Torque Wrench

A-SERIES MECHANICAL TORQUE WRENCH

<table>
<thead>
<tr>
<th>Part No.</th>
<th>Drive</th>
<th>L(mm)</th>
<th>Capacity(Nm)</th>
<th>G.W.(kg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>96211</td>
<td>1/4&quot;</td>
<td>226</td>
<td>1-5</td>
<td>16.8</td>
</tr>
<tr>
<td>96212</td>
<td>3/8&quot;</td>
<td>267</td>
<td>2-10</td>
<td>16.8</td>
</tr>
<tr>
<td>96311</td>
<td>1/2&quot;</td>
<td>455</td>
<td>20-100</td>
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<tr>
<td>96312</td>
<td>1/2&quot;</td>
<td>540</td>
<td>40-200</td>
<td>8.4</td>
</tr>
<tr>
<td>96313</td>
<td>1/2&quot;</td>
<td>663</td>
<td>68-340</td>
<td>10.8</td>
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</table>

Part No. 96101 1/4" 350 6-30 10 10.9
Part No. 96303 3/8" 385 20-110 10 14.0
Part No. 96304 1/2" 535 40-210 6 14.2
Part No. 96401 3/4" 865 100-500 2 11.0
Part No. 96402 3/4" 1092 140-700 2 16.8

REPAIR AND CALIBRATION SERVICE

All Torque Wrenches should be checked for accuracy periodically. This should be done at least once a year, or every 10,000 torque application cycles, whichever comes first. Recalibration is also recommended after any abnormal handling.

WARRANTY

SATA Torque Products are warranted to: (1) be free of defects in material and workmanship; (2) Accuracy standards for calibration are warranted for 90 days from date of purchase. Products for which warranty repair is requested should be returned, at Buyer's cost, to your nearest repair center.

SATA Torque Products are precision instruments that contain moving parts. These components are subject to normal wear through use, and replacement thereof is the responsibility of the Buyer. Torque Products should be routinely checked for calibration at an authorized repair center using SATA repair parts.

This warranty shall not apply to Products which have been misused, abused, damaged by accident or otherwise; repaired by anyone other than an authorized repair center or modified by anyone other than SATA Tools.

Electronics Torque Wrench

<table>
<thead>
<tr>
<th>Part No.</th>
<th>Drive</th>
<th>L(mm)</th>
<th>Capacity(Nm)</th>
<th>G.W.(kg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>96513</td>
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<td>27-135</td>
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<td>96515</td>
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<td>220</td>
<td>68-339</td>
<td>2.5</td>
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</table>


Pliers, Crimping Tool, Snips & Cutter

- TPE two-tone handle provides better holding comfort.
- Anti-slip and oil resistant.
- Black finishing increases rust resistance.
- Special treated cutting edge cuts wire hardness up to HRC43.
- Special leverage design that reduces efforts by 40%.

Torque Wrench is a precision instrument. Please refer to warranty conditions on Page 82.

CONVERSION FORMULA

1 Nm = 0.1019 Kgm = 0.73756 Ft/Lb
1 Ft/Lb = 0.1383 Kgm = 1.13556 Nm
1 Ft/Lb = 12 Inch/Lb
**DIAGINAL**

<table>
<thead>
<tr>
<th>Part No.</th>
<th>Size</th>
<th>L(mm)</th>
<th>T(mm)</th>
<th>a(mm)</th>
<th>b(mm)</th>
<th>G.W.(kg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>70201A</td>
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<tr>
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<tr>
<td>70203A</td>
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**LINESMAN**

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<th>Part No.</th>
<th>Size</th>
<th>L(mm)</th>
<th>T(mm)</th>
<th>a(mm)</th>
<th>b(mm)</th>
<th>G.W.(kg)</th>
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<tr>
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<tr>
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**LONG NOSE**

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<th>L(mm)</th>
<th>T(mm)</th>
<th>a(mm)</th>
<th>b(mm)</th>
<th>G.W.(kg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>70101A</td>
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**5PC. SNAP RING SET**

<table>
<thead>
<tr>
<th>Part No.</th>
<th>Size</th>
<th>L(mm)</th>
<th>T(mm)</th>
<th>a(mm)</th>
<th>b(mm)</th>
<th>G.W.(kg)</th>
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</tbody>
</table>

**CONTENTS:**
1. Plier Body
2. 1-90˚Tip
3. 1-45˚Tip
4. 1-2.0Tip, Straight
5. 1-1.5Tip, Straight
6. Plier Body

---

**GROOVE JOINT**

<table>
<thead>
<tr>
<th>Part No.</th>
<th>Size</th>
<th>L(mm)</th>
<th>T(mm)</th>
<th>a(mm)</th>
<th>b(mm)</th>
<th>G.W.(kg)</th>
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**SLIP JOINT**

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<th>b(mm)</th>
<th>G.W.(kg)</th>
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**INSULATED LONG NOSE**

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<th>Size</th>
<th>L(mm)</th>
<th>T(mm)</th>
<th>a(mm)</th>
<th>b(mm)</th>
<th>G.W.(kg)</th>
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<tbody>
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<td>180</td>
<td>10.0</td>
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<td>59.0</td>
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</table>

