



# Material Testing Accessories

The grips and fixtures shown in this catalog represent the most commonly used in various testing applications. However, for those applications that require nonstandard or unusual fixtures, United can custom design and manufacture to your specifications and requirements.



UNITED TESTING  
SYSTEMS



DA-1



### LEVER-ACTION WEDGE GRIPS

All United grips are made of aircraft-quality high strength alloy steel or aluminum. The wedge grips have a 10° closing angle and are finished in black anodize or black oxide. Levers can be on the right or left side.

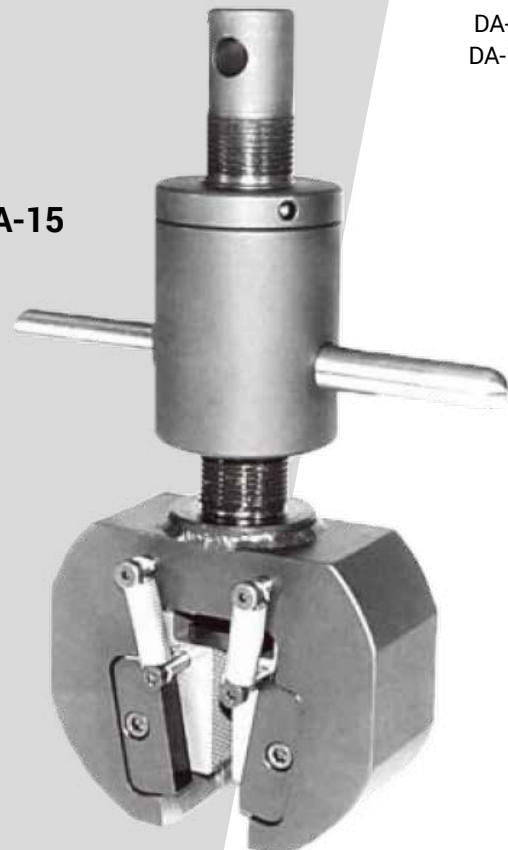
Model	Capacity (lbs)	Sample Flat	Sizes Round
A-01-2,5KN	500	1/4" x 1"	1/8" to 1/4"
A-01-20KN	5,000	3/4" x 1"	1/8" to 3/4"
A20	20,000	3/4" x 1"	1/8" to 3/4"
A30	30,000	3/4" x 2"	1/8" to 3/4"
A60	60,000	3/4" x 2"	1/8" to 7/8"
A120	120,000	1-1/2" x 2-1/2"	1/8" to 2-1/4"
A-20-W	20,000	1-1/8" x 1"	1/8" to 1"
A-30-W	30,000	1-7/8" x 2"	3/16" to 1-3/4"

### DELUXE-ACTION WEDGE GRIPS

United Deluxe-Action Wedge grips allow the grip body to move up or down to close the grip inserts on the sample from the sides.

Model	Capacity (lbs)	Width
DA-1	1,000	1"
DA-15	30,000	1"
DA-25	30,000	2"
DA-40	30,000	4"
DA-65	60,000	2"
DA-130	120,000	2"

DA-15



A-20



### UNITED SHOULDER SPECIMEN GRIP

United manufactures a complete line of Shoulder Specimen Grips. Fast, convenient operation for production testing and assured alignment. Our shoulder grips completely encapsulate the specimen. They are constructed of high-strength alloy steel and finished in black oxide.

Model	Capacity (lbs)	Sample Diameter
SG-330-UC1	20,000	0.250"
SG-330-UC2	30,000	0.357"
SG-330-UC3	60,000	0.505"

Other types of shoulder grips include the SG-130 type that can be fitted with most inserts from plain shoulders to threaded capacities up to 120,000 pounds with black oxide.

### HI/LO TEMPERATURE POSITIVE ACTION GRIP

Ideal for use in environmental chambers or when fast sample insertion and removal is required.

- Rapid, positive, non-slip gripping
- Pressure pneumatic activation
- Foot switch operation
- Non-moving grip inserts
- Temperature range: -300° F to +1,000° F
- Available in 1" or 2" width
- Capacity: 20,000 lbs

### SG-130 SG-140-TGI (THREADED) SG-140-NTGI (NON THREADED)

(holder shown with 0.250, 0.357, and 0.505 inserts)



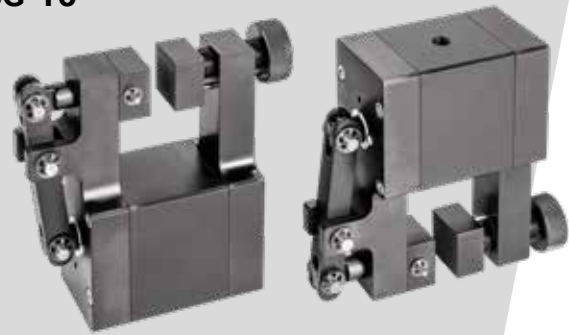
C3



SG-119-HLG-1W  
SG-119-HLG-2W  
Temperature Positive  
Action Grips



### SG-10



### SCREW ACTION GRIPS

Designed for gripping various strip or sheet materials such as paper, foam, textiles and metals. Moveable inserts close completely to accommodate any sample thickness, from 0" to 1/2". Also ideal for gripping lap shear specimens with offset ends. The 10-pound and 200-pound capacity grips have knurled open/close knobs while the 1000-pound capacity grip utilizes a Thandle for added closing pressure.

