



2

CHAVES DE APERTO

LLAVES DE APERTO

WRENCHES AND SPANNERS

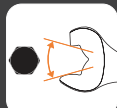
DESTAQUES | NOVEDADES DESTACADAS | HIGHLIGHTS



SUPER DRIVE

APERTO RÁPIDO

REF. 44681/



Forjada e temperada em aço cromo vanádio.
Aperto rápido: até 50% mais rápida que as chaves normais.
Efeito catraca: retorno sem perder contato com o parafuso.
Encaixe facilitado.
Ideal para locais de difícil acesso em manutenções industriais e automotivas.
Contato em 4 pontos.
Detalhes na página 135.

Ajuste rápido: hasta un 50% más rápida que las llaves normales.
Efecto matraca - retorno sin perder el contacto con el tornillo.
Forjada y templada en acero Cromo Vanadio.
De fácil encastre.
Ideal para sitios de difícil acceso en el mantenimiento industrial y automotriz. Contacto en 4 puntos.
Detalles en la página 135.

Rapid tightening: up to 50% faster than normal wrenches.
Ratchet effect - return without losing the contact with the bolt.
Forged and hardened in Chrome Vanadium steel.
Easy joint.
Ideal for hard to access place in industrial maintenance and mechanical work.
Contact on 4 points.
See details on page 135.



MULTI DRIVE

SISTEMA RÁPIDO

REF. 44637/

REF. 44641/



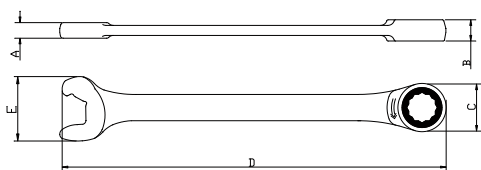
Sistema inovador com 4 tamanhos em uma única chave.
Catraca reversível que permite apertos finais.
Detalhes na página 147.

Sistema innovador con 4 tamaños en una sola llave.
Matraca reversible que permite aprietos finales.
Detalles en la página 147.

Innovative system that allows loosening and tightening 4 different screw sizes with only one wrench.
It has a reversible ratchet and allows final tightening.
See details on page 147.



REF.	TAMANHO TAMANO SIZE - mm	PESO WEIGHT	Medidas Dimensiones Dimensions (mm)				
			A	B	C	D	E
44681/108	8	40 g	4,0	6,5	16,4	140	16,2
44681/109	9	46 g	4,4	6,9	18,3	149	18,2
44681/110	10	56 g	4,8	7,3	20,0	158	20,5
44681/111	11	66 g	5,2	7,7	21,4	165	22,6
44681/112	12	82 g	5,5	8,2	22,6	171	24,6
44681/113	13	92 g	5,8	8,6	24,5	178	26,7
44681/114	14	112 g	6,2	9,0	27,0	190	28,8
44681/115	15	136 g	6,5	9,4	28,2	199	30,8
44681/116	16	155 g	6,8	9,9	30,3	208	33,2
44681/117	17	185 g	7,2	10,3	31,6	225	35,1
44681/118	18	200 g	7,7	10,7	32,3	236	37,2
44681/119	19	238 g	8,2	11,2	33,7	247	39,3
44681/122	22	360 g	9,0	13,0	40,1	289	46,2
44681/124	24	495 g	10,0	14,0	46,5	322	51,5



Chave combinada com catraca

Llave combinada con matraca | Ratchet combination wrench
Milímetros | Milímetros | Millimeters



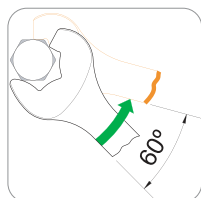
Forjada em aço cromo vanádio e temperada.
Cabeça usinada.
Catraca fosfatizada.
Acabamento cromado.
Abertura da boca calibrada.

Forjada en acero cromo vanadio y templada.
Bocas usinadas.
Matraca fosfatada.
Acabado cromado.
Apertura de la boca calibrada.

Forged and hardened chrome vanadium steel.
Machined openings.
Phosphated ratchet.
Chrome plated finishing.
Calibrated openings.

Aplicações | Aplicación | Application

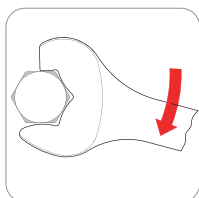
- Sua forma construtiva permite apertar parafusos e porcas sem precisar tirar a chave para encaixá-la a cada movimento, o mesmo acontece se inverter a chave para afrouxar.
- Lado estrela possui um mecanismo com catraca que permite realizar trabalhos com mais agilidade do que uma chave estrela comum.
- Catraca com construção robusta que permite dar apertos finais, conforme DIN-ISO 1711-1.
- Su modelo constructivo permite ajustar tornillos y tuercas hexagonales sin sacar la llave de la pieza para encajarla a cada movimiento. Lo mismo sucede al invertir la llave para aflojar.
- Debido a la incorporación de un mecanismo con matraca esta herramienta permite realizar trabajos con más agilidad y facilidad de lo que una llave estriada común.
- Matraca con construcción robusta que permite dar ajustes finales, conforme DIN-ISO 1711-1
- Its unique shape allows hexagonal bolts and nuts to be tightened or loosened without having to remove the wrench and reposition it for each turn.
- Due to the ratchet mechanism, this tool allows you to accomplish jobs with more agility and easier than a usual ring spanner.
- Reinforced structure wich allows final tightening according to DIN-ISO 1711-1.



Retorno sem perder contato com o parafuso.
Posicionamento no parafuso facilitado pelo perfil inteligente.
Operação com efeito catraca.

Retorno sin perder el contacto con el tornillo.
Posicionamento en el tornillo facilitado por su perfil inteligente.
Operación con efecto matraca.

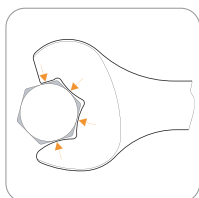
Efficient return without losing contact with bolt.
Easy engagement due to the smart profile.
Operation with ratchet effect.



Design exclusivo que permite uma melhor distribuição das forças durante o aperto.
Redução pela metade no tempo de aperto de uma porca ou parafuso.

Perfil exclusivo que permite una mejor distribución de las fuerzas durante el ajuste.
Reducción en la mitad del tiempo de ajuste de una tuerca o tornillo comparado con una llave normal.

Exclusive design that allows a better distribution of power during the tightening.
Tightening bolts and nuts can be done in half the time, compared with a normal wrench.



Excelente contato em quatro pontos.
Não danifica porcas e parafusos.

Excelente contacto en cuatro puntos.
No daña las tuercas y tornillos.

Excellent contact on four points.
It doesn't damage bolts or nuts.



REF.	DENTES DIENTES TEETH	REF.	DENTES DIENTES TEETH
44681/108	60	44681/115	72
44681/109	60	44681/116	72
44681/110	72	44681/117	72
44681/111	72	44681/118	72
44681/112	72	44681/119	72
44681/113	72	44681/122	90
44681/114	72	44681/124	104

Jogo de chaves combinadas com catraca

Juego de llaves combinadas con matraca

Ratchet combination wrench set

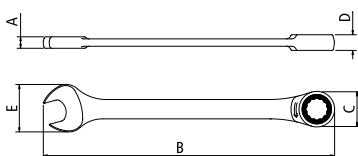
Milímetros | Milímetros | Millimeters

REF.	PÇS PZS PCS	CONTEÚDO CONTENIDO SET INCLUDES
44681/213		
44681	13	Chaves combinadas com catraca Llaves combinadas con matraca Ratchet combination wrenches: 8, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 22, 24 mm

13 PEÇAS
PIEZAS
PIECES



REF.	TAMANHO TAMAÑO SIZE - mm	PESO WEIGHT	Medidas Dimensiones Dimensions (mm)				
			A	B	C	D	E
44652/108	8	60 g	4,0	140	17,0	6,5	16,7
44652/109	9	70 g	4,4	149	18,6	6,9	18,7
44652/110	10	80 g	4,8	158	20,2	7,3	20,8
44652/111	11	90 g	5,2	165	22,0	7,7	23,0
44652/112	12	130 g	5,5	171	23,4	8,2	24,6
44652/113	13	130 g	5,8	178	25,5	8,6	26,8
44652/114	14	160 g	6,2	190	26,9	9,0	29,0
44652/115	15	150 g	6,5	200	28,3	9,4	31,0
44652/116	16	180 g	6,8	208	29,8	9,9	33,0
44652/117	17	210 g	7,2	225	31,8	10,3	35,5
44652/118	18	240 g	7,7	236	32,7	10,7	16,1
44652/119	19	270 g	8,2	247	34,0	11,2	39,4
44652/121	21	370 g	9,0	288	40,1	13,0	45,8
44652/122	22	400 g	9,0	288	40,1	13,0	45,8
44652/124	24	500 g	10,0	321	46,5	14,5	51,8
44652/127	27	680 g	10,0	357	52,4	15,5	56,4
44652/130	30	860 g	11,4	401	58,1	17,0	62,7
44652/132	32	1.060 g	12,5	424	61,9	17,5	66,4
44652/134	34	1.165 g	13,0	459	62,5	17,5	70,0
44652/136	36	1.540 g	13,4	489	66,2	18,0	78,0



REF.	DENTES DIENTES TEETH	REF.	DENTES DIENTES TEETH
44652/108	60	44652/118	72
44652/109	60	44652/119	72
44652/110	72	44652/121	90
44652/111	72	44652/122	90
44652/112	72	44652/124	104
44652/113	72	44652/127	112
44652/114	72	44652/130	136
44652/115	72	44652/132	136
44652/116	72	44652/134	148
44652/117	72	44652/136	148

REF.	PÇS PZS PCS	CONTEÚDO CONTENIDO SET INCLUDES
44652/210		
44652	10	Chaves combinadas com catraca Llaves combinadas con matraca Ratchet combination wrenches: 8, 9, 10, 11, 12, 13, 14, 15, 17, 19 mm
44652/212		
44652	12	Chaves combinadas com catraca Llaves combinadas con matraca Ratchet combination wrenches: 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19 mm
44652/215		
44652	15	Chaves combinadas com catraca Llaves combinadas con matraca Ratchet combination wrenches: 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 21, 22, 24 mm

Chave combinada com catraca

Llave combinada con matraca | Ratchet combination wrench
Milímetros | Milímetros | Millimeters

Forjada em aço cromo vanádio e temperada.
Cabeça usinada.
Acabamento cromado.
Catraca fosfatizada.
DIN 3113.

Forjada en acero cromo vanadio y templada.
Boca usinada.
Acabado cromado.
Matraca fosfatada.
DIN 3113.

Forged and hardened chrome vanadium steel.
Machined opening.
Chrome plated finishing.
Phosphated ratchet.
DIN 3113.

Aplicações | Aplicación | Application

- Afrouxar e apertar parafusos e porcas sextavadas e quadradas.
- Lado estrela possui um mecanismo com catraca que permite realizar trabalhos com mais agilidade e facilidade do que uma chave estrela comum.
- Catraca com construção robusta que permite dar apertos finais, conforme DIN-ISO 1711-1.
- Aflojar y ajustar tornillos y tuercas sextavadas y cuadradas.
- Debido a la incorporación de un mecanismo con matraca esta herramienta permite realizar trabajos con más agilidad y facilidad de lo que una llave estriada común.
- Matraca con construcción robusta que permite dar ajustes finales, conforme DIN-ISO 1711-1
- Loosening and tightening hexagonal and square bolts and nuts.
- Due to the ratchet mechanism, this tool allows you to accomplish jobs with more agility and easier than a usual ring spanner.
- Reinforced structure wich allows final tightening according to DIN-ISO 1711-1.



Jogo de chaves combinadas com catraca

Juego de llaves combinadas con matraca | Ratchet combination wrench set



Chave combinada

Llave combinada | Combination wrench

Milímetros | Milímetros | Millimeters



Forjada em aço cromo vanádio e temperada.
Cabeça usinada.
Pescoço longo.
Acabamento cromado.
Abertura da boca calibrada.
DIN 3113.

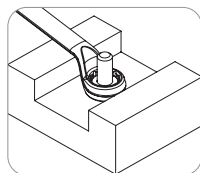
Forjada en acero cromo vanadio y templada.
Bocas usinadas.
Cuello largo.
Acabado cromado.
Apertura de la boca calibrada.
DIN 3113.

Forged and hardened chrome vanadium steel.
Machined openings.
Long neck.
Chrome plated finishing.
Calibrated openings.
DIN 3113.