**INSULATED DIAGONAL**

<table>
<thead>
<tr>
<th>Part No.</th>
<th>Size</th>
<th>L(mm)</th>
<th>T(mm)</th>
<th>a(mm)</th>
<th>b(mm)</th>
<th>G.W.(kg)</th>
</tr>
</thead>
<tbody>
<tr>
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<td>8&quot;</td>
<td>200</td>
<td>12.0</td>
<td>23.0</td>
<td>59.0</td>
<td>6</td>
</tr>
</tbody>
</table>

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**Pliers, Crimping Tool, Snips & Cutter**

- **Diagonal Pliers**
  - Up to 1000V alternating current
  - For use in high-voltage areas
  - VDE certified, meet ANSI B107.11M
  - Hardness of cutter is HRC55-65
  - Hardness of body is HRC40-50
  - Alloy steel coating
  - Surface with antirust Ferro-nickel

- **Linesman Pliers**
  - Up to 1000V alternating current
  - For use in high-voltage areas
  - VDE certified, meet ANSI B107.11M
  - Hardness of cutter is HRC55-65
  - Hardness of body is HRC40-50
  - Alloy steel coating
  - Surface with antirust Ferro-nickel

- **Groove Joint Pliers**
  - Up to 1000V alternating current
  - For use in high-voltage areas
  - VDE certified, meet DIN 5238
  - Hardness of cutter is HRC55-65
  - Hardness of body is HRC40-50
  - Alloy steel coating
  - Surface with antirust Ferro-nickel

- **Slip Joint Pliers**
  - Up to 1000V alternating current
  - For use in high-voltage areas
  - VDE certified, meet DIN 5238
  - Hardness of cutter is HRC55-65
  - Hardness of body is HRC40-50
  - Alloy steel coating
  - Surface with antirust Ferro-nickel

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**Material Specifications**

- **Insulation**
  - All style straight jaws
  - Insulated with CR/V steel

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**Additional Specifications**

- **Pipe Diameter (mm)**
  - Long Nose Pliers
    - ANSI B107.11M
    - DIN 5238
  - Slip Joint Pliers
    - ANSI B107.23M
    - ANSI B107.11M
    - DIN 5238

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**Pipe Diameter (mm)**

- **Long Nose Pliers**
  - ANSI B107.11M
  - DIN 5238

- **Pipe Diameter (mm)**
  - Slip Joint Pliers
    - ANSI B107.23M
    - ANSI B107.11M
    - DIN 5238

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**Weight (kg)**

- **Insulated Long Nose Pliers**
  - ANSI B107.13M
  - DIN 5238

- **Insulated Diagonal Pliers**
  - ANSI B107.11M
  - DIN 5238

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**DIN 5231**

- **Weight (kg)**
  - 12.0

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**ANSI B107.23M**

- **Weight (kg)**
  - 18.1

---

**ANSI B107.3M**

- **Weight (kg)**
  - 13.8

---

**ANSI B107.11M**

- **Weight (kg)**
  - 13.8

---

**ANSI B107.13M**

- **Weight (kg)**
  - 13.8

---

**ANSI B107.23M**

- **Weight (kg)**
  - 18.1

---

**ANSI B107.11M**

- **Weight (kg)**
  - 13.8

---

**ANSI B107.13M**

- **Weight (kg)**
  - 13.8
**Pliers, Crimping Tool, Snips & Cutter**

**INSULATED LINESMAN**

- An Illustrated Catalogue
- Insulated Linesman
- Part No.: 70331
- Size: 6" 60.0 12.0 28.0
- Weight: 15.5
- Part No.: 70332
- Size: 7" 60.0 12.0 28.0
- Weight: 17.0

**MINIATURE LINESMAN**

- New ‘sandwich’ designed structure gives 30% longer service life
- Handle made of two-tone PP plastic material
- Copper Wire Ø1.5, Iron Wire Ø1.3, Medium Hard Wire Ø1.0
- An Illustrated Catalogue
- Part No.: 70611A
- Size: 4" 60.0 15.5 40.5
- Weight: 9.2

**MINIATURE FLAT NOSE**

- New ‘sandwich’ designed structure gives 30% longer service life
- Handle made of two-tone PP plastic material
- Copper Wire Ø1.5, Iron Wire Ø1.3, Medium Hard Wire Ø1.0
- An Illustrated Catalogue
- Part No.: 70614A
- Size: 5" 60.0 15.5 40.5
- Weight: 9.2

**MINIATURE DIAGONAL**

- New ‘sandwich’ designed structure gives 30% longer service life
- Handle made of two-tone PP plastic material
- Copper Wire Ø1.5, Iron Wire Ø1.3, Medium Hard Wire Ø1.0
- An Illustrated Catalogue
- Part No.: 70615A
- Size: 4" 60.0 15.5 40.5
- Weight: 9.2

**MINIATURE BENT NOSE**

- New ‘sandwich’ designed structure gives 30% longer service life
- Handle made of two-tone PP plastic material
- Copper Wire Ø1.5, Iron Wire Ø1.3, Medium Hard Wire Ø1.0
- An Illustrated Catalogue
- Part No.: 70613A
- Size: 5" 60.0 15.5 40.5
- Weight: 9.2

**MINIATURE END NIPPERS**

- New ‘sandwich’ designed structure gives 30% longer service life
- Handle made of two-tone PP plastic material
- Copper Wire Ø1.5, Iron Wire Ø1.3, Medium Hard Wire Ø1.0
- An Illustrated Catalogue
- Part No.: 70616A
- Size: 4" 60.0 15.5 40.5
- Weight: 9.2