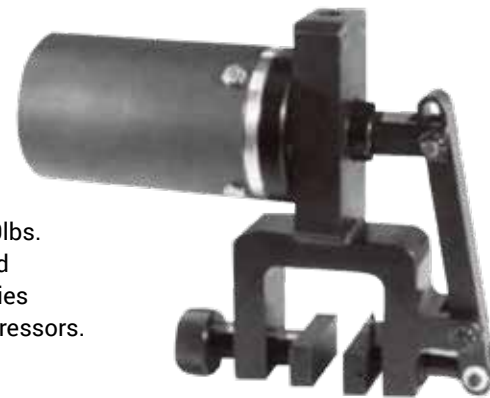
Model	Capacity (lbs)	Width
SG-10	50	1" x 1"
SG-20-500	500	1-1/2" x 2"
SG-10-10KN	2,000	2" x 2"

### SG-20-500



### PNEUMATIC GRIPS

United has a complete line of pneumatic operating grips with capacity ranging from 1lb. to 1,000lbs. A large selection of insert faces and sizes are available. United also carries a complete line of low cost air compressors.



Pneumatic Grip  
SG-107-1K

### SG-10-10KN



Pneumatic Grip  
SG-109-5K



Pneumatic Grip  
SG-100-500

### RUBBER DOGBONE GRIPS

These grips are designed for testing to ASTM D-412 standards. With features such as rapid loading and selfcentering, they are capable of handling capacities of up to 1,000 pounds.

### "O" RING GRIPS

Designed for testing to ASTM D-1414, these grips can test up to 1/2" diameter "O" rings. Grips contain ball bearing roller pins and chain to rotate the pins.

### CLIMBING DRUM PEEL FIXTURE

United's climbing drum peel fixture is for testing to ASTM D-1781. This lightweight fixture has a capacity of up to 250 pounds.

### COMPRESSION PLATES

United makes a complete line of compression plates. Sizes range from 3" to 12" diameter and "T"-slotted tables.

Parallelogram  
Dogbone Grip  
SG-197-PDB



"O" Ring Grip  
SG-200



Compression Plates  
STD-30-35 &  
STD-35-606



Climbing Drum  
STD-1



## WOOD TESTING FIXTURES

United has a complete line of wood testing fixtures. These fixtures are designed to meet ASTM D-143 or ASTM D-1037. They can be used:

- For tension testing perpendicular to grain or perpendicular to surface
- For performing shear parallel to grain or parallel to surface
- Flex fixture utilizes a hard maple load nose and features laterally adjustable knife-edges

## WIRE, CORD, YARN AND ROPE GRIPS

United wire, cord, yarn and rope grips are available in assorted capacities to customer requirements. The capstan grips can be customized to accommodate special specimen diameters as well as a variety of flexible strapping material.



Flexure Fixture  
**STD-90-W**

Tension Fixture  
**STD-110-W**



Jute Association  
Cord/Wire Grip 1K  
**STD-26-JT1**

Shear Fixture  
**STD-100-W**



## CARBIDE TESTER

United's Carbide Tester is perfect for testing cement carbides. The tester is manufactured in accordance with ASTM B-406 standards and come complete with 10mm ball and spring type load plunger.

## COMPRESSION TOOL

This tool is used for the testing of rigid plastics. It meets ASTM D-695 and requires a United CZ.1-1 compressometer.

## UNIVERSALS

Universals are necessary to ensure proper grip alignment when performing tension tests. Capacities range from 100 to 30,000 pounds.

## WEBBING GRIPS

The United Webbing grips are ideal for testing seat belts and other webbing-like materials. Available capacities include 5,000, 10,000 and 15,000 pounds. Standard widths are 1-1/2", 2-1/2" and 3-1/2". Wider grips can be manufactured upon customer request. The 5,000 and 10,000-pound grips incorporate a split drum specimen gripping design. The 15,000-pound grip utilizes an eccentric cam design for added gripping pressure on high load materials.

## ADDITIONAL UNITED MATERIALS TESTING ACCESSORIES

- Cone grips for carbon fiber
- Cone tab molds
- Tensile clevis grips (ASTM C-297)
- Tensile shear grips (ASTM A-185)
- Extra wide wedge grips – 3" and 8" wide
- 90° roller drum peel fixture
- "NOL" flex fixture
- Foam test fixture (ASTM D-3574)
- Shear test fixture (ASTM D-732)
- Single shear test fixture for bolts
- Tensile fixture (ASTM C-273)
- Compression fixture (ASTM C-273)
- Compact and C-shape fixture (ASTM E-399)
- Coefficient of friction fixture (ASTM D-1894)
- Bottle seal test fixture
- Circuit board test fixture (MIL 13949-E)
- Metallic screw covers – for United vertical test machines
- Safety enclosures – encloses the entire test area on United vertical test machines
- Metal floor stand – for United table model test machines

Compression Tool  
**STD-40-CT**



Transverse Rupture  
Unit for Carbide  
**S-135-B406**



Universal  
**UNG-20-1K**  
**UNG-25-5K**  
**UNG-50-30K**  
**UNG-55-60K**  
**UNG-58-110K**  
**UNG-60-QR30 30K**  
**UNG-70-QR1 1K**  
**UNG-90-QR3 2K**





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