

2712 Series Pneumatic Action Grips

Catalog Number 2712-013

Features

- Rated capacity: 5 N (0.500 kgf, 1 lbf)
- Open front design to facilitate specimen loading
- Self-centering action allows different specimen thickness without adjustment
- Pneumatic clamping of the specimen with follow-up action to reduce slippage
- Rugged design for minimum maintenance
- Adjustable gripping force
- Optional automatic air kit with pretension and remote control for easy loading and improved efficiency

Description

Pneumatic action grips allows rapid, easy loading of specimens from delicate films and filaments. This provides a very simple and efficient method for holding test specimens easily and quickly.

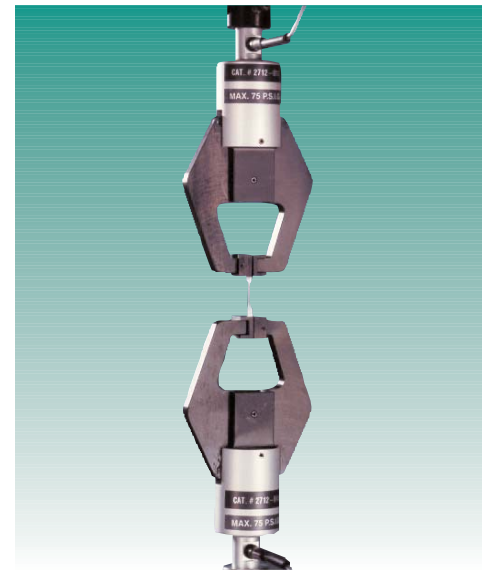
Both jaw faces are fixed permanently to the grip and automatically adjust to different specimen thicknesses to ensure that the line of tensile force remains concentric with the grip body.

Grip control incorporates a footswitch allowing hands-free operation for speed, simplicity-of-use and accuracy of specimen alignment within the grips. In addition, grip opening and closing can be controlled from the testing machine, providing features such as automatic pretension and grip release on specimen break.

Principle of Operation

The pneumatic action grips holds the specimen through dual lever arm actuated by compressed air cylinder built into the grip body. The gripping force can be increased with air pressure to accommodate materials that are often difficult to hold. This constant gripping force is maintained on the specimen, and provides the ultimate in 'follow-up' action to compensate for any decay in the gripping force. The grips are closed or released remotely by a control footswitch.

The jaw faces are mounted in such a manner that one face is free to swivel on a horizontal axis and the other on a vertical axis. This action allows for self-alignment to compensate for variations in sample thickness.



▲ Pneumatic action grip for testing materials ranging from films and filaments

Application Range

- Type of loading: Tension. Not suitable for through zero/ reverse stress or fatigue testing.
- Specimen material: Thin sheets, films, foils, threads, filaments and soft materials.
- Specimen shapes: Round (wires or mono-filaments) and flat specimen with/ without shoulder tab ends.

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Specifications

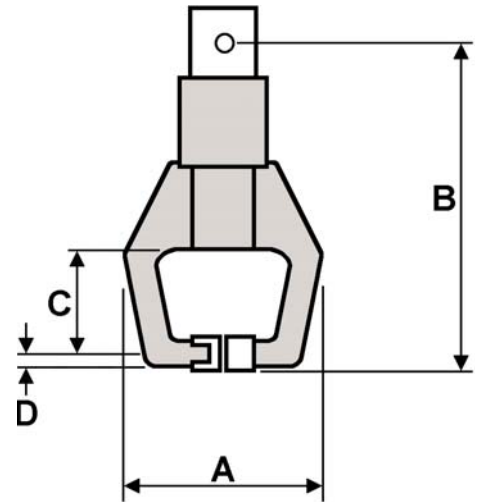
Catalog Number	2712-013
Maximum Capacity	5 N (0.5 kgf, 1 lbf)
MECHANICAL CONNECTION	
Upper Fitting	6 mm clevis pin (Type O)
Lower Fitting	6 mm clevis pin (Type O)
Overall Width (A)	60 mm (2.4 in)
EFFECTIVE LENGTH (B)	
Upper Grip	90 mm (3.5 in)
Lower Grip	90 mm (3.5 in)
Throat Depth (C)	28 mm (1.1 in)
Throat Depth (D)	5 mm (0.2 in)
Grip Weight	95 g (0.2 lbs)
Temperature Range	-29 °C to +82 °C (-20 °F to +180 °F)
Working Principle	Dual pneumatic side action clamping
Maximum Air Pressure	5.2-bar (75 PSI)
Gripping Force	Up to 285 N (28.5 kgf, 62.7 lbf)
Clamping Area (W x H)	9.5 mm x 9.5 mm (0.375 in x 0.375 in)
Gripping Surface	Smooth
Specimen Thickness	0 to 4 mm (0 to 0.161 in)

Notes:

- Grip catalog number provides two grips.
- Grips may require mechanical attachment coupling to connect to the load cell or machine base.
- Upper grip may require a flexible coupling for certain applications.
- Automatic air control kit, or pneumatic footswitch will be required for operation of these grips.
- Alternate face sizes or surfaces are not available for this grip.

Accessories

Catalog Number	Description
2810-018	Air compressor, portable 115 V AC
2810-060	Air compressor, portable 230 V AC
2701-004	Pneumatic footswitch
2701-065	Automatic air control kit for 4400, 5500 (excluding 4411) and upgrade (excluding 1130, 6000, 4500 and TTs)
2701-067	Automatic air control kit for 4411 and upgrades on 1130s



▲ Grip dimensions



▲ Pneumatic foot switch



▲ Automatic air control kit for pretension control



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