



09

TechLex

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Wera ABC

Bit-Check

Wera's bit and holder ranges Bit-Check and Bit-Safe feature a variety of functions and content. Bit-Checks are thinner than the biggest tool they contain, so they even fit in your shirt pocket.

Bit sets provide a quick overview over the available tools. Bits that are not needed can be put back in the set and won't be lost. Bits are sorted by drive and size for quick retrieval and faster and simpler working.

The opening mechanism of the Bit-Check can be operated with one hand making it easy to remove the bits. Simply push the slide switch and the box opens automatically. Bits and holders can be easily removed.

Bit-Ratchet

The strong 1/4" Bit Ratchet that can withstand at least 65 Nm. Suitable for bits directly driven and sockets (using adaptor). Fine tooth mechanism with 60 teeth, simple switching between left/right operations.

Ideal for very confined spaces, where conventional screwdrivers are just too big. Drop-forged full steel design. Diamond coated bits are recommended for best results in use.

Bit-Safe

The practical design of the compact Bit-Safes allows the tools to be easily removed and ensures fast and safe work. The storage boxes are made from robust and durable plastics.

BiTorsion

BiTorsion bits have a tempered torsion zone that diverts the kinetic energy of peak loads away from the drive tip. This greatly reduces the risk of breakage and significantly extends the tools' service life. To find these bits in the catalogue look for the letter B after the article number. BiTorsion holders have a torsion zone that diverts the kinetic energy of peak loads away from the drive tip.

The combined use of both the BiTorsion bit and holder increases the service life of the tools considerably and thus ensures higher productivity. BiTorsion bits and holders can, however, be used independently of each other and with conventional tools.

Bits, diamond coated

Please see -> diamond coated bits

Bits, extra hard

Please see -> extra hard bits

Bits, tough absorbing

Please see -> tough absorbing bits

Bits, titanium nitride coated

Please see -> Titanium nitride coated bits

BlackLaser

BlackLaser hardened blades for excellent surface protection and a long service life. High corrosion protection.

Black Point Tip

The Wera Black Point tip and a refined hardening process guarantee a long service life and increased corrosion protection.



Chiseldriver

The chiseldriver is the solution for jobs that require more than just screwdriving. For fastening, chiselling and loosening seized screws or hose clamps. With an integrated impact cap that extends service life and reduces the risk of splintering. With a pound-thru hexagon blade made from high-grade material for zero-loss transfer of high forces when struck with a hammer. The tough viscous tempered material prevents the blade from splintering or breaking. More TORQUE can be transferred by attaching an open-jawed or ring spanner to the integrated hexagon bolster.

Diamond coated bits

The minute diamond particles on the tip of the bit literally bite into the screw. The secure hold means that less contact pressure is required, which reduces the risk of slipping. To find diamond coated bits in the catalogue look for the letters DC after the article number.

Extra hard bits

Ideal for soft screwdriving e.g. in wood. TORQUE increases continuously without any peaks during fastening until the head of the screw reaches the surface of the material. Extra hard bits are made from a special material that extends the tools' service life and reduces the risk of material breakage. To find these bits in the catalogue look for the letter H after the article number.

Flexible Lock System

All rigid Zyklop extensions are fitted with a freewheel sleeve which lets you tighten and loosen screws and bolts quickly and effectively. The premium extensions are also fitted with the flexible lock system. With this system activated, drive handles can be attached permanently to the extension, preventing slipping or accidental loss of the tool. When the system is deactivated the sockets can be attached as usual and changed in a flash.

Gold Tip

Some Kraftform Plus screwdrivers can do more than other similar products. The Lasertip prevents the screwdriver from slipping out of the screw and the holding function of TORX® screwdrivers holds the screw on the screwdriver like a third hand. These Wera Kraftform Plus screwdrivers have a gold tip so you can spot them in your tool bag straight away.

Green Label

When used with power tools bits and holder are subject to heavy wear caused by peak loads. Wera BiTorsion tools have special tempered torsion zones that absorb these peak loads. In BiTorsion bits this torsion zone has a lower hardness than the tip of the shaft. This prevents premature breakages and significantly extends the service life of the tool. Wera BiTorsion bits are easily identified by the letter B in the article number and the green label.

Hex-Plus Profile

The problem with hexagon socket screws is the easily "rounded" screw recess. This is caused by the sharp edges of the tool pressing against the inside of the screw profile. Gradual wear eventually grinds and destroys the head of the screw. Wera's Hex-Plus tools provide more contact surface inside the screw profile, which reduces the notching effect and ultimately the deformation of the screw. Hex-Plus tools can also transfer up to 20 % more TORQUE.

Impact bits

Impact bits are designed for use in powerful impact screwdrivers. Impact bits were specifically developed to withstand high power tool forces.

Wera ABC

Individual Testing

Our VDE screwdrivers are tested for dielectric strength under a 10,000-volt load in a water bath to make sure that their most important property, their insulation, has been adequately tested. Each individual Wera VDE screwdriver is subjected to this test to guarantee safe working up to 1,000 volts.

KOLOSS

The 1st ratchet that can also be used officially as a hammer. The Koloss can be used as a reversible, heavy-duty, fine action ratchet that can withstand loads of at least 600 Nm.

Kraftform Handle

The Kraftform handle has been designed to fit snugly in your hand, making blisters and calluses a thing of the past even after long-term use. The hard materials used for the handle promote fast grip adjustments and prevent the skin from sticking to the handle. The softer, anti-slip zones facilitate zero-loss transfer of high forces. This is an unbeatable combination! Work is done with a flick of the wrist!

Kraftform Kompakt

Wera's compact tools are suitable for manual or machine use. The type of operation often becomes clear only after you've arrived at the site. The compact handle/interchangeable blade system offers you mobility and flexibility. The sets come with a Kraftform handle, quick-release chuck and bits for manual and machine use. The handle/interchangeable blade system permits rapid tool changes for a wide range of applications. Tools can be stored and carried in a strong plastic box or a robust belt pouch so that they are always at hand. The sets of series 20 have hidden depths: a telescopic blade that retracts into the handle (which can also be removed and attached to a power tool as a bit holder) and an integrated bit magazine. Rapidaptor technology ensures rapid bit changes.

Kraftform Micro

The three-zone concept of Kraftform Micro screwdrivers reduces fastening times and the cost per screw connection. The hand support on the easy-turning cap and the fast-turning zone below the cap accelerate the screwdriving process. This makes time-consuming grip adjustments, which are required with conventional precision screwdrivers, unnecessary. The power zone has integrated soft zones near the tip of the blade to transfer high tightening or loosening forces without losing contact with the screw. The precision zone directly above the blade provides a better feel for the rotation angle during fine adjustment work. The Wera Black Point tip and a refined hardening process guarantee a long service life and increased corrosion protection.

Lasertip

Wera Lasertip screwdrivers have been microscopically roughened by a laser. This rough surface literally "bites" into the head of the screw. Accidental slipping becomes a thing of the past.

Low-temperature Impact Strength

VDE tools are often used under extreme conditions, such as very low temperatures. Safety must be guaranteed even under these conditions. The plastics used for the handle of Wera VDE screwdrivers are guaranteed to meet the more stringent test requirements for low-temperature impact strength at -40 °C.

Multi-component Screwdriver Handle

The Kraftform handle has been designed to fit snugly in your hand, making blisters and calluses a thing of the past even after long-term use. The hard materials used for the handle promote fast grip adjustments and prevent the skin from sticking to the handle. The softer, anti-slip zones facilitate zero-loss transfer of high forces. This is an unbeatable combination! Work is done with a flick of the wrist!

Rapidaptor

Wera developed the Rapidaptor that allows you to change bits quickly with just one hand and without extra tools.

Rapid-in and self-lock

The bit can be pushed into the adaptor without moving the sleeve. The lock is activated automatically as soon as the bit is applied to the screw. Bits are held securely and wobble-free.

Rapid-out

Simply push the sleeve forward to change the bit. The spring mechanism lifts the bit off the magnet and unlocks the tool. The bit can be easily removed. The rapid-out function makes it easy to remove even the smallest bits without extra tools.

Rapid-spin

The free-spinning outer sleeve stabilises battery or mains-powered tools during the screwdriving process. This makes it easier to apply the tool to the screw and prevents slipping.

Chuck-all

The Rapidaptor quick-release chucks hold ¼" DIN 3126-C 6,3 and E 6,3 as well as Wera series 1 and 4 bits.

Single-hand function

Every function of the Rapidaptor quick-release chuck, such as inserting or releasing bits, can be carried out with one hand. This is faster, more economical and more ergonomic. There are no unnecessary manoeuvres.

Rapidaptor with ringmagnet

The floating, free-spinning magnetic sleeve holds even large and heavy screws very securely for fast application, eliminating the need to hold the screw, which can be dangerous and painful. Perfect for overhead work.

SPKL L-keys

L-keys with a green rubber sleeve (SPKL) are made from easy-to-grip round bars. The sleeve ensures comfortable and safe working even at low temperatures. High corrosion protection.

