

Llaves

Proceso especial de elaboración de la llave combinada 24



1. corte:

mediante unas cizallas especiales se corta la palanquilla de acero en piezas de forma especial, que son el desarrollo especialmente estudiado para cada modelo de llave y medida, de forma que garantice el completo llenado del molde de forja con un desperdicio mínimo de material. En este desarrollo se cuida mucho que la pieza obtenida mantenga la dirección de las fibras de la palanquilla original, lo que dará a la pieza una mayor resistencia.

2. forjado:

el forjado, llevado a cabo en la máquina del reconocido fabricante LASCO, garantiza la solidez de las llaves combinadas. Con los pasos de forjado adecuados se conserva el correcto direccionamiento de los filamentos, ya presentes anteriormente en las tiras aplanas; el direccionamiento de dichos filamentos es de suma importancia en productos que exigen una alta carga dinámica, tales como son las llaves Unior;

3. corte:

la eliminación del material restante alrededor de la pieza se lleva a cabo con herramientas de corte especiales. La eliminación de fragmentos, hasta lograr la forma deseada, se realiza de modo tal, que el peso de las partes cortadas es menor que el peso de la pieza forjada;

4. perforado:

luego del forjado y del corte se perfura la herramienta: el proceso se realiza tanto en piezas calientes como frías;

5. alisado y pulido:

en tambores especiales, y con la ayuda de medios mecánicos y químicos, pulimos los bordes ásperos de las piezas y luego, en máquinas especiales alisamos y damos forma a los contornos; con este paso se logra obtener superficies lisas en los bordes de la llave, para que el tacto de la misma sea agradable al usuario;

6. marcado y curvado mecánicos:

dependiendo de los estándares, se imprime sobre cada herramienta la marca correspondiente, al mismo tiempo que, en base a las exigencias, se encierra el anillo de la llave.

7. fresado de la estrella:

mediante una fresa especialmente construida para cada medida se efectúa el corte del perfil de la estrella interior del anillo de llave

8. tratamiento térmico:

el tratamiento térmico se realiza por temple y revenido, obteniéndose así una estructura homogénea del material lo que le confiere una gran resistencia a las cargas a las que se someterá a la llave durante su larga vida útil

9. limpieza superficial:

mediante chorro de arena a presión se realiza el descascarillado superficial de las llaves, eliminando así las posibles cascarillas restantes de la forja, posteriormente las cabezas de la llave se pulen en bandas de lija;

10. cromado y pulido:

por último, las llaves entran en la cadena de baños donde pasando por diversas cubetas, se desengrasan, reciben una capa de cobre y finalmente se recubren con una capa de cromo, que les da un aspecto brillante, al tiempo que les confiere una resistencia superficial contra rozaduras y golpes

10 pasos principales de 24





Larga vida útil

Con un rebarbado de seguridad especial, las llaves no dañan las esquinas ni los bordes de tornillos y tuercas, ya que distribuyen la fuerza equitativamente en la superficie alejada de los bordes exteriores de la cabeza del tornillo o la tuerca en lugar de directamente en los bordes.



Vida útil prolongada

Las llaves están fabricadas en acero al cromo vanadio con mayor densidad en los puntos de mayor presión, lo cual, unido a sus dimensiones y el método de fabricación, aumentan su potencia y durabilidad.



Diseño innovador

El diseño moderno de las llaves Unior garantiza una transmisión eficaz y precisa de la fuerza a la tuerca y la cabeza del tornillo.

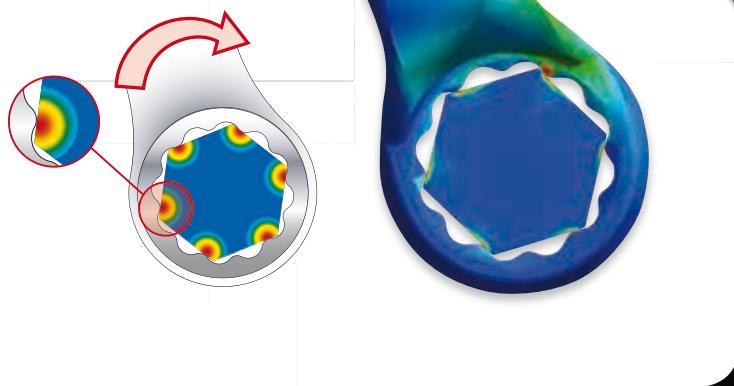
| | | |
|--|-----------------------------------|---------|
| | Llaves fijas | 24 - 30 |
| | Llaves combinadas | 30 - 37 |
| | Llaves acodadas | 38 - 41 |
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"Perfil LIFE"

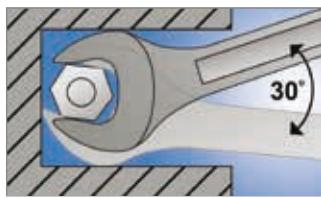
Ventajas del perfil LIFE

- Hace la fuerza en seis puntos
- No daña las aristas del tornillo o tuerca
- Se emboca la llave con mayor facilidad
- Puede utilizarse la llave incluso cuando las aristas del tornillo o tuerca están dañados



110/1**Llave fija de dos bocas**

- Material: cromo vanadio
- Acabado cromado según EN12540
- Cabezas pulidas
- forjada, templada y revenida
- fabricada de acuerdo con ISO 10102 (medidas métricas)



