



## WRENCHES AND WRENCH SETS

Stanley<sup>®</sup> Proto<sup>®</sup> was the first company to market the combination wrench in the United States in 1933. Since then, we have greatly expanded our line of wrenches, and developed a range of new products. Our line now includes standard, extra long and short combination, flex-head, open end, angle head, box, deep offset box, ratcheting box, obstruction, adjustable, flare nut, striking, slugging, construction, spanner and pipe wrenches. In other words, we have a wrench for nearly any fastener.

Our current wrenches are also more efficient and stronger than ever. Proto<sup>®</sup> engineers continually work to create wrenches that grip tighter and let users apply more torque without fear of fastener damage. Those were the goals behind our new line of ratcheting box-head spline wrenches, which include double-end box and combination models. While the spline wrench was originally designed for high tensile strength spline fasteners, it will now do everything that a 12-point box wrench will do, only better. That's because the wrench's design moves the load away from the fastener corners, spreading it over the flat areas. This increases the contact area between wrench and fastener, letting the user apply more force. It also makes the spline head a particularly effective tool for turning a rounded or damaged fastener.

Many of our other wrenches also include exclusive Stanley<sup>®</sup> Proto<sup>®</sup> designs. For instance, our patented Anti-Slip Design (ASD) open end wrench has a locking groove to help prevent the wrench from slipping off of the fastener, reducing the chance of hurt knuckles. The ASD also has an arched surface that spreads the turning force over a contact area larger than a conventional wrench.

The box end of most Proto<sup>®</sup> wrenches incorporate the TorquePlus<sup>™</sup> wrenching system. The TorquePlus<sup>™</sup> design is a high performance drive configuration which allows for quick and easy wrench engagement to the fastener flats, not the corners. The configuration employs a radius-corner design, shifting contact area and stresses over a large area of the wrench, minimizing slippage. The internal design of the TorquePlus<sup>™</sup> minimizes fastener rounding, helps to extend fastener life, and allows the user to more easily turn worn, rounded, or rusted fasteners.

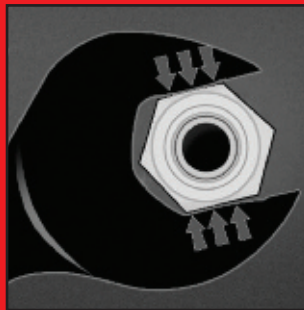
Our adjustable wrenches include the exclusive Clik-Stop<sup>®</sup> design feature, which automatically locks the moveable jaw at any opening the user selects. The more pressure the user puts on the wrench, the tighter the jaw locks: Release the handle pressure and the knurl turns with ease.

# PRODUCT FEATURES AND BENEFITS



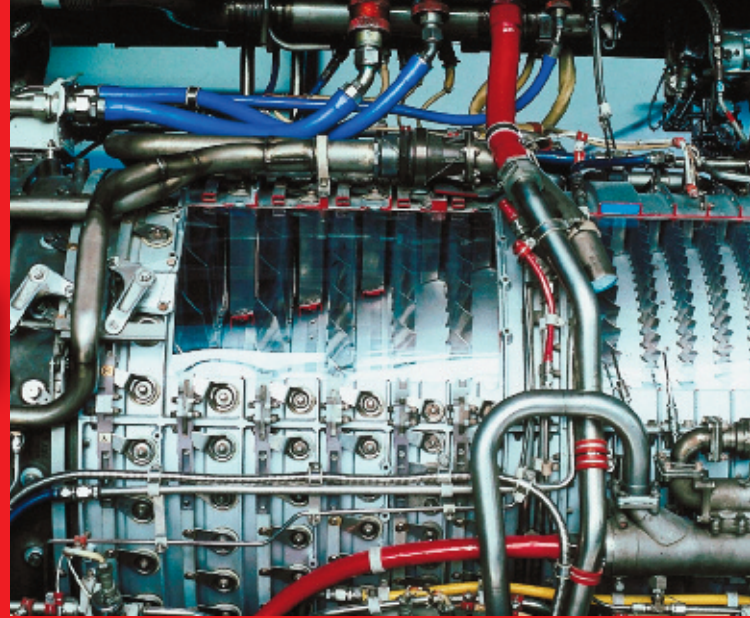
## ASD OPEN END WRENCHES

- Arc design increases contact area between wrench and fastener.
- Locking grooves help prevent wrench slippage during use.
- Wrench has no ribs or serrations that might cause fastener damage.
- ASD use tip: Wrench may feel somewhat loose going on to fastener, but when it turns and engages the fastener, the fit will be very precise, helping to hold the wrench in place and helping prevent slipping.



## TORQUEPLUS™ SYSTEM

- Moves engagement to the fastener flats, not the corners.
- Minimizes slippage.
- Helps minimize fastener rounding.
- Helps extend fastener life.
- Turns worn, rounded and rusted fasteners more easily.



## RATCHETING BOX WRENCHES

- Fine-toothed gears provide smooth yet powerful ratcheting.
- Thin box heads, slim shanks, and short arc swings can be worked in tight spots.
- Available in fractional, metric, and spline models.
- Standard, jumbo and stubby-length handles available.
- Line includes standard and reverse-ratcheting models.



## SAFETY TIPS

- Use safety goggles. Serious eye injury is possible.
- Pull the wrench toward you. Do not push.
- Do not use extenders or cheater bars.
- Make sure adjustable wrenches are adjusted to grip the fastener tightly.
- Striking/slugging wrenches should be struck squarely. Do not overblow or underblow.
- Use the type of wrench that fits the job, and use correct size wrenches. Do not use fractional wrenches on metric fasteners, or vice-versa.
- Use a box type wrench if possible.
- Maintain your balance.
- Use a commercial lubricant on a corroded fastener before trying to loosen it.
- Do not use a damaged wrench. Replace it.






# Wrenches

## SET NO. J1200F-T500 - 15 PC. COMBINATION ASD WRENCH SET - 12 POINT

- Full polish finish provides corrosion resistance and easy to clean surfaces.
- 12 point box end allows for fine indexing, helping to improve speed and access. Fits 4, 6, and 12 point fasteners.
- Fractional sizes 11/32" and smaller do not have the ASD feature.
- Anti-Slip Design (ASD) open end.
- Patented locking grooves help prevent the wrench from slipping off the fastener when turning.
- The arched surfaces are designed to spread the contact forces over a greater area.
- Loads are kept off the corners of the fastener which helps prevent fastener rounding.
- Box ends incorporate the TorquePlus™ system.
- Proto® TorquePlus™ wrenches are ideal for use on stubborn or damaged fasteners, and also on fasteners made from soft materials.
- The TorquePlus™ design is a high performance drive configuration which allows for quick and easy wrench engagement to the fastener flats, not the corners.
- The TorquePlus™ configuration employs a radius-corner design, shifting contact area and stress away from the fastener corners and distributing contact stresses over a large area of the box end, minimizing slippage.
- The TorquePlus™ internal design minimizes fastener rounding, helps to extend fastener life, and allows the user to more easily turn worn, rounded, or rusted fasteners.
- Weight: 9.76 lbs.



Product ID No.	Contents	 in.	Length
<b>J1200F-T500</b>	J1210-T500	5/16"	5-3/8"
	J1212-T500	3/8"	6"
	J1214-T500	7/16"	7"
	J1216-T500	1/2"	8"
	J1218-T500	9/16"	8-7/8"
	J1220-T500	5/8"	9-1/2"
	J1222-T500	11/16"	10-1/4"
	J1224-T500	3/4"	11"
	J1226-T500	13/16"	11-7/8"
	J1228-T500	7/8"	12-1/2"
	J1230-T500	15/16"	13-1/4"
	J1232-T500	1"	14"
	J1234-T500	1-1/16"	15-1/4"
	J1236-T500	1-1/8"	15-7/8"
	J1240-T500	1-1/4"	16-7/8"
J25TR34C	Tool Roll		






# Wrenches



## SET NO. J1200H-T500 - 7 PC. COMBINATION ASD WRENCH SET - 12 POINT

- Full polish finish provides corrosion resistance and easy to clean surfaces.
- 12 point box end allows for fine indexing, helping to improve speed and access. Fits 4, 6, and 12 point fasteners.
- Anti-Slip Design (ASD) open end
  - Patented locking grooves help prevent the wrench from slipping off the fastener when turning.
  - The arched surfaces are designed to spread the contact forces over a greater area
  - Loads are kept off the corners of the fastener which helps prevent fastener rounding.
- Box ends incorporate the TorquePlus™ system.
- Proto® TorquePlus™ wrenches are ideal for use on stubborn or damaged fasteners, and also on fasteners made from soft materials.
- The TorquePlus™ design is a high performance drive configuration which allows for quick and easy wrench engagement to the fastener flats, not the corners.
- The TorquePlus™ configuration employs a radius-corner design, shifting contact area and stress away from the fastener corners and distributing contact stresses over a large area of the box end, minimizing slippage.
- The TorquePlus™ internal design minimizes fastener rounding, helps to extend fastener life, and allows the user to more easily turn worn, rounded, or rusted fasteners.
- Weight: 2.02 lbs.



Product ID No.	Contents	 in.	Length
<b>J1200H-T500</b>	J1212-T500	3/8"	6"
	J1214-T500	7/16"	7"
	J1216-T500	1/2"	8"
	J1218-T500	9/16"	8-7/8"
	J1220-T500	5/8"	9-1/2"
	J1222-T500	11/16"	10-1/4"
	J1224-T500	3/4"	11"
	J25TR33C	Tool Roll	





# Wrenches

## SET NO. J1200-80ASD - 26 PC. COMBINATION ASD WRENCH SET - 12 POINT

- Satin finish provides corrosion resistance and a slip resistant grip.
- 12 point box end allows for fine indexing, helping to improve speed and access. Fits 4, 6 and 12 point fasteners.
- Fractional sizes 11/32" and smaller and sizes 1-5/16" and larger do not have the ASD feature.
- Anti-Slip Design (ASD) Open End
  - Patented locking grooves help prevent the wrench from slipping off the fastener when turning.
  - The arched surfaces are designed to spread the contact forces over a greater area.
  - Loads are kept off the corners of the fastener which helps prevent fastener rounding.
- Box ends incorporate the TorquePlus™ system.
- Proto® TorquePlus™ wrenches are ideal for use on stubborn or damaged fasteners, and also on fasteners made from soft materials.
- The TorquePlus™ design is a high performance drive configuration which allows for quick and easy wrench engagement to the fastener flats, not the corners.
- The TorquePlus™ configuration employs a radius-corner design, shifting contact area and stress away from the fastener corners and distributing contact stresses over a large area of the box end, minimizing slippage.
- The TorquePlus™ internal design minimizes fastener rounding, helps to extend fastener life, and allows the user to more easily turn worn, rounded, or rusted fasteners.
- Weight: 57.42 lbs.



Product ID No.	Contents	 in.	Length
<b>J1200-80ASD</b>	J1208A	1/4"	4-7/8"
	J1210A	5/16"	5-3/8"
	J1212ASD	3/8"	6"
	J1214ASD	7/16"	7"
	J1216ASD	1/2"	8"
	J1218ASD	9/16"	8-7/8"
	J1220ASD	5/8"	9-1/2"
	J1222ASD	11/16"	10-1/4"
	J1224ASD	3/4"	11"
	J1226ASD	13/16"	11-7/8"
	J1228ASD	7/8"	12-1/2"
	J1230ASD	15/16"	13-1/4"
	J1232ASD	1"	14"

Product ID No.	Contents	 in.	Length
J1234ASD		1-1/16"	15-1/4"
J1236ASD		1-1/8"	15-7/8"
J1240ASD		1-1/4"	16-7/8"
J1242		1-5/16"	17-5/8"
J1244		1-3/8"	18-1/2"
J1246		1-7/16"	19-3/8"
J1248		1-1/2"	20-1/4"
J1252		1-5/8"	23"
J1254		1-11/16"	23"
J1256		1-3/4"	25"
J1258		1-13/16"	25"
J1260		1-7/8"	28"
J1264		2"	28"




# Wrenches




## SET NO. J1200-90ASD - 31 PC. COMBINATION ASD WRENCH SET - 12 POINT

- Satin finish provides corrosion resistance and a slip resistant grip.
- 12 point box end allows for fine indexing, helping to improve speed and access. Fits 4, 6 and 12 point fasteners.
- Fractional sizes 11/32" and smaller and 1-15/16" and larger do not have the ASD feature.
- Anti-Slip Design (ASD) open end
  - Patented locking grooves help prevent the wrench from slipping off the fastener when turning.
  - The arched surfaces are designed to spread the contact forces over a greater area
  - Loads are kept off the corners of the fastener which helps prevent fastener rounding.
- Box ends incorporate the TorquePlus™ system.
- Proto® TorquePlus™ wrenches are ideal for use on stubborn or damaged fasteners, and also on fasteners made from soft materials.
- The TorquePlus™ design is a high performance drive configuration which allows for quick and easy wrench engagement to the fastener flats, not the corners.
- The TorquePlus™ configuration employs a radius-corner design, shifting contact area and stress away from the fastener corners and distributing contact stresses over a large area of the box end, minimizing slippage.
- The TorquePlus™ internal design minimizes fastener rounding, helps to extend fastener life, and allows the user to more easily turn worn, rounded, or rusted fasteners.
- Weight: 124 lbs.



Product ID No.	Contents	 in.	Length
<b>J1200-90ASD</b>	J1210A	5/16"	5-3/8"
	J1212ASD	3/8"	6"
	J1214ASD	7/16"	7"
	J1216ASD	1/2"	8"
	J1218ASD	9/16"	8-7/8"
	J1220ASD	5/8"	9-1/2"
	J1222ASD	11/16"	10-1/4"
	J1224ASD	3/4"	11"
	J1226ASD	13/16"	11-7/8"
	J1228ASD	7/8"	12-1/2"
	J1230ASD	15/16"	13-1/4"
	J1232ASD	1"	14"
	J1234ASD	1-1/16"	15-1/4"
	J1236ASD	1-1/8"	15-7/8"
	J1240ASD	1-1/4"	16-7/8"
	J1242	1-5/16"	17-5/8"

Product ID No.	Contents	 in.	Length
	J1244	1-3/8"	18-1/2"
	J1246	1-7/16"	19-3/8"
	J1248	1-1/2"	20-1/4"
	J1252	1-5/8"	23"
	J1254	1-11/16"	23"
	J1256	1-3/4"	25"
	J1258	1-13/16"	25"
	J1260	1-7/8"	28"
	J1264	2"	28"
	J1266	2-1/16"	29-1/2"
	J1268	2-1/8"	29-1/2"
	J1270	2-3/16"	29-1/2"
	J1272	2-1/4"	29-1/2"
	J1276	2-3/8"	31-1/2"
	J1280	2-1/2"	31-1/2"
	J25TR34C	Tool Roll	






# Wrenches

## SET NO. J1200F-HD - 16 PC. COMBINATION WRENCH SET - 12 POINT

- Satin finish provides corrosion resistance and a slip resistant grip.
- 12 point box end allows for fine indexing, helping to improve speed and access. Fits 4, 6 and 12 point fasteners.
- 15° angled offset box end helps keep shank clear of obstructions.
- The box end is countersunk for easy application to the fastener.
- Box ends incorporate the TorquePlus™ system.
- Proto® TorquePlus™ wrenches are ideal for use on stubborn or damaged fasteners, and also on fasteners made from soft materials.
- The TorquePlus™ design is a high performance drive configuration which allows for quick and easy wrench engagement to the fastener flats, not the corners.
- The TorquePlus™ configuration employs a radius-corner design, shifting contact area and stress away from the fastener corners and distributing contact stresses over a large area of the box end, minimizing slippage.
- The TorquePlus™ internal design minimizes fastener rounding, helps to extend fastener life, and allows the user to more easily turn worn, rounded, or rusted fasteners.
- Weight: 113.5 lbs.



Product ID No.	Contents	 in.	Length
<b>J1200F-HD</b>	J1242	1-5/16"	17-5/8"
	J1244	1-3/8"	18-1/2"
	J1246	1-7/16"	19-3/8"
	J1248	1-1/2"	20-1/4"
	J1252	1-5/8"	23"
	J1254	1-11/16"	23"
	J1256	1-3/4"	25"
	J1258	1-13/16"	25"
	J1260	1-7/8"	28"
	J1264	2"	28"
	J1266	2-1/16"	29-1/2"
	J1268	2-1/8"	29-1/2"
	J1270	2-3/16"	29-1/2"
	J1272	2-1/4"	29-1/2"
	J1276	2-3/8"	31-1/2"
	J1280	2-1/2"	31-1/2"




# Wrenches



## SET NO. J1200FASD - 15 PC. COMBINATION ASD WRENCH SET - 12 POINT

- Satin finish provides corrosion resistance and a slip resistant grip.
- 12 point box end allows for fine indexing, helping to improve speed and access. Fits 4, 6 and 12 point fasteners.
- Fractional sizes 11/32" and smaller do not have the ASD feature.
- Anti-Slip Design (ASD) open end
- Patented locking grooves help prevent the wrench from slipping off the fastener when turning.
- The arched surfaces are designed to spread the contact forces over a greater area.
- Loads are kept off the corners of the fastener which helps prevent fastener rounding.
- Box ends incorporate the TorquePlus™ system.
- Proto® TorquePlus™ wrenches are ideal for use on stubborn or damaged fasteners, and also on fasteners made from soft materials.
- The TorquePlus™ design is a high performance drive configuration which allows for quick and easy wrench engagement to the fastener flats, not the corners.
- The TorquePlus™ configuration employs a radius-corner design, shifting contact area and stress away from the fastener corners and distributing contact stresses over a large area of the box end, minimizing slippage.
- The TorquePlus™ internal design minimizes fastener rounding, helps to extend fastener life, and allows the user to more easily turn worn, rounded, or rusted fasteners.
- Weight: 9.75 lbs.



Product ID No.	Contents	 in.	Length
<b>J1200FASD</b>	J1210A	5/16"	5-3/8"
	J1212ASD	3/8"	6"
	J1214ASD	7/16"	7"
	J1216ASD	1/2"	8"
	J1218ASD	9/16"	8-7/8"
	J1220ASD	5/8"	9-1/2"
	J1222ASD	11/16"	10-1/4"
	J1224ASD	3/4"	11"
	J1226ASD	13/16"	11-7/8"
	J1228ASD	7/8"	12-1/2"
	J1230ASD	15/16"	13-1/4"
	J1232ASD	1"	14"
	J1234ASD	1-1/16"	15-1/4"
	J1236ASD	1-1/8"	15-7/8"
	J1240ASD	1-1/4"	16-7/8"
J25TR34C	Tool Roll		




# Wrenches

## SET NO. J1200GASD - 10 PC. COMBINATION ASD WRENCH SET - 12 POINT

- Satin finish provides corrosion resistance and a slip resistant grip.
- 12 point box end allows for fine indexing, helping to improve speed and access. Fits 4, 6 and 12 point fasteners.
- Anti-Slip Design (ASD) open end
  - Patented locking grooves help prevent the wrench from slipping off the fastener when turning.
  - The arched surfaces are designed to spread the contact forces over a greater area.
  - Loads are kept off the corners of the fastener which helps prevent fastener rounding.
- Box ends incorporate the TorquePlus™ system.
- Proto® TorquePlus™ wrenches are ideal for use on stubborn or damaged fasteners, and also on fasteners made from soft materials.
- The TorquePlus™ design is a high performance drive configuration which allows for quick and easy wrench engagement to the fastener flats, not the corners.
- The TorquePlus™ configuration employs a radius-corner design, shifting contact area and stress away from the fastener corners and distributing contact stresses over a large area of the box end, minimizing slippage.
- The TorquePlus™ internal design minimizes fastener rounding, helps to extend fastener life, and allows the user to more easily turn worn, rounded, or rusted fasteners.
- Weight: 4.88 lbs.



Product ID No.	Contents	 in.	Length
<b>J1200GASD</b>	J1214ASD	7/16"	7"
	J1216ASD	1/2"	8"
	J1218ASD	9/16"	8-7/8"
	J1220ASD	5/8"	9-1/2"
	J1222ASD	11/16"	10-1/4"
	J1224ASD	3/4"	11"
	J1226ASD	13/16"	11-7/8"
	J1228ASD	7/8"	12-1/2"
	J1230ASD	15/16"	13-1/4"
	J1232ASD	1"	14"
	J25TR05C	Tool Roll	






# Wrenches



## SET NO. J1200GHASD - 10 PC. COMBINATION ASD WRENCH SET - 6 POINT

- Satin finish provides corrosion resistance and a slip resistant grip.
- 6 point box end allows for large wrench to fastener contact area which helps prevent rounding of the fastener.
- Anti-Slip Design (ASD) open end.
- Patented locking grooves help prevent the wrench from slipping off the fastener when turning.
- The arched surfaces are designed to spread the contact forces over a greater area.
- Loads are kept off the corners of the fastener which helps prevent fastener rounding.
- Box ends incorporate the TorquePlus™ system.
- Proto® TorquePlus™ wrenches are ideal for use on stubborn or damaged fasteners, and also on fasteners made from soft materials.
- The TorquePlus™ design is a high performance drive configuration which allows for quick and easy wrench engagement to the fastener flats, not the corners.
- The TorquePlus™ configuration employs a radius-corner design, shifting contact area and stress away from the fastener corners and distributing contact stresses over a large area of the box end, minimizing slippage.
- The TorquePlus™ internal design minimizes fastener rounding, helps to extend fastener life, and allows the user to more easily turn worn, rounded, or rusted fasteners.
- Weight: 4.88 lbs.



Product ID No.	Contents	 in.	Length
<b>J1200GHASD</b>	J1214HASD	7/16"	7"
	J1216HASD	1/2"	8"
	J1218HASD	9/16"	8-7/8"
	J1220HASD	5/8"	9-1/2"
	J1222HASD	11/16"	10-1/4"
	J1224HASD	3/4"	11"
	J1226HASD	13/16"	11-7/8"
	J1228HASD	7/8"	12-1/2"
	J1230HASD	15/16"	13-1/4"
	J1232HASD	1"	14"
J25TR05C	Tool Roll		




# Wrenches

## SET NO. J1200HASD - 7 PC. COMBINATION ASD WRENCH SET - 12 POINT

- Satin finish provides corrosion resistance and a slip resistant grip.
- 12 point box end allows for fine indexing, helping to improve speed and access. Fits 4, 6 and 12 point fasteners.
- Anti-Slip Design (ASD) open end.
- Patented locking grooves help prevent the wrench from slipping off the fastener when turning.
- The arched surfaces are designed to spread the contact forces over a greater area.
- Loads are kept off the corners of the fastener which helps prevent fastener rounding.
- Box ends incorporate the TorquePlus™ system.
- Proto® TorquePlus™ wrenches are ideal for use on stubborn or damaged fasteners, and also on fasteners made from soft materials.
- The TorquePlus™ design is a high performance drive configuration which allows for quick and easy wrench engagement to the fastener flats, not the corners.
- The TorquePlus™ configuration employs a radius-corner design, shifting contact area and stress away from the fastener corners and distributing contact stresses over a large area of the box end, minimizing slippage.
- The TorquePlus™ internal design minimizes fastener rounding, helps to extend fastener life, and allows the user to more easily turn worn, rounded, or rusted fasteners.
- Weight: 2.40 lbs.



Product ID No.	Contents	 in.	Length
<b>J1200HASD</b>	J1212ASD	3/8"	6"
	J1214ASD	7/16"	7"
	J1216ASD	1/2"	8"
	J1218ASD	9/16"	8-7/8"
	J1220ASD	5/8"	9-1/2"
	J1222ASD	11/16"	10-1/4"
	J1224ASD	3/4"	11"
	J25TR37C	Tool Roll	




# Wrenches



## SET NO. J1200FBASD - 14 PC. PROTOBLACK™ COMBINATION ASD WRENCH SET - 12 POINT

- Non-reflective ProtoBlack™ finish for use where non-plated products are required.
- 12 point box end allows for fine indexing, helping to improve speed and access. Fits 4, 6 and 12 point fasteners.
- Anti-Slip Design (ASD) open end.
- Patented locking grooves help prevent the wrench from slipping off the fastener when turning.
- The arched surfaces are designed to spread the contact forces over a greater area.
- Loads are kept off the corners of the fastener which helps prevent fastener rounding.
- Box ends incorporate the TorquePlus™ system.
- Proto® TorquePlus™ wrenches are ideal for use on stubborn or damaged fasteners, and also on fasteners made from soft materials.
- The TorquePlus™ design is a high performance drive configuration which allows for quick and easy wrench engagement to the fastener flats, not the corners.
- The TorquePlus™ configuration employs a radius-corner design, shifting contact area and stress away from the fastener corners and distributing contact stresses over a large area of the box end, minimizing slippage.
- The TorquePlus™ internal design minimizes fastener rounding, helps to extend fastener life, and allows the user to more easily turn worn, rounded, or rusted fasteners.
- Weight: 9.70 lbs.



Product ID No.	Contents	 in.	Length
<b>J1200FBASD</b>	J1212BASD	3/8"	6"
	J1214BASD	7/16"	7"
	J1216BASD	1/2"	8-7/8"
	J1218BASD	9/16"	8-7/8"
	J1220BASD	5/8"	9-1/2"
	J1222BASD	11/16"	10-1/4"
	J1224BASD	3/4"	11"
	J1226BASD	13/16"	11-7/8"
	J1228BASD	7/8"	12-1/2"
	J1230BASD	15/16"	13-1/4"
	J1232BASD	1"	14"
	J1234BASD	1-1/16"	15-1/4"
	J1238BASD	1-1/8"	15-7/8"
	J1240BASD	1-1/4"	16-7/8"
J25TR41C	Tool Roll		






# Wrenches

## SET NO. J1200HBASD - 7 PC. PROTOBLACK™ COMBINATION ASD WRENCH SET - 12 POINT

- Non-reflective ProtoBlack™ finish for use where non-plated products are required.
- 12 point box end allows for fine indexing, helping to improve speed and access. Fits 4, 6, and 12 point fasteners.
- Anti-Slip Design (ASD) open end.
  - Patented locking grooves help prevent the wrench from slipping off the fastener when turning.
  - The arched surfaces are designed to spread the contact forces over a greater area.
  - Loads are kept off the corners of the fastener which helps prevent fastener rounding.
- Box ends incorporate the TorquePlus™ system.
- Proto® TorquePlus™ wrenches are ideal for use on stubborn or damaged fasteners, and also on fasteners made from soft materials.
- The TorquePlus™ design is a high performance drive configuration which allows for quick and easy wrench engagement to the fastener flats, not the corners.
- The TorquePlus™ configuration employs a radius-corner design, shifting contact area and stress away from the fastener corners and distributing contact stresses over a large area of the box end, minimizing slippage.
- The TorquePlus™ internal design minimizes fastener rounding, helps to extend fastener life, and allows the user to more easily turn worn, rounded, or rusted fasteners.
- Weight: 2.25 lbs.



Product ID No.	Contents	 in.	Length
<b>J1200HBASD</b>	J1212BASD	3/8"	6"
	J1214BASD	7/16"	7"
	J1216BASD	1/2"	8-7/8"
	J1218BASD	9/16"	8-7/8"
	J1220BASD	5/8"	9-1/2"
	J1222BASD	11/16"	10-1/4"
	J1224BASD	3/4"	11"
J25TR37C	Tool Roll		



# Wrenches



## SET NO. J1200RM-T500 - 17 PC. METRIC COMBINATION WRENCH SET - 12 POINT

**M**ETRIC

- Full polish finish provides corrosion resistance and easy to clean surfaces.
- 12 point box end allows for fine indexing, helping to improve speed and access. Fits 4, 6 and 12 point fasteners.
- Metric sizes 9mm and smaller do not have ASD feature.
- Anti-Slip Design (ASD) open end.
- Patented locking grooves help prevent the wrench from slipping off the fastener when turning.
- The arched surfaces are designed to spread the contact forces over a greater area.
- Loads are kept off the corners of the fastener which helps prevent fastener rounding.
- Box ends incorporate the TorquePlus™ system.
- Proto® TorquePlus™ wrenches are ideal for use on stubborn or damaged fasteners, and also on fasteners made from soft materials.
- The TorquePlus™ design is a high performance drive configuration which allows for quick and easy wrench engagement to the fastener flats, not the corners.
- The TorquePlus™ configuration employs a radius-corner design, shifting contact area and stress away from the fastener corners and distributing contact stresses over a large area of the box end, minimizing slippage.
- The TorquePlus™ internal design minimizes fastener rounding, helps to extend fastener life, and allows the user to more easily turn worn, rounded, or rusted fasteners.
- Weight: 6.92 lbs.



Product ID No.	Contents	mm	Length
<b>J1200RM-T500</b>	J1207M-T500	7	131.1
	J1208M-T500	8	137.4
	J1209M-T500	9	143.8
	J1210M-T500	10	150.1
	J1211M-T500	11	175.5
	J1212M-T500	12	195.8
	J1213M-T500	13	200.9
	J1214M-T500	14	223.8
	J1215M-T500	15	232.4
	J1216M-T500	16	242.4

Product ID No.	Contents	mm	Length
	J1217M-T500	17	261.3
	J1218M-T500	18	271.3
	J1219M-T500	19	280.2
	J1220M-T500	20	290.2
	J1221M-T500	21	300.2
	J1222M-T500	22	318.1
	J1224M-T500	24	388.0
	J25TR36C	Tool Roll	




# Wrenches

## SET NO. J1200HM-T500 - 9 PC. METRIC COMBINATION WRENCH SET - 12 POINT

**M**ETRIC

- Full polish finish provides corrosion resistance and easy to clean surfaces.
- 12 point box end allows for fine indexing, helping to improve speed and access. Fits 4, 6 and 12 point fasteners.
- Anti-Slip Design (ASD) open end.
  - Patented locking grooves help prevent the wrench from slipping off the fastener when turning.
  - The arched surfaces are designed to spread the contact forces over a greater area.
  - Loads are kept off the corners of the fastener which helps prevent fastener rounding.
- Metric sizes 9mm and smaller do not have ASD feature.
- Box ends incorporate the TorquePlus™ system.
- Proto® TorquePlus™ wrenches are ideal for use on stubborn or damaged fasteners, and also on fasteners made from soft materials.
- The TorquePlus™ design is a high performance drive configuration which allows for quick and easy wrench engagement to the fastener flats, not the corners.
- The TorquePlus™ configuration employs a radius-corner design, shifting contact area and stress away from the fastener corners and distributing contact stresses over a large area of the box end, minimizing slippage.
- The TorquePlus™ internal design minimizes fastener rounding, helps to extend fastener life, and allows the user to more easily turn worn, rounded, or rusted fasteners.
- Weight: 1.62 lbs.



Product ID No.	Contents	 mm	Length
<b>J1200HM-T500</b>	J1207M-T500	7	131.1
	J1208M-T500	8	137.4
	J1209M-T500	9	143.8
	J1210M-T500	10	150.1
	J1211M-T500	11	175.5
	J1212M-T500	12	195.8
	J1213M-T500	13	200.9
	J1214M-T500	14	223.8
	J1215M-T500	15	232.4
	J25TR35C	Tool Roll	





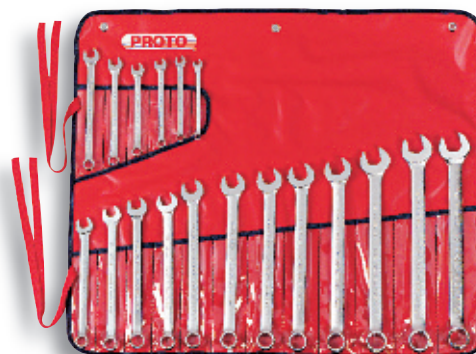
# Wrenches




## SET NO. J1200R-MASD - 18 PC. METRIC COMBINATION ASD WRENCH SET - 12 POINT

**M**ETRIC

- Satin finish provides corrosion resistance and a slip resistant grip.
- 12 point box end allows for fine indexing, helping to improve speed and access. Fits 4, 6 and 12 point fasteners.
- Anti-Slip Design (ASD) open end.
- Patented locking grooves help prevent the wrench from slipping off the fastener when turning.
- The arched surfaces are designed to spread the contact forces over a greater area.
- Loads are kept off the corners of the fastener which helps prevent fastener rounding.
- Metric sizes 9mm and smaller do not have ASD feature.
- Box ends incorporate the TorquePlus™ system.
- Proto® TorquePlus™ wrenches are ideal for use on stubborn or damaged fasteners, and also on fasteners made from soft materials.
- The TorquePlus™ design is a high performance drive configuration which allows for quick and easy wrench engagement to the fastener flats, not the corners.
- The TorquePlus™ configuration employs a radius-corner design, shifting contact area and stress away from the fastener corners and distributing contact stresses over a large area of the box end, minimizing slippage.
- The TorquePlus™ internal design minimizes fastener rounding, helps to extend fastener life, and allows the user to more easily turn worn, rounded, or rusted fasteners.
- Weight: 8.10 lbs.



Product ID No.	Contents	 mm	Length
<b>J1200R-MASD</b>	J1207MA	7	131.1
	J1208MA	8	137.4
	J1209MA	9	143.8
	J1210MASD	10	150.1
	J1211MASD	11	175.5
	J1212MASD	12	195.8
	J1213MASD	13	200.9
	J1214MASD	14	223.8
	J1215MASD	15	232.4
	J1216MASD	16	242.4
	J1217MASD	17	261.3
	J1218MASD	18	271.3
	J1219MASD	19	280.2
	J1220MASD	20	290.2
	J1221MASD	21	300.2
	J1222MASD	22	318.1
	J1223MASD	23	328.1
	J1224MASD	24	338.0
J25TR42C	Tool Roll		




# Wrenches

## SET NO. J1200F-MASD - 15 PC. METRIC COMBINATION ASD WRENCH SET - 12 POINT

**M**ETRIC

- Satin finish provides corrosion resistance and a slip resistant grip.
- 12 point box end allows for fine indexing, helping to improve speed and access. Fits 4, 6 and 12 point fasteners.
- Anti-Slip Design (ASD) open end.
  - Patented locking grooves help prevent the wrench from slipping off the fastener when turning.
  - The arched surfaces are designed to spread the contact forces over a greater area.
  - Loads are kept off the corners of the fastener which helps prevent fastener rounding.
- Metric sizes 9mm and smaller do not have ASD feature.
- Box ends incorporate the TorquePlus™ system.
- Proto® TorquePlus™ wrenches are ideal for use on stubborn or damaged fasteners, and also on fasteners made from soft materials.
- The TorquePlus™ design is a high performance drive configuration which allows for quick and easy wrench engagement to the fastener flats, not the corners.
- The TorquePlus™ configuration employs a radius-corner design, shifting contact area and stress away from the fastener corners and distributing contact stresses over a large area of the box end, minimizing slippage.
- The TorquePlus™ internal design minimizes fastener rounding, helps to extend fastener life, and allows the user to more easily turn worn, rounded, or rusted fasteners.
- Weight: 4.25 lbs.



Product ID No.	Contents	 mm	Length
<b>J1200F-MASD</b>	J1207MA	7	131.1
	J1208MA	8	137.4
	J1209MA	9	143.8
	J1210MASD	10	150.1
	J1211MASD	11	175.5
	J1212MASD	12	195.8
	J1213MASD	13	200.9
	J1214MASD	14	223.8
	J1215MASD	15	232.4
	J1216MASD	16	242.4
	J1217MASD	17	261.3
	J1218MASD	18	271.3
	J1219MASD	19	280.2
	J1220MASD	20	290.2
	J1221MASD	21	300.2
J25TR41C	Tool Roll		



# Wrenches




## SET NO. J1200P-MASD - 15 PC. METRIC COMBINATION ASD WRENCH SET - 12 POINT

**M**ETRIC

- Satin finish provides corrosion resistance and a slip resistant grip.
- 12 point box end allows for fine indexing, helping to improve speed and access. Fits 4, 6 and 12 point fasteners.
- Anti-Slip Design (ASD) open end.
- Patented locking grooves help prevent the wrench from slipping off the fastener when turning.
- The arched surfaces are designed to spread the contact forces over a greater area.
- Loads are kept off the corners of the fastener which helps prevent fastener rounding.
- Metric sizes 9mm and smaller do not have ASD feature.
- Box ends incorporate the TorquePlus™ system.
- Proto® TorquePlus™ wrenches are ideal for use on stubborn or damaged fasteners, and also on fasteners made from soft materials.
- The TorquePlus™ design is a high performance drive configuration which allows for quick and easy wrench engagement to the fastener flats, not the corners.
- The TorquePlus™ configuration employs a radius-corner design, shifting contact area and stress away from the fastener corners and distributing contact stresses over a large area of the box end, minimizing slippage.
- The TorquePlus™ internal design minimizes fastener rounding, helps to extend fastener life, and allows the user to more easily turn worn, rounded, or rusted fasteners.
- Weight: 4.25 lbs.



Product ID No.	Contents	 mm	Length
<b>J1200P-MASD</b>	J1207MA	7	131.1
	J1208MA	8	137.4
	J1210MASD	10	150.1
	J1212MASD	12	195.8
	J1214MASD	14	223.8
	J1216MASD	16	242.4
	J1218MASD	18	271.3
	J1220MASD	20	290.2
	J1222MASD	22	318.1
	J1224MASD	24	338.0
	J1226MASD	26	372.0
	J1228MASD	28	394.5
	J1229MASD	29	402.9
	J1230MASD	30	402.9
J1232MASD	32	429.7	
J25TR41C	Tool Roll		




# Wrenches

## SET NO. J1200K-MASD - 10 PC. METRIC COMBINATION ASD WRENCH SET - 12 POINT

**M**ETRIC

- Satin finish provides corrosion resistance and a slip resistant grip.
- 12 point box end allows for fine indexing, helping to improve speed and access.
- Anti-Slip Design (ASD) open end.
  - Patented locking grooves help prevent the wrench from slipping off the fastener when turning.
  - The arched surfaces are designed to spread the contact forces over a greater area.
  - Loads are kept off the corners of the fastener which helps prevent fastener rounding.
- Box ends incorporate the TorquePlus™ system.
- Proto® TorquePlus™ wrenches are ideal for use on stubborn or damaged fasteners, and also on fasteners made from soft materials.
- The TorquePlus™ design is a high performance drive configuration which allows for quick and easy wrench engagement to the fastener flats, not the corners.
- The TorquePlus™ configuration employs a radius-corner design, shifting contact area and stress away from the fastener corners and distributing contact stresses over a large area of the box end, minimizing slippage.
- The TorquePlus™ internal design minimizes fastener rounding, helps to extend fastener life, and allows the user to more easily turn worn, rounded, or rusted fasteners.
- Weight: 2.71 lbs.