Stainless Steel Tools

Wera Stainless tools are made from 100 % stainless steel. Their wear debris consists of rustproof stainless steel particles, which prevents unsightly extraneous rust. Wera stainless steel tools are vacuum ice-hardened to give them the necessary hardness and rigidity for industrial applications.

Titanium nitride coated bits

Industrial applications are subject to permanent stresses that place high demands on the durability of the tool. Bits for these applications are coated with extremely hard titanium nitride. This abrasion-proof coating provides the necessary hardness that is required on a mass production line.

TORQ-SET® Mplus

Wera developed the Mplus profile with stronger flanks compared with tools with a conventional TORQ-SET® profile. This results in approximately 70 % extra torsional strength and greatly extends the service life of Wera Mplus tools.

TORQUE-indicators

Wera TORQUE-indicators have been factory pre-set to TORQUE values recommended by leading carbide tool manufacturers. Tightening values are precisely related to the size of the TORX®, TORX PLUS® or hexagon socket screw. TORQUE-indicators ensure safe and easily loosened screw connections.



Wera ABC

TORQUE Screwdrivers

Adjustable TORQUE screwdrivers:

TORQUE can be set to the required scale value by hand without special tools.

Pre-set adjustable TORQUE screwdrivers:

With pre-set TORQUE, adjustable within a defined range.

Torsion bits

By diverting TORQUE peaks into the Torsion zone of the bit, premature wear and tear is avoided and dramatically improved service life is achieved.

TORX®

TORX® drive profiles transfer TORQUE between tool and screw by line or surface contact rather than point contact as many other profiles. This protects both the screw profile and the tool profile. It also increases the amount of TORQUE and power that can be transferred.

TORX® BO tamper-proof with borehole

TORX® tools with a borehole prevent the unauthorised unfastening of safety screws. The screws contain a pin that protrudes into the drive profile so that "normal" TORX® tools cannot be used. This pin fits into the borehole of TORX® BO tools allowing safety screws to be unfastened.

TORX® with holding function (HF)

The optimised profile wedges the screw to the tool. This is very important in situations where a magnetic screw holder cannot or must not be used (for instance, jobs involving power tools where metal filings attracted by a magnet could affect the screwdriving process, or jobs requiring wedging forces and stainless steel tools, which are non-magnetic because of the nature of the material).

The wedging effect can be guaranteed only for tools made to Acument Global Technologies Inc. specifications.

TORX® with pin

The protruding pin that fits into the borehole of the screw makes it easier to centre the tool in the screw recess.

TORX® Wedge

The conical TORX® profile provides a better fit in the screw. Combined with a great recess depth this produces a pinch effect.

TORX PLUS®

Compared with the "normal", round TORX® profile the elliptical profile of TORX PLUS® tools makes it possible to increase the size of the 6 flanks that transfer TORQUE between the tool and the screw. The force applied by the user is distributed across a larger surface area allowing more TORQUE to be transferred and extending the service life of both the screw and the tool.

TORX PLUS® HF

Like TORX® HF the optimised profile wedges the screw to the tool. This is very important in situations where a magnetic screw holder cannot or must not be used (for instance, jobs involving power tools where metal filings attracted by a magnet could affect the screwdriving process, or jobs requiring wedging forces and stainless steel tools, which are non-magnetic because of the nature of the material). The wedging effect can be guaranteed only for tools made to Acument Global Technologies Inc. specifications.



TORX PLUS® IPR tamper-proof

A 5-flank TORX PLUS® profile with a borehole. This drive geometry has only five flanks instead of the usual six and a borehole to protect safety screws against unauthorised unfastening. The screws cannot be turned with conventional, widely available tools.

Tough bits

Tough bits for hard materials, e.g. sheet steel or metal. Here the screw initially turns smoothly inside the defined thread. As soon as the head of the screw touches the surface of the material large amounts of peak TORQUE are generated that affects both the screw and the tool. Bits that are too hard are likely to break under these conditions.

Two-component clip for L-keys

The durable clip material ensures that L-keys are securely fixed and easy to remove. Abrasion resistant markings help you find the right size tool straight away.

Zyklop ratchet

The Wera Zyklop ratchet combines five ratchet types in one and you can even use it as a screwdriver.

1. Fine-tooth ratchet
2. Flex-head ratchet
3. Angle ratchet
4. Quick-release ratchet
5. Power ratchet
6. Screwdriver



TORQUE Test Values



Slotted Tools

Drives: DIN 5264, ISO 2380, VSM 35601 and SMS-SS 2223. TORQUE values evaluated in test gages according to DIN 5263 on TORQUE testing equipment.

a x b mm	TORQUE in Nm (min)	
	handuse	poweruse
0,3 x 2,0	0,18	0,20
0,4 x 2,0	0,30	0,35
0,4 x 2,5	0,40	0,45
0,5 x 3,0	0,70	0,80
0,5 x 3,5	0,90	0,98
0,6 x 3,5	1,30	1,40
0,6 x 4,0	1,40	1,61
0,6 x 4,5	-	1,80
0,8 x 4,0	2,60	2,90
0,8 x 4,5	2,88	
0,8 x 5,0	3,20	3,58
0,8 x 5,5	3,50	3,90
1,0 x 5,5	5,50	6,20
1,0 x 6,5	6,50	7,28
1,0 x 7,0	7,0	7,80
1,2 x 6,5	9,40	10,50
1,2 x 7,0	10,0	11,28
1,2 x 8,0	11,5	12,90
1,4 x 9,0	17,6	19,70
1,5 x 13	29	32
1,6 x 8,0	20,5	22,9
1,6 x 9,0	23	25
1,6 x 10	25,6	28,7
2,0 x 12	48,0	53
2,0 x 13	52	58
2,5 x 14	87	98
2,5 x 16	100	112
3,0 x 18	162	181



Hexagon Tools

Drives: DIN 911 and ISO 2936. TORQUE values evaluated in test gages according to DIN 911 on TORQUE testing equipment.

SW (mm)	TORQUE in Nm (min)	
	0,7	0,08
0,9	0,18	
1,3	0,53	
1,5	0,82	
2,0	1,9	
2,5	3,8	
3	6,6	
3,5	11	
4	16	
4,5	24	
5	30	
6	52	
7	78	
8	120	
9	180	
10	220	
11	295	
12	370	
13	480	
14	590	
17	1000	
19	1000	
22	1000	
24	1000	
27	1000	



PH and PZ Tools

Drives: DIN 5260, ISO 8764 and SMS-SS 1687.

TORQUE values evaluated in test gages according to DIN 5261, ISO 8764 on TORQUE testing equipment.

Drive	TORQUE in Nm (min)	
	handuse	poweruse
0	1,0	1,0
1	3,5	3,9
2	8,2	10,3
3	19,5	32,0
4	38,0	88,7



Tools with TORX® and TORX PLUS® drive

TORQUE values evaluated with testing gages of Acument Global Technologies Inc., licensor of TORX® and TORX PLUS®, on TORQUE testing equipment according to DIN 5261.

Drive	TORQUE in Nm (min.)					
	TORX®			TORX PLUS®		
Bit	Resis-Bit	Screw-driver	Bit	Resis-Bit	Screw-driver	
1	0,10	-	0,08	0,11		
2	0,14	-	0,12	0,16		
3	0,25	-	0,21	0,28		
4	0,37	-	0,31	0,44		
5	0,51	-	0,43	0,61		
6	0,91	-	0,75	1,11	0,92	
7	1,7	1,4	1,4	2,10	1,68	
8	2,6	2,2	2,2	3,21	2,5	2,79
9	3,4	2,9	2,8	4,19	3,3	3,49
10	4,5	3,8	3,7	5,42	4,3	4,47
15	7,7	6,5	6,4	9,62	7,3	8,06
20	12,7	10,8	10,5	16,15	11,9	13,41
25	19,0	16,1	15,9	23,50	17,4	19,58
27	26,9	22,9	22,5	34,62	25,1	28,95
30	37,4	31,8	31,1	47,18	33,5	39,34
40	65,1	55,3	54,1	82,08	59,4	68,40
45	104	88	86	137,38	97,3	114,44
50	159	135	132	194,54	152,4	162,14
55	257	218	218	352,10	291,5	299,25
60	445	379	379	566,11	483,0	481,24
70	701	596	600	910,40	713,3	773,91



Tools with TORQ-SET® drive

TORQUE values evaluated with testing gages of Phillips Screw Company, licensor of TORQ-SET®, on TORQUE testing equipment according to DIN 5261.