| Barcode | Ø mm | L | B1 | B2 | A | Stock | Unit | Price |
|---------|------------------|-----|------|-------|------|-------|------|-------|
| 600094 | 24 x 30 | 279 | 53.8 | 58.8 | 8.2 | 341 | A | 12,69 |
| 600095 | 25 x 28 | 279 | 62.8 | 58.8 | 8.2 | 344 | A | 9,73 |
| 600096 | 27 x 29 | 309 | 62.8 | 67.3 | 9.2 | 535 | A | 13,86 |
| 600097 | 27 x 30 | 309 | 62.8 | 67.3 | 9.2 | 527 | A | 14,15 |
| 600098 | 27 x 32 | 309 | 62.8 | 67.3 | 9.2 | 541 | A | 12,18 |
| 600099 | 30 x 32 | 309 | 62.8 | 67.3 | 9.2 | 532 | A | 13,21 |
| 603848 | 30 x 34 | 315 | 62.8 | 68.8 | 9.6 | 568 | C | 15,12 |
| 602593 | 30 x 36 | 319 | 62.8 | 78.8 | 9.6 | 591 | C | 23,66 |
| 600100 | 32 x 36 | 327 | 68.8 | 78.8 | 9.6 | 653 | C | 23,72 |
| 600101 | 34 x 36 | 327 | 68.8 | 78.8 | 9.6 | 628 | C | 28,56 |
| 600102 | 36 x 41 | 360 | 78.8 | 86.8 | 9.6 | 823 | C | 30,88 |
| 605549 | 38 x 42 | 360 | 78.8 | 86.8 | 9.6 | 822 | C | 36,03 |
| 602594 | 41 x 46 | 410 | 86.8 | 94.8 | 14.6 | 1735 | C | 45,04 |
| 602595 | 46 x 50 | 460 | 94.8 | 103.9 | 15.6 | 2365 | C | 59,95 |
| 605348 | 1/4" x 5/16" | 121 | 14.4 | 16.4 | 3.4 | 15 | A | 3,35 |
| 618658 | 1/4" x 9/32" | 121 | 14.4 | 16.4 | 3.4 | 15 | A | 3,19 |
| 605349 | 5/16" x 3/8" | 140 | 18.4 | 22.9 | 3.7 | 24 | A | 3,48 |
| 618656 | 11/32" x 13/32" | 159 | 22.7 | 24.2 | 4.5 | 43 | A | 3,93 |
| 605350 | 3/8" x 7/16" | 159 | 22.7 | 24.2 | 4.5 | 40 | A | 4,22 |
| 605351 | 7/16" x 1/2" | 172 | 26.3 | 29.2 | 4.9 | 58 | A | 5,12 |
| 605352 | 1/2" x 9/16" | 192 | 31.2 | 33.2 | 5.4 | 81 | A | 5,12 |
| 605353 | 9/16" x 5/8" | 192 | 31.2 | 33.2 | 5.4 | 83 | A | 5,12 |
| 605354 | 5/8" x 11/16" | 206 | 35.7 | 37.7 | 5.7 | 108 | A | 5,83 |
| 605355 | 11/16" x 3/4" | 223 | 39.5 | 41.5 | 6.2 | 143 | A | 6,51 |
| 618657 | 3/4" x 13/16" | 232 | 43.5 | 46 | 6.7 | 183 | A | 7,83 |
| 605356 | 13/16" x 7/8" | 249 | 46 | 52 | 7.2 | 237 | A | 7,51 |
| 605357 | 15/16" x 1" | 265 | 51.8 | 55.3 | 7.7 | 301 | A | 9,67 |
| 605358 | 1" x 1.1/8 | 279 | 53.8 | 58.8 | 8.2 | 344 | A | 10,54 |
| 605359 | 1.1/16" x 1.1/4" | 309 | 62.8 | 67.3 | 9.6 | 527 | A | 13,09 |

| Barcode | Ø mm | L | B1 | B2 | A | Stock | Unit | Price |
|---------|---------|-----|------|------|-----|-------|------|-------|
| 603316 | 4 x 4.5 | 100 | 13.6 | 13.6 | 3.4 | 10 | A | 3,80 |
| 603317 | 4 x 5 | 100 | 13.6 | 13.6 | 3.4 | 10 | A | 3,80 |
| 603318 | 5 x 5.5 | 100 | 13.6 | 13.6 | 3.4 | 10 | A | 3,80 |
| 600059 | 5 x 7 | 121 | 14.4 | 16.4 | 3.4 | 15 | A | 4,35 |
| 600060 | 5.5 x 7 | 121 | 14.4 | 16.4 | 3.4 | 15 | A | 4,35 |
| 600061 | 6 x 7 | 121 | 14.4 | 16.4 | 3.4 | 15 | A | 3,06 |
| 600062 | 7 x 8 | 140 | 18.4 | 22.9 | 3.7 | 24 | A | 3,61 |
| 600063 | 7 x 9 | 140 | 18.4 | 22.9 | 3.7 | 25 | A | 3,61 |
| 600064 | 8 x 9 | 140 | 18.4 | 22.9 | 3.7 | 24 | A | 3,19 |
| 600065 | 8 x 10 | 140 | 18.4 | 22.9 | 3.7 | 23 | A | 3,93 |
| 600066 | 9 x 10 | 159 | 22.7 | 24.2 | 4.5 | 43 | A | 3,99 |
| 600067 | 9 x 11 | 159 | 22.7 | 24.2 | 4.5 | 40 | A | 4,35 |
| 600068 | 10 x 11 | 159 | 22.7 | 24.2 | 4.5 | 40 | A | 3,93 |
| 600069 | 10 x 12 | 172 | 26.2 | 29.2 | 4.5 | 58 | A | 4,64 |
| 600070 | 10 x 13 | 172 | 26.2 | 29.2 | 4.9 | 59 | A | 4,90 |
| 600071 | 10 x 14 | 172 | 26.2 | 29.2 | 4.9 | 59 | A | 4,93 |
| 600072 | 11 x 13 | 172 | 26.2 | 29.2 | 4.9 | 58 | A | 4,90 |
| 600074 | 12 x 13 | 172 | 26.2 | 29.2 | 4.9 | 58 | A | 4,45 |
| 600075 | 12 x 14 | 172 | 26.2 | 29.2 | 4.9 | 58 | A | 4,90 |
| 600076 | 13 x 14 | 192 | 31.2 | 33.2 | 5.4 | 81 | A | 4,93 |
| 600077 | 13 x 15 | 192 | 31.2 | 33.2 | 5.4 | 84 | A | 5,03 |
| 603846 | 13 x 16 | 192 | 31.2 | 33.2 | 5.4 | 83 | A | 5,34 |
| 600078 | 13 x 17 | 200 | 31.2 | 37.7 | 5.7 | 101 | A | 5,34 |
| 600079 | 14 x 15 | 192 | 31.2 | 33.2 | 5.4 | 83 | A | 4,77 |
| 600080 | 14 x 17 | 200 | 31.2 | 37.7 | 5.7 | 101 | A | 5,34 |
| 600081 | 15 x 17 | 206 | 35.7 | 37.7 | 5.7 | 108 | A | 5,96 |
| 600082 | 16 x 17 | 206 | 35.7 | 41.5 | 5.7 | 108 | A | 5,42 |
| 603121 | 16 x 18 | 213 | 35.7 | 41.5 | 6.2 | 133 | A | 6,03 |
| 600083 | 17 x 19 | 223 | 39.5 | 41.5 | 6.2 | 143 | A | 6,09 |
| 600084 | 17 x 22 | 223 | 39.5 | 41.5 | 6.2 | 193 | A | 7,44 |
| 600085 | 18 x 19 | 223 | 39.5 | 41.5 | 6.2 | 148 | A | 6,03 |
| 603847 | 18 x 21 | 223 | 39.5 | 46 | 6.2 | 141 | A | 7,57 |
| 600086 | 19 x 22 | 232 | 43.5 | 46 | 6.7 | 183 | A | 7,15 |
| 600087 | 19 x 24 | 232 | 43.5 | 46 | 6.7 | 243 | A | 8,16 |
| 600088 | 20 x 22 | 232 | 43.5 | 46 | 6.7 | 180 | A | 6,96 |
| 600089 | 21 x 23 | 249 | 46 | 52 | 7.2 | 235 | A | 7,28 |
| 600090 | 22 x 24 | 249 | 46 | 52 | 7.2 | 237 | A | 7,90 |
| 600091 | 22 x 27 | 249 | 46 | 52 | 7.2 | 301 | A | 10,76 |
| 600092 | 24 x 26 | 265 | 51.8 | 55.3 | 7.7 | 289 | A | 8,86 |
| 600093 | 24 x 27 | 265 | 53.8 | 55.3 | 7.7 | 289 | A | 10,09 |