REF.	TAMANHO TAMAÑO SIZE - mm	PESO WEIGHT	Medidas Dimensiones Dimensions (mm)			
			A	B	C	D
44660/106	6	30 g	4,0	125,0	6,0	10,5
44660/107	7	40 g	4,0	132,0	6,5	12,0
44660/108	8	40 g	4,5	140,0	7,0	13,50
44660/109	9	50 g	4,5	147,5	7,5	15,0
44660/110	10	60 g	5,0	155,0	8,2	16,5
44660/111	11	70 g	5,5	162,5	8,9	18,0
44660/112	12	80 g	5,5	170,0	9,3	19,5
44660/113	13	100 g	5,8	180,0	9,6	20,5
44660/114	14	120 g	5,8	190,0	10,0	22,0
44660/115	15	120 g	5,9	200,0	10,5	23,0
44660/116	16	140 g	6,0	210,0	11,0	25,0
44660/117	17	160 g	6,3	222,0	11,5	26,0
44660/118	18	180 g	6,6	234,0	12,0	27,5
44660/119	19	220 g	7,0	244,0	12,5	29,0
44660/120	20	250 g	7,4	256,0	13,0	31,0
44660/121	21	290 g	7,7	268,0	13,5	33,0
44660/122	22	310 g	7,8	280,0	13,5	34,0
44660/123	23	340 g	8,0	292,0	14,0	36,0
44660/124	24	380 g	8,2	307,0	14,0	37,0
44660/125	25	430 g	8,5	322,0	14,0	38,0
44660/126	26	440 g	8,7	337,0	14,5	39,5
44660/127	27	500 g	9,2	352,0	14,5	41,0
44660/128	28	540 g	9,6	370,0	15,0	42,5
44660/129	29	540 g	9,6	370,0	15,0	42,5
44660/130	30	570 g	10,0	390,0	15,0	44,5
44660/132	32	700 g	10,4	412,0	16,0	46,0
44660/133	33	680 g	10,4	412,0	16,0	46,0
44660/134	34	860 g	12,5	440,0	18,0	50,0
44660/136	36	800 g	13,5	470,0	20,0	53,0
44660/138	38	900 g	13,5	470,0	20,0	53,0
44660/141	41	1.007g	14,5	500,0	22,0	59,0
44660/146	46	1.560 g	16,0	530,0	24,0	68,0
44660/150	50	2.000 g	17,0	560,0	26,0	73,0

Aplicações | Aplicación | Application

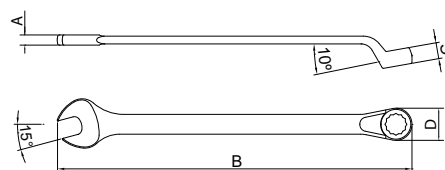
- Afrouxar e apertar parafusos e porcas sextavadas e quadradas.
- Aflojar y ajustar tornillos y tuercas sextavadas y cuadradas.
- Loosening and tightening hexagonal and square bolts and nuts.



Pescoço com ângulo de 10° para não machucar a mão do usuário.

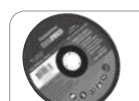
Cuello con ángulo de 10° para no dañar la mano del usuario.

Neck with an angle of 10° in order not to hurt the hand of the user.



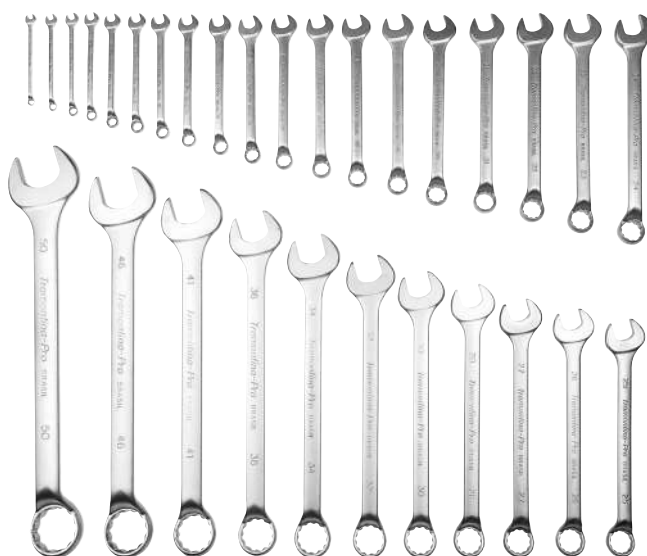
REF.	PÇS PZS PCS	CONTEÚDO CONTENIDO SET INCLUDES
44660/288		
44660	8	Chaves combinadas Llaves combinadas Combination wrenches: 10, 12, 13, 14, 17, 19, 22, 24 mm
44660/298		
44660	8	Chaves combinadas Llaves combinadas Combination wrenches: 8, 9, 10, 11, 13, 14, 17, 19 mm
44660/210		
44660	10	Chaves combinadas Llaves combinadas Combination wrenches: 6, 8, 10, 11, 12, 13, 14, 17, 19, 22 mm
44660/211		
44660	11	Chaves combinadas Llaves combinadas Combination wrenches: 6, 8, 9, 10, 11, 12, 13, 14, 17, 19, 22 mm
44660/212		
44660	12	Chaves combinadas Llaves combinadas Combination wrenches: 10, 11, 12, 13, 14, 17, 19, 22, 24, 27, 30, 32 mm
44660/292		
44660	12	Chaves combinadas Llaves combinadas Combination wrenches: 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 17, 19 mm
44660/214		
44660	14	Chaves combinadas Llaves combinadas Combination wrenches: 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19 mm
44660/215		
44660	15	Chaves combinadas Llaves combinadas Combination wrenches: 6, 7, 8, 10, 11, 12, 13, 14, 17, 19, 22, 24, 27, 30, 32 mm
44660/217		
44660	17	Chaves combinadas Llaves combinadas Combination wrenches: 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22 mm

Jogo de chaves combinadas Juego de llaves combinadas | Combination wrench set Milímetros | Milímetros | Millimeters



REF.	PÇS PZS PCS	CONTEÚDO CONTENIDO SET INCLUDES
44660/297		
44660	17	Chaves combinadas Llaves combinadas Combination wrenches: 6, 7, 8, 9, 10, 11, 13, 14, 17, 19, 22, 24, 27, 30, 32, 36, 41 mm
44660/222		
44660	22	Chaves combinadas Llaves combinadas Combination wrenches: 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 26, 27, 28, 30, 32, 36, 41 mm
44660/224		
44660	24	Chaves combinadas Llaves combinadas Combination wrenches: 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 26, 27, 28, 30, 32, 36, 41, 46, 50 mm
44660/226		
44660	26	Chaves combinadas Llaves combinadas Combination wrenches: 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 mm
44660/230		
44660	30	Chaves combinadas Llaves combinadas Combination wrenches: 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 30, 32, 34, 36, 41, 46, 50 mm
44660/233		
44660	33	Chaves combinadas Llaves combinadas Combination wrenches: 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, 33, 34, 36, 38, 41, 46, 50 mm

Jogo de chaves combinadas Juego de llaves combinadas | Combination wrench set Milímetros | Milímetros | Millimeters



Chave combinada

Llave combinada | Combination wrench

Milímetros | Milímetros | Millimeters

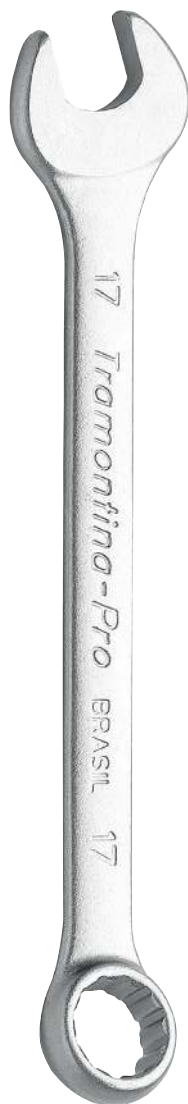
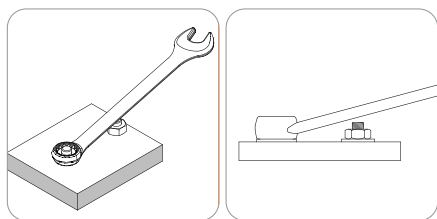
Forjada em aço cromo vanádio e temperada.
Cabeça usinada.
Pescoço curto.
Abertura da boca calibrada.
Acabamento cromado.
DIN 3113.

Forjada en acero cromo vanadio y templada.
Bocas usinadas.
Cuello corto.
Acabado cromado.
Apertura de la boca calibrada.
DIN 3113

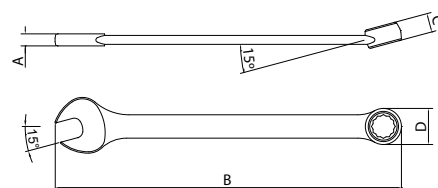
Forged and hardened chrome vanadium steel.
Machined openings.
Short neck.
Chrome plated finishing.
Calibrated openings.
DIN 3113.

Aplicações | Aplicación | Application

- Afrouxar e apertar parafusos e porcas sextavadas e quadradas.
- Aflojar y ajustar tornillos y tuercas sextavadas y cuadradas.
- Loosening and tightening hexagonal and square bolts and nuts.



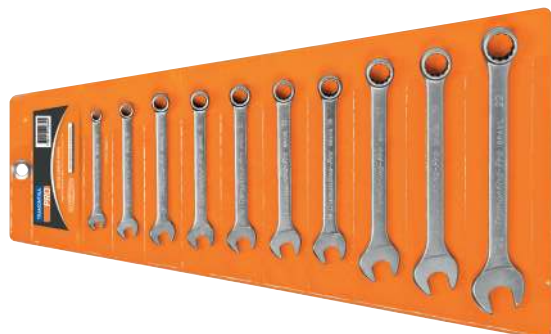
REF.	TAMANHO TAMAÑO SIZE - mm	PESO WEIGHT	Medidas Dimensiones Dimensions (mm)			
			A	B	C	D
44650/106	6	30 g	3,5	110	5,5	10,5
44650/107	7	40 g	3,8	117	6,0	12,0
44650/108	8	50 g	4,0	125	6,5	13,5
44650/109	9	50 g	4,5	132	7,0	15,0
44650/110	10	60 g	5,0	140	7,7	16,5
44650/111	11	70 g	5,5	147	8,5	18,0
44650/112	12	80 g	5,7	155	9,0	19,5
44650/113	13	90 g	6,0	165	9,5	20,5
44650/114	14	110 g	6,6	175	10,0	22,0
44650/115	15	120 g	6,8	185	10,5	23,0
44650/116	16	130 g	7,0	195	11,0	25,0
44650/117	17	170 g	7,3	207	11,5	26,0
44650/118	18	180 g	7,6	219	12,0	27,5
44650/119	19	220 g	8,0	229	12,5	29,0
44650/120	20	230 g	8,4	241	13,0	31,0
44650/121	21	280 g	8,7	253	13,5	33,0
44650/122	22	280 g	8,8	265	13,5	34,0
44650/123	23	310 g	9,0	277	14,0	36,0
44650/124	24	340 g	9,2	292	14,0	37,0
44650/125	25	380 g	9,5	307	14,0	38,0
44650/126	26	430 g	9,7	322	14,5	39,5
44650/127	27	480 g	10,2	337	14,5	41,0
44650/128	28	570 g	10,6	352	15,0	41,5
44650/130	30	590 g	11,0	370	15,5	44,5
44650/132	32	650 g	11,4	390	16,0	46,0
44650/134	34	950 g	12,6	409	18,4	50,1
44650/136	36	1.180 g	13,8	439	18,7	53,1
44650/141	41	1.360 g	16,2	479	21,0	61,1
44650/146	46	2.190 g	17,2	549	21,2	73,7
44650/150	50	2.260 g	17,5	549	21,2	73,7
44650/155	55	2.760 g	18,5	609	24,5	82,7
44650/160	60	4.030 g	21,3	699	28,3	94,7
44650/165	65	4.180 g	21,3	699	28,3	94,7
44650/170	70	5.500 g	19,5	680	27,5	107,0
44650/175	75	6.750 g	26,0	720	36,2	112,6
44650/180	80	6.800 g	26,0	720	36,2	112,6



Jogo de chaves combinadas

Juego de llaves combinadas | Combination wrench set

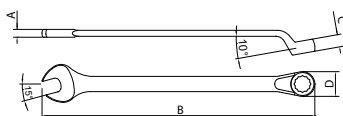
Milímetros | Milímetros | Millimeters



REF.	PÇS PZS PCS	CONTEÚDO CONTENIDO SET INCLUDES
44650/210		
44650	10	Chaves combinadas Llaves combinadas Combination wrenches: 6, 8, 10, 11, 12, 13, 14, 17, 19, 22 mm
44650/211		
44650	11	Chaves combinadas Llaves combinadas Combination wrenches: 6, 8, 9, 10, 11, 12, 13, 14, 17, 19, 22 mm
44650/215		
44650	15	Chaves combinadas Llaves combinadas Combination wrenches: 6, 7, 8, 10, 11, 12, 13, 14, 17, 19, 22, 24, 27, 30, 32 mm
44650/217		
44650	17	Chaves combinadas Llaves combinadas Combination wrenches: 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22 mm