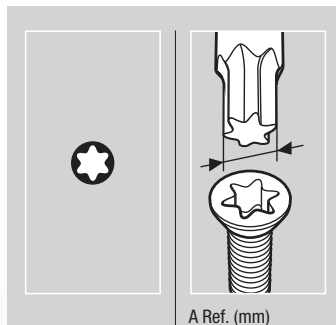
Drive	TORQUE in Nm (min)	
	Bits	Screw-drivers
2	1,1	1,1
3	1,7	1,7
4	2,8	2,8
5	4,0	4,0
6	5,1	5,1
8	8,5	8,5
10	11,3	11,3
1/4"	28	17
5/16"	56	28
3/8"	102	62
7/16"	147	
1/2"	249	
9/16"	271	
5/8"	339	

Important device:

After TORQUE testing with the minimum value, screwdrivers shall not show any deformation or injuries at the tip.

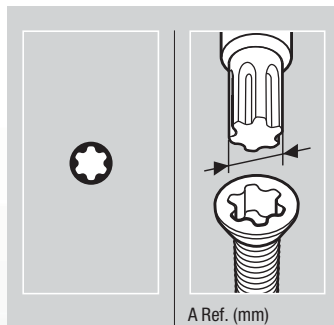
Dimensions Of Profiles

TORX® Recess Screws



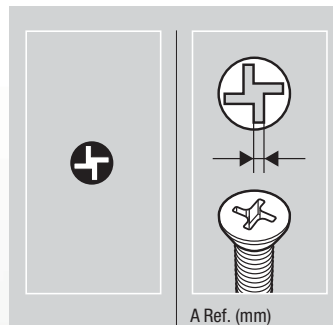
	A Ref. (mm)
TX 1	0,84
TX 2	0,94
TX 3	1,12
TX 4	1,30
TX 5	1,37
TX 6	1,65
TX 7	1,97
TX 8	2,30
TX 9	2,48
TX 10	2,72
TX 15	3,26
TX 20	3,84
TX 25	4,40
TX 27	4,96
TX 30	5,49
TX 40	6,60
TX 45	7,77
TX 50	8,79
TX 55	11,17
TX 60	13,20
TX 70	15,49

TORX PLUS® Recess Screws



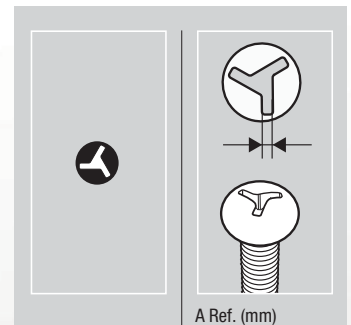
	A Ref. (mm)
1 IP	0,84
2 IP	0,95
3 IP	1,13
4 IP	1,29
5 IP	1,41
6 IP	1,69
7 IP	1,97
8 IP	2,29
9 IP	2,48
10 IP	2,72
15 IP	3,25
20 IP	3,84
25 IP	4,39
27 IP	4,95
30 IP	5,49
40 IP	6,60
45 IP	7,77
50 IP	8,79
55 IP	11,16
60 IP	13,20
70 IP	15,48

TORQ-SET® Recess Screws



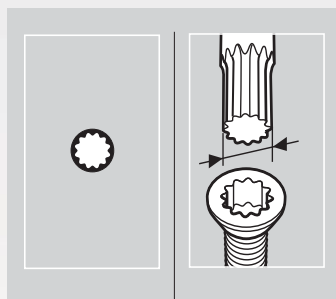
	A Ref. (mm)
0	0,43
1	0,43
2	0,43
3	0,48
4	0,56
5	0,63
6	0,71
8	0,84
10	0,96
1/4"	1,27
5/16"	1,60
3/8"	1,90
7/16"	2,23
1/2"	2,54

TRI-WING® Recess Screws



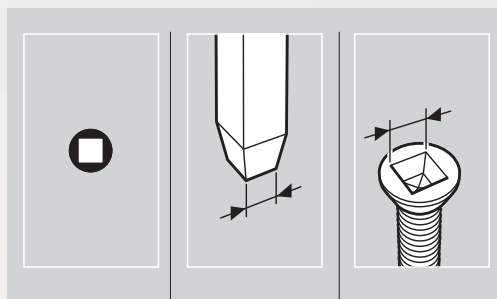
	A Ref. (mm)
0	0,45
1	0,57
2	0,75
3	0,95
4	1,08
5	1,23
6	1,54
7	1,87
8	2,17
9	2,48
10	2,78

XZN Recess Screws



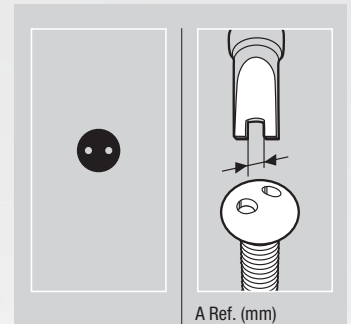
	A Ref. (mm)
M 4	3,83
M 5	4,80
M 6	6,00
M 8	7,20
M 10	9,60
M 12	11,41
M 14	13,22
M 16	15,63
M 18	16,85
M 20	19,25

Square Recess Screws



	A Ref. (mm)	A Ref. (mm)
00	1,27	1,4
0	1,78	2
1	2,31	2,5
2	2,85	3,1
3	3,37	3,7
4	4,84	5,1

Spanner Recess Screws



	A Ref. (mm)
4	1,52
6	2,41
8	2,79
10	3,30

Which Drive Is Suitable for which Driving Machine

Wera Series 00



3 mm

Suitable for bit holders (standard specs):

DIN 3126
Form B 3
ISO 1173

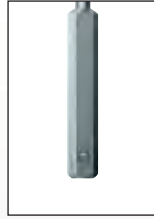
Drive:

For direct machine drive.

Suitable for:

Biax,
Bosch,
Deprag,
Desoutter

Wera Series 0



4 mm

Suitable for bit holders (standard specs):

DIN 3126
Form D 4
ISO 1173

Drive:

For use with bit holders or for direct machine drive.

Suitable for:

Perret

Wera Series 1



1/4"

Suitable for bit holders (standard specs):

DIN 3126,
Form D 6,3
ISO 1173

Drive:

For use with bit holders or for direct machine drive.

Suitable for:

Bosch,
Fein,
Holz-Her,
Lecureux,
Metabo

Wera Series 2



5/16"

Suitable for bit holders (standard specs):

DIN 3126,
Form D 8
ISO 1173

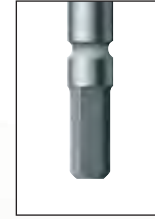
Drive:

For use with bit holders or for direct machine drive.

Suitable for:

Bosch,
Fein,
Holz-Her,
Lecureux,
Metabo

Wera Series 3



5,5 mm

Suitable for bit holders (standard specs):

DIN 3126,
Form B 5,5
ISO 1173

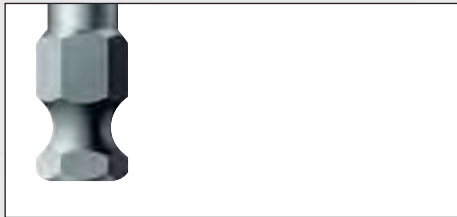
Drive:

For direct machine drive.

Suitable for:

AEG,
Bosch,
Holz-Her,
Kress,
Metabo

Wera Series 7



7/16"

Suitable for bit holders (standard specs):

DIN 3126
Form F 11,2
ISO 1173

Drive:

For direct machine drive.

Suitable for:

AEG,
ARO,
Atlas-Copco,
Black & Decker,
Bosch,
Buckeye-Tools,
Chicaco-Pneumatic,
Cincinnati Electric

Clark,
Demag Pokorny (FMA),
Fein,
Holz-Her,
Ingersoll-Rand,
Keller,
Milwaukee Electric

Wera Series 8



7 mm

Suitable for bit holders (standard specs):

DIN 3126
Form H 7

Drive:

For direct machine drive.

Suitable for:

Baier,
Fein

Wera Series 9



4 mm

Suitable for bit holders (standard specs):

DIN 3126
Form H 7

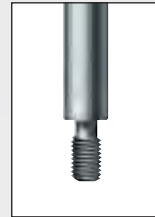
Drive:

For direct machine drive.

Suitable for:

Delvo,
Densei,
etc.

Wera Series 11



M 4

Suitable for bit holders (standard specs):

DIN 3126
Form H 7

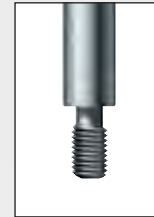
Drive:

For direct machine drive.

Suitable for:

Böllhoff/
Uniquick,
Weber

Wera Series 12



M 5

Suitable for bit holders (standard specs):

DIN 3126
Form H 7

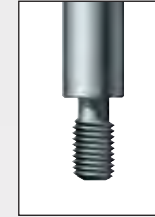
Drive:

For direct machine drive.

Suitable for:

Böllhoff/
Uniquick,
Holz-Her,
Weber

Wera Series 15



M 6

Suitable for bit holders (standard specs):

DIN 3126
Form H 7

Drive:

For direct machine drive.