110/1CB**Juego de llave de boca en caja de cartón**

| Barcode | Nº | Ø mm | L | Stock | Unit | Price |
|---------|---------|---|------|-------|------|-------|
| 600105 | 110/1CB | 6 - 22 / 8 | 724 | F | | 33,94 |
| | | 110/1 (6 x 7,8 x 9, 10 x 11, 12 x 13, 14 x 15, 16 x 17, 18 x 19, 20 x 22) | | | | |
| 600106 | 110/1CB | 6 - 32 / 12 | 2140 | F | | |
| | | 110/1 (6 x 7,8 x 9, 10 x 11, 12 x 13, 14 x 15, 16 x 17, 18 x 19, 20 x 22, 21 x 23, 24 x 26, 25 x 28, 27 x 32) | | | | |
| 600107 | 110/1CB | 6 - 41 / 13 | 3982 | F | | |
| | | 110/1 (6 x 7,8 x 9, 10 x 11, 12 x 13, 14 x 15, 16 x 17, 18 x 19, 20 x 22, 21 x 23, 24 x 26, 25 x 28, 27 x 32, 36 x 41) | | | | |
| 611018 | 110/1CB | 6 - 27 / 10 | 1250 | F | | 55,14 |
| | | 110/1 (6 x 7,8 x 9, 10 x 11, 12 x 13, 14 x 15, 16 x 17, 18 x 19, 20 x 22, 21 x 23, 24 x 27) | | | | |
| 605530 | 110/1CB | 1/4" - 3/4" / 8 | 610 | F | | 38,83 |
| | | 110/1 (1/4" x 5/16", 5/16" x 3/8", 3/8" x 7/16", 7/16" x 1/2", 1/2" x 9/16", 9/16" x 5/8", 5/8" x 11/16", 11/16" x 3/4") | | | | |
| 605531 | 110/1CB | 1/4" - 1.1/4" / 12 | 2005 | F | | 67,89 |
| | | 110/1 (1/4" x 5/16", 5/16" x 3/8", 3/8" x 7/16", 7/16" x 1/2", 1/2" x 9/16", 9/16" x 5/8", 5/8" x 11/16", 11/16" x 3/4", 13/16" x 7/8", 15/16" x 1", 1" x 1.1/8", 1.1/16" x 1.1/4") | | | | |
| 623189 | 110/1CB | 1/4" - 1.1/4" / 10 | | F | | 68,20 |
| | | 110/1 (1/4" x 9/32", 5/16" x 3/8", 11/32" x 13/32", 7/16" x 1/2", 9/16" x 5/8", 11/16" x 3/4", 13/16" x 7/8", 15/16" x 1", 1" x 1.1/8, 1.1/16" x 1.1/4") | | | | |

110/1CS

Juego de llaves fijas de dos bocas en expositor de cartón



| Imagen | Nº | Unidad | Peso | Art. | Precio |
|--------|--------|---------|------------|------|--------|
| | 602844 | 110/1CS | 6 - 22 / 8 | 800 | 37,81 |

110/1 (6 x 7, 8 x 9, 10 x 11, 12 x 13, 14 x 15, 16 x 17, 18 x 19, 20 x 22)

110/1PH

Juego de llaves fijas de dos bocas en colgador de plástico



| Imagen | Nº | Unidad | Peso | Art. | Precio |
|--------|--------|---------|------------|------|--------|
| | 610835 | 110/1PH | 6 - 22 / 8 | 885 | 39,68 |

110/1 (6 x 7, 8 x 9, 10 x 11, 12 x 13, 14 x 15, 16 x 17, 18 x 19, 20 x 22)

110/1CT

Juego de llaves fijas de dos bocas en bolsa enrollable



| Imagen | Nº | Unidad | Peso | Art. | Precio |
|--------|--------|---------|------------|------|--------|
| | 615465 | 110/1CT | 6 - 22 / 8 | 788 | 54,67 |

110/1 (6 x 7, 8 x 9, 10 x 11, 12 x 13, 14 x 15, 16 x 17, 18 x 19, 20 x 22),
CT110 (430 x 275)

