

250 kN MANUAL WEDGE GRIPS

Catalog Number CP125378

Instron®'s CP125378, 250 kN Manual Wedge Grips are designed to provide a high-capacity gripping solution without the need for pneumatic or hydraulic actuation. The grips provide reliable, repeatable clamping for testing of aluminum and steel sheets, plates, and rods. Proportional gripping makes these grips particularly suitable for testing high-strength materials and also reduces specimen slippage.

PRINCIPLE OF OPERATION

The grips feature a simple crank that allows an initial clamping force to be applied to the specimen with one hand. This crank actuates a pinion within the body of the grip, applying a force to racks on the jaw faces. Based on this mechanism, the jaw faces are driven to apply a clamping force to the specimen.

Once a test has begun and axial force is applied to the specimen, the wedge design forces the jaw faces to move laterally against the specimen, increasing the clamping force proportionally to the axial load being applied.

The incorporation of a specimen door allows the operator to front-load a specimen while maintaining symmetrical loading during the test. As the rack and pinion design holds the jaw faces in place, there is no recoil or loosening when the specimen ruptures, allowing an extensometer to remain in place through failure.

FEATURES AND BENEFITS

- Rated capacity: 250 kN (56,000 lb)
- Quick set-up with rapid clamping and unclamping with usage of crank
- Self-tightening wedge design eliminates slippage
- Interchangeable jaw faces for a range of specimen geometries and types
- Specimen centering supports for repeatable specimen placement



APPLICATION RANGE

- Types of loading: Tension (Not suitable for through-zero/ reverse stress or fatigue testing)
- Specimen material: Metals, plastics (Not suitable for materials that produce significant scale or debris, e.g. rebar and fiberglass-epoxy laminate)
- Specimen shapes: Flat and round

SPECIFICATIONS

Catalog Number	Capacity		Mechanical Connection	Specimen Size Range		Height		Width		Depth		Weight (Per Grip)	
	kN	lbf		Flat	Round	mm	in	mm	in	mm	in	kg	lb
CP125378	250	56,000	Type IIm (M48 × 2 LH)	Up to 50 mm thick	Up to 50 mm in diameter	213	8.4	246	9.7	252	9.9	70	155

Notes:

1. Temperature Range: 0°C to +70°C (32°F to +158°F)

JAW FACE COMPATIBILITY

Catalog Number	Description
CP125380	0 - 30 mm Flat Serrated
CP125381	30 - 50 mm Flat Serrated
CP125382	6 - 30 mm V-Serrated
CP125383	30 - 50 mm V-Serrated



Grips with Open Specimen Door