Product ID No.	Contents	 mm	Length
<b>J1200K-MASD</b>	J1210MASD	10	150.1
	J1211MASD	11	175.5
	J1212MASD	12	195.8
	J1213MASD	13	200.9
	J1214MASD	14	223.8
	J1215MASD	15	232.4
	J1216MASD	16	242.4
	J1217MASD	17	261.3
	J1218MASD	18	271.3
	J1219MASD	19	280.2
	J25TR39C	Tool Roll	





# Wrenches




**M**ETRIC

## **SET NO. J1200F-MBASP - 15 PC. METRIC PROTOBLACK™ COMBINATION ASD WRENCH SET - 12 POINT**

- Non-reflective ProtoBlack™ finish for use where non-plated products are required.
- 12 point box end allows for fine indexing, helping to improve speed and access. Fits 4, 6 and 12 point fasteners.
- Anti-Slip Design (ASD) open end.
- Patented locking grooves help prevent the wrench from slipping off the fastener when turning.
- The arched surfaces are designed to spread the contact forces over a greater area.
- Loads are kept off the corners of the fastener which helps prevent fastener rounding.
- Metric sizes 9mm and smaller do not have ASD feature.
- Box ends incorporate the TorquePlus™ system.
- Proto® TorquePlus™ wrenches are ideal for use on stubborn or damaged fasteners, and also on fasteners made from soft materials.
- The TorquePlus™ design is a high performance drive configuration which allows for quick and easy wrench engagement to the fastener flats, not the corners.
- The TorquePlus™ configuration employs a radius-corner design, shifting contact area and stress away from the fastener corners and distributing contact stresses over a large area of the box end, minimizing slippage.
- The TorquePlus™ internal design minimizes fastener rounding, helps to extend fastener life, and allows the user to more easily turn worn, rounded, or rusted fasteners.
- Weight: 5.10 lbs.



Product ID No.	Contents	 mm	Length
<b>J1200F-MBASP</b>	J1207MBA	7	131.1
	J1208MBA	8	137.4
	J1209MBA	9	143.8
	J1210MBASP	10	150.1
	J1211MBASP	11	175.5
	J1212MBASP	12	195.8
	J1213MBASP	13	200.9
	J1214MBASP	14	223.8
	J1215MBASP	15	232.4
	J1216MBASP	16	242.4
	J1217MBASP	17	261.3
	J1218MBASP	18	271.3
	J1219MBASP	19	280.2
	J1220MBASP	20	290.2
	J1221MBASP	21	300.2
J25TR40C	Tool Roll		

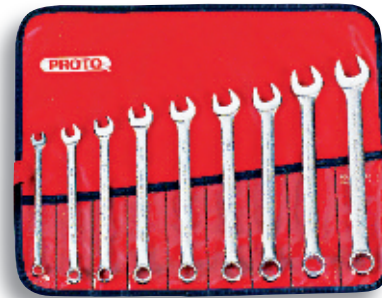



# Wrenches

## SET NO. J1200H-MASD - 9 PC. METRIC COMBINATION ASD WRENCH SET - 12 POINT

**M**ETRIC

- Satin finish provides corrosion resistance and a slip resistant grip.
- 12 point box end allows for fine indexing, helping to improve speed and access. Fits 4, 6 and 12 point fasteners.
- Anti-Slip Design (ASD) open end.
- Patented locking grooves help prevent the wrench from slipping off the fastener when turning.
- The arched surfaces are designed to spread the contact forces over a greater area.
- Loads are kept off the corners of the fastener which helps prevent fastener rounding.
- Metric sizes 9mm and smaller do not have ASD feature.
- Box ends incorporate the TorquePlus™ system.
- Proto® TorquePlus™ wrenches are ideal for use on stubborn or damaged fasteners, and also on fasteners made from soft materials.
- The TorquePlus™ design is a high performance drive configuration which allows for quick and easy wrench engagement to the fastener flats, not the corners.
- The TorquePlus™ configuration employs a radius-corner design, shifting contact area and stress away from the fastener corners and distributing contact stresses over a large area of the box end, minimizing slippage.
- The TorquePlus™ internal design minimizes fastener rounding, helps to extend fastener life, and allows the user to more easily turn worn, rounded, or rusted fasteners.
- Weight: 1.43 lbs.



Product ID No.	Contents	 mm	Length
<b>J1200H-MASD</b>	J1207MA	7	131.1
	J1208MA	8	137.4
	J1209MA	9	143.8
	J1210MASD	10	150.1
	J1211MASD	11	175.5
	J1212MASD	12	195.8
	J1213MASD	13	200.9
	J1214MASD	14	223.8
	J1215MASD	15	232.4
	J25TR38C	Tool Roll	



# Wrenches




## SET NO. J1200MHASD - 10 PC. METRIC COMBINATION ASD WRENCH SET - 6 POINT

**M**ETRIC

- Satin finish provides corrosion resistance and a slip resistant grip.
- 6 point box end allows for large wrench to fastener contact area which helps prevent rounding of the fastener.
- Anti-Slip Design (ASD) open end.
- Patented locking grooves help prevent the wrench from slipping off the fastener when turning.
- The arched surfaces are designed to spread the contact forces over a greater area.
- Loads are kept off the corners of the fastener which helps prevent fastener rounding.
- Box ends incorporate the TorquePlus™ system.
- Proto® TorquePlus™ wrenches are ideal for use on stubborn or damaged fasteners, and also on fasteners made from soft materials.
- The TorquePlus™ design is a high performance drive configuration which allows for quick and easy wrench engagement to the fastener flats, not the corners.
- The TorquePlus™ configuration employs a radius-corner design, shifting contact area and stress away from the fastener corners and distributing contact stresses over a large area of the box end, minimizing slippage.
- The TorquePlus™ internal design minimizes fastener rounding, helps to extend fastener life, and allows the user to more easily turn worn, rounded, or rusted fasteners.
- Weight: 3.46 lbs.



Product ID No.	Contents	 mm	Length
<b>J1200MHASD</b>	J1210MHASD	10	150.1
	J1211MHASD	11	175.5
	J1212MHASD	12	195.8
	J1213MHASD	13	200.9
	J1214MHASD	14	223.8
	J1215MHASD	15	232.4
	J1216MHASD	16	242.4
	J1217MHASD	17	261.3
	J1218MHASD	18	271.3
	J1219MHASD	19	280.2
	J25TR39C	Tool Roll	



# Wrenches

## SET NO. J1200EF - 8 PC. SHORT COMBINATION WRENCH SET

- Satin finish provides corrosion resistance and a slip resistant grip.
- 6 point box end allows for large wrench to fastener contact area which helps prevent rounding of the fastener.
- Compact shank design and short length for access in confined spaces.
- 15° angled offset box end helps keep shank clear of obstructions.
- Standard open end.
- Weight: 0.35 lbs.



Product ID No.	Contents	in.	Length
<b>J1200EF</b>	J1204EF	1/8"	2-49/64"
	J1205EF	5/32"	2-57/64"
	J1206EF	3/16"	3-1/64"
	J1208EF	1/4"	3-17/64"
	J1209EF	9/32"	3-7/16"
	J1210EF	5/16"	4-1/8"
	J1211EF	11/32"	4-7/16"
	J1212EF	3/8"	4-5/8"
	J25TR12C	Tool Roll	

## SET NO. FM-39.JE16T FACOM® 16 PC. METRIC OPEN END SHORT WRENCH SET

**M**ETRIC

- Short shank and compact heads help improve access to tight spots.
- Box end angled at 15°.
- 12 point box end allows for fine indexing, helping to improve speed and access.
- 6 point box end allows for large wrench to fastener contact area which helps prevent rounding the fastener.
- Fits 4, 6 and 12 point fasteners.
- Satin finish provides corrosion resistance and a slip resistant grip.
- Weight: 1.58 lbs.

**FACOM**



Product ID No.	Contents	Point Size	mm	Length
<b>FM-39.JE16T</b>	FM-39.3.2H	6	3.2	77
	FM-39.4H	6	4	77
	FM-39.5H	6	5	82
	FM-39.5.5H	6	5.5	84
	FM-39.6	12	6	90
	FM-39.7	12	7	90
	FM-39.8	12	8	94
	FM-39.9	12	9	98
	FM-39.10	12	10	103
	FM-39.11	12	11	109
	FM-39.12	12	12	127
	FM-39.13	12	13	141
	FM-39.14	12	14	147
	FM-39.15	12	15	152
	FM-39.16	12	16	158
	FM-39.17	12	17	165





# Wrenches

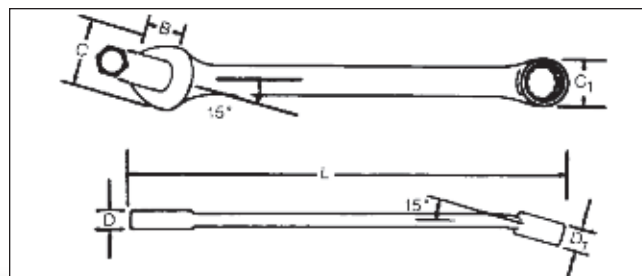


## COMBINATION WRENCHES - 6 POINT - SATIN FINISH

- Satin finish provides corrosion resistance and a slip resistant grip.
- 6 point box end allows for large wrench to fastener contact area which helps prevent rounding of the fastener.
- Anti-Slip Design (ASD) open end.
- Patented locking grooves help prevent the wrench from slipping off the fastener when turning.
- The arched surfaces are designed to spread the contact forces over a greater area.
- Loads are kept off the corners of the fastener which helps prevent fastener rounding.
- Box ends incorporate the TorquePlus™ system.
- Proto® TorquePlus™ wrenches are ideal for use on stubborn or damaged fasteners, and also on fasteners made from soft materials.
- The TorquePlus™ design is a high performance drive configuration which allows for quick and easy wrench engagement to the fastener flats, not the corners.
- The TorquePlus™ configuration employs a radius-corner design, shifting contact area and stress away from the fastener corners and distributing contact stresses over a large area of the box end, minimizing slippage.
- The TorquePlus™ internal design minimizes fastener rounding, helps to extend fastener life, and allows the user to more easily turn worn, rounded, or rusted fasteners.



Product ID No.	in.	B	C	D	C1	D1	L	Weight lbs.	ASME Spec.
J1212HASD	3/8"	13/32"	13/16"	3/16"	39/64"	5/16"	6"	0.10 lbs.	ASME B107.100
J1214HASD	7/16"	17/32"	15/16"	15/64"	43/64"	21/64"	7"	0.14 lbs.	ASME B107.100
J1216HASD	1/2"	39/64"	1-5/64"	1/4"	49/64"	11/32"	8"	0.18 lbs.	ASME B107.100
J1218HASD	9/16"	11/16"	1-3/16"	9/32"	27/32"	23/64"	8-7/8"	0.21 lbs.	ASME B107.100
J1220HASD	5/8"	3/4"	1-21/64"	19/64"	15/16"	13/32"	9-1/2"	0.29 lbs.	ASME B107.100
J1222HASD	11/16"	13/16"	1-29/64"	5/16"	1-1/64"	7/16"	10-1/4"	0.35 lbs.	ASME B107.100
J1224HASD	3/4"	57/64"	1-37/64"	11/32"	1-3/32"	15/32"	11"	0.41 lbs.	ASME B107.100
J1226HASD	13/16"	31/32"	1-11/16"	23/64"	1-11/64"	1/2"	11-7/8"	0.54 lbs.	ASME B107.100
J1228HASD	7/8"	1-1/16"	1-13/16"	3/8"	1-1/4"	33/64"	12-1/2"	0.64 lbs.	ASME B107.100
J1230HASD	15/16"	1-1/8"	1-29/32"	13/32"	1-27/64"	37/64"	13-1/4"	0.74 lbs.	ASME B107.100
J1232HASD	1"	1-13/64"	2-1/64"	13/32"	1-13/32"	37/64"	14"	0.95 lbs.	ASME B107.100

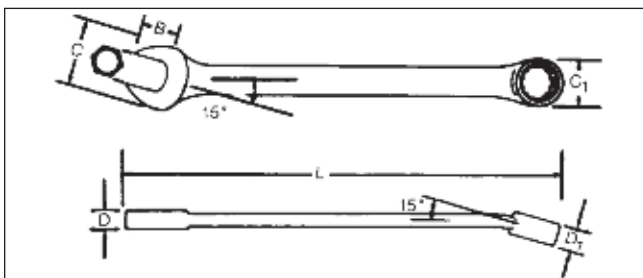




# Wrenches


## COMBINATION WRENCHES - 12 POINT - SATIN FINISH

- Satin finish provides corrosion resistance and a slip resistant grip.
- 12 point box end allows for fine indexing, helping to improve speed and access. Fits 4, 6 and 12 point fasteners.
- Fractional sizes 11/32" and smaller and sizes 1-5/16" and larger do not have the ASD feature.
- Anti-Slip Design (ASD) open end
  - Patented locking grooves help prevent the wrench from slipping off the fastener when turning.
  - The arched surfaces are designed to spread the contact forces over a greater area.
  - Loads are kept off the corners of the fastener which helps prevent fastener rounding.
- Box ends incorporate the TorquePlus™ system.
- Proto® TorquePlus™ wrenches are ideal for use on stubborn or damaged fasteners, and also on fasteners made from soft materials.
- The TorquePlus™ design is a high performance drive configuration which allows for quick and easy wrench engagement to the fastener flats, not the corners.
- The TorquePlus™ configuration employs a radius-corner design, shifting contact area and stress away from the fastener corners and distributing contact stresses over a large area of the box end, minimizing slippage.
- The TorquePlus™ internal design minimizes fastener rounding, helps to extend fastener life, and allows the user to more easily turn worn, rounded, or rusted fasteners.



# Wrenches



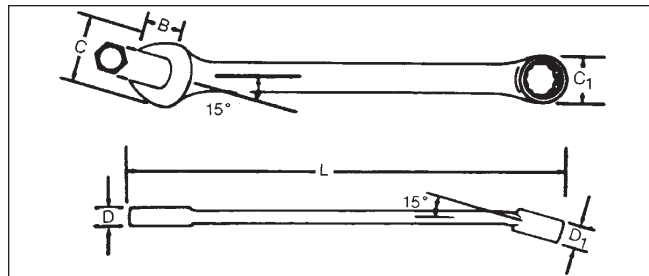
Product ID No.	 in.	B	C	D	C1	D1	L	Weight lbs.	ASME Spec.
<b>J1208A</b>	1/4"	19/64"	39/64"	3/16"	27/64"	15/64"	4-7/8"	0.04 lbs.	ASME B107.100
<b>J1210A</b>	5/16"	3/8"	45/64"	3/16"	33/64"	17/64"	5-3/8"	0.08 lbs.	ASME B107.100
<b>J1211A</b>	11/32"	13/32"	25/32"	3/16"	17/32"	7/32"	5-5/8"	0.08 lbs.	ASME B107.100
<b>J1212ASD</b>	3/8"	13/32"	13/16"	3/16"	39/64"	5/16"	6"	0.11 lbs.	ASME B107.100
<b>J1214ASD</b>	7/16"	17/32"	15/16"	15/64"	43/64"	21/64"	7"	0.14 lbs.	ASME B107.100
<b>J1216ASD</b>	1/2"	39/64"	1-5/16"	1/4"	49/64"	11/32"	8"	0.18 lbs.	ASME B107.100
<b>J1218ASD</b>	9/16"	11/16"	1-3/16"	9/32"	24/32"	23/64"	8-7/8"	0.21 lbs.	ASME B107.100
<b>J1220ASD</b>	5/8"	3/4"	1-21/64"	19/64"	15/16"	13/32"	9-1/2"	0.29 lbs.	ASME B107.100
<b>J1222ASD</b>	11/16"	13/16"	1-29/64"	5/16"	1-1/64"	7/16"	10-1/4"	0.35 lbs.	ASME B107.100
<b>J1224ASD</b>	3/4"	57/64"	1-37/64"	11/32"	1-3/32"	15/32"	11"	0.41 lbs.	ASME B107.100
<b>J1226ASD</b>	13/16"	31/32"	1-11/16"	23/64"	1-11/64"	1/2"	11-7/8"	0.54 lbs.	ASME B107.100
<b>J1228ASD</b>	7/8"	1-1/16"	1-13/16"	3/8"	1-1/4"	33/64"	12-1/2"	0.65 lbs.	ASME B107.100
<b>J1230ASD</b>	15/16"	1-1/8"	1-29/32"	13/32"	1-27/64"	37/64"	13-1/4"	0.74 lbs.	ASME B107.100
<b>J1232ASD</b>	1"	1-13/64"	2-1/64"	13/32"	1-13/32"	37/64"	14"	0.95 lbs.	ASME B107.100
<b>J1234ASD</b>	1-1/16"	1-9/32"	2-9/64"	29/64"	1-31/64"	39/64"	15-1/4"	1.13 lbs.	ASME B107.100
<b>J1236ASD</b>	1-1/8"	1-23/64"	2-17/64"	15/32"	1-21/32"	41/64"	15-7/8"	1.38 lbs.	ASME B107.100
<b>J1240ASD</b>	1-1/4"	1-1/2"	2-33/64"	33/64"	1-3/4"	45/64"	16-7/8"	1.89 lbs.	ASME B107.100
<b>J1242</b>	1-5/16"	1-37/64"	2-41/64"	17/32"	1-27/32"	47/64"	17-5/8"	2.15 lbs.	ASME B107.100
<b>J1244</b>	1-3/8"	1-21/32"	2-49/64"	35/64"	1-15/16"	25/32"	18-1/2"	2.34 lbs.	ASME B107.100
<b>J1246</b>	1-7/16"	1-47/64"	2-57/64"	37/64"	2-3/64"	51/64"	19-3/8"	2.67 lbs.	ASME B107.100
<b>J1248</b>	1-1/2"	1-51/64"	3-1/64"	39/64"	2-1/8"	53/64"	20-1/4"	3.18 lbs.	ASME B107.100
<b>J1252</b>	1-5/8"	1-63/64"	3-25/64"	21/32"	2-13/32"	29/32"	23"	4.64 lbs.	ASME B107.100
<b>J1254</b>	1-11/16"	1-63/64"	3-25/64"	21/32"	2-13/32"	29/32"	23"	4.74 lbs.	ASME B107.100
<b>J1256</b>	1-3/4"	2-11/64"	3-41/64"	45/64"	2-39/64"	31/32"	25"	5.64 lbs.	ASME B107.100
<b>J1258</b>	1-13/16"	2-11/64"	3-41/64"	45/64"	2-39/64"	31/32"	25"	5.64 lbs.	ASME B107.100
<b>J1260</b>	1-7/8"	2-25/64"	4-1/64"	49/64"	2-57/64"	1-1/16"	28"	7.46 lbs.	ASME B107.100
<b>J1264</b>	2"	2-25/64"	4-1/64"	49/64"	2-57/64"	11/16"	28"	7.35 lbs.	ASME B107.100
<b>J1266</b>	2-1/16"	2-45/64"	4-33/64"	27/32"	3-1/4"	13/16"	29-1/2"	9.88 lbs.	ASME B107.100
<b>J1268</b>	2-1/8"	2-45/64"	4-33/64"	27/32"	3-1/4"	13/16"	29-1/2"	9.74 lbs.	ASME B107.100
<b>J1270</b>	2-3/16"	2-45/64"	4-33/64"	27/32"	3-1/4"	1-3/16"	29-1/2"	9.45 lbs.	ASME B107.100
<b>J1272</b>	2-1/4"	2-45/64"	4-33/64"	27/32"	3-1/4"	1-3/16"	29-1/2"	8.25 lbs.	ASME B107.100
<b>J1276</b>	2-3/8"	2-55/64"	5"	31/32"	3-5/8"	1"-5/16"	31-1/2"	13.12 lbs.	ASME B107.100
<b>J1280</b>	2-1/2"	3"	5"	31/32"	3-5/8"	1"-5/16"	31-1/2"	12.49 lbs.	ASME B107.100



# Wrenches

## COMBINATION WRENCHES - 12 POINT - FULL POLISH

- Full polish finish provides corrosion resistance and easy to clean surfaces.
- 12 point box end allows for fine indexing, helping to improve speed and access. Fits 4, 6, and 12 point fasteners.
- Anti-Slip Design (ASD) open end.
- Patented locking grooves help prevent the wrench from slipping off the fastener when turning.
- The arched surfaces are designed to spread the contact forces over a greater area.
- Loads are kept off the corners of the fastener which helps prevent fastener rounding.
- Fractional sizes 11/32" and smaller do not have the ASD feature.
- Box ends incorporate the TorquePlus™ system.
- Proto® TorquePlus™ wrenches are ideal for use on stubborn or damaged fasteners, and also on fasteners made from soft materials.
- The TorquePlus™ design is a high performance drive configuration which allows for quick and easy wrench engagement to the fastener flats, not the corners.
- The TorquePlus™ configuration employs a radius-corner design, shifting contact area and stress away from the fastener corners and distributing contact stresses over a large area of the box end, minimizing slippage.
- The TorquePlus™ internal design minimizes fastener rounding, helps to extend fastener life, and allows the user to more easily turn worn, rounded, or rusted fasteners.



Product ID No.	in.	B	C	D	C1	D1	L	Weight lbs.	ASME Spec.
J1210-T500	5/16"	3/8"	45/64"	3/16"	33/64"	17/64"	5-3/8"	0.08 lbs.	ASME B107.100
J1211-T500	11/32"	13/32"	25/32"	3/16"	17/32"	7/32"	5-5/8"	0.08 lbs.	ASME B107.100
J1212-T500	3/8"	13/32"	13/16"	3/16"	39/64"	5/16"	6"	0.10 lbs.	ASME B107.100
J1214-T500	7/16"	17/32"	15/16"	15/64"	43/64"	21/64"	7"	0.14 lbs.	ASME B107.100
J1216-T500	1/2"	39/64"	1-5/64"	1/4"	49/64"	11/32"	8"	0.20 lbs.	ASME B107.100
J1218-T500	9/16"	11/16"	1-3/16"	9/32"	27/32"	23/64"	8-7/8"	0.27 lbs.	ASME B107.100
J1220-T500	5/8"	3/4"	1-21/64"	19/64"	15/16"	13/32"	9-1/2"	0.35 lbs.	ASME B107.100
J1222-T500	11/16"	13/16"	1-29/64"	5/16"	1-1/64"	7/16"	10-1/4"	0.38 lbs.	ASME B107.100
J1224-T500	3/4"	57/64"	1-37/64"	11/32"	1-3/32"	15/32"	11"	0.52 lbs.	ASME B107.100
J1226-T500	13/16"	31/32"	1-11/16"	23/64"	1-11/64"	1/2"	11-7/8"	0.54 lbs.	ASME B107.100
J1228-T500	7/8"	1-1/16"	1-13/16"	3/8"	1-1/4"	33/64"	12-1/2"	0.65 lbs.	ASME B107.100
J1230-T500	15/16"	1-1/8"	1-29/32"	13/32"	1-27/64"	37/64"	13-1/4"	0.74 lbs.	ASME B107.100
J1232-T500	1"	1-13/64"	2-1/64"	13/32"	1-13/32"	37/64"	14"	0.95 lbs.	ASME B107.100
J1234-T500	1-1/16"	1-9/32"	2-9/64"	29/64"	1-31/64"	39/64"	15-1/4"	1.13 lbs.	ASME B107.100
J1236-T500	1-1/8"	1-23/64"	2-17/64"	15/32"	1-21/32"	41/64"	15-7/8"	1.38 lbs.	ASME B107.100
J1240-T500	1-1/4"	1-1/2"	2-33/64"	33/64"	1-3/4"	45/64"	16-7/8"	1.89 lbs.	ASME B107.100





# Wrenches



## COMBINATION WRENCHES - 12 POINT - PROTOBLACK™

- Non-reflective ProtoBlack™ finish for use where non-plated products are required.
- 12 point box end allows for fine indexing, helping to improve speed and access. Fits 4, 6 and 12 point fasteners.
- The box end is countersunk for easy application to the fastener.
- 15° angled offset box end helps keep shank clear of obstructions.
- Inch sizes 1-5/16" and larger do not have ASD feature.
- Box ends incorporate the TorquePlus™ system.
- Proto® TorquePlus™ wrenches are ideal for use on stubborn or damaged fasteners, and also on fasteners made from soft materials.
- The TorquePlus™ design is a high performance drive configuration which allows for quick and easy wrench engagement to the fastener flats, not the corners.
- The TorquePlus™ configuration employs a radius-corner design, shifting contact area and stress away from the fastener corners and distributing contact stresses over a large area of the box end, minimizing slippage.
- The TorquePlus™ internal design minimizes fastener rounding, helps to extend fastener life, and allows the user to more easily turn worn, rounded, or rusted fasteners.



Product ID No.	in.	B	C	D	C1	D1	L	Weight lbs.	ASME Spec.
J1212BASD	3/8"	27/64"	13/16"	7/32"	39/64"	5/16"	6"	0.10 lbs.	ASME B107.100
J1214BASD	7/16"	17/32"	15/16"	1/4"	43/64"	21/64"	7"	0.22 lbs.	ASME B107.100
J1216BASD	1/2"	39/64"	1-5/64"	17/64"	49/64"	11/32"	8-7/8"	0.26 lbs.	ASME B107.100
J1218BASD	9/16"	11/16"	1-3/16"	19/64"	27/32"	23/64"	8-7/8"	0.21 lbs.	ASME B107.100
J1220BASD	5/8"	3/4"	1-21/64"	5/16"	15/16"	13/32"	9-1/2"	0.29 lbs.	ASME B107.100
J1222BASD	11/16"	13/16"	1-29/64"	11/32"	1-1/4"	7/16"	10-1/4"	0.35 lbs.	ASME B107.100
J1224BASD	3/4"	57/64"	1-37/64"	23/64"	1-3/32"	15/32"	11"	0.41 lbs.	ASME B107.100
J1226BASD	13/16"	31/32"	1-11/16"	3/8"	1-11/64"	1/2"	11-7/8"	0.54 lbs.	ASME B107.100
J1228BASD	7/8"	1-1/16"	1-13/16"	13/32"	1-1/4"	17/32"	12-1/2"	0.64 lbs.	ASME B107.100
J1230BASD	15/16"	1-1/8"	1-29/32"	1/8"	1-11/32"	9/16"	13-1/4"	0.74 lbs.	ASME B107.100
J1232BASD	1"	1-13/64"	2-1/64"	29/64"	1-13/32"	19/32"	14"	0.95 lbs.	ASME B107.100
J1234BASD	1-1/16"	1-9/32"	2-9/64"	15/32"	1-31/64"	5/8"	15-1/4"	1.13 lbs.	ASME B107.100
J1236BASD	1-1/8"	1-23/64"	2-17/64"	33/64"	1-21/32"	41/64"	15-7/8"	1.38 lbs.	ASME B107.100
J1240BASD	1-1/4"	1-1/2"	2-33/64"	17/32"	1-3/4"	45/64"	16-7/8"	1.89 lbs.	ASME B107.100
J1242B	1-5/16"	1-37/64"	2-41/64"	17/32"	2-1/8"	47/64"	17-5/8"	2.15 lbs.	ASME B107.100
J1244B	1-3/8"	1-21/32"	2-49/64"	35/64"	1-15/76"	25/32"	18-1/2"	2.34 lbs.	ASME B107.100
J1246B	1-7/16"	1-47/64"	2-57/64"	37/64"	23/64"	51/64"	19-3/8"	2.67 lbs.	ASME B107.100
J1248B	1-1/2"	1-3/4"	3"	5/8"	2-1/8"	53/64"	20-1/8"	2.15 lbs.	ASME B107.100
J1252B	1-5/8"	1-63/64"	3-25/64"	21/32"	2-13/32"	29/32"	23"	4.64 lbs.	ASME B107.100
J1254B	1-11/16"	1-63/64"	3-25/64"	21/32"	2-13/32"	29/32"	23"	4.74 lbs.	ASME B107.100
J1256B	1-3/4"	2-11/64"	3-41/64"	45/64"	2-39/64"	31/32"	25"	5.64 lbs.	ASME B107.100
J1258B	1-13/16"	2-11/64"	3-41/64"	45/64"	2-39/64"	31/32"	25"	5.59 lbs.	ASME B107.100
J1260B	1-7/8"	2-25/64"	4-1/64"	49/64"	2-57/64"	1-1/16"	28"	7.46 lbs.	ASME B107.100
J1264B	2"	2-25/64"	4-1/64"	49/64"	2-57/64"	1-1/16"	28"	7.35 lbs.	ASME B107.100




# Wrenches

## SHORT COMBINATION WRENCHES - 6 POINT - SATIN FINISH

- Satin finish provides corrosion resistance and a slip resistant grip.
- 6 point box end allows for large wrench to fastener contact area which helps prevent rounding of the fastener.
- Compact shank design and short length for access in confined spaces.
- 15° angled offset box end helps keep shank clear of obstructions.
- Standard open end.




Product ID No.	 in.	B	C	D	C1	D1	L	Weight lbs.	ASME Spec.
J1204EF	1/8"	11/64"	11/32"	1/8"	9/32"	1/8"	2-49/64"	0.01 lbs.	ASME B107.100
J1205EF	5/32"	13/64"	13/32"	1/8"	19/64"	1/8"	2-57/64"	0.01 lbs.	ASME B107.100
J1206EF	3/16"	15/64"	15/32"	1/8"	11/32"	5/32"	3-1/64"	0.02 lbs.	ASME B107.100
J1207EF	7/32"	1/4"	1/8"	1/8"	3/8"	5/32"	3-1/8"	0.02 lbs.	ASME B107.100
J1208EF	1/4"	19/64"	9/16"	5/32"	27/64"	3/16"	3-17/64"	0.03 lbs.	ASME B107.100
J1209EF	9/32"	21/64"	5/8"	5/32"	7/16"	3/16"	3-7/16"	0.04 lbs.	ASME B107.100
J1210EF	5/16"	3/8"	11/16"	5/32"	1/2"	1/4"	4-1/8"	0.04 lbs.	ASME B107.100
J1211EF	11/32"	25/64"	47/64"	3/16"	17/32"	1/4"	4-7/16"	0.05 lbs.	ASME B107.100
J1212EF	3/8"	7/16"	53/64"	3/16"	37/64"	1/4"	4-5/8"	0.07 lbs.	ASME B107.100
J1214EF	7/16"	33/64"	7/8"	7/32"	5/8"	9/32"	5-1/16"	0.12 lbs.	ASME B107.100
J1216EF	1/2"	19/32"	1"	7/32"	3/4"	5/16"	5-1/4"	0.16 lbs.	ASME B107.100
J1218EF	9/16"	43/64"	1-1/8"	1/4"	51/64"	11/32"	5-7/8"	0.16 lbs.	ASME B107.100
J1220EF	5/8"	47/64"	1-17/64"	9/32"	57/64"	3/8"	6-3/16"	0.17 lbs.	ASME B107.100

## SHORT COMBINATION WRENCHES - 12 POINT - SATIN FINISH

- Satin finish provides corrosion resistance and a slip resistant grip.
- 12 point box end allows for fine indexing, helping to improve speed and access. Fits 4, 6 and 12 point fasteners.
- Compact shank design and short length for access in confined spaces.
- 15° angled offset box end helps keep shank clear of obstructions.
- Standard open end.



Product ID No.	 in.	B	C	D	C1	D1	L	Weight lbs.	ASME Spec.
J1208TF	1/4"	19/64"	17/32"	1/8"	25/64"	5/16"	3-1/4"	0.02 lbs.	ASME B107.100
J1210TF	5/16"	3/8"	41/64"	3/16"	5/32"	7/32"	3-1/2"	0.04 lbs.	ASME B107.100
J1212TF	3/8"	7/16"	3/4"	13/64"	35/64"	1/4"	4-1/4"	0.07 lbs.	ASME B107.100
J1214TF	7/16"	33/64"	7/8"	15/64"	5/8"	17/64"	5-1/16"	0.10 lbs.	ASME B107.100
J1216TF	1/2"	19/32"	1"	1/4"	23/64"	19/64"	5-11/16"	0.11 lbs.	ASME B107.100
J1218TF	9/16"	43/64"	1-1/8"	9/32"	51/64"	21/64"	5-13/16"	0.16 lbs.	ASME B107.100
J1220TF	5/8"	47/64"	1-17/64"	23/64"	57/64"	11/32"	6-3/16"	0.18 lbs.	ASME B107.100
J1222TF	11/16"	13/16"	1-25/64"	11/32"	31/32"	3/8"	7-1/16"	0.23 lbs.	ASME B107.100
J1224TF	3/4"	57/64"	1-33/64"	3/8"	1-3/64"	13/32"	8-1/16"	0.33 lbs.	ASME B107.100



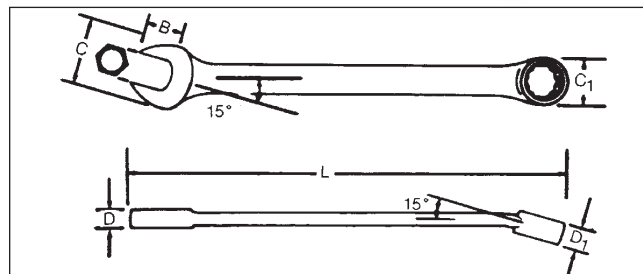
# Wrenches



**M**ETRIC

## METRIC COMBINATION WRENCHES - 6 POINT - SATIN FINISH

- Satin finish provides corrosion resistance and a slip resistant grip.
- 6 point box end allows for large wrench to fastener contact area which helps prevent rounding of the fastener.
- Anti-Slip Design (ASD) open end.
- Patented locking grooves help prevent the wrench from slipping off the fastener when turning.
- The arched surfaces are designed to spread the contact forces over a greater area.
- Loads are kept off the corners of the fastener which helps prevent fastener rounding.
- Metric sizes 9mm and smaller do not have ASD feature.
- Box ends incorporate the TorquePlus™ system.
- Proto® TorquePlus™ wrenches are ideal for use on stubborn or damaged fasteners, and also on fasteners made from soft materials.
- The TorquePlus™ design is a high performance drive configuration which allows for quick and easy wrench engagement to the fastener flats, not the corners.
- The TorquePlus™ configuration employs a radius-corner design, shifting contact area and stress away from the fastener corners and distributing contact stresses over a large area of the box end, minimizing slippage.
- The TorquePlus™ internal design minimizes fastener rounding, helps to extend fastener life, and allows the user to more easily turn worn, rounded, or rusted fasteners.



Product ID No.	mm	B	C	D	Cl	D1	L	Weight lbs.	ASME Spec.
J1207MHA	7	7.7	15.4	4.3	11.1	4.8	122.6	0.04 lbs.	ASME B107.100
J1208MHA	8	9.7	17.6	4.4	12.4	5.1	137.4	0.07 lbs.	ASME B107.100
J1209MHA	9	10.5	19.6	4.6	13.6	5.6	143.8	0.08 lbs.	ASME B107.100
J1210MHASD	10	12.3	22.2	5.6	16.3	7.9	150.1	0.13 lbs.	ASME B107.100
J1211MHASD	11	13.5	23.5	5.9	17.4	8.3	175.5	0.14 lbs.	ASME B107.100
J1212MHASD	12	14.3	25.4	6.4	18.6	8.3	195.8	0.17 lbs.	ASME B107.100
J1213MHASD	13	15.5	26.1	6.4	19.8	8.7	200.9	0.18 lbs.	ASME B107.100
J1214MHASD	14	17.4	30.1	7.1	21.8	9.1	223.8	0.22 lbs.	ASME B107.100
J1215MHASD	15	19.1	31.7	7.5	22.6	9.3	232.4	0.25 lbs.	ASME B107.100
J1216MHASD	16	19.3	33.9	7.9	23.8	10.3	242.4	0.26 lbs.	ASME B107.100
J1217MHASD	17	21.0	36.8	8.3	26.1	11.1	261.3	0.38 lbs.	ASME B107.100
J1218MHASD	18	21.8	38.4	8.7	27.2	11.1	271.3	0.41 lbs.	ASME B107.100
J1219MHASD	19	23.0	40.1	8.8	28.1	12.3	280.2	0.46 lbs.	ASME B107.100

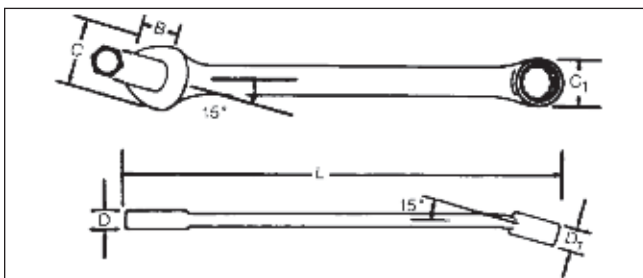


# Wrenches

## METRIC COMBINATION WRENCHES - 12 POINT - SATIN FINISH

**M**ETRIC


- Satin finish provides corrosion resistance and a slip resistant grip.
- 12 point box end allows for fine indexing, helping to improve speed and access. Fits 4, 6 and 12 point fasteners.
- Anti-Slip Design (ASD) Open End
  - Patented locking grooves help prevent the wrench from slipping off the fastener when turning.
  - The arched surfaces are designed to spread the contact forces over a greater area
  - Loads are kept off the corners of the fastener which helps prevent fastener rounding.
- Metric sizes 9mm and smaller and sizes 36mm and larger do not have the ASD feature.
- Box ends incorporate the TorquePlus™ system.
- Proto® TorquePlus™ wrenches are ideal for use on stubborn or damaged fasteners, and also on fasteners made from soft materials.
- The TorquePlus™ design is a high performance drive configuration which allows for quick and easy wrench engagement to the fastener flats, not the corners.
- The TorquePlus™ configuration employs a radius-corner design, shifting contact area and stress away from the fastener corners and distributing contact stresses over a large area of the box end, minimizing slippage.
- The TorquePlus™ internal design minimizes fastener rounding, helps to extend fastener life, and allows the user to more easily turn worn, rounded, or rusted fasteners.