REF.	POLEGADAS PULGADAS INCHES	PESO WEIGHT	Medidas Dimensiones Dimensions (mm)			
			A	B	C	D
44670/100	1/4"	30 g	4,0	125,0	6,0	10,5
44670/101	5/16"	50 g	4,5	140,0	7,0	13,5
44670/102	3/8"	70 g	5,0	155,0	8,2	16,5
44670/103	7/16"	70 g	5,5	162,5	8,9	18,0
44670/104	1/2"	100 g	5,8	180,0	9,6	20,5
44670/105	9/16"	120 g	5,8	190,0	10,0	22,0
44670/106	5/8"	140 g	6,0	210,0	11,0	25,0
44670/107	11/16"	160 g	6,3	222,0	11,5	26,0
44670/108	3/4"	210 g	7,0	244,0	12,5	29,0
44670/109	25/32"	260 g	7,4	256,0	13,0	31,0
44670/110	13/16"	290 g	7,7	268,0	13,5	33,0
44670/111	7/8"	320 g	7,8	280,0	13,5	34,0
44670/112	15/16"	370 g	8,2	307,0	14,0	37,0
44670/113	1"	410 g	8,5	322,0	14,0	38,0
44670/114	1.1/16"	530 g	9,2	352,0	14,5	41,0
44670/115	1.1/8"	580 g	9,6	370,0	15,0	42,5
44670/116	1.3/16"	640 g	10,0	390,0	15,0	44,5
44670/117	1.1/4"	670 g	10,4	412,0	16,0	46,0
44670/118	1.5/16"	650 g	10,4	412,0	16,0	46,0
44670/119	1.3/8"	850 g	12,5	440,0	18,0	50,0
44670/120	1.7/16"	980 g	13,5	470,0	20,0	53,0
44670/121	1.1/2"	980 g	13,5	470,0	20,0	53,0
44670/122	1.5/8"	1.280 g	14,5	500,0	22,0	59,0
44670/123	1.3/4"	1.800 g	16,0	530,0	24,0	68,0
44670/124	1.13/16"	1.690 g	16,0	530,0	24,0	68,0
44670/125	1.7/8"	1.620 g	16,0	530,0	24,0	68,0
44670/126	2"	2.150 g	17,0	560,0	26,0	73,0



Chave combinada

Llave combinada | Combination wrench

Polegadas | Pulgadas | Inches

Forjada em aço cromo vanádio e temperada.

Cabeça usinada.

Pescoço longo.

Acabamento cromado.

Abertura da boca calibrada.

DIN 3113.

Forjada en acero cromo vanadio y templada.

Bocas usinadas.

Cuello largo.

Acabado cromado.

Apertura de la boca calibrada.

DIN 3113.

Forged and hardened chrome vanadium steel.

Machined openings.

Long neck.

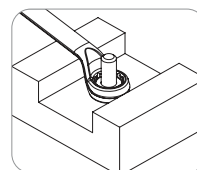
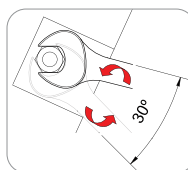
Chrome plated finishing.

Calibrated openings.

DIN 3113.

Aplicações | Aplicación | Application

- Afrouxar e apertar parafusos e porcas sextavadas e quadradas.
- Aflojar y ajustar tornillos y tuercas sextavadas y cuadradas.
- Loosening and tightening hexagonal and square bolts and nuts.



Pescoço com ângulo de 10° para não machucar a mão do usuário.

Cuello con ángulo de 10° para no dañar la mano del usuario.

Neck with an angle of 10° in order not to hurt the hand of the user.

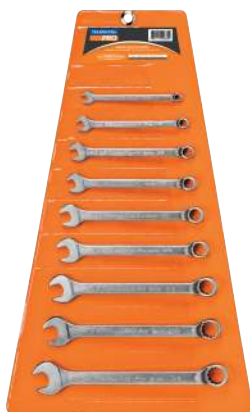


Jogo de chaves combinadas

Juego de llaves combinadas | Combination wrench set

Polegadas | Pulgadas | Inches

REF.	PÇS PZS PCS	CONTEÚDO CONTENIDO SET INCLUDES
44670/209		
44670	9	Chaves combinadas Llaves combinadas Combination wrenches: 1/4", 5/16", 3/8", 7/16", 1/2", 9/16", 5/8", 11/16", 3/4"
44670/212		
44670	12	Chaves combinadas Llaves combinadas Combination wrenches: 3/8", 7/16", 1/2", 9/16", 5/8", 11/16", 3/4", 25/32", 13/16", 7/8", 15/16", 1"
44670/214		
44670	14	Chaves combinadas Llaves combinadas Combination wrenches: 1/4", 5/16", 3/8", 7/16", 1/2", 9/16", 5/8", 11/16", 3/4", 25/32", 13/16", 7/8", 15/16", 1"
44670/216		
44670	16	Chaves combinadas Llaves combinadas Combination wrenches: 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"



Jogo de chaves combinadas

Juego de llaves combinada | Combination wrench set

Polegadas | Pulgadas | Inches

REF.	PÇS PZS PCS	CONTEÚDO CONTENIDO SET INCLUDES
44670/220		
44670	20	Chaves combinadas Llaves combinadas Combination wrenches: 3/8", 7/16", 1/2", 9/16", 5/8", 11/16", 3/4", 25/32", 13/16", 7/8", 15/16", 1", 1.1/16", 1.1/8", 1.1/4", 1.5/16", 1.3/8", 1.7/16", 1.1/2", 1.5/8"
44670/295		
44670	25	Chaves combinadas Llaves combinadas Combination wrenches: 3/8", 7/16", 1/2", 9/16", 5/8", 11/16", 3/4", 25/32", 13/16", 7/8", 15/16", 1", 1.1/16", 1.1/8", 1.3/16", 1.1/4", 1.5/16", 1.3/8", 1.7/16", 1.1/2", 1.5/8", 1.3/4", 1.13/16", 1.7/8", 2"



Chave fixa

Llave fija | Open end wrench

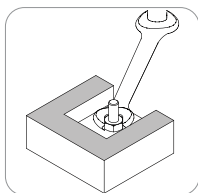
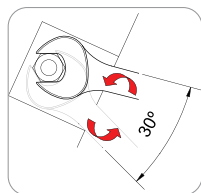
Forjada em aço cromo vanádio e temperada.
Cabeça usinada.
Abertura da boca calibrada.
Acabamento cromado.
DIN 3110.

Forjada en acero cromo vanadio y templada.
Bocas usinadas.
Acabado cromado.
Apertura de la boca calibrada.
DIN 3110.

Forged and hardened chrome vanadium steel.
Machined openings.
Chrome plated finishing.
Calibrated openings.
DIN 3110.

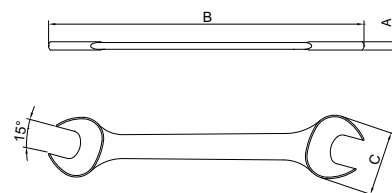
Aplicações | Aplicación | Application

- Afrouxar e apertar parafusos e porcas sextavadas e quadradas.
- Aflojar y ajustar tornillos y tuercas sextavadas y cuadradas.
- Loosening and tightening hexagonal and square bolts and nuts.



REF.	TAMANHO TAMAÑO SIZE - mm	PESO WEIGHT	Medidas Dimensiones Dimensions (mm)		
			A	B	C
44610/101	6x7	30 g	3,70	125	18,5
44610/102	8x9	50 g	4,00	138	22,0
44610/103	10x11	60 g	5,00	151	26,0
44610/104	12x13	80 g	5,50	164	30,0
44610/105	14x15	100 g	6,00	178	34,0
44610/106	16x17	130 g	6,50	193	38,5
44610/166	17x19	160 g	7,00	207	43,0
44610/107	18x19	150 g	7,50	207	43,0
44610/177	19x22	220 g	8,00	222	50,0
44610/108	20x22	210 g	8,00	222	50,0
44610/109	21x23	240 g	8,00	237	51,0
44610/110	24x26	320 g	9,00	255	57,0
44610/188	24x27	320 g	9,00	255	59,0
44610/111	25x28	370 g	9,00	273	61,0
44610/112	27x32	460 g	10,00	290	68,0
44610/113	30x32	490 g	10,00	305	68,0
44610/114	30x34	560 g	10,50	310	74,0
44610/117	36x41	820 g	11,00	360	87,0
44610/118	38x42	1.000 g	12,00	380	93,0
44610/119	41x46	1.270 g	12,25	420	96,0
44610/120	46x50	1.430 g	12,50	460	101,0

REF.	POLEGADAS PULGADAS INCHES	PESO WEIGHT	Medidas Dimensiones Dimensions (mm)		
			A	B	C
44620/100	1/4x5/16"	40 g	3,8	125	18,5
44620/101	3/8x7/16"	60 g	4,6	151	26,0
44620/102	1/2x9/16"	80 g	5,0	164	30,0
44620/103	5/8x11/16"	130 g	5,7	193	38,5
44620/104	3/4x25/32"	160 g	6,0	207	43,0
44620/105	13/16x7/8"	210 g	6,6	222	50,0
44620/106	15/16x1"	330 g	7,8	255	57,0
44620/107	1.1/16x1.1/4"	480 g	9,0	290	68,0
44620/108	1.1/16x1.1/8"	460 g	9,0	284	62,5



REF.	PÇS PZS PCS	CONTEÚDO CONTENIDO SET INCLUDES
44610/206		
44610	6	Chaves fixas Llaves fijas Open end wrenches: 6x7, 8x9, 10x11, 12x13, 14x15, 16x17 mm
44610/207		
44610	7	Chaves fixas Llaves fijas Open end wrenches: 8x9, 10x11, 12x13, 14x15, 16x17, 18x19, 20x22 mm
44610/297		
44610	7	Chaves fixas Llaves fijas Open end wrenches: 6x7, 8x9, 10x11, 12x13, 14x15, 16x17, 18x19 mm
44610/208		
44610	8	Chaves fixas Llaves fijas Open end wrenches: 6x7, 8x9, 10x11, 12x13, 14x15, 16x17, 18x19, 20x22 mm
44610/212		
44610	12	Chaves fixas Llaves fijas Open end wrenches: 6x7, 8x9, 10x11, 12x13, 14x15, 16x17, 18x19, 20x22, 21x23, 24x26, 25x28, 27x32 mm

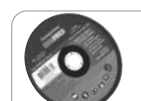
REF.	PÇS PZS PCS	CONTEÚDO CONTENIDO SET INCLUDES
44620/206		
44620	6	Chaves fixas Llaves fijas Open end wrenches: 1/4x5/16", 3/8x7/16", 1/2x9/16", 5/8x11/16", 3/4x25/32", 13/16x7/8"
44620/296		
44620	6	Chaves fixas Llaves fijas Open end wrenches: 3/8x7/16", 1/2x9/16", 5/8x11/16", 3/4x25/32", 13/16x7/8", 15/16x1"
44620/208		
44620	8	Chaves fixas Llaves fijas Open end wrenches: 1/4x5/16", 3/8x7/16", 1/2x9/16", 5/8x11/16", 3/4x25/32", 13/16x7/8", 15/16x1", 1.1/16x1.1/4"

REF.	PÇS PZS PCS	CONTEÚDO CONTENIDO SET INCLUDES
44610/213		
44610	13	Chaves fixas Llaves fijas Open end wrenches: 6x7, 8x9, 12x13, 14x15, 16x17, 18x19, 20x22, 21x23, 24x26, 25x28, 27x32, 36x41, 30x32 mm
44610/214		
44610	14	Chaves fixas Llaves fijas Open end wrenches: 6x7, 8x9, 10x11, 12x13, 14x15, 16x17, 18x19, 20x22, 21x23, 24x26, 25x28, 27x32, 36x41, 46x50 mm
44610/216		
44610	16	Chaves fixas Llaves fijas Open end wrenches: 6x7, 8x9, 10x11, 12x13, 14x15, 16x17, 18x19, 20x22, 21x23, 24x26, 25x28, 27x32, 36x41, 38x42, 41x46, 46x50 mm
44610/218		
44610	18	Chaves fixas Llaves fijas Open end wrenches: 6x7, 8x9, 10x11, 12x13, 14x15, 16x17, 17x19, 18x19, 19x22, 20x22, 21x23, 24x26, 25x28, 27x32, 30x34, 36x41, 38x42, 46x50 mm

Jogo de chaves fixas Juego de llaves fijas | Open end wrench set



Jogo de chaves fixas Juego de llaves fijas | Open end wrench set Milímetros | Milímetros | Millimeters



Chave fixa de bater

Llave fija de golpe | Open end slogging wrench



Forjada em aço cromo vanádio.
Têmpera total no corpo.
Pintura eletrostática.
DIN 133.

Forjada en acero cromo vanadio y
templada.
Temple total en el cuerpo.
Pintura electrostática.
DIN 133.

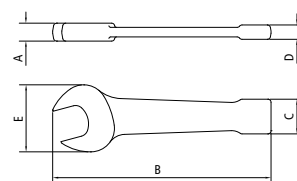
Forged and hardened chrome vanadium
steel.
Fully hardened.
Electrostatic painting.
DIN 133.

