

MPT-250C Wire Crimp Pull Tester



The **MPT-250C** is a Motorized Tensile Wire Crimp Pull Tester used to test a crimp contact's or terminal's tensile strength. The unit has a range of 2.5 lbf to 250 lbf and a full color LCD touchscreen interface. Includes data capture capability for exporting test data to a PC via USB or RS-232. *The MPT-250C meets UL, ISO, SAE, MIL, and ASTM tensile test requirements.*

Features and Specifications

- 2 Test Types: "Pull to Fail" and "Force Hold"
- Data Capture (measures continuous and peak force values)
- Compact / High Stability Profile
- Intuitive Full Color Touchscreen LCD User Interface
- Easy Setup, Operation, and Grip Change
- Force Measurement Range: 2.5 – 250.0 lbf (113kgf or 1112.0N)
- Force Measurement Resolution: 0.1 (lbf, kgf, N)
- Force Measurement Accuracy: +/- 0.5% Full Scale
- Force Readout in (lbf, kgf, N)
- Safe Force Overload: 150% of Full Scale
- Pull Rate Speeds: 1 to 10 inches per minute (inch / min)
- Pull Rate / Speed Accuracy: 1-5 +/- 0.125 inch/min, 6-10 +/- 0.250 inch/min
- Accommodates Most 10 AWG - 26 AWG Wire
- Communication Ports: Serial RS-232 (DB9 female connector), USB 2.0
- Power Requirements: IEC Connector, 100 – 240VAC, 50/60Hz, 25 Watts maximum
- External Fuse Type and Rating: Type 3AG (6.3 X 32mm) 1A time delay, 250VAC

Standard Accessories

- Self-Tightening Cam-Type (Contact) Grip (P/N 15-3202C)
- Heavy-Duty Swivel Lockdown Upper Grip (P/N 15-3046)
- Custom Fit, Foam Lined, Hard Shell Shipping / Travel Case

Optional Accessories

- Ring Terminal Grip (P/N 15-0066C)
- Miniature Contacts Grip (P/N 15-3314)
- Slotted Terminal Grip (P/N 15-3087C)
- Safe-T-Cable Grip Set (P/N 15-3318)
- Customized Grips are available for specific applications

Physical

- Weight 23.64 lbs (less options)
- Shipping Weight ≈ 40.6 lbs (with typical / standard grips)
- Case Weight 16.12 lbs
- Base Dimensions: 13.3" Wide x 6" High x 11" Deep

Calibration

- New units are supplied with a "Certificate of Calibration"
- Factory Calibration available

MINIMUM TENSILE STRENGTH REQUIREMENT*

CONDUCTOR SIZE AWG (REFERENCE)	UL 486A TEST VALUES (COMMERCIAL STANDARD)		TYPICAL MIL-SPEC (AS22520, AS7928, ETC)	
	AWG	Pounds	Newtons	Pounds
26	3	13.4	7	31.2
24	5	22.3	10	44.5
22	8	35.6	15	66.8
20	13	57.9	19	84.6
18	20	89.0	38	169.1
16	30	133.5	50	222.5
14	50	222.5	70	311.5
12	70	311.5	110	489.5
10	80	356.0	150	667.5

*Consult DMC for specific information on tensile strength standards.

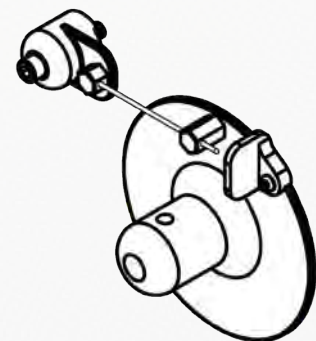
MPT-250C STANDARD AND OPTIONAL GRIPS



15-3202C
Cam Grip
 Standard Contact Grip
 Terminal Lugs, Machined Contacts



15-3046
Standard Wire Pull Grip
 Heavy-Duty Swivel
 Lockdown Upper Grip



15-3318
Safe-T-Cable Pull and Grip Set
 Optional Self-aligning Hole Guides
 .022, .032, & .040 Safe-T-Cable.