# Wrenches



Product ID No.		B	C	D	C1	D1	L	Weight lbs.	ASME Spec.
<b>J1206MA</b>	6	7.7	14.0	4.1	9.9	4.1	124.6	0.05 lbs.	ASME B107.100
<b>J1207MA</b>	7	7.9	15.1	4.4	10.3	5.9	131.1	0.06 lbs.	ASME B107.100
<b>J1208MA</b>	8	9.9	17.4	4.7	12.7	6.8	137.4	0.07 lbs.	ASME B107.100
<b>J1209MA</b>	9	10.3	19.1	4.7	13.9	6.8	143.8	0.08 lbs.	ASME B107.100
<b>J1210MASD</b>	10	12.3	22.2	5.6	16.5	7.9	150.1	0.11 lbs.	ASME B107.100
<b>J1211MASD</b>	11	13.1	23.4	5.9	17.4	8.3	175.5	0.15 lbs.	ASME B107.100
<b>J1212MASD</b>	12	14.3	25.4	6.4	18.6	8.7	195.8	0.18 lbs.	ASME B107.100
<b>J1213MASD</b>	13	15.5	26.1	6.4	19.8	8.7	200.9	0.21 lbs.	ASME B107.100
<b>J1214MASD</b>	14	17.4	30.1	7.1	21.8	9.1	223.8	0.29 lbs.	ASME B107.100
<b>J1215MASD</b>	15	19.1	31.7	7.5	22.2	9.1	232.4	0.25 lbs.	ASME B107.100
<b>J1216MASD</b>	16	19.1	33.7	7.9	23.8	10.3	242.4	0.26 lbs.	ASME B107.100
<b>J1217MASD</b>	17	21.0	35.5	8.3	26.1	11.1	261.3	0.38 lbs.	ASME B107.100
<b>J1218MASD</b>	18	21.8	38.4	8.7	26.9	11.5	271.3	0.41 lbs.	ASME B107.100
<b>J1219MASD</b>	19	23.0	40.1	8.7	28.1	11.9	280.2	0.46 lbs.	ASME B107.100
<b>J1220MASD</b>	20	25.0	42.9	9.1	30.1	12.3	290.2	0.55 lbs.	ASME B107.100
<b>J1221MASD</b>	21	25.0	42.9	9.1	30.1	12.3	300.2	0.54 lbs.	ASME B107.100
<b>J1222MASD</b>	22	26.5	45.4	9.5	32.1	12.7	318.1	0.62 lbs.	ASME B107.100
<b>J1223MASD</b>	23	28.5	48.2	10.3	34.0	13.9	328.1	0.77 lbs.	ASME B107.100
<b>J1224MASD</b>	24	28.5	48.2	10.3	34.0	13.9	338.0	0.77 lbs.	ASME B107.100
<b>J1225MASD</b>	25	30.5	50.8	10.7	36.0	15.1	357.0	0.85 lbs.	ASME B107.100
<b>J1226MASD</b>	26	30.5	51.1	10.7	36.0	15.1	372.0	0.97 lbs.	ASME B107.100
<b>J1227MASD</b>	27	30.9	54.3	11.5	37.9	15.5	386.9	1.17 lbs.	ASME B107.100
<b>J1228MASD</b>	28	34.5	57.4	11.9	42.1	16.3	394.9	1.37 lbs.	ASME B107.100
<b>J1229MASD</b>	29	34.5	57.5	11.9	42.1	16.3	402.9	1.39 lbs.	ASME B107.100
<b>J1230MASD</b>	30	34.5	57.5	11.9	42.1	16.3	402.9	1.41 lbs.	ASME B107.100
<b>J1232MASD</b>	32	38.1	64.0	13.1	44.8	17.9	429.7	1.82 lbs.	ASME B107.100
<b>J1236M</b>	36	44.1	73.5	13.5	51.9	20.2	492.1	2.77 lbs.	ASME B107.100
<b>J1241M</b>	41	51.1	86.1	16.3	61.6	23.4	584.2	4.34 lbs.	ASME B107.100
<b>J1246M</b>	46	55.1	92.5	17.0	66.4	24.6	635.0	5.50 lbs.	ASME B107.100
<b>J1250M</b>	50	60.9	102.0	18.5	73.3	27.0	711.0	6.97 lbs.	ASME B107.100



# Wrenches

## METRIC COMBINATION WRENCHES - 12 POINT - FULL POLISH

**M**ETRIC

- Full polish finish provides corrosion resistance and easy to clean surfaces.
- 12 point box end allows for fine indexing, helping to improve speed and access. Fits 4, 6 and 12 point fasteners.
- Anti-Slip Design (ASD) open end
  - Patented locking grooves help prevent the wrench from slipping off the fastener when turning.
  - The arched surfaces are designed to spread the contact forces over a greater area
  - Loads are kept off the corners of the fastener which helps prevent fastener rounding.
- Metric sizes 9mm and smaller do not have ASD feature.
- Box ends incorporate the TorquePlus™ system.
- Proto® TorquePlus™ wrenches are ideal for use on stubborn or damaged fasteners, and also on fasteners made from soft materials.
- The TorquePlus™ design is a high performance drive configuration which allows for quick and easy wrench engagement to the fastener flats, not the corners.
- The TorquePlus™ configuration employs a radius-corner design, shifting contact area and stress away from the fastener corners and distributing contact stresses over a large area of the box end, minimizing slippage.
- The TorquePlus™ internal design minimizes fastener rounding, helps to extend fastener life, and allows the user to more easily turn worn, rounded, or rusted fasteners.



Product ID No.	mm	B	C	D	C1	D1	L	Weight lbs.	ASME Spec.
J1207M-T500	7	7.9	15.1	4.4	10.3	5.9	131.1	0.04 lbs.	ASME B107.100
J1208M-T500	8	9.9	17.4	4.7	12.7	6.8	137.4	0.07 lbs.	ASME B107.100
J1209M-T500	9	10.3	19.1	4.7	13.9	6.8	143.8	0.08 lbs.	ASME B107.100
J1210M-T500	10	12.3	22.2	5.6	16.5	7.9	150.1	0.13 lbs.	ASME B107.100
J1211M-T500	11	13.1	23.4	5.9	17.4	8.3	175.5	0.14 lbs.	ASME B107.100
J1212M-T500	12	14.3	25.4	6.4	18.6	8.7	195.8	0.17 lbs.	ASME B107.100
J1213M-T500	13	15.5	26.1	6.4	19.8	8.7	200.9	0.18 lbs.	ASME B107.100
J1214M-T500	14	17.4	30.1	7.1	21.8	9.1	223.8	0.22 lbs.	ASME B107.100
J1215M-T500	15	19.1	31.7	7.5	22.2	9.1	232.4	0.25 lbs.	ASME B107.100
J1216M-T500	16	19.1	33.7	7.9	23.8	10.3	242.4	0.26 lbs.	ASME B107.100
J1217M-T500	17	21.0	35.5	8.3	26.1	11.1	261.3	0.38 lbs.	ASME B107.100
J1218M-T500	18	21.8	38.4	8.7	26.9	11.5	271.3	0.41 lbs.	ASME B107.100
J1219M-T500	19	23.0	40.1	8.7	28.1	11.9	280.2	0.46 lbs.	ASME B107.100
J1220M-T500	20	25.0	42.9	9.1	30.1	12.3	290.2	0.55 lbs.	ASME B107.100
J1221M-T500	21	25.0	42.9	9.1	30.1	12.3	300.2	0.54 lbs.	ASME B107.100
J1222M-T500	22	26.5	45.4	9.5	32.1	12.7	318.1	0.62 lbs.	ASME B107.100
J1224M-T500	24	28.5	48.2	10.3	34.0	13.9	338.0	0.77 lbs.	ASME B107.100



# Wrenches



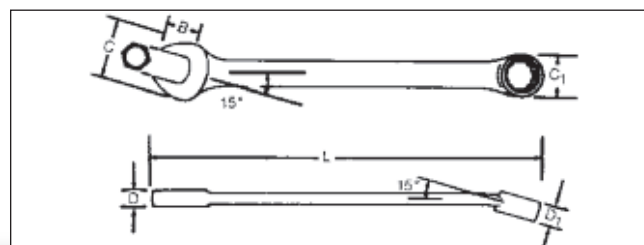
## METRIC COMBINATION WRENCHES - 12 POINT - PROTOBLACK™

**METRIC**

- Non-reflective ProtoBlack™ finish for use where non-plated products are required.
- 12 point box end allows for fine indexing, helping to improve speed and access. Fits 4, 6 and 12 point fasteners.
- The box end is countersunk for easy application to the fastener.
- 15° angled offset box end helps keep shank clear of obstructions.
- Inch sizes 1-5/16" and larger do not have ASD feature.
- Box ends incorporate the TorquePlus™ system.
- Proto® TorquePlus™ wrenches are ideal for use on stubborn or damaged fasteners, and also on fasteners made from soft materials.
- The TorquePlus™ design is a high performance drive configuration which allows for quick and easy wrench engagement to the fastener flats, not the corners.
- The TorquePlus™ configuration employs a radius-corner design, shifting contact area and stress away from the fastener corners and distributing contact stresses over a large area of the box end, minimizing slippage.
- The TorquePlus™ internal design minimizes fastener rounding, helps to extend fastener life, and allows the user to more easily turn worn, rounded, or rusted fasteners.



Product ID No.	mm	B	C	D	C1	D1	Length	Weight lbs.	ASME Spec.
J1207MBA	7	7.9	14.7	4.7	10.7	5.2	131.1	0.04 lbs.	ASME B107.100
J1208MBA	8	9.9	17.4	5.2	13.5	7.1	137.4	0.07 lbs.	ASME B107.100
J1209MBA	9	10.3	18.6	5.2	13.5	7.1	143.8	0.08 lbs.	ASME B107.100
J1210MBASD	10	12.3	22.2	5.9	16.3	7.9	150.1	0.13 lbs.	ASME B107.100
J1211MBASD	11	13.5	23.8	6.4	17.4	8.3	175.5	0.14 lbs.	ASME B107.100
J1212MBASD	12	14.3	28.1	6.4	18.6	8.3	195.8	0.17 lbs.	ASME B107.100
J1213MBASD	13	15.5	26.6	6.8	19.8	8.7	200.9	0.18 lbs.	ASME B107.100
J1214MBASD	14	17.4	30.1	7.5	21.8	9.1	223.8	0.22 lbs.	ASME B107.100
J1215MBASD	15	18.3	31.0	7.5	22.2	9.1	232.4	0.25 lbs.	ASME B107.100
J1216MBASD	16	19.1	33.7	8.3	24.2	10.3	242.4	0.26 lbs.	ASME B107.100
J1217MBASD	17	21.0	36.8	8.7	26.1	11.1	261.3	0.38 lbs.	ASME B107.100
J1218MBASD	18	21.8	38.4	8.3	26.9	11.5	271.3	0.41 lbs.	ASME B107.100
J1219MBASD	19	23.0	40.0	9.1	28.1	11.9	280.2	0.46 lbs.	ASME B107.100
J1220MBASD	20	25.0	42.9	9.9	30.1	12.7	290.2	0.55 lbs.	ASME B107.100
J1221MBASD	21	25.0	42.9	10.3	30.1	12.7	300.2	0.54 lbs.	ASME B107.100
J1222MBASD	22	26.5	45.5	10.3	32.5	13.9	318.1	0.62 lbs.	ASME B107.100
J1223MBASD	23	28.5	48.4	10.3	34.1	14.3	328.1	0.77 lbs.	ASME B107.100
J1224MBASD	24	28.5	49.6	10.3	34.1	14.3	338.0	0.77 lbs.	ASME B107.100





# Wrenches

## FACOM® SHORT COMBINATION WRENCHES METRIC - 6 POINT - SATIN FINISH

METRIC

- Short shank and compact heads help improve access to tight spots.
- Box end angled at 15°.
- Satin finish provides corrosion resistance and a slip resistant grip.



Product ID No.	mm	C	D	C1	D1	Length	Weight lbs.
FM-39.3.2H	3.2	10.0	7.0	3.1	3.1	77	0.02 lbs.
FM-39.4H	4	10.0	8.0	3.1	3.1	77	0.01 lbs.
FM-39.5H	5	11.8	9.0	3.5	4.0	82	0.02 lbs.
FM-39.5.5H	5.5	11.8	9.5	3.5	4.0	84	0.02 lbs.

## FACOM® SHORT COMBINATION WRENCHES METRIC - 12 POINT - SATIN FINISH

METRIC

- Short shank and compact heads help improve access to tight spots.
- Box end angled at 15°.
- 12 point box end allows for fine indexing, helping to improve speed and access.
- Fits 4, 6 and 12 point fasteners.
- Satin finish provides corrosion resistance and a slip resistant grip.



Product ID No.	mm	C	D	C1	D1	Length	Weight lbs.
FM-39.6	6	15.0	10.4	4.1	5.0	90	0.04 lbs.
FM-39.7	7	15.0	11.5	4.1	5.0	90	0.03 lbs.
FM-39.8	8	17.2	12.5	4.5	5.8	94	0.04 lbs.
FM-39.9	9	19.4	14.0	4.8	6.0	98	0.05 lbs.
FM-39.10	10	21.5	15.3	5.1	6.4	103	0.06 lbs.
FM-39.11	11	23.7	16.8	5.3	6.8	109	0.08 lbs.
FM-39.12	12	26.0	18.0	5.5	7.5	127	0.10 lbs.
FM-39.13	13	28.0	19.5	5.8	8.0	141	0.12 lbs.
FM-39.14	14	30.2	20.8	6.0	8.5	147	0.15 lbs.
FM-39.15	15	32.3	22.1	6.4	9.0	152	0.17 lbs.
FM-39.16	16	34.4	23.6	6.7	9.6	158	0.19 lbs.
FM-39.17	17	36.5	25.0	6.9	10.0	165	0.23 lbs.





# Wrenches



## FACOM® VSE OPEN END WRENCHES

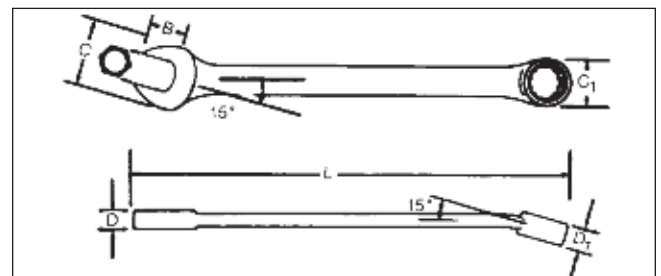
**M**ETRIC

- 2 color warning handle insulation - color changes from orange to yellow if insulation integrity compromised.
- Specific heat treatment and oiled quenching achieve core hardness without embrittlement or distortion.
- Size tolerances applied by Facom® exceed standard specifications.

**FACOM**



Product ID No.	Size	Head Thickness	End 1 Diameter	Length	Weight lbs.
<b>FM-46.8AVSE</b>	8 mm	7/8"	5/16"	4-23/32"	0.07 lbs.
<b>FM-46.9AVSE</b>	9 mm	5/16"	11/32"	4-29/32"	0.09 lbs.
<b>FM-46.10AVSE</b>	10 mm	31/32"	11/32"	5-1/8"	0.11 lbs.
<b>FM-46.11AVSE</b>	11 mm	1-5/32"	13/32"	5-5/16"	0.12 lbs.
<b>FM-46.12AVSE</b>	12 mm	1-3/16"	13/32"	5-5/16"	0.14 lbs.
<b>FM-46.13AVSE</b>	13 mm	1-1/4"	7/16"	5-29/32"	0.17 lbs.
<b>FM-46.14AVSE</b>	14 mm	1-11/32"	7/16"	6-5/16"	0.20 lbs.
<b>FM-46.15AVSE</b>	15 mm	1-13/32"	7/16"	6-5/16"	0.20 lbs.
<b>FM-46.16AVSE</b>	16 mm	1-1/2"	15/32"	6-11/16"	0.26 lbs.
<b>FM-46.17AVSE</b>	17 mm	1-5/8"	15/32"	7-3/32"	0.29 lbs.
<b>FM-46.18AVSE</b>	18 mm	1-21/32"	15/32"	7-3/32"	0.33 lbs.
<b>FM-46.19AVSE</b>	19 mm	1-25/32"	15/32"	7-11/16"	0.34 lbs.





# Wrenches


## FLEX HEAD WRENCHES

- Satin finish provides corrosion resistance and a slip resistant grip.
- 12 point box end allows for fine indexing, helping to improve speed and access. Fits 4, 6 and 12 point fasteners.
- Use the swiveling box end to break or cinch bolts in difficult locations.
- Heat-treated alloy steels produce a shank with high leverage.
- Box ends incorporate the TorquePlus™ system.
- Proto® TorquePlus™ wrenches are ideal for use on stubborn or damaged fasteners, and also on fasteners made from soft materials.
- The TorquePlus™ design is a high performance drive configuration which allows for quick and easy wrench engagement to the fastener flats, not the corners.
- The TorquePlus™ configuration employs a radius-corner design, shifting contact area and stress away from the fastener corners and distributing contact stresses over a large area of the socket end, minimizing slippage.
- The TorquePlus™ internal design minimizes fastener rounding, helps to extend fastener life, and allows the user to more easily turn worn, rounded, or rusted fasteners.

### SET NO. J1270A - 7 PC. FLEX HEAD WRENCH SET - 12 POINT

- Weight: 2.91 lbs.




Product ID No.	Contents	 in.	Length
<b>J1270A</b>	J1270-12	3/8"	6"
	J1270-14	7/16"	6-7/8"
	J1270-16	1/2"	7-3/4"
	J1270-18	9/16"	8-5/8"
	J1270-20	5/8"	9-1/2"
	J1270-22	11/16"	10-3/8"
	J1270-24	3/4"	11-1/4"
	J25TR01C	Tool Roll	



### SET NO. J1270B - 4 PC. FLEX HEAD WRENCH SET - 12 POINT

- Weight: 0.88 lbs.



Product ID No.	Contents	 in.	Length
<b>J1270B</b>	J1270-14	7/16"	6-7/8"
	J1270-16	1/2"	7-3/4"
	J1270-18	9/16"	8-5/8"
	J1270-20	5/8"	9-1/2"
J25TR18C	Tool Roll		




# Wrenches

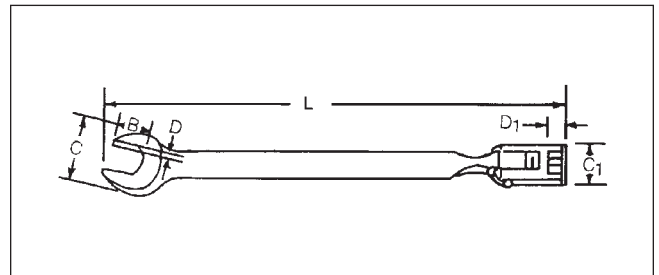


## COMBINATION FLEX HEAD WRENCHES - 12 POINT

- Satin finish provides corrosion resistance and a slip resistant grip.
- 12 point box end allows for fine indexing, helping to improve speed and access. Fits 4, 6 and 12 point fasteners.
- Use the swiveling box end to break or cinch bolts in difficult locations.
- Heat-treated alloy steels produce a shank with high leverage.
- Box ends incorporate the TorquePlus™ system.
- Proto® TorquePlus™ wrenches are ideal for use on stubborn or damaged fasteners, and also on fasteners made from soft materials.
- The TorquePlus™ design is a high performance drive configuration which allows for quick and easy wrench engagement to the fastener flats, not the corners.
- The TorquePlus™ configuration employs a radius-corner design, shifting contact area and stress away from the fastener corners and distributing contact stresses over a large area of the socket end, minimizing slippage.
- The TorquePlus™ internal design minimizes fastener rounding, helps to extend fastener life, and allows the user to more easily turn worn, rounded, or rusted fasteners.



Product ID No.	 in.	B	C	D	C1	D1	L	Weight lbs.
<b>J1270-12</b>	3/8"	27/64"	55/64"	15/64"	5/8"	1/4"	6"	.14 lbs.
<b>J1270-14</b>	7/16"	1/2"	1"	1/4"	41/64"	17/64"	6-7/8"	.20 lbs.
<b>J1270-16</b>	1/2"	37/64"	1-3/32"	9/32"	11/16"	5/16"	7-3/4"	.25 lbs.
<b>J1270-18</b>	9/16"	21/32"	1-15/64"	5/16"	13/16"	21/64"	8-5/8"	.36 lbs.
<b>J1270-20</b>	5/8"	23/32"	1-23/32"	21/64"	7/8"	3/8"	9-1/2"	.46 lbs.
<b>J1270-22</b>	11/16"	51/64"	1-1/2"	11/32"	15/16"	3/8"	10-3/8"	.58 lbs.
<b>J1270-24</b>	3/4"	7/8"	1-41/64"	23/64"	1"	7/16"	11-1/4"	.46 lbs.
<b>J1270-28</b>	7/8"	1-1/64"	1-27/32"	13/32"	1-1/8"	1/2"	13"	.93 lbs.




# Wrenches

## SET NO. JSCV-20S - 20 PC. REVERSING COMBINATION RATCHETING WRENCH SET - SPLINE

- Black chrome finish is corrosion resistant and visually distinctive.
- Fractional spline wrenches can be used on fractional 4, 6, 12 point, spline fasteners and Torx® fasteners.
- The chrome-vanadium switch lever allows for easy changes in turning direction which helps improve speed.
- 15° angled offset box end helps keep shank clear of obstructions.
- Anti-Slip Design (ASD) open end.
- Patented locking grooves help prevent the wrench from slipping off the fastener when turning.
- The arched surfaces are designed to spread the contact forces over a greater area.
- Loads are kept off the corners of the fastener which helps prevent fastener rounding.
- Weight: 16.20 lbs.



Product ID No.	Contents	 in.	Length
<b>JSCV-20S</b>	JSCV07	7/32"	5"
	JSCV08	1/4"	5"
	JSCV09	9/32"	5-1/2"
	JSCV10	5/16"	5-1/2"
	JSCV11	11/32"	5-15/16"
	JSCV12	3/8"	6-1/4"
	JSCV14	7/16"	6-1/2"
	JSCV16	1/2"	7"
	JSCV18	9/16"	7-1/2"
	JSCV20	5/8"	8-3/16"
	JSCV22	11/16"	8-7/8"
	JSCV24	3/4"	9-3/4"
	JSCV26	13/16"	1-17/16"
	JSCV28	7/8"	1-17/16"
	JSCV30	15/16"	12-3/4"
	JSCV32	1"	12-3/4"
	JSCV34	1-1/16"	14-1/8"
	JSCV36	1-1/8"	15-7/8"
	JSCV40	1-1/4"	16-3/4"
	JSCV48	1-1/2"	19-5/16"
JSCV20SP	Tool Roll		




# Wrenches



## REVERSING COMBINATION RATCHETING WRENCHES - SPLINE

- Black chrome finish is corrosion resistant and visually distinctive.
- Fractional spline wrenches can be used on fractional 4, 6, 12 point, spline and Torx® fasteners.
- The chrome-vanadium switch lever allows for easy changes in turning direction which helps improve speed.
- 15° angled offset box end helps keep shank clear of obstructions.
- Anti-Slip Design (ASD) open end
- Patented locking grooves help prevent the wrench from slipping off the fastener when turning.
- The arched surfaces are designed to spread the contact forces over a greater area.
- Loads are kept off the corners of the fastener which helps prevent fastener rounding.



Product ID No.	 in.	Length	Width	Height	Weight lbs.
JSCV07	7/32"	5"	9/16"	1/8"	0.06 lbs.
JSCV08	1/4"	5"	9/16"	1/8"	0.06 lbs.
JSCV09	9/32"	5-1/2"	11/16"	1/8"	0.07 lbs.
JSCV10	5/16"	5-1/2"	11/16"	1/8"	0.07 lbs.
JSCV11	11/32"	5-15/16"	3/4"	1/8"	0.09 lbs.
JSCV12	3/8"	6-1/4"	13/16"	1/8"	0.11 lbs.
JSCV14	7/16"	6-1/2"	15/16"	1/8"	0.14 lbs.
JSCV16	1/2"	7"	1-1/16"	3/16"	0.2 lbs.
JSCV18	9/16"	7-1/2"	1-1/8"	3/16"	0.22 lbs.
JSCV20	5/8"	8-3/16"	1-5/16"	3/16"	0.33 lbs.
JSCV22	11/16"	8-7/8"	1-3/8"	3/16"	0.37 lbs.
JSCV24	3/4"	9-3/4"	1-9/16"	1/4"	0.48 lbs.
JSCV26	13/16"	1-17/16"	1-13/16"	1/4"	0.77 lbs.
JSCV28	7/8"	1-17/16"	1-13/16"	1/4"	0.73 lbs.
JSCV30	15/16"	12-3/4"	2-1/16"	1/4"	1.02 lbs.
JSCV32	1"	12-3/4"	2-1/16"	1/4"	1.00 lbs.
JSCV34	1-1/16"	14-1/8"	2-1/4"	5/16"	1.45 lbs.
JSCV36	1-1/8"	15-7/8"	2-5/16"	5/16"	1.96 lbs.
JSCV40	1-1/4"	16-3/4"	2-1/2"	5/16"	2.3 lbs.
JSCV48	1-1/2"	19-5/16"	2-13/16"	3/8"	3.09 lbs.

Torx is a trademark of Acument Intellectual Properties, LLC



# Wrenches

## METRIC REVERSING COMBINATION RATCHETING WRENCHES

**METRIC**

- Metric Spline wrenches can be used on metric 4, 6, 12 point spline and Torx® fasteners.
- The chrome-vanadium switch lever allows for easy changes in turning direction which helps improve speed.
- 15° angled offset box end helps keep shank clear of obstructions.
- Chrome-vanadium box ends and switch levers provide high strength and durability.
- Box end is countersunk for easy application to the fastener.
- Spline design was created for use with speciality spline bolts which are used when weight and size of bolt heads must be minimized.
- Spline design enables the wrench to contact conventional fasteners away from the corners, which applies force over a larger area, reducing risk of fastener scoring and helps prevent rounding of the corners and other fasteners damage that could lead to Foreign Object Damage (FOD).
- The high contact surface area which is away from fastener points enables turning of highly rounded fasteners.
- Anti-Slip Design (ASD) open end
- Patented locking grooves help prevent the wrench from slipping off the fastener when turning.
- The arched surfaces are designed to spread the contact forces over a greater area.
- Loads are kept off the corners of the fastener which helps prevent fastener rounding.
- Black chrome finish is corrosion resistant and visually distinctive.
- Weight: 5.5 lbs.

**METRIC**

## SET NO. JSCVM-22S - 22 PC. METRIC REVERSING COMBINATION RATCHETING WRENCH SET - SPLINE

- Weight: 5.5 lbs.



Product ID No.	Contents	mm	Length
<b>JSCVM-22S</b>	JSCVM06	6mm	5"
	JSCVM07	7 mm	5-1/2"
	JSCVM08	8 mm	5-1/2"
	JSCVM09	9 mm	5-15/16"
	JSCVM10	10 mm	6-1/4"
	JSCVM11	11mm	6-9/16"
	JSCVM12	12mm	6-3/4"
	JSCVM13	13mm	7"
	JSCVM14	14mm	7-1/2"
	JSCVM15	15mm	7-7/8"

Product ID No.	Contents	mm	Length
JSCVM16		16mm	8-3/16"
JSCVM17		17mm	8-7/8"
JSCVM18		18mm	9-5/16"
JSCVM19		19mm	9-3/4"
JSCVM21		21mm	11-7/16"
JSCVM22		22mm	11-7/16"
JSCVM24		24mm	12-3/4"
JSCVM27		27mm	14-1/8"
JSCVM30		30mm	15-7/8"
JSCVM32		32mm	16-3/4"
JSCVM34		34mm	18-1/8"
JSCVM36		36mm	19-5/16"
JSCVM22SP		Tool Roll	




# Wrenches



**M**ETRIC

## SET NO. JSCVM-13S - 13 PC. METRIC REVERSING COMBINATION RATCHETING WRENCH SET - SPLINE


• Weight: 4 lbs.

Product ID No.	Contents	 mm	Length
<b>JSCVM-13S</b>	JSCVM07	7 mm	5-1/2"
	JSCVM08	8 mm	5-1/2"
	JSCVM09	9 mm	5-15/16"
	JSCVM10	10 mm	6-1/4"
	JSCVM11	11mm	6-9/16"
	JSCVM12	12mm	6-3/4"
	JSCVM13	13mm	7"
	JSCVM14	14mm	7-1/2"
	JSCVM15	15mm	7-7/8"
	JSCVM16	16mm	8-3/16"
	JSCVM17	17mm	8-7/8"
	JSCVM18	18mm	9-5/16"
	JSCVM19	19mm	9-3/4"
JSCVM13SP	Tool Roll		



## METRIC REVERSING COMBINATION RATCHETING WRENCHES - SPLINE

**M**ETRIC

Product ID No.	 mm	Length	Width	Weight lbs.
<b>JSCVM06</b>	6mm	5"	9/16"	0.06 lbs.
<b>JSCVM07</b>	7 mm	5-1/2"	11/16"	0.07 lbs.
<b>JSCVM08</b>	8 mm	5-1/2"	11/16"	0.07 lbs.
<b>JSCVM09</b>	9 mm	5-15/16"	3/4"	0.09 lbs.
<b>JSCVM10</b>	10 mm	6-1/4"	13/16"	0.11 lbs.
<b>JSCVM11</b>	11mm	6-9/16"	15/16"	0.14 lbs.
<b>JSCVM12</b>	12mm	6-3/4"	1"	0.17 lbs.
<b>JSCVM13</b>	13mm	7"	1-11/16"	0.20 lbs.
<b>JSCVM14</b>	14mm	7-1/2"	1-1/8"	0.24 lbs.
<b>JSCVM15</b>	15mm	7-7/8"	1-1/4"	0.28 lbs.
<b>JSCVM16</b>	16mm	8-3/16"	1-5/16"	0.33 lbs.
<b>JSCVM17</b>	17mm	8-7/8"	1-3/8"	0.39 lbs.
<b>JSCVM18</b>	18mm	9-5/16"	1-1/2"	0.43 lbs.
<b>JSCVM19</b>	19mm	9-3/4"	1-9/16"	0.50 lbs.
<b>JSCVM21</b>	21mm	11-7/16"	1-13/16"	0.76 lbs.
<b>JSCVM22</b>	22mm	11-7/16"	1-13/16"	0.76 lbs.
<b>JSCVM24</b>	24mm	12-3/4"	2-1/16"	1.06 lbs.
<b>JSCVM27</b>	27mm	14-1/8"	2-1/4"	1.42 lbs.
<b>JSCVM30</b>	30mm	15-7/8"	2-5/16"	1.89 lbs.
<b>JSCVM32</b>	32mm	16-3/4"	2-1/2"	2.32 lbs.
<b>JSCVM34</b>	34mm	18-1/8"	2-1/2"	2.65 lbs.
<b>JSCVM36</b>	36mm	19-5/16"	2-13/16"	3.09 lbs.




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# Wrenches

## SET NO. JSCR-9S - 9 PC. NON-REVERSING COMBINATION WRENCH SET - SPLINE

- Black chrome finish is corrosion resistant and visually distinctive.
- Non-reversing ratcheting wrenches can be flipped over to turn the fastener in the opposite direction.
- Ratcheting spline box end is countersunk for easy application to the fastener.
- Spline design was created for use with specialty spline bolts which are used when weight and size of bolt heads must be minimized.
- Spline design enables the wrench to contact conventional fasteners away from the corners, which help apply force over a large area helping to reduce risk of fastener rounding.
- Spline design also helps prevent rounding of corners and other fastener damage that could lead to Foreign Object Damage (FOD).
- The high contact surface area which is away from fastener points enables turning of highly rounded fasteners.
- Anti-Slip Design (ASD) open end.
- Patented locking grooves help prevent the wrench from slipping off the fastener when turning.
- The arched surfaces are designed to spread the contact forces over a greater area.
- Loads are kept off the corners of the fastener which helps prevent fastener rounding.
- Fractional spline wrenches can be used on fractional 4, 6, 12 point, spline and Torx® fasteners.
- Weight: 2.71 lbs.



Product ID No.	Contents	 in.	Length
<b>JSCR-9S</b>	JSCR08	1/4"	5"
	JSCR10	5/16"	5-1/2"
	JSCR12	3/8"	6-1/4"
	JSCR14	7/16"	6-1/2"
	JSCR16	1/2"	7"
	JSCR18	9/16"	7-1/2"
	JSCR20	5/8"	8-3/16"
	JSCR22	11/16"	8-7/8"
	JSCR24	3/4"	9-3/4"
JSCR9SP	Tool Roll		






# Wrenches



## NON-REVERSING COMBINATION WRENCHES - SPLINE

- Metric Spline wrenches can be used on metric 4, 6, 12 point spline and Torx® fasteners.
- The chrome-vanadium switch lever allows for easy changes in turning direction which helps improve speed.
- 15° angled offset box end helps keep shank clear of obstructions.
- Chrome-vanadium box ends and switch levers provide high strength and durability.
- Box end is countersunk for easy application to the fastener.
- Spline design was created for use with speciality spline bolts which are used when weight and size of bolt heads must be minimized.
- Spline design enables the wrench to contact conventional fasteners away from the corners, which applies force over a larger area, reducing risk of fastener scoring and helps prevent rounding of the corners and other fasteners damage that could lead to Foreign Object Damage (FOD).
- The high contact surface area which is away from fastener points enables turning of highly rounded fasteners.
- Anti-Slip Design (ASD) open end
  - Patented locking grooves help prevent the wrench from slipping off the fastener when turning.
  - The arched surfaces are designed to spread the contact forces over a greater area.
  - Loads are kept off the corners of the fastener which helps prevent fastener rounding.
- Black chrome finish is corrosion resistant and visually distinctive.



Product ID No.	 in.	Length	Width	Weight lbs.
JSCR08	1/4"	5"	9/16"	0.05 lbs.
JSCR10	5/16"	5-1/2"	11/16"	0.06 lbs.
JSCR11	11/32"	5-15/16"	3/4"	0.08 lbs.
JSCR12	3/8"	6-1/4"	13/16"	0.1 lbs.
JSCR14	7/16"	6-1/2"	15/16"	0.13 lbs.
JSCR16	1/2"	7"	1-1/16"	0.18 lbs.
JSCR18	9/16"	7-1/2"	1-1/8"	0.22 lbs.
JSCR20	5/8"	8-3/16"	1-5/16"	0.32 lbs.
JSCR22	11/16"	8-7/8"	1-3/8"	0.38 lbs.
JSCR24	3/4"	9-3/4"	1-9/16"	0.47 lbs.
JSCR26	13/16"	11-7/16"	1-13/16"	0.7 lbs.
JSCR28	7/8"	11-7/16"	1-13/16"	0.7 lbs.
JSCR30	15/16"	12-3/4"	2-1/16"	1.02 lbs.
JSCR32	1"	12-3/4"	2-1/16"	1.02 lbs.

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# Wrenches

**M**ETRIC

## SET NO. JSCRM-10S - 10 PC. METRIC NON-REVERSING COMBINATION WRENCH SET - SPLINE

- Metric Spline wrenches can be used on metric 4, 6, 12 point spline and Torx® fasteners.
- The chrome-vanadium switch lever allows for easy changes in turning direction which helps improve speed.
- 15° angled offset box end helps keep shank clear of obstructions.
- Chrome-vanadium box ends and switch levers provide high strength and durability.
- Box end is countersunk for easy application to the fastener.
- Spline design was created for use with speciality spline bolts which are used when weight and size of bolt heads must be minimized.
- Spline design enables the wrench to contact conventional fasteners away from the corners, which applies force over a larger area, reducing risk of fastener scoring and helps prevent rounding of the corners and other fasteners damage that could lead to Foreign Object Damage (FOD).
- The high contact surface area which is away from fastener points enables turning of highly rounded fasteners.
- Anti-Slip Design (ASD) open end
  - Patented locking grooves help prevent the wrench from slipping off the fastener when turning.
  - The arched surfaces are designed to spread the contact forces over a greater area.
  - Loads are kept off the corners of the fastener which helps prevent fastener rounding.
- Black chrome finish is corrosion resistant and visually distinctive.
- Weight: 2.71 lbs.



Product ID No.	Contents	 mm	Length
<b>JSCRM-10S</b>	JSCRM10	10 mm	6-1/4"
	JSCRM11	11 mm	6-1/2"
	JSCRM12	12 mm	6-3/4"
	JSCRM13	13 mm	7"
	JSCRM14	14 mm	7-1/2"
	JSCRM15	15 mm	7-7/8"
	JSCRM16	16 mm	8-3/16"
	JSCRM17	17 mm	8-7/8"
	JSCRM18	18 mm	9-5/16"
	JSCRM19	19 mm	9-3/4"
JSCRM10SP	Tool Roll		



# Wrenches




## METRIC NON-REVERSING COMBINATION WRENCHES - SPLINE

**M**ETRIC

- Metric Spline wrenches can be used on metric 4, 6, 12 point spline and Torx® fasteners.
- The chrome-vanadium switch lever allows for easy changes in turning direction which helps improve speed.
- 15° angled offset box end helps keep shank clear of obstructions.
- Chrome-vanadium box ends and switch levers provide high strength and durability.
- Box end is countersunk for easy application to the fastener.
- Spline design was created for use with speciality spline bolts which are used when weight and size of bolt heads must be minimized.
- Spline design enables the wrench to contact conventional fasteners away from the corners, which applies force over a larger area, reducing risk of fastener scoring and helps prevent rounding of the corners and other fasteners damage that could lead to Foreign Object Damage (FOD).
- The high contact surface area which is away from fastener points enables turning of highly rounded fasteners.
- Anti-Slip Design (ASD) open end
  - Patented locking grooves help prevent the wrench from slipping off the fastener when turning.
  - The arched surfaces are designed to spread the contact forces over a greater area.
  - Loads are kept off the corners of the fastener which helps prevent fastener rounding.
- Black chrome finish is corrosion resistant and visually distinctive.



Product ID No.	 mm	Length	Width	Weight lbs.
<b>JSCRM08</b>	8 mm	5-1/2"	11/16"	0.06 lbs.
<b>JSCRM09</b>	9 mm	5-15/16"	3/4"	0.08 lbs.
<b>JSCRM10</b>	10 mm	6-1/4"	13/16"	0.10 lbs.
<b>JSCRM11</b>	11 mm	6-1/2"	15/16"	0.13 lbs.
<b>JSCRM12</b>	12 mm	6-3/4"	1"	0.16 lbs.
<b>JSCRM13</b>	13 mm	7"	1-1/16"	0.18 lbs.
<b>JSCRM14</b>	14 mm	7-1/2"	1-1/8"	0.22 lbs.
<b>JSCRM15</b>	15 mm	7-7/8"	1-1/4"	0.25 lbs.
<b>JSCRM16</b>	16 mm	8-3/16"	1-5/16"	0.32 lbs.
<b>JSCRM17</b>	17 mm	8-7/8"	1-7/16"	0.38 lbs.
<b>JSCRM18</b>	18 mm	9-5/16"	1-1/2"	0.46 lbs.
<b>JSCRM19</b>	19 mm	9-3/4"	1-9/16"	0.47 lbs.

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# Wrenches

## SET NO. JHA4S - 4 PC. RATCHETING WRENCH ADAPTER SET

- Full polish finish provides corrosion resistance and easy clean surfaces.
- Converts ratcheting wrench into super-thin ratchets or ratcheting bit drivers.
- Inserts into box end with a stable locking and release mechanism.
- Easy to read markings.
- Weight: 0.21 lbs.



