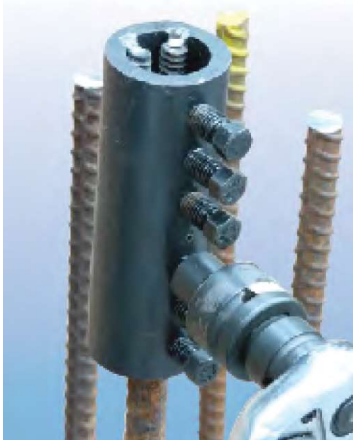
# Unitec Installation Guide

### Installation Procedure



**1.** Insert the Unitec coupler over the end of the first bar until contact with the center pin. Strongly hand tighten the screws from center to outside with a wrench to pre-position the coupler progressively in order to maintain its alignment with the bar.

**2.** Tighten the screws, from center to outside, with a power drive (pneumatic wrench) until their heads shear off. (A manual wrench can be sufficient for small screws M12 & M16 if there are not many couplers to assemble).

**3.** Insert the second bar into the coupler until contact with the center pin and repeat the operation. Check the bar alignment when hand tightening the screws with a wrench. At a distance of 1ft, misalignment should not exceed 1/4” (or not more than 5mm at a distance of 25cm).

Safety tip: Wear goggles and ear plugs when using the impact wrench.

General instruction: Grease shall not be used.

SureBuilT
Concrete Forms & Accessories

840 South 25th Ave
Bellwood, IL 60104
708-493-9569
www.surebuilt-usa.com

## Bar Engagement Length

**1.** Remove the center pin with a punch.

**2.** Mark the bar engagement length on each bar end, using the data in the table.

| Part No. | Bar Size | | Minimum bar engagement length | |
|---|---|---|---|---|
| | USA / Mexico | Canada | in | mm |
| SBUUSS4 | #4 | | 2-21/32” | 68 |
| SBUUSS5 | #5 | 15M | 2-21/32” | 68 |
| SBUUSS6 | #6 | 20M | 3-13/32” | 86 |
| SBUUSS7 | #7 | 20M | 3-27/32” | 98 |
| SBUUSS8 | #8 | 25M | 4-1/8” | 105 |
| SBUUSS9 | #9 | | 4-9/16” | 116 |
| SBUUSS10 | #10 | 30M | 5-5/16” | 135 |
| SBUUSS11 | #11 | 35M | 6-7/8” | 174 |
| SBUUSS12 | #12 | | 8-5/32” | 207 |
| SBUUSS14 | #14 | 45M | 10-23/32” | 272 |
| SBUUSS18 | #18 | 55M | 12-11/32” | 313 |

**3.** Slide the Unitec coupler all over the first bar. Bring the continuation bar in front of it and slide the Unitec coupler back over it. Position the coupler between the marks and hand tighten the screws.

**4.** Tighten the screws, from center to outside, with a power drive (pneumatic wrench) until their heads shear off.

## Equipment Needed

Use one of the Toku & Metabo pneumatic impact wrenches listed below. If another brand or another model is used, the proper speed should be determined before starting the job.

| Bar Size | Brand | Model | Square Drive | Weight | | Air consumption under load | | Air inlet thread | Manufacturer's Speed Setting |
|---|---|---|---|---|---|---|---|---|---|
| | | | in | lbs | kg | cfm | (L/min) | in | |
| #4 to #8<br>12 to 25 | Toku | MI-20P | 3/4" | 8.6 | 3.9 | 39 | 1,104 | 3/8" | 4 |
| | Ingersoll Rand | 2141P | 3/4" | 7 | 3.2 | 40 | 1,132 | 3/8" | - |
| | Atlas Copco | LMS61 HR20 | 3/4" | 11.2 | 5.1 | 25 | 707 | 3/8" | - |
| #4 to #18<br>12 to 50 | Toku | MI-5000GS | 1" | 31.2 | 14.2 | 66 | 1,868 | 1/2" | 4 |
| | Metabo | RS-4900L | 1" | 23.3 | 10.6 | 22 | 622 | 1/2" | 2 |
| | Ingersoll Rand | 2940 B2 | 1" | 22 | 10 | 58 | 1,641 | 1/2" | - |
| | Chicago | CP7780 | 1" | 15 | 6.8 | 49.8 | 1,404 | 1/2" | - |
| | Atlas Copco | LMS86 GIR38 | 1-1/2" | 36 | 16.4 | 61 | 1,726 | 1/2" | - |