15-0066C
Post Grip
 Optional Contact Grip
 Ring Terminals



15-3087C
Slotted Wheel Grip
 Optional Contact Grip
 Terminal Lugs,
 Machined Contacts



15-3314
Mini-Vise Grip
 Optional Contact Grip
 Miniature Contacts



MPT-VF
Weight Hanger for
Verification Only
 Optional Accessory
 Verification Fixture

Tensile Testing Breaks Out Of The Lab...



Alphatron, by DMC, introduces a new portable tensile tester capable of pull testing wire crimps up to 200 pounds (and size 10 AWG in most cases). The Alphatron HPT-200 is a complete system, contained in a protective carrying case with contoured pockets for the meter case, the hand-held test fixture, and the international battery charger.

It is only natural that the company, which is known throughout the world for quality wire termination tools and equipment would add the very best portable tensile tester to meet your need for fewer sources and improved support through a wider range of capabilities. The HPT-200 hand held pull tester combines the accuracy and rugged design of our other Alphatron pull testers into a portable battery powered unit. We follow that up with our expert factory service and calibration.

FEATURES:

- **Built-in NIMH Battery, With Charger**
- **14 Hours of Use on a Single Charge**
- **Portable. Lightweight & Ergonomic**
- **Low Stress Tensioning Mechanism**
- **Protective Carrying Case**
- **Verify Calibration Anytime**
- **Accuracy: \pm (0.5% of Full Scale)**
- **Resolution: (0.1 Pounds.)**
- **Optional Display in Newtons or Kilograms**
- **International Power Adaptor**

This lightweight self-contained tester extends your testing capability to the shop floor. You no longer have to wait for process samples to arrive in the QA Lab. Costly problems can be identified on the spot.

Durable construction and the convenient carrying case ensure protection, and the Low Stress Tensioning Mechanism makes the HPT-200 versatile and easy to use. The pull strength value is pre-set at the factory to display pounds, kilograms, or newtons. The calibration may be verified at any time during use by a simple R-Cal test.

The Power Management Circuit allows use during charging.

Specifications:

Height: 2 in. (5.08 cm) case
 Width: 9.5 in. (24.13 cm) case
 Depth: 6.25 in. (15.87 cm) case
 Weight: 2.5 lbs (1.13 kg) case and hand unit
 Capacity: 200LBF 90.7 kg 889N
 Accuracy: \pm .5% of full scale
 Resolution: .1 lbf
 Display: LCD w/.56" high digits
 Display Type: Digital display w/peak hold reading
 Electrical: 12 VDC Int. Battery
 Operating Temperature: 50°F to 100°F (10°C to 38°C)



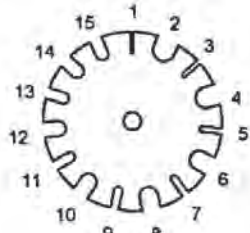
Protective Carrying Case:

Part No. HPT-200 Includes Protective Carrying Case and International Battery Charger

HPT-200 STANDARD GRIPS

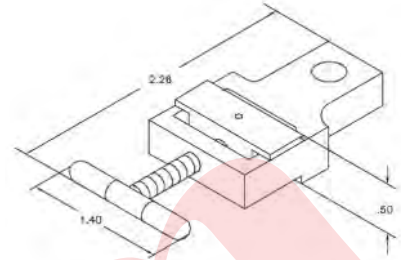
UPPER GRIP

Standard Terminal Grip



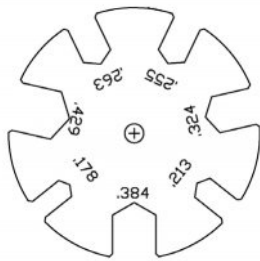
15-3035
Slotted Disc Grip

SLOT DIMENSION			
No.	Size (in.)	No.	Size (in.)
1	.031	9	.094
2	.250	10	.188
3	.047	11	.110
4	.236	12	.172
5	.063	13	.125
6	.218	14	.158
7	.080	15	.141
8	.203		