110/1MS

Juego de llaves fijas de dos bocas en expositor metálico



| Imagen | Nº | Unidad | Peso | Art. | Precio |
|--------|--------|---------|--------------------|------|--|
| | 605528 | 110/1MS | 6 - 32 / 12 | 2740 | 89,41 |
| | | | | | 110/1 (6 x 7, 8 x 9, 10 x 11, 12 x 13, 14 x 15, 16 x 17, 18 x 19, 20 x 22, 21 x 23, 24 x 26, 25 x 28, 27 x 32), 977/1 (6 - 32/12) |
| | 605532 | 110/1MS | 1/4" - 1.1/4" / 12 | 2642 | 93,18 |
| | | | | | 110/1 (1/4" x 5/16", 5/16" x 3/8", 3/8" x 7/16", 7/16" x 1/2", 1/2" x 9/16", 9/16" x 5/8", 5/8" x 11/16", 11/16" x 3/4", 13/16" x 7/8", 15/16" x 1", 1" x 1.1/8, 1.1/16" x 1.1/4"), 977/1 (6 - 32/12) |

CT110

Estuche vacío

- dim. 430 x 275, para art. 110 y 125
- Sistema de cierre pegante
- no necesita cordon para atarlo



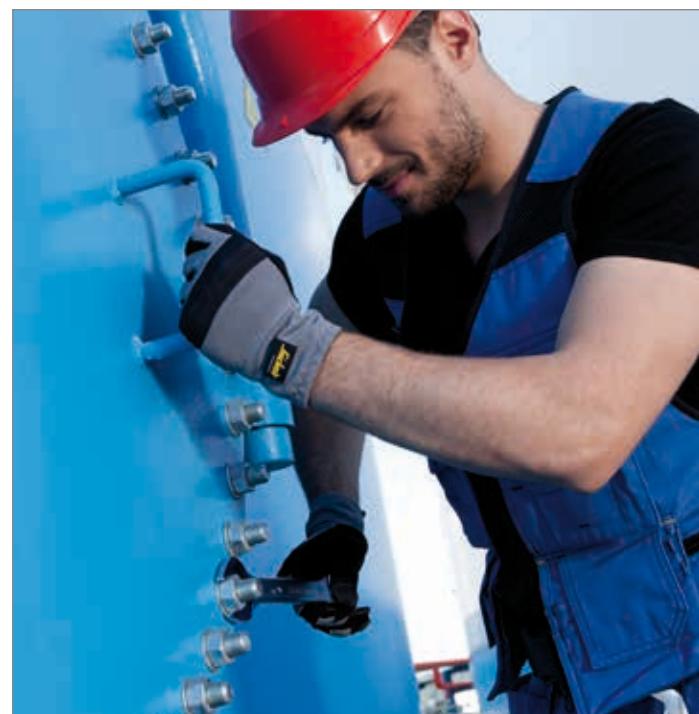
| Imagen | A | B | Peso | Art. | Precio |
|--------|--------|-----|------|------|--------|
| | 615480 | 430 | 275 | 117 | 19,88 |

110/1PB

Juego de llaves fijas de dos bocas en bolsa de plástico



| Imagen | Nº | Unidad | Peso | Art. | Precio |
|--------|--------|---------|------------|------|--|
| | 600108 | 110/1PB | 6 - 17 / 6 | 378 | 24,79 |
| | | | | | 110/1 (6 x 7, 8 x 9, 10 x 11, 12 x 13, 14 x 15, 16 x 17) |
| | 600109 | 110/1PB | 6 - 22 / 8 | 747 | 37,81 |
| | | | | | 110/1 (6 x 7, 8 x 9, 10 x 11, 12 x 13, 14 x 15, 16 x 17, 18 x 19, 20 x 22) |



110/2CS

Juego de llaves fijas de dos bocas en expositor de cartón



| | Nº | | | | | |
|--------|---------|--|---|-----|--|--------------|
| 602846 | 110/2CS | | 6 - 22 / 8 | 790 | | 36,30 |
| | | | 110/2 (6 x 7, 8 x 9, 10 x 11, 12 x 13, 14 x 15, 16 x 17, 18 x 19, 20 x 22) | | | |

110/2CT

Juego de llaves fijas de dos bocas en bolsa enrollable



| | Nº | | | | | |
|--------|---------|--|--|-----|--|--------------|
| 615466 | 110/2CT | | 6 - 22 / 8 | 791 | | 53,83 |
| | | | 110/2 (6 x 7, 8 x 9, 10 x 11, 12 x 13, 14 x 15, 16 x 17, 18 x 19, 20 x 22), CT110 (430 x 275) | | | |

**110/2PB**

Juego de llaves fijas de dos bocas en bolsa de plástico



| | Nº | | | | | |
|--------|---------|--|---|-----|--|--------------|
| 600159 | 110/2PB | | 6 - 17 / 6 | 391 | | 23,76 |
| | | | 110/2 (6 x 7, 8 x 9, 10 x 11, 12 x 13, 14 x 15, 16 x 17) | | | |
| 600160 | 110/2PB | | 6 - 22 / 8 | 728 | | 36,30 |
| | | | 110/2 (6 x 7, 8 x 9, 10 x 11, 12 x 13, 14 x 15, 16 x 17, 18 x 19, 20 x 22) | | | |

110/2PH

Juego de llaves fijas de dos bocas en colgador de plástico



| | Nº | | | | | |
|--------|---------|--|---|-----|--|--------------|
| 610836 | 110/2PH | | 6 - 22 / 8 | 890 | | 38,25 |
| | | | 110/2 (6 x 7, 8 x 9, 10 x 11, 12 x 13, 14 x 15, 16 x 17, 18 x 19, 20 x 22) | | | |

110/2MS

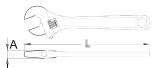
Juego de llaves fijas de dos bocas en expositor metálico



| | Nº | | | | | |
|--------|---------|--|---|------|--|--------------|
| 605529 | 110/2MS | | 6 - 32 / 12 | 2750 | | 86,58 |
| | | | 110/2 (6 x 7, 8 x 9, 10 x 11, 12 x 13, 14 x 15, 16 x 17, 18 x 19, 20 x 22, 21 x 23, 24 x 26, 25 x 28, 27 x 32), 977/1 (6 - 32/12) | | | |
| 605535 | 110/2MS | | 1/4" - 1.1/4" / 12 | 2650 | | 90,67 |
| | | | 110/2 (1/4" x 5/16", 5/16" x 3/8", 3/8" x 7/16", 7/16" x 1/2", 1/2" x 9/16", 9/16" x 5/8", 5/8" x 11/16", 11/16" x 3/4", 13/16" x 7/8", 15/16" x 1", 1" x 1.1/8", 1.1/16" x 1.1/4"), 977/1 (6 - 32/12) | | | |

