

MANUAL WEDGE ACTION GRIPS

2716-01x, -02x, and 2736-01x Series



The Instron® manual wedge action grip is designed for easy specimen loading, alignment, and positioning. After the initial face-to-specimen contact, the gripping force will increase as the testing load increases. Due to the Instron design of moving grip bodies, virtually no preload is seen during specimen clamping.

PRINCIPLE OF OPERATION

These versatile wedge grips are equipped with moving grip bodies which 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 a consistent gauge length and where virtually no compressive force is applied, which may cause specimen buckling.

The grip faces are spring loaded against a shoe, which is in a fixed position in respect to the testing machine. As the grip is tightened, its frame is drawn towards the specimen and the wedged sides push against the matching side of the faces that move laterally against the specimen.

The open-front design of the grip frames allows for the faces to be easily interchanged, as well as for 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 the center of the faces. This device is adjustable from front to back and locked in place with thumb screws.

FEATURES AND BENEFITS

- Options for 1 kN (100 kg, 225 lbf), 2 kN (200 kg, 450 lbf), 5 kN (500 kg, 1,125 lbf), 30 kN (3,000 kg, 6,750 lbf), 50 kN (5,000 kg, 11,250 lbf)
- Quick setup with rapid clamping and unclamping action
- Easy specimen loading for increased productivity
- Self-tightening wedge design eliminates slippage
- Fixed faces and moving body during specimen loading
- Compact design for convenient testing of small specimens
- Slack-free connection to testing system
- Quickly change faces without tools
- Option for testing conditions up to 350°C (660°F)

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

JAW FACES FOR 2716-016, -017, -010, -015, -020 AND 2736-015 GRIPS

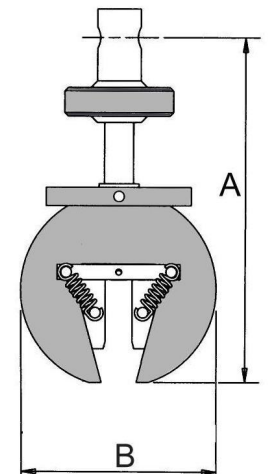
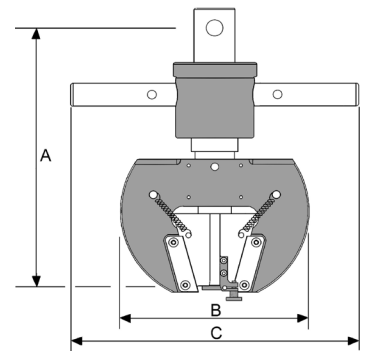
		2716-016	2716-017	2716-010	2716-015	2736-015	2716-020
Maximum Force Capacity	kN	1	2	5	30	30	50
	kgf	100	200	500	3000	3000	5000
	lbf	225	450	1125	6750	6750	11250
Temperature Range	°C	-10 to +100	-10 to +100	-73 to +250	-73 to +250	-73 to +350	-73 to +250
	°F	-14 to +212	-14 to +212	-100 to +480	-100 to +480	-100 to +660	-100 to +480
Upper and Lower Fitting		6 mm clevis pin (Type Om)	6 mm clevis pin (Type Om)	1/2 inch clevis pin (Type Dm)	1/2 inch clevis pin (Type Dm)	1/2 inch clevis pin (Type Dm)	1/2 inch clevis pin (Type Dm)
Jaw Face Width	mm	19	19	25	25	25	25
	in	0.75	0.75	1	1	1	1
Jaw Face Length	mm	19	19	57	57	57	57
	in	0.75	0.75	2.2	2.2	2.2	2.2
Grip Length (A)	mm	87	87	191	203	203	209
	in	3.4	3.4	7.5	8	8	8.2
Grip Body Width (B)	mm	49	49	178	220	144	220
	in	1.9	1.9	7	8.66	5.67	8.66
Grip Width (C)	mm	49	49	144	144	220	160
	in	1.9	1.9	5.67	5.67	8.66	6.3
Grip Weight (without faces)	kg	0.2	0.37	3.4	5.25	5.9	7
	lb	0.44	0.81	7.5	11.5	13	15.5
Maximum Opening (Jaw Face Dependant)	mm	7.4	7.4	12.6	12.6	12.6	12.6
	in	0.29	0.29	0.5	0.5	0.5	0.5

Notes:

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

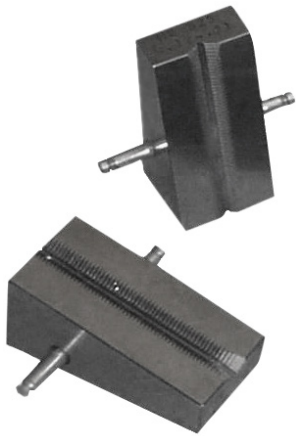
JAW FACES FOR 2716-016 AND -017 GRIPS

Catalog Number		2703-171
Specimen Thickness	mm	0 to 6.35
	in	0 to 0.25
Surface	mm	Pitch 0.64
	in	40-teeth
Clamping Area (W × H)	mm	19 × 19
	in	0.75 × 0.75
Application		For Gripping Plastics, Fabrics and Soft Materials