Suitable for:

Böllhoff/
Uniquick,
Holz-Her,
Weber

Wera Series 4



Suitable for bit holders (standard specs):
DIN 3126,
Form F 6,3
ISO 1173

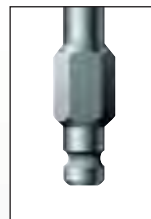
Drive:
For use with bit holders or for direct machine drive.

Suitable for:

AEG,
ARO,
Atlas-Copco,
Biax,
Black & Decker,
Bosch,
Buckeye-Tools,
Chicaco
Pneumatic,
Cleco,
Deprag,
Desoutter,
Gardner-Denver,
Hios
(Ferra-Tools),
Hitachi,
Ingersoll-Rand,

Iwema
(Fuji Air Tools),
Keller,
Makita,
Mall,
Metabo,
NPK-Air Tools,
Pneutec,
Rockwell
Rotor Tool,
Skil Tool,
Stanley,
Thor Power-Tool,
Tohnichi,
Uryu
(UPT-Weiler),
Van Dorn,
Virax,
Wolf

Wera Series 5

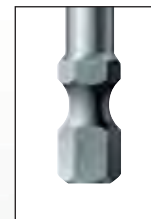


Drive:
For direct machine drive.

Suitable for:

Buckeye Tools,
Demag
Pokorny (FMA),
Desoutter,
Fiam,
Grasso,
Rupes,
Suhner

Wera Series 6



Standard specs:
DIN 3126
Form F 8
ISO 1173

Drive:
For direct machine drive.

Suitable for:

Buckeye Tools,
Demag
Pokorny (FMA),
Desoutter,
Fiam,
Grasso,
Rupes,
Suhner

Wera Series 16



Drive:
For direct machine drive.

Suitable for:

USM,
DVSG,
Duofast

Wera Series 19



Drive:
For direct machine drive.

Wera Series 21

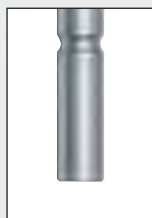


Drive:
For direct machine drive.

Suitable for:

BL-5000,
CL-2000,
CL-3000,
CL-4000,
SS-3000,
SS-4000,
L-4500,
L-5000,
CD-4000,
CD-5000,
VZ-1510
(incl. PS-Types)

Wera Series 22

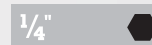


Drive:
For direct machine drive.

Suitable for:

CL-6000,
CL-6500,
CL-7000,
SS-6500,
SS-7000,
L-6500,
CD-6000,
CD-7000,
VZ-1820 (100 V),
VZ-3012 (100 V9
(incl. PS-Types)

Wera Series 23

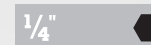
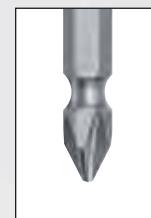


Drive:
For direct machine drive.

Suitable for:

Delvo
Densei
etc.

Wera Series 24



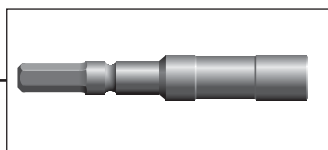
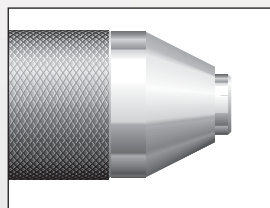
Drive:
For direct machine drive.

Suitable for:

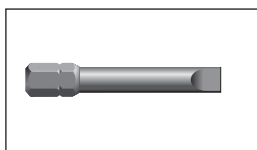
Densei
Vessel
Ryobi
Makita
etc.

Connector Tools

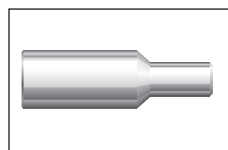
Examples for power drivers with direct-drive fittings:



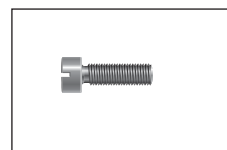
Universal Bit holder 890/3/1



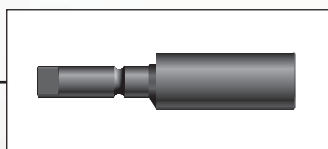
Wera Bits 800/1 Z



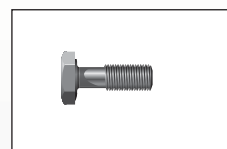
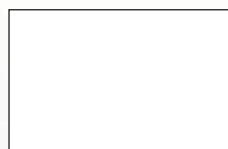
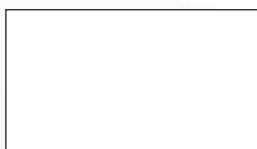
Finder Sleeve 803



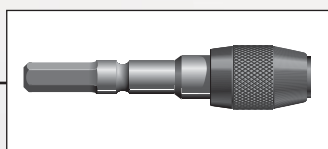
Slotted Screws



Nut Setters 869/8



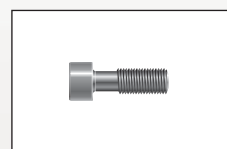
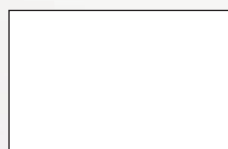
Hexagon Headed Screw



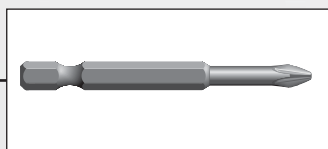
Universal Bit holder 894/3/1



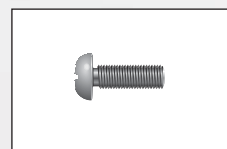
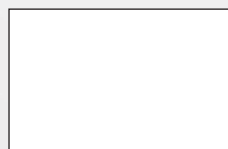
Wera Bits 867/1 Z



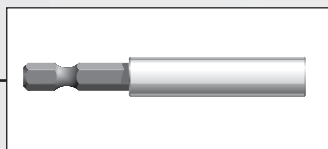
TORX®-Recess Screws



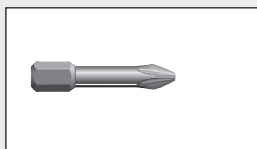
Wera Bits 855/4 TZ



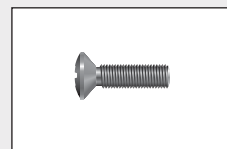
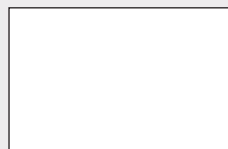
Pozidriv Screws



Universal Bit holder 899/4/1

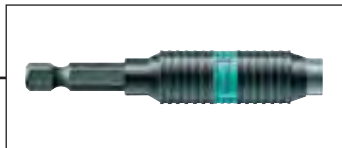
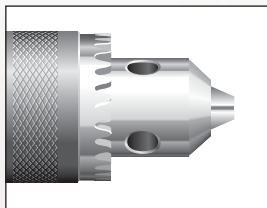


Wera Bits 851/1 TZ

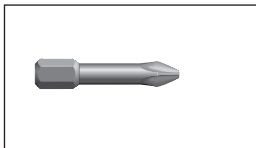


Phillips-Recess Screws

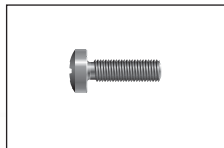
Examples for electric drills:



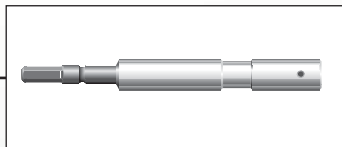
BiTorsion Holder Rapidaptor 897/4 R



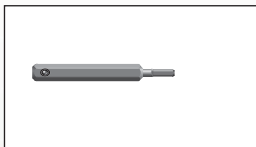
Wera Bits 851/1 TZ



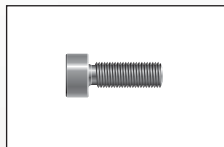
Phillips Screws



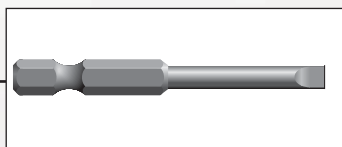
Universal Bit holder 890/00/0



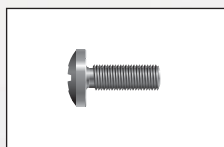
Wera Bits 840/0 Z



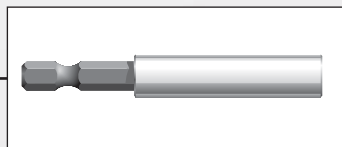
Hexagon Socket Screws



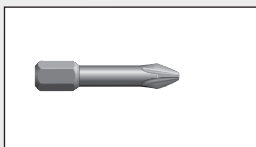
Wera Bits 840/4 Z



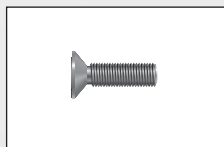
Slotted Screws



Universal Bit holder 899/4/1

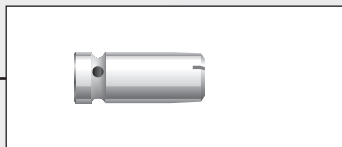
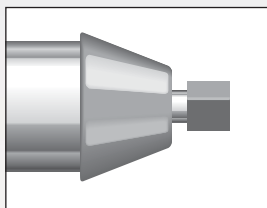