250/1**Llave ajustable**

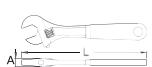
- Material: cromo vanadio
- cromada
- cabezas pulidas
- con escala
- forjada, templada y revenida
- fabricada totalmente de acuerdo con ISO 6787



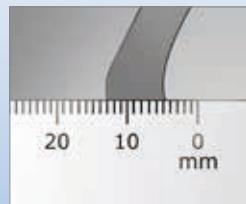
| Barcode | \checkmark | L | A | \odot | | | | |
|---------|--------------|-----|-------|---------|----|------|---|---------------|
| 611917 | | 100 | 110 | 9.8 | 17 | 61 | A | 18,27 |
| 611918 | | 150 | 155.5 | 11.7 | 23 | 133 | A | 17,33 |
| 601016 | | 200 | 205 | 14.4 | 28 | 243 | A | 22,25 |
| 601017 | | 250 | 254 | 16.9 | 32 | 439 | A | 27,58 |
| 601018 | | 300 | 303.5 | 19.1 | 38 | 702 | C | 33,01 |
| 601019 | | 380 | 375 | 23.8 | 50 | 1315 | C | 66,74 |
| 605113 | | 450 | 458.5 | 26.3 | 60 | 1730 | C | 105,24 |
| 615148 | | 600 | 608 | 29.7 | 70 | 3240 | C | 224,76 |

250/1ADP**Llave ajustable**

- Material: cromo vanadio
- cromada
- cabezas pulidas
- con escala
- mangos plastificados en bicolor
- fabricada totalmente de acuerdo con ISO 6787



| Barcode | \checkmark | L | A | \odot | | | | |
|---------|--------------|-----|-----|---------|----|------|---|--------------|
| 617246 | | 200 | 205 | 14.8 | 28 | 280 | A | 25,84 |
| 617247 | | 250 | 254 | 17 | 32 | 490 | A | 25,09 |
| 617248 | | 300 | 304 | 20 | 38 | 785 | C | 32,67 |
| 617249 | | 380 | 381 | 25.5 | 50 | 1395 | C | 59,57 |

FEATURES OF**250/1, 250/1ADP, 251/4****250.1/1****Juego de repuestos para art. 250, 250 A**

| Barcode | \checkmark | | | | |
|---------|--------------|-----|-----|---|--------------|
| 611978 | | 100 | 16 | E | 3,82 |
| 611979 | | 150 | 30 | E | 4,05 |
| 602070 | | 200 | 55 | E | 4,53 |
| 602071 | | 250 | 95 | E | 5,56 |
| 602072 | | 300 | 123 | E | 6,71 |
| 602073 | | 380 | 224 | E | 8,31 |
| 602069 | | 450 | 320 | E | 14,01 |
| 615149 | | 600 | 511 | E | 25,34 |

251/4**Llave ajustable**

- Material: cromo vanadio
- protección de superficie: fosfatada de acuerdo con DIN 12476
- giro a la izquierda
- con escala
- forjada, templada y revenida
- fabricada totalmente de acuerdo con ISO 6787

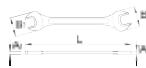


| Barcode | \checkmark | L | A | \odot | | | | |
|---------|--------------|-----|-------|---------|----|-----|---|--------------|
| 612870 | | 150 | 155.7 | 11.7 | 20 | 137 | A | 16,77 |
| 612871 | | 200 | 204.3 | 14.4 | 25 | 257 | A | 23,12 |
| 612872 | | 250 | 254 | 16.9 | 30 | 447 | A | 28,69 |
| 612873 | | 300 | 303.5 | 19.1 | 36 | 700 | C | 38,78 |

112/2

Llave fija de dos bocas

- Material: acero para herramientas
- Acabado cromado según EN12540
- fabricada de acuerdo con la norma DIN 895
- forjada, templada y revenida



| | Ø | L | B1 | B2 | A1 | A2 | peso | caja | |
|--------|---------|-----|----|------|-----|-----|------|------|------|
| 602081 | 6 x 7 | 97 | 15 | 17 | 3 | 3.2 | 11 | A | 1,74 |
| 602082 | 8 x 10 | 115 | 18 | 22 | 4.2 | 4.2 | 20 | A | 1,81 |
| 613222 | 10 x 11 | 122 | 23 | 24.5 | 5 | 5 | 35 | A | 1,98 |
| 605045 | 10 x 12 | 128 | 22 | 28 | 5 | 5 | 37 | A | 1,98 |
| 603611 | 10 x 13 | 137 | 26 | 28.5 | 5.2 | 5.2 | 43 | A | 1,98 |
| 602083 | 11 x 13 | 132 | 26 | 28.5 | 5 | 5.4 | 41 | A | 1,98 |
| 602084 | 12 x 14 | 146 | 28 | 32 | 5.5 | 5.5 | 52 | A | 2,14 |
| 612773 | 13 x 14 | 146 | 28 | 32 | 5.5 | 5.5 | 43 | A | 2,34 |
| 602085 | 13 x 15 | 152 | 28 | 32 | 6 | 6 | 63 | A | 2,34 |
| 603134 | 13 x 17 | 158 | 30 | 35 | 6.5 | 6.5 | 65 | A | 2,38 |
| 612774 | 14 x 15 | 137 | 26 | 28.5 | 5.4 | 5.4 | 51 | A | 2,44 |
| 602086 | 14 x 17 | 158 | 30 | 35 | 6.5 | 6.5 | 62 | A | 2,47 |
| 602087 | 17 x 19 | 170 | 35 | 40 | 7 | 7 | 94 | A | 3,21 |
| 602088 | 19 x 22 | 197 | 42 | 48 | 8 | 8 | 138 | A | 3,92 |
| 605921 | 21 x 23 | 217 | 46 | 51 | 9 | 9 | 187 | A | 4,78 |