Product		
ID No.	Contents	Size/Description
<b>JHA4S</b>	JHAD12	Converts 3/8" Ratchet Wrench to 1/4" Bit Adapter
	JHAX12	Converts 3/8" Ratchet Wrench to 1/4" Drive Adapter
	JHAX16	Converts 1/2" Ratchet Wrench to 3/8" Drive Adapter
	JHAX24	Converts 3/4" Ratchet Wrench to 1/2" Drive Adapter

## RATCHETING WRENCH ADAPTERS

- Full Polish finish provides corrosion resistance and easy to clean surfaces.
- Converts ratcheting wrench into super-thin ratchets or ratcheting bit drivers.
- Inserts into box end with a stable locking and release mechanism
- Easy to read markings.



Product	
ID No.	Size/Description
<b>JHAD12</b>	Converts 3/8" Ratchet Wrench to 1/4" Bit Adapter
<b>JHAX12</b>	Converts 3/8" Ratchet Wrench to 1/4" Drive Adapter
<b>JHAX16</b>	Converts 1/2" Ratchet Wrench to 3/8" Drive Adapter
<b>JHAX24</b>	Converts 3/4" Ratchet Wrench to 1/2" Drive Adapter





# Wrenches



## SET NO. JHAM4S - 4 PC. METRIC RATCHETING WRENCH ADAPTER SETS

**M**ETRIC

- Full polish finish provides corrosion resistance and easy clean surfaces.
- Converts ratcheting wrench into super-thin ratchets or ratcheting bit drivers.
- Inserts into box end with a stable locking and release mechanism.
- Easy to read markings.
- Weight: 0.22 lbs.



Product ID No.	Contents	Size
<b>JHAM4S</b>	JHAXM10 JHADM10 JHADM13 JHADM19	Converts 10 mm Ratchet Wrench to 1/4" Bit Adapter Converts 10 mm Ratchet Wrench to 1/4" Drive Adapter Converts 13 mm Ratchet Wrench to 3/8" Drive Adapter Converts 19 mm Ratchet Wrench to 1/2" Drive Adapter

## METRIC RATCHETING WRENCH ADAPTERS

**M**ETRIC

- Full Polish finish provides corrosion resistance and easy to clean surfaces.
- Converts ratcheting wrench into super-thin ratchets or ratcheting bit drivers.
- Inserts into box end with a stable locking and release mechanism.
- Easy to read markings.




Product ID No.	Size
<b>JHAXM10</b>	Converts 10 mm Ratchet Wrench to 1/4" Bit Adapter
<b>JHADM10</b>	Converts 10 mm Ratchet Wrench to 1/4" Drive Adapter
<b>JHADM13</b>	Converts 13 mm Ratchet Wrench to 3/8" Drive Adapter
<b>JHADM19</b>	Converts 19 mm Ratchet Wrench to 1/2" Drive Adapter

# Wrenches

## SET NO. JWER8S - 8 PC. SINGLE END RATCHETING WRENCH SET - 12 POINT

- Full polish finish provides corrosion resistance and easy to clean surfaces.
- Black oxide finish on ratcheting box end.
- 12 point box end allows for fine indexing, helping to improve speed and access. Fits 4, 6 and 12 point fasteners.
- Soft grip handle for comfort and slip resistance.
- Jumbo sizes for big jobs.
- Weight: 32.9 lbs.




Product ID No.	Contents	 in.	Length
<b>JWER8S</b>	JWER50	1-9/16"	15-1/2"
	JWER52	1-5/8"	15-1/2"
	JWER54	1-5/8"	19"
	JWER56	1-3/4"	19"
	JWER58	1-13/16"	19"
	JWER60	1-7/8"	19"
	JWER64	2"	19"
	JWER68	2-1/8"	19"
	J25TR45C	Tool Roll	

## SINGLE END RATCHETING WRENCH - 12 POINT

- Full polish finish provides corrosion resistance and easy to clean surfaces.
- Black oxide finish on ratcheting box end.
- 12 Point box end allows for fine indexing, helping to improve speed and access. Fits 4, 6 and 12 point fasteners.
- Soft grip handle for comfort and slip resistance.
- Jumbo sizes for big jobs.



Product ID No.	 in.	Length	Width	Weight lbs.
<b>JWER50</b>	1-9/16"	15-1/2"	2-3/4"	3.2 lbs.
<b>JWER52</b>	1-5/8"	15-1/2"	2-3/4"	3.2 lbs.
<b>JWER54</b>	1-5/8"	19"	3-3/8"	4.1 lbs.
<b>JWER56</b>	1-3/4"	19"	3-3/8"	4.1 lbs.
<b>JWER58</b>	1-13/16"	19"	3-3/8"	4.1 lbs.
<b>JWER60</b>	1-7/8"	19"	3-3/8"	4.1 lbs.
<b>JWER64</b>	2"	19"	3-3/8"	4.1 lbs.
<b>JWER68</b>	2-1/8"	19"	3-3/8"	4.1 lbs.

# Wrenches




## BOX WRENCH SETS - 12 POINT

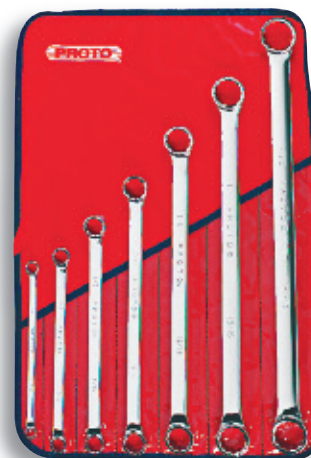
- Full polish finish provides corrosion resistance and easy to clean surfaces.
- 12 point box end allows for fine indexing, helping to improve speed and access. Fits 4, 6 and 12 point fasteners.
- Box ends incorporate the TorquePlus™ system.
- Proto® TorquePlus™ wrenches are ideal for use on stubborn or damaged fasteners, and also on fasteners made from soft materials.
- The TorquePlus™ design is a high performance drive configuration which allows for quick and easy wrench engagement to the fastener flats, not the corners.
- The TorquePlus™ configuration employs a radius-corner design, shifting contact area and stress away from the fastener corners and distributing contact stresses over a large area of the box end, minimizing slippage.
- The TorquePlus™ internal design minimizes fastener rounding, helps to extend fastener life, and allows the user to more easily turn worn, rounded, or rusted fasteners.

### SET NO. J1100R - 7 PC. BOX WRENCH SET - 12 POINT

- Weight: 4.23 lbs.




Product ID No.	Contents	 in.	Length	ASME Spec.	AS Spec.
<b>J1100R</b>	J1170	5/16" x 3/8"	6-15/16"	ASME B107.100	AS954E S3.8.1
	J1171	7/16" x 1/2"	8-1/16"	ASME B107.100	AS954E S3.8.1
	J1172	9/16" x 5/8"	9-7/16"	ASME B107.100	AS954E S3.8.1
	J1173	11/16" x 3/4"	11-1/8"	ASME B107.100	AS954E S3.8.1
	J1174	13/16" x 7/8"	13-1/8"	ASME B107.100	AS954E S3.8.1
	J1175	15/16" x 1"	15-1/8"	ASME B107.100	AS954E S3.8.1
	J1176	1-1/16" x 1-1/8"	17-1/2"	ASME B107.100	AS954E S3.8.1
J25TR32C	Tool Roll				



### SET NO. J1100G - 5 PC. BOX WRENCH SET - 12 POINT

- Weight: 2.2 lbs.



Product ID No.	Contents	 in.	Length	ASME Spec.	AS Spec.
<b>J1100G</b>	J1170	5/16" x 3/8"	6-15/16"	ASME B107.100	AS954E S3.8.1
	J1171	7/16" x 1/2"	8-1/16"	ASME B107.100	AS954E S3.8.1
	J1172	9/16" x 5/8"	9-7/16"	ASME B107.100	AS954E S3.8.1
	J1173	11/16" x 3/4"	11-1/8"	ASME B107.100	AS954E S3.8.1
	J1174	13/16" x 7/8"	13-1/8"	ASME B107.100	AS954E S3.8.1
J25TR04C	Tool Roll				



# Wrenches

## METRIC BOX WRENCHES - 12 POINT

**M**ETRIC

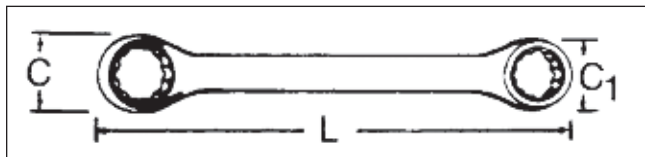
- Full polish finish provides corrosion resistance and easy to clean surfaces.
- 12 point box end allows for fine indexing, helping to improve speed and access. Fits 4, 6 and 12 point fasteners.
- Offset box end allows access to recessed fasteners and keeps hands clear of obstructions.
- Box ends incorporate the TorquePlus™ system.
- Proto® TorquePlus™ wrenches are ideal for use on stubborn or damaged fasteners, and also on fasteners made from soft materials.
- The TorquePlus™ design is a high performance drive configuration which allows for quick and easy wrench engagement to the fastener flats, not the corners.
- The TorquePlus™ configuration employs a radius-corner design, shifting contact area and stress away from the fastener corners and distributing contact stresses over a large area of the box end, minimizing slippage.
- The TorquePlus™ internal design minimizes fastener rounding, helps to extend fastener life, and allows the user to more easily turn worn, rounded, or rusted fasteners.




## SET NO. J1100S-M - 11 PC. METRIC BOX WRENCH SET - 12 POINT

**M**ETRIC

- Weight: 7.4 lbs.



Product ID No.	Contents	 mm	C	C1	Length	ASME Spec.	AS Spec.
<b>J1100S-M</b>	J1050M	6 x 7	11.4	10.2	146.5	ASME B107.100	AS954E S3.8.1
	J1051M	8 x 9	13.7	12.3	171.7	ASME B107.100	AS954E S3.8.1
	J1053M	10 x 11	16.5	15.4	202.3	ASME B107.100	AS954E S3.8.1
	J1057M	12 x 13	19.2	18.0	225.2	ASME B107.100	AS954E S3.8.1
	J1061M	14 x 15	22.2	20.8	246.3	ASME B107.100	AS954E S3.8.1
	J1064M	16 x 18	26.1	23.1	271.6	ASME B107.100	AS954E S3.8.1
	J1065M	17 x 19	27.4	24.9	288.7	ASME B107.100	AS954E S3.8.1
	J1072M	21 x 24	34.3	30.3	340.3	ASME B107.100	AS954E S3.8.1
	J1073M	22 x 24	34.3	32.0	348.2	ASME B107.100	AS954E S3.8.1
	J1077M	27 x 30	42.6	38.5	404.5	ASME B107.100	AS954E S3.8.1
	J1079M	30 x 32	45.3	42.6	437.1	ASME B107.100	AS954E S3.8.1
	J25TR44C	Tool Roll					



# Wrenches




## SET NO. J1100D-M - 7 PC. METRIC BOX WRENCH SET - 12 POINT

**M**ETRIC

• Weight: 2.04 lbs.




Product ID No.	Contents	 mm	C	C1	Length	ASME Spec.	AS Spec.
<b>J1100D-M</b>	J1050M	6 x 7	11.4	10.2	465.5	ASME B107.100	AS954E S3.8.1
	J1051M	8 x 9	13.7	12.3	171.7	ASME B107.100	AS954E S3.8.1
	J1053M	10 x 11	16.5	15.4	202.3	ASME B107.100	AS954E S3.8.1
	J1057M	12 x 13	19.2	18.0	225.2	ASME B107.100	AS954E S3.8.1
	J1061M	14 x 15	22.2	20.8	246.3	ASME B107.100	AS954E S3.8.1
	J1064M	16 x 18	26.1	23.1	271.6	ASME B107.100	AS954E S3.8.1
	J1065M	17 x 19	27.4	24.9	288.7	ASME B107.100	AS954E S3.8.1
J25TR43C	Tool Roll						

## SET NO. J1100A-M - 5 PC. METRIC BOX WRENCH SET - 12 POINT

**M**ETRIC

• Weight: 0.6 lbs.



Product ID No.	Contents	 mm	C	C1	Length	ASME Spec.	AS Spec.
<b>J1100A-M</b>	J1050M	6 x 7	11.4	10.2	146.5	ASME B107.100	AS954E S3.8.1
	J1051M	8 x 9	13.7	12.3	171.7	ASME B107.100	AS954E S3.8.1
	J1053M	10 x 11	16.5	15.4	202.3	ASME B107.100	AS954E S3.8.1
	J1057M	12 x 13	19.2	18.0	225.2	ASME B107.100	AS954E S3.8.1
	J1061M	14 x 15	22.2	20.8	246.3	ASME B107.100	AS954E S3.8.1
J25TR52C	Tool Roll						






# Wrenches

## SET NO. J1000G-500 - 7 PC. OFFSET BOX WRENCH SET - 12 POINT

- Full polish finish provides corrosion resistance and easy to clean surfaces.
- 12 point box end allows for fine indexing, helping to improve speed and access. Fits 4, 6 and 12 point fasteners.
- Offset box end allows access to recessed fasteners and keeps hands clear of obstructions.
- Box ends incorporate the TorquePlus™ system.
- Proto® TorquePlus™ wrenches are ideal for use on stubborn or damaged fasteners, and also on fasteners made from soft materials.
- The TorquePlus™ design is a high performance drive configuration which allows for quick and easy wrench engagement to the fastener flats, not the corners.
- The TorquePlus™ configuration employs a radius-corner design, shifting contact area and stress away from the fastener corners and distributing contact stresses over a large area of the box end, minimizing slippage.
- The TorquePlus™ internal design minimizes fastener rounding, helps to extend fastener life, and allows the user to more easily turn worn, rounded, or rusted fasteners.
- Weight: 3.84 lbs.



Product ID No.	Contents	 in.	Length	ASME Spec.	AS Spec.
<b>J1000G-500</b>	J1012-500	3/8" x 7/16"	7-3/4"	ASME B107.100	AS954E S3.8.1
	J1016-500	1/2" x 9/16"	8-7/8"	ASME B107.100	AS954E S3.8.1
	J1018-500	9/16" x 5/8"	9-1/2"	ASME B107.100	AS954E S3.8.1
	J1022-500	11/16" x 3/4"	11-3/16"	ASME B107.100	AS954E S3.8.1
	J1026-500	13/16" x 7/8"	12-11/16"	ASME B107.100	AS954E S3.8.1
	J1030-500	15/16" x 1"	14-3/8"	ASME B107.100	AS954E S3.8.1
	J1034-500	11/16" x 11/8"	16-3/4"	ASME B107.100	AS954E S3.8.1
	J25TR32C	Tool Roll			

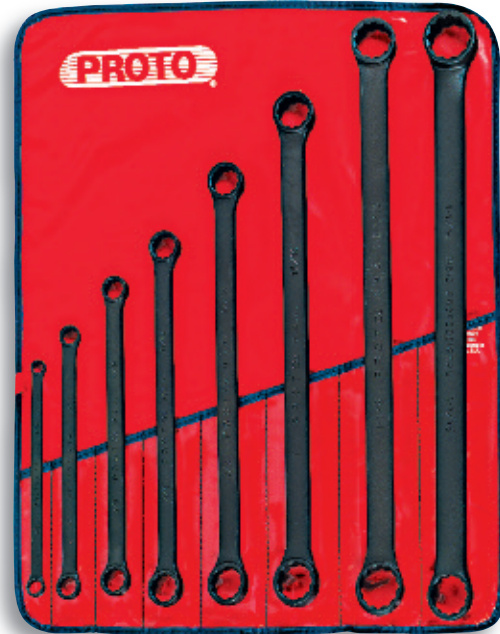



# Wrenches



## SET NO. J1100MB - 8 PC. PROTOBLACK™ BOX WRENCH SET - 12 POINT

- Non-reflective ProtoBlack™ finish for use where non-plated products are required.
- 12 point box end allows for fine indexing, helping to improve speed and access. Fits 4, 6 and 12 point fasteners.
- Box ends incorporate the TorquePlus™ system.
- Proto® TorquePlus™ wrenches are ideal for use on stubborn or damaged fasteners, and also on fasteners made from soft materials.
- The TorquePlus™ design is a high performance drive configuration which allows for quick and easy wrench engagement to the fastener flats, not the corners.
- The TorquePlus™ configuration employs a radius-corner design, shifting contact area and stress away from the fastener corners and distributing contact stresses over a large area of the box end, minimizing slippage.
- The TorquePlus™ internal design minimizes fastener rounding, helps to extend fastener life, and allows the user to more easily turn worn, rounded, or rusted fasteners.
- Weight: 5.39 lbs.



Product ID No.	Contents	 in.	Length	AS Spec.
<b>J1100MB</b>	J1120LB	5/16" x 3/8"	6-15/16"	AS954E S3.8.1
	J1125LB	7/16" x 1/2"	8-1/16"	AS954E S3.8.1
	J1130LB	9/16" x 5/8"	9-7/16"	AS954E S3.8.1
	J1135B	11/16" x 3/4"	11-1/4"	AS954E S3.8.1
	J1140B	13/16" x 7/8"	13-7/8"	AS954E S3.8.1
	J1145B	15/16" x 1"	15-1/2"	AS954E S3.8.1
	J1150B	1-1/16" x 1-1/8"	17-1/4"	AS954E S3.8.1
	J1151B	1-1/16" x 1-1/4"	18-1/4"	AS954E S3.8.1
	J25TR27C	Tool Roll		

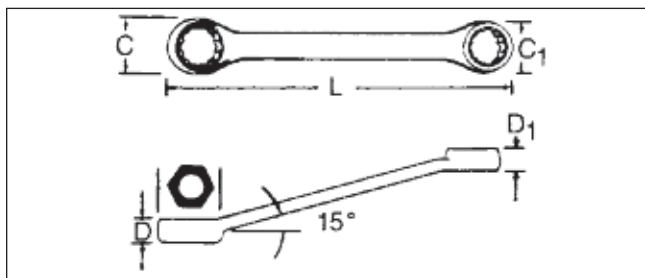
# Wrenches

## BOX WRENCHES - 12 POINT - FULL POLISH

- Full polish finish provides corrosion resistance and easy to clean surfaces.
- 12 point box end allows for fine indexing, helping to improve speed and access. Fits 4, 6 and 12 point fasteners.
- Box ends incorporate the TorquePlus™ system.
- Proto® TorquePlus™ wrenches are ideal for use on stubborn or damaged fasteners, and also on fasteners made from soft materials.
- The TorquePlus™ design is a high performance drive configuration which allows for quick and easy wrench engagement to the fastener flats, not the corners.
- The TorquePlus™ configuration employs a radius-corner design, shifting contact area and stress away from the fastener corners and distributing contact stresses over a large area of the box end, minimizing slippage.
- The TorquePlus™ internal design minimizes fastener rounding, helps to extend fastener life, and allows the user to more easily turn worn, rounded, or rusted fasteners.



Product ID No.	in.	C	D	C1	D1	L	Weight lbs.	ASME Spec.	AS Spec.
J1170	5/16" x 3/8"	37/64"	17/64"	15/32"	15/64"	6-15/16"	0.20 lbs.	ASME B107.100	AS954E S3.8.1
J1171	7/16" x 1/2"	3/4"	21/64"	21/32"	19/64"	8-1/16"	0.23 lbs.	ASME B107.100	AS954E S3.8.1
J1126L	1/2" x 9/16"	7/8"	3/8"	3/4"	23/64"	8-3/8"	0.24 lbs.	ASME B107.100	AS954E S3.8.1
J1172	9/16" x 5/8"	15/16"	25/64"	27/32"	23/64"	9-7/16"	0.41 lbs.	ASME B107.100	AS954E S3.8.1
J1173	11/16" x 3/4"	17/64"	29/64"	11/64"	27/64"	11-1/8"	0.53 lbs.	ASME B107.100	AS954E S3.8.1
J1139	3/4" x 7/8"	1-1/4"	33/64"	1-1/8"	33/64"	13-1/8"	0.65 lbs.	ASME B107.100	AS954E S3.8.1
J1174	13/16" x 7/8"	1-19/64"	33/64"	1-3/16"	31/64"	13-1/8"	0.65 lbs.	ASME B107.100	AS954E S3.8.1
J1175	15/16" x 1"	1-15/32"	37/64"	1-25/64"	35/64"	15-1/8"	0.90 lbs.	ASME B107.100	AS954E S3.8.1
J1176	1-1/16" x 1-1/8"	1-37/64"	5/8"	1-1/2"	19/32"	17-1/2"	1.54 lbs.	ASME B107.100	AS954E S3.8.1



# Wrenches



## METRIC OFFSET BOX WRENCHES - 12 POINT - FULL POLISH

**METRIC**

- Full polish finish provides corrosion resistance and easy to clean surfaces.
- 12 point box end allows for fine indexing, helping to improve speed and access. Fits 4, 6 and 12 point fasteners.
- Offset box end allows access to recessed fasteners and keeps hands clear of obstructions.
- Box ends incorporate the TorquePlus™ system.
- Proto® TorquePlus™ wrenches are ideal for use on stubborn or damaged fasteners, and also on fasteners made from soft materials.
- The TorquePlus™ design is a high performance drive configuration which allows for quick and easy wrench engagement to the fastener flats, not the corners.
- The TorquePlus™ configuration employs a radius-corner design, shifting contact area and stress away from the fastener corners and distributing contact stresses over a large area of the box end, minimizing slippage.
- The TorquePlus™ internal design minimizes fastener rounding, helps to extend fastener life, and allows the user to more easily turn worn, rounded, or rusted fasteners.



Product ID No.	mm	C	C1	L	Weight lbs.	ASME Spec.	AS Spec.
<b>J1050M</b>	6 x 7	11.4	10.2	146.5	0.09 lbs.	ASME B107.100	AS954E S3.8.1
<b>J1051M</b>	8 x 9	13.7	12.3	171.7	0.11 lbs.	ASME B107.100	AS954E S3.8.1
<b>J1053M</b>	10 x 11	16.5	15.4	202.3	0.19 lbs.	ASME B107.100	AS954E S3.8.1
<b>J1057M</b>	12 x 13	19.2	18.0	225.2	0.28 lbs.	ASME B107.100	AS954E S3.8.1
<b>J1058M</b>	12 x 14	20.8	18.0	230.0	0.42 lbs.	ASME B107.100	AS954E S3.8.1
<b>J1061M</b>	14 x 15	22.2	20.8	246.3	0.45 lbs.	ASME B107.100	AS954E S3.8.1
<b>J1064M</b>	16 x 18	26.1	23.1	271.6	0.59 lbs.	ASME B107.100	AS954E S3.8.1
<b>J1065M</b>	17 x 19	27.4	24.9	288.7	0.70 lbs.	ASME B107.100	AS954E S3.8.1
<b>J1068M</b>	19 x 21	30.3	27.4	316.7	0.70 lbs.	ASME B107.100	AS954E S3.8.1
<b>J1069M</b>	19 x 22	32.0	27.4	316.7	0.99 lbs.	ASME B107.100	AS954E S3.8.1
<b>J1072M</b>	21 x 24	34.3	30.3	340.3	0.42 lbs.	ASME B107.100	AS954E S3.8.1
<b>J1073M</b>	22 x 24	34.3	32.0	348.2	0.39 lbs.	ASME B107.100	AS954E S3.8.1
<b>J1077M</b>	27 x 30	42.6	38.5	404.5	1.76 lbs.	ASME B107.100	AS954E S3.8.1
<b>J1079M</b>	30 x 32	45.3	42.6	437.1	1.76 lbs.	ASME B107.100	AS954E S3.8.1

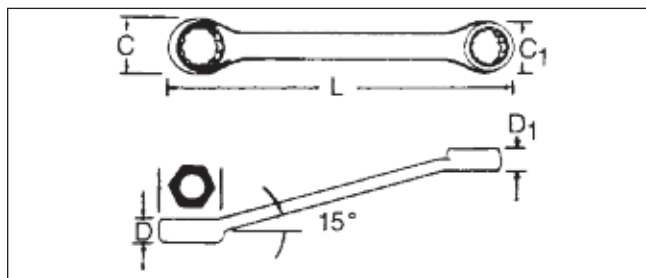
# Wrenches

## OFFSET BOX WRENCHES - 12 POINT - FULL POLISH

- Full polish finish provides corrosion resistance and easy to clean surfaces.
- 12 point box end allows for fine indexing, helping to improve speed and access. Fits 4, 6 and 12 point fasteners.
- Offset box end allows access to recessed fasteners and keeps hands clear of obstructions.
- Box ends incorporate the TorquePlus™ system.
- Proto® TorquePlus™ wrenches are ideal for use on stubborn or damaged fasteners, and also on fasteners made from soft materials.
- The TorquePlus™ design is a high performance drive configuration which allows for quick and easy wrench engagement to the fastener flats, not the corners.
- The TorquePlus™ configuration employs a radius-corner design, shifting contact area and stress away from the fastener corners and distributing contact stresses over a large area of the box end, minimizing slippage.
- The TorquePlus™ internal design minimizes fastener rounding, helps to extend fastener life, and allows the user to more easily turn worn, rounded, or rusted fasteners.



Product ID No.	in.						Weight		
		C	D	C1	D1	L	lbs.	ASME Spec.	AS Spec.
<b>J1012-500</b>	3/8" x 7/16"	21/32"	5/16"	37/64"	19/64"	7-3/4"	0.11 lbs.	ASME B107.100	AS954E S3.8.1
<b>J1016-500</b>	1/2" x 9/16"	53/64"	23/64"	3/4"	11/32"	8-7/8"	0.20 lbs.	ASME B107.100	AS954E S3.8.1
<b>J1018-500</b>	9/16" x 5/8"	59/64"	13/32"	53/64"	23/64"	9-1/2"	0.27 lbs.	ASME B107.100	AS954E S3.8.1
<b>J1022-500</b>	11/16" x 3/4"	1-3/32"	15/32"	1-1/64"	29/64"	11-3/16"	0.40 lbs.	ASME B107.100	AS954E S3.8.1
<b>J1026-500</b>	13/16" x 7/8"	1-1/4"	33/64"	1-11/64"	31/64"	12-11/16"	0.67 lbs.	ASME B107.100	AS954E S3.8.1
<b>J1030-500</b>	15/16" x 1"	1-13/32"	37/64"	1-21/64"	35/64"	14-3/8"	0.88 lbs.	ASME B107.100	AS954E S3.8.1
<b>J1034-500</b>	11/16" x 11/8"	1-9/16"	41/64"	1-31/64"	41/64"	16-3/4"	1.15 lbs.	ASME B107.100	AS954E S3.8.1






# Wrenches



## PROTOBLACK™ BOX WRENCHES - 12 POINT

- Non-reflective ProtoBlack™ finish for use where non-plated products are required.
- 12 point box end allows for fine indexing, helping to improve speed and access. Fits 4, 6 and 12 point fasteners.
- Box ends incorporate the TorquePlus™ system.
- Proto® TorquePlus™ wrenches are ideal for use on stubborn or damaged fasteners, and also on fasteners made from soft materials.
- The TorquePlus™ design is a high performance drive configuration which allows for quick and easy wrench engagement to the fastener flats, not the corners.
- The TorquePlus™ configuration employs a radius-corner design, shifting contact area and stress away from the fastener corners and distributing contact stresses over a large area of the box end, minimizing slippage.
- The TorquePlus™ internal design minimizes fastener rounding, helps to extend fastener life, and allows the user to more easily turn worn, rounded, or rusted fasteners.



Product ID No.	 in.	C	D	C1	D1	L	Weight lbs.	AS Spec.
<b>J1120LB</b>	5/16" x 3/8"	37/64"	17/64"	15/32"	15/64"	6-15/16"	0.15 lbs.	AS954E S3.8.1
<b>J1125LB</b>	7/16" x 1/2"	3/4"	21/64"	21/32"	19/64"	8-1/16"	0.18 lbs.	AS954E S3.8.1
<b>J1126LB</b>	1/2" x 9/16"	57/64"	25/64"	13/16"	3/8"	8-7/16"	0.24 lbs.	AS954E S3.8.1
<b>J1130LB</b>	9/16" x 5/8"	15/16"	25/64"	27/32"	23/64"	9-7/16"	0.28 lbs.	AS954E S3.8.1
<b>J1135B</b>	11/16" x 3/4"	1-7/64"	29/64"	1-1/64"	27/64"	11-1/4"	0.48 lbs.	AS954E S3.8.1
<b>J1139B</b>	3/4" x 7/8"	1-1/4"	33/64"	1-1/8"	33/64"	13-1/8"	0.65 lbs.	AS954E S3.8.1
<b>J1140B</b>	13/16" x 7/8"	1-19/64"	33/64"	1-3/16"	31/64"	13-7/8"	0.69 lbs.	AS954E S3.8.1
<b>J1145B</b>	15/16" x 1"	1-29/64"	37/64"	1-3/8"	35/64"	15-1/2"	0.99 lbs.	AS954E S3.8.1
<b>J1150B</b>	1-1/16" x 1-1/8"	1-39/64"	5/8"	1-1/2"	19/32"	17-1/4"	1.50 lbs.	AS954E S3.8.1
<b>J1151B</b>	1-1/16" x 1-1/4"	1-3/4"	39/64"	1-1/2"	45/64"	18-1/4"	1.82 lbs.	AS954E S3.8.1

# Wrenches

## BOX WRENCHES - 12 POINT - SATIN FINISH

- Satin finish provides corrosion resistance and a slip resistant grip.
- 12 point box end allows for fine indexing, helping to improve speed and access. Fits 4, 6 and 12 point fasteners.
- Box ends incorporate the TorquePlus™ system.
- Proto® TorquePlus™ wrenches are ideal for use on stubborn or damaged fasteners, and also on fasteners made from soft materials.
- The TorquePlus™ design is a high performance drive configuration which allows for quick and easy wrench engagement to the fastener flats, not the corners.
- The TorquePlus™ configuration employs a radius-corner design, shifting contact area and stress away from the fastener corners and distributing contact stresses over a large area of the box end, minimizing slippage.
- The TorquePlus™ internal design minimizes fastener rounding, helps to extend fastener life, and allows the user to more easily turn worn, rounded, or rusted fasteners.



Product ID No.	in.	C	D	C1	D1	L	Weight		
							lbs.	ASME Spec.	AS Spec.
<b>J1151</b>	1-1/16" x 1-1/4"	1-3/4"	45/64"	1-1/2"	5/8"	18-1/4"	1.82 lbs.	ASME B107.100	AS954E S3.8.1
<b>J1155</b>	1-1/4" x 1-5/16"	1-7/8"	47/64"	1-3/4"	3/4"	19-1/4"	1.97 lbs.	ASME B107.100	AS954E S3.8.1
<b>J1160</b>	1-1/4" x 1-3/8"	1-15/16"	3/4"	1-3/4"	3/4"	20-1/4"	2.22 lbs.	ASME B107.100	AS954E S3.8.1
<b>J1162</b>	1-7/16" x 1-1/2"	2-1/8"	13/16"	2-3/64"	51/64"	22-1/4"	2.98 lbs.	ASME B107.100	AS954E S3.8.1
<b>J1164</b>	1-5/8" x 1-11/16"	2-3/8"	29/32"	2-13/32"	29/32"	24-1/2"	3.74 lbs.	ASME B107.100	AS954E S3.8.1



# Wrenches

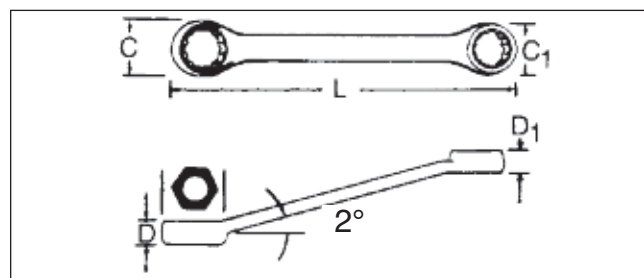


## DEEP OFFSET BOX WRENCHES - 12 POINT - SATIN FINISH

- Satin finish provides corrosion resistance and a slip resistant grip.
- 12 point box end allows for fine indexing, helping to improve speed and access. Fits 4, 6 and 12 point fasteners.
- 60° deep offset helps improve access to deeply recessed fasteners.
- Offset handle helps keep knuckles clear of obstruction to help save time.
- Box ends incorporate the TorquePlus™ system.
- Proto® TorquePlus™ wrenches are ideal for use on stubborn or damaged fasteners, and also on fasteners made from soft materials.
- The TorquePlus™ design is a high performance drive configuration which allows for quick and easy wrench engagement to the fastener flats, not the corners.
- The TorquePlus™ configuration employs a radius-corner design, shifting contact area and stress away from the fastener corners and distributing contact stresses over a large area of the box end, minimizing slippage.
- The TorquePlus™ internal design minimizes fastener rounding, helps to extend fastener life, and allows the user to more easily turn worn, rounded, or rusted fasteners.



Product ID No.	in.	C	D	C1	D1	L	Weight		
							lbs.	ASME Spec.	AS Spec.
<b>J8180</b>	3/8" x 7/16"	39/64"	5/16"	45/64"	11/32"	7-3/4"	0.19 lbs.	ASME B107.100	AS954E S3.8.1
<b>J8181</b>	1/2" x 9/16"	51/64"	23/64"	57/64"	23/64"	9"	0.32 lbs.	ASME B107.100	AS954E S3.8.1
<b>J8182</b>	5/8" x 11/16"	31/32"	13/32"	1-1/32"	7/16"	10-1/4"	0.44 lbs.	ASME B107.100	AS954E S3.8.1
<b>J8183A</b>	11/16" x 13/16"	1-3/16"	1/2"	1-1/4"	1/2"	11-1/2"	0.54 lbs.	ASME B107.100	AS954E S3.8.1
<b>J8184</b>	3/4" x 7/8"	1-1/8"	1/2"	1-1/4"	17/32"	12-3/4"	0.74 lbs.	ASME B107.100	AS954E S3.8.1
<b>J8185</b>	15/16" x 1"	1-11/32"	5/8"	1-13/32"	5/8"	14"	1.10 lbs.	ASME B107.100	AS954E S3.8.1



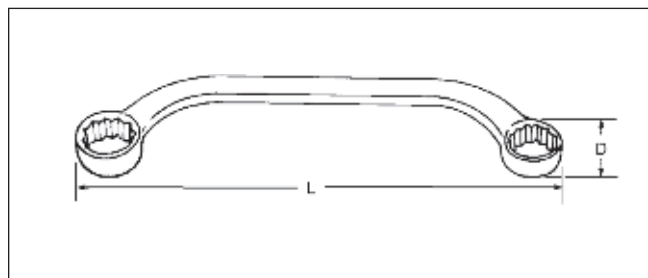
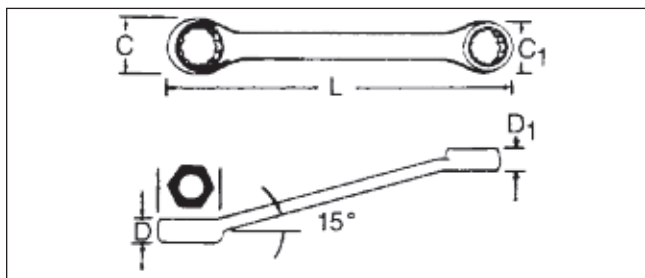
# Wrenches

## SHORT BOX WRENCHES - 12 POINT - SATIN FINISH

- Satin finish provides corrosion resistance and a slip resistant grip.
- 12 point box end allows for fine indexing, helping to improve speed and access. Fits 4, 6 and 12 point fasteners.
- Box ends incorporate the TorquePlus™ system.
- Proto® TorquePlus™ wrenches are ideal for use on stubborn or damaged fasteners, and also on fasteners made from soft materials.
- The TorquePlus™ design is a high performance drive configuration which allows for quick and easy wrench engagement to the fastener flats, not the corners.
- The TorquePlus™ configuration employs a radius-corner design, shifting contact area and stress away from the fastener corners and distributing contact stresses over a large area of the box end, minimizing slippage.
- The TorquePlus™ internal design minimizes fastener rounding, helps to extend fastener life, and allows the user to more easily turn worn, rounded, or rusted fasteners.



Product ID No.	in.	C	D	C1	D1	L	Weight lbs.	ASME Spec.	AS Spec.
J1120	5/16" x 3/8"	33/64"	17/64"	37/64"	19/64"	4-1/4"	0.07 lbs.	ASME B107.100	AS954E S3.8.1
J1122	3/8" x 7/16"	37/64"	19/64"	43/64"	21/64"	4-5/8"	0.09 lbs.	ASME B107.100	AS954E S3.8.1
J1125	7/16" x 1/2"	43/64"	21/64"	49/64"	11/32"	5"	0.10 lbs.	ASME B107.100	AS954E S3.8.1
J1126	1/2" x 9/16"	43/64"	11/32"	55/64"	23/64"	5-3/8"	0.12 lbs.	ASME B107.100	AS954E S3.8.1
J1131	5/8" x 3/4"	1-27/32"	13/32"	1-3/32"	15/32"	6-1/8"	0.25 lbs.	ASME B107.100	AS954E S3.8.1



# Wrenches



## FACOM® METRIC BOX WRENCHES

**M**ETRIC

- Slim rings and short shank for clearance.
- 12 point box ends allow for fine indexing, helping to improve speed and access.
- Straight pattern.
- Fits 4, 6 and 12 point fasteners.



Product ID No.	Length	Size	D	C	C1	Weight lbs.
<b>FM-59.6X7</b>	100	6X7	4.7	9.9	11.2	0.05 lbs.
<b>FM-59.8X9</b>	115	8X9	5.2	12.5	14.0	0.07 lbs.
<b>FM-59.10X11</b>	128	10X11	6.4	15.5	16.5	0.11 lbs.
<b>FM-59.12X13</b>	143	12X13	7.3	18.5	20.5	0.16 lbs.
<b>FM-59.14X15</b>	157	14X15	7.3	21.0	22.5	0.21 lbs.
<b>FM-59.16X17</b>	168	16X17	8.5	23.5	24.5	0.26 lbs.
<b>FM-59.18X19</b>	189	18X19	9.2	26.0	27.5	0.32 lbs.
<b>FM-59.21X23</b>	217	21X23	11.6	31.2	33.8	0.52 lbs.
<b>FM-59.22X24</b>	217	22X24	11.6	31.2	33.9	0.51 lbs.
<b>FM-59.26X28</b>	265	26X28	11.8	36.5	40.5	0.95 lbs.
<b>FM-59.27X29</b>	285	27X29	12.8	38.9	43.4	0.92 lbs.
<b>FM-59.30X32</b>	285	30X32	12.8	42.5	45.0	1.14 lbs.