Wera Bits 855/1 TZ

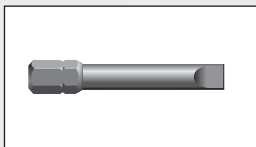


Pozidriv Screws

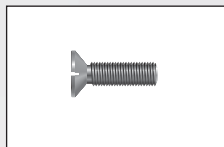
Examples for power drivers with square drive:



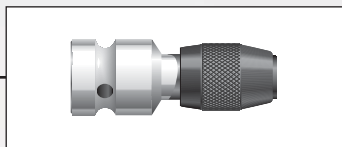
Adaptor 780 A/1



Wera Bits 800/1 Z



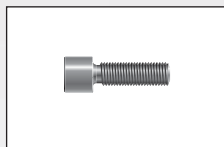
Slotted Screws



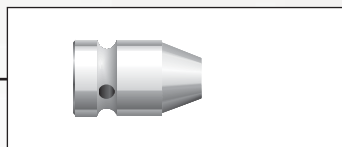
Adaptor 784 B/1



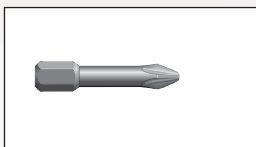
Wera Bits 840/1 Z



Hexagon Socket Screws



Adaptor 780 A/2



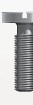














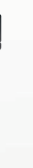




Wera Bits 855/1 TZ



Pozidriv Screws

Tool Selector

Slotted Screws											Wera Item									
Metric screws mm Ø				Self-tapping- screws mm Ø				Wood- screws mm Ø			Grub- screws mm Ø		Size a x b mm	Series 00	Series 0	Series 1	Series 2	Series 3	Series 4	Series 8
DIN 84 ISO 1207	DIN 85 ISO 1580	DIN 963 ISO 2009	DIN 964 ISO 2010	DIN 7971 ISO 1418	DIN 7972 ISO 1482	DIN 7973 ISO 1483	DIN 95	DIN 96	DIN 97	DIN 417	DIN 427		800/00	800/0	800/1	800/00	800/3	800/4	800/8	
																				
1,2																				
1,4												0,3 x 1,8	•	•						
		1,6						1,6	1,6	2,5	2,5	0,4 x 2,0	•	•						
1,6																				
1,8			1,6				1,6	2,0		3,5	3,5	0,4 x 2,5	•	•						
2,0		2,0	2,0		2,2	2,2	2,0		2,0	4,0	4,0	0,5 x 3,0	•	•	•		•	•	•	
								2,0				0,5 x 4,0	•	•	•		•	•	•	
2,5		2,5	2,5	2,2			2,5	2,5	2,5			0,6 x 3,5	•	•	•		•	•	•	
2,5				2,2				2,5				0,6 x 4,5	•	•	•		•	•	•	
3,0	3,0	3,0	3,0				3,0	3,0	3,0	5,0	5,0									
		3,5	3,5	2,9	2,9	2,9	3,5	3,5	3,5	6,0	6,0	0,8 x 4,0	•	•	•		•	•	•	
3,0	3,0	3,5	3,5	2,9			3,5	3,5				0,8 x 5,5	•	•	•		•	•	•	
				3,5	3,5	3,5	4,0	4,0	4,0											
3,5	3,5	4,0	4,0	3,9	3,9	3,9	4,5	4,5	4,5			1,0 x 5,5			•	•	•	•	•	
				4,2	4,2	4,2	5,0	5,0	5,0											
4,0		5,0	5,0		4,8		5,5		5,5	8,0	8,0	1,2 x 6,5			•	•	•	•	•	
5,0	4,0			4,2	5,5	5,5						1,2 x 8,0			•	•	•	•	•	
	5,0	6,0	6,0	4,8	6,3	6,3	6,0	6,0	6,0	10,0	10,0									
6,0				5,5		6,3	7,0		7,0	12,0	12,0	1,6 x 8,0			•	•	•	•	•	
				6,3					8,0	14,0	14,0	1,6 x 10,0				•				
							8,0	7,0												
8,0	8,0	8,0	8,0					8,0		16,0	16,0	2,0 x 12,0				•				
10,0	10,0	10,0	10,0						10,0	18,0	18,0	2,5 x 14,0				•				
												2,5 x 16,0				•				

For easy use of the tool selector:

The green coloured areas in the above table show an example.

The screw:

You are using a screw for a wooden application (DIN 95) size 2,5 mm Ø.


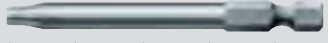


















Your driving machine:












Your driving machine is a e.g. Bosch and has a fitting for a Wera series 4 bit.










The result:

The bit you are looking for is a Wera series 4 bit and has the article no. 800/4.

Tool Selector

TORX® Headed Screws							Wera Item													
Metric screws							 													
mm ø					Self-tapping screws mm ø		Size TORX®	Series 0	Series 1	Series 1	Series 1	Series 2	Series 4	Series 8	Series 11	Series 12	Series 15	Series 16		
DIN 7985	DIN 912 6912 7984	DIN 965	DIN 966	DIN 7991	DIN 7981	DIN 7982 7983		867/0	867/1	867/1 BO	867/1 W	867/2	867/4	867/8	867/11	867/12	867/15	867/16		
																				
0,9	0,9	0,9/1,0	0,9/1,0				TX 1													
1,0	1,2	1,2	1,2				TX 2													
1,2	1,2	1,4	1,4				TX 3													
							TX 4													
1,4/1,6	1,4/1,6	1,8					TX 5	•	•				•							
1,3/2	1,3/2	2					TX 6	•	•				•							
							TX 7	•	•	•										
2,5	2,5	2,5	2,5		2,9	2,9	TX 8	•	•	•			•		•					
					2,9		TX 9	•	•	•			•		•					
3	3	3	3	3	3,5	3,5	TX 10	•	•	•	•		•	•	•	•	•	•	•	•
3,5	3,5	3,5	3,5		3,9	3,9	TX 15	•	•	•	•		•	•	•	•	•	•	•	•
4		4	4	4	4,2	4,2	TX 20		•	•	•		•	•	•	•	•	•	•	•
5	4	5	5	5	4,8/5,5	4,8/5,5	TX 25		•	•	•	•	•	•	•	•	•	•	•	•
	4,3/5						TX 27		•	•	•	•	•	•	•	•	•	•	•	•
6	6	6	6	6	6,3	6,3	TX 30		•	•	•	•	•	•	•	•	•	•	•	•
8	8	8	8	8	8		TX 40		•	•	•	•	•	•	•	•	•	•	•	•
							TX 45		•	•	•	•	•	•	•	•	•	•	•	•
10	10	10	10	10	10		TX 50		•	•	•	•	•	•	•	•	•	•	•	•
	12				12		TX 55					•	•	•	•	•	•	•	•	•
	14						TX 60					•	•	•	•	•	•	•	•	•

Hexagon Socket Screws					Wera Item								
Metric screws mm ø					 								
mm ø				Size mm	Series 0	Series 1	Series 2	Series 3	Series 4	Series 5	Series 7	Series 8	
DIN 912	DIN 7984	DIN 7991	DIN 913 914 915 916	DIN 908		840/0	840/1	840/2	840/3	840/4	840/5	840/7	840/8
													
			1,4/1,6/1,8		0,7	•							
			2,0		0,9	•							
1,4			2,5		1,3	•							
1,6/2,0			3,0		1,5	•							
2,5	3,0	3,0	4,0		2,0	•	•						
3,0	4,0	4,0	5,0		2,5	•	•						
4,0	5,0	5,0	6,0		3,0	•	•	•	•				•
5,0	6,0	6,0	8,0		4,0	•	•	•	•	•			•
6,0	8,0	8,0	10,0	10,0	5,0	•	•	•	•	•			•
8,0		10,0	12,0/14,0	12,0/14,0	6,0	•	•	•	•	•			•
10,0	12,0	12,0	16,0	16,0/18,0	8,0	•	•	•	•	•			•
12,0	14,0	14,0/16,0	18,0/20,0	20,0/22,0	10,0	•	•	•	•	•			•
14,0	16,0/18,0	18,0/20,0	22,0/24,0	24,0/26,0	12,0	•	•	•	•	•	•	Delivery on request	•

Hexagon Headed Screws				Wera Item					
Metric screws mm ø		Self-tapping-screws mm ø	Wood-screws mm ø	Size SW	Nut setters				
DIN 931	DIN 933	DIN 571	DIN 7976		869/4	869/4 M	869/8	869/8 M	3869/4
									