114/2

Llave fija de electricista

- Material: acero para herramientas
- Acabado cromado según EN12540
- Boca totalmente templada y revenida



| | Ø | L | B | A | peso | caja | |
|--------|--------|-----|------|---|------|------|------|
| 618623 | 3.2 | 75 | 10 | 2 | 2 | A | 3,08 |
| 618624 | 3.5 | 75 | 10 | 2 | 2 | A | 3,08 |
| 618625 | 4 | 75 | 10.5 | 2 | 2 | A | 3,08 |
| 618626 | 4.5 | 75 | 10.5 | 2 | 2 | A | 3,08 |
| 618627 | 5 | 85 | 12 | 2 | 4 | A | 3,38 |
| 618628 | 5.5 | 85 | 12.2 | 2 | 4 | A | 3,38 |
| 618629 | 6 | 85 | 12.5 | 2 | 4 | A | 3,38 |
| 618630 | 7 | 95 | 14.5 | 2 | 6 | A | 3,68 |
| 618631 | 8 | 95 | 16.5 | 2 | 7 | A | 3,68 |
| 618632 | 9 | 110 | 19 | 3 | 17 | A | 4,18 |
| 618633 | 10 | 110 | 21 | 3 | 18 | A | 4,18 |
| 618634 | 11 | 110 | 23.5 | 3 | 20 | A | 4,18 |
| 618635 | 12 | 125 | 24 | 3 | 30 | A | 5,09 |
| 618636 | 13 | 125 | 27.5 | 3 | 33 | A | 5,09 |
| 618637 | 14 | 125 | 28 | 3 | 33 | A | 5,09 |
| 618638 | 15 | 135 | 30 | 3 | 38 | A | 5,90 |
| 618639 | 16 | 135 | 32 | 3 | 39 | A | 5,90 |
| 618640 | 17 | 135 | 34 | 3 | 41 | A | 5,90 |
| 618641 | 7/32" | 85 | 12.2 | 2 | 4 | A | 3,38 |
| 618643 | 9/32" | 95 | 14.5 | 2 | 6 | A | 3,68 |
| 618642 | 11/32" | 110 | 19 | 3 | 17 | A | 4,18 |

114/2PB

Juego de llaves fijas de electricista



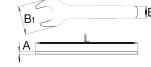
| | Nº | Ø | peso | caja | |
|--------|---------|---------------|------|------|-------|
| 619287 | 114/2PB | 3.2 - 14 / 15 | 292 | E | 57,72 |

Ø 114/2 (3.2, 3.5, 4, 4.5, 5, 5.5, 6, 7, 8, 9, 10, 11, 12, 13, 14)

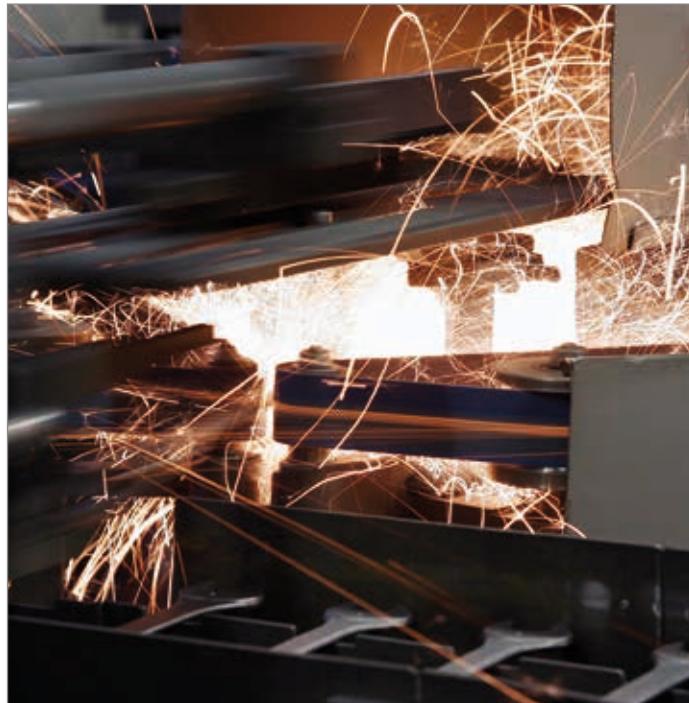
135/2

Llave fija de una boca

- Acabado cromado según EN12540
- de lámina



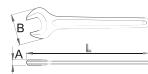
| | Ø | L | B1 | B2 | A | peso | caja | |
|--------|----|-----|----|----|---|------|------|------|
| 600262 | 27 | 187 | 52 | 22 | 4 | 149 | A | 4,50 |



117/4

Llave fija de una boca

- Material: cromo vanadio
- protección de superficie: fosfatada de acuerdo con DIN 12476
- Utilización: en la industria general para el atornillado de juntas atornilladas, aparatos y otros elementos mecánicos.
- Las dimensiones más grandes de las llaves son adecuadas en las industrias como la ingeniería naval, la industria petrolera, la industria pesada donde existen máquinas y aparatos más grandes, etc.
- La llave es especialmente adecuada para aquellos trabajos en los que necesitamos mayor torque y un mango más largo por los lugares de difícil acceso.
- forjada, templada y revenida
- fabricada de acuerdo con DIN 894



