

# CHUCK & COLLET GRIPS



**SPECIFICATION**  
SS-MT-6401-0101  
January 2001

**INTERNET**  
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## TG16: Split Shoulder Profiled Chuck Grips

### Description

Split Shoulder Profiled Chuck Grips for metal dumbbell samples. Two types are available: TG16/B for metric B test specimens for Tecquipment Type W Tensometer and TG16/C for metric C test specimens.

### Specification

|                    |          |          |
|--------------------|----------|----------|
| Maximum Capacity   | 20 kN    | 4496 lbf |
| Minimum Load Cell  | 100 N    | 4.5 lbf  |
| Eye End Diameter   | 15.85 mm | 0.62 in  |
| Weight Each        | 1.0 Kg   | 0.44 lb  |
| Length Each        | 38 mm    | 1.5 in   |
| Temperature Limits | Ambient  |          |

### Applications

Straining a metal dumbbell sample, by tensile force, generally to fracture, and recording the relationship between force and extension to determine one or more of the following mechanical properties:

|                                  |                               |
|----------------------------------|-------------------------------|
| Elongation                       | Stress                        |
| Percentage Elongation            | Tensile Strength              |
| Extension                        | Yield Stress                  |
| Percentage yield point extension | Proof Stress                  |
| Maximum force                    | Young's Modulus of Elasticity |



## TG24: Metal Dumbbell & Plate Sample Chuck Grips

### Description

Chuck Grips for high tensile flat plate metal dumbbell samples. A 7,94mm (5/16") clearance hole must be drilled in each end of the sample to locate the clamping disks.

### Specification

|                          |          |          |
|--------------------------|----------|----------|
| Maximum Capacity         | 20 kN    | 4496 lbf |
| Minimum Load Cell        | 100 N    | 4.5 lbf  |
| Clamp Diameter           | 38 mm    | 1.5 in   |
| Maximum Sample Width     | 35 mm    | 1.4 in   |
| Maximum Sample Thickness | 6 mm     | 0.24 in  |
| Eye End Diameter         | 15.85 mm | 0.62 in  |
| Weight Each              | 0.7 Kg   | 1.54 lb  |
| Length Each              | 85 mm    | 3.35 in  |
| Temperature Limits       | Ambient  |          |

### Applications

Straining a metal dumbbell sample, by tensile force, generally to fracture, and recording the relationship between force and extension to determine one or more of the following mechanical properties:

|                                  |                               |
|----------------------------------|-------------------------------|
| Elongation                       | Stress                        |
| Percentage Elongation            | Tensile Strength              |
| Extension                        | Yield Stress                  |
| Percentage yield point extension | Proof Stress                  |
| Maximum force                    | Young's Modulus of Elasticity |



## TG153: Chuck Grips For Cement Samples

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### Description

Profiled Chuck Grips for testing pre-formed cement briquettes.

### Specification

|                    |              |               |
|--------------------|--------------|---------------|
| Maximum Capacity   | 10 kN        | 2248 lbf      |
| Minimum Load Cell  | 100 N        | 22.5 lbf      |
| Eye End Diameter   | 15.85mm      | 0.62 in       |
| Weight Each        | 1 Kg         | 2.20 lb       |
| Length Each        | 80 mm        | 3.15 in       |
| Temperature Limits | -70°C +300°C | -94°F + 572°F |

### Applications

Used to determine the tensile strength of cement mortar by casting and testing briquette samples.

Test method is similar to that described in ASTM C190:1985 (Standard test method for tensile strength of hydraulic cement mortars)

## TG167: Collett Grip for Hollow Tubes & Bars

### Description

Collet Grip with circular sliding wedge action and initial capstan tightening. Size of collets should be specified to match the sample diameter. A series of additional collets are available as shown below.

### Specification

|                    |            |              |
|--------------------|------------|--------------|
| Maximum Capacity   | 100 kN     | 22481 lbf    |
| Minimum Load Cell  | 500 N      | 112 lbf      |
| Sample Diameter    | 12 - 45 mm | 0.5 - 1.8 in |
| Eye End Diameter   | 31.7 mm    | 1.25 in      |
| Weight Each        | 5.75 Kg    | 12.7 lb      |
| Temperature Limits | Ambient    |              |

### Applications

Tensile testing of hollow tubing and solid bars to determine one or more of the following mechanical properties:

|                                  |                               |
|----------------------------------|-------------------------------|
| Elongation                       | Stress                        |
| Percentage Elongation            | Tensile Strength              |
| Extension                        | Yield Stress                  |
| Percentage yield point extension | Proof Stress                  |
| Maximum force                    | Young's Modulus of Elasticity |

### Collet Options

| Model       | Description                             | Part No.    |
|-------------|---|-------------|
| TG167 12-15 | for Ø 12 - 15 mm (0.5 - 0.6 in) samples | COT/0030/00 |
| TG167 15-18 | for Ø 15 - 18 mm (0.6 - 0.7 in) samples | COT/0031/00 |
| TG167 18-21 | for Ø 18 - 21 mm (0.7 - 0.8 in) samples | COT/0032/00 |
| TG167 21-25 | for Ø 21 - 25 mm (0.8 - 1.0 in) samples | COT/0033/00 |
| TG167 25-30 | for Ø 25 - 30 mm (1.0 - 1.2 in) samples | COT/0034/00 |
| TG167 30-35 | for Ø 30 - 35 mm (1.2 - 1.4 in) samples | COT/0035/00 |
| TG167 35-40 | for Ø 35 - 40 mm (1.4 - 1.6 in) samples | COT/0036/00 |
| TG167 40-45 | for Ø 40 - 45 mm (1.6 - 1.8 in) samples | COT/0037/00 |



### ORDERING INFORMATION

| Model | Part No.    | Description  |
|-------|-------------|--|
| TG16  | 01/1392     | Split Shoulder Profiled Chuck grips for Metal Dumbbell Samples |
| TG24  | GPS/0015/00 | Flat Metal Dumbbell & Plate Samples Chuck Grips                |
| TG153 | 01/1555     | Chuck Grips for Pre-Formed Cement Samples                      |
| TG33  | 01/1052     | 5 N (1.1 lbf) Lightweight Tension Grip                         |
| TG167 | 01/1607     | Collet Grip for Hollow Tubes & Bars                            |



### TEST AND CALIBRATION INSTRUMENTS

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