## SET NO. FM-57.JE5 - FACOM® 5 PC. OBSTRUCTION BOX WRENCH SET

- Satin finish provides corrosion resistance and slip resistant grip.
- Half-moon shape helps improve access to hidden, difficult to reach locations.
- 12 point box end allows for fine indexing, helping to improve speed and access.
- Fits 4, 6 and 12 point fasteners.



Product ID No.	Length	Size	D	Weight lbs.
<b>FM-57.10X12</b>	5-5/8"	10X12	5/16"	0.15 lbs.
<b>FM-57.11X13</b>	6-1/2"	11X13	5/16"	0.24 lbs.
<b>FM-57.14X17</b>	7-17/32"	14X17	11/32"	0.34 lbs.
<b>FM-57.16X18</b>	8-3/4"	16X18	3/8"	0.45 lbs.
<b>FM-57.19X22</b>	9-31/32"	19X22	13/32"	0.62 lbs.




# Wrenches

## OBSTRUCTION BOX WRENCHES - 12 POINT - SATIN FINISH

- Satin finish provides corrosion resistance and a slip resistant grip.
- Curved half-moon shape helps improve access to hidden, difficult to reach locations.
- 12 point box end allows for fine indexing, helping to improve speed and access. Fits 4, 6 and 12 point fasteners.
- Box ends incorporate the TorquePlus™ system.
- Proto® TorquePlus™ wrenches are ideal for use on stubborn or damaged fasteners, and also on fasteners made from soft materials.
- The TorquePlus™ design is a high performance drive configuration which allows for quick and easy wrench engagement to the fastener flats, not the corners.
- The TorquePlus™ configuration employs a radius-corner design, shifting contact area and stress away from the fastener corners and distributing contact stresses over a large area of the box end, minimizing slippage.
- The TorquePlus™ internal design minimizes fastener rounding, helps to extend fastener life, and allows the user to more easily turn worn, rounded, or rusted fasteners.



Product ID No.	 in.	D	L	Weight lbs.	ASME Spec.	AS Spec.
J1725	7/16" x 1/2"	5/8"	5-3/4"	0.17 lbs.	ASME B107.100	AS954E S3.8.1
J1730	9/16" x 5/8	25/32"	6-5/8"	0.23 lbs.	ASME B107.100	AS954E S3.8.1
J1731	5/8" x 3/4"	27/32"	27/32"	0.39 lbs.	ASME B107.100	AS954E S3.8.1

## FACOM® METRIC OBSTRUCTION WRENCHES

- Satin finish provides corrosion resistance and a slip resistant grip.
- Half-moon shape helps improve access to hidden, difficult to reach locations.
- 12 point box end allows for fine indexing, helping to improve speed and access.
- Fits 4, 6 and 12 point fasteners.



Product ID No.	Length	Size	D	Weight lbs.
FM-57.10X12	5-5/8"	10X12	5/16"	0.15 lbs.
FM-57.11X13	6-1/2"	11X13	5/16"	0.24 lbs.
FM-57.13X15	7-15/32"	13X15	11/32"	0.35 lbs.
FM-57.14X16	7-7/16"	14X16	11/32"	0.35 lbs.
FM-57.14X17	7-17/32"	14X17	11/32"	0.34 lbs.
FM-57.15x17	8-3/4"	15X17	11/32"	0.46 lbs.
FM-57.16X18	8-3/4"	16X18	3/8"	0.45 lbs.
FM-57.19X22	9-31/32"	19X22	13/32"	0.62 lbs.



# Wrenches

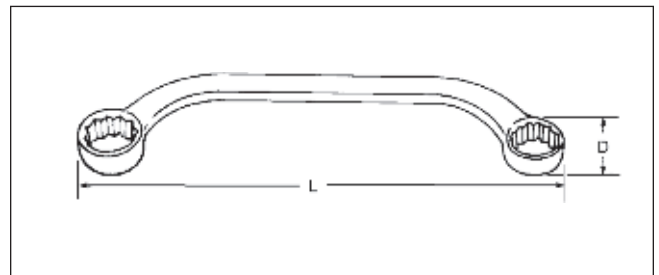


## FACOM® VSE BOX WRENCHES - 12 POINT

- Insulated to 1000V or 1500 DC.
- 2 color warning handle insulation - color changes from orange to yellow if insulation integrity compromised.
- 12 point box end allows for fine indexing, helping to improve speed and access.
- Fits 4, 6 and 12 point fasteners.



Product ID No.	Size	Length	Offset Head	C	Weight lbs.
<b>FM-55.8AVSE</b>	8	150	16	8	0.12 lbs.
<b>FM-55.9AVSE</b>	9	151	17	9	0.13 lbs.
<b>FM-55.10AVSE</b>	10	157	19	9	0.12 lbs.
<b>FM-55.11AVSE</b>	11	160	20	10	0.15 lbs.
<b>FM-55.12AVSE</b>	12	165	21	11	0.23 lbs.
<b>FM-55.13AVSE</b>	13	165	23	12	0.22 lbs.
<b>FM-55.14AVSE</b>	14	180	25	12	0.27 lbs.
<b>FM-55.15AVSE</b>	15	183	26	12	0.29 lbs.
<b>FM-55.16AVSE</b>	16	195	27	13	0.34 lbs.
<b>FM-55.17AVSE</b>	17	198	30	14	0.34 lbs.
<b>FM-55.18AVSE</b>	18	215	30	14	0.46 lbs.
<b>FM-55.19AVSE</b>	19	215	32	14	0.49 lbs.
<b>FM-55.21AVSE</b>	21	245	35	16	0.75 lbs.






# Wrenches

## SET NO. JSBV-8S - 8 PC. DOUBLE BOX RATCHETING WRENCH SET - SPLINE

- Black chrome finish is corrosion resistant and visually distinctive.
- Non-reversing ratcheting wrenches can be flipped over to turn the fastener in the opposite direction.
- Ratcheting spline box end is countersunk for easy application to the fastener.
- Spline design was created for use with specialty spline bolts which are used when weight and size of bolt heads must be minimized.
- Spline design enables the wrench to contact conventional fasteners away from the corners, which help apply force over a large area helping to reduce risk of fastener rounding.
- Spline design also helps prevent rounding of corners and other fastener damage that could lead to Foreign Object Damage (FOD).
- The fractional spline wrenches can be used on fractional 4, 6, 12 point and spline fasteners.
- The high contact surface area which is away from fastener points enables turning of highly rounded fasteners.
- Weight: 4.12 lbs.



Product ID No.	Contents	 in.	Length
<b>JSBV-8S</b>	JSBV0709	7/32" x 9/32"	4-1/2"
	JSBV0810	1/4" x 5/16"	4-1/2"
	JSBV1214	3/8" x 7/16"	5-15/16"
	JSBV1618	1/2" x 9/16"	7-1/16"
	JSBV2022	5/8" x 11/16"	7-7/8"
	JSBV2428	3/4" x 7/8"	9-5/8"
	JSBV2630	13/16" x 15/16"	10-1/4"
	JSBV3236	1" x 1-1/8"	11-5/8"
JSBV8SP	Tool Roll		




# Wrenches



## DOUBLE BOX RATCHETING WRENCHES - SPLINE

- Black chrome finish is corrosion resistant and visually distinctive.
- Ratcheting spline box end is countersunk for easy application to the fastener.
- Spline design was created for use with specialty spline bolts which are used when weight and size of bolt heads must be minimized.
- Spline design enables the wrench to contact conventional fasteners away from the corners, which help apply force over a large area helping to reduce risk of fastener rounding.
- Spline design also helps prevent rounding of corners and other fastener damage that could lead to Foreign Object Damage (FOD).
- The fractional spline wrenches can be used on fractional 4, 6, 12 point and spline fasteners.
- The high contact surface area which is away from fastener points enables turning of highly rounded fasteners.




Product ID No.	 in.	Length	Width	Height	Weight lbs.
<b>JSBV0709</b>	7/32" x 9/32"	4-1/2"	11/16"	1/8"	0.08 lbs.
<b>JSBV0810</b>	1/4" x 5/16"	4-1/2"	11/16"	1/8"	0.08 lbs.
<b>JSBV1214</b>	3/8" x 7/16"	5-15/16"	7/8"	1/8"	0.12 lbs.
<b>JSBV1618</b>	1/2" x 9/16"	7-1/16"	1"	3/16"	0.23 lbs.
<b>JSBV2022</b>	5/8" x 11/16"	7-7/8"	1-3/16"	3/16"	0.35 lbs.
<b>JSBV2428</b>	3/4" x 7/8"	9-5/8"	1-5/8"	1/4"	0.57 lbs.
<b>JSBV2630</b>	13/16" x 15/16"	10-1/4"	1-13/16"	1/4"	0.84 lbs.
<b>JSBV3236</b>	1" x 1-1/8"	11-5/8"	2-5/16"	5/16"	0.95 lbs.
<b>JSBV3440</b>	1-1/16" x 1-1/4"	13"	2-1/2"	5/16"	1.06 lbs.

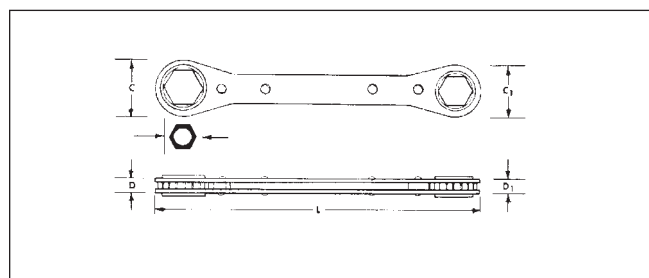
# Wrenches

## SET NO. J1180A - 5 PC. OFFSET RATCHETING BOX WRENCH SET - 6 AND 12 POINT

- 25° offset box end helps keep shank clear of obstructions.
- Shorter length for access to confined workspaces.
- Reversing switch lever allows for easy changes in turning direction which helps improve speed.
- Full polish finish on handle provides corrosion resistance and easy to clean surfaces.
- 6 point box end allows for large wrench to fastener contact area which helps prevent rounding of the fastener.
- 12 point box end allows for fine indexing, helping to improve speed and access.



Product ID No.	Contents	Point Size	 in.	Length
<b>J1180A</b>	J1181-A	6 Point	1/4" x 5/16"	4-1/4"
	J1182-A	6 Point	3/8" x 7/16"	5-1/4"
	J1183-A	6 Point	1/2" x 9/16"	6-13/16"
	J1184-A	12 Point	5/8" x 11/16"	8"
	J1185-A	12 Point	3/4" x 7/8"	9-1/2"
	J25TR06C	Tool Roll		






# Wrenches



## OFFSET RATCHETING BOX WRENCHES - 6 POINT

- 25° offset box end helps keep shank clear of obstructions.
- Shorter length for access to confined workspaces.
- Reversing switch lever allows for easy changes in turning direction which helps improve speed.
- Full polish finish on handle provides corrosion resistance and easy to clean surfaces.
- 6 point box end allows for large wrench to fastener contact area which helps prevent rounding of the fastener.




Product ID No.	 in.	C	D	C1	D1	L	Weight lbs.
<b>J1181-A</b>	1/4" x 5/16"	19/32"	3/8"	41/64"	3/8"	4-1/4"	0.15 lbs.
<b>J1182-A</b>	3/8" x 7/16"	25/32"	3/8"	7/8"	3/8"	5-1/4"	0.21 lbs.
<b>J1183-A</b>	1/2" x 9/16"	1"	1/2"	1-9/64"	1/2"	6-13/16"	0.43 lbs.

## OFFSET RATCHETING BOX WRENCHES - 12 POINT

- Full polish finish provides corrosion resistance and easy to clean surfaces.
- 25° offset box end helps keep shank clear of obstructions.
- Shorter length for access to confined workspaces.
- Reversing switch lever allows for easy changes in turning direction which helps improve speed.
- 12 point box end allows for fine indexing.
- Fits 4, 6 and 12 point fasteners.




Product ID No.	 in.	C	D	C1	D1	L	Weight lbs.
<b>J1179T</b>	7/32" x 9/32"	19/32"	3/8"	41/64"	3/8"	4-1/8"	0.15 lbs.
<b>J1181T</b>	1/4" x 5/16"	19/32"	3/8"	41/64"	3/8"	4-1/8"	0.15 lbs.
<b>J1182T</b>	3/8" x 7/16"	25/32"	3/8"	7/8"	3/8"	5-1/4"	0.21 lbs.
<b>J1183T</b>	1/2" x 9/16"	1"	1/2"	1"	1/2"	6-1/2"	0.43 lbs.
<b>J1184-A</b>	5/8" x 11/16"	1-19/64"	1/2"	1-7/16"	1/2"	8"	0.58 lbs.
<b>J1185-A</b>	3/4" x 7/8"	1-13/32"	1/2"	1-9/16"	1/2"	9-1/2"	0.77 lbs.
<b>J1186</b>	5/8" x 3/4"	1-19/64"	1/2"	1-7/16"	1/2"	7-3/4"	0.58 lbs.

# Wrenches

## SET NO. J1190LO - 5 PC. REVERSIBLE RATCHETING BOX WRENCH SET - 12 POINT

- Full polish finish on handle provides corrosion resistance and easy to clean surfaces.
- Built-in retaining ring in each ratchet wheel adds speed and convenience to great accessibility.
- Wrench self-aligns on the fastener which helps save time.
- 12 point box end allows for fine indexing, helping improve speed and access.
- Fits 4, 6 and 12 point fasteners.
- Weight: 2.18 lbs.




Product ID No.	Contents	 in.	Length
<b>J1190LO</b>	J1191LO	1/4"-5/16"	4-3/8"
	J1192LO	3/8"-7/16"	5-1/2"
	J1193LO	1/2"-9/16"	6-7/8"
	J1194LO	5/8"-11/16"	8-1/8"
	J1195LO	3/4"-7/8"	9-1/4"
	J25TR06C	Tool Roll	

## REVERSIBLE RATCHETING BOX WRENCHES - 12 POINT

- Full polish finish provides corrosion resistance and easy to clean surfaces.
- Built in retaining ring in each ratchet wheel adds speed and convenience.
- Shorter length for access to confined workspaces.
- Reversing switch lever allows for easy changes in turning direction which helps improve speed.
- The wrench self-aligns with the fastener.
- 12 point box end allows for fine indexing.
- Fits 4, 6 and 12 point fasteners.



Product ID No.	 in.	Length	Weight lbs.
<b>J1191LO</b>	1/4"-5/16"	4-3/8"	0.15 lbs.
<b>J1192LO</b>	3/8"-7/16"	5-1/2"	0.21 lbs.
<b>J1193LO</b>	1/2"-9/16"	6-7/8"	0.31 lbs.
<b>J1194LO</b>	5/8"-11/16"	8-1/8"	0.58 lbs.
<b>J1195LO</b>	3/4"-7/8"	9-1/4"	0.67 lbs.


# Wrenches



## SET NO. J1190MLO - 5 PC. METRIC REVERSIBLE RATCHETING BOX WRENCH SET - 12 POINT

- Full polish finish provides corrosion resistance and easy to clean surfaces.
- Built in retaining ring in each ratchet wheel adds speed and convenience.
- Shorter length for access to confined workspaces.
- Reversing switch lever allows for easy changes in turning direction which helps improve speed.
- The wrench self-aligns with the fastener.
- 12 point box end allows for fine indexing.
- Fits 4, 6 and 12 point fasteners.
- Weight: 2.03 lbs.




Product ID No.	Contents	 mm	Length
<b>J1190MLO</b>	J1191MLO	7 x 8 mm	111.1
	J1192MLO	9 x 10 mm	139.7
	J1193MLO	11 x 12 mm	174.6
	J1194MLO	13 x 14 mm	174.6
	J1195MLO	15 x 17 mm	206.4
	J25TR06C	Tool Roll	

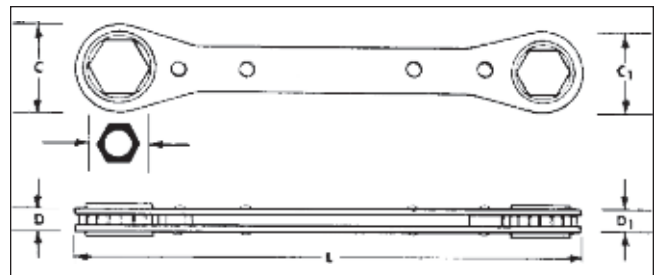
## METRIC REVERSIBLE RATCHETING BOX WRENCHES - 12 POINT

**M**ETRIC

- Full polish finish provides corrosion resistance and easy to clean surfaces.
- Built in retaining ring in each ratchet wheel adds speed and convenience for great accessibility.
- Shorter length for access to confined workspaces.
- Reversing switch lever allows for easy changes in turning direction which helps improve speed.
- The wrench self-aligns with the fastener.
- 12 point box end allows for fine indexing.
- Fits 4, 6 and 12 point fasteners.



Product ID No.	 mm	L	Weight lbs.
<b>J1191MLO</b>	7 x 8 mm	111.1	0.16 lbs.
<b>J1192MLO</b>	9 x 10 mm	139.7	0.23 lbs.
<b>J1193MLO</b>	11 x 12 mm	174.6	0.33 lbs.
<b>J1194MLO</b>	13 x 14 mm	174.6	0.61 lbs.
<b>J1195MLO</b>	15 x 17 mm	206.4	0.70 lbs.




# Wrenches

## SET NO. J1190MA - 5 PC. METRIC RATCHETING BOX WRENCH SET - 6 & 12 POINT

**M**ETRIC

- Full polish finish provides corrosion resistance and easy to clean surfaces.
- Built in retaining ring in each ratchet wheel adds speed and convenience for great accessibility.
- Shorter length for access to confined workspaces.
- Reversing switch lever allows for easy changes in turning direction which helps improve speed.
- The wrench self-aligns with the fastener.
- 6 point box end allows for a large wrench to fastener contact area which helps prevent fastener rounding.
- 12 point box end allows for fine indexing.
- Fits 4, 6 and 12 point fasteners.




Product ID No.	Contents	Point Size	 mm	Length
<b>J1190MA</b>	J1191M-A	6 point	7 x 8	108.7
	J1192M-A	6 point	9 x 10	140.2
	J1193MA-A	12 point	11 x 13	173.0
	J1194MA-A	12 point	12 x 14	173.0
	J1195M-A	12 point	15 x 17	206.0
	J25TR06C	Tool Roll		

## METRIC RATCHETING BOX WRENCHES - 6 AND 12 POINT

**M**ETRIC

- Full polish finish provides corrosion resistance and easy to clean surfaces.
- Built in retaining ring in each ratchet wheel adds speed and convenience for great accessibility.
- Shorter length for access to confined workspaces.
- Reversing switch lever allows for easy changes in turning direction which helps improve speed.
- The wrench self-aligns with the fastener.
- 6 point box end allows for large wrench to fastener contact area which helps prevent fastener rounding.
- 12 point box end allows for fine indexing and fits 4, 6 and 12 point fasteners.
- Fits 4, 6 and 12 point fasteners.



Product ID No.	 mm	Point Size	C	D	C1	D1	L	Weight lbs.
<b>J1191M-A</b>	7 x 8	6 point	15.0	7.5	16.3	9.5	109.0	0.12 lbs.
<b>J1192M-A</b>	9 x 10	6 point	19.8	7.5	22.6	9.5	140.2	0.17 lbs.
<b>J1193MA-A</b>	11 x 13	12 point	25.4	10.3	29.0	12.7	173.0	0.31 lbs.
<b>J1194MA-A</b>	12 x 14	12 point	25.4	10.3	29.0	12.7	235.0	0.39 lbs.
<b>J1195M-A</b>	15 x 17	12 point	32.9	10.3	36.5	12.7	206.0	0.48 lbs.
<b>J1196M</b>	16 x 18	12 point	32.9	10.3	36.5	12.7	206.0	0.48 lbs.
<b>J1197M</b>	19 x 21	12 point	35.7	10.3	39.7	12.7	234.7	0.55 lbs.






# Wrenches



## SET NO J1190A - 5 PC. RATCHETING BOX WRENCH SET - 12 POINT

- Full polish finish provides corrosion resistance and easy to clean surfaces.
- Built in retaining ring in each ratchet wheel adds speed and convenience.
- Shorter length for access to confined workspaces.
- Reversing switch lever allows for easy changes in turning direction which helps improve speed.
- The wrench self-aligns with the fastener.
- 12 point box end allows for fine indexing.
- Fits 4, 6 and 12 point fasteners.
- Weight: 1.72 lbs.




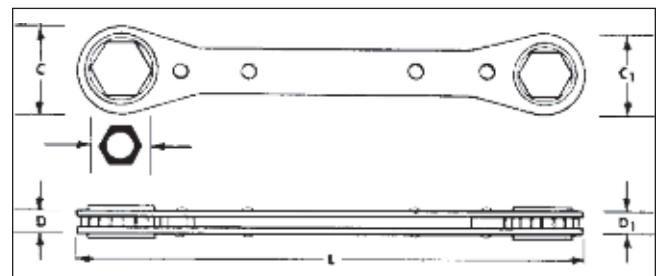
Product ID No.	Contents	 in.	Length
<b>J1190A</b>	J1191T-A	1/4" x 5/16"	4-9/32"
	J1192T-A	3/8" x 7/16"	5-1/2"
	J1193T-A	1/2" x 9/16"	6-3/4"
	J1194-A	5/8" x 11/16"	8-7/64"
	J1195-A	3/4" x 7/8"	9-1/4"
	J25TR06C	Tool Roll	

## SET NO. J1190B - 3 PC. RATCHETING BOX WRENCH SET - 12 POINT

- Full polish finish provides corrosion resistance and easy to clean surfaces.
- Built in retaining ring in each ratchet wheel adds speed and convenience for great accessibility.
- Shorter length for access to confined workspaces.
- Reversing switch lever allows for easy changes in turning direction which helps improve speed.
- The wrench self-aligns with the fastener.
- 12 point box end allows for fine indexing.
- Fits 4, 6 and 12 point fasteners.
- Weight: 1.1 lbs.



Product ID No.	Contents	 in.	Length
<b>J1190B</b>	J1192T-A	3/8" x 7/16"	5-1/2"
	J1193T-A	1/2" x 9/16"	6-3/4"
	J1194-A	5/8" x 11/16"	8-7/64"
	J25TR17C	Tool Roll	





# Wrenches

## RATCHETING BOX WRENCHES - 6 POINT

- Full polish finish provides corrosion resistance and easy to clean surfaces.
- Built in retaining ring in each ratchet wheel adds speed and convenience for great accessibility.
- Shorter length for access to confined workspaces.
- Reversing switch lever allows for easy changes in turning direction which helps improve speed.
- The wrench self-aligns with the fastener.
- 6 point box end allows for large wrench to fastener contact area which helps prevent fastener rounding.
- Fits 4, 6 and 12 point fasteners.



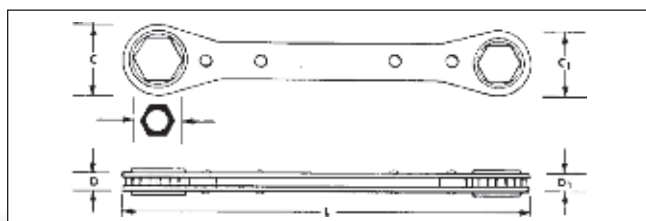
Product ID No.	in.	C	D	C1	D1	L	Weight lbs.
J1191-A	1/4" x 5/16"	9/16"	3/8"	5/8"	3/8"	4-9/32"	0.12 lbs.
J1192-A	3/8" x 7/16"	3/4"	1/2"	7/8"	1/2"	5-1/2"	0.18 lbs.
J1193-A	1/2" x 9/16"	1"	1/2"	1-1/8"	1/2"	6-3/4"	0.29 lbs.

## RATCHETING BOX WRENCHES - 12 POINT

- Full polish finish provides corrosion resistance and easy to clean surfaces.
- Built in retaining ring in each ratchet wheel adds speed and convenience for great accessibility.
- Shorter length for access to confined workspaces.
- Reversing switch lever allows for easy changes in turning direction which helps improve speed.
- The wrench self-aligns with the fastener.
- 12 point box end allows for fine indexing.
- Fits 4, 6 and 12 point fasteners.



Product ID No.	in.	C	D	C1	D1	L	Weight lbs.
J1191T-A	1/4" x 5/16"	9/16"	3/8"	5/8"	3/8"	4-9/32"	0.12 lbs.
J1192T-A	3/8" x 7/16"	3/4"	3/8"	7/8"	3/8"	5-1/2"	0.17 lbs.
J1193T-A	1/2" x 9/16"	1"	1/2"	1-1/8"	1/2"	6-3/4"	0.29 lbs.
J1194-A	5/8" x 11/16"	1-3/16"	1/2"	1-5/16"	1/2"	8-7/64"	0.44 lbs.
J1195-A	3/4" x 7/8"	1-5/16"	1/2"	1-37/64"	1/2"	9-1/4"	0.52 lbs.
J1196-A	5/8" x 3/4"	1-3/8"	1/2"	1-3/8"	1/2"	8-1/8"	0.47 lbs.
J1197-A	13/16" x 15/16"	1-5/16"	1/2"	1-37/64"	1/2"	9-1/4"	0.52 lbs.
J1198	1-1/4" x 1-1/16"	1-29/32"	1/2"	2-1/4"	1/2"	15"	0.56 lbs.
J1199	1-1/8" x 1-1/4"	1-29/32"	1/2"	2-1/4"	1/2"	15"	0.60 lbs.




# Wrenches



## SET NO. J1180MA - 7 PC. METRIC OFFSET RATCHETING BOX WRENCH SET - 6 & 12 POINT **M**ETRIC

- Full polish finish provides corrosion resistance and easy to clean surfaces.
- 12 point box end allows for fine indexing, helping to improve speed and access. Fits 4, 6 and 12 point fasteners.
- 6 point box end allows larger wrench to fastener contact area which helps prevent rounding of the fastener.
- 25° offset box end helps keep shank clear of obstructions.
- Reversing switch lever allows for easy changes in turning direction which helps improve speed.
- Weight: 3.60 lbs.




Product ID No.	Contents	Point Size	 mm	Length
<b>J1180MA</b>	J1181M-A	6 Point	7 x 8	103.0
	J1182M-A	6 Point	9 x 10	132.0
	J1183MA-A	12 Point	11 x 13	166.0
	J1184MA-A	12 Point	12 x 14	166.0
	J1185M-A	12 Point	15 x 17	199.0
	J1186M-A	12 Point	16 x 18	199.0
	J1187M-A	12 Point	19 x 21	221.0
	J25TR01C	Tool Roll		

## METRIC OFFSET RATCHETING BOX WRENCHES - 6 AND 12 POINT **M**ETRIC

- Full polish finish provides corrosion resistance and easy to clean surfaces.
- Built in retaining ring in each ratchet wheel adds speed and convenience.
- Shorter length for access to confined workspaces.
- Reversing switch lever allows for easy changes in turning direction which helps improve speed.
- The wrench self-aligns with the fastener.
- 12 point box end allows for fine indexing.
- Fits 4, 6 and 12 point fasteners.



Product ID No.	 mm	C	D	C1	D1	L	Weight lbs.
<b>J1181M-A</b>	7 x 8	15.0	7.5	16.3	9.5	109.0	0.13 lbs.
<b>J1182M-A</b>	9 x 10	19.8	7.5	22.6	9.5	140.2	0.22 lbs.
<b>J1183MA-A</b>	11 x 13	25.4	12.7	29.0	13.0	166	0.32 lbs.
<b>J1184MA-A</b>	12 x 14	25.4	12.7	29.0	13.0	166	0.32 lbs.
<b>J1185M-A</b>	15 x 17	33.0	12.7	37.0	13.0	199	0.46 lbs.
<b>J1186M-A</b>	16 x 18	33.0	12.7	37.0	13.0	199	0.46 lbs.
<b>J1187M-A</b>	19 x 21	36.0	12.7	40.0	13.0	221	0.52 lbs.

# Wrenches

## REFRIGERATION RATCHETING BOX WRENCH

- Full polish finish provides corrosion resistance and easy to clean surfaces.
- Designed for servicing automotive, commercial, and residential air conditioners, refrigeration units and freezers.
- Hex openings are used for packing gland fittings, mounting bolts, clutch bolts, tubing fittings, dust cap nuts and oil check plugs.
- Square openings are used on male service valves, plug fittings, compressor valves and refrigerant charging tanks.



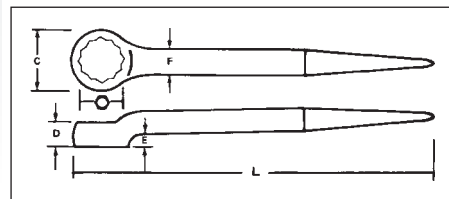
Product ID No.	in.	in.	L	Weight lbs.
<b>J1111</b>	1/4"-3/16" Sq.	9/16"-1/2" Hex.	6-3/4"	0.35 lbs.
<b>J1112</b>	3/8"-5/16" Sq.	1/4"-3/16" Hex.	5-1/2"	0.25 lbs.

## SPUD HANDLE BOX WRENCHES - 12 POINT

- Non-reflective ProtoBlack™ finish for use where non-plated products are required.
- Ideal for heavy construction and field service work.
- High leverage handle and strong box end designed to turn stubborn nuts and bolts.
- Tapered spud end aligns flange holes.
- 12 point box end allows for fine indexing helping to improve speed and access. Fits 4, 6 and 12 point fasteners.



Product ID No.	in.	C	D	E	F	L	Weight lbs.
<b>J2613</b>	13/16"	1-11/32"	5/8"	1-3/32"	11/16"	12"	0.87 lbs.
<b>J2614</b>	7/8"	1-11/32"	5/8"	1-3/32"	11/16"	12"	0.85 lbs.
<b>J2615</b>	15/16"	1-11/32"	5/8"	1-3/32"	11/16"	12"	1.25 lbs.
<b>J2616</b>	1"	1-9/16"	11/16"	1-5/16"	3/4"	12"	1.22 lbs.
<b>J2617</b>	1-1/16"	1-19/32"	11/16"	1-5/16"	3/4"	15"	1.57 lbs.
<b>J2618</b>	1-1/8"	1-45/64"	13/16"	1-1/16"	3/4"	15"	1.5 lbs.
<b>J2620</b>	1-1/4"	1-25/32"	13/16"	1-1/16"	3/4"	17"	2.38 lbs.
<b>J2621</b>	1-5/16"	2-1/8"	15/16"	1-3/8"	7/8"	17"	2.19 lbs.
<b>J2623</b>	1-7/16"	2-1/8"	15/16"	1-3/8"	7/8"	21"	3.1 lbs.
<b>J2624</b>	1-1/2"	2-3/16"	1"	1-1/2"	7/8"	21"	3.05 lbs.
<b>J2626</b>	1-5/8"	2-15/32"	1-1/8"	1-1/2"	7/8"	22"	4.7 lbs.
<b>J2627</b>	1-11/16"	2-15/32"	1-1/8"	1-1/2"	7/8"	22"	4.91 lbs.
<b>J2629</b>	1-13/16"	2-29/32"	1-3/16"	1-9/16"	1"	23"	5.84 lbs.
<b>J2630</b>	1-7/8"	2-29/32"	1-3/16"	1-9/16"	1"	23"	5.99 lbs.
<b>J2632</b>	2"	3-5/32"	1-7/16"	1-21/32"	1"	24-1/2"	7.04 lbs.
<b>J2635</b>	2-3/16"	3-15/32"	1-9/16"	1-7/8"	1"	26"	8.93 lbs.
<b>J2638</b>	2-3/8"	3-23/32"	1-1/2"	2"	1"	28"	9.96 lbs.
<b>J2641</b>	2-9/16"	4"	1-1/2"	2-1/4"	1-1/16"	30"	11.24 lbs.
<b>J2644</b>	2-3/4"	4"	1-1/2"	2-1/4"	1-1/16"	30"	14.34 lbs.



# Wrenches



## STRIKING WRENCHES HEAVY-DUTY - 6 POINT

- Non-reflective ProtoBlack™ finish for use where non-plated products are required.
- Large striking surface for surer blow contact and more efficient transmittal of force to fastener.
- Short handle permits use in close quarters.
- Box opening designed to remain on fastener when wrench is struck.
- For use where extreme force is necessary to loosen or set large fasteners.
- Heavy box walls provide greater torque transmission.
- Straight handle design helps prevent the wrench from cocking when struck.



Product ID No.	in.	C	D	L	Weight lbs.
<b>J2717SW</b>	1-1/16"	1-25/32"	5/8"	9-7/8"	1.62 lbs.
<b>J2720SW</b>	1-1/4"	2"	23/32"	10-1/4"	1.72 lbs.
<b>J2723SW</b>	1-7/16"	2-17/64"	7/8"	10-19/32"	2.49 lbs.
<b>J2726SW</b>	1-5/8"	2-31/64"	61/64"	10-15/16"	3.17 lbs.
<b>J2729SW</b>	1-13/16"	2-21/32"	63/64"	11-5/16"	3.49 lbs.
<b>J2732SW</b>	2"	3-1/32"	1-7/32"	11-21/32"	4.73 lbs.
<b>J2735SW</b>	2-3/16"	3-9/32"	1-15/64"	11-5/16"	5.33 lbs.
<b>J2738SW</b>	2-3/8"	3-13/32"	1-7/16"	12-3/8"	5.63 lbs.
<b>J2741SW</b>	2-9/16"	3-3/4"	1-17/32"	12-11/16"	6.47 lbs.
<b>J2744SW</b>	2-3/4"	4-11/64"	1-17/32"	13-1/16"	7.56 lbs.
<b>J2747SW</b>	2-15/16"	4-23/64"	1-17/32"	13-7/16"	7.81 lbs.
<b>J2750SW</b>	3-1/8"	4-31/64"	1-41/64"	13-13/16"	9.50 lbs.
<b>J2756SW</b>	3-1/2"	4-31/32"	1-23/32"	14-1/8"	10.54 lbs.
<b>J2762SW</b>	3-7/8"	5-35/64"	1-23/32"	14-1/2"	12.76 lbs.

## STRIKING WRENCH - 12 POINT

- Non-reflective ProtoBlack™ finish for use where non-plated products are required.
- 12 point box end allows for fine indexing, helping improve speed and access.
- Fits most 4, 6 and 12 point fasteners.
- Large striking surface for surer blow contact and more efficient transmittal of force to fastener.
- Short handle permits use in close quarters.
- Box opening designed to remain on fastener when wrench is struck.
- For use where extreme force is necessary to loosen or set large fasteners.
- Heavy box walls provide greater torque transmission.
- Straight handle design helps prevent the wrench from cocking when struck.



Product ID No.	in.	C	D	L	Weight lbs.
<b>JSN16</b>	1"	1-25/32"	5/8"	9-7/8"	1.90 lbs.
<b>JSN17</b>	1-1/16"	1-25/32"	5/8"	9-7/8"	1.90 lbs.
<b>JSN18</b>	1-1/8"	1-25/32"	5/8"	9-7/8"	1.90 lbs.
<b>JSN19</b>	1-3/16"	2"	3/4"	10-1/4"	2.10 lbs.
<b>JSN20</b>	1-1/4"	2"	3/4"	10-1/4"	2.10 lbs.

# Wrenches

## OFFSET STRIKING WRENCHES HEAVY-DUTY - 12 POINT

- Black oxide finish.
- Large striking surface for surer blow contact and more efficient transmittal of force to fastener.
- Short handle permits use in close quarters.
- Box opening designed to remain on fastener when wrench is struck.
- For use where extreme force is necessary to loosen or set large fasteners.
- Heavy box walls provide greater torque transmission.
- Offset handle clears obstructions.



Product ID No.	in.	C	D	E	L	Weight lbs.
J2616SW	1"	1-25/32"	5/8"	15/16"	8-1/2"	1.84 lbs.
J2617SW	1-1/16" / 27mm	1-11/16"	5/8"	15/16"	8-1/2"	1.84 lbs.
J2618SW	1-1/8"	1-11/16"	5/8"	15/16"	8-1/2"	1.79 lbs.
J2619SW	1-3/16" / 30mm	2 1/16"	13/16"	13/16"	11"	2.55 lbs.
J2620SW	1-1/4"	1-7/8"	13/16"	13/16"	10-3/4"	2.58 lbs.
J2621SW	1-5/16"	1-7/8"	13/16"	13/16"	10-3/4"	2.59 lbs.
J2622SW	1-3/8" / 35mm	2 25/64"	1"	1-1/2"	11-1/2"	3.4 lbs.
J2623SW	1-7/16"	2-3/16"	1"	1-1/2"	12"	3.29 lbs.
J2624SW	1-1/2" / 38mm	2-3/16"	1"	1-1/2"	12"	3.35 lbs.
J2625SW	1-9/16"	2-21/32"	1-1/8"	1-7/16"	12"	3.89 lbs.
J2626SW	1-5/8"	2-13/32"	1-1/8"	1-1/2"	12-1/4"	4.00 lbs.
J2627SW	1-11/16" / 43mm	2-13/32"	1-1/8"	1-1/2"	12-1/4"	3.88 lbs.
J2628SW	1-3/4"	2-19/32"	1-3/16"	1-9/16"	13-7/16"	3.9 lbs.
J2629SW	1-13/16"	2-21/32"	1-3/16"	1-9/16"	13-7/16"	5.3 lbs.
J2630SW	1-7/8"	2-27/32"	1-1/4"	1-21/32"	13-7/16"	5.24 lbs.
J2631SW	1-15/16"	3-3/32"	1-1/4"	1-7/8"	13"	5.2 lbs.
J2632SW	2" / 51mm	2-27/32"	1-1/4"	1-21/32"	13-7/16"	5.16 lbs.
J2633SW	2-1/16"	6-5/16"	1-1/4"	2"	13-1/2"	6.82 lbs.
J2634SW	2-1/8" / 54mm	3-1/8"	1-1/2"	2"	13-7/8"	6.71 lbs.
J2635SW	2-3/16"	3-3/8"	1-1/2"	2"	13-1/2"	6.78 lbs.
J2636SW	2-1/4" / 57mm	3-3/8"	1-1/2"	2"	13-1/2"	6.3 lbs.
J2637SW	2-5/16"	3-3/8"	1-1/2"	2"	13-1/2"	7.94 lbs.
J2638SW	2-3/8"	3-3/8"	1-1/2"	2"	13-1/2"	7.86 lbs.
J2639SW	2-7/16"	3-13/16"	1-1/2"	2-1/4"	13-1/2"	7.67 lbs.
J2640SW	2-1/2" / 64mm	4"	1-1/2"	2-1/4"	13-1/2"	7.62 lbs.
J2641SW	2-9/16"	4"	1-1/2"	2-1/4"	13-1/2"	13.43 lbs.
J2642SW	2-5/8"	4"	1-1/2"	2-1/4"	13-1/2"	10.42 lbs.
J2643SW	2-11/16"	4-7/32"	1-1/2"	2-1/4"	13-1/2"	10.25 lbs.
J2644SW	2-3/4"	4"	1-1/2"	2-1/4"	13-1/2"	10.18 lbs.
J2646SW	2-7/8" / 73mm	4-25/32"	1-7/8"	2-5/8"	16"	13.84 lbs.
J2647SW	2-15/16"	4-7/16"	1-7/8"	2-5/8"	16"	13.6 lbs.
J2648SW	3"	4-7/16"	1-7/8"	2-5/8"	16"	13.44 lbs.
J2649SW	3-1/16"	4-25/32"	1-7/8"	2 5/8"	16"	13.37 lbs.
J2650SW	3-1/8"	4-7/16"	1-7/8"	2-5/8"	16"	13.18 lbs.
J2654SW	3-3/8"	6-1/4"	2-3/8"	3 5/8"	18"	26.88 lbs.
J2656SW	3-1/2"	6-1/4"	2-3/8"	3 5/8"	18"	26.37 lbs.
J2660SW	3-3/4"	6-1/4"	2-3/8"	3 5/8"	18"	25.03 lbs.
J2662SW	3-7/8"	2-3/8"	2-3/8"	3 5/8"	18"	24.58 lbs.
J2666SW	4-1/8"	6-1/4"	2-3/8"	3 5/8"	18"	23.47 lbs.
J2668SW	4-1/4"	6-1/4"	2-3/8"	3 5/8"	18"	22.75 lbs.