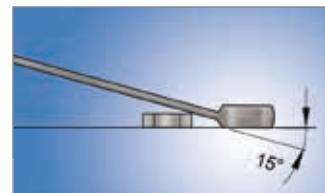
| | | L | A | B | | | | |
|--------|-----|-----|------|-----|------|--|--------|--|
| 615262 | 10 | 104 | 4.5 | 22 | 21 | | 1,72 | |
| 620207 | 12 | 123 | 5 | 26 | 29 | | 1,72 | |
| 615263 | 13 | 132 | 5.4 | 28 | 35 | | 2,00 | |
| 615264 | 17 | 157 | 5.9 | 36 | 68 | | 2,10 | |
| 615265 | 19 | 170 | 6.9 | 40 | 78 | | 2,59 | |
| 615266 | 21 | 195 | 7.9 | 46 | 98 | | 2,59 | |
| 615267 | 22 | 195 | 7.9 | 46 | 106 | | 3,04 | |
| 615268 | 24 | 218 | 8.7 | 50 | 147 | | 4,07 | |
| 615269 | 27 | 240 | 9.7 | 56 | 192 | | 4,83 | |
| 615270 | 30 | 265 | 10.7 | 62 | 297 | | 5,80 | |
| 615271 | 32 | 275 | 11.7 | 66 | 297 | | 6,42 | |
| 615272 | 34 | 275 | 11.7 | 70 | 399 | | 8,07 | |
| 615273 | 36 | 295 | 12.5 | 74 | 438 | | 8,87 | |
| 615274 | 38 | 295 | 12.5 | 74 | 390 | | 9,87 | |
| 615275 | 41 | 335 | 13.5 | 84 | 537 | | 10,69 | |
| 615276 | 46 | 365 | 14.5 | 94 | 747 | | 14,48 | |
| 615277 | 50 | 400 | 15.5 | 102 | 890 | | 17,07 | |
| 615278 | 55 | 475 | 16 | 110 | 1170 | | 35,00 | |
| 615279 | 60 | 475 | 17 | 120 | 1365 | | 42,97 | |
| 615280 | 65 | 550 | 18 | 130 | 1665 | | 60,00 | |
| 615281 | 70 | 550 | 19 | 140 | 1995 | | 72,56 | |
| 615282 | 75 | 620 | 20 | 150 | 2995 | | 83,59 | |
| 615283 | 80 | 620 | 21 | 160 | 3895 | | 90,23 | |
| 615284 | 85 | 665 | 22 | 170 | 3845 | | 126,18 | |
| 615285 | 90 | 740 | 23 | 190 | 4795 | | 154,40 | |
| 615286 | 95 | 740 | 23 | 190 | 5565 | | 176,01 | |
| 615287 | 100 | 800 | 24 | 200 | 6995 | | 200,43 | |



120/1

Llave combinada larga

- Material: cromo vanadio
- Acabado cromado según EN12540
- Cabezas pulidas
- La parte estriada de la llave con el nuevo perfil de seguridad
- forjada, templada y revenida
- fabricada completamente de acuerdo con DIN 7738 (las medidas métricas)



| | | L | B2 | B1 | A2 | A1 | | | |
|--------|--------|-----|------|------|------|------|------|--|-------|
| 600357 | 6 | 119 | 10.4 | 14.5 | 5 | 3.5 | 14 | | 4,45 |
| 600358 | 7 | 129 | 11.5 | 16.5 | 5.8 | 3.9 | 15 | | 4,48 |
| 600359 | 8 | 141 | 13.2 | 18.5 | 6.9 | 3.9 | 23 | | 4,58 |
| 600360 | 9 | 152 | 14.3 | 21 | 7.3 | 4 | 27 | | 5,16 |
| 600361 | 10 | 163 | 15.9 | 23 | 7.5 | 4.2 | 37 | | 5,58 |
| 600362 | 11 | 176 | 17.8 | 24.5 | 8 | 4.5 | 45 | | 5,87 |
| 600363 | 12 | 186 | 19.4 | 26.5 | 8.5 | 4.7 | 55 | | 6,22 |
| 600364 | 13 | 199 | 20.4 | 29.5 | 8.5 | 5.2 | 68 | | 6,63 |
| 600365 | 14 | 210 | 22 | 31.5 | 9 | 5.2 | 82 | | 6,80 |
| 600366 | 15 | 222 | 23.2 | 33.5 | 9.5 | 5.7 | 96 | | 7,32 |
| 600367 | 16 | 234 | 24.8 | 36 | 10.5 | 6.2 | 121 | | 7,44 |
| 600368 | 17 | 245 | 26.1 | 38 | 10.5 | 6.7 | 144 | | 7,92 |
| 600369 | 18 | 257 | 27.7 | 40 | 11 | 7.2 | 165 | | 8,47 |
| 600370 | 19 | 268 | 29.3 | 42 | 12 | 7.2 | 186 | | 9,06 |
| 600371 | 20 | 280 | 31 | 44 | 12.5 | 7.7 | 225 | | 9,64 |
| 600372 | 21 | 291 | 32.6 | 45.5 | 13 | 8.2 | 251 | | 10,29 |
| 600373 | 22 | 303 | 34.1 | 46.5 | 13 | 8.2 | 266 | | 11,12 |
| 600374 | 23 | 314 | 35.7 | 50.5 | 13 | 8.2 | 300 | | 12,58 |
| 600375 | 24 | 330 | 37.3 | 52.5 | 14 | 8.5 | 382 | | 12,99 |
| 600376 | 25 | 337 | 39 | 54.5 | 14.5 | 8.5 | 377 | | 14,44 |
| 600377 | 26 | 349 | 40.1 | 56 | 15 | 8.5 | 422 | | 14,92 |
| 600378 | 27 | 360 | 41.6 | 57.5 | 15 | 9 | 453 | | 16,44 |
| 600379 | 28 | 373 | 43.2 | 59.5 | 15.5 | 9 | 532 | | 17,82 |
| 600380 | 29 | 383 | 44.9 | 61.5 | 16 | 9.5 | 567 | | 19,21 |
| 600381 | 30 | 395 | 46.5 | 63.5 | 16 | 10 | 632 | | 20,34 |
| 600382 | 32 | 416 | 49 | 68 | 16.5 | 10.5 | 719 | | 21,95 |
| 607019 | 35 | 500 | 53.5 | 78.8 | 20 | 13.6 | 1405 | | 34,07 |
| 602601 | 36 | 500 | 53.5 | 78.8 | 20 | 13.6 | 1415 | | 36,03 |
| 605838 | 38 | 515 | 58 | 82.8 | 20.5 | 14.1 | 1310 | | 38,94 |
| 602602 | 41 | 540 | 62 | 86.8 | 21 | 14.6 | 2025 | | 45,92 |
| 618514 | 46 | 560 | 69 | 94 | 23 | 16 | 2445 | | 79,25 |
| 618517 | 50 | 580 | 75 | 103 | 24 | 17 | 1955 | | 91,57 |
| 618491 | 1/4" | 119 | 10.4 | 14.5 | 5 | 3.5 | 14 | | 4,45 |
| 618492 | 5/16" | 142 | 13.2 | 18.5 | 6.9 | 3.9 | 23 | | 4,58 |
| 618493 | 3/8" | 153 | 14.3 | 21 | 7.3 | 4 | 27 | | 5,58 |
| 618494 | 7/16" | 176 | 17.8 | 24.5 | 8 | 4.5 | 45 | | 5,87 |
| 618495 | 1/2" | 199 | 20.4 | 29.5 | 8.5 | 5.2 | 68 | | 6,63 |
| 618496 | 9/16" | 211 | 22 | 31.5 | 9 | 5.2 | 82 | | 6,80 |
| 618497 | 5/8" | 234 | 24.8 | 36 | 10.5 | 6.2 | 121 | | 7,44 |
| 618498 | 11/16" | 245 | 26.1 | 38 | 10.5 | 6.7 | 144 | | 8,47 |
| 618499 | 3/4" | 268 | 29.3 | 42 | 12 | 7.2 | 186 | | 9,06 |
| 618500 | 13/16" | 291 | 32.6 | 45.5 | 13 | 8.2 | 251 | | 10,29 |