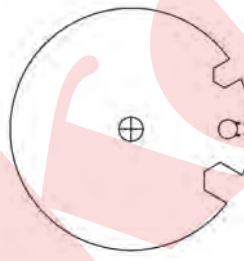


TST250-12
Clamp Grip

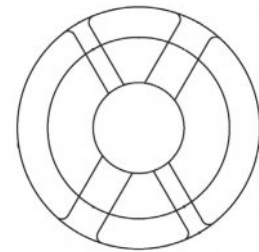
HPT-200 OPTIONAL GRIPS



15-3039
Hex Terminal Upper Grip



15-3114
RF Coax Terminal Upper Grip



15-3115 Lower Grip for
RF Coax Cables



Minimum Tensile Strength Requirements

Wire Size (AWG)	Per AS7928 (lbs.)	Per UL 486 (lbs.)
26	7	-
24	10	-
22	15	8
20	19	13
18	38	20
16	50	30
14	70	50
12	110	70
10	150	80



Now available from DMC is the PT-150H Electronic Manual Tensile Test System which may be used in conjunction with SPC Programs or other Quality Control disciplines in both OEM and maintenance applications. The electronic digital readout display is a fast and reliable source of test data.

The operation of the equipment is simple yet versatile, and DMC will customize the gripping jaws or other components to make test sample installation and removal an easy task.

STANDARD FEATURES

- Capacity: 150 lb, 667 N, 68 Kg
- Display units factory set for pounds, newtons or kilograms
- Resolution: 0.1 lb
- Accuracy: $\pm 0.5\%$ of full scale
- Digital Display with Peak Hold
- Backlit LCD Display with 0.56" High Digits
- Self-Tightening Grip
- 15 Position Slotted Terminal Grip
- Lever Arm Pull Mechanism

ACCESSORY GRIPS (Optional)

- Ring Terminal Grip (P/N 15-0066)
- Self-Tightening Grip (P/N 15-3202)
- Right Angle Terminal Grip (P/N 15-3042)

PHYSICAL

- Weight 15.2 Lbs. (Shipping Weight 21 Lbs.)
- Stand Dimensions: H. 5", W. 8.5", D. 16"

CALIBRATION

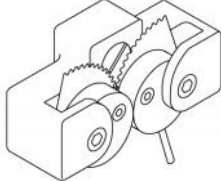
- New units supplied with certificate of calibration traceable to NIST
- Factory calibration available
- In order to maintain NIST traceability, Do Not Exceed 12 Months Between Calibrations

OPTIONAL FEATURES


- 230 VAC 50/60 Hz Power (P/N 15-7004)

PT-150H STANDARD GRIPS

**Self-Tightening
Wire Grip**



15-3202



15-3087
Slotted Terminal Grip

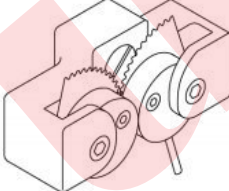
SLOT DIMENSION	
1	.031"
2	.250"
3	.047"
4	.236"
5	.063"
6	.218"
7	.080"
8	.203"
9	.094"
10	.188"
11	.110"
12	.172"
13	.125"
14	.158"
15	.141"

Minimum Tensile Strength Requirements

Wire Size (AWG)	AST928 (lbs.)	UL 486 (lbs.)
26	7	-
24	10	-
22	15	8
20	19	13
18	38	20
16	50	30
14	70	50
12	110	70
10	150	80
8	225	90
6	300	100
4	400	140