				2,5					
				3,0					
M 1,6	M 1,6	2,2		3,2					
				3,5					
M 2	M 2			4,0					
				4,5					
M 2,5	M 2,5	2,9		5,0	•		•	•	•
M 3	M 3	3,5		5,5	•	•	•	•	•
M 3,5	M 3,5			6,0	•	•			
M 4	M 4	3,9/4,2	4,0	7,0	•	•	•	•	•
M 5	M 5	4,8/5,5	5,0	8,0		•			
				9,0		•			
M 6	M 6	6,3	6,0	10,0		•	•	•	•
M 7	M 7			11,0		•			
				12,0	•	•			
M 8	M 8	8,0	8,0	13,0	•	•	•	•	•
				14,0					
				3/16"	•	•			
				1/4"	•	•	•	•	•
				9/32"	•	•			
				5/16"	•	•	•	•	•
				11/32"	•	•			
				3/8"	•	•	•	•	•
				7/16"	•	•			
				1/2"	•	•			
				9/16"	•	•			
				5/8"	•	•			

TORQUE Conversion Table

Conversion								
Units	SI Units			Metric scale		USA GB scale		
	cNm	dNm	Nm	cmkg	mkg	ft.lb	in.lb	in.oz
1 cNm =	1	0,1	0,01	0,1020	0,0010	0,0074	0,0885	1,4161
1 dNm =	10	1	0,1	1,0197	0,0102	0,0738	0,8851	14,1612
1 Nm =	100	10	1	10,1972	0,1020	0,7376	8,8508	141,6123
1 cmkg =	9,8067	0,9807	0,0981	1	0,0100	0,0723	0,8680	13,8874
1 mkg =	980,6650	98,0665	9,8067	100	1	7,2330	86,7964	1388,7422
1 ft.lb =	135,5818	13,5581	1,3558	13,8255	0,1383	1	12	192
1 in.lb =	11,2985	1,1298	0,1130	1,1521	0,0115	0,0833	1	16
1 in.oz =	0,7062	0,0706	0,0071	0,0720	0,0007	0,0052	0,0625	1

Example 1
 1 Nm = 0,102 mkg
 17,4 Nm = 17,4 x 0,102 mkg
 17,4 Nm = 1,775 mkg

Example 2
 1 mkg = 9,8067 Nm
 12,5 mkg = 12,5 x 9,8067 Nm
 12,5 mkg = 122,58 Nm

Conversion Nm in mkg										
1 Nm = 0,10197 mkg										
Nm	0	1	2	3	4	5	6	7	8	9
0	0,00	0,10	0,20	0,31	0,41	0,51	0,61	0,71	0,82	0,92
10	1,02	1,12	1,22	1,33	1,43	1,53	1,63	1,73	1,84	1,94
20	2,04	2,14	2,24	2,35	2,45	2,55	2,65	2,75	2,86	2,96
30	3,06	3,16	3,26	3,37	3,47	3,57	3,67	3,77	3,87	3,98
40	4,08	4,18	4,28	4,38	4,49	4,59	4,69	4,79	4,89	5,00
50	5,10	5,20	5,30	5,40	5,51	5,61	5,71	5,81	5,91	6,02
60	6,12	6,22	6,32	6,42	6,53	6,63	6,73	6,83	6,93	7,04
70	7,14	7,24	7,34	7,44	7,55	7,65	7,75	7,85	7,95	8,06
80	8,16	8,26	8,36	8,46	8,57	8,67	8,77	8,87	8,97	9,08
90	9,18	9,28	9,38	9,48	9,59	9,69	9,79	9,89	9,99	10,10
100	10,20	10,30	10,40	10,50	10,60	10,71	10,81	10,91	11,01	11,11

Conversion mkg in Nm										
1 mkg = 9,80665 Nm										
mkg	0	1	2	3	4	5	6	7	8	9
0	0,00	9,81	19,61	29,42	39,23	49,03	58,84	68,65	78,45	88,26
10	98,07	107,87	117,68	127,49	137,29	147,10	156,91	166,71	176,52	186,33
20	196,13	205,94	215,75	225,55	235,36	245,17	254,97	264,78	274,59	284,39
30	294,20	304,01	313,81	323,62	333,43	343,23	353,04	362,85	372,65	382,46
40	392,27	402,07	411,88	421,69	431,49	441,30	451,11	460,91	470,72	480,53
50	490,33	500,14	509,95	519,75	529,56	539,37	549,17	558,98	568,79	578,59
60	588,40	598,21	608,01	617,82	627,63	637,43	647,24	657,05	666,85	676,66
70	686,47	696,27	706,08	715,89	725,69	735,50	745,31	755,11	764,92	774,73
80	784,53	794,34	804,15	813,95	823,76	833,57	843,37	853,18	862,99	872,79
90	882,60	892,41	902,21	912,02	921,83	931,63	941,44	951,25	961,05	970,86
100	980,67	990,47	1000,28	1010,08	1019,89	1029,70	1039,50	1049,31	1059,12	1068,92

Conversion Nm in ft.lb										
1 Nm = 0,73756 ft.lb										
Nm	0	1	2	3	4	5	6	7	8	9
0	0,00	0,74	1,48	2,21	2,95	3,69	4,43	5,16	5,90	6,64
10	7,38	8,11	8,85	9,59	10,33	11,06	11,80	12,54	13,28	14,01
20	14,75	15,49	16,23	16,96	17,70	18,44	19,18	19,91	20,65	21,39
30	22,13	22,86	23,60	24,34	25,08	25,81	26,55	27,29	28,03	28,76
40	29,50	30,24	30,98	31,72	32,45	33,19	33,93	34,67	35,40	36,14
50	36,88	37,62	38,35	39,09	39,83	40,57	41,30	42,04	42,78	43,52
60	44,25	44,99	45,73	46,47	47,20	47,94	48,68	49,42	50,15	50,89
70	51,63	52,37	53,10	53,84	54,58	55,32	56,05	56,79	57,53	58,27
80	59,00	59,74	60,48	61,22	61,96	62,69	63,43	64,17	64,91	65,64
90	66,38	67,12	67,86	68,59	69,33	70,07	70,81	71,54	72,28	73,02
100	73,76	74,49	75,23	75,97	76,71	77,44	78,18	78,92	79,66	80,39

Conversion ft.lb in Nm										
1 ft.lb = 1,35581 Nm										
ft.lb	0	1	2	3	4	5	6	7	8	9
0	0,00	1,36	2,71	4,07	5,42	6,78	8,13	9,49	10,85	12,20
10	13,56	14,91	16,27	17,63	18,98	20,34	21,69	23,05	24,40	25,76
20	27,12	28,47	29,83	31,18	32,54	33,90	35,25	36,61	37,96	39,32
30	40,67	42,03	43,39	44,74	46,10	47,45	48,81	50,16	51,52	52,88
40	54,23	55,59	56,94	58,30	59,66	61,01	62,37	63,72	65,08	66,43
50	67,79	69,15	70,50	71,86	73,21	74,57	75,93	77,28	78,64	79,99
60	81,35	82,70	84,06	85,42	86,77	88,13	89,48	90,84	92,20	93,55
70	94,91	96,26	97,62	98,97	100,33	101,69	103,04	104,40	105,75	107,11
80	108,46	109,82	111,18	112,53	113,89	115,24	116,60	117,96	119,31	120,67
90	122,02	123,38	124,73	126,09	127,45	128,80	130,16	131,51	132,87	134,23
100	135,58	136,94	138,29	139,65	141,00	142,36	143,72	145,07	146,43	147,78

Conversion Nm in in.lb										
1 Nm = 8,85077 in.lb										
Nm	0	1	2	3	4	5	6	7	8	9
0	0,00	8,85	17,70	26,55	35,40	44,25	53,10	61,96	70,81	79,66
10	88,51	97,36	106,21	115,06	123,91	132,76	141,61	150,46	159,31	168,16
20	177,02	185,87	194,72	203,57	212,42	221,27	230,12	238,97	247,82	256,67
30	265,52	274,37	283,22	292,08	300,93	309,78	318,63	327,48	336,33	345,18
40	354,03	362,88	371,73	380,58	389,43	398,28	407,14	415,99	424,84	433,69
50	442,54	451,39	460,24	469,09	477,94	486,79	495,64	504,49	513,34	522,20
60	531,05	539,90	548,75	557,60	566,45	575,30	584,15	593,00	601,85	610,70
70	619,55	628,40	637,26	646,11	654,96	663,81	672,66	681,51	690,36	699,21
80	708,06	716,91	725,76	734,61	743,46	752,32	761,17	770,02	778,87	787,72
90	796,57	805,42	814,27	823,12	831,97	840,82	849,67	858,52	867,38	876,23
100	885,08	893,93	902,78	911,63	920,48	929,33	938,18	947,03	955,88	964,73