# Wrenches



## OFFSET STRIKING DUAL DIMENSION WRENCHES - 12 POINT

- Handle is stamped with dual dimensions for metric-to-fractional equivalents.




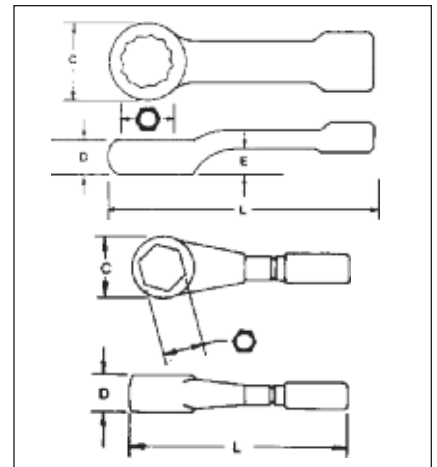
Product ID No.	 in.	C	D	E	L	Weight lbs.
<b>J2617SW</b>	1-1/16" / 27mm	1-11/16"	5/8"	15/16"	8-1/2"	1.84 lbs.
<b>J2619SW</b>	1-3/16" / 30mm	2 1/16"	13/16"	13/16"	11"	2.55 lbs.
<b>J2622SW</b>	1-3/8" / 35mm	2 25/64"	1"	1-1/2"	11-1/2"	3.4 lbs.
<b>J2624SW</b>	1-1/2" / 38mm	2-3/16"	1"	1-1/2"	12"	3.35 lbs.
<b>J2627SW</b>	1-11/16" / 43mm	2-13/32"	1-1/8"	1-1/2"	12-1/4"	3.88 lbs.
<b>J2632SW</b>	2" / 51mm	2-27/32"	1-1/4"	1-21/32"	13-7/16"	5.16 lbs.
<b>J2634SW</b>	2-1/8" / 54mm	3-1/8"	1-1/2"	2"	13-7/8"	6.71 lbs.
<b>J2636SW</b>	2-1/4" / 57mm	3-3/8"	1-1/2"	2"	13-1/2"	6.3 lbs.
<b>J2640SW</b>	2-1/2" / 64mm	4"	1-1/2"	2-1/4"	13-1/2"	7.62 lbs.
<b>J2646SW</b>	2-7/8" / 73mm	4-25/32"	1-7/8"	2-5/8"	16"	13.84 lbs.

## METRIC OFFSET STRIKING WRENCHES HEAVY-DUTY - 12 POINT

**M**ETRIC



Product ID No.	 mm	C	D	E	L	Weight lbs.
<b>J2632SWM</b>	32	48	21	30	273	0.88 lbs.
<b>J2636SWM</b>	36	56	25	38	305	2.13 lbs.
<b>J2641SWM</b>	41	61	28	38	311	2.37 lbs.
<b>J2646SWM</b>	46	68	30	40	341	2.81 lbs.
<b>J2650SWM</b>	50	72	32	42	341	6.36 lbs.
<b>J2655SWM</b>	55	86	38	51	343	6.58 lbs.
<b>J2660SWM</b>	60	86	38	51	343	9.19 lbs.
<b>J2665SWM</b>	65	102	38	57	343	12.61 lbs.
<b>J2670SWM</b>	70	102	38	57	343	12.11 lbs.
<b>J2675SWM</b>	75	113	48	67	406	13.53 lbs.
<b>J2680SWM</b>	80	113	48	67	406	13.16 lbs.





# Wrenches

## OFFSET SLUGGING WRENCHES SUPER HEAVY-DUTY - 12 POINT

- Non-reflective ProtoBlack™ finish for use where non-plated products are required.
- 12 point box end allows for fine indexing, helping improve speed and access.
- Designed for heavy use in close quarters where hammer or sledge is required to loosen frozen nuts or set large fasteners.
- High strength rectangular design withstands heavy sledging; transmits power more effectively to fastener.
- Box opening designed to remain in place on fastener when wrench is struck.
- Heavy box walls provide greater transmission of torque to fastener.
- Straighter handle design than striking wrenches resists springing, nut turns easier.



Product ID No.	in.	C	D	E	L	Weight lbs.
JUSN321	1-5/16"	2-3/8"	7/8"	11/16"	8-3/8"	2.03 lbs.
JUSN322	1-3/8"	2-3/8"	7/8"	11/16"	8-3/8"	2.00 lbs.
JUSN323	1-7/16"	2-3/8"	7/8"	11/16"	8-3/8"	1.95 lbs.
JUSN324	1-1/2"	2-3/4"	1-1/8"	1"	10"	3.54 lbs.
JUSN326	1-5/8"	2-3/4"	1-1/8"	1"	10-1/8"	3.41 lbs.
JUSN327	1-11/16"	2-3/4"	1-1/8"	1"	10-1/8"	3.31 lbs.
JUSN328	1-3/4"	2-3/4"	1-1/8"	1"	10-1/8"	3.36 lbs.
JUSN329	1-13/16"	2-3/4"	1-1/8"	1"	10-1/8"	3.20 lbs.
JUSN330	1-7/8"	3"	1-1/4"	1-1/8"	10-3/4"	3.92 lbs.
JUSN332	2-1/2"	3"	1-5/16"	1-1/8"	10-3/4"	3.71 lbs.
JUSN333	2-1/16"	3"	1-5/16"	1-1/8"	10 3/4"	4.21 lbs.
JUSN334	2-1/8"	3"	1-5/16"	1-1/8"	11"	4.74 lbs.
JUSN335	2-3/16"	3-9/16"	1-3/8"	1-1/4"	11"	5.11 lbs.
JUSN336	2-1/4"	3-9/16"	1-3/8"	1-1/4"	11"	4.86 lbs.
JUSN338	2-3/8"	4-1/8"	1-5/8"	1-1/2"	14-1/2"	8.75 lbs.
JUSN339	2-7/16"	4-1/8"	1-5/8"	1-1/2"	14-1/2"	8.86 lbs.
JUSN340	2-1/2"	4-1/8"	1-5/8"	1-1/2"	14-1/2"	8.46 lbs.
JUSN341	2-9/16"	4-1/8"	1-5/8"	1-1/2"	14-1/2"	8.37 lbs.
JUSN342	2-5/8"	4-1/8"	1-5/8"	1-1/2"	14-1/2"	8.35 lbs.
JUSN344	2-3/4"	4-1/8"	1-5/8"	1-1/2"	14-1/2"	7.80 lbs.
JUSN345	2-13/16"	4-5/8"	1-7/8"	1-3/4"	15-3/4"	9.06 lbs.
JUSN347	2-15/16"	4-5/8"	1-7/8"	1-3/4"	15-3/4"	12.17 lbs.
JUSN348	3"	4-5/8"	1-7/8"	1-3/4"	15-3/4"	12.14 lbs.
JUSN350	3-1/8"	4-5/8"	1-7/8"	1-7/8"	15-3/4"	11.29 lbs.
JUSN354	3-3/8"	5-1/4"	2"	1-7/8"	17-3/8"	15.41 lbs.
JUSN356	3-1/2"	5-1/4"	2"	1-7/8"	17-3/8"	15.79 lbs.
JUSN360	3-3/4"	5-1/2"	2-1/2"	1-7/8"	17-3/8"	22.74 lbs.
JUSN362	3-7/8"	5-1/2"	2-1/2"	1-7/8"	18"	22.11 lbs.
JUSN366	4-1/8"	6-1/8"	2-7/8"	1-7/8"	18"	27.92 lbs.
JUSN368	4-1/4"	6-1/8"	2-7/8"	1-7/8"	18"	26.83 lbs.
JUSN372	4-1/2"	6-5/8"	3"	1-7/8"	19-3/4"	32.06 lbs.
JUSN374	4-5/8"	6-5/8"	3"	1-7/8"	19-3/4"	30.54 lbs.



# Wrenches



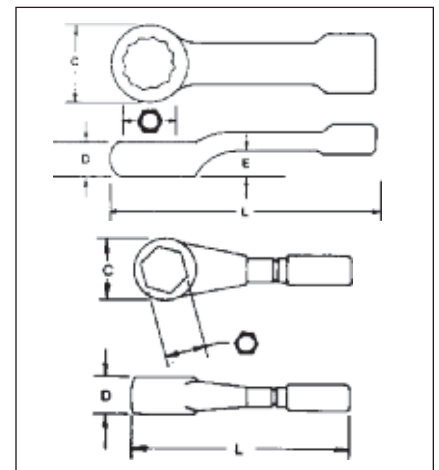
## METRIC OFFSET SLUGGING WRENCHES SUPER HEAVY-DUTY - 12 POINT

**METRIC**

- Non-reflective ProtoBlack™ finish for use where non-plated products are required.
- 12 point box end allows for fine indexing, helping improve speed and access.
- Fits most 4, 6 and 12 point fasteners.
- Designed for heavy use in close quarters where hammer or sledge is required to loosen frozen nuts or set large fasteners.
- High strength rectangular design withstands heavy sledging.
- Box opening designed to remain in place on fastener when wrench is struck.
- Heavy box walls provide greater transmission of torque to fastener.
- Straighter handle design than striking wrenches resists springing, nut turns easier.



Product ID No.	mm	C	D	E	L	Weight lbs.
<b>JHD032M</b>	32	60	22	17	213	1.27 lbs.
<b>JHD036M</b>	36	60	22	17	213	1.27 lbs.
<b>JHD041M</b>	41	70	29	25	257	1.36 lbs.
<b>JHD046M</b>	46	70	29	25	257	1.31 lbs.
<b>JHD050M</b>	50	76	32	28	273	1.80 lbs.
<b>JHD055M</b>	55	91	35	32	279	2.27 lbs.
<b>JHD060M</b>	60	105	41	38	368	3.63 lbs.
<b>JHD065M</b>	65	105	41	38	368	3.50 lbs.
<b>JHD070M</b>	70	105	41	38	368	3.36 lbs.
<b>JHD075M</b>	75	118	48	44	400	12.15 lbs.
<b>JHD080M</b>	80	133	51	47	441	11.35 lbs.
<b>JHD085M</b>	85	133	51	47	441	16.96 lbs.
<b>JHD090M</b>	90	140	64	48	451	15.16 lbs.
<b>JHD095M</b>	95	140	64	48	451	22.75 lbs.
<b>JHD100M</b>	100	152	73	50	457	28.51 lbs.
<b>JHD105M</b>	105	152	73	50	457	27.26 lbs.
<b>JHD110M</b>	110	165	76	52	457	33.22 lbs.
<b>JHD115M</b>	115	165	76	52	502	31.89 lbs.

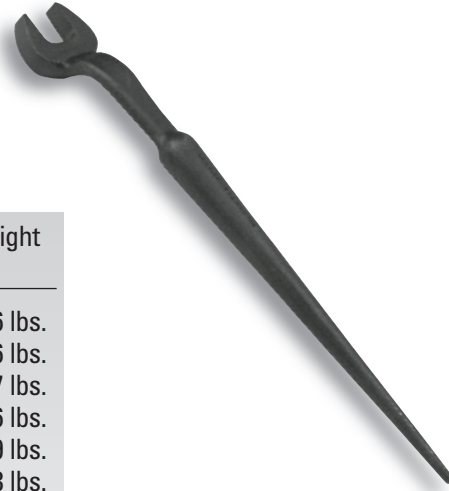




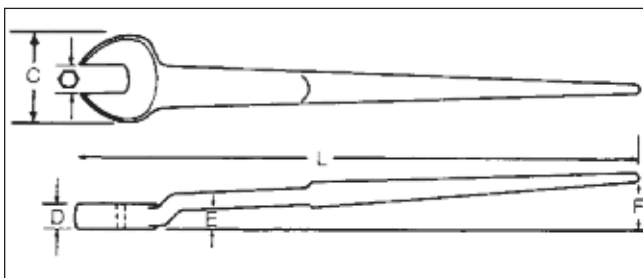
# Wrenches

## STRUCTURAL WRENCHES - OFFSET HEAD

- Non-reflective ProtoBlack™ finish for use where non-plated products are required.
- Long offset handle provides greater leverage and clearance for knuckles and obstructions.
- Hardened tapered handle aligns bolt and rivet holes.
- Openings are precision broached for proper fit.



Product ID No.	in.	C	D	E	F	L	Weight lbs.
JC901B	9/16"	1-9/16"	7/16"	3/4"	1-11/16"	12"	0.76 lbs.
JC903A	5/8"	1-9/16"	7/16"	3/4"	1-11/16"	12"	0.76 lbs.
JC903	11/16"	1-9/16"	7/16"	3/4"	1-11/16"	12"	0.77 lbs.
JC904A	3/4"	1-7/8"	7/16"	3/4"	1-11/16"	12"	0.76 lbs.
JC905A	13/16"	2"	9/16"	7/8"	1-7/8"	12"	1.29 lbs.
JC905	7/8"	2-3/16"	9/16"	7/8"	1-7/8"	14-1/4"	1.23 lbs.
JC906B	1"	2-3/16"	9/16"	7/8"	1-7/8"	14-1/4"	1.29 lbs.
JC907	1-1/16"	2-7/16"	21/32"	1"	2-1/4"	17-1/4"	1.88 lbs.
JC907A	1-1/8"	2-7/16"	21/32"	1"	2-1/4"	17-1/4"	1.79 lbs.
JC908	1-1/4"	2-3/4"	13/16"	1-1/4"	3"	19-1/2"	2.78 lbs.
JC908A	1-5/16"	2-3/4"	13/16"	1-1/4"	3"	19-1/2"	2.79 lbs.
JC909	1-7/16"	3-1/8"	13/16"	1-1/4"	3"	19-1/2"	3.54 lbs.
JC909A	1-1/2"	3-1/8"	13/16"	1-1/4"	3"	19-1/2"	3.79 lbs.
JC910	1-5/8"	3-1/8"	13/16"	1-5/8"	3"	23-1/4"	5.68 lbs.
JC910A	1-11/16"	3-5/8"	13/16"	1-5/8"	3"	23 1/4"	5.41 lbs.
JC911	1-13/16"	4-1/8"	13/16"	1-5/8"	3"	23 1/4"	7.35 lbs.
JC911A	1-7/8"	4-1/8"	13/16"	1-5/8"	3"	23 1/4"	7.23 lbs.
JC912	2"	4-7/16"	13/16"	1-5/8"	3"	23-1/4"	7.5 lbs.



# Wrenches



## FACOM® ENGINEER WRENCHES

- Forged in carbon steel and hardened to high torque applications.
- Hook eye.
- Black oxide finish.
- Long handle for extra leverage



Product ID No.	Size (mm)	Length	Head Thickness	Weight lbs.
<b>FM-45.30</b>	30 mm	10-1/4"	7/16"	0.75 lbs.
<b>FM-45.32</b>	32 mm	11-7/32"	15/32"	0.92 lbs.
<b>FM-45.34</b>	34 mm	12-5/32"	15/32"	1.29 lbs.
<b>FM-45.36</b>	36 mm	12-13/32"	1/2"	1.28 lbs.
<b>FM-45.38</b>	38 mm	12-19/32"	1/2"	1.63 lbs.
<b>FM-45.41</b>	41 mm	13-3/8"	17/32"	1.93 lbs.
<b>FM-45.46</b>	43 mm	15-9/16"	5/8"	2.39 lbs.
<b>FM-45.50</b>	50 mm	16-23/32"	5/8"	3.05 lbs.
<b>FM-45.55</b>	55 mm	16-23/32"	5/8"	3.04 lbs.
<b>FM-45.60</b>	60 mm	18-1/2"	23/32"	5.45 lbs.
<b>FM-45.65</b>	65 mm	18-1/2"	23/32"	5.43 lbs.
<b>FM-45.70</b>	70 mm	19-11/16"	25/32"	7.51 lbs.
<b>FM-45.75</b>	75 mm	19-11/16"	13/16"	7.47 lbs.

## FACOM® LEVERAGE WRENCHES

- Satin finish provides corrosion resistance and a slip resistant grip.
- Separate removable handle used when extra leverage is needed.
- 12 point, box end allows for fine indexing, helping to improve speed and access.
- 30° offset handle helps clear obstructions.



Product ID No.	Size	Length	Head Thickness 1	Weight lbs.
<b>FM-54A.24</b>	24 mm	7-3/32"	21/32"	0.89 lbs.
<b>FM-54A.30</b>	30 mm	8-9/32"	23/32"	1.09 lbs.
<b>FM-54A.32</b>	32 mm	9-7/16"	23/32"	1.6 lbs.
<b>FM-54A.36</b>	36 mm	9-27/32"	25/32"	1.71 lbs.
<b>FM-54A.41</b>	41 mm	10-5/8"	7/8"	2.05 lbs.
<b>FM-54A.46</b>	46 mm	11-1/32"	29/32"	2.61 lbs.
<b>FM-54A.50</b>	50 mm	11-5/8"	1"	3.11 lbs.
<b>FM-54A.55</b>	55 mm	11-11/16"	1-1/8"	3.27 lbs.
<b>FM-54A.60</b>	60 mm	13-25/32"	1-3/16"	4.95 lbs.
<b>FM-54A.65</b>	65 mm	14-3/8"	1-5/16"	5.39 lbs.
<b>FM-54A.70</b>	70 mm	14-3/8"	1-13/32"	6.05 lbs.





# Wrenches

## FACOM® LEVERAGE WRENCH HANDLES

- Removable handle
- Satin finish provides corrosion resistance and a slip resistant grip.



Product ID No.	L	Weight lbs.
<b>FM-54.M1B</b>	460 mm	1.35 lbs.
<b>FM-54.M2B</b>	610 mm	2.44 lbs.
<b>FM-54.M3B</b>	760 mm	4.73 lbs.
<b>FM-54.M4B</b>	860 mm	6.31 lbs.

## SERVICE WRENCH

- Satin finish provides corrosion resistance and a slip resistant grip.
- 30° angle head allows access to difficult to reach fasteners.
- Thin pattern for use on jam nuts, check nuts or lock nuts.
- Short shank allows for use in confined spaces.



Product ID No.	in.	Head Width	Head Thickness	L	Weight lbs.
<b>J3524</b>	3/4"	1-11/16"	1/4"	6-1/4"	0.22 lbs.
<b>J3526</b>	13/16"	1-11/16"	1/4"	6-1/4"	0.22 lbs.
<b>J3528</b>	7/8"	1-11/16"	1/4"	6-1/4"	0.22 lbs.
<b>J3530</b>	15/16"	1-7/8"	1/4"	6-7/8"	0.25 lbs.
<b>J3532</b>	1"	1-7/8"	1/4"	6-7/8"	0.25 lbs.
<b>J3534</b>	1-1/16"	1-7/8"	1/4"	6-7/8"	0.25 lbs.
<b>J3536</b>	1-1/8"	2-1/16"	1/4"	7"	0.31 lbs.
<b>J3538</b>	1-3/16"	2-1/16"	1/4"	7"	0.31 lbs.
<b>J3540</b>	1-1/4"	2-1/16"	1/4"	7"	0.45 lbs.
<b>J3542</b>	1-5/16"	2-1/2"	9/32"	7-5/8"	0.44 lbs.
<b>J3544</b>	1-3/8"	2-1/2"	9/32"	7-5/8"	0.43 lbs.
<b>J3546</b>	1-7/16"	2-1/2"	9/32"	7-5/8"	0.42 lbs.
<b>J3548</b>	1-1/2"	2-1/2"	9/32"	7-5/8"	0.43 lbs.
<b>J3550</b>	1-9/16"	2-5/8"	9/32"	7-5/8"	0.43 lbs.
<b>J3552</b>	1-5/8"	2-5/8"	9/32"	7-5/8"	0.42 lbs.
<b>J3554</b>	1-11/16"	2-5/8"	9/32"	7-5/8"	0.7 lbs.
<b>J3556</b>	1-3/4"	3-1/8"	5/16"	8-1/2"	0.69 lbs.
<b>J3558</b>	1-13/16"	3-1/8"	5/16"	8-1/2"	0.69 lbs.
<b>J3560</b>	1-7/8"	3-1/8"	5/16"	8-1/2"	0.68 lbs.
<b>J3562</b>	1-15/16"	3-1/8"	5/16"	8-1/2"	0.68 lbs.
<b>J3564</b>	2"	3-1/2"	5/16"	8-1/2"	0.66 lbs.
<b>J3568</b>	2-1/8"	3-1/2"	5/16"	8-1/2"	0.65 lbs.
<b>J3572</b>	2-1/4"	3-1/2"	5/16"	8-1/2"	0.61 lbs.
<b>J3576</b>	2-3/8"	3-1/2"	5/16"	8-1/2"	0.61 lbs.
<b>J3580</b>	2-1/2"	3-1/2"	5/16"	8-1/2"	0.59 lbs.
<b>J3582</b>	2-9/16"	3-1/2"	5/16"	8-1/2"	0.57 lbs.



# Wrenches



## SERVICE WRENCH METRIC

**M**ETRIC

- Satin finish provides corrosion resistance and a slip resistant grip.
- 30° angle head allows access to difficult to reach fasteners.
- Thin pattern for use on jam nuts, check nuts or lock nuts.
- Short shank allows for use in confined spaces.



Product ID No.	mm	Head Width	Head Thickness	L	Weight lbs.
J3519M	19 mm	1-11/16"	1/4"	6-1/4"	0.22 lbs.
J3521M	21 mm	1-11/16"	1/4"	6-1/4"	0.22 lbs.
J3522M	22 mm	1-11/16"	1/4"	6-1/4"	0.22 lbs.
J3524M	24 mm	1-7/8"	1/4"	6-7/8"	0.25 lbs.
J3527M	27 mm	1-7/8"	1/4"	6-7/8"	0.25 lbs.
J3530M	30 mm	2-1/16"	1/4"	7"	0.31 lbs.
J3532M	32 mm	2-1/16"	1/4"	7"	0.3 lbs.
J3536M	36 mm	2-1/2"	1/4"	7-5/8"	0.45 lbs.
J3537M	37 mm	2-1/2"	9/32"	7-5/8"	0.43 lbs.
J3538M	38 mm	2-1/2"	9/32"	7-5/8"	0.42 lbs.
J3540M	40 mm	2-5/8"	9/32"	7-5/8"	0.43 lbs.
J3541M	41 mm	2-5/8"	9/32"	7-5/8"	0.43 lbs.
J3542M	42 mm	2-5/8"	9/32"	7-5/8"	0.43 lbs.
J3544M	44 mm	2-5/8"	9/32"	7-5/8"	0.43 lbs.
J3546M	46 mm	3-1/8"	9/32"	7-5/8"	0.7 lbs.
J3548M	48 mm	3-1/8"	5/16"	8-1/2"	0.7 lbs.
J3550M	50 mm	3-1/8"	5/16"	8-1/2"	0.68 lbs.
J3552M	52 mm	3-1/2"	5/16"	8-1/2"	0.66 lbs.
J3555M	55 mm	3-1/2"	5/16"	8-1/2"	0.66 lbs.
J3560M	60 mm	3-1/2"	5/16"	8-1/2"	0.61 lbs.
J3565M	65 mm	3-1/2"	5/16"	8-1/2"	0.57 lbs.




# Wrenches

## SET NO. J3000H - 10 PC. OPEN END WRENCH SET

- Satin finish provides corrosion resistance and a slip resistant grip.
- 15° angle heads.
- Special heat-treated alloy steel permits slim shanks for strength and durability.
- Standard open end configuration.
- Weight: 4.82 lbs.




Product ID No.	Contents	 in.	Length	ASME Spec.
<b>J3000H</b>	J3018	1/4" x 5/16"	4-31/64"	ASME B107.100
	J3020	5/16" x 3/8"	5-1/8"	ASME B107.100
	J3025	7/16" x 1/2"	6-3/8"	ASME B107.100
	J3026	1/2" x 9/16"	7"	ASME B107.100
	J3030	9/16" x 5/8"	7-5/8"	ASME B107.100
	J3031	5/8" x 3/4"	8-9/16"	ASME B107.100
	J3035	11/16" x 3/4"	8-7/8"	ASME B107.100
	J3040	13/16" x 7/8"	10-1/8"	ASME B107.100
	J3045	15/16" x 1"	11-1/2"	ASME B107.100
	J3050	1-1/16" x 1-1/8"	12-5/8"	ASME B107.100
J25TR05C	Tool Roll			

## SET NO. J3300A - 9 PC. SHORT ANGLE OPEN END WRENCH SET

- Satin finish.
- 15° and 75° angle heads.
- Compact shank design and short length for access in confined spaces.
- Standard open end configuration.
- Weight: 0.46 lbs.



Product ID No.	Contents	 in.	Length	ASME Spec.
<b>J3300A</b>	J3314	7/32"	3"	ASME B107.100
	J3315	15/64"	3"	ASME B107.100
	J3316	1/4"	3"	ASME B107.100
	J3318	9/32"	3-1/2"	ASME B107.100
	J3320	5/16"	3-1/2"	ASME B107.100
	J3322	11/32"	3-3/4"	ASME B107.100
	J3324	3/8"	3-3/4"	ASME B107.100
	J3328	7/16"	4-7/16"	ASME B107.100
	J3332	1/2"	4-7/16"	ASME B107.100
J25TR26C	Tool Roll			




# Wrenches



## SET NO. J3000N - 5 PC. OPEN END WRENCH SET


- Satin finish.
- 15° angle heads.
- Special heat-treated alloy steel permits slim shanks for strength and durability.
- Standard open end configuration.
- Weight: 1.66 lbs.

Product ID No.	Contents	 in.	Length
<b>J3000N</b>	J3021	3/8" x 7/16"	5-3/4"
	J3026	1/2" x 9/16"	7"
	J3030	9/16" x 5/8"	7-5/8"
	J3035	11/16" x 3/4"	8-7/8"
	J3040	13/16" x 7/8"	10-1/8"
J25TR06C	Tool Roll		



## SET NO. J3000NB - 5 PC. PROTOBLACK™ OPEN END WRENCH SET

- Non-reflective ProtoBlack™ finish for use where non-plated products are required.
- 15° angle heads.
- Special heat-treated alloy steel permits slim shanks for strength and durability.
- Standard open end configuration.
- Weight: 1.88 lbs.

Product ID No.	Contents	 in.	Length
<b>J3000NB</b>	J3020B	5/16" x 3/8"	5-1/4"
	J3025B	7/16" x 1/2"	6-7/16"
	J3030B	9/16" x 5/8"	7-47/64"
	J3035B	11/16" x 3/4"	8-63/64"
	J3040B	13/16" x 7/8"	10-15/64"
J25TR06C	Tool Roll		






# Wrenches

## OPEN END WRENCHES

- Satin finish provides corrosion resistance and a slip resistant grip.
- 15° angle heads.
- Special heat-treated alloy steel permits slim shanks for strength and durability.
- Standard open end configuration.



Product ID No.	 in.	B	C	D	B1	C1	D1	L	Weight lbs.	ASME Spec.
J3016	3/16" x 1/4"	17/64"	1/2"	5/32"	1/4"	7/16"	5/32"	3-7/8"	0.04 lbs.	ASME B107.100
J3018	1/4" x 5/16"	3/8"	21/32"	3/16"	19/64"	35/64"	5/32"	4-31/64"	0.07 lbs.	ASME B107.100
J3020	5/16" x 3/8"	7/16"	25/32"	13/64"	3/8"	41/64"	13/64"	5-1/8"	0.09 lbs.	ASME B107.100
J3021	3/8" x 7/16"	23/64"	29/32"	7/22"	7/16"	25/32"	7/32"	5-3/4"	0.12 lbs.	ASME B107.100
J3025	7/16" x 1/2"	19/32"	1-1/32"	1/4"	29/32"	29/32"	1/4"	6-3/8"	0.19 lbs.	ASME B107.100
J3026	1/2" x 9/16"	43/64"	1-3/16"	17/64"	19/32"	1-1/32"	17/64"	7"	0.23 lbs.	ASME B107.100
J3030	9/16" x 5/8"	3/4"	1-17/64"	9/32"	11/16"	1-5/32"	9/32"	7-5/8"	0.28 lbs.	ASME B107.100
J3031	5/8" x 3/4"	29/32"	1-37/64"	5/16"	47/64"	1-5/32"	5/16"	8-9/16"	0.39 lbs.	ASME B107.100
J3034	5/8" x 11/16"	53/64"	1-13/32"	5/16"	3/4"	1-9/32"	5/16"	8-1/4"	0.35 lbs.	ASME B107.100
J3035	11/16" x 3/4"	29/32"	1-37/64"	21/64"	53/64"	1-13/32"	21/64"	8-7/8"	0.47 lbs.	ASME B107.100
J3037	11/16" x 25/32"	57/64"	1-37/64"	21/64"	53/64"	1-13/32"	21/64"	8-7/8"	0.46 lbs.	ASME B107.100
J3039	3/4" x 7/8"	1-1/16"	1-25/32"	11/32"	29/32"	1-37/64"	11/32"	9-1/2"	0.60 lbs.	ASME B107.100
J3040	13/16" x 7/8"	1-3/64"	1-25/32"	23/64"	63/64"	1-21/32"	23/64"	10-1/8"	0.62 lbs.	ASME B107.100
J3045	15/16" x 1"	1-13/64"	2-1/64"	13/32"	1-1/8"	1-29/32"	13/32"	11-1/2"	0.92 lbs.	ASME B107.100
J3050	1-1/16" x 1-1/8"	1-23/64"	2-17/64"	29/64"	1-9/32"	2-5/32"	29/64"	12-5/8"	1.24 lbs.	ASME B107.100
J3051	1-1/16" x 1-1/4"	1-31/64"	2-33/64"	15/32"	1-9/32"	2-5/32"	15/32"	13-9/16"	1.47 lbs.	ASME B107.100
J3055	1-1/4" x 1-5/16"	1-9/16"	2-21/32"	33/64"	1-31/64"	2-33/64"	33/64"	14-1/2"	1.87 lbs.	ASME B107.100
J3060	1-3/8" x 1-7/16"	1-23/32"	2-57/64"	35/64"	1-41/64"	2-23/32"	35/64"	15-3/4"	2.59 lbs.	ASME B107.100
J3070	1-1/2" x 1-5/8"	1-15/16"	3-17/64"	39/64"	1-25/32"	2-61/64"	39/64"	17"	3.31 lbs.	ASME B107.100
J3075	1-11/16" x 1-13/16"	2-3/16"	3-41/64"	45/64"	2"	3-25/64"	45/64"	18-1/2"	4.71 lbs.	ASME B107.100
J3080	1-7/8" x 2"	2-3/8"	4-1/32"	49/64"	2-11/64"	3-41/64"	45/64"	20"	6.38 lbs.	ASME B107.100






# Wrenches

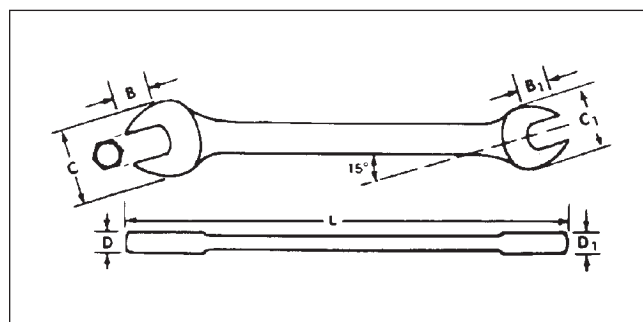


## PROTOBLACK™ OPEN END WRENCHES

- Non-reflective ProtoBlack™ finish for use where non-plated products are required.
- 15° angle heads.
- Special heat-treated alloy steel permits slim shanks for strength and durability.
- Standard open end configuration.



Product ID No.	 in.	B	C	D	B1	C1	D1	L	Weight lbs.
<b>J3020B</b>	5/16" x 3/8"	7/16"	25/32"	3/16"	7/32"	21/32"	3/16"	5-1/4"	0.08 lbs.
<b>J3021B</b>	3/8" x 7/16"	33/64"	29/32"	7/32"	29/64"	25/32"	7/32"	5-7/8"	0.12 lbs.
<b>J3025B</b>	7/16" x 1/2"	39/64"	1-1/32"	15/64"	35/64"	29/32"	15/64"	6-7/16"	0.16 lbs.
<b>J3026B</b>	1/2" x 9/16"	11/16"	1-3/16"	1/4"	19/32"	1-1/32"	1/4"	7-7/64"	0.22 lbs.
<b>J3030B</b>	9/16" x 5/8"	3/4"	1-9/32"	17/64"	1-1/16"	1-5/32"	17/64"	7-47/64"	0.28 lbs.
<b>J3031B</b>	5/8" x 3/4"	29/32"	1-37/64"	19/64"	3/4"	1-5/32"	19/64"	8-43/64"	0.38 lbs.
<b>J3035B</b>	11/16" x 3/4"	29/32"	1-37/64"	5/16"	13/16"	1-13/32"	5/16"	8-63/64"	0.44 lbs.
<b>J3039B</b>	3/4" x 7/8"	1-3/64"	1-17/64"	21/64"	29/32"	1-37/64"	21/64"	9-39/64"	0.50 lbs.
<b>J3040B</b>	13/16" x 7/8"	1-3/64"	1-25/32"	23/64"	61/64"	1-31/32"	23/64"	10-15/64"	0.61 lbs.
<b>J3045B</b>	15/16" x 1"	1-13/64"	2-1/64"	31/64"	1-1/8"	1-29/32"	31/64"	11-31/64"	0.88 lbs.
<b>J3050B</b>	1-1/16" x 1-1/8"	1-23/64"	2-17/64"	7/16"	1-15/64"	2-9/64"	7/16"	12-3/8"	1.20 lbs.
<b>J3051B</b>	1-1/16" x 1-1/4"	1-1/2"	2-33/64"	29/64"	1-9/32"	2-9/64"	29/64"	13-43/64"	1.47 lbs.
<b>J3055B</b>	1-1/4" x 1-5/16"	1-37/64"	2-41/64"	1/2"	1-1/2"	2-33/64"	1/2"	14-5/8"	1.87 lbs.
<b>J3060B</b>	1-3/8" x 1-7/16"	1-47/64"	2-57/64"	17/32"	1-21/32"	2-23/32"	17/32"	15-7/8"	2.48 lbs.
<b>J3070B</b>	1-1/2" x 1-5/8"	1-61/64"	3-1/64"	39/64"	1-51/64"	2-61/64"	39/64"	17-1/16"	3.07 lbs.



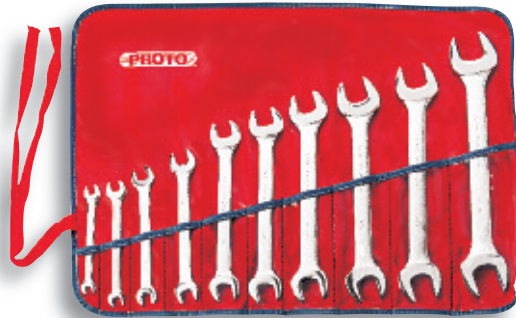



# Wrenches

## SET NO. J30000A - 10 PC. METRIC OPEN END WRENCH SET

**M**ETRIC

- Satin finish provides corrosion resistance and a slip resistant grip.
- 15° angle heads.
- Special heat-treated alloy steel permits slim shanks for strength and durability.
- Standard open end configuration.
- Weight: 3.93 lbs.




Product ID No.	Contents	 mm	Length
<b>J30000A</b>	J30607	6 x 7	114.3
	J30809	8 x 9	130
	J31011	10 x 11	146
	J31213	12 x 13	162
	J31415	14 x 15	193
	J31617	16 x 17	207
	J31819	18 x 19	225
	J32022	20 x 22	241.0
	J32123	21 x 23	257.2
	J32426	24 x 26	288.9
J25TR28C	Tool Roll		

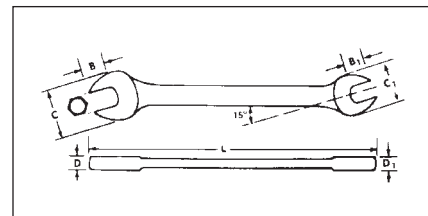
## SET NO. J30000R - 6 PC. METRIC OPEN END WRENCH SET

**M**ETRIC

- Satin finish provides corrosion resistance and a slip resistant grip.
- 15° angle heads.
- Special heat-treated alloy steel permits slim shanks for strength and durability.
- Standard open end configuration.
- Weight: 1.63 lbs.



Product ID No.	Contents	 mm	Length
<b>J30000R</b>	J30809	8 x 9	130
	J31011	10 x 11	146
	J31213	12 x 13	162
	J31415	14 x 15	193
	J31617	16 x 17	207
	J31819	18 x 19	225
J25TR25C	Tool Roll		




# Wrenches



## SET NO. J3000P-M - 5 PC. METRIC OPEN END WRENCH SET

**M**ETRIC

- Special heat-treated alloy steel permits slim shanks for strength and durability.
- 15° angled heads.
- Standard open end configuration.
- Weight: 1.92 lbs.

Product ID No.	Contents	 mm	Length
<b>J3000P-M</b>	J31011	10 x 11	146.1
	J31213	12 x 13	161.9
	J31415	14 x 15	193.0
	J31819	18 x 19	225.0
	J32123	21 x 23	257.2
J25TR06C	Tool Roll		




## METRIC OPEN END WRENCHES - SATIN FINISH

**M**ETRIC

- Satin finish provides corrosion resistance and a slip resistant grip.
- 15° angle heads.
- Special heat-treated alloy steel permits slim shanks for strength and durability.
- Standard open configuration.