(*) Remark: SureBuilt is not the owner of the brands mentioned here. Any protected trademark rights remain entirely exclusive to their respective owners and are only mentioned here as a reference in relation to the products.

**Air Supply**

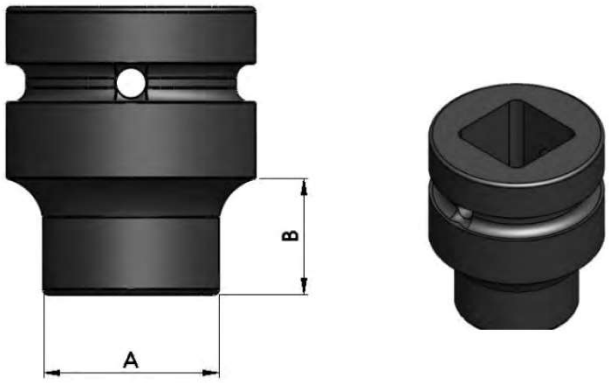

The requirement for air flow is 100 psig (7 bar) of operating pressure and 70 cfm (2 $m^3$/min) of delivered air to the pneumatic impact wrench through a ¾" (Unitec 12 to 25) or 1" (Unitec 12 to 50) hose.

**Electric Impact Wrench**

Some electric wrenches can also be used, for example :

| Bar Size | Brand | Model | Square Drive | Weight | | Power Supply |
|---|---|---|---|---|---|---|
| | | | in | lbs | kg | |
| #4 to #8<br>12 to 25 | Hitachi | WR 25 SE | 1" | 16.9 | 7.7 | 110 - 240 V |

## Tooling Settings




| Bar Size | | Coupler Part No. | Coupler Weight | | Length | Total number of screws per coupler | Screw Size | Average torque to shear screw heads | | Air Gun Socket Size | | A (mm) | B (mm) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| USA | Canada | | lbs | kg | mm | | | ft - lb | Nm | Square drive | Hexagonal dimension mm | | |
| #4 | | SBUUSS4 | 2.9 | 1.3 | 140 | 6 | M12 | 100 | 140 | 3/4” | 13 | 26 | 22 |
| #5 | 15M | SBUUSS5 | 2.8 | 1.3 | 140 | 6 | | | | | | | |
| #6 | 20M | SBUUSS6 | 4.4 | 2.0 | 200 | 8 | | | | | | | |
| #6, #7 | 20M | SBUUSS7 | 5.3 | 2.4 | 180 | 6 | M16 | 185 | 250 | 3/4” or 1” | 15 | 26 | 22 |
| #8 | 25M | SBUUSS8 | 7.5 | 3.4 | 240 | 8 | | | | | | | |
| #9 | | SBUUSS9 | 12.5 | 5.7 | 220 | 6 | M20 | 500 | 680 | 1” | 19 | 36 | 24 |
| #10 | 30M | SBUUSS10 | 17.3 | 7.9 | 280 | 8 | | | | | | | |
| #11 | 35M | SBUUSS11 | 24.8 | 11.3 | 360 | 10 | | | | | | | |
| #12 | | SBUUSS12 | 31.4 | 14.3 | 425 | 12 | | | | | | | |
| #14 | 45M | SBUUSS14 | 41.1 | 18.6 | 555 | 16 | | | | | | | |
| #18 | 55M | SBUUSS18 | 80.9 | 36.7 | 640 | 16 | M24 | 730 | 990 | 1” | 21 | 38 | 24 |