 °F to +480 °F)

## Description

The manual wedge action grip is designed for easy specimen loading, alignment and positioning. After initial face to specimen contact, gripping force will increase as the testing load increases. Due to Instron•'s design of moving grip bodies, virtually no preload is seen during specimen clamping. This makes them particularly suitable for testing high strength materials, such as metals and composites, ensuring that specimen slippage is eliminated.

A centering device is also available, enabling quick and accurate placement of the specimen and keeping the central loading axis lined with the load string.

## Principle of Operation

The wedge action principle of these grips allows them to be tightened onto a specimen without altering the vertical position of the faces in relation to the specimen. This is accomplished by a design which moves the grip body to close the faces. This feature makes it possible to pre-select the exact point at which the specimen will be held with consistent gauge length and no compressive force applied which may cause specimen buckling.

A strong clamping force can be applied to materials that are difficult to hold through a high mechanical advantage achieved by the tightening mechanism. The grip faces are spring loaded against a shoe which is in a fixed position in respect to the testing frame holding mechanism, only a light initial gripping force needs to be applied to the specimen.

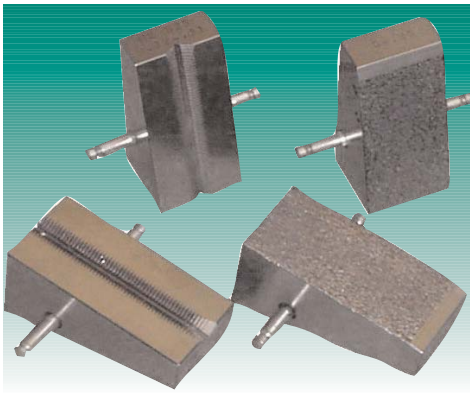
As the grip is tightened, it's frame is drawn up and the inclined sides push against the matching side of the faces which move laterally against the specimen. The open front design of the grip frames allows faces to be easily interchanged as well as easy specimen loading. Because the faces are held in a fixed position, there is no recoil, or loosening when the specimen ruptures, and if an extensometer is attached, it will remain in place.

With the optional specimen centering device, a specimen can be easily placed on center of the faces. This device is adjustable from front to back and locked on with thumb screws.

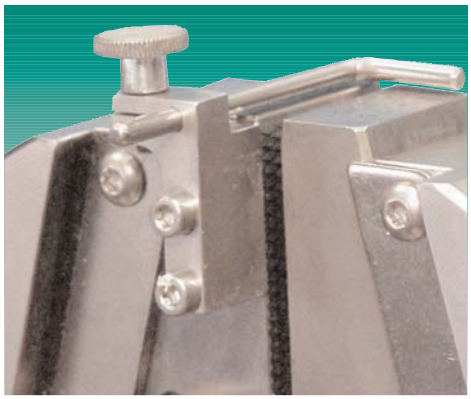
## Application Range

- Type of loading: Tension. Not suitable for through-zero/ reverse stress or fatigue testing.
- Specimen material: wires, plastics, metals, elastomers.
- Specimen shapes: flat, round.

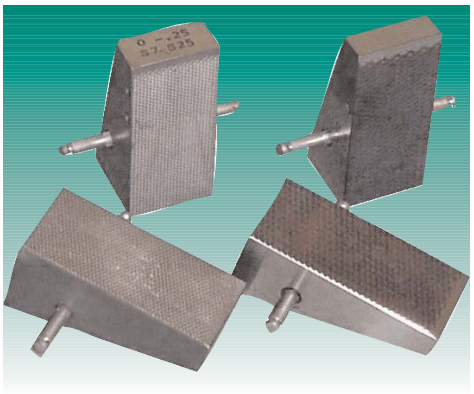
▲ **2716-015 wedge action grips**



▲ **Faces: V-serrated and surfalloy**



▲ **2716-011 specimen centering device**



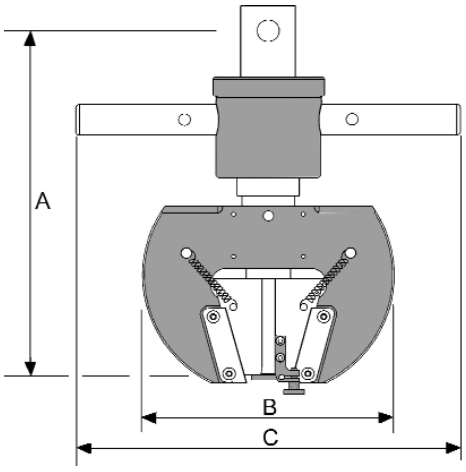
▲ **Faces: Flat serrated (1.0 mm) and flat serrated (1.5 mm)**