Product ID No.	 mm	B	C	D	B1	C1	D1	L	Weight lbs.	ASME Spec.
<b>J30607</b>	6 x 7	9.5	16.3	4.4	7.5	12.7	4.4	114.3	0.06 lbs.	ASME B107.100
<b>J30809</b>	8 x 9	11.1	19.8	4.7	9.5	16.7	4.7	130.1	0.09 lbs.	ASME B107.100
<b>J31011</b>	10 x 11	13.5	23.0	5.6	11.5	19.8	5.6	146.1	0.13 lbs.	ASME B107.100
<b>J31213</b>	12 x 13	15.1	26.2	6.4	13.5	23.0	6.4	161.9	0.17 lbs.	ASME B107.100
<b>J31415</b>	14 x 15	19.1	32.5	7.1	17.4	29.0	7.1	193.0	0.30 lbs.	ASME B107.100
<b>J31617</b>	16 x 17	22.6	35.7	7.5	19.1	32.5	7.5	209.0	0.33 lbs.	ASME B107.100
<b>J31819</b>	18 x 19	23.0	40.1	8.3	21.0	35.8	8.3	225.0	0.48 lbs.	ASME B107.100
<b>J32022</b>	20 x 22	26.6	46.1	8.7	23.0	40.0	8.7	241.0	0.58 lbs.	ASME B107.100
<b>J32123</b>	21 x 23	26.6	45.2	9.1	25.0	42.0	9.1	257.2	0.61 lbs.	ASME B107.100
<b>J32426</b>	24 x 26	30.5	51.2	10.3	28.5	48.5	10.3	288.9	0.88 lbs.	ASME B107.100




# Wrenches

## SET NO. J3100A - 7 PC. ANGLE OPEN END WRENCH SET

- Full polish finish provides corrosion resistance and easy to clean surfaces.
- 15° and 60° angle heads allow wrench to be used in four different turning angles for greater access in tight work areas.




Product ID No.	Contents	 in.	Length
<b>J3100A</b>	J3112	3/8" x 3/8"	4-3/4"
	J3114	7/16" x 7/16"	5"
	J3116	1/2" x 1/2"	5-1/4"
	J3118	9/16" x 9/16"	5-5/8"
	J3120	5/8" x 5/8"	6"
	J3122	11/16" x 11/16"	6-1/2"
	J3124	3/4" x 3/4"	7"
J25TR07C	Tool Roll		

## SET NO. J3100B - 14 PC. ANGLE OPEN END WRENCH SET

- Full polish finish provides corrosion resistance and easy to clean surfaces.
- Double nickle strike for rust resistance and prolonged life.
- 15° and 60° angle heads.
- Weight: 5.58 lbs.



Product ID No.	Contents	 in.	Length
<b>J3100B</b>	J3112	3/8"	4-3/4"
	J3114	7/16"	5"
	J3116	1/2"	5-1/4"
	J3118	9/16"	5-5/8"
	J3120	5/8"	6"
	J3122	11/16"	6-1/2"
	J3124	3/4"	7"
	J3126	13/16"	7-1/2"
	J3128	7/8"	8"
	J3130	15/16"	8-3/4"
	J3132	1"	9-1/2"
	J3134	1-1/16"	10-1/4"
	J3136	1-1/8"	11"
	J3140	1-1/4"	12-1/4"
J25TR08C	15"		




# Wrenches



## SET NO. J3100M - 11 PC. METRIC ANGLE OPEN END WRENCH SET

**M**ETRIC

- Full polish finish provides corrosion and easy to clean surfaces.
- 15° and 60° angle heads allow wrench to be used in four different turning angles for greater access in tight work areas.
- Weight: 1.79 lbs.

Product ID No.	Contents	 mm	Length
<b>J3100M</b>	J3109M	9	120.6
	J3110M	10	123.9
	J3111M	11	127.0
	J3112M	12	133.3
	J3113M	13	139.7
	J3114M	14	142.7
	J3115M	15	150.8
	J3116M	16	155.4
	J3117M	17	165.1
	J3118M	18	171.4
	J3119M	19	177.8
J25TR13C	Kit		







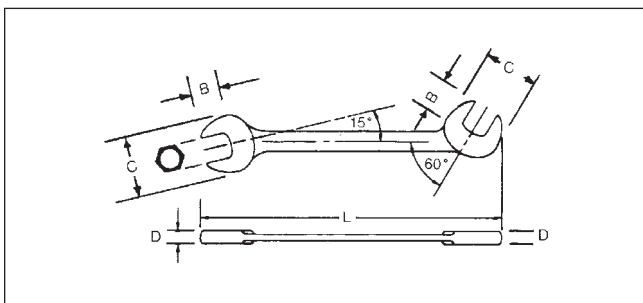
# Wrenches

## ANGLE OPEN END WRENCHES - FULL POLISH

- Full polish finish provides corrosion and easy to clean surfaces.
- Double nickel strike for rust resistance and prolonged life.
- 15° and 60° angle heads combined with the same size opening on both ends allow wrench to be used in four different turning angles for greater access in tight work areas.



Product ID No.	15°	60°	B	C	D	L	Weight lbs.	ASME Spec.
J3112	3/8"	3/8"	13/32"	3/4"	13/64"	4-3/4"	0.06 lbs.	ASME B107.100
J3114	7/16"	7/16"	15/32"	7/8"	13/64"	5"	0.08 lbs.	ASME B107.100
J3116	1/2"	1/2"	35/64"	1"	15/64"	5-1/4"	0.10 lbs.	ASME B107.100
J3118	9/16"	9/16"	39/64"	1-7/64"	15/64"	5-5/8"	0.14 lbs.	ASME B107.100
J3120	5/8"	5/8"	21/32"	1-7/32"	17/64"	6"	0.17 lbs.	ASME B107.100
J3122	11/16"	11/16"	23/32"	1-21/64"	17/64"	6-1/2"	0.21 lbs.	ASME B107.100
J3124	3/4"	3/4"	25/32"	1-7/16"	9/32"	7"	0.26 lbs.	ASME B107.100
J3126	13/16"	13/16"	27/32"	1-9/16"	19/64"	7-1/2"	0.50 lbs.	ASME B107.100
J3128	7/8"	7/8"	57/64"	1-21/32"	5/16"	8"	0.61 lbs.	ASME B107.100
J3130	15/16"	15/16"	31/32"	1-25/32"	21/64"	8-3/4"	0.71 lbs.	ASME B107.100
J3132	1"	1"	1-1/32"	1-59/64"	11/32"	9-1/2"	0.88 lbs.	ASME B107.100
J3134	1-1/16"	1-1/16"	1-1/16"	2-1/64"	23/64"	10-1/4"	1.04 lbs.	ASME B107.100
J3136	1-1/8"	1-1/8"	1-1/8"	2-1/8"	3/8"	11"	1.20 lbs.	ASME B107.100
J3140	1-1/4"	1-1/4"	1-1/4"	2-11/32"	13/32"	12-1/4"	1.47 lbs.	ASME B107.100
J3142	1-5/16"	1-5/16"	1-5/16"	2-29/64"	27/64"	13-1/8"	1.87 lbs.	ASME B107.100
J3144	1-3/8"	1-3/8"	1-13/32"	2-37/64"	7/16"	13-3/4"	2.17 lbs.	ASME B107.100
J3146	1-7/16"	1-7/16"	1-13/32"	2-5/8"	29/64"	14"	2.48 lbs.	ASME B107.100
J3148	1-1/2"	1-1/2"	1-31/64"	2-3/4"	15/32"	14-1/2"	2.77 lbs.	ASME B107.100
J3152	1-8/8"	1-8/8"	1-43/64"	3-1/64"	1/2"	15"	3.07 lbs.	ASME B107.100
J3156	1-3/4"	1-3/4"	1-31/32"	3-31/64"	33/64"	17"	3.81 lbs.	ASME B107.100
J3158	1-13/16"	1-13/16"	1-63/64"	3-31/64"	33/64"	18-3/8"	4.56 lbs.	ASME B107.100
J3160	1-7/8"	1-7/8"	2-7/32"	3-29/32"	21/32"	19-3/4"	5.24 lbs.	ASME B107.100
J3164	2"	2"	2-9/32"	3-29/32"	21/32"	21-1/4"	5.92 lbs.	ASME B107.100



# Wrenches



## SET NO. FF-22.JU5T - FACOM® 5 PC. SHORT WRENCH SET

- Short shank and slim heads for access in confined spaces.



Product ID No.	Contents	Size	Length	Head Thickness	Weight lbs.
<b>FF-22.JU5T</b>	FF-22.1/2X9/16	1/2 X 9/16"	4-11/32"	3/32"	0.08 lbs.
	FF-22.11/32X7/16"	11/32 X 7/16"	3-15/16"	1/8"	0.05 lbs.
	FF-22.3/16X1/4	3/16 X 1/4"	3-11/32"	1/8"	0.03 lbs.
	FF-22.5/16X3/8	5/16 X 3/8"	3-17/32"	1/8"	0.03 lbs.
	FF-22.7/32X9/32"	7/32 X 9/32"	3-11/32"	1/8"	0.03 lbs.



## SET NO. FM-22.JE6T - FACOM® 6 PC. SHORT WRENCH SET



- Short shank and slim heads for access in confined spaces.



Product ID No.	Contents	Size	Length	Head Thickness	Weight lbs.
<b>FM-22.JE6T</b>	FM-22.10X11	10 X 11 mm	3-7/8"	1/8"	0.05 lbs.
	FM-22.3.2X5.5	3.2 X 5.5 mm	2-9/32"	3/32"	0.01 lbs.
	FM-22.12X13	12 X 13 mm	4-5/16"	1/8"	0.08 lbs.
	FM-22.4X5	4 X 5 mm	2-9/32"	3/32"	0.02 lbs.
	FM-22.6X7	6 X 7 mm	3-5/16"	3/32"	0.03 lbs.
	FM-22.8X9	8 X 9 mm	3-1/2"	1/8"	0.04 lbs.



## FACOM® SHORT OPEN END WRENCHES

- Short shank and slim heads for access in confined spaces.



Product ID No.	Size	Length	Head Thickness	Weight lbs.
<b>FF-22.3/16X1/4</b>	3/16 X 1/4"	3-11/32"	1/8"	0.03 lbs.
<b>FF-22.7/32X9/32"</b>	7/32 X 9/32"	3-11/32"	1/8"	0.03 lbs.
<b>FF-22.5/16X3/8</b>	5/16 X 3/8"	3-17/32"	1/8"	0.03 lbs.
<b>FF-22.11/32X7/16"</b>	11/32 X 7/16"	3-15/16"	1/8"	0.05 lbs.
<b>FF-22.1/2X9/16"</b>	1/2 X 9/16"	4-11/32"	3/32"	0.08 lbs.





# Wrenches

## FACOM® METRIC SHORT OPEN END WRENCHES

**M**ETRIC

- Satin finish provides corrosion resistance and a slip resistant grip.
- Short shank and slim heads for access in confined spaces.
- Standard open end configuration.



Product ID No.	Size	Length	Head Thickness 1	Weight lbs.
<b>FM-22.3.2X5.5</b>	3.2 X 5.5 mm	2-9/32"	3/32"	0.01 lbs.
<b>FM-22.4X5</b>	4 X 5 mm	2-9/32"	3/32"	0.02 lbs.
<b>FM-22.6X7</b>	6 X 7 mm	3-5/16"	3/32"	0.03 lbs.
<b>FM-22.8X9</b>	8 X 9 mm	3-1/2"	1/8"	0.04 lbs.
<b>FM-22.10X11</b>	10 X 11 mm	3-7/8"	1/8"	0.05 lbs.
<b>FM-22.12X13</b>	12 X 13 mm	4-5/16"	1/8"	0.08 lbs.

## SHORT ANGLE OPEN END WRENCHES - SATIN FINISH

- Satin finish provides corrosion resistance and a slip resistant grip.
- 15° and 75° angle heads allow wrench to be used in four different turning angles for greater access in tight work spaces.
- Compact shank design and short length for access in confined spaces.
- Standard open end configuration.



Product ID No.	15°	75°	B	C	D	L	Weight lbs.	ASME Spec.
<b>J3314</b>	7/32"	7/32"	11/64"	1/2"	7/64"	3"	0.03 lbs.	ASME B107.100
<b>J3315</b>	15/64"	15/64"	11/64"	1/2"	7/64"	3"	0.03 lbs.	ASME B107.100
<b>J3316</b>	1/4"	1/4"	11/64"	1/2"	7/64"	3"	0.03 lbs.	ASME B107.100
<b>J3318</b>	9/32"	9/32"	3/16"	19/32"	5/32"	3-1/2"	0.04 lbs.	ASME B107.100
<b>J3320</b>	5/16"	5/16"	3/16"	19/32"	5/32"	3-1/2"	0.04 lbs.	ASME B107.100
<b>J3322</b>	11/32"	11/32"	1/4"	3/4"	5/32"	3-3/4"	0.05 lbs.	ASME B107.100
<b>J3324</b>	3/8"	3/8"	1/4"	3/4"	5/32"	3-3/4"	0.05 lbs.	ASME B107.100
<b>J3328</b>	7/16"	7/16"	11/32"	1"	11/64"	4-7/16"	0.08 lbs.	ASME B107.100
<b>J3332</b>	1/2"	1/2"	11/32"	1"	11/64"	4-7/16"	0.08 lbs.	ASME B107.100
<b>J3336</b>	9/16"	9/16"	13/32"	1-5/32"	3/16"	5-3/4"	0.10 lbs.	ASME B107.100
<b>J3340</b>	5/8"	5/8"	13/32"	1-5/32"	3/16"	5-3/4"	0.10 lbs.	ASME B107.100



# Wrenches



## SET NO. FM-34.JL16T - FACOM® 16 PC. WRENCH SET

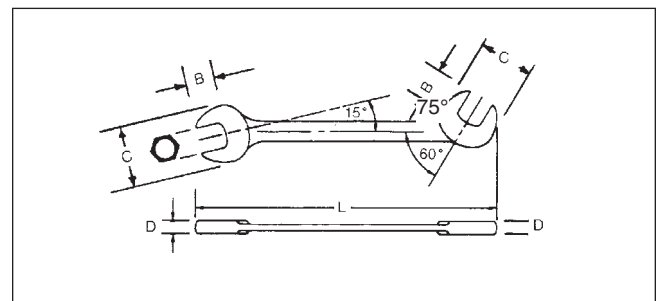
**M**ETRIC

- Satin finish provides corrosion resistance and a slip resistant grip.
- 15° and 75° angled heads for fasteners out of standard-tool reach.
- Short shanks and slim heads.
- Standard open end configuration.
- Weight: 1.12 lbs.

**FACOM**®



Product ID No.	Contents	Size	Length	Head Thickness	Weight lbs.
<b>FM-34.JL16T</b>	FM-34.3.2	3.2 mm	70.0	2.4	0.01 lbs.
	FM-34.4	4 mm	70.0	2.4	0.01 lbs.
	FM-34.5	5 mm	75.0	2.4	0.02 lbs.
	FM-34.5.5	5.5 mm	75.0	2.7	0.02 lbs.
	FM-34.6	6 mm	80.0	2.7	0.02 lbs.
	FM-34.7	7 mm	80.0	3.0	0.02 lbs.
	FM-34.8	8 mm	90.0	3.0	0.04 lbs.
	FM-34.9	9 mm	90.0	3.0	0.04 lbs.
	FM-34.10	10 mm	100.0	3.0	0.05 lbs.
	FM-34.11	11 mm	100.0	3.0	0.05 lbs.
	FM-34.12	12 mm	100.0	3.5	0.08 lbs.
	FM-34.13	13 mm	120.0	3.5	0.08 lbs.
	FM-34.14	14 mm	120.0	3.5	0.08 lbs.
	FM-34.15	15 mm	140.0	4.5	0.15 lbs.
	FM-34.16	16 mm	140.0	4.5	0.14 lbs.
	FM-34.17	17 mm	140.0	4.5	0.14 lbs.





# Wrenches

## FACOM® SHORT ANGLE OPEN END WRENCHES

- Satin finish provides corrosion resistance and slip resistant grip.
- 15° and 75° angled heads for fasteners out of standard tool reach.
- Short shanks and slim heads.
- Standard open end configuration.

Product ID No.	Size	Length	Head Thickness	Weight lbs.
FM-34.3.2	3.2 mm	70.0	2.4	0.01 lbs.
FM-34.4	4 mm	70.0	2.4	0.01 lbs.
FM-34.5	5 mm	75.0	2.4	0.02 lbs.
FM-34.5.5	5.5 mm	75.0	2.7	0.02 lbs.
FM-34.6	6 mm	80.0	2.7	0.02 lbs.
FM-34.7	7 mm	80.0	3.0	0.02 lbs.
FM-34.8	8 mm	90.0	3.0	0.04 lbs.
FM-34.9	9 mm	90.0	3.0	0.04 lbs.
FM-34.10	10 mm	100.0	3.0	0.05 lbs.
FM-34.11	11 mm	100.0	3.0	0.05 lbs.
FM-34.12	12 mm	100.0	3.5	0.08 lbs.
FM-34.13	13 mm	120.0	3.5	0.08 lbs.
FM-34.14	14 mm	120.0	3.5	0.08 lbs.
FM-34.15	15 mm	140.0	4.5	0.15 lbs.
FM-34.16	16 mm	140.0	4.5	0.14 lbs.
FM-34.17	17 mm	140.0	4.5	0.14 lbs.



## SET NO. FM-31.JE9T - 9 PC. METRIC TAPPET WRENCH SET

- Satin finish provides corrosion resistance and a slip resistant grip.
- Used to tighten collars, lock nut rings and help seal packing nuts on hydraulic cylinders.
- Ultra thin profile for use in close quarters.
- Openings designed to cover tappets, screws and lock nuts with excessive overhang which helps improve access.
- For use in low torque applications.
- Standard open end configuration.



Product ID No.	Contents	Description	Length	Weight lbs.
FM-31.JE9T	FM-31.6X7	Wrench OE Slim 6 X 7mm	148	0.06 lbs.
	FM-31.8X9	Wrench OE Slim 8 X 9mm	175	0.08 lbs.
	FM-31.10X11	Wrench OE Slim 10 X 11mm	175	0.08 lbs.
	FM-31.12X13	Wrench OE Slim 12 X 13mm	210	0.17 lbs.
	FM-31.14X15	Wrench OE Slim 14 X 15mm	210	0.17 lbs.
	FM-31.16X17	Wrench OE Slim 16 X 17mm	249	0.31 lbs.
	FM-31.18X19	Wrench OE Slim 18 X 19mm	249	0.3 lbs.
	FM-31.20X22	Wrench OE Slim 20 X 22mm	292	0.59 lbs.
	FM-31.21X23	Wrench OE Slim 21 X 23mm	292	0.6 lbs.





# Wrenches



## SET NO. FM-31JE6T - 6 PC. METRIC TAPPET WRENCH SET

**M**ETRIC

- Satin finish provides corrosion resistance and a slip resistant grip.
- Used to tighten collars, lock nut rings and help seal packing nuts on hydraulic cylinders.
- Ultra thin profile for use in close quarters.
- Openings designed to cover tappets, screws and lock nuts with excessive overhang which helps improve access.
- For use in low torque applications.
- Standard open end configuration.



**FACOM**

Product ID No.	Contents	Description	Length	Weight lbs.
<b>FM-31.JE6T</b>	FM-31.10X11	Wrench OE Slim 10 X 11mm	175	0.08 lbs.
	FM-31.12X13	Wrench OE Slim 12 X 13mm	210	0.17 lbs.
	FM-31.14X15	Wrench OE Slim 14 X 15mm	210	0.17 lbs.
	FM-31.16X17	Wrench OE Slim 16 X 17mm	249	0.31 lbs.
	FM-31.18X19	Wrench OE Slim 18 X 19mm	249	0.3 lbs.
	FM-31.21X23	Wrench OE Slim 21 X 23mm	292	0.6 lbs.

## FACOM TAPPET WRENCHES

**M**ETRIC

- Satin finish provides corrosion resistance and a slip resistant grip.
- Used to tighten collars, lock nut rings and help seal packing nuts on hydraulic cylinders.
- Ultra thin profile for use in close quarters.
- Openings designed to cover tappets, screws and lock nuts with excessive overhang which helps improve access.
- For use in low torque applications.
- Standard open end configuration.



**FACOM**

Product ID No.	Description	Length	Width	Height	Weight lbs.
<b>FM-31.6X7</b>	Wrench OE Slim 6 X 7mm	148	20	5	0.06 lbs.
<b>FM-31.8X9</b>	Wrench OE Slim 8 X 9mm	175	25	5	0.08 lbs.
<b>FM-31.10X11</b>	Wrench OE Slim 10 X 11mm	175	25	5	0.08 lbs.
<b>FM-31.12X13</b>	Wrench OE Slim 12 X 13mm	210	35	5	0.17 lbs.
<b>FM-31.14X15</b>	Wrench OE Slim 14 X 15mm	210	35	5	0.17 lbs.
<b>FM-31.16X17</b>	Wrench OE Slim 16 X 17mm	249	45	5	0.31 lbs.
<b>FM-31.18X19</b>	Wrench OE Slim 18 X 19mm	249	45	5	0.3 lbs.
<b>FM-31.20X22</b>	Wrench OE Slim 20 X 22mm	292	55	10	0.59 lbs.
<b>FM-31.21X23</b>	Wrench OE Slim 21 X 23mm	292	55	10	0.6 lbs.




# Wrenches

## EXTRA THIN OPEN END WRENCHES -SATIN FINISH

- Satin finish provides corrosion resistance and a slip resistant grip.
- Ultra-thin profile and long handle produce improved access to hard-to-reach fasteners.
- Use when high leverage or distance from a hot assembly is required.
- Opening is designed to cover tappets, screws and lock nuts without excessive overhang which improves access.




Product ID No.	 in.	B	C	D	B1	C1	D1	L	Weight lbs.
J3425	7/16" x 1/2"	19/32"	1-3/32"	11/64"	33/64"	1-1/64"	11/64"	10"	.16
J3426	1/2" x 9/16"	43/64"	1-13/64"	11/64"	19/32"	1-9/64"	11/64"	10"	.16
J3430	9/16" x 5/8"	47/64"	1-21/64"	11/64"	43/64"	1-1/4"	11/64"	10"	.21
J3435	11/16" x 3/4"	57/64"	1-7/16"	13/64"	13/16"	1-11/32"	13/64"	10"	.26
J3440	13/16" x 7/8"	1-1/32"	1-49/64"	13/64"	31/32"	1-11/16"	13/64"	10"	.33

## CHECK NUT WRENCHES

- Use check nut wrenches to tighten jam nuts, check nuts or lock nuts.
- In confined spaces, the 15° head allows for a full 30° rotation by flipping wrench over.
- Ultra thin profile improves access in close quarters.
- Non-reflective black oxide finish for use where non-plated products are required.



Product ID No.	 in.	Head Width	Head Thickness	Length	Weight lbs.
JKE14	7/16"	1"	7/32"	4"	0.05 lbs.
JKE16	1/2"	1"	7/32"	4"	0.05 lbs.
JKE18	9/16"	1-9/32"	7/32"	4-1/2"	0.11 lbs.
JKE19	19/32"	1-9/32"	7/32"	4-1/2"	0.11 lbs.
JKE20	5/8"	1-1/2"	1/5"	5-7/32"	0.13 lbs.
JKE22	11/16"	1 1/2"	7/32"	5-7/32"	0.13 lbs.
JKE24	3/4"	1-23/32"	9/32"	6-7/32"	0.19 lbs.
JKE26	13/16"	2"	9/32"	6-23/32"	0.28 lbs.
JKE28	7/8"	1-25/32"	9/32"	6-19/32"	0.28 lbs.
JKE30	15/16"	2"	9/32"	7-1/2"	0.36 lbs.
JKE32	1"	2"	9/32"	7-1/2"	0.35 lbs.
JKE34	1-1/16"	2-13/32"	9/32"	8-1/2"	0.66 lbs.
JKE36	1-1/8"	2-13/32"	9/32"	8-1/2"	0.65 lbs.
JKE40	1-1/4"	2-23/32"	13/32"	10"	1.12 lbs.
JKE42	1-5/16"	2-23/32"	13/32"	10"	1.12 lbs.
JKE48	1-1/2"	3-7/32"	13/32"	11-19/32"	1.5 lbs.
JKE52	1-5/8"	3-1/2"	13/32"	13"	2.3 lbs.
JKE54	1-11/16"	3-7/16"	1/2"	13"	2.2 lbs.



# Wrenches




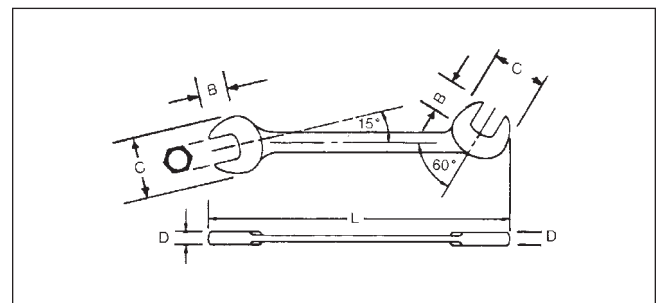
## METRIC CHECK NUT WRENCHES

**M**ETRIC

- Non-reflective black oxide finish for use where non-plated products are required.
- Use check nut wrenches to tighten jam nuts, check nuts or lock nuts.
- In confined spaces, the 15° head allows for a full 30° rotation by flipping wrench over.
- Ultra thin profile improves access in close quarters.



Product ID No.		Length	Head Width	Head Thickness	Weight lbs.
<b>JKEM10</b>	10 mm	102	28	5	0.05 lbs.
<b>JKEM11</b>	11 mm	102	25	5	0.05 lbs.
<b>JKEM12</b>	12 mm	102	28	5	0.05 lbs.
<b>JKEM13</b>	13 mm	102	28	5	0.05 lbs.
<b>JKEM14</b>	14 mm	114	33	5	0.11 lbs.
<b>JKEM15</b>	15 mm	114	33	5	0.11 lbs.
<b>JKEM16</b>	16 mm	132	38	5	0.13 lbs.
<b>JKEM17</b>	17 mm	132	38	5	0.13 lbs.
<b>JKEM18</b>	18 mm	132	38	5	0.13 lbs.
<b>JKEM19</b>	19 mm	147	41	5	0.19 lbs.
<b>JKEM21</b>	21 mm	170	48	8	0.28 lbs.
<b>JKEM22</b>	22 mm	170	51	8	0.28 lbs.
<b>JKEM24</b>	24 mm	190	51	8	0.36 lbs.
<b>JKEM27</b>	27 mm	216	64	8	0.66 lbs.
<b>JKEM30</b>	30 mm	216	61	8	0.66 lbs.
<b>JKEM32</b>	32 mm	254	69	10	1.12 lbs.
<b>JKEM36</b>	36 mm	254	69	10	1.12 lbs.
<b>JKEM37</b>	37 mm	295	81	13	1.5 lbs.
<b>JKEM38</b>	38 mm	290	87	13	1.5 lbs.
<b>JKEM41</b>	41 mm	330	87	13	2.1 lbs.







# Wrenches

## SET NO. J3200C - 13 PC. IGNITION SET

- Satin finish provides corrosion resistance and a slip resistant grip.
- 15° and 60° angle heads combined with the same opening size on both ends allows the wrench to be used in four different turning angles.
- Standard open end wrench configuration.
- Weight: .67 lbs.





Product ID No.	Contents	15° 	60° 	Length	
<b>J3200C</b>	J3210	13/64"	15/64"	3"	
	J3211	15/64"	13/64"	3"	
	J3215	7/32"	1/4"	3"	
	J3216	1/4"	7/32"	3"	
	J3220	9/32"	5/16"	3-1/2"	
	J3221	5/16"	9/32"	3-1/2"	
	J3225	11/32"	3/8"	3-3/4"	
	J3226	3/8"	11/32"	3-3/4"	
	J000D	Ignition Gauge Set			
	J235	Midget Angle Nose Pliers			
	J2302	Ignition Point File			
	J9853	Screw Starter			
	ST-1150S	Screwdriver, 2" x 1/8" Slotted			
J25TR10C	Tool Roll				

## SET NO. J3200D - 9 PC. IGNITION SET

- Satin finish provides corrosion resistance and a slip resistant grip.
- 15° and 60° angle heads combined with the same opening size on both ends allow the wrench to be used in four different turning angles.
- Standard open end wrench configuration.
- Weight: .47 lbs.



Product ID No.	Contents	15° 	60° 	Length
<b>J3200D</b>	J3210	13/64"	15/64"	3"
	J3211	15/64"	13/64"	3"
	J3215	7/32"	1/4"	3"
	J3216	1/4"	7/32"	3"
	J3220	9/32"	5/16"	3-1/2"
	J3221	5/16"	9/32"	3-1/2"
	J3225	11/32"	3/8"	3-3/4"
	J3226	3/8"	11/32"	3-3/4"
	J235	Midget Angle Nose Pliers		
J25TR09C	Tool Roll			





# Wrenches



## SET NO. J3200B - 5 PC. IGNITION SET

- Satin finish provides corrosion resistance and a slip resistant grip.
- 15° and 60° angle heads combined with the same opening size on both ends allow the wrench to be used in four different turning angles.
- Standard open end wrench configuration.





Product ID No.	Contents	15° 	60° 	Length
<b>J3200B</b>	J3210	13/64"	15/64"	3"
	J3215	7/32"	1/4"	3"
	J3220	9/32"	5/16"	3-1/2"
	J3225	11/32"	3/8"	3-3/4"
	J235	Midget Angle Nose Pliers		

- This set is packaged in a standard shipping box, not in a tool roll as pictured.

## IGNITION WRENCHES

- Satin finish provides corrosion resistance and a slip resistant grip.
- 15° and 60° angle heads combined with the same opening size on both ends allow the wrench to be used in four different turning angles.
- Standard open end configuration.



Product ID No.	15° 	60° 	B	C	D	B1	C1	D1	L	Weight lbs.
<b>J3210</b>	13/64"	15/64"	15/64"	1/2"	7/64"	15/64"	1/2"	7/64"	3"	0.02 lbs.
<b>J3211</b>	15/64"	13/64"	15/64"	1/2"	7/64"	15/64"	1/2"	7/64"	3"	0.02 lbs.
<b>J3215</b>	7/32"	1/4"	15/64"	1/2"	7/64"	15/64"	1/2"	7/64"	3"	0.02 lbs.
<b>J3216</b>	1/4"	7/32"	15/64"	1/2"	7/64"	15/64"	1/2"	7/64"	3"	0.02 lbs.
<b>J3220</b>	9/32"	5/16"	5/16"	19/32"	5/32"	5/16"	19/32"	5/32"	3-1/2"	0.03 lbs.
<b>J3221</b>	5/16"	9/32"	5/16"	19/32"	5/32"	5/16"	19/32"	5/32"	3-1/2"	0.03 lbs.
<b>J3225</b>	11/32"	3/8"	3/8"	3/4"	5/32"	3/8"	47/64"	5/32"	3-3/4"	0.05 lbs.
<b>J3226</b>	3/8"	11/32"	3/8"	3/4"	5/32"	3/8"	3/4"	5/32"	3-3/4"	0.05





# Wrenches

## SET NO. J795 - 3 PC. ADJUSTABLE WRENCH SET

- Satin finish provides corrosion resistance and a slip resistant grip.
- Extra wide jaw capacity.
- Square jaw opening provides greater strength and better fit.
- Rugged I-beam style handle and reinforced stress areas; radius corner design.
- Weight: 2.6 lbs.



Product ID No.	Contents	Max. Opening	Length
<b>J795</b>	J708	1-1/8"	8"
	J710	1-5/16"	10"
	J712	1-1/2"	12"
	J25TR22C	Tool Roll	

## ADJUSTABLE WRENCHES

- Satin finish provides corrosion resistance and a slip resistant grip.
- Extra wide jaw capacity.
- Square jaw opening provides greater strength and better fit.
- Rugged I-beam style handle and reinforced stress areas; radius corner design.

Product ID No.	Max. Opening	L	Weight lbs.	ASME Spec.
<b>J704</b>	1/2"	4"	0.17 lbs.	ASME B107.8
<b>J706</b>	15/16"	6"	0.28 lbs.	ASME B107.8
<b>J708</b>	1-1/8"	8"	0.58 lbs.	ASME B107.8
<b>J710</b>	1-5/16"	10"	0.90 lbs.	ASME B107.8
<b>J712</b>	1-1/2"	12"	1.58 lbs.	ASME B107.8
<b>J715</b>	1-11/16"	15"	3.00 lbs.	ASME B107.8
<b>J718</b>	2-1/16"	18"	4.26 lbs.	ASME B107.8
<b>J724</b>	2-7/16"	24"	6.41 lbs.	ASME B107.8



# Wrenches



## PROTOBLACK™ ADJUSTABLE WRENCHES

- Non-reflective ProtoBlack™ finish for use where non-plated products are required.
- Extra wide jaw capacity.
- Square jaw opening provides strength and strong fit.

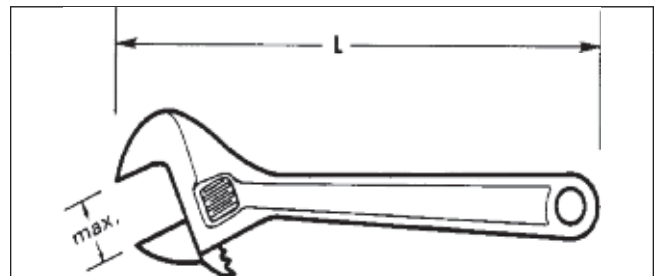
Product ID No.	Max. Opening		Weight	
	L	L	lbs.	ASME Spec.
<b>J704S</b>	1/2"	4"	0.17 lbs.	ASME B107.8
<b>J706S</b>	15/16"	6"	0.28 lbs.	ASME B107.8
<b>J708S</b>	1-1/8"	8"	0.58 lbs.	ASME B107.8
<b>J710S</b>	1-5/16"	10"	0.90 lbs.	ASME B107.8
<b>J712S</b>	1-1/2"	12"	1.58 lbs.	ASME B107.8
<b>J715S</b>	1-11/16"	15"	3.00 lbs.	ASME B107.8
<b>J718S</b>	2-1/16"	18"	4.26 lbs.	ASME B107.8
<b>J724S</b>	2-7/16"	24"	6.41 lbs.	ASME B107.8



## CUSHION GRIP ADJUSTABLE WRENCHES

- Extra wide jaw capacity.
- Square jaw opening provides strength and tight fit.

Product ID No.	Max. Opening		Weight	
	L	L	lbs.	ASME Spec.
<b>J704G</b>	1/2"	4"	0.13 lbs.	ASME B107.8
<b>J706G</b>	15/16"	6"	0.25 lbs.	ASME B107.8
<b>J708G</b>	1-1/8"	8"	0.59 lbs.	ASME B107.8
<b>J710G</b>	1-5/16"	10"	0.80 lbs.	ASME B107.8
<b>J712G</b>	1-1/2"	12"	1.61 lbs.	ASME B107.8





# Wrenches

## SET NO. J790 - 3 PC. CLIK-STOP® ADJUSTABLE WRENCH SET

- Clik-Stop® locking design holds the moving jaw of an adjustable wrench in place when the wrench is in use.
- Satin finish provides corrosion resistance and a slip resistant grip.
- Extra wide jaw capacity.
- Square jaw opening provides greater strength and better fit.
- Weight: 3.08 lbs.



Product ID No.	Contents	Max. Opening	Length
<b>J790</b>	J708L	1-1/8"	8"
	J710L	1-5/16"	10"
	J712L	1-1/2"	12"
	J25TR22C	Tool Roll	

## ADJUSTABLE WRENCHES - CLIK-STOP®

- Satin finish provides corrosion resistance and a slip resistant grip.
- Extra wide jaw capacity.
- Square jaw opening provides greater strength and better fit.
- Clik-Stop® locking design holds the moving jaw of an adjustable wrench in place when the wrench is in use.



Product ID No.	Max. Opening	L	Weight lbs.	ASME Spec.
<b>J704L</b>	1/2"	4"	0.13 lbs.	ASME B107.8
<b>J706L</b>	5/16"	6"	0.34 lbs.	ASME B107.8
<b>J708L</b>	1-1/8"	8"	0.57 lbs.	ASME B107.8
<b>J710L</b>	1-5/16"	10"	0.95 lbs.	ASME B107.8
<b>J712L</b>	1-1/2"	12"	1.54 lbs.	ASME B107.8
<b>J715L</b>	1-11/16"	15"	3.13 lbs.	ASME B107.8
<b>J718L</b>	2-1/16"	18"	5.73 lbs.	ASME B107.8
<b>J724L</b>	2-7/16"	24"	8.84 lbs.	ASME B107.8



# Wrenches



## FACOM® VSE ADJUSTABLE WRENCHES

- Finger stops help keep hands safe.
- 2 color warning handle insulation - color changes from orange to yellow if insulation integrity is compromised.
- Graduated head, 15° angle.
- Burnished finish.
- Thumbwheel rotates counterclockwise.



Product ID No.	Size	Length	Weight lbs.
<b>FM-113.8TAVSE</b>	8"	8-15/32"	0.83 lbs.
<b>FA-113.10TAVSE</b>	10"	10-7/16"	1.37 lbs.
<b>FA-113.12TAVSE</b>	12"	12-19/32"	1.93 lbs.
<b>FA-113.15TAVSE</b>	15"	15-9/16"	3.12 lbs.

## PROTOBLACK™ ADJUSTABLE WRENCHES - CLIK-STOP®

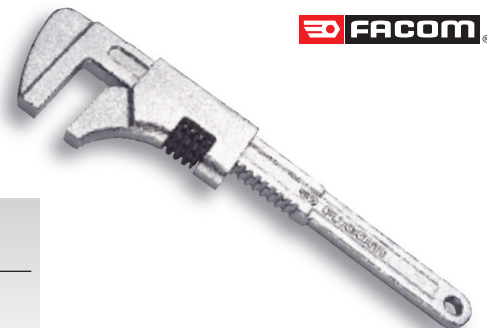
- Non-reflective ProtoBlack™ finish for use where non-plated products are required.
- Extra wide jaw capacity.
- Square jaw opening provides greater strength and better fit.
- Clik-Stop® locking design holds the moving jaw of an adjustable wrench in place when the wrench is in use.