**CURVED JAW LOCKING PLIERS**

- New ‘sandwich’ designed structure gives 30% longer service life
- Handle made of two-tone PP plastic material
- Copper Wire Ø1.5, Iron Wire Ø1.3, Medium Hard Wire Ø1.0
- An Illustrated Catalogue
- Part No.: 71101
- Size: 5" 60.0 15.5 40.5
- Weight: 9.2

**MINIATURE LONG NOSE**

- New ‘sandwich’ designed structure gives 30% longer service life
- Handle made of two-tone PP plastic material
- Copper Wire Ø1.5, Iron Wire Ø1.3, Medium Hard Wire Ø1.0
- An Illustrated Catalogue
- Part No.: 70612A
- Size: 5" 60.0 15.5 40.5
- Weight: 9.2

**MINIATURE BENT NOSE**

- New ‘sandwich’ designed structure gives 30% longer service life
- Handle made of two-tone PP plastic material
- Copper Wire Ø1.5, Iron Wire Ø1.3, Medium Hard Wire Ø1.0
- An Illustrated Catalogue
- Part No.: 70613A
- Size: 5" 60.0 15.5 40.5
- Weight: 9.2

**MINIATURE END NIPPERS**

- New ‘sandwich’ designed structure gives 30% longer service life
- Handle made of two-tone PP plastic material
- Copper Wire Ø1.5, Iron Wire Ø1.3, Medium Hard Wire Ø1.0
- An Illustrated Catalogue
- Part No.: 70616A
- Size: 5" 60.0 15.5 40.5
- Weight: 9.2

**CURVED JAW LOCKING PLIERS**

- New ‘sandwich’ designed structure gives 30% longer service life
- Handle made of two-tone PP plastic material
- Copper Wire Ø1.5, Iron Wire Ø1.3, Medium Hard Wire Ø1.0
- An Illustrated Catalogue
- Part No.: 71101
- Size: 5" 60.0 15.5 40.5
- Weight: 9.2

**MINIATURE LONG NOSE**

- New ‘sandwich’ designed structure gives 30% longer service life
- Handle made of two-tone PP plastic material
- Copper Wire Ø1.5, Iron Wire Ø1.3, Medium Hard Wire Ø1.0
- An Illustrated Catalogue
- Part No.: 70612A
- Size: 5" 60.0 15.5 40.5
- Weight: 9.2

**MINIATURE BENT NOSE**

- New ‘sandwich’ designed structure gives 30% longer service life
- Handle made of two-tone PP plastic material
- Copper Wire Ø1.5, Iron Wire Ø1.3, Medium Hard Wire Ø1.0
- An Illustrated Catalogue
- Part No.: 70613A
- Size: 5" 60.0 15.5 40.5
- Weight: 9.2

**MINIATURE END NIPPERS**

- New ‘sandwich’ designed structure gives 30% longer service life
- Handle made of two-tone PP plastic material
- Copper Wire Ø1.5, Iron Wire Ø1.3, Medium Hard Wire Ø1.0
- An Illustrated Catalogue
- Part No.: 70616A
- Size: 5" 60.0 15.5 40.5
- Weight: 9.2

**CURVED JAW LOCKING PLIERS**

- New ‘sandwich’ designed structure gives 30% longer service life
- Handle made of two-tone PP plastic material
- Copper Wire Ø1.5, Iron Wire Ø1.3, Medium Hard Wire Ø1.0
- An Illustrated Catalogue
- Part No.: 71101
- Size: 5" 60.0 15.5 40.5
- Weight: 9.2

**MINIATURE LONG NOSE**

- New ‘sandwich’ designed structure gives 30% longer service life
- Handle made of two-tone PP plastic material
- Copper Wire Ø1.5, Iron Wire Ø1.3, Medium Hard Wire Ø1.0
- An Illustrated Catalogue
- Part No.: 70612A
- Size: 5" 60.0 15.5 40.5
- Weight: 9.2

**MINIATURE BENT NOSE**

- New ‘sandwich’ designed structure gives 30% longer service life
- Handle made of two-tone PP plastic material
- Copper Wire Ø1.5, Iron Wire Ø1.3, Medium Hard Wire Ø1.0
- An Illustrated Catalogue
- Part No.: 70613A
- Size: 5" 60.0 15.5 40.5
- Weight: 9.2

**MINIATURE END NIPPERS**

- New ‘sandwich’ designed structure gives 30% longer service life
- Handle made of two-tone PP plastic material
- Copper Wire Ø1.5, Iron Wire Ø1.3, Medium Hard Wire Ø1.0
- An Illustrated Catalogue
- Part No.: 70616A
- Size: 5" 60.0 15.5 40.5
- Weight: 9.2

**CURVED JAW LOCKING PLIERS**

- New ‘sandwich’ designed structure gives 30% longer service life
- Handle made of two-tone PP plastic material
- Copper Wire Ø1.5, Iron Wire Ø1.3, Medium Hard Wire Ø1.0
- An Illustrated Catalogue
- Part No.: 71101
- Size: 5" 60.0 15.5 40.5
- Weight: 9.2
### Pliers, Crimping Tool, Snips & Cutter

#### STRAIGHT JAW LOCKING PLIERS

<table>
<thead>
<tr>
<th>Part No.</th>
<th>Size</th>
<th>L(mm)</th>
<th>T(mm)</th>
<th>a(mm)</th>
<th>G.W.(kg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>71202</td>
<td>7”</td>
<td>185</td>
<td>11.5</td>
<td>61.5</td>
<td>6</td>
</tr>
<tr>
<td>71203</td>
<td>10”</td>
<td>224</td>
<td>13.0</td>
<td>69.0</td>
<td>6</td>
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</table>