Aplicações | Aplicación | Application

- Afrouxar e apertar parafusos e porcas sextavadas com o golpeamento na saliência da extremidade do cabo.
- Aflojar y ajustar tornillos y tuercas sextavadas con golpes en la extremidad saliente del mango.
- Loosening and tightening hexagonal bolts and nuts by striking the protruding wrench end.

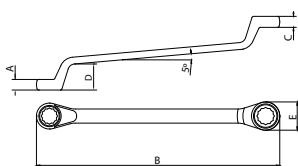
REF.	TAMANHO TAMAÑO SIZE - mm	PESO WEIGHT	Medidas Dimensiones Dimensions (mm)				
			A	B	C	D	E
44628/024	24	400 g	15,5	180	30	12,5	55
44628/025	25	410 g	15,5	180	30	12,5	55
44628/027	27	430 g	16,5	185	31	13	57,5
44628/028	28	450 g	16,5	185	31	13	57,5
44628/030	30	590 g	17	190	33	14	63,5
44628/032	32	630 g	17,5	195	33,5	15	67,5
44628/034	34	630 g	17,5	195	33,5	15	67,5
44628/036	36	820 g	18,5	210	35,5	16	77,5
44628/041	41	1.020 g	19,5	225	37	17	89
44628/046	46	1.420 g	21	255	41	18,5	99
44628/050	50	1.790 g	22,5	280	42,5	20	107
44628/055	55	2.310 g	24,5	310	44	22	118
44628/060	60	2.720 g	25,5	320	47	24	129
44628/065	65	3.420 g	28	350	50	25	140
44628/070	70	3.540 g	28,5	370	61,5	17	156
44628/075	75	3.980 g	29	375	65	18	162
44628/080	80	5.540 g	32	400	72	19	174
44628/085	85	5.250 g	32	400	72	19	174
44628/090	90	7.420 g	36	445	80	20	194
44628/095	95	7.680 g	36	445	80	20	194
44628/100	100	11.040 g	43	485	86	23	228

REF.	POLEGADAS PULGADAS INCHES	PESO WEIGHT	Medidas Dimensiones Dimensions (mm)				
			A	B	C	D	E
44629/001	15/16"	410 g	15,5	180	30	12,5	55
44629/002	1"	410 g	15,5	180	30	12,5	55
44629/003	1.1/16"	470 g	16,5	185	31	13	57,5
44629/004	1.1/8"	470 g	16,5	185	31	13	57,5
44629/005	1.1/4"	580 g	17	190	33	14	63,5
44629/006	1.5/16"	610 g	17,5	195	33,5	15	67,5
44629/007	1.7/16"	830 g	18,5	210	35,5	16	77,5
44629/008	1.1/2"	860 g	18,5	210	35,5	16	77,5
44629/009	1.5/8"	1.050 g	19,5	225	37	17	89
44629/010	1.11/16"	1.070 g	19,5	225	37	17	89
44629/011	1.3/4"	1.430 g	21	255	41	18,5	99
44629/012	1.13/16"	1.470 g	21	255	41	18,5	99
44629/013	1.7/8"	1.430 g	21	255	41	18,5	99
44629/014	2"	1.720 g	22,5	280	42,5	20	107
44629/015	2.3/16"	2.300 g	24,5	310	44	22	118
44629/016	2.1/4"	2.310 g	24,5	310	44	22	118
44629/017	2.3/8"	2.920 g	25,5	320	47	24	129
44629/018	2.1/2"	2.880 g	25,5	320	47	24	129
44629/019	2.9/16"	3.480 g	28	350	50	25	140
44629/020	2.5/8"	3.480 g	28	350	50	25	140
44629/021	2.3/4"	3.730 g	28,5	370	61,5	17	156
44629/023	3"	4.110 g	29	375	65	18	162
44629/024	3.1/8"	5.770 g	32	400	72	19	174
44629/025	3.1/2"	7.450 g	36	445	80	20	194
44629/026	3.3/4"	7.770 g	36	445	80	20	194
44629/028	4"	11.320 g	43	485	86	23	228



REF.	TAMANHO TAMAÑO SIZE - mm	PESO WEIGHT	Medidas Dimensiones Dimensions (mm)				
			A	B	C	D	E
44630/101	6x7	70 g	5,5	175	6,0	20,0	12,0
44630/102	8x9	80 g	6,5	185	7,0	22,0	15,0
44630/103	10x11	120 g	7,7	200	8,5	23,5	18,0
44630/104	12x13	150 g	9,0	215	9,5	25,5	20,5
44630/105	14x15	180 g	10,0	230	10,5	26,5	23,0
44630/106	16x17	230 g	11,0	250	11,5	28,5	26,0
44630/166	17x19	280 g	12,0	270	12,5	31,2	29,0
44630/107	18x19	300 g	12,0	270	12,5	31,0	29,0
44630/108	20x22	370 g	13,0	290	13,5	32,5	34,0
44630/109	21x23	450 g	13,5	310	14,0	33,0	36,0
44630/110	24x26	530 g	14,0	335	14,5	34,5	39,5
44630/111	25x28	620 g	14,0	355	15,0	36,5	42,5
44630/112	27x32	700 g	14,5	375	16,0	36,0	46,0
44630/113	30x32	800 g	14,5	385	16,0	37,0	46,5
44630/117	36x41	1.100 g	20,0	444	22,0	45,5	59,0

REF.	POLEGADAS PULGADAS INCHES	PESO WEIGHT	Medidas Dimensiones Dimensions (mm)				
			A	B	C	D	E
44640/100	1/4x5/16"	90 g	6,0	175	6,5	20,3	13,5
44640/101	3/8x7/16"	120 g	7,7	200	8,5	23,8	18,0
44640/102	1/2x9/16"	170 g	9,5	230	10,0	25,4	22,3
44640/103	5/8x11/16"	230 g	11,0	250	11,5	28,5	26,0
44640/104	3/4x25/32"	310 g	12,0	270	12,5	31,2	30,0
44640/105	13/16x7/8"	390 g	13,0	290	13,5	32,7	34,0
44640/106	15/16x1"	520 g	14,0	335	14,5	34,8	39,5
44640/107	1.1/16x1.1/4"	670 g	14,5	375	16,0	36,8	46,0



REF.	PÇS PZS PCS	CONTEÚDO CONTENIDO SET INCLUDES
44630/206	44630 6	Chaves estrela Llaves estriadas Ring spanners: 6x7, 8x9, 10x11, 12x13, 14x15, 16x17 mm
44630/207	44630 7	Chaves estrela Llaves estriadas Ring spanners: 8x9, 10x11, 12x13, 14x15, 16x17, 18x19, 20x22 mm
44630/297	44630 7	Chaves estrela Llaves estriadas Ring spanners: 6x7, 8x9, 10x11, 12x13, 14x15, 16x17, 18x19 mm
44630/208	44630 8	Chaves estrela Llaves estriadas Ring spanners: 6x7, 8x9, 10x11, 12x13, 14x15, 16x17, 18x19, 20x22 mm
44630/212	44630 12	Chaves estrela Llaves estriadas Ring spanners: 6x7, 8x9, 10x11, 12x13, 14x15, 16x17, 18x19, 20x22, 21x23, 24x26, 25x28, 27x32 mm
44630/213	44630 13	Chaves estrela Llaves estriadas Ring spanners: 6x7, 8x9, 10x11, 12x13, 14x15, 16x17, 18x19, 20x22, 21x23, 24x26, 25x28, 27x32, 36x41 mm
REF.	PÇS PZS PCS	CONTEÚDO CONTENIDO SET INCLUDES
44640/206	44640 6	Chaves estrela Llaves estriadas Ring spanners: 1/4x5/16", 3/8x7/16", 1/2x9/16", 5/8x11/16", 3/4x25/32", 13/16x7/8"
44640/296	44640 6	Chaves estrela Llaves estriadas Ring spanners: 3/8x7/16", 1/2x9/16", 5/8x11/16", 3/4x25/32", 13/16x7/8", 15/16x1"
44640/208	44640 8	Chaves estrela Llaves estriadas Ring spanners: 1/4x5/16", 3/8x7/16", 1/2x9/16", 5/8x11/16", 3/4x25/32", 13/16x7/8", 15/16x1", 1.1/16x1.1/4"

Chave estrela Llave estriada | Ring spanner

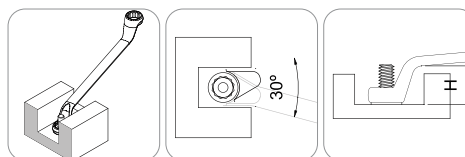
Forjada em aço cromo vanádio e temperada.
Cabeça usinada.
Acabamento cromado.
DIN 838.

Forjada en acero cromo vanadio y templada.
Bocas usinadas.
Acabado cromado.
DIN 838.

Forged and hardened chrome vanadium steel.
Machined openings.
Chrome plated finishing.
DIN 838.

Aplicações | Aplicación | Application

- Afrouxar e apertar parafusos e porcas sextavadas.
- Aflojar y ajustar tornillos y tuercas sextavadas.
- Loosening and tightening hexagonal and square bolts and nuts.



Jogo de chaves estrela Juego de llaves estriadas | Ring spanners set



Chave estrela de bater

Llave estriada de golpe | Ring slogging wrench



Forjada em aço cromo vanádio.
Têmpera total no corpo.
Pintura eletrostática.
DIN 7444.

Forjada en acero cromo vanadio y templada.
Temple total en el cuerpo.
Pintura electrostática.
DIN 7444.

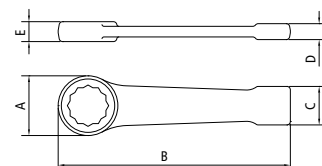
Forged and fully hardened chrome vanadium steel.
Fully hardened.
Electrostatic painting.
DIN 7444.

Aplicações | Aplicación | Application

- Afrouxar e apertar parafusos e porcas sextavadas com o golpeamento na saliência da extremidade do cabo.
- Aflojar y ajustar tornillos y tuercas sextavadas con golpes en la extremidad del mango.
- Loosening and tightening bolts and nuts by striking on the end of its handle.

REF.	TAMANHO TAMANHO SIZE - mm	PESO WEIGHT	Medidas Dimensiones Dimensions (mm)				
			A	B	C	D	E
44632/024	24	370 g	45,0	175	29,0	12,0	15,0
44632/025	25	370 g	46,5	180	30,0	12,5	15,5
44632/027	27	400 g	48,0	185	31,0	13,0	16,0
44632/028	28	400 g	48,0	185	31,0	13,0	16,0
44632/030	30	510 g	52,0	190	32,0	13,5	16,5
44632/032	32	480 g	54,0	195	33,0	14,0	17,0
44632/034	34	520 g	56,0	200	33,5	15,0	18,0
44632/036	36	640 g	58,0	207	35,5	16,0	19,5
44632/041	41	820 g	65,0	220	37,0	17,0	21,0
44632/046	46	1.060 g	73,0	235	41,0	18,5	22,5
44632/050	50	1.230 g	78,0	250	42,5	20,0	23,5
44632/055	55	1.470 g	86,0	265	44,0	22,0	24,5
44632/060	60	1.840 g	94,0	285	47,0	24,0	26,0
44632/065	65	2.070 g	102,0	298	56,0	16,0	28,0
44632/070	70	2.350 g	106,0	312	59,0	18,0	34,0
44632/075	75	2.670 g	112,0	325	62,0	19,0	34,0
44632/080	80	3.270 g	117,0	344	64,0	20,0	35,0
44632/085	85	3.510 g	130,0	355	68,0	21,0	36,0
44632/090	90	4.800 g	142,0	390	72,0	23,0	39,0
44632/095	95	4.720 g	142,0	390	72,0	23,0	39,0
44632/100	100	6.200 g	155,0	420	78,0	25,0	43,0

REF.	POLEGADAS PULGADAS INCHES	PESO WEIGHT	Medidas Dimensiones Dimensions (mm)				
			A	B	C	D	E
44633/001	15/16"	370 g	46,5	180	30,0	12,5	15,5
44633/002	1"	370 g	46,5	180	30,0	12,5	15,5
44633/003	1.1/16"	400 g	48,0	185	31,0	13,0	16,0
44633/004	1.1/8"	390 g	48,0	185	31,0	13,0	16,0
44633/005	1.1/4"	490 g	54,0	195	33,0	14,0	17,0
44633/006	1.5/16"	530 g	56,0	200	33,5	15,0	18,0
44633/007	1.7/16"	640 g	58,0	207	35,5	16,0	19,5
44633/008	1.1/2"	620 g	58,0	207	35,5	16,0	19,5
44633/009	1.5/8"	770 g	65,0	220	37,0	17,0	21,0
44633/010	1.11/16"	780 g	65,0	220	37,0	17,0	21,0
44633/011	1.3/4"	1.060 g	73,0	235	41,0	18,5	22,5
44633/012	1.13/16"	1.030 g	73,0	235	41,0	18,5	22,5
44633/013	1.7/8"	1.010 g	78,0	235	41,0	18,5	22,5
44633/014	2"	1.210 g	86,0	250	42,5	20,0	23,5
44633/015	2.3/16"	1.450 g	86,0	265	44,0	22,0	24,5
44633/016	2.1/4"	1.400 g	94,0	265	44,0	22,0	24,5
44633/017	2.3/8"	1.780 g	94,0	285	47,0	24,0	26,0
44633/018	2.1/2"	1.720 g	106,0	285	47,0	24,0	26,0
44633/021	2.3/4"	2.130 g	112,0	312	59,0	18,0	34,0
44633/023	3"	2.460 g	117,0	325	62,0	19,0	34,0
44633/024	3.1/8"	3.220 g	142,0	344	64,0	20,0	35,0
44633/025	3.1/2"	5.080 g	142,0	390	72,0	23,0	39,0
44633/026	3.3/4"	4.850 g	142,0	390	72,0	23,0	39,0
44633/028	4"	6.300 g	155,0	420	78,0	25,0	43,0