# 2716 Series Manual Wedge Action Grips

Catalog Number 2716-015

## Specifications

| | |
|---|---|
| **Catalog Number** | 2716-015 |
| **Maximum Capacity** | 30 kN (3,000 kgf, 6,700 lbf) |
| **MECHANICAL CONNECTION** | |
| **Upper Fitting** | ½ in clevis pin (Type Dm) |
| **Lower Fitting** | ½ in clevis pin (Type Dm) |
| **EFFECTIVE LENGTH (A)** | |
| **Upper Grip** | 203 mm (8 in) |
| **Lower Grip** | 203 mm (8 in) |
| **Body Width (B)** | 144 mm (5.67 in) |
| **Overall Width (C)** | 220 mm (8.66 in) |
| **Weight per Grip (No Faces)** | 5.25 kg (11 lb 9 oz) |
| **Weight (Faces)** | 450 g (1 lb) |
| **Temperature Range** | -73 °C to +250 °C (-100 °F to +480 °F) |
| **Working Principal** | Manual wedge action |
| **Gripping Length** | 57 mm (2.2 in) |
| **Maximum Face Movement** | 13 mm (0.5 in) |




▲ **Grip dimensions**

**Notes**:
1. Grip catalog number provides two grips.
2. Grips may require a coupling to connect to load cell or machine base.
3. Upper grip may require a flexible coupling for certain applications.

## Accessories

| Catalog Number | Description |
|---|---|
| **2716-011** | Specimen centering device |

## Jaw Faces

| Catalog Number | Specimen Thickness | Surface | Clamping Area (W x H) | Application |
|---|---|---|---|---|
| 2703-151 | 0 to 6.4 mm (0 to 0.25 in) | Diamond serrated Pitch 1.5 mm (16-teeth per in) | 25 mm x 57 mm (1 in x 2.2 in) | For gripping metal, plastic, and fiber reinforced plastic specimens with or without shoulder tab ends |
| 2703-152 | 6.4 mm to 12.6 mm (0.25 in to 0.5 in) | Diamond serrated Pitch 1.5 mm (16-teeth per in) | 25 mm x 57 mm (1 in x 2.2 in) | For gripping metal, plastic, and fiber reinforced plastic specimens with or without shoulder tab ends |
| 2703-155 | 0 to 6.4 mm (0 to 0.25 in) | Diamond serrated Pitch 1 mm (25-teeth per in) | 25 mm x 57 mm (1 in x 2.2 in) | For gripping metal, plastic, and fiber reinforced plastic specimens with or without shoulder tab ends |
| 2703-156 | 6.4 mm to 12.6 mm (0.25 in to 0.5 in) | Diamond serrated Pitch 1 mm (25-teeth per in) | 25 mm x 57 mm (1 in x 2.2 in) | For gripping metal, plastic, and fiber reinforced plastic specimens with or without shoulder tab ends |
| 2703-160 | 0 to 6.4 mm (0 to 0.25 in) | Rubber-coated | 25 mm x 57 mm (1 in x 2.2 in) | For gripping fabrics, plastic tape and fine wires |
| 2703-157 | 0 to 6.4 mm (0 to 0.25 in) | Surfalloy coated (emery grit of 100) | 25 mm x 57 mm (1 in x 2.2 in) | For gripping fiber reinforced plastic specimens without tabbed ends |
| 2703-158 | 6.4 mm to 12.6 mm (0.25 in to 0.5 in) | Surfalloy coated (emery grit of 100) | 25 mm x 57 mm (1 in x 2.2 in) | For gripping fiber reinforced plastic specimens without tabbed ends |
| 2703-153 | 3.5 mm to 7.8 mm (0.125 in to 0.3 in) | V-serrated[3] Pitch 1 mm (25-teeth per in) | 57 mm (2.2 in) on a 120° included angle V-groove | For gripping round specimens with or without shoulder tabs and pipe/ tube plugs |
| 2703-154 | 7.1 mm to 12.5 mm (0.25 in to 0.5 in) | V-serrated Pitch 1 mm (25-teeth per in) | 57 mm (2.2 in) on a 120° included angle V-groove | For gripping round specimens with or without shoulder tabs and pipe/ tube plugs |

**Notes:**
1. Faces catalog number provides four faces.
2. All faces are hardened to 60 Rc to 65 Rc, excluding rubber-coated and if otherwise specified.
3. Threaded and V-style faces are used for round specimens.


INSTRON

**Corporate Headquarters**
**100 Royall Street, Canton, Massachusetts 02021-1089, USA**
**Tel: +1 800 564 8378 or +1 781 575 5000 Fax: +1 781 575 5751**

**Instron Industrial Products**
**900 Liberty Street, Grove City, PA 16127-9969, USA**
**Tel: +1 724 458 9610 Fax: +1 724 478 9614**

**European Headquarters**
**Coronation Road, High Wycombe, Bucks HP12 3SY, United Kingdom**
**Tel: +44 1494 464646 Fax: +44 1494 456123**

**www.instron.com**



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