Conversion in.lb in Nm										
1 in.lb = 0,11298 Nm										
in.lb	0	1	2	3	4	5	6	7	8	9
0	0,00	0,11	0,23	0,34	0,45	0,56	0,68	0,79	0,90	1,02
10	1,13	1,24	1,36	1,47	1,58	1,69	1,81	1,92	2,03	2,15
20	2,26	2,37	2,49	2,60	2,71	2,82	2,94	3,05	3,16	3,28
30	3,39	3,50	3,62	3,73	3,84	3,95	4,07	4,18	4,29	4,41
40	4,52	4,63	4,75	4,86	4,97	5,08	5,20	5,31	5,42	5,54
50	5,65	5,76	5,87	5,99	6,10	6,21	6,33	6,44	6,55	6,67
60	6,78	6,89	7,00	7,12	7,23	7,34	7,46	7,57	7,68	7,80
70	7,91	8,02	8,13	8,25	8,36	8,47	8,59	8,70	8,81	8,93
80	9,04	9,15	9,26	9,38	9,49	9,60	9,72	9,83	9,94	10,06
90	10,17	10,28	10,39	10,51	10,62	10,73	10,85	10,96	11,07	11,19
100	11,30	11,41	11,52	11,64	11,75	11,86	11,98	12,09	12,20	12,31

Conversion Of Inches To Millimeters

Inches	0	1	2	3	4	5	6	7	8	9	Inches	
0	0	–	25.400	50.800	76.200	101.600	127.000	152.400	177.800	203.200	228.600	mm
1/64	0.015625	0.397	25.797	51.197	76.597	101.997	127.397	152.797	178.197	203.597	228.997	mm
1/32	0.03125	0.794	26.194	51.594	76.994	102.394	127.794	153.194	178.594	203.994	229.394	mm
3/64	0.046875	1.191	26.591	51.991	77.391	102.791	128.191	153.591	178.991	204.391	229.791	mm
1/16	0.0625	1.588	26.988	52.388	77.788	103.188	128.588	153.988	179.388	204.788	230.188	mm
5/64	0.078125	1.984	27.384	52.784	78.184	103.584	128.984	154.384	179.784	205.184	230.584	mm
3/32	0.09375	2.381	27.781	53.181	78.581	103.981	129.381	154.781	180.181	205.581	230.981	mm
7/64	0.109375	2.778	28.178	53.578	78.978	104.378	129.778	155.178	180.578	205.978	231.378	mm
1/8	0.125	3.175	28.575	53.975	79.375	104.775	130.175	155.575	180.975	206.375	231.775	mm
9/64	0.140625	3.572	28.972	54.372	79.772	105.172	130.572	155.972	181.372	206.772	232.172	mm
5/32	0.15625	3.969	29.369	54.769	80.169	105.569	130.969	156.369	181.769	207.169	232.569	mm
11/64	0.171875	4.366	29.766	55.166	80.566	105.966	131.366	156.766	182.166	207.566	232.966	mm
3/16	0.1875	4.762	30.162	55.562	80.962	106.362	131.762	157.162	182.562	207.962	233.362	mm
13/64	0.203125	5.159	30.559	55.959	81.359	106.759	132.159	157.559	182.959	208.359	233.759	mm
7/32	0.21875	5.556	30.956	56.356	81.756	107.156	132.556	157.956	183.356	208.756	234.156	mm
15/64	0.234375	5.953	31.353	56.753	82.153	107.553	132.953	158.353	183.753	209.153	234.553	mm
1/4	0.25	6.350	31.750	57.150	82.550	107.950	133.350	158.750	184.150	209.550	234.950	mm
17/64	0.265625	6.747	32.147	57.547	82.947	108.347	133.747	159.147	184.547	209.947	235.347	mm
9/32	0.28125	7.144	32.544	57.944	83.344	108.744	134.144	159.544	184.944	210.344	235.744	mm
19/64	0.296875	7.541	32.941	58.341	83.741	109.141	134.541	159.941	185.341	210.741	236.141	mm
5/16	0.3125	7.938	33.338	58.738	84.138	109.538	134.938	160.338	185.738	211.138	236.538	mm
21/64	0.328125	8.334	33.734	59.134	84.534	109.934	135.334	160.734	186.134	211.534	236.934	mm
11/32	0.34375	8.731	34.131	59.531	84.931	110.331	135.731	161.131	186.531	211.931	237.331	mm
23/64	0.359375	9.128	34.528	59.928	85.328	110.728	136.128	161.528	186.928	212.328	237.728	mm
3/8	0.375	9.525	34.925	60.325	85.725	111.125	136.525	161.925	187.325	212.725	238.125	mm
25/64	0.390625	9.922	35.322	60.722	86.122	111.522	136.922	162.322	187.722	213.122	238.522	mm
13/32	0.40625	10.319	35.719	61.119	86.519	111.919	137.319	162.719	188.119	213.519	238.919	mm
27/64	0.421875	10.716	36.116	61.516	86.916	112.316	137.716	163.116	188.516	213.916	239.316	mm
7/16	0.4375	11.112	36.512	61.912	87.312	112.712	138.112	163.512	188.912	214.312	239.712	mm
29/64	0.453125	11.509	36.909	62.309	87.709	113.109	138.509	163.909	189.309	214.709	240.109	mm
15/32	0.46875	11.906	37.306	62.706	88.106	113.506	138.906	164.306	189.706	215.106	240.506	mm
31/64	0.484375	12.303	37.703	63.103	88.503	113.903	139.303	164.703	190.103	215.503	240.903	mm
1/2	0.5	12.700	38.100	63.500	88.900	114.300	139.700	165.100	190.500	215.900	241.300	mm
33/64	0.515625	13.097	38.497	63.897	89.297	114.697	140.097	165.497	190.897	216.297	241.697	mm
17/32	0.53125	13.494	38.894	64.294	89.694	115.094	140.494	165.894	191.294	216.694	242.094	mm
35/64	0.546875	13.891	39.291	64.691	90.091	115.491	140.891	166.291	191.691	217.091	242.491	mm
9/16	0.5625	14.288	39.688	65.088	90.488	115.888	141.288	166.688	192.088	217.488	242.888	mm
37/64	0.578125	14.684	40.084	65.484	90.884	116.284	141.684	167.084	192.484	217.884	243.284	mm
19/32	0.59375	15.081	40.481	65.881	91.281	116.681	142.081	167.481	192.881	218.281	243.681	mm
39/64	0.609375	15.478	40.878	66.278	91.678	117.078	142.478	167.878	193.278	218.678	244.078	mm
5/8	0.625	15.875	41.275	66.675	92.075	117.475	142.875	168.275	193.675	219.075	244.475	mm
41/64	0.640625	16.272	41.672	67.072	92.472	117.872	143.272	168.672	194.072	219.472	244.872	mm
21/32	0.65625	16.669	42.069	67.469	92.869	118.269	143.669	169.069	194.469	219.869	245.269	mm
43/64	0.671875	17.066	42.466	67.866	93.266	118.666	144.066	169.466	194.866	220.266	245.666	mm
11/16	0.6875	17.462	42.862	68.262	93.662	119.062	144.462	169.862	195.262	220.662	246.062	mm
45/64	0.703125	17.859	43.259	68.659	94.059	119.459	144.859	170.259	195.659	221.059	246.459	mm
23/32	0.71875	18.256	43.656	69.056	94.456	119.856	145.256	170.656	196.056	221.456	246.856	mm
47/64	0.734375	18.653	44.053	69.453	94.853	120.253	145.653	171.053	196.453	221.853	247.253	mm
3/4	0.75	19.050	44.450	69.850	95.250	120.650	146.050	171.450	196.850	222.250	247.650	mm
49/64	0.765625	19.447	44.847	70.247	95.647	121.047	146.447	171.847	197.247	222.647	248.047	mm
25/32	0.78125	19.844	45.244	70.644	96.044	121.444	146.844	172.244	197.644	223.044	248.444	mm
51/64	0.796875	20.241	45.641	71.041	96.441	121.841	147.241	172.641	198.041	223.441	248.841	mm
13/16	0.8125	20.638	46.038	71.438	96.838	122.238	147.638	173.038	198.438	223.838	249.238	mm
53/64	0.828125	21.034	46.434	71.834	97.234	122.634	148.034	173.434	198.834	224.234	249.634	mm
27/32	0.84375	21.431	46.831	72.231	97.631	123.031	148.431	173.831	199.231	224.631	250.031	mm
55/64	0.859375	21.828	47.228	72.628	98.028	123.428	148.828	174.228	199.628	225.028	250.428	mm
7/8	0.875	22.225	47.625	73.025	98.425	123.825	149.225	174.625	200.025	225.425	250.825	mm
57/64	0.890625	22.622	48.022	73.422	98.822	124.222	149.622	175.022	200.422	225.822	251.222	mm
29/32	0.90625	23.019	48.419	73.819	99.219	124.619	150.019	175.419	200.819	226.219	251.619	mm
59/64	0.921875	23.416	48.816	74.216	99.616	125.016	150.416	175.816	201.216	226.616	252.016	mm
15/16	0.9375	23.812	49.212	74.612	100.012	125.412	150.812	176.212	201.612	227.012	252.412	mm
61/64	0.953125	24.209	49.609	75.009	100.409	125.809	151.209	176.609	202.009	227.409	252.809	mm
31/32	0.96875	24.606	50.006	75.406	100.806	126.206	151.606	177.006	202.406	227.806	253.206	mm
63/64	0.984375	25.003	50.403	75.803	101.203	126.603	152.003	177.403	202.803	228.203	253.603	mm