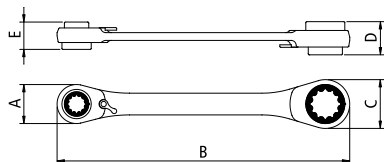
Chave com catraca 4 bocas Multidrive Llave Multidrive | Multidrive ratchet ring spanner



REF.	TAMANHO TAMAÑO SIZE - mm	PESO WEIGHT	Medidas Dimensiones Dimensions (mm)				
			A	B	C	D	E
44637/100	4x5x6x7	65 g	14,2	115	17,2	12,8	12,3
44637/101	8x9x10x11	80 g	20,0	150	22,0	15,0	14,0
44637/103	12x13x14x15	160 g	27,0	190	30,0	18,0	17,0
44637/104	13x15x17x19	225 g	30,0	210	34,0	22,0	18,0
44637/105	16x17x18x19	250 g	32,0	230	34,0	22,0	20,0
44637/107	21x22x24x27	600 g	39,5	270	52,0	30,0	26,3
44637/109	30x32x34x36	1.400 g	62,5	359	66,5	35,5	34,5

REF.	TORQUE MÁXIMO (N.m) ESFUERZO DE TORSIÓN MÁXIMO (N.m.) MAXIMUM TORQUE (N.m)
44637/100	4 mm = 6,81 5 mm = 11,5 6 mm = 17,3 7 mm = 25,2
44637/101	8 mm = 34,5 9 mm = 45,5 10 mm = 58,1 11 mm = 72,7
44637/103	12 mm = 89,1 13 mm = 107 14 mm = 128 15 mm = 150
44637/105	16 mm = 175 17 mm = 201 18 mm = 230 19 mm = 261
44637/107	21mm = 330 22 mm = 368 24 mm = 451 27 mm = 549
44637/109	30 mm = 760 32 mm = 884 34 mm = 1.019 36 mm = 1.165

REF.	DENTES DIENTES TEETH	REF.	DENTES DIENTES TEETH
44637/100	4, 6 = 50 5, 7 = 60	44637/105	76
44637/101	72	44637/107	21, 22 = 90 24, 27 = 112
44637/103	76	44637/109	30, 32 = 136 34, 36 = 148



REF.	POLEGADAS PULGADAS INCHES	PESO WEIGHT	Medidas Dimensiones Dimensions (mm)				
			A	B	C	D	E
44641/101	5/16x3/8x7/16x1/2"	720 g	20,2	150	24,8	16,8	13,8
44641/103	9/16x5/8x11/16x3/4"	310 g	31,5	230	33,5	21,9	19,3

REF.	TORQUE MÁXIMO (N.m) ESFUERZO DE TORSIÓN MÁXIMO (N.m.) MAXIMUM TORQUE (N.m)
44641/101	5/16" = 33,85 3/8" = 51,87 7/16" = 74,41 1/2" = 101,69
44641/103	9/16" = 133,96 5/8" = 171,42 11/16" = 214,24 3/4" = 262,63

REF.	DENTES DIENTES TEETH
44641/101	5/16", 3/8" = 72 7/16", 1/2" = 76
44641/103	76

Forjada em aço cromo vanádio e temperada.
Acabamento cromado.
Catraca fosfatizada reversível.

Forjada en acero cromo vanadio y templada.
Acabado cromado.
Matraca fosfatada reversible.

Forged and hardened chrome vanadium steel.
Chrome plated finishing.
Phosphated reversible ratchet.

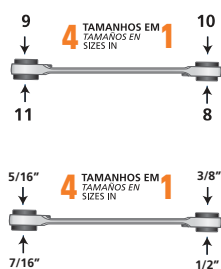
Aplicações | Aplicación | Application

- Devido a incorporação de um mecanismo com catraca, esta ferramenta permite realizar trabalhos com mais agilidade do que uma chave estrela comum.
- Construção robusta que permite dar apertos finais.
- Debido a la incorporación de un mecanismo con matraca, esta herramienta permite realizar trabajos con más agilidad y facilidad que una llave estrella común.
- Construcción robusta que permite ajustes finales.
- Due to the ratchet system, this tool allows an easier and quicker operation compared to a normal ring spanner.
- Reinforced body that allows final tightening.

CHAVE MULTIDRIVE
TRAMONTINA PRO. A
4XX DO MUNDO DAS
FERRAMENTAS.

LLAVE MULTIDRIVE TRAMONTINA PRO. LA
4XX DEL MUNDO DE LAS HERRAMIENTAS.

TRAMONTINA PRO MULTIDRIVE
RING SPANNER. THE 4XX IN THE
WORLD OF TOOLS



Chave estrela com catraca
 Llave estriada con matraca | Ratchet ring spanner
 Milímetros | Milímetros | Millimeters

Forjada em aço cromo vanádio e temperada.
 Acabamento cromado.
 Catraca fosfatizada.

Forjada em aço cromo vanádio e temperada.
 Acabamento cromado.
 Matraca fosfatada.

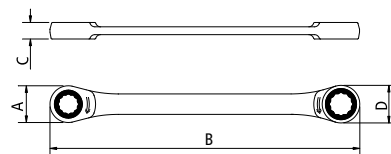
Forged and hardened chrome vanadium steel.
 Chrome plated finishing.
 Phosphated ratchet.

Aplicações | Aplicación | Application

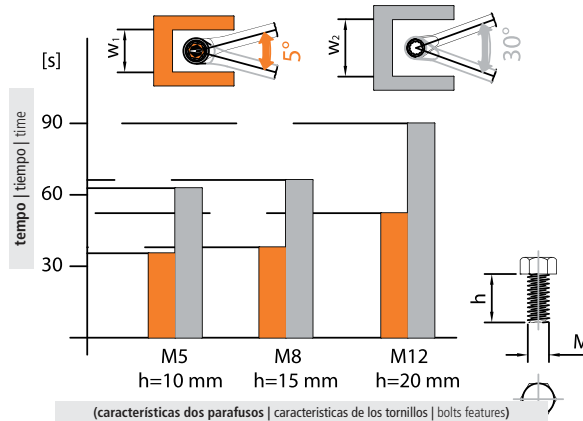
- Afrouxar e apertar parafusos, porcas sextavadas e quadradas.
- Devido à incorporação de um mecanismo com matraca, esta ferramenta permite realizar trabalhos com mais agilidade e facilidade do que uma chave estrela comum.
- Construção robusta que permite dar apertos finais, conforme DIN-ISO 1711-1.
- Aflojar y ajustar tornillos, tuercas sextavadas y cuadradas.
- Debido a la incorporación de un mecanismo con matraca esta herramienta permite realizar trabajos con más agilidad y facilidad de lo que una llave estriada común.
- Construcción robusta que permite ajustes finales conforme DIN-ISO 1711-1.
- Loosening and tightening hexagonal and square bolts and nuts.
- Due to the ratchet mechanism, this tool allows you to accomplish jobs with more agility and ease than a usual ring spanners.
- Reinforced structure wich allwos final tightening according to DIN-ISO 1711-1.



REF.	TAMANHO TAMAÑO SIZE - mm	PESO WEIGHT	Medidas Dimensiones Dimensions (mm)			
			A	B	C	D
44634/101	8x9	70 g	16,8	128	6,5	20,2
44634/103	10x11	90 g	20,2	150	7,3	21,8
44634/104	12x13	130 g	23,0	170	8,2	24,8
44634/105	14x15	170 g	26,5	190	9,0	29,5
44634/107	17x19	260 g	31,5	230	10,3	33,5



Chave com catraca | Llave con matraca | Ratcheted wrench
Chave normal | Llave normal | standard wrench



A forma construtiva com um ângulo de engrenamento menor, realiza operações de aperto em locais mais estreitos (W1 < W2). Além disso, as chaves com catraca apertam o mesmo parafuso em um tempo muito menor que as chaves normais. O gráfico mostra uma redução média de 46% no tempo necessário para a chave com catraca apertar os parafusos especificados em comparação a chave normal.

La forma constructiva con dentado de ángulo menor, realiza operaciones de ajuste en sitios más angostos (W1 < W2). Además, las llaves con matraca ajustan los tornillos con menor tiempo que las llaves normales. El gráfico demuestra una reducción promedia de un 46% en el tiempo necesario para que la llave con matraca ajuste tornillos específicos en comparación con llaves normales.

Due to its construction, with a lower engaging angle, it allows the tightening operations in narrow spaces (W1 < W2). Also, ratcheted wrenches tighten bolts in a shorter time than standard wrenches. The chart shows an average reduction of 46% on the time required by ratcheted wrenches to tighten specified bolts comparing with standard wrenches.

REF.	DENTES DIENTES TEETH	REF.	DENTES DIENTES TEETH
44634/101	60	44634/105	72
44634/103	72	44634/107	72
44634/104	72		

Jogo de chaves estrela com catraca
 Juego de llaves estriadas con matraca
 Ratchet ring spanner set

5 PEÇAS
 PIEZAS



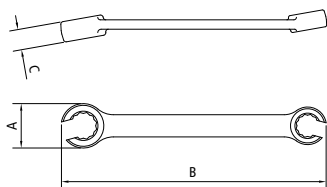
REF.	PÇS PZS PCS	CONTEÚDO CONTENIDO SET INCLUDES
44634/505	5	Chaves estrela com catraca Llaves estriadas con matraca Ratchet ring spanners: 8x9, 10x11, 12x13, 14x15, 17x19 mm

REF.	TAMANHO TAMANHO SIZE - mm	PESO WEIGHT	Medidas Dimensiones Dimensions (mm)		
			A	B	C
44635/101	8x10	50 g	19	140	8,0
44635/102	10x11	60 g	21	150	8,5
44635/103	10x12	70 g	25	170	10,0
44635/104	11x13	90 g	25	170	10,5
44635/106	14x17	140 g	30	190	12,0
44635/107	17x19	180 g	33	210	13,0
44635/109	22x24	220 g	43	250	16,0

As chaves 8x10, 10x11 e 11x13 mm são sextavadas. |
Las llaves 8x10, 10x11 y 11x13 mm son sextavadas. |
The wrenches 8x10, 10x11 and 11x13 mm have 6 points.

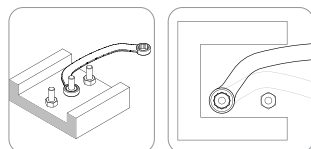
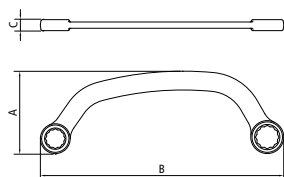
As chaves 14x17, 17x19 e 22x24 mm são estriadas. |
Las llaves 14x17, 17x19 y 22x24 mm son estriadas. |
The wrenches 14x17, 17x19 and 22x24 mm have
12 points.

REF.	POLEGADAS PULGADAS INCHES	PESO WEIGHT	Medidas Dimensiones Dimensionws (mm)		
			A	B	C
44636/102	5/16x3/8	60 g	19	140	8,5
44636/103	3/8x7/16	60 g	21	150	9,0
44636/104	7/16x1/2	90 g	25	160	10,5
44636/105	1/2x9/16	100 g	27	170	11,5



REF.	TAMANHO TAMANHO SIZE - mm	PESO WEIGHT	Medidas Dimensiones Dimensions (mm)		
			A	B	C
44675/100	10x12	70 g	52,0	154	7,0
44675/101	11x13	70 g	52,5	155	7,0
44675/102	14x16	110 g	57,5	170	8,5
44675/103	15x17	140 g	63,0	185	9,0
44675/107	19x22	260 g	75,0	235	11,0

REF.	POLEGADAS PULGADAS INCHES	PESO WEIGHT	Medidas Dimensiones Dimensionws (mm)		
			A	B	C
44676/101	7/16x1/2	70 g	52,5	155	7,0
44676/103	9/16x5/8	110 g	57,5	170	8,5
44676/105	3/4x7/8	140 g	63,0	185	9,0
44676/107	5/8x3/4	260 g	67,0	192	10,0



Chave poligonal aberta

Llave poligonal abierta | Double end flare nut wrench

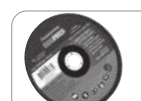
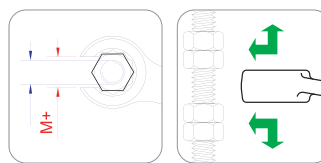
Forjada em aço cromo vanádio e temperada.
Cabeça usinada.
Abertura da boca calibrada.
Acabamento cromado.
DIN 3118.