#### LONG NOSE LOCKING PLIERS

<table>
<thead>
<tr>
<th>Part No.</th>
<th>Size</th>
<th>L(mm)</th>
<th>T(mm)</th>
<th>a(mm)</th>
<th>G.W.(kg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>71301</td>
<td>6”</td>
<td>169</td>
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<td>6</td>
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<td>71302</td>
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#### METAL SHEET CLAMP LOCKING PLIERS

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<th>Part No.</th>
<th>Size</th>
<th>L(mm)</th>
<th>T(mm)</th>
<th>a(mm)</th>
<th>G.W.(kg)</th>
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</thead>
<tbody>
<tr>
<td>71401</td>
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<td>66.0</td>
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#### WELDING CLAMP LOCKING PLIERS

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<tr>
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<th>Size</th>
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<th>T(mm)</th>
<th>a(mm)</th>
<th>G.W.(kg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>71202</td>
<td>7”</td>
<td>186</td>
<td>11.5</td>
<td>61.5</td>
<td>6</td>
</tr>
<tr>
<td>71203</td>
<td>10”</td>
<td>224</td>
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#### C-CLAMP LOCKING PLIERS

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<th>T(mm)</th>
<th>a(mm)</th>
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</thead>
<tbody>
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<td>71601</td>
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#### CHAIN CLAMP LOCKING PLIERS

<table>
<thead>
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<th>Size</th>
<th>Chain Length(mm)</th>
<th>G.W.(kg)</th>
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</thead>
<tbody>
<tr>
<td>71701</td>
<td>19”</td>
<td>485</td>
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#### SNIP RING - EXTERNAL OPEN STRAIGHT

<table>
<thead>
<tr>
<th>Part No.</th>
<th>Size</th>
<th>Circle (mm)</th>
<th>G.W.(kg)</th>
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</thead>
<tbody>
<tr>
<td>72001</td>
<td>7”</td>
<td>175</td>
<td>90</td>
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#### SNIP RING - EXTERNAL OPEN CURVED

<table>
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<th>Part No.</th>
<th>Size</th>
<th>Circle (mm)</th>
<th>G.W.(kg)</th>
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</thead>
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<tr>
<td>72002</td>
<td>7”</td>
<td>Ø1.8</td>
<td>90</td>
</tr>
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</table>
**Pliers, Crimping Tool, Snips & Cutter**

### SNAP RING - INTERNAL CLOSE STRAIGHT

<table>
<thead>
<tr>
<th>Part No.</th>
<th>Size</th>
<th>L(mm)</th>
<th>Circlip(mm)</th>
<th>G.W.(kg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>72004</td>
<td>7&quot;</td>
<td>175</td>
<td>12-65</td>
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<tr>
<td>72005</td>
<td>7&quot;</td>
<td>175</td>
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<td>6</td>
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### SNAP RING - INTERNAL CLOSE CURVED

<table>
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<tr>
<th>Part No.</th>
<th>Size</th>
<th>L(mm)</th>
<th>Circlip(mm)</th>
<th>G.W.(kg)</th>
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</thead>
<tbody>
<tr>
<td>72004</td>
<td>7&quot;</td>
<td>Ø1.8</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>72005</td>
<td>7&quot;</td>
<td>Ø1.8</td>
<td>6</td>
<td>6</td>
</tr>
</tbody>
</table>

- Made of strong and durable tempering alloy-steel
- Anti-rust black finishing

### GERMAN TYPE SNAP RING PLIERS EXTERNAL STRAIGHT

<table>
<thead>
<tr>
<th>Part No.</th>
<th>Size</th>
<th>L(mm)</th>
<th>Circlip(mm)</th>
<th>G.W.(kg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>72011</td>
<td>5&quot;</td>
<td>125</td>
<td>8-10</td>
<td>6</td>
</tr>
<tr>
<td>72012</td>
<td>7&quot;</td>
<td>175</td>
<td>19-60</td>
<td>6</td>
</tr>
<tr>
<td>72013</td>
<td>9&quot;</td>
<td>225</td>
<td>32-80</td>
<td>6</td>
</tr>
<tr>
<td>72014</td>
<td>13&quot;</td>
<td>325</td>
<td>65-140</td>
<td>6</td>
</tr>
</tbody>
</table>

### GERMAN TYPE SNAP RING PLIERS EXTERNAL CURVED

<table>
<thead>
<tr>
<th>Part No.</th>
<th>Size</th>
<th>L(mm)</th>
<th>Circlip(mm)</th>
<th>G.W.(kg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>72021</td>
<td>5&quot;</td>
<td>125</td>
<td>8-10</td>
<td>6</td>
</tr>
<tr>
<td>72022</td>
<td>7&quot;</td>
<td>175</td>
<td>19-60</td>
<td>6</td>
</tr>
<tr>
<td>72023</td>
<td>9&quot;</td>
<td>225</td>
<td>32-80</td>
<td>6</td>
</tr>
<tr>
<td>72024</td>
<td>13&quot;</td>
<td>325</td>
<td>65-140</td>
<td>6</td>
</tr>
</tbody>
</table>