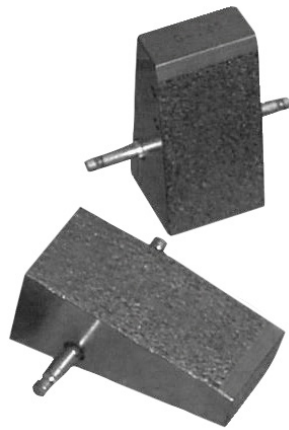


FOR 2716-010, -015, -020 AND 2736-015 GRIPS

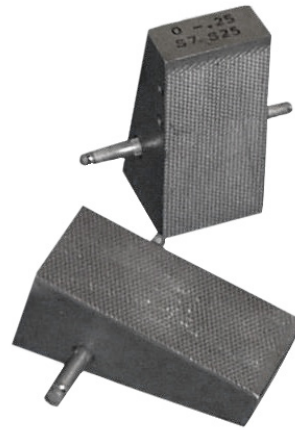
Ensuring that each specimen is subjected to the same axial loading has an important influence on the repeatability of the testing system. The optional specimen alignment device ensures that the specimen is loaded vertically every time. It can be used with rigid and semi-rigid materials where the specimen can be pressed lightly against the backstop for rapid loading, or with flexible materials, such as tapes and foils, where the backstop provides a visual cue. It can be mounted above or below the jaw faces depending on the specimen design. Repeatable, quick, and simple to adjust.



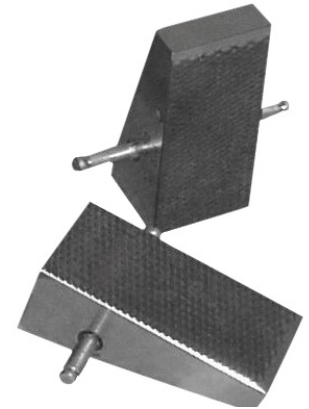
V-serrated Faces



Surfalloy Faces



Flat serrated (1.0 mm) Faces



Flat serrated (1.5 mm) Faces

JAW FACES FOR 2716-010, -015, -020 AND 2736-015 GRIPS

		2703-151	2703-152	2703-155	2703-156	2703-160	2703-157	2703-158	2703-153	2703-154
Specimen Thickness	mm	0 - 6.4	6.4 - 12.6	0 - 6.4	6.4 - 12.6	0 - 6.4	0 - 6.4	6.4 - 12.6	3.5 - 7.8	7.1 - 12.5
	in	0 - 0.25	0.25 - 0.5	0 - 0.25	0.25 - 0.5	0 - 0.25	0 - 0.25	0.25 - 0.5	0.125 - 0.3	0.25 - 0.5
Specimen Thickness (No Spacer)	mm	5 - 12	12.5 - 18	5 - 12	12.5 - 18	5 - 12	5 - 12	12.5 - 18	8.2 - 13	12.5 - 18
	in	0.2 - 0.47	0.5 - 0.7	0.2 - 0.47	0.5 - 0.7	0.2 - 0.47	0.2 - 0.47	0.5 - 0.7	0.32 - 0.5	0.5 - 0.7
Surface		Diamond serrated Pitch 1.5 mm (16 - teeth per in)	Diamond serrated Pitch 1.5 mm (16 - teeth per in)	Diamond serrated Pitch 1 mm (25 - teeth per in)	Diamond serrated Pitch 1 mm (25 - teeth per in)	Rubber - coated	Surfalloy coated (emery grit of 100)	Surfalloy coated (emery grit of 100)	V-serrated ³ Pitch 1 mm (25 - teeth per in)	V-serrated Pitch 1 mm (25 - teeth per in)
Clamping Area (W × H)	mm	25 × 57	25 × 57	25 × 57	25 × 57	25 × 57	25 × 57	25 × 57	57	57
	in	1 × 2.2	1 × 2.2	1 × 2.2	1 × 2.2	1 × 2.2	1 × 2.2	1 × 2.2	2.2	2.2
Application		For gripping: metal, plastic, and fiber reinforced plastic specimens with or without shoulder tab ends.				For gripping: fabrics, plastic tape and fine wires	For gripping: fiber reinforced plastic specimens without tabbed ends		For gripping: round specimens with or without shoulder tabs and pipe/tube plugs	

Notes:

1. 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.
4. Catalog numbers 2703-153 and 2703-154 are on a 120° included angle V-groove

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