

2716 SERIES MANUAL WEDGE ACTION GRIPS

Catalog Numbers 2716-002, 003, 008

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 preload is seen during specimen clamping due to the design of the moving grip bodies. This makes them particularly suitable for testing high strength materials, such as metals and composites, ensuring that specimen slippage is eliminated.

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 preselect the exact point at which the specimen will be held with consistent gage 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. A shoe incorporated to the driving shaft prevents the faces from retracting.

The open front design of the grip frames allows faces to be easily interchanged, and offers 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.

FEATURES AND BENEFITS

- Rated capacity: 100 kN (10,000 kgf, 22,500 lbf)
- Quick set-up with rapid clamping and unclamping action
- Easy specimen loading for increased productivity
- 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
- Temperature range: -73 °C to 250 °C (-100 °F to 480 °F)



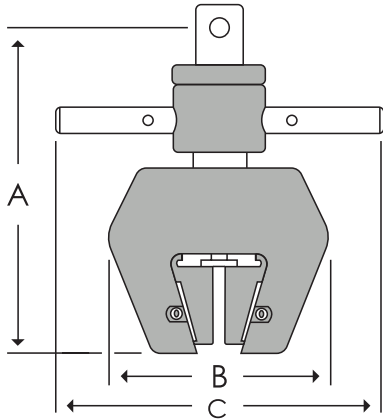
2716-002 Wedge Action Grip

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

SPECIFICATIONS

| Catalog Number | Maximum Capacity | | | Upper & Lower Fitting | Upper & Lower Grip (A) | | Body Width (B) | | Overall Width (C) | | Weight (No Faces) | | Gripping Length | |
|----------------|------------------|--------|--------|-----------------------------|------------------------|-----|----------------|------|-------------------|------|-------------------|----|-----------------|-----|
| | kN | kgf | lbf | | mm | in | mm | in | mm | in | kg | lb | mm | in |
| 2716-002 | 100 | 10,000 | 22,500 | 1/2 in clevis pin (Type Dm) | 230 | 9.0 | 144 | 5.67 | 222 | 8.75 | 10 | 20 | 57 | 2.2 |
| 2716-003 | 100 | 10,000 | 22,500 | 1/2 in clevis pin (Type Dm) | 250 | 9.8 | 168 | 6.63 | 191 | 7.5 | 14 | 30 | 57 | 2.2 |
| 2716-008 | 150 | 15,000 | 33,700 | M48mLH (Type IlmLH) | 250 | 9.8 | 178 | 7 | 235 | 9.25 | 15.4 | 34 | 57 | 2.2 |



Notes:

1. Faces catalog number provides four faces
2. All faces are hardened to 60 Rc, excluding rubber-coated, and if otherwise specified
3. Threaded and V-style faces are used for round specimens
4. Grip catalog number provides two grips
5. Grips may require a coupling to connect to load cell or machine base
6. Upper grip may require a flexible coupling for certain applications
7. Temperature range: -73 °C to +250 °C (-100 °F to +480 °F)



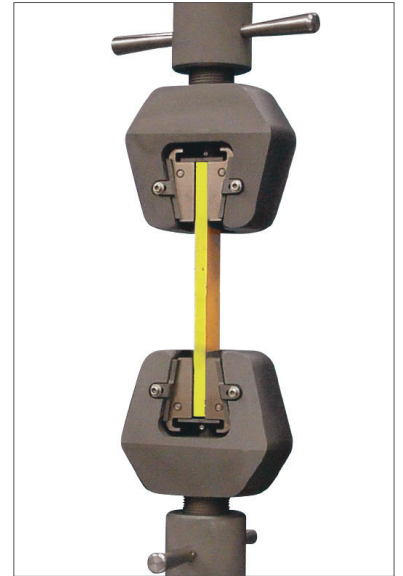
Jaw Faces for 2716-002 (1 inch wide)