### GERMAN TYPE SNAP RING PLIERS INTERNAL STRAIGHT

<table>
<thead>
<tr>
<th>Part No.</th>
<th>Size</th>
<th>L(mm)</th>
<th>Circlip(mm)</th>
<th>G.W.(kg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>72031</td>
<td>5&quot;</td>
<td>125</td>
<td>8-10</td>
<td>6</td>
</tr>
<tr>
<td>72032</td>
<td>7&quot;</td>
<td>175</td>
<td>19-60</td>
<td>6</td>
</tr>
<tr>
<td>72033</td>
<td>9&quot;</td>
<td>225</td>
<td>32-80</td>
<td>6</td>
</tr>
<tr>
<td>72034</td>
<td>13&quot;</td>
<td>325</td>
<td>65-140</td>
<td>6</td>
</tr>
</tbody>
</table>

### GERMAN TYPE SNAP RING PLIERS INTERNAL CURVED

<table>
<thead>
<tr>
<th>Part No.</th>
<th>Size</th>
<th>L(mm)</th>
<th>Circlip(mm)</th>
<th>G.W.(kg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>72041</td>
<td>5&quot;</td>
<td>125</td>
<td>8-10</td>
<td>6</td>
</tr>
<tr>
<td>72042</td>
<td>7&quot;</td>
<td>175</td>
<td>19-60</td>
<td>6</td>
</tr>
<tr>
<td>72043</td>
<td>9&quot;</td>
<td>225</td>
<td>32-80</td>
<td>6</td>
</tr>
<tr>
<td>72044</td>
<td>13&quot;</td>
<td>325</td>
<td>65-140</td>
<td>6</td>
</tr>
</tbody>
</table>

### ENERGY SAVING TYPE - LINESMAN

<table>
<thead>
<tr>
<th>Part No.</th>
<th>Size</th>
<th>L(mm)</th>
<th>T(mm)</th>
<th>a(mm)</th>
<th>b(mm)</th>
<th>G.W.(kg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>72203A</td>
<td>8&quot;</td>
<td>200</td>
<td>10.0</td>
<td>18.0</td>
<td>59.0</td>
<td>6</td>
</tr>
</tbody>
</table>

Cutting Capacity(mm)
- Copper Wire Ø2.6, Iron Wire Ø2.4, Hard Wire Ø2.0

### ENERGY SAVING TYPE - DIAGONAL CUTTING

<table>
<thead>
<tr>
<th>Part No.</th>
<th>Size</th>
<th>L(mm)</th>
<th>T(mm)</th>
<th>a(mm)</th>
<th>b(mm)</th>
<th>G.W.(kg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>72202A</td>
<td>7&quot;</td>
<td>175</td>
<td>7.0</td>
<td>9.0</td>
<td>36.0</td>
<td>6</td>
</tr>
</tbody>
</table>

Cutting Capacity(mm)
- Copper Wire Ø2.6, Iron Wire Ø2.4, Hard Wire Ø2.0

- Made of strong and durable tempering alloy-steel
- Anti-rust black finishing

- Made of CR-V steel

ANSI B107.20M
DIN 5254

ANSI B107.11M
DIN 5258
**ENERGY SAVING TYPE - LONG NOSE**

<table>
<thead>
<tr>
<th>Part No.</th>
<th>Size</th>
<th>L(mm)</th>
<th>a(mm)</th>
<th>b(mm)</th>
<th>G.W.(kg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>72402A</td>
<td>8”</td>
<td>200</td>
<td>10.0</td>
<td>18.0</td>
<td>59.0</td>
</tr>
</tbody>
</table>

- **Copper Wire Ø4.8, Iron Wire Ø6.4, Hard Wire Ø9.0**

**ANSI B107.13M DIN 5236**

**ENERGY SAVING TYPE - END NIPPER PLIERS**

<table>
<thead>
<tr>
<th>Part No.</th>
<th>Size</th>
<th>L(mm)</th>
<th>a(mm)</th>
<th>b(mm)</th>
<th>G.W.(kg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>72503A</td>
<td>8”</td>
<td>200</td>
<td>10.0</td>
<td>18.0</td>
<td>59.0</td>
</tr>
</tbody>
</table>

- **Copper Wire Ø4.8, Iron Wire Ø6.4, Hard Wire Ø9.0**

**WIRE & CABLE CUTTING**

<table>
<thead>
<tr>
<th>Part No.</th>
<th>Size</th>
<th>L(mm)</th>
<th>G.W.(kg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>72501</td>
<td>8”</td>
<td>150</td>
<td>90</td>
</tr>
<tr>
<td>72502</td>
<td>8”</td>
<td>200</td>
<td>48</td>
</tr>
<tr>
<td>72503</td>
<td>10”</td>
<td>250</td>
<td>48</td>
</tr>
</tbody>
</table>

**PLASTIC CUTTING**

<table>
<thead>
<tr>
<th>Part No.</th>
<th>Size</th>
<th>L(mm)</th>
<th>a(mm)</th>
<th>b(mm)</th>
<th>G.W.(kg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>70641</td>
<td>5”</td>
<td>125</td>
<td>6</td>
<td>120</td>
<td>13.0</td>
</tr>
<tr>
<td>70642</td>
<td>6”</td>
<td>150</td>
<td>6</td>
<td>120</td>
<td>19.0</td>
</tr>
<tr>
<td>70643</td>
<td>7”</td>
<td>175</td>
<td>6</td>
<td>60</td>
<td>12.0</td>
</tr>
</tbody>
</table>