Forjada en acero cromo vanadio y templada.
Bocas usinadas.
Apertura de la boca calibrada.
Acabado cromado.
DIN 3118.

Forged and hardened chrome vanadium steel.
Machined openings.
Calibrated openings.
Chrome plated finishing.
DIN 3118.

Aplicações | Aplicación | Application

- Apertar e afrouxar porcas sextavadas em tubulações de freio e ar condicionado.
- Para aflojar o ajustar tuercas sextavadas en tubulaciones de freno y aire acondicionado.
- Loosening and tightening hexagonal nuts in the brake pipeline and air-conditioning.



Chave meia-lua

Llave estriada media luna | Obstruction ring wrench

Forjada em aço cromo vanádio e temperada.
Cabeça usinada.
Acabamento cromado.
DIN 3318.

Forjada en acero cromo vanadio y templada.
Bocas usinadas.
Acabado cromado.
DIN 3318.

Forged and hardened chrome vanadium steel.
Machined openings.
Chrome plated finishing.
DIN 3318.

Aplicações | Aplicación | Application

- Devido a sua forma, permite alcance a lugares onde não é possível entrar com chaves retas.
- Especiais para motores de partida, coletores de entrada e de saída.
- Debido a su forma, permite alcance en lugares donde no es posible entrar con llaves rectas.
- Especiales para motores de partida, colectores de entrada y de salida.
- Due to its shape, it allows you to reach places it is not possible to reach with a straight (normal) wrench.
- Specially for starting motor, inlet and outlet collectors.



Chave catraca para montagem de estruturas metálicas e tubulações

Llave matraca para montaje de estructuras metálicas y tuberías | Ratchet wrench

Milímetros | Milímetros | Millimeters

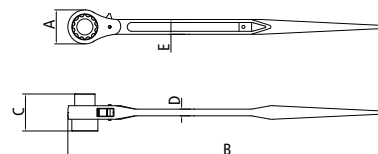


Corpo e soquete forjados em aço cromo vanádio e temperados.
Acabamento fosfatizado.
Catraca reversível.
Bitolas diferentes em cada lado do soquete.

Cuerpo y dado forjados y templados en acero cromo vanadio.
Acabado fosfatado.
Matraca reversible.
Vitolas diferentes en cada lado del dado.

Forged and hardened chrome vanadium steel body and socket.
Phosphated finishing.
Reversible ratchet.
Two different socket sizes.

REF.	TAMANHO TAMAÑO SIZE - mm	PESO WEIGHT	Medidas Dimensiones Dimensions (mm)				
			A	B	C	D	E
44638/001	10x12	200 g	31,0	241,0	38	6,0	11,2
44638/002	11x13	280 g	31,0	241,0	38	6,0	11,2
44638/003	14x17	320 g	34,0	280,0	45	6,5	13,0
44638/005	19x21	480 g	42,0	319,4	50	8,0	16,0
44638/006	22x24	810 g	51,5	364,3	56	9,0	20,5
44638/008	27x30	1.020 g	61,5	402,0	63	9,0	21,5
44638/009	32x36	1.220 g	67,0	450,0	67	10,0	27,0
44638/011	38x41	1.360 g	67,0	450,0	74	10,0	27,0



Aplicações | Aplicación | Application

- Ferramenta utilizada na montagem de estruturas metálicas e tubulações.
- Herramienta utilizada en el montaje de estructuras metálicas y tuberías.
- Used for the assembling of pipelines and metallic structures.

Chave catraca com encaixe quadrado

Llave matraca con perfil cuadrado | Square drive ratchet wrench

Milímetros | Milímetros | Millimeters

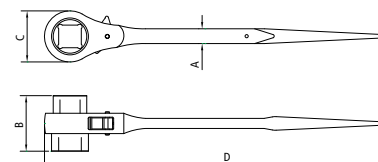


Soquete forjado e temperado em aço cromo molibdênio.
Corpo forjado e temperado em aço cromo vanádio.
Acabamento fosfatizado.
Catraca reversível.
Bitolas diferentes em cada lado do soquete.

Dado forjado e templado de acero cromo molibdeno.
Cuerpo forjado y templado de acero cromo vanadio.
Acabado fosfatado.
Matraca reversible.
Vitolas diferentes en cada lado del dado.

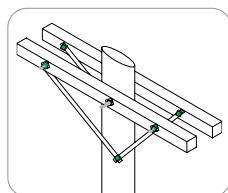
Forged and hardened chrome molybdenum socket.
Forged and hardened chrome vanadium body.
Phosphated finishing.
Reversible ratchet.
Two different socket sizes.

REF.	TAMANHO TAMAÑO SIZE - mm	PESO WEIGHT	Medidas Dimensiones Dimensions (mm)			
			A	B	C	D
44639/010	24x27	820 g	21,5	63	61,5	402

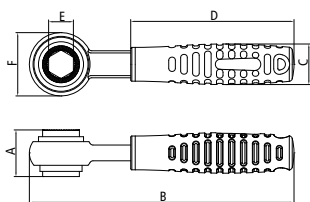


Aplicações | Aplicación | Application

- Afrouxar e apertar parafusos e porcas com perfil quadrado.
- Amplamente utilizada para apertar parafusos e porcas quadradas, presentes nas ligações de energia elétrica de postes de luz.
- Herramienta utilizada para ajustar tornillos y tuercas con perfil cuadrado.
- Muy utilizada para ajustar tornillos y tuercas cuadradas, presentes en las conexiones de energía eléctrica de los postes de luz.
- Loosening and tightening of square bolts and nuts.
- Widely used in electric post installations for loosening and tightening square bolts and nuts.



REF.	POLEGADAS PULGADAS INCHES	PESO WEIGHT	Medidas Dimensiones Dimensions (mm)					
			A	B	C	D	E	F
44643/110	7/8"	806 g	41,5	235	30	145	22,28	56



Aplicações | Aplicación | Application

- Utilizada na montagem de andaimes tubulares.
- Herramienta utilizada en el montaje de andamios tubulares.
- Used for assembling tubular frames.

REF.	PÇS PZS PCS	CONTEÚDO CONTENIDO SET INCLUDES
44643/901	2	Pinos Pernos Pins
	1	Anel elástico Anillo elástico Elastic ring
	1	Mola Resorte Spring
	1	Base Base Stopper base
	1	Trinqueta Batiente Gear stopper
	1	Tampa Tapa Cover
44643/902	1	Soquete sextavado Dado sextavado 6 points socket: 7/8"

Chave catraca para andaimes

Llave matraca para andamio | Ratchet wrench

Encaixe 7/8" | Encastre 7/8" | 7/8" Square drive



Corpo forjado em aço cromo vanádio e temperado.
Soquete forjado em aço cromo molibdênio e temperado.
Acabamento fosfatado.
Empunhadura injetada.
NBR 15797.

Cuerpo forjado en acero cromo vanadio y templado.
Dado forjado en acero cromo molibdeno y templado.
Acabado fosfatado.
Empuñadura inyectada.

Forged and hardened chrome vanadium body.
Forged and hardened chrome molybdenum socket.
Phosphated finishing.
Injected handle.

Kit de reposição para chave catraca para andaimes

Repuesto para llave matraca para andamio

Spare part set for ratchet wrench



44643/901



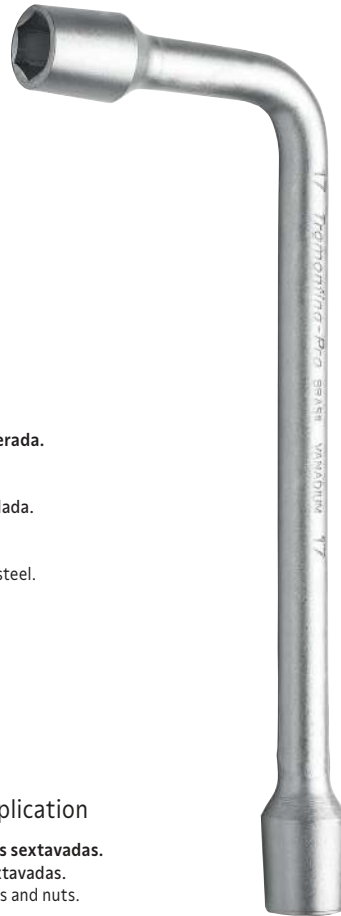
44643/902



Chave biela

Llave de pipa aberta | Hollow offset pipe wrench

Milímetros | Milímetros | Millimeters



Forjada em aço cromo vanádio e temperada.
Acabamento cromado.

Forjada en acero cromo vanadio y templada.
Acabado cromado.

Forged and hardened chrome vanadium steel.
Chrome plated finishing.

Aplicações | Aplicación | Application

- Afrouxar e apertar parafusos e porcas sextavadas.
- Aflojar o ajustar tornillos y tuercas sextavadas.
- Loosening or tightening hexagonal bolts and nuts.

Jogo de chaves biela

Juego de llaves de pipa aberta

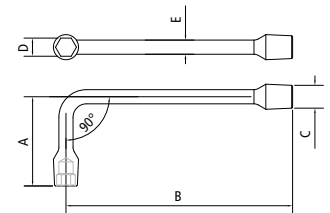
Hollow offset pipe wrench set

Milímetros | Milímetros | Millimeters



REF.	TAMANHO TAMAÑO SIZE - mm	PESO WEIGHT	Medidas Dimensiones Dimensions (mm)				
			A	B	C	D	E
44720/108	8	370 g	100	254	13,0	8	12,7
44720/109	9	360 g	100	254	14,0	9	12,7
44720/110	10	370 g	100	254	15,0	10	12,7
44720/111	11	360 g	100	254	16,5	11	12,7
44720/112	12	380 g	100	254	17,5	12	12,7
44720/113	13	420 g	100	254	19,0	13	12,7
44720/114	14	430 g	100	254	20,0	14	12,7
44720/115	15	510 g	100	254	21,5	15	14,3
44720/116	16	520 g	100	254	23,0	16	14,3
44720/117	17	650 g	100	254	24,5	17	15,9
44720/118	18	650 g	100	254	25,5	18	15,9
44720/119	19	670 g	100	254	27,0	19	15,9

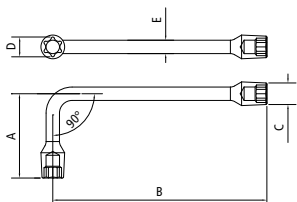
REF.	POLEGADAS PULGADAS INCHES	PESO WEIGHT	Medidas Dimensiones Dimensions (mm)				
			A	B	C	D	E
44721/100	3/8"	150 g	100	254	15,0	9,53	12,7
44721/101	7/16"	180 g	100	254	16,5	11,11	12,7
44721/102	1/2"	190 g	100	254	19,0	12,7	12,7
44721/103	9/16"	290 g	100	254	21,5	14,28	14,28
44721/104	5/8"	320 g	100	254	23,0	15,88	14,28
44721/105	11/16"	480 g	100	254	25,5	17,46	15,88
44721/106	3/4"	530 g	100	254	27,0	19,05	15,88



REF.	PÇS PZS PCS	CONTEÚDO CONTENIDO SET INCLUDES
44720/211	12	Chaves biela Llaves de pipa aberta Hollow offset pipe wrenches: 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19 mm



REF.	TAMANHO TAMAÑO SIZE - mm	PESO WEIGHT	Medidas Dimensiones Dimensions (mm)				
			A	B	C	D	E
44735/106	E6	190 g	85	254	10,00	5,74	10,00
44735/108	E8	200 g	85	254	10,75	7,52	10,00
44735/110	E10	200 g	85	254	13,00	9,42	10,00
44735/112	E12	320 g	85	254	16,50	11,17	12,70
44735/114	E14	300 g	90	254	17,50	12,90	12,70
44735/118	E18	340 g	95	254	20,00	16,70	12,70
44735/120	E20	450 g	95	254	23,00	18,45	14,28
44735/124	E24	600 g	95	254	27,00	22,16	15,88



Chave biela

Llave de pipa aberta | Hollow offset pipe wrench

Trafix fêmea | Trafix hembra | Trafix female



Forjada em aço cromo vanádio e temperada.
Acabamento cromado.

Forjada en acero cromo vanadio y templada.
Acabado cromado.

Forged and hardened chrome vanadium steel.
Chrome plated finishing.

Aplicações | Aplicación | Application

- Afrouxar e apertar parafusos e porcas com perfil trafix.
- Aflojar o ajustar tornillos de hendadura trafix.
- Loosening or tightening trafix screws.



Chave biela sextavada com furo passante

Llave de pipa aberta | Offset open socket wrench

Milímetros | Milímetros | Millimeters



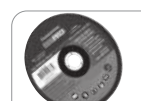
Forjada em aço cromo vanádio e temperada.
Acabamento cromado.
ISO 2236.