Standard TORQUE Values

Coefficient of friction μ total = 0,1 (Property-class ISO 898/1)

A/F mm	Size d	3,6 (4D) F _V (N)	3,6 (4D) M _A (NM)	5,6 (5D) F _V (N)	5,6 (5D) M _A (NM)	6,9 (6 G) F _V (N)	6,9 (6 G) M _A (NM)	8,8 (8 G) F _V (N)	8,8 (8 G) M _A (NM)	10,9 (10 K) F _V (N)	10,9 (10 K) M _A (NM)	12,9 (12 K) F _V (N)	12,9 (12 K) M _A (NM)
3,2	M 1,6					475	0,125	587	0,150	862	0,215	1,009	0,255
4,0	M 2,0					790	0,26	975	0,315	1.432	0,465	1,676	0,545
5,0	M 2,5					1.320	0,52	1.624	0,645	2.385	0,935	2,791	1,095
5,5	M 3	690	0,30	1.130	0,51	1,850	0,81	2.450	1,1	3.450	1,5	4.100	1,8
6	M 3,5	920	0,47	1.550	0,78	2.450	1,2	3.250	1,7	4.600	2,3	5.500	2,8
7	M 4	1.200	0,70	2.000	1,2	3.150	1,9	4.200	2,4	5.900	3,3	7.100	4,0
8/9	M 5	1.950	1,4	3.250	2,3	5.200	3,6	6.900	4,9	9.700	7,0	11.600	8,0
10	M 6	2.750	2,4	4.550	3,9	7.300	6,3	9.750	8,0	13.700	12	16.400	14
13/14	M 8	5.050	5,7	8.400	9,5	13.400	15	17.900	20	25.100	28	30.200	34
15/17	M 10	8.000	11	13.300	19	21.400	30	28.400	40	40.000	56	48.000	67
19/21	M 12	11.700	20	19.500	33	31.100	52	41.500	69	58.500	98	70.000	115
22/23	M 14	16.000	31	26.700	52	42.700	83	56.500	110	80.000	155	96.000	185
24/26	M 16	22.000	48	36.700	79	58.500	125	78.500	170	110.000	240	132.000	285
27	M 18	26.000	66	44.600	110	71.500	175	95.000	235	134.000	330	160.000	395
30	M 20	34.400	92	57.500	155	91.500	245	122.000	330	172.000	465	206.000	560
32	M 22	43.000	125	71.500	205	115.000	330	152.000	445	214.000	620	257.000	750
36	M 24	49.500	160	82.500	265	132.000	425	176.000	570	248.000	800	298.000	960
41	M 27	65.000	235	109.000	390	174.000	630	232.000	840	326.000	1.200	391.000	1.400
46	M 30	79.000	320	132.000	530	211.000	850	282.000	1.150	397.000	1.600	476.000	1.950
50	M 33	98.500	430	164.000	720	263.000	1.150	351.000	1.550	493.000	2.150	592.000	2.600
55	M 36	116.000	550	193.000	920	309.000	1.500	412.000	1.950	579.000	2.750	695.000	3.300

F_V = Preload

Conversion N (Newton)

M_A = tightening TORQUE

1 kp = 9,80665 N ≈ 9,81 N

Coefficient of friction μ total = 0,14 (Property-class ISO 898/1)

A/F mm	Size d	3,6 (4D) F _V (N)	3,6 (4D) M _A (NM)	5,6 (5D) F _V (N)	5,6 (5D) M _A (NM)	6,9 (6 G) F _V (N)	6,9 (6 G) M _A (NM)	8,8 (8 G) F _V (N)	8,8 (8 G) M _A (NM)	10,9 (10 K) F _V (N)	10,9 (10 K) M _A (NM)	12,9 (12 K) F _V (N)	12,9 (12 K) M _A (NM)
3,2	M 1,6					440	0,15	538	0,18	790	0,27	925	0,31
4,0	M 2,0					730	0,31	895	0,38	1.315	0,56	1.539	0,65
5,0	M 2,5					1.220	0,64	1.494	0,78	2.194	1,14	2.567	1,34
5,5	M 3	630	0,37	1.050	0,62	1.700	0,99	2.250	1,3	3.150	1,9	3.800	2,2
6	M 3,5	850	0,57	1.400	0,95	2.250	1,5	3.000	2,0	4.250	2,9	5.100	3,4
7	M 4	1.100	0,85	1.850	1,4	2.900	2,3	3.900	2,9	5.450	4,1	6.550	4,9
8/9	M 5	1.800	1,7	3.000	2,8	4.800	4,5	6.350	6,0	8.950	8,5	10.700	10
10	M 6	2.550	2,9	4.200	4,8	6.750	7,7	9.000	10	12.600	14	15.100	17
13/14	M 8	4.650	7,0	7.750	12	12.400	19	16.500	25	23.200	35	27.900	41
15/17	M 10	7.400	14	12.300	23	19.700	37	26.200	49	36.900	69	44.300	83
19/21	M 12	10.800	24	18.000	40	28.800	65	38.300	86	54.000	120	64.500	145
22/23	M 14	14.800	39	24.000	64	39.500	105	52.500	135	74.000	190	88.500	230
24/26	M 16	20.400	59	34.000	98	54.500	155	73.000	210	102.000	295	123.000	355
27	M 18	24.800	81	41.000	135	66.000	215	88.000	290	124.000	405	148.000	485
30	M 20	31.900	115	53.000	190	85.000	305	114.000	410	160.000	580	192.000	690
32	M 22	39.900	155	66.500	260	106.000	415	141.000	550	199.000	780	239.000	930
36	M 24	45.900	200	76.500	330	122.000	530	164.000	710	230.000	1.000	276.000	1.200
41	M 27	60.500	295	100.000	490	161.000	780	215.000	1.050	302.000	1.500	363.000	1.800
46	M 30	73.500	395	122.000	660	196.000	1.050	262.000	1.450	368.000	2.000	442.000	2.400
50	M 33	91.500	540	153.000	900	244.000	1.450	326.000	1.900	458.000	2.700	550.000	3.250
55	M 36	107.000	690	179.000	1.150	287.000	1.850	382.000	2.450	537.000	3.450	645.000	4.150

F_V = Preload

Conversion N (Newton)

M_A = tightening TORQUE

1 kp = 9,80665 N ≈ 9,81 N

Three Part Driver System

Slotted Screws (thread size)										Part 1	Part 2	Part 3						
Metric screws				Self-tapping screws			Wood-screws			Screw-head dia.	Wera Finder sleeve Art. 803	Wera Bits	Wera Universal Bitholder					
mm ø				mm ø			mm ø			max. mm	bore Zt x N	size a x b	890/3/1	890/4/1	890/5/1	890/6/1	890/7/1	890/8/1
DIN 84 ISO 1207	DIN 85 ISO 1580	DIN 963 ISO 2009	DIN 964 ISO 2010	DIN 7971 ISO 1418	DIN 7972 ISO 1482	DIN 7973 ISO 1483	DIN 95	DIN 96	DIN 97									
2,0	2,0	2,0	2,0				2,0	2,0	3,8	4,0 x 3,0	0,5 x 3,0	•	•	•	•	•	•	
2,5	2,5	2,5	2,5	2,2			2,5	2,5	4,7	5,0 x 3,5	0,6 x 3,5	•	•	•	•	•	•	
2,5				2,2				2,5	5,0	5,5 x 4,5	0,6 x 4,5	•	•	•	•	•	•	
								2,0	4,0		0,5 x 4,0	•	•	•	•	•	•	
3,0	3,0	3,0	3,0				3,0	3,0	6,0	6,5 x 4,0		•	•	•	•	•	•	
		3,5	3,5	2,9	2,9	2,9	3,5	3,5	6,5		0,8 x 4,0	•	•	•	•	•	•	
3,0	3,0	3,5	3,5	2,9			3,5	3,5	7,0		0,8 x 5,5	•	•	•	•	•	•	
				3,5	3,5	3,5	4,0	4,0	8,0	8,5 x 5,5		•	•	•	•	•	•	
3,5	3,5	4,0	4,0	3,9	3,9	3,9	4,5	4,5	8,3		1,0 x 5,5	•	•	•	•	•	•	
		5,0	5,0		4,2	4,2	5,0	5,0	10,4			•	•	•	•	•	•	
4,0					4,8				9,5	10,5 x 6,5		•	•	•	•	•	•	
5,0	4,0			4,2		4,8	5,5	5,5	10,2		1,2 x 6,5	•	•	•	•	•	•	
	5,0	6,0	6,0	4,8	5,5	5,5			11,0	11,0 x 8,0		•	•	•	•	•	•	
							6,0	6,0	11,0		1,6 x 8,0	•	•	•	•	•	•	