**COAX CRIMPING TOOL**

<table>
<thead>
<tr>
<th>Part No.</th>
<th>Size</th>
<th>L(mm)</th>
<th>a(mm)</th>
<th>b(mm)</th>
<th>G.W.(kg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>91104</td>
<td>9-1/2”</td>
<td>204</td>
<td>6</td>
<td>36</td>
<td>19.5</td>
</tr>
</tbody>
</table>

- **Crimping Range:** 1.72MM², 2.5MM², 5.4MM², 6.48MM², 8.2MM²

**HEAVY DUTY CRIMPING TOOL**

<table>
<thead>
<tr>
<th>Part No.</th>
<th>Size</th>
<th>L(mm)</th>
<th>a(mm)</th>
<th>b(mm)</th>
<th>G.W.(kg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>91105</td>
<td>9”</td>
<td>240</td>
<td>6</td>
<td>30</td>
<td>18.0</td>
</tr>
</tbody>
</table>

- **Crimping Range:** 3.5MM², 4MM², 6MM²

**D-SUB CONTACT CRIMPING TOOL**

<table>
<thead>
<tr>
<th>Part No.</th>
<th>Size</th>
<th>L(mm)</th>
<th>a(mm)</th>
<th>G.W.(kg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>91101</td>
<td>8”</td>
<td>204</td>
<td>6</td>
<td>30</td>
</tr>
</tbody>
</table>

- **AWG Capacity:** 22-24, 0.25-0.5MM², 22-18, 0.65-1MM²

**CABLE FERRULES CRIMPING TOOL**

<table>
<thead>
<tr>
<th>Part No.</th>
<th>Size</th>
<th>L(mm)</th>
<th>a(mm)</th>
<th>b(mm)</th>
<th>G.W.(kg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>91102</td>
<td>8”</td>
<td>204</td>
<td>6</td>
<td>30</td>
<td>14.1</td>
</tr>
</tbody>
</table>

- **AWG Capacity:** 22-20, 0.6-1.5MM², 16-18, 1.5-2.5MM², 14-12, 4MM², 12-10, 6MM²

**ENERGY SAVING TYPE - LONG NOSE**

- **Made of 60CR-V steel**
- **Body hardwood – HRC43-48**
- **Crimping edge hardness – HRC56-62**
- **Japanese curved style with spring**
- **For cutting plastic/vinyl coated cable**
- **Not for use in cutting metal material**

**TECHNICAL SPECIFICATIONS**

- For cutting vinyl coated or copper cable
- **ANSI B107.11M**

**WIRE & CABLE CUTTING**

- **Made of high carbon steel with glass fiber handle**
- **Adjustable locking mechanism easily controlled by pressing/release of handle**

**PLASTIC CUTTING**

- **High accuracy connector crimping pin to moderately press connector on cable wire without damaging the connector**
- **Made of high carbon steel with glass fiber handle**
- **Adjustable locking mechanism easily controlled by pressing/release of handle**

**COAX CRIMPING TOOL**

- **High accuracy connector crimping pin to moderately press connector on cable wire without damaging the connector**
- **Made of high carbon steel with glass fiber handle**
- **Adjustable locking mechanism easily controlled by pressing/release of handle**

**HEAVY DUTY CRIMPING TOOL**

- **High accuracy connector crimping pin to moderately press connector on cable wire without damaging the connector**
- **Made of high carbon steel with glass fiber handle**
- **Adjustable locking mechanism easily controlled by pressing/release of handle**

**D-SUB CONTACT CRIMPING TOOL**

- **Crimping Range:** 1.72MM², 2.5MM², 5.4MM², 6.48MM², 8.2MM²

**CABLE FERRULES CRIMPING TOOL**

- **Crimping Shape:**
- **Terminal Shape:** Coaxial Cable

**WARNING**

- **Nature of this product is subject to wear and tear upon usage. Not covered under Lifetime Warranty.**
**Pliers, Crimping Tool, Snips & Cutter**

### HEAVY DUTY NON - INSULATED CRIMPING TOOL

<table>
<thead>
<tr>
<th>Part No.</th>
<th>Size</th>
<th>L(mm)</th>
<th>a(mm)</th>
<th>G.W.(kg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>91106</td>
<td>10-1/4&quot;</td>
<td>262</td>
<td>76.0</td>
<td>6</td>
</tr>
</tbody>
</table>

**AVG Capacity**
- 9-18: 1.5MM²
- 16-12: 2.5-4MM²
- 12-10: 6.8MM²
- 8.4: 10MM²

*Terminal Shape:

### TAB CONNECTOR CRIMPING TOOL

<table>
<thead>
<tr>
<th>Part No.</th>
<th>Size</th>
<th>L(mm)</th>
<th>a(mm)</th>
<th>G.W.(kg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>91107</td>
<td>9&quot;</td>
<td>228</td>
<td>67.0</td>
<td>6</td>
</tr>
</tbody>
</table>

**AVG Capacity**
- 22-18: 0.5-1.5MM²
- 16-14: 1.1-2.5MM²
- 12-10: 4-6MM²

*Terminal Shape:

### MODULAR CONNECTOR CRIMPING TOOL

<table>
<thead>
<tr>
<th>Part No.</th>
<th>Size</th>
<th>L(mm)</th>
<th>a(mm)</th>
<th>G.W.(kg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>91109</td>
<td>9&quot;</td>
<td>230</td>
<td>46.0</td>
<td>6</td>
</tr>
</tbody>
</table>

- **8P, 8PC, 6P, 6PC, 6P2C, 6PC2, 8P, 8PC, 8P, 8PC, 8P2C**

*High accuracy connector crimping pin ensure cable wire and connector are contacted properly.