PT-150H OPTIONAL GRIPS

**Self-Tightening
Lower Grip**



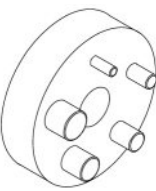
15-3202

**Standard Miniature
Lower Grip**



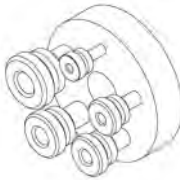
15-3277

**Ring Terminal
Lower Grip**




15-0066

**Locking
Ring Terminal
Lower Grip**



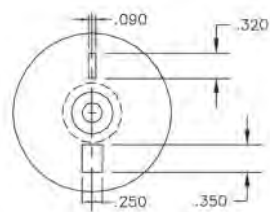
15-3242

**Miniature Terminal
Lower Grip**



15-3241

**Flag Terminal
Lower Grip**



15-3042

Custom Grips Available. Consult DMC for details.

PT-40XP Small Gage Wire Crimp Pull Tester



Now available from DMC, the portable **PT-40XP** Electronic Manual Tensile Test System is specially designed to test the lower range tensile values from **0.1 to 40 lbs.** The PT-40XP may be used in conjunction with SPC Programs or other Quality Control disciplines in both OEM and maintenance applications. The electronic digital readout display is a fast and reliable source of test data.

The operation of the equipment is simple yet versatile, and the self-tightening Wedge-Grip and Cam-Grip assemblies hold a wide variety of wire and terminations. **Both grips are included with the unit.** This unit easily accommodates short wire leads. (.75" minimum length test sample.) DMC will customize the gripping jaws or other components to make test sample installation and removal an easy task.

STANDARD FEATURES

- Capacity: 40 lb, 170 N
- Display units factory set for pounds or newtons
- Resolution: 0.1 lb / 0.1 N
- Accuracy: $\pm 0.5\%$ of full scale
- Digital Display with Peak Hold
- Backlit LCD Display with 0.56" High Digits
- Self-Tightening Wedge-Grip and Cam-Grip Assemblies
- Simple Screw Pull Mechanism

POWER SPECS

- Built-in NIMH Battery, With Charger
- 14 Hours of Use on a Single Charge
- Power Management Circuit allows use during charging

PHYSICAL

- Weight 5.7 lbs.
- Dimensions: Height: 5.9", Width: 11.75", Depth 5.8"

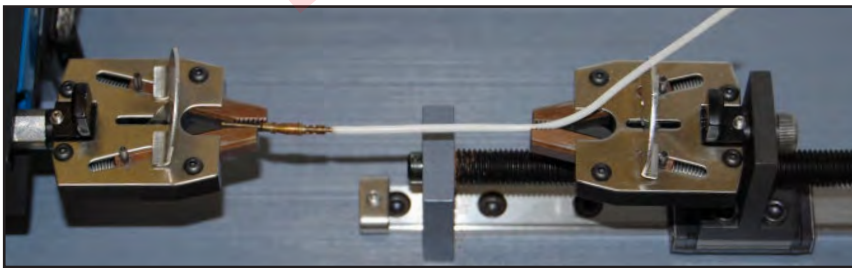
CALIBRATION

- Verify Calibration Anytime
- New units supplied with certificate of calibration traceable to NIST
- Factory calibration available
- In order to maintain NIST traceability, Do Not Exceed 12 Months Between Factory Calibrations

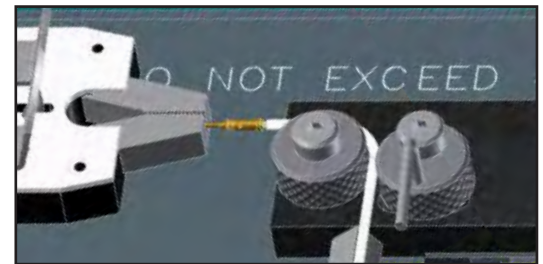
ALTERNATE VOLTAGE

- 230 VAC 50/60 Hz Power version is available, P/N: **PT-40XP-230**

Standard Terminal & Wire Grips



Wedge-Grip Assembly



Cam-Grip Assembly

Custom Grips are Available. Consult DMC for details.