| | | L | B2 | B1 | A2 | A1 | | | |
|--------|----------|-----|------|------|------|------|------|---|-------|
| 618501 | 7/8" | 303 | 34.1 | 46.5 | 13 | 8.2 | 266 | A | 11,12 |
| 618502 | 15/16" | 330 | 37.3 | 52.5 | 14 | 8.5 | 382 | A | 12,99 |
| 618503 | 1" | 337 | 39 | 54.5 | 14.5 | 8.5 | 377 | A | 14,44 |
| 618504 | 1.1/16" | 360 | 41.6 | 57.5 | 15 | 9 | 453 | A | 16,44 |
| 618505 | 1.1/8" | 372 | 43.2 | 59.5 | 15.5 | 9 | 532 | A | 17,82 |
| 618506 | 1.1/4" | 417 | 49 | 68 | 16.5 | 10.5 | 719 | A | 20,34 |
| 618507 | 1.5/16" | 417 | 49 | 68 | 16.5 | 10.5 | 732 | C | 21,95 |
| 618508 | 1.3/8" | 500 | 53.5 | 78.8 | 20 | 13.6 | 1425 | C | 46,73 |
| 618509 | 1.7/16" | 500 | 53.5 | 78.8 | 20 | 13.6 | 1395 | C | 46,73 |
| 618510 | 1.1/2" | 500 | 53.5 | 78.8 | 20 | 13.6 | 1335 | C | 46,73 |
| 618511 | 1.5/8" | 540 | 62 | 86.8 | 21 | 14.6 | 1975 | C | 58,75 |
| 618512 | 1.11/16" | 540 | 62 | 86.8 | 21 | 14.6 | 1995 | C | 58,75 |
| 618513 | 1.3/4" | 560 | 69 | 94 | 23 | 16 | 2435 | C | 82,32 |
| 618515 | 1.13/16" | 560 | 69 | 94 | 23 | 16 | 2495 | C | 82,32 |
| 618516 | 1.7/8" | 560 | 69 | 94 | 23 | 16 | 2445 | C | 82,32 |
| 618518 | 2" | 580 | 75 | 103 | 24 | 17 | 2985 | C | 92,59 |

120/1CB

Juego de llaves combinadas largas, en caja de cartón



| | Nº | | | | | | |
|--------|---------|--------------------|--|------|---|--------|--|
| 600383 | 120/1CB | 6 - 22 / 17 | | 1930 | F | 108,61 | |
| | | Wrenches | 120/1 (6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22) | | | | |
| 600384 | 120/1CB | 6 - 32 / 26 | | 6200 | F | 243,91 | |
| | | Wrenches | 120/1 (6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 32) | | | | |
| 611019 | 120/1CB | 8 - 22 / 10 | | 1105 | F | 71,17 | |
| | | Wrenches | 120/1 (8, 10, 11, 12, 13, 14, 15, 17, 19, 22) | | | | |
| 611020 | 120/1CB | 10 - 30 / 12 | | 2611 | F | 116,35 | |
| | | Wrenches | 120/1 (10, 11, 12, 13, 14, 15, 17, 19, 22, 24, 27, 30) | | | | |
| 619397 | 120/1CB | 1/4" - 3/4" / 9 | | 777 | F | 58,85 | |
| | | Wrenches | 120/1 (1/4", 5/16", 3/8", 7/16", 1/2", 9/16", 5/8", 11/16", 3/4") | | | | |
| 619398 | 120/1CB | 1/4" - 1.1/4" / 16 | | 3720 | F | 162,32 | |
| | | Wrenches | 120/1 (1/4", 5/16", 3/8", 7/16", 1/2", 9/16", 5/8", 11/16", 3/4", 13/16", 7/8", 15/16", 1", 1.1/16", 1.1/8", 1.1/4") | | | | |

120/1CS

Juego de llaves combinadas largas, en caja de cartón



| | Nº | | | | | | |
|--------|---------|------------|--------------------------------------|-----|---|-------|--|
| 603709 | 120/1CS | 8 - 19 / 8 | | 770 | G | 52,01 | |
| | | Wrenches | 120/1 (8, 9, 10, 12, 13, 14, 17, 19) | | | | |

120/1CT

Juego de llaves combinadas largas, en bolsa enrollable



| | Nº | | | | | |
|--------|---------|------------|--|------|---|-------|
| 615475 | 120/1CT | 8 - 22 / 8 | | 1050 | E | 78,47 |

Wrenches 120/1 (8, 10, 11, 13, 15, 17, 19, 22), CT129 (470 x 330)

120/1MS

Juego de llaves combinadas largas, en expositor metálico



| | Nº | | | | | |
|--------|---------|-------------|--|------|---|--------|
| 605537 | 120/1MS | 6 - 22 / 17 | | 2765 | F | 134,56 |

Wrenches 120/1 (6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22), 977/2 (6 - 22/17)