*Connector range from telephone and network connector; including 4P, 6P and 8P

*Wire stripping and cutting functions

### AVIATION TIN SNIPS - LEFT

<table>
<thead>
<tr>
<th>Part No.</th>
<th>Size</th>
<th>L(mm)</th>
<th>a(mm)</th>
<th>G.W.(kg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>93101</td>
<td>10&quot;</td>
<td>250</td>
<td>70.5</td>
<td>6</td>
</tr>
</tbody>
</table>

**AVG Capacity**
- 22-18: 0.5-1.5MM²
- 16-14: 1.1-2.5MM²
- 12-10: 4-6MM²

*Terminal Shape:

### AVIATION TIN SNIPS - RIGHT

<table>
<thead>
<tr>
<th>Part No.</th>
<th>Size</th>
<th>L(mm)</th>
<th>a(mm)</th>
<th>G.W.(kg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>93102</td>
<td>10&quot;</td>
<td>250</td>
<td>70.5</td>
<td>6</td>
</tr>
</tbody>
</table>

**AVG Capacity**
- 22-18: 0.5-1.5MM²
- 16-14: 1.1-2.5MM²
- 12-10: 4-6MM²

*Terminal Shape:

### SELF ADJUSTING CUTTER STRIPPER

<table>
<thead>
<tr>
<th>Part No.</th>
<th>Size</th>
<th>L(mm)</th>
<th>a(mm)</th>
<th>b(mm)</th>
<th>G.W.(kg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>91108</td>
<td>6-1/2&quot;</td>
<td>170</td>
<td>18.5</td>
<td>80.0</td>
<td>6</td>
</tr>
</tbody>
</table>

*Wire stripping range:

- Single wire or flat cable of diameter from 0.5~6.0mm

### WIRE STRIPPER WCUTTER

<table>
<thead>
<tr>
<th>Part No.</th>
<th>Size</th>
<th>L(mm)</th>
<th>a(mm)</th>
<th>b(mm)</th>
<th>G.W.(kg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>91201</td>
<td>6&quot;</td>
<td>155</td>
<td>70.5</td>
<td>60.0</td>
<td>7.0</td>
</tr>
<tr>
<td>91202</td>
<td>7&quot;</td>
<td>183</td>
<td>70.5</td>
<td>60.0</td>
<td>7.0</td>
</tr>
</tbody>
</table>

**AVG Capacity**
- 12-10: 4-6MM²
- 8-6: 0.52-0.05MM²
- 4-6MM²

*Accurate wire stripping pin for easy cutting of insulated surface without damaging the inner wire.

*Crimp design for convenient storage.

*Plastic handle for comfortable use.

*Body is made of high carbon steel.
### Pliers, Crimping Tool, Snips & Cutter

#### AUTOMATIC WIRE STRIPPER TYPE A

<table>
<thead>
<tr>
<th>Part No.</th>
<th>Size</th>
<th>L(mm)</th>
<th>a(mm)</th>
<th>b(mm)</th>
<th>G.W.(kg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>91212</td>
<td>7&quot;</td>
<td>204</td>
<td>6</td>
<td>48</td>
<td>18.8</td>
</tr>
</tbody>
</table>

- Wire capacity: Ø0.5, 1.2, 1.6, 2.0MM

- Provide accurate wire stripping function without damaging the inner wire.
- In accordance to QB/T2207-1996 manufacturing standard.

### STRAIGHT PATTERN SNIPS

<table>
<thead>
<tr>
<th>Part No.</th>
<th>Size</th>
<th>L(mm)</th>
<th>a(mm)</th>
<th>b(mm)</th>
<th>G.W.(kg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>93302</td>
<td>8&quot;</td>
<td>205</td>
<td>30.0</td>
<td>87.0</td>
<td>48</td>
</tr>
<tr>
<td>93303</td>
<td>10&quot;</td>
<td>254</td>
<td>35.0</td>
<td>105.0</td>
<td>6</td>
</tr>
<tr>
<td>93304</td>
<td>12&quot;</td>
<td>305</td>
<td>40.0</td>
<td>110.0</td>
<td>6</td>
</tr>
<tr>
<td>93305</td>
<td>14&quot;</td>
<td>355</td>
<td>45.0</td>
<td>110.0</td>
<td>6</td>
</tr>
<tr>
<td>93306</td>
<td>16&quot;</td>
<td>425</td>
<td>60</td>
<td>145.0</td>
<td>-</td>
</tr>
</tbody>
</table>

- Steel sheet: Cold rolling iron sheet, Stainless steel sheet.
- One-piece drop forged construction.
- Cutting edges induction hardened to HRC 58-60.
- Bulldog pattern snips for trimming extra heavy stock.
- Nature of this product is subject to wear and tear upon usage. Not covered under Lifetime Warranty.