Product ID No.	Max. Opening	L	Weight lbs.	ASME Spec.
<b>J704SL</b>	1/2"	4"	0.14 lbs.	ASME B107.8
<b>J706SL</b>	5/16"	6"	0.28 lbs.	ASME B107.8
<b>J708SL</b>	1-1/8"	8"	0.57 lbs.	ASME B107.8
<b>J710SL</b>	1-15/16"	10"	1.06 lbs.	ASME B107.8
<b>J712SL</b>	1-1/2"	12"	1.50 lbs.	ASME B107.8
<b>J715SL</b>	1-11/16"	15"	3.07 lbs.	ASME B107.8
<b>J718SL</b>	2-1/16"	18"	5.60 lbs.	ASME B107.8

## FACOM® MONKEY WRENCHES

- Satin finish provides corrosion resistance and a slip resistant grip.
- Sturdy, wide-opening tools for heavy-duty work on farms and building sites.
- Fixed jaw/handle and worm gear made from hardened steel.
- Smooth jaw faces help prevent marring of fastener surfaces.



Product ID No.	Max. Opening	Length	Jaw Depth	Jaw Thickness	Weight lbs.
<b>FA-105.230</b>	2-3/8"	9-1/16"	1-25/32"	25/32"	1.15 lbs.
<b>FA-105.280</b>	2-3/4"	11-1/32"	1-11/32"	21/32"	1.79 lbs.
<b>FA-105.375</b>	3-1/8"	14-23/32"	1-25/32"	7/8"	3.36 lbs.



# Wrenches

## ADJUSTABLE SPUD WRENCH

- Non-Reflective ProtoBlack™ finish for use where none plated products are required.
- Large jaw opening fits all nuts and bolts up to 1-1/2 inches.
- Square jaw opening provides greater strength and better fit.
- Eliminates the need for carrying several fixed size wrenches.
- Hardened taper handle aligns bolt and rivet holes.



Product ID No.	Max. Opening	Weight lbs.
<b>J712SC</b>	1-1/2"	2.45 lbs.

## UNIVERSAL CHAIN WRENCH

- Satin finish provides corrosion resistance and a slip resistant grip.
- Fits any shape pipe.
- Forged steel handle has deep milled teeth.
- Chain capacity rating: 6,200 lbs.



Product ID No.	Length	Pipe Capacity Diameter	Weight lbs.
<b>J801</b>	16 1/2"	7/8" to 4"	2.33 lbs.

## UNIVERSAL CHAIN WRENCH REPAIR KIT

- Fits any shape pipe.
- Chain capacity rating: 6,200 lbs.

Product ID No.	Weight lbs.
<b>J801RK</b>	0.73 lbs.







## ADJUSTABLE FACE SPANNER WRENCH

- Non-reflective ProtoBlack™ finish for use where non-plated products are required.
- Precision machined pins provide engagement with holes or slots on the face of a bearing or nut.
- Used to tighten collars, lock nut rings and seal/packing nuts on hydraulic cylinders.



Product ID No.	Maximum Capacity	Diameter of Pin B	Length of Pin C	L	Weight lbs.
<b>JC482</b>	2"	3/16"	1/4"	6-3/8"	0.31 lbs.
<b>JC483</b>	3"	1/4"	1/4"	8-1/4"	0.52 lbs.
<b>JC484</b>	4"	5/16"	1/2"	10-3/8"	1.02 lbs.

## FACOM® FACE SPANNER

- Satin finish provides corrosion resistance and a slip resistant grip.
- Precision machined pins provide engagement with round holes on the face of the nut.
- Each double-ended, round interchangeable pin has two diameters for a variety of applications.



Product ID No.	Description	Length	Width	Height	Weight lbs.	Max Opening
<b>FA-117.B</b>	Wrench Adjustable Face Spanner - 4 Pin	10-5/8"	2-15/16"	1-25/32"	1.45 lbs.	4

## FACOM® FACE SPANNER

- Satin finish provides corrosion resistance and a slip resistant grip.
- Precision machined square pins provide engagement with square holes or slots on the face of the nut.
- Interchangeable pins are easy to swap out.



Product ID No.	Description	Length	Width	Height	Weight lbs.	Max Opening
<b>FA-118A</b>	Adjustable Face Spanner - 4 Slots	10-5/8"	2-15/16"	1-25/32"	1.41 lbs.	4



# Wrenches

## ADJUSTABLE HOOK SPANNER WRENCH

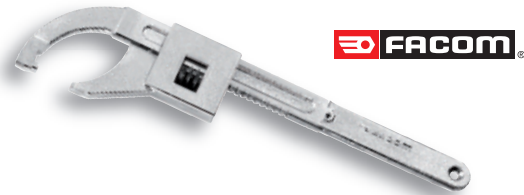
- Non-reflective ProtoBlack™ finish for use where non-plated products are required.
- Use to tighten side slot nuts on collars, lock nuts and bearings.



Product ID No.	Diameter Capacity	Hook Thickness D	Hook Depth C	L	Weight lbs.
JC471	3/4" to 2"	11/32"	1/8"	6-3/8"	0.23 lbs.
JC472	1-1/4" to 3"	13/32"	5/32"	8-1/8"	0.43 lbs.
JC474	2" to 4-3/4"	15/32"	3/16"	11-3/8"	1.03 lbs.
JC474A	4-1/2" to 6-1/4"	15/32"	1/4"	12-1/8"	1.07 lbs.
JC474B	6-1/8" to 8-3/4"	15/32"	5/16"	13-3/4"	1.40 lbs.

## FACOM® HEAVY DUTY HOOK SPANNER WRENCHES

- Satin finish provides corrosion resistance and a slip resistant grip.
- Hook design is used to tighten side slots on collars, lock nuts and bearings.
- Worm gear design allows for precision adjustments.



Product ID No.	Description	Length	Width	Height	Weight lbs.	Min Opening	Max Opening
FA-115A.50	Wrench Precision Hook Spanner 1-15/16"	20-7/8"	2-5/32"	31/32"	0.83 lbs.	3/8"	1-31/32"
FA-115A.100	Wrench Precision Hook Spanner 3-15/16"	8-15/32"	3-3/4"	25/32"	1.96 lbs.	25/32"	3-15/16"
FA-115A.200	Wrench Precision Hook Spanner 7-7/8"	14-3/8"	6-1/2"	25/32"	4.57 lbs.	1-3/16"	7-7/8"

## ADJUSTABLE PIN SPANNER WRENCH

- Non-reflective ProtoBlack™ finish for use where non-plated products are required.
- Precision machined pins provide engagement with side holes or slots.
- Used to tighten side slot nuts on collars, lock nuts and bearings.



Product ID No.	Maximum Capacity	Diameter of Pin B	Length of Pin C	Hook Thickness D	L	Weight lbs.
JC491	3/4" to 2"	1/8"	1/8"	11/32"	6-3/8"	.23 lbs.
JC492	3/4" to 2"	3/16"	5/32"	11/32"	6-3/8"	.23 lbs.
JC494	1-1/4" to 3"	3/16"	3/16"	13/32"	8-1/8"	.42 lbs.
JC495	1-1/4" to 3"	1/4"	7/32"	13/32"	8-1/8"	.42 lbs.
JC497	2" to 4 3/4"	1/4"	1/4"	15/32"	11-3/8"	.99 lbs.
JC499	4-1/2" to 6-1/4"	3/8"	1/4"	15/32"	12-1/8"	1.08 lbs.



# Wrenches



## FACOM® PRECISION ADJUSTABLE PIN SPANNERS

- Satin finish provides corrosion resistance and a slip resistant grip.
- Sliding jaw moves easily along the shank and is designed to be self-locking on to the nut.
- Precision machined pins provide engagement with holes on the sides of collars and nuts.
- Interchangeable pins are easy to swap out.



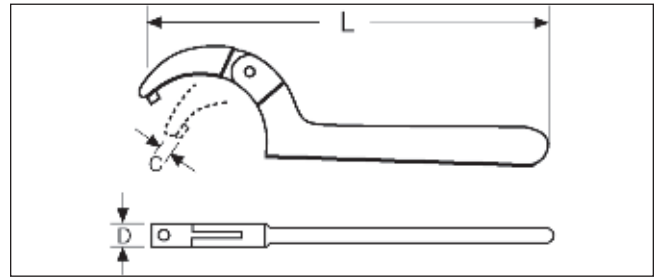
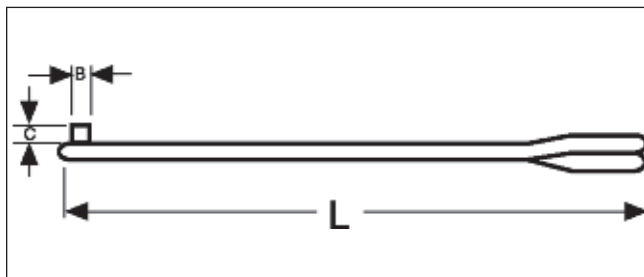
Product ID No.	Description	Length	Width	Height	Weight lbs.	Min Opening	Max Opening
<b>FA-116.50</b>	Wrench Precision Pin Spanner 1-15/16"	8-15/32"	2-3/8"	31/32"	0.86 lbs.	0	1-31/32"
<b>FA-116.100</b>	Wrench Precision Pin Spanner 3-15/16"	14-1/4"	3-3/4"	31/32"	1.99 lbs.	0	3-15/16"
<b>FA-116.200</b>	Wrench Precision Pin Spanner 7-7/8"	20-3/4"	6-5/16"	1-3/16"	4.76 lbs.	0	7-7/8"

## FACOM® PRECISION SPANNER REPLACEMENT PINS

- Replacement pins for Facom® FA-116.50; FA-116.100 and FA-116.200 Precision Adjustable Pin Spanner Wrenches.
- Precision machined pins provide engagement with holes on the sides of collars and nuts.
- Interchangeable pins are easy to swap out.



Product ID No.	Description	Length	Width	Height	Weight lbs.	Pin Diameter (inch)
<b>FA-116.50E1</b>	Pins for Precision Spanner FA-116.50 3/32"	25/32"	25/32"	3/8"	0.01 lbs.	3/32"
<b>FA-116.50E2</b>	Pins for Precision Spanner FA-116.50 5/32"	25/32"	25/32"	3/8"	0.01 lbs.	5/32"
<b>FA-116.100E1</b>	Pins for Precision Spanner FA-116.100 5/32"	31/32"	31/32"	19/32"	0.03 lbs.	5/32"
<b>FA-116.100E2</b>	Pins for Precision Spanner FA-116.100 1/4"	31/32"	31/32"	19/32"	0.03 lbs.	1/4"
<b>FA-116.200E1</b>	Pins for Precision Spanner FA-116.200 1/4"	1-3/16"	31/32"	19/32"	0.08 lbs.	1/4"
<b>FA-116.200E2</b>	Pins for Precision Spanner FA-116.200 5/16"	1-3/16"	1-3/16"	19/32"	0.08 lbs.	5/16"





# Wrenches


## COMBINATION FLARE NUT WRENCHES - 6 POINT

- Satin finish provides corrosion resistance and a slip-resistant grip.
- Flare nut box end incorporates the TorquePlus™ system.
- Proto® TorquePlus™ wrenches are ideal for use on stubborn or damaged fasteners, and also on fasteners made from soft materials.
- The TorquePlus™ design is a high performance drive configuration which allows for quick and easy wrench engagement to the fastener flats, not the corners.
- The TorquePlus™ configuration employs a radius-corner design, shifting contact area and stress away from the fastener corners and distributing contact stresses over a large area of the flare nut box end, minimizing slippage.
- The TorquePlus™ internal design minimizes fastener rounding, helps to extend fastener life, and allows the user to more easily turn worn, rounded, or rusted fasteners.

## SET NO. J3700A - 7 PC. COMBINATION FLARE NUT WRENCH SET - 6 POINT

• Weight: 2.24 lbs.




Product ID No.	Contents	 in.	Length
<b>J3700A</b>	J3751	3/8"	5-11/16"
	J3752	7/16"	6-1/32"
	J3753	1/2"	6-7/16"
	J3754	9/16"	6-15/16"
	J3755	5/8"	7-5/8"
	J3756	11/16"	8-11/16"
	J3757	3/4"	9-3/16"
	J25TR03C	Tool Roll	



## COMBINATION FLARE NUT WRENCHES - 6 POINT



Product ID No.	 in.	A	C	D	B1	C1	D1	L	Weight lbs.	ASME Spec.
<b>J3751</b>	3/8"	19/64"	25/32"	11/32"	7/16"	51/64"	23/65"	5-11/16"	0.12 lbs.	ASME B107.100
<b>J3752</b>	7/16"	23/64"	7/8"	3/8"	33/64"	59/64"	13/32"	6-1/32"	0.16 lbs.	ASME B107.100
<b>J3753</b>	1/2"	25/64"	31/32"	3/8"	19/32"	1-1/32"	13/32"	6-7/16"	0.21 lbs.	ASME B107.100
<b>J3754</b>	9/16"	26/64"	1-3/64"	7/16"	43/64"	1-11/64"	15/32"	6-15/16"	0.34 lbs.	ASME B107.100
<b>J3755</b>	5/8"	33/64"	1-3/32"	7/16"	47/64"	1-9/64"	15/32"	7-5/8"	0.45 lbs.	ASME B107.100
<b>J3756</b>	11/16"	9/16"	1-3/16"	1/2"	51/64"	1-13/32"	17/32"	8-11/16"	0.45 lbs.	ASME B107.100
<b>J3757</b>	3/4"	9/16"	1-7/32"	1/2"	57/64"	1-9/16"	17/32"	9-3/16"	0.49 lbs.	ASME B107.100



# Wrenches




## COMBINATION FLARE NUT WRENCHES - 12 POINT

- Satin finish provides corrosion resistance and a slip resistant grip.
- 12 point flare nut box end allows for fine indexing, helping to improve speed and access.
- Fits 4, 6 and 12 point fasteners.
- Flare nut box end incorporates the TorquePlus™ system.
- Proto® TorquePlus™ wrenches are ideal for use on stubborn or damaged fasteners, and also on fasteners made from soft materials.
- The TorquePlus™ design is a high performance drive configuration which allows for quick and easy wrench engagement to the fastener flats, not the corners.
- The TorquePlus™ configuration employs a radius-corner design, shifting contact area and stress away from the fastener corners and distributing contact stresses over a large area of the flare nut box end, minimizing slippage.
- The TorquePlus™ internal design minimizes fastener rounding, helps to extend fastener life, and allows the user to more easily turn worn, rounded, or rusted fasteners.

## SET NO. J3700AT - 7 PC. COMBINATION FLARE NUT WRENCH SET - 12 POINT

- Weight: 2.24 lbs.




Product ID No.	Contents	 in.	Length
<b>J3700AT</b>	J3751T	3/8"	5-11/16"
	J3752T	7/16"	6-1/32"
	J3753T	1/2"	6-7/16"
	J3754T	9/16"	6-15/16"
	J3755T	5/8"	7-5/8"
	J3756T	11/16"	8-11/16"
	J3757T	3/4"	9-3/16"
	J25TR03C	Tool Roll	



## COMBINATION FLARE NUT WRENCHES - 12 POINT



Product ID No.	 in.								Weight	
		A	C	D	B1	C1	D1	L	lbs.	ASME Spec.
<b>J3751T</b>	3/8"	19/64"	25/32"	11/32"	7/16"	51/64"	3/8"	5-11/16"	0.13 lbs.	ASME B107.100
<b>J3752T</b>	7/16"	23/64"	7/8"	3/8"	33/64"	58/64"	13/32"	6-1/32"	0.18 lbs.	ASME B107.100
<b>J3753T</b>	1/2"	25/64"	31/32"	3/8"	19/32"	1-1/32"	13/32"	6-7/16"	0.19 lbs.	ASME B107.100
<b>J3754T</b>	9/16"	29/64"	1-3/64"	7/16"	43/64"	1-3/64"	15/32"	6-15/16"	0.25 lbs.	ASME B107.100
<b>J3755T</b>	5/8"	33/64"	1-3/32"	7/16"	47/64"	1-19/64"	15/32"	7-5/8"	0.32 lbs.	ASME B107.100
<b>J3756T</b>	11/16"	9/16"	1-3/16"	1/2"	51/64"	1-13/32"	17/32"	8-11/16"	0.42 lbs.	ASME B107.100
<b>J3757T</b>	3/4"	9/16"	1-7/32"	1/2"	57/64"	1-9/16"	17/32"	9-3/16"	0.46 lbs.	ASME B107.100






# Wrenches

## SET NO. J3760 - 3 PC. DOUBLE END FLARE NUT WRENCH SET - 6 POINT

- Satin finish provides corrosion resistance and a slip resistant grip.
- Flare nut box ends incorporate the TorquePlus™ system.
- Proto® TorquePlus™ wrenches are ideal for use on stubborn or damaged fasteners, and also on fasteners made from soft materials.
- The TorquePlus™ design is a high performance drive configuration which allows for quick and easy wrench engagement to the fastener flats, not the corners.
- The TorquePlus™ configuration employs a radius-corner design, shifting contact area and stress away from the fastener corners and distributing contact stresses over a large area of the flare nut box end, minimizing slippage.
- The TorquePlus™ internal design minimizes fastener rounding, helps to extend fastener life, and allows the user to more easily turn worn, rounded, or rusted fasteners.
- Weight: 0.97 lbs.




Product ID No.	Contents	 in.	Length
<b>J3760</b>	J3764	3/8" x 7/16"	6-1/4"
	J3768	1/2" x 9/16"	7-1/2"
	J3772	5/8" x 11/16"	8-3/4"
	J25TR17C	Tool Roll	

## DOUBLE END FLARE NUT WRENCHES - 6 POINT

- Satin finish provides corrosion resistance and a slip resistant grip.
- Flare nut box ends incorporate the TorquePlus™ system.
- Proto® TorquePlus™ wrenches are ideal for use on stubborn or damaged fasteners, and also on fasteners made from soft materials.
- The TorquePlus™ design is a high performance drive configuration which allows for quick and easy wrench engagement to the fastener flats, not the corners.
- The TorquePlus™ configuration employs a radius-corner design, shifting contact area and stress away from the fastener corners and distributing contact stresses over a large area of the flare nut box end, minimizing slippage.
- The TorquePlus™ internal design minimizes fastener rounding, helps to extend fastener life, and allows the user to more easily turn worn, rounded, or rusted fasteners.



Product ID No.	 in.								Weight	
		A	C	D	A1	C1	D1	L	lbs.	ASME Spec.
<b>J3764</b>	3/8" x 7/16"	19/64"	51/64"	11/32"	23/64"	57/64"	3/8"	6-1/4"	0.18 lbs.	B107.100
<b>J3768</b>	1/2" x 9/16"	25/64"	31/32"	3/8"	13/32"	1-3/64"	7/16"	7-1/2"	0.27 lbs.	B107.100
<b>J3772</b>	5/8" x 11/16"	33/64"	1-7/64"	7/16"	37/64"	1-13/64"	31/64"	8-3/4"	0.38 lbs.	B107.100



# Wrenches




## DOUBLE END FLARE NUT WRENCHES - 12 POINT

- Satin finish provides corrosion resistance and a slip resistant grip.
- 12 point flare nut box end allows for fine indexing, helping to improve speed and access.
- Fits 4, 6 and 12 point fasteners.
- Flare nut box ends incorporate the TorquePlus™ system.
- Proto® TorquePlus™ wrenches are ideal for use on stubborn or damaged fasteners, and also on fasteners made from soft materials.
- The TorquePlus™ design is a high performance drive configuration which allows for quick and easy wrench engagement to the fastener flats, not the corners.
- The TorquePlus™ configuration employs a radius-corner design, shifting contact area and stress away from the fastener corners and distributing contact stresses over a large area of the flare nut box end, minimizing slippage.
- The TorquePlus™ internal design minimizes fastener rounding, helps to extend fastener life, and allows the user to more easily turn worn, rounded, or rusted fasteners.

## SET NO. J3670T - 3 PC. DOUBLE END FLARE NUT WRENCH SET - 12 POINT

- Weight: 0.97 lbs.




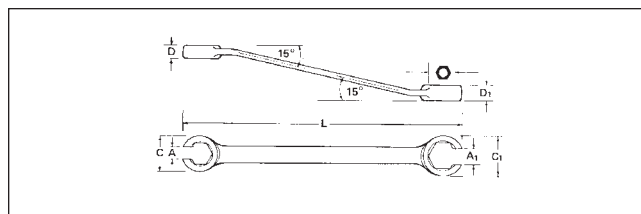
Product ID No.	Contents	 in.	Length
<b>J3760T</b>	J3764T	3/8" x 7/16"	6-1/4"
	J3768T	1/2" x 9/16"	7-1/2"
	J3772T	5/8" x 11/16"	8-3/4"
	J25TR17C	Tool Roll	



## DOUBLE END FLARE NUT WRENCHES - 12 POINT



Product ID No.	 in.	A	C	D	A1	C1	D1	L	Weight lbs.	ASME Spec.
<b>J3764T</b>	3/8" x 7/16"	19/64"	51/64"	11/32"	23/64"	57/64"	3/8"	6-1/4"	0.18 lbs.	B107.100
<b>J3768T</b>	1/2" x 9/16"	25/64"	31/32"	3/8"	13/32"	1-1/16"	7/16"	7-1/2"	0.27 lbs.	B107.100
<b>J3772T</b>	5/8" x 11/16"	33/64"	1-7/64"	7/16"	37/64"	1-13/64"	31/64"	8-3/4"	0.38 lbs.	B107.100





# Wrenches

## METRIC DOUBLE END FLARE NUT WRENCHES - 6 POINT

**M**ETRIC


- Satin finish provides corrosion resistance and a slip resistant grip.
- 12 point flare nut box end allows for fine indexing, helping to improve speed and access.
- Fits 4, 6 and 12 point fasteners.
- Flare nut box ends incorporates the TorquePlus™ system.
- Proto® TorquePlus™ wrenches are ideal for use on stubborn or damaged fasteners, and also on fasteners made from soft materials.
- The TorquePlus™ design is a high performance drive configuration which allows for quick and easy wrench engagement to the fastener flats, not the corners.
- The TorquePlus™ configuration employs a radius-corner design, shifting contact area and stress away from the fastener corners and distributing contact stresses over a large area of the flare nut box end, minimizing slippage.
- The TorquePlus™ internal design minimizes fastener rounding, helps to extend fastener life, and allows the user to more easily turn worn, rounded, or rusted fasteners.

## SET NO. J3700M - 5 PC. METRIC DOUBLE END FLARE NUT WRENCH SET - 6 POINT

**M**ETRIC

- Weight: 1.25 lbs.




Product ID No.	Contents		Length
<b>J3700M</b>	J3707M	7 x 8	144.5
	J3709M	9 x 11	160.3
	J3710M	10 x 12	176.3
	J3713M	13 x 14	192.0
	J3715M	15 x 17	203.0
	J25TR06C	Tool Roll	

## METRIC DOUBLE END FLARE NUT WRENCHES - 6 POINT

**M**ETRIC



Product ID No.		A	C	D	A1	C1	D1	L	Weight lbs.	ASME Spec.
<b>J3707M</b>	7 x 8	5.6	17.2	7.5	5.9	18.9	8.3	144.5	0.12 lbs.	ASME B107.100
<b>J3709M</b>	9 x 11	7.1	20.7	9.2	8.9	23.2	10.0	160.3	0.17 lbs.	ASME B107.100
<b>J3710M</b>	10 x 12	7.1	22.0	10.0	8.9	24.4	10.0	176.3	0.22 lbs.	ASME B107.100
<b>J3713M</b>	13 x 14	9.6	25.7	10.0	11.2	27.6	11.7	192.0	0.26 lbs.	ASME B107.100
<b>J3715M</b>	15 x 17	11.2	28.2	11.7	12.8	30.0	12.5	203.0	0.37 lbs.	ASME B107.100
<b>J3716M</b>	16 x 18	12.8	28.8	11.7	14.5	31.2	13.2	223.8	0.39 lbs.	ASME B107.100
<b>J3719M</b>	19 x 21	14.5	32.5	14.0	16.0	34.9	14.7	238.1	0.60 lbs.	ASME B107.100



# Wrenches



## METRIC DOUBLE END FLARE NUT WRENCH SET - 12 POINT

**M**ETRIC


- Satin finish provides corrosion resistance and a slip resistant grip.
- 12 point flare nut box end allows for fine indexing, helping to improve speed and access.
- Fits 4, 6 and 12 point fasteners.
- Flare box ends incorporate the TorquePlus™ system.
- Proto® TorquePlus™ wrenches are ideal for use on stubborn or damaged fasteners, and also on fasteners made from soft materials.
- The TorquePlus™ design is a high performance drive configuration which allows for quick and easy wrench engagement to the fastener flats, not the corners.
- The TorquePlus™ configuration employs a radius-corner design, shifting contact area and stress away from the fastener corners and distributing contact stresses over a large area of the flare nut box end, minimizing slippage.
- The TorquePlus™ internal design minimizes fastener rounding, helps to extend fastener life, and allows the user to more easily turn worn, rounded, or rusted fasteners.

## SET NO. J3700MT - 5 PC. METRIC DOUBLE END FLARE NUT WRENCH SET - 12 POINT

**M**ETRIC

- Weight: 1.29 lbs.




Product ID No.	Contents	 mm	Length
<b>J3700MT</b>	J3707MT	7 x 8	144.5
	J3709MT	9 x 11	160.3
	J3710MT	10 x 12	176.3
	J3713MT	13 x 14	192.0
	J3715MT	15 x 17	203.0
	J25TR06C	Tool Roll	



## METRIC DOUBLE END FLARE NUT WRENCHES - 12 POINT

**M**ETRIC



Product ID No.	 mm	A	C	D	A1	C1	D1	L	Weight lbs.	ASME Spec.
<b>J3707MT</b>	7 x 8	5.7	17.2	7.5	5.9	18.9	8.3	144.5	0.11 lbs.	ASME B107.100
<b>J3709MT</b>	9 x 11	7.1	20.7	9.2	8.9	23.2	10.0	160.3	0.16 lbs.	ASME B107.100
<b>J3710MT</b>	10 x 12	7.1	22.0	10.0	8.9	24.4	10.0	176.3	0.21 lbs.	ASME B107.100
<b>J3713MT</b>	13 x 14	9.6	25.7	10.0	11.2	27.6	11.7	192.0	0.24 lbs.	ASME B107.100
<b>J3715MT</b>	15 x 17	11.2	28.2	11.7	12.8	30.0	12.5	203.0	0.33 lbs.	ASME B107.100
<b>J3716MT</b>	16 x 18	12.8	28.8	11.7	14.5	31.2	13.2	223.8	0.36 lbs.	ASME B107.100
<b>J3719MT</b>	19 x 21	14.5	32.5	14.0	16.0	34.9	14.7	239.7	0.39 lbs.	ASME B107.100




# Wrenches

## SET NO. J3800A - 7 PC. RATCHETING FLARE NUT WRENCH SET - 12 POINT

- Black oxide finish.
- Non-reflective ProtoBlack™ finish for use where non-plated products are required.
- 12 Point flare nut box end allows for fine indexing, helping to improve speed and access.
- Pivoting head allows user to place the wrench over the connected pipes to reach the fastener.
- Weight: 1.93 lbs.




Product ID No.	Contents	 in.	Length
<b>J3800A</b>	J3812	3/8"	5-7/16"
	J3814	7/16"	5-7/16"
	J3816	1/2"	5-7/16"
	J3818	9/16"	7-1/4"
	J3820	5/8"	7-1/4"
	J3822	11/16"	7-1/4"
	J3824	3/4"	7-1/4"
J25TR03C	Tool Roll		

## RATCHETING FLARE NUT WRENCHES - 12 POINT

- Black oxide finish.
- Non-reflective ProtoBlack™ finish for use where non-plated products are required.
- 12 Point flare nut box end allows for fine indexing, helping to improve speed and access.
- Pivoting head allows user to place the wrench over the connected pipes to reach the fastener.



Product ID No.	 in.	D	E	L	Weight lbs.
<b>J3812</b>	3/8"	1"	9/32"	5-7/16"	0.17 lbs.
<b>J3814</b>	7/16"	1"	9/32"	5-7/16"	0.17 lbs.
<b>J3816</b>	1/2"	1"	9/32"	5-7/16"	0.17 lbs.
<b>J3818</b>	9/16"	1-5/16"	3/8"	7-1/4"	0.31lbs.
<b>J3820</b>	5/8"	1-5/16"	3/8"	7-1/4"	0.31lbs.
<b>J3822</b>	11/16"	1-5/16"	3/8"	7-1/4"	0.31 lbs.
<b>J3824</b>	3/4"	1-5/16"	3/8"	7-1/4"	0.31 lbs.
<b>J3826</b>	13/16"	1-11/16"	7/16"	9-3/8"	0.58 lbs.
<b>J3828</b>	7/8"	1-11/16"	7/16"	9-3/8"	0.58 lbs.
<b>J3830</b>	15/16"	1-11/16"	1/2"	9-3/8"	0.58 lbs.
<b>J3832</b>	1"	1-11/16"	1/2"	9-3/8"	0.58 lbs.





# Wrenches



## SET NO. J140SET - 4 PIECE INTERNAL PIPE WRENCH SET

- Ideal for removing broken threaded pipe ends, plugs, and fittings.
- Installation and removal without thread damage.
- Eccentric cam action engages wrench against the walls of the pipe.
- Hex body allows for use of adjustable wrench for added torque.
- Made from hardened steel and plated to help prevent rust.
- Weight: 1.95 lbs.



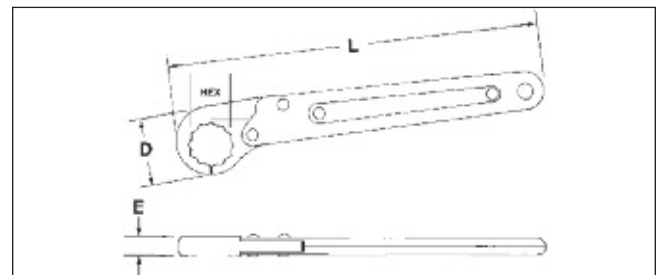
Product ID No.	Contents	Description	Length
<b>J140SET</b>	J140-38	3/8"	3-3/4"
	J140-34	3/4"	3-3/4"
	J140-12	1/2"	3-3/4"
	J140-1	1"	3-3/4"

## INTERNAL PIPE WRENCHES

- Screw forces jaws equally against inside surface of broken pipe or close nipples.
- Turn extractor with wrench to remove pipe quickly and safely.
- Requires no hammering to release.



Product ID No.	Description	Weight lbs.
<b>J140-38</b>	3/8"	0.21 lbs.
<b>J140-34</b>	3/4"	0.49 lbs.
<b>J140-12</b>	1/2"	0.32 lbs.
<b>J140-1</b>	1"	0.85 lbs.





# Wrenches

## PIPE WRENCHES - HEAVY-DUTY

- Forged steel jaw provides outstanding strength.
- Full floating hook jaw, provides instant grip, easy release.
- Large knurl and power threads provide fast, positive jaw adjustment.

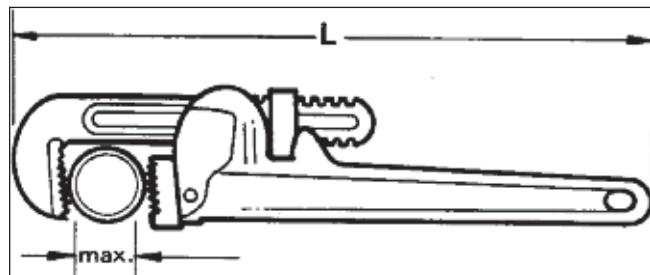


Product ID No.	Max. Opening	L	Weight lbs.
<b>J806HD</b>	3/4"	6"	0.45 lbs.
<b>J808HD</b>	1"	8"	0.80 lbs.
<b>J810HD</b>	1-1/2"	10"	1.76 lbs.
<b>J812HD</b>	2"	12"	2.66 lbs.
<b>J814HD</b>	2"	14"	3.76 lbs.
<b>J818HD</b>	3-1/2"	18"	5.82 lbs.
<b>J824HD</b>	4"	24"	9.58 lbs.
<b>J836HD</b>	5"	36"	19.32 lbs.
<b>J848HD</b>	6"	48"	35.36 lbs.

## PIPE WRENCH PARTS

- Replacement parts for heavy duty pipe wrenches.

Product ID No.	Handle, Heel Jaw, & Pin Assemble	Weight lbs.	Hook Jaw	Weight lbs.	Heel Jaw & Pin	Weight lbs.	Coil & Flat Spring	Weight lbs.	Knurl	Weight lbs.
<b>J806HD Parts</b>	J806H	0.33 lbs.	J806B	0.11 lbs.	J806C	0.02 lbs.	J806E	0.01 lbs.	J806D	0.03 lbs.
<b>J808HD Parts</b>	J808H	0.61 lbs.	J808B	0.23 lbs.	J808C	0.04 lbs.	J808E	0.01 lbs.	J808D	0.03 lbs.
<b>J810HD Parts</b>	J810H	1.20 lbs.	J810B	0.45 lbs.	J810C	0.08 lbs.	J810E	0.01 lbs.	J810D	0.07 lbs.
<b>J812HD Parts</b>	J812H	1.97 lbs.	J812B	0.68 lbs.	J812C	0.15 lbs.	J812E	0.02 lbs.	J812D	0.09 lbs.
<b>J814HD Parts</b>	J814H	2.79 lbs.	J814B	0.97 lbs.	J814C	0.15 lbs.	J814E	0.03 lbs.	J814D	0.11 lbs.
<b>J818HD Parts</b>	J818H	4.09 lbs.	J818B	1.57 lbs.	J818C	0.23 lbs.	J818E	0.04 lbs.	J818D	0.18 lbs.
<b>J824HD Parts</b>	J824H	7.35 lbs.	J824B	2.36 lbs.	J824C	0.32 lbs.	J824E	0.06 lbs.	J824D	0.31 lbs.
<b>J836HD Parts</b>	J836H	14.40 lbs.	J836B	4.37 lbs.	J836C	0.58 lbs.	J836E	0.07 lbs.	J836D	0.47 lbs.
<b>J848HD Parts</b>	J848H	28.05 lbs.	J848B	7.3 lbs.	J848C	0.72 lbs.	J848E	0.11 lbs.	J848D	0.68 lbs.



# Wrenches



- Satin chrome finish.
- Spring-steadied pivoting 12 point socket.
- Strength to ISO 1711-1, DIN 899, NF ISO 1711-1.



Product ID No.	Contents	Size	Length	Weight lbs.
<b>FF-66A.JU3</b>	FF-66A.1/2 X 9/16	1/2 X 9/16"	9-1/4"	0.47 lbs.
	FF-66A.3/8X7/16	3/8 X 7/16"	6-1/2"	2.06 lbs.
	FF-66A.5/8X3/4	5/8 X 3/4"	11-1/4"	0.82 lbs.

## FACOM® DOUBLE HINGED SOCKET WRENCHES

- Satin chrome finish.
- Spring-steadied pivoting 12 point socket.
- Strength to ISO 1711-1, DIN 899, NF ISO 1711-1.



Product ID No.	Size	Length	End 1 Diameter	End 2 Diameter	Weight lbs.
<b>FF-66A.3/8X7/16</b>	3/8 X 7/16"	6-1/2"	19/32"	21/32"	2.06 lbs.
<b>FF-66A.1/2 X 9/16</b>	1/2 X 9/16"	9-1/4"	3/4"	13/16"	0.47 lbs.
<b>FF-66A.5/8X3/4</b>	5/8 X 3/4"	11-1/4"	29/32"	1-1/32"	0.82 lbs.



# Wrenches

## SET NO. FM-66A.JE9T - FACOM® 9 PC. WRENCH SET

METRIC

- Satin chrome finish.
- Spring-steadied pivoting 12 point socket.
- Strength to ISO 1711-1, DIN 899, NF ISO 1711-1.

FACOM



Product ID No.	Contents	Length	Weight lbs.
<b>FM-66A.JE9T</b>	FM-66A.6X7	188.5	0.2 lbs.
	FM-66A.8X9	188.5	0.21 lbs.
	FM-66A.10X11	194.5	0.24 lbs.
	FM-66A.12X13	233.5	0.42 lbs.
	FM-66A.14X15	237.5	0.44 lbs.
	FM-66A.16X17	280.0	0.49 lbs.
	FM-66A.18X19	286.0	0.77 lbs.
	FM-66A.20X22	329.0	0.76 lbs.
	FM-66A.21X23	331.0	0.82 lbs.

## FACOM® METRIC DOUBLE HINGED SOCKET WRENCHES

METRIC

- Satin chrome finish.
- Spring-steadied pivoting 12 point socket.
- Strength to ISO 1711-1, DIN 899, NF ISO 1711-1.

FACOM



Product ID No.	Size	End 1 Diameter	End 2 Diameter	Length	Weight lbs.
<b>FM-66A.6X7</b>	6 X 7"	15	11.5	188.5	0.2 lbs.
<b>FM-66A.8X9</b>	8 X 9"	15	13.85	188.5	0.21 lbs.
<b>FM-66A.10X11</b>	10 X 11"	18	16.5	194.5	0.24 lbs.
<b>FM-66A.12X13</b>	12 X 13"	21	19	233.5	0.42 lbs.
<b>FM-66A.14X15</b>	14 X 15"	23	21.75	237.5	0.44 lbs.
<b>FM-66A.16X17</b>	16 X 17"	23	24	280.0	0.49 lbs.
<b>FM-66A.18X19</b>	18 X 19"	25	26	286.0	0.77 lbs.
<b>FM-66A.20X22</b>	20 X 22"	27.3	30.5	329.0	0.76 lbs.
<b>FM-66A.21X23</b>	21 X 23"	28.6	31.5	331.0	0.82 lbs.
<b>FM-66A.24X27</b>	24 X 27"	33	36.7	381	1.15 lbs.
<b>FM-66A.30X32</b>	30 X 32"	40.5	43	387	1.32 lbs.





STANLEY  
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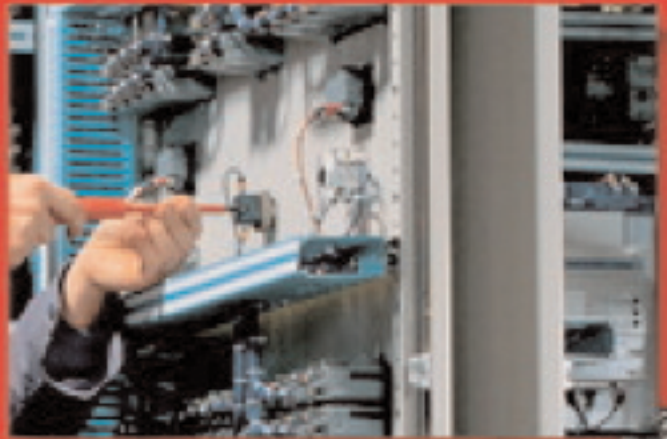
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[stanleyproto@stanleycustomersupport.com](mailto:stanleyproto@stanleycustomersupport.com)  
[www.stanleyproto.com](http://www.stanleyproto.com)

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