Forjada en acero cromo vanadio y templada.
Acabado cromado.
ISO 2236.

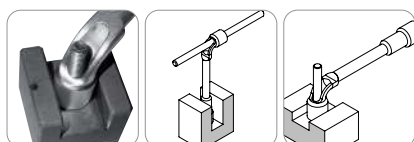
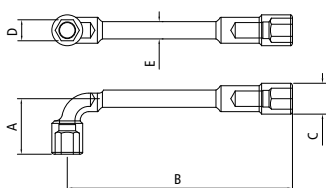
Forged and hardened chrome vanadium steel.
Chrome plated finishing.
ISO 2236.

Aplicações | Aplicación | Application

- Afrouxar e apertar parafusos e porcas sextavadas.
- Aflojar o ajustar tornillos y tuercas sextavadas.
- Loosening or tightening hexagonal bolts and nuts.



REF.	POLEGADAS PULGADAS INCHES	PESO WEIGHT	Medidas Dimensiones Dimensions (mm)				
			A	B	C	D	E
44730/108	8	80 g	25	123	12,0	8	9
44730/109	9	80 g	25	123	13,0	9	9
44730/110	10	130 g	30	131	15,0	10	11
44730/111	11	130 g	30	136	16,0	11	11
44730/112	12	170 g	34	144	17,0	12	12
44730/113	13	190 g	34	152	20,0	13	12
44730/114	14	230 g	40	164	21,0	14	12
44730/115	15	260 g	40	169	22,0	15	12
44730/116	16	370 g	45	186	24,0	16	14
44730/117	17	380 g	45	186	25,3	17	14
44730/118	18	440 g	52	200	28,5	18	14
44730/119	19	470 g	52	200	28,5	19	14
44730/121	21	540 g	54	210	30,0	21	16
44730/122	22	750 g	60	224	32,0	22	16
44730/124	24	750 g	63	230	34,5	24	17



Chave ajustável

Llave ajustable | Adjustable wrench



Forjada em aço cromo vanádio e temperada.
Cabeça polida.
Acabamento fosfatizado.
Escala marcada a laser.
ISO 6787.

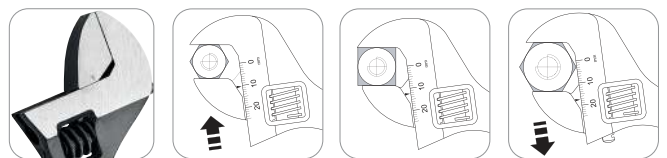
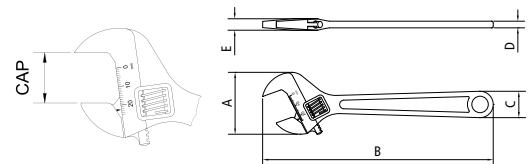
Forjada en acero cromo vanadio y templada.
Cabeza lijada.
Acabado fosfatado.
Escala marcada con laser.
ISO 6787.

Forged and hardened chrome vanadium steel.
Polished head.
Phosphated finishing.
Laser marked scale.
ISO 6787.

Aplicações | Aplicación | Application

- Afrouxar e apertar parafusos e porcas sextavadas e quadradas.
- Aflojar y ajustar tornillos y tuercas sextavadas y cuadradas.
- Loosening and tightening hexagonal and square bolts and nuts.

REF.	TAMANHO TAMAÑO SIZE	CAPACIDADE CAPACIDAD CAPACITY - mm	Medidas Dimensiones Dimensions (mm)				
			A	B	C	D	E
44022/106	6"	21	45,0	155	19,5	5,5	11,0
44022/108	8"	26	57,5	205	24,5	7,0	13,0
44022/110	10"	30	67,0	255	28,0	8,0	16,0
44022/112	12"	35	77,0	305	36,0	10,0	18,5
44022/115	15"	44	100,0	380	40,0	10,5	23,5
44022/118	18"	55	120,0	455	46,0	13,0	26,0
44022/124	24"	60	139,0	612	36,0	15,0	28,2



Escala em milímetros no mordente.
Escala en milímetros en el mordiente.
Scale in millimeters on the jaw.

Chave para tubos

Llave para tubos | Pipes wrench



Mandíbulas forjadas em aço cromo vanádio e temperadas.
Porca reguladora de abertura em ferro fundido.
Corpo em alumínio fundido.
Abertura dos mordentes regulável.
Pintura eletrostática.

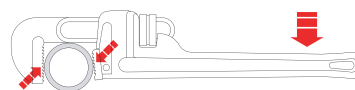
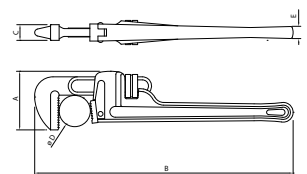
Mordientes forjados en acero cromo vanadio y templados.
Tuerca reguladora de apertura en hierro fundido modular.
Cuerpo en aluminio fundido.
Apertura de los mordientes regulable.
Pintura electrostática.

Jaws forged in chrome vanadium steel and hardened.
Adjusting nut in nodular cast iron.
Cast aluminum body.
Adjustable opening jaws.
Electrostatic painting.

Aplicações | Aplicación | Application

- Específica para instalações e manutenções hidráulicas em maquinário pesado e indústrias petrolíferas.
- Indicada para tubos não endurecidos.
- Específica para instalaciones y mantenimientos hidráulicos.
- Indicada para tubos no endurecidos.
- Specifically for hydraulic installation and maintenance.
- Suitable for non-hardened pipes.

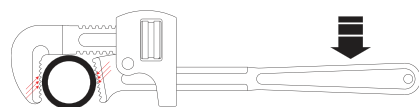
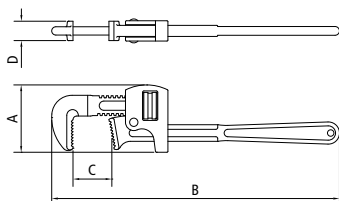
REF.	TAMANHO TAMAÑO SIZE	PESO WEIGHT	Medidas Dimensiones Dimensions (mm)				
			A	B	C	D	E
44085/010	10"	570 g	67	293	17	38	14
44085/012	12"	820 g	76	345	20	50	20
44085/014	14"	1.090 g	79	395	22	50	18
44085/018	18"	1.630 g	91	495	25	62	19
44085/024	24"	2.560 g	104	655	29	75	22
44085/036	36"	4.920 g	132	915	34	125	27
44085/048	48"	8.570 g	163	1.255	37	160	27



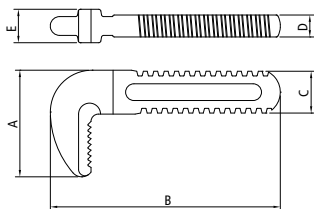
Medida D | Dimension D | Dimension D

REF.	Ø MAX. TUBO Ø MAX. PIPE - mm
44085/010	38
44085/012	50
44085/014	50
44085/018	62
44085/024	75
44085/036	125
44085/048	160

REF.	TAMANHO TAMAÑO SIZE	PESO WEIGHT	Medidas Dimensiones Dimensions (mm)			
			A	B	C	D
44020/010	10"	600 g	65	254	34	16
44020/012	12"	770 g	71	305	43	19
44020/014	14"	1.110 g	78	356	49	21
44020/018	18"	1.760 g	91	457	61	24



REF.	TAMANHO TAMAÑO SIZE	PESO WEIGHT	Medidas Dimensiones Dimensions (mm)				
			A	B	C	D	E
44020/910	10"	170 g	51	111,5	20,0	10,5	16
44020/912	12"	230 g	60	127,5	21,5	11,0	19
44020/914	14"	320 g	64	143,0	24,0	12,0	21
44020/918	18"	460 g	73	165,0	27,0	14,0	24



Chave para tubos

Llave para tubos | Pipes wrench

Modelo Stilson | Modelo Stilson | Stilson style

Corpo e mandíbulas forjadas em aço cromo vanádio e temperadas.
Porca reguladora de abertura em ferro fundido modular.
Abertura dos mordentes regulável.
Pintura eletrostática.
BS 3594.

Cuerpo y mordientes forjados en acero cromo vanadio y templados.
Tuerca reguladora de abertura en hierro fundido modular.
Apertura de los mordientes regulable.
Pintura electrostática.
BS 3594.

Forged and hardened chrome vanadium steel body and jaws.
Adjusting nut in nodular cast iron.
Adjustable opening jaws.
Electrostatic painting.
BS 3594.

Aplicações | Aplicación | Application

- Específica para instalações e manutenções hidráulicas.
- Indicada para tubos não endurecidos.

- Específica para instalaciones y mantenimientos hidráulicos.
- Indicada para tubos no endurecidos.

- Specifically for hydraulic installation and maintenance.
- Suitable for non-hardened pipes.

Mordente da chave para tubos

Mordiente de la llave para tubo

Movable jaw for pipe wrench

Modelo Stilson | Modelo Stilson | Stilson style

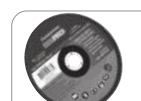
Forjada em aço cromo vanádio.
Têmpera total.
Acabamento fosfatizado.

Forjada en acero cromo vanadio.
Temple total.
Acabado fosfatizado.

Forged chrome vanadium steel.
Fully hardened.
Phosphated finishing.

Aplicações | Aplicación | Application

- Substituir mordentes nas chaves para tubos ref. 44020.
- Substituir mordientes en las llaves para tubos Ref. 44020.
- Replacement jaws of pipe wrenches Ref. 44020.



Chave para tubos

Llave para tubos | Pipes wrench

Modelo Americano | Modelo Americano | American style

Mandíbulas forjadas em aço cromo vanádio e temperadas.
Corpo e porca reguladora de abertura em ferro fundido.
Abertura dos mordentes regulável.
Pintura eletrostática.
BS 3594.

Mordientes forjados en acero cromo vanadio y templados.
Cuerpo y tuerca reguladora de apertura en hierro fundido.
Apertura de los mordientes regulable.
Pintura electrostática.
BS 3594.

Forged and hardened chrome vanadium steel jaws.
Body and adjusting nut in cast iron.
Adjustable opening jaws.
Electrostatic painting.
BS 3594.



Aplicações | Aplicación | Application

- Específica para instalações e manutenções hidráulicas em maquinário pesado e indústrias petrolíferas.
- Indicada para tubos não endurecidos.
- Específica para instalaciones y mantenimientos hidráulicos.
- Indicada para tubos no endurecidos.
- Specifically for hydraulic installation and maintenance.
- Suitable for non-hardened pipes.

Mordente da chave para tubos

Mordiente de la llave para tubos

Movable jaw for pipes wrench

Modelo Americano | Modelo Americano

American style

Forjada em aço cromo vanádio.
Têmpera total no corpo.
Têmpera por indução nos dentes.
Acabamento fosfatizado.

Forjada en acero cromo vanadio.
Temple total.
Temple por inducción en los dientes.
Acabado fosfatizado.

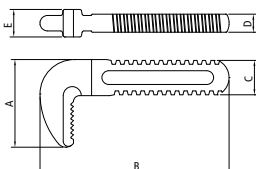
Forged in chrome vanadium steel.
Fully hardened.
Induction hardening at the teeth.
Phosphated finishing.



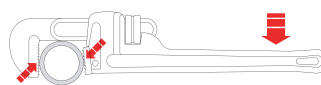
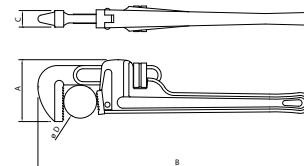
REF.	TAMANHO TAMANO SIZE	PESO WEIGHT	Medidas Dimensiones Dimensions (mm)				
			A	B	C	D	E
44021/908	8"	110 g	40,0	100	16	7,8	13,5
44021/910	10"	200 g	52,5	129	20,0	10,0	18,0
44021/912	12"	300 g	61,5	160	22,0	10,9	21,0
44021/914	14"	390 g	65,5	175	25,0	11,8	23,5
44021/918	18"	620 g	82,5	210	28,5	12,8	25,5
44021/924	24"	940 g	93,0	240	32,5	15,5	27,5
44021/936	36"	1.600 g	125,5	315	37,5	28,0	33,0
44021/948	48"	1.700 g	132,0	335	40,5	20,0	34,0

Aplicações | Aplicación | Application

- Substituir mordentes nas chaves para tubos ref. 44021 e 44085.
- Substituir mordientes en las llaves para tubos Ref. 44021 y 44085.
- Replacement jaws of pipe wrenches Ref. 44021 and 44085.



REF.	TAMANHO TAMANO SIZE	PESO WEIGHT	Medidas Dimensiones Dimensions (mm)		
			A	B	C
44021/008	8"	430 g	50	220	14
44021/010	10"	690 g	63	290	17
44021/012	12"	1.000 g	70	327	20
44021/014	14"	1.370 g	75	375	25
44021/018	18"	2.300 g	95	475	25,6
44021/024	24"	3.460 g	110	620	27,5
44021/036	36"	6.080 g	142	910	31,5
44021/048	48"	9.980 g	160	1.100	36



Medida D | Dimension D | Dimension D

REF.	Ø MAX. TUBO Ø MAX. PIPE - mm	REF.	Ø MAX. TUBO Ø MAX. PIPE - mm
44021/008	19	44021/018	51
44021/010	25	44021/024	64
44021/012	40	44021/036	89
44021/014	42	44021/048	127

Mordente Inferior da chave para tubos

Mordiente de la llave para tubos

Movable jaw for pipes wrench

Modelo Americano | Modelo Americano | American style

Forjada em aço cromo vanádio.
Têmpera total no corpo.
Têmpera por indução nos dentes.
Acabamento fosfatizado.
Acompanha pino de segurança.

