

# ±30 kN FATIGUE-RATED HYDRAULIC WEDGE GRIPS

2742-301

The Instron® 30 kN hydraulic wedge action grips may be used in static or dynamic materials testing applications, interchangeable wedge-shape grip faces accommodating either flat or round specimens.

The grips maintain a constant gripping force on the specimen regardless of the test forces acting upon it, as long as there is hydraulic pressure to the grips.

## PRINCIPLE OF OPERATION

Each grip functions independently of the other, an external hydraulic supply providing pressure to both open and close the grips.

When gripping pressure is applied, the relative vertical position of the specimen/jaw faces remains unchanged to prevent specimen load generation during the gripping process.

Once the grip faces contact the specimen the hydraulic pressure produces a vertical force on the grip head. The grip force will remain constant as the design automatically compensates for specimen thickness changes.

## APPLICATION RANGE

- Type of loading: Static or dynamic, reverse stress
- Specimen material: Metallics, plastics, composites
- Specimen geometries: Round section (not buttonhead) or flat specimens with or without shoulder tab



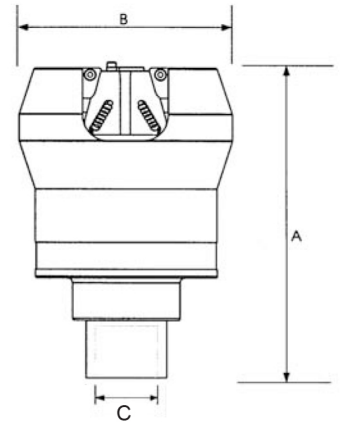
±30 kN (6.8 kip) fatigue-rated hydraulic wedge grips

## FEATURES

- Rated capacity: ±30 kN (6.8 kip)
- Side-entry design with full access for easy specimen insertion from the side
- Interchangeable jaw faces for flat and round specimen geometries
- Optional adjustable specimen stops on flat faces to provide accurate specimen centering
- Suitable for tension, compression and fatigue testing up to full reverse-stress dynamic rating
- Operated from a load frame mounted hydraulic grip manifold or via a stand-alone grip controller
- Temperature range: +4 °C to +65 °C (+39 °F to +149 °F)

## SPECIFICATIONS

Catalogue Number		2742-301
Dynamic Load Capacity	kN	±30
	kip	6.8
Static Load Capacity	kN	±30
	kip	6.8
Hydraulic Pressure Range	bar	0 to 204
	psi	0 to 3000
A	mm	187
	in	7.36
B	mm	125
	in	4.92
C - Internal Thread (For Attachment)		M30 x 2-6H Right Hand
Construction		Machined steel with an electroless nickel finish
Weight (Per Grip)	kg	9.08
	lb	20



## ACCESSORIES

Catalog Number	Description
2718-111	207 Bar (3000psi) Hydraulic Grip Controller And Manifold - 8800MT Only Suitable for use on 8801/2/3/4 and 8871/2/4 machines.
8000-090	M30 x 2 male To M30 x 2 male Attachment Kit

## JAW FACES

Catalog Number	Specimen Thickness	Surface Profile	Clamping Area (W x H)	Application
2703-801	0 mm to 6.4 mm (0 in to 0.25 in)	Serrated, diamond, 0.6 mm pitch	25 mm x 38 mm (1.0 in x 1.5 in)	Metals, plastics, GRP and CRP specimens with and without shoulder tab ends
2703-802	6.4 mm to 12.7 mm (0.25 in to 0.50 in)	Serrated, diamond, 0.6 mm pitch	25 mm x 38 mm (1.0 in x 1.5 in)	Metals, plastics, GRP and CRP specimens with and without shoulder tab ends
2703-803	3 mm to 8 mm diameter (0.1 in to 0.3 in)	V-slot, sharktooth, 1 mm pitch	38 mm (1.5 in) gripping length	Round specimens with and without shoulder tabs, pipe/tubes with plugs
2703-804	8 mm to 12 mm diameter (0.3 in to 0.5 in)	V-slot, sharktooth, 1 mm pitch	38 mm (1.5 in) gripping length	Round specimens with and without shoulder tabs, pipe/tubes with plugs
2703-808	10.5 mm to 16 mm diameter (0.41 in to 0.63 in)	V-slot, sharktooth, 1 mm pitch	38 mm (1.5 in) gripping length	Round specimens with and without shoulder tabs, pipe/tubes with plugs

Scope of supply: One set of jaw faces (set of four faces)

Note: Requires an attachment kit for mounting the hydraulic grips to the load cell and machine base or actuator.

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