JAW FACES FOR 2716-002

| Catalog Number | Specimen Thickness | | Surface | Clamping Area (W × H) | | Application |
|----------------|--------------------|-------------|---|--|---------|---|
| | mm | in | | mm | in | |
| 2703-001 | 0 - 6.4 | 0 - 0.25 | Diamond Serrated Pitch 1.5 mm (16-teeth per in) | 25 × 57 | 1 × 2.2 | For gripping metal, plastic, and fiber reinforced plastic with or without shoulder tab ends |
| 2703-002 | 6.4 - 12.7 | 0.25 - 0.5 | Diamond Serrated Pitch 1.5 mm (16-teeth per in) | 25 × 57 | 1 × 2.2 | |
| 2703-006 | 0 - 6.4 | 0 - 0.25 | Diamond Serrated Pitch 1 mm (25-teeth per in) | 25 × 57 | 1 × 2.2 | |
| 2703-007 | 6.4 - 12.7 | 0.25 - 0.5 | Diamond Serrated Pitch 1 mm (25-teeth per in) | 25 × 57 | 1 × 2.2 | |
| 2703-070 | 12.7 - 16 | 0.5 - 0.63 | Round Threaded Pitch 1.5mm (16-teeth per in) | 57 mm (2.2 in) on a 0.75-16 UNF-2B (threaded) | | For gripping round specimens with or without shoulder tabs and pipe/tube plugs |
| 2703-071 | 16 - 19 | 0.63 - 0.75 | Round Threaded Pitch 1.5 mm (16-teeth per in) | 57 mm (2.2 in) on a 0.75-16 UNF-2B (threaded) | | |
| 2703-004 | 7 - 12.7 | 0.28 - 0.5 | V-Serrated Pitch 1.5 mm (16-teeth per in) | 57 mm (2.2 in) on a 120° included angle V-groove | | |
| 2703-008 | 3.5 - 8 | 0.13 - 0.31 | V-Serrated Pitch 1 mm (25-teeth per in) | 57 mm (2.2 in) on a 120° included angle V-groove | | |
| 2703-009 | 7 - 12.7 | 0.28 - 0.5 | V-Serrated Pitch 1 mm (25-teeth per in) | 57 mm (2.2 in) on a 120° included angle V-groove | | |
| 2703-010 | 12.7 - 19 | 0.5 - 0.75 | V-Serrated Pitch 1 mm (25-teeth per in) | 57 mm (2.2 in) on a 120° included angle V-groove | | |



Jaw Faces for 2716-003, 008 (2 inch wide)



2716-003 or 2716-008 Wedge Action Grip

JAW FACES FOR 2716-003, 008

| Catalog Number | Specimen Thickness | | Surface | Clamping Area (W × H) | | Application |
|----------------|--------------------|-------------|---|--|---------|---|
| | mm | in | | mm | in | |
| 2703-011 | 0 - 6.4 | 0 - 0.25 | Diamond Serrated Pitch 1.5 mm (16-teeth per in) | 50 × 57 | 2 × 2.2 | For gripping metal, plastic, and fiber reinforced plastic with or without shoulder tab ends |
| 2703-012 | 6.4 - 12.7 | 0.25 - 0.5 | Diamond Serrated Pitch 1.5 mm (16-teeth per in) | 50 × 57 | 2 × 2.2 | |
| 2703-072 | 12.7 - 16 | 0.5 - 0.63 | Round Threaded Pitch 1.5mm (16-teeth per in) | 57 mm (2.2 in) on a 0.75-16 UNF-2B (threaded) | | For gripping round specimens with or without shoulder tabs and pipe/tube plugs |
| 2703-073 | 16 - 19 | 0.63 - 0.75 | Round Threaded Pitch 1.5 mm (16-teeth per in) | 57 mm (2.2 in) on a 0.875-16 included angle V-groove | | |
| 2703-013 | 3.5 - 8 | 0.13 - 0.31 | V-Serrated Pitch 1 mm (25-teeth per in) | 57 mm (2.2 in) on a 120° included angle V-groove | | |
| 2703-014 | 7 - 12.7 | 0.28 - 0.5 | V-Serrated Pitch 1 mm (25-teeth per in) | 57 mm (2.2 in) on a 120° included angle V-groove | | |
| 2703-015 | 12.7 - 19 | 0.5 - 0.75 | V-Serrated Pitch 1 mm (25-teeth per in) | 57 mm (2.2 in) on a 120° included angle V-groove | | |

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