Forjada en acero cromo vanadio.
Temple total.
Temple por inducción en los dientes.
Acabado fosfatizado.
Acompaña pino de seguridad.

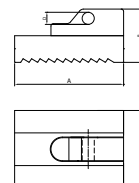
Forged in chrome vanadium steel.
Fully hardened.
Induction hardening at the teeth.
Phosphated finishing.
Safety pin included.



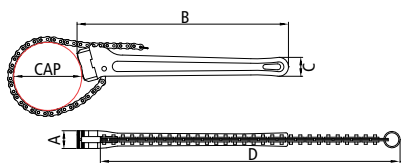
REF.	TAMANHO TAMANO SIZE	PESO WEIGHT	Medidas Dimensiones Dimensions (mm)			
			A	B	C	D
44021/808	8"	165 g	22,4	11,0	14,5	2,8
44021/810	10"	350 g	28,5	16,3	18,5	4,0
44021/812	12"	620 g	33,5	19,0	23,5	5,0
44021/814	14"	640 g	33,5	19,0	23,0	5,0
44021/818	18"	1.050 g	38,5	23,5	26,0	5,0
44021/824	24"	1.320 g	45	22,5	32,0	5,0
44021/836	36"	2.510 g	62	27,0	36,0	6,0
44021/848	48"	3.880 g	84,5	28,3	40,0	6,0

Aplicações | Aplicación | Application

- Substituir mordentes nas chaves para tubos ref. 44021 e 44085.
- Substituir mordientes en las llaves para tubos Ref. 44021 y 44085.
- Replacement jaws of pipe wrenches Ref. 44021 and 44085.



REF.	TAMANHO TAMAÑO SIZE	CAPACIDADE CAPACIDAD CAPACITY - mm	Medidas Dimensiones Dimensions (mm)			
			A	B	C	D
44082/114	14"	Ø 50 - 125	22	343	29,0	503
44082/118	18"	Ø 60 - 125	30	461	34,5	550
44082/124	24"	Ø 75 - 125	33	614	42,0	550
44082/136	36"	Ø 110 - 185	41	730	42,0	731



Aplicações | Aplicación | Application

- Especifica para instalações e manutenções hidráulicas em maquinário pesado e indústrias petrolíferas.
- Indicada para tubos não endurecidos.
- Mordentes duplos que prolongam a durabilidade da ferramenta e proporcionam uma ação mais rápida, similar a uma catraca.
- Especifica para instalaciones y mantenimientos hidráulicos en maquinaria pesada y industrias de petróleo.
- Indicada para tubos no endurecidos.
- Mordientes dobles que prolongan la durabilidad de la herramienta y con acción rápida, similar a una matraca.
- Specifically for hydraulic installation and maintenance on heavy machinery and oil industries.
- Suitable for non-hardened pipes.
- Double-end jaws, which extend the tool lifetime and with fast action, like a ratchet.

Corrente para chave tubos

Cadena para llave tubos | Chain for pipes wrench



Corrente em aço especial.
Acabamento oleado.

Cadena en acero especial.
Acabado aceitado.

Special steel chain.
Oil finishing.

REF.	TAMANHO TAMAÑO SIZE	CAPACIDADE CAPACIDAD CAPACITY - mm	Medidas Dimensiones Dimensions (mm)
			A
44084/114	14"	Ø 50 - 125	503
44084/118	18"	Ø 60 - 125	550
44084/124	24"	Ø 75 - 125	550



Aplicações | Aplicación | Application

- Utilizada com a chave corrente para tubos 44082.
- Para utilizar con la llave de cadena para tubos ref. 44082.
- Used with chain pipe wrench 44082.

Chave corrente para tubos

Llave de cadena para tubos | Chain pipes wrench



Corrente em aço especial.
Corpo em ferro fundido com pintura eletrostática.
Mordentes forjados em aço cromo vanádio, com têmpera total no corpo e por indução nos dentes.

Cadena en acero especial.
Cuerpo en hierro fundido con pintura electrostática.
Mordientes forjados en acero cromo vanadio, con temple total en el cuerpo y temple por inducción en los dientes.

Special steel chain.
Cast iron body with electrostatic painting.
Jaws forged in chrome vanadium steel with full hardening at the body and induction hardening at teeth.

Mordente para chave tubos

Mordiente para llave tubos | Jaw for pipes wrench

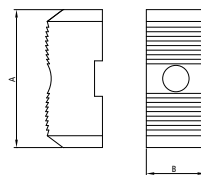


Mordentes forjados em aço cromo vanádio, com têmpera total no corpo e por indução nos dentes.
Acabamento envernizado.

Mordientes forjados en acero cromo vanadio, con temple total en el cuerpo y temple por inducción en los dientes.
Acabado barnizado.

Jaws forged in chrome vanadium steel with full hardening at the body and induction hardening at teeth.
Varnished finishing.

REF.	TAMANHO TAMAÑO SIZE	Medidas Dimensiones Dimensions (mm)	
		A	B
44088/114	14"	57,0	22
44088/118	18"	70,0	30
44088/124	24"	84,5	33



Aplicações | Aplicación | Application

- Utilizada com a chave corrente para tubos 44082.
- Para utilizar con la llave de cadena para tubos ref. 44082.
- Used with chain pipe wrench 44082.



Chave corrente linha pesada

Llave de tenaza de cadena | Chain tong pipe wrench

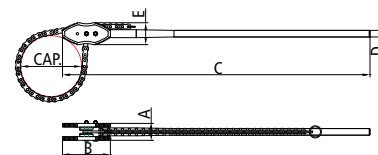
Corpo e corrente em aço especial.
Mordentes forjados em aço cromo vanádio, com têmpera total no corpo e por indução nos dentes.
Corpo e mordentes com pintura eletrostática.

Cuerpo y cadena en acero especial.
Mordientes forjados en acero cromo vanadio, con temple total en el cuerpo y temple por inducción en los dientes.
Cuerpo y mordientes con pintura electrostática.

Special steel body and chain.
Jaws forged in chrome vanadium steel with full hardening at the body and induction hardening at teeth.
Electrostatic painting body and jaws.



REF.	TAMANHO TAMAÑO SIZE	CAPACIDADE CAPACIDAD CAPACITY - mm	Medidas Dimensiones Dimensions (mm)				
			A	B	C	D	E
44097/004	37"	Ø 26 - 114	63,0	165	940	30	81,0
44097/006	44"	Ø 33 - 168	67,0	180	1.120	35	89,6
44097/008	50"	Ø 48 - 219	71,0	220	1.280	34	101,5
44097/012	64"	Ø 60 - 323	89,5	254	1.630	35	116,0



Aplicações | Aplicación | Application

- Específica para instalações e manutenções hidráulicas em maquinário pesado e indústrias petrolíferas.
- Indicada para tubos não endurecidos.
- Específica para instalaciones y mantenimientos hidráulicos en maquinaria pesada y industrias de petróleo.
- Indicada para tubos no endurecidos.
- Specifically for hydraulic installation and maintenance on heavy machinery and oil industries.
- Suitable for non-hardened pipes.

Corrente para chave corrente pesada

Cadena para llave tenaza cadena

Chain for chain tong pipe wrench

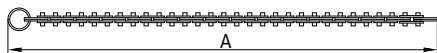


Corrente em aço especial.
Acabamento oleado.

Cadena en acero especial.
Acabado aceitado.

Special steel chain.
Oil finishing.

REF.	TAMANHO TAMAÑO SIZE	CAPACIDADE CAPACIDAD CAPACITY - mm	Medidas Dimensiones Dimensions (mm)
			A
44098/104	37"	Ø 26 - 114	747
44098/106	44"	Ø 33 - 168	897
44098/108	50"	Ø 48 - 219	1.048
44098/112	64"	Ø 60 - 323	1.439



Aplicações | Aplicación | Application

- Utilizada com a chave corrente para tubos 44097.
- Para utilizar con la llave de cadena para tubos ref. 44097.
- Used with chain pipe wrench 44097.

Mordente para chave corrente pesada

Mordiente para llave tenaza cadena

Jaw for chain tong pipe wrench

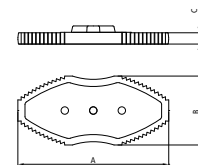
Mordentes forjados em aço cromo vanádio, com têmpera total no corpo e por indução nos dentes.
Acabamento com pintura eletrostática.

Mordientes forjados en acero cromo vanadio, con temple total en el cuerpo y temple por inducción en los dientes.
Acabado con pintura electrostática.

Jaws forged in chrome vanadium steel with full hardening at the body and induction hardening at teeth.
Electrostatic painting finishing.



REF.	TAMANHO TAMAÑO SIZE	Medidas Dimensiones Dimensions (mm)		
		A	B	C
44094/104	37"	165	81,0	13
44094/106	44"	180	90,0	14
44094/108	50"	220	101,5	16
44094/112	64"	254	116,0	19



Aplicações | Aplicación | Application

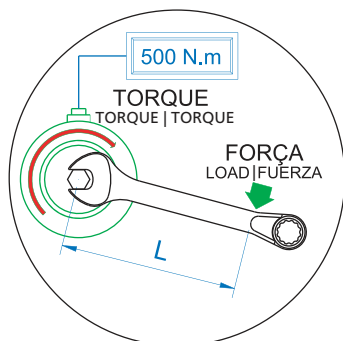
- Utilizada com a chave corrente pesada para tubos 44097.
- Para utilizar con la llave tenaza de cadena para tubos ref. 44097.
- Used with chain tong pipe wrench 44097.





INFORMAÇÕES ADICIONAIS

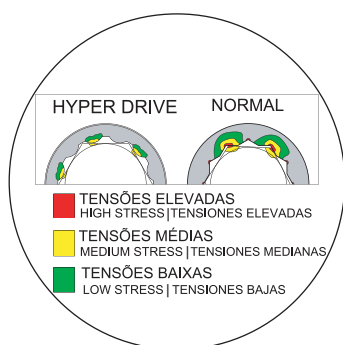
Informaciones adicionales | Additional information



As chaves de aperto são produzidas em aço ligado com cromo vanádio (Cr-V), e após submetidas a testes rigorosos de torque para atender a norma DIN 1711-1.

Las llaves de ajuste son producidas en acero ligado con cromo vanadio (Cr-V), y sometidas a testes rigurosos de torque para atender la norma DIN 1711.1.

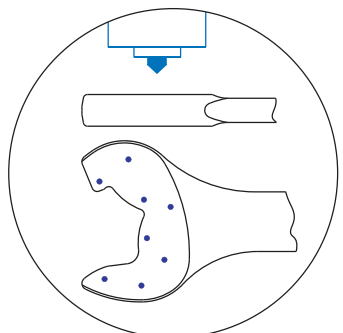
The wrenches and spanners are produced in alloy steel with chrome vanadium (Cr-V), and undergo rigorous tests to meet the standard DIN 1711.1.



O novo perfil Hyper Drive, em alguns modelos de boca tipo estrela, reduz a fadiga das chaves, prolongando sua vida útil.

El nuevo perfil Hyper Drive en algunos modelos de llave tipo estriado reduce el desgaste de las llaves, alargando su vida útil.

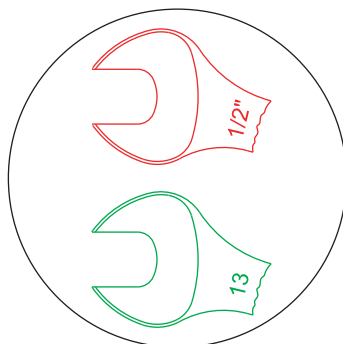
The new Hyper Drive profile in some of the ring spanner jaws reduces the wear of wrenches, extending their useful life.



O teste de dureza é realizado em vários pontos para assegurar a resistência ao desgaste da chave durante o uso ininterrupto.

El teste de dureza es realizado en varios puntos para garantizar la resistencia al desgaste de la llave por el uso constante.

The hardness test is made at several points to ensure resistance against wear during constant use.



Alguns tipos de chaves de aperto são fornecidos em bitolas métricas e em polegadas, para os diversos fixadores disponíveis.

Algunos tipos de llaves de ajuste son fornecidas en vitolas métricas y en pulgadas para los diversos fijadores disponibles.

Some wrenches and spanners are supplied in metric and inch standard measurements for different users.

As chaves de aperto são produzidas e testadas conforme normas específicas. Las llaves de ajuste son producidas y testeadas bajo normas Europeas. Wrenches and spanners are produced and tested according to European standards.