#### BOLT CUTTER

<table>
<thead>
<tr>
<th>Part No.</th>
<th>Size</th>
<th>L(mm)</th>
<th>a(mm)</th>
<th>b(mm)</th>
<th>G.W.(kg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>93502</td>
<td>12&quot;</td>
<td>325</td>
<td>50.0</td>
<td>130.0</td>
<td>1</td>
</tr>
<tr>
<td>93503</td>
<td>14&quot;</td>
<td>370</td>
<td>65.0</td>
<td>145.0</td>
<td>1</td>
</tr>
<tr>
<td>93504</td>
<td>18&quot;</td>
<td>470</td>
<td>80.0</td>
<td>141.0</td>
<td>1</td>
</tr>
<tr>
<td>93505</td>
<td>24&quot;</td>
<td>634</td>
<td>100.0</td>
<td>160.0</td>
<td>1</td>
</tr>
<tr>
<td>93506</td>
<td>30&quot;</td>
<td>765</td>
<td>110.0</td>
<td>160.0</td>
<td>1</td>
</tr>
<tr>
<td>93507</td>
<td>36&quot;</td>
<td>917</td>
<td>110.0</td>
<td>190.0</td>
<td>1</td>
</tr>
<tr>
<td>93508</td>
<td>42&quot;</td>
<td>1053</td>
<td>140.0</td>
<td>210.0</td>
<td>1</td>
</tr>
<tr>
<td>93509</td>
<td>48&quot;</td>
<td>1213</td>
<td>160.0</td>
<td>250.0</td>
<td>1</td>
</tr>
</tbody>
</table>

- Cutting Range(mm):
  - Low Carbon Steel Ø6.35(1/4”), Medium Carbon Steel Ø5.5(1/4”)
  - ANSI B107.16M

#### TUBING CUTTER TUBING CUTTER

<table>
<thead>
<tr>
<th>Part No.</th>
<th>Cutting Range(mm)</th>
<th>G.W.(kg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>97301</td>
<td>3-30</td>
<td>19.6</td>
</tr>
<tr>
<td>97302</td>
<td>3-32</td>
<td>19.6</td>
</tr>
</tbody>
</table>

- For copper, brass, or aluminum tubing and thin-wall conduit.
- Feed knob contains backup blades.
- Keep the wheel away from the blade and maintains with lubricants regularly.

- Nature of this product is subject to wear and tear upon usage. Not covered under Lifetime Warranty.

#### TUBING CUTTER

<table>
<thead>
<tr>
<th>Part No.</th>
<th>Cutting Range(mm)</th>
<th>G.W.(kg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>97303</td>
<td>6-64</td>
<td>16.7</td>
</tr>
</tbody>
</table>

- For copper, brass, or aluminum tubing and thin-wall conduit.
- Feed knob contains backup blades.
- Keep the wheel away from the blade and maintains with lubricants regularly.

- Nature of this product is subject to wear and tear upon usage. Not covered under Lifetime Warranty.
**Pliers, Crimping Tool, Snips & Cutter**

**PVC TUBING CUTTER**

<table>
<thead>
<tr>
<th>Part No.</th>
<th>Cutting Range (mm)</th>
<th>G.W. (kg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>97304</td>
<td>3-42</td>
<td>6</td>
</tr>
<tr>
<td>97311</td>
<td>3.0x18mm</td>
<td>12</td>
</tr>
<tr>
<td>97312</td>
<td>6.2x18mm, 6.2x22mm</td>
<td>12</td>
</tr>
</tbody>
</table>

- Handle locks for safety
- For cutting PVC tubes only
- Heat treatment on stainless steel blade for durability
- Nature of the product is subject to wear and tear upon usage. Not covered under Lifetime Warranty.

**MINI TUBING CUTTER**

<table>
<thead>
<tr>
<th>Part No.</th>
<th>Cutting Range (mm)</th>
<th>G.W. (kg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>97305</td>
<td>3-16</td>
<td>6</td>
</tr>
<tr>
<td>97310</td>
<td>3.0x18mm</td>
<td>12</td>
</tr>
<tr>
<td>97311</td>
<td>6.2x18mm, 6.2x22mm</td>
<td>12</td>
</tr>
</tbody>
</table>

- For cutting copper, aluminum, brass and thin wall tubing
- Large knob for greater torque
- Suitable for use in confined space
- Nature of the product is subject to wear and tear upon usage. Not covered under Lifetime Warranty.

**2PC SPARE BLADE**

<table>
<thead>
<tr>
<th>Part No.</th>
<th>Size</th>
<th>G.W. (kg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>97311</td>
<td>3.0x18mm</td>
<td>12</td>
</tr>
<tr>
<td>97312</td>
<td>6.2x18mm, 6.2x22mm</td>
<td>12</td>
</tr>
</tbody>
</table>

- Spare blade for 97301, 97302 and 97305 tubing cutter
- Made of hardened alloy steel
- For cutting copper, aluminum, brass and thin wall tubing
- Nature of the product is subject to wear and tear upon usage. Not covered under Lifetime Warranty.

**Insulated Screwdriver**

- Blade is made of high performance chrome molybdenum alloy steel, fully hardened and tempered to provide maximum strength and durability

**Every single handle is individually tested for maximum safety performance.**

**Suitable for working on live circuits of 1000V.**

**Slim tip design accesses fasteners in tight areas faster and easier.**

**Always clean the tools after usage. It is important to keep the tools clean and dry both in use and when storing the tools. Check the tools on a regular basis and if there is any sign of damage or wear on insulation layer, the tool should be replaced.**

**Made in Germany**

**Individually tested to 10,000 volts and rated up to 1000 volts for safety. Meet DIN standards and GS / VDE certified**

**Ergonomic dual material (PP+TPR) handle for comfort and strength. Oil and solvent resistant**