



# 2736 Series Manual Wedge Action Grips (High Temperature)

## Catalog Number 2736-015

### 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 +350 °C (-100 °F to +660 °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. Virtually no pre-load is seen during specimen clamping due to Instron's design of moving grip bodies. 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.

Four handles are provided to operate the grip. This eliminates having to reach too far inside the chamber where surfaces may be too hot or cold to touch.

### 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, its 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 set 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.
- Hot or cold controlled environments.



▲  
2736-015 wedge action grips

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## Specifications

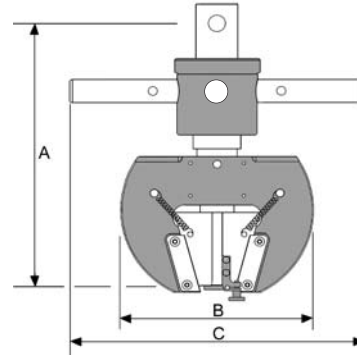
Catalog Number	2732-015
Maximum Capacity	30 kN (3,000 kgf, 6,700 lbf)
<b>MECHANICAL CONNECTION</b>	
Upper Fitting	½ in clevis pin (Type Dm)
Lower Fitting	½ in clevis pin (Type Dm)
<b>EFFECTIVE LENGTH (A)</b>	
Upper Grip	191 mm (7.5 in)
Lower Grip	191 mm (7.5 in)
Body Width (B)	144 mm (5.67 in)
Overall Width (C)	220 mm (8.66 in)
Weight (Faces)	450 g (1 lb)
<b>WEIGHT (NO FACES)</b>	
Upper Grip	4.35 kg (7 lb)
Temperature Range	-73 °C to +350 °C (-100 °F to +660 °F)
Working Principal	Manual wedge action
Gripping Length	57 mm (2.2 in)
Maximum Face Movement	13 mm (0.5 in)

### Notes:

- Grip catalog number provides two grips
- Grips may require a coupling to connect to load cell or machine base
- Upper grip may require a flexible coupling for certain applications

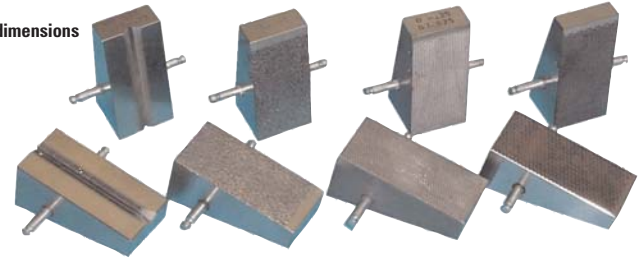
## Accessories

Catalog Number	Description
2716-011	Specimen centering device



▲ 2716-011 Specimen centering device

▲ Grip dimensions



▲ Faces: V-serrated, surfalloy, flat-serrated 1.0 mm (0.04 in), flat serrated 1.5 mm (0.06 in)

## Faces

Catalog Number	Specimen Thickness	Surface	Clamping Area (W x H)	Application
2703-151	0 mm to 6.4 mm (0 in 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)			
2703-155	12 mm to 6.4 mm (0.25 in to 0.25 in)	Diamond-serrated Pitch 1.0 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)			
2703-013	3.5 mm to 8 mm (0.13 in to 0.31 in)	V-serrated Pitch 1.0 mm (25-teeth per in)	57 mm (2.2 in) on a 120° included angle v-groove	For gripping round specimen with or without shoulder tabs, and pipe/tube with plugs
2703-014	7 mm to 12.7 mm (0.28 in to 0.5 in)			

### Notes:

- Faces catalog number provides four faces
- All faces are hardened to 60 Rc -65 Rc, excluding rubber coated and if otherwise specified
- Threaded and Vee style faces are used for round specimens



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