



World's finest tool, "nepros" with no compromises.
Designed for superior levels of durability, weight balance and usability.



ktc.jp/nepros
*Japanese version only

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nepros CONCEPT BOOK



BRAND STORY

NEW PROFESSIONAL SATISFACTION

nepros

To achieve the world's finest tactile tools 'nepros', created by KTC, by reviewing all materials, design, and production facilities.

Reformation for a new era

"Safety, environmental friendliness, and comfort" is shifted from "horsepower and speed" as people's demand for automobiles in the 1990s. Along with it, the structure of the automobile itself is also changed. Then, KTC decided to create the ideal world's finest tactile tools with new original material, new production method, overcoming normal tool standards.

Create nepros standard

The first step was listening to the voices of 300 professional mechanics. Spent 5 years to create the ideal tool. Develop ideal materials with high strength, toughness, and durability. Design from various perspectives including ergonomics and mechanics. Develop manufacturing technology to realize the ideal.

In addition, considered the grip feeling and the way to hold the grip. For example, for the ratchet handle, the grip diameter is the most comfortable size for people to use. The idea was come up from the horizontal bar in the park. The developer saw people practicing on the bars and found the grip diameter that is ideal for people.

Challenge for the top in the best

"nepros" was finally released in 1995. However, it is not our goal. Over the past 20 years from it, there have been two minor changes in nepros ratchet handles. Then, nepros deepen itself for the professional satisfaction after 10 years past since NBR390 was released.

The nepros is named after "NEW PROfessional Satisfaction." Satisfy professionals' demands and revolution tools for "more durable, useful, beautiful."

2022 New model / NBR390A

Sought the usability by compact head, light gears, and 8steps claw.



2012 Previous model / NBR390

Adopt 90 teeth gear with feeding angle 4° for 3/8" compact head ratchet handles firstly in the world.



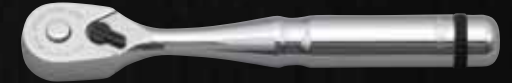
2003 Early "nepros" latter model / NBR3UN

Design reviewed for weight balance optimization. Finger groove on the handle moves to the grip end.



1995 Early "nepros" / NBR3UN

"Mirror nepros" was born with concept "more durable, useful, and beautiful"



1984 "Mirror Tool"

High polished "Mirror Tool" was born with high quality steel and newest production technology.



1982 "Deluxe Tool"

Limited edition ratchet handle only for 3,000 tool sets of "Deluxe Tool set". All tools polished by hands.



More durable, useful, beautiful.
The shape shows KTC technology.

"More durable, useful and, beautiful" is desired for the best tools. nepros is developed with this concept.

More durable

Useful durability by unique design and advanced heat processing with high-toughness materials.

- Using materials achieving toughness and high durability enables creation of compactness and lightness on the tools.
- Raised durability by original shapes developed from stress analysis such as "power fit."
- Raised toughness by utilizing material features with vacuum furnace controlled by severe temperature.

More useful

Unique design for handy and beautiful tool.

- Raised workability in narrow spaces by compact design.
- Excellent functionality and operability by balanced design.
- KTC own standards and shapes for the best fitting with the bolts and nuts.

More beautiful

high-chromium polishing

- The best balance, aesthetics, and function. Comfortable hand fitting by streamline with durable shape.
- Reduce hand pain from prolonged use by smooth high-polished finishing.
- For fine functions and durability of tools, raised wear, peel, and corrosion resistance by hard chromium plating.

Product introduction

3/8"sq. RATCHET HANDLE

NBR390A

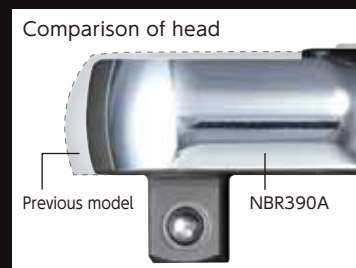


More details
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Deepening 1 Designs

Raise accessibility to narrow space

Width of ratchet head becomes 4mm smaller. Raise accessibility, usability and work efficiency.



Shaped up ratchet head size.

Streamline shape for comfortable hand fitting.

Streamline shape from ratchet head to handle gives comfortable hand fitting and usability to reduce work load of professionals.



Comfortable hand fit and lightness reduce work load

RATCHET HANDLE LINEUP

Major lineup



NBRC390

COMPACT RATCHET HANDLE

The ratchet handle consists of 3/8"sq. drive mounted on 1/4"sq. ratchet handle. Five types available: Standard, Long, Short, Flex, and Short Flex.

NBR390H

STUBBY RATCHET HANDLE

The nepros compact ratchet handle fits in the palm of your hand. This highly-convenient tool can be used in various combinations with inserting angles.



Detailed product introduction

"nepros" is the world's finest tools stimulating professional senses.

"nepros" never stops searching for being the best.

This is the introduction of "world's finest aesthetic and functional."



Deepening 2 Usability

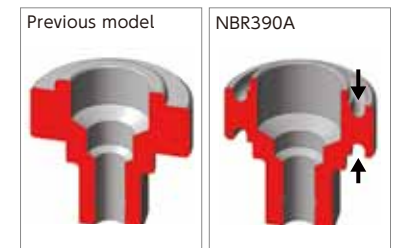
Previous model 275g
↓
NBR390A 245g
10% lighter



Changer is conjunct with the lever.

Compact and light with 90 gears

To be compact and for the strength, changer is conjunct with the lever. The gear weight becomes 40% lighter than previous model for design review.



Inner stress dispersed by round-machining.

8 steps claw achieve the strength

Change from 7 steps to 8 steps claw dispersing forces to be compact and raise the strength.



8 steps claw raise the strength.

Best weight balance with hollowed handle

Additional hollowing on the handle designed by our unique technology. Achieved both best weight balance and lightness.



Additional hollowing

SOCKET



*Japanese version only

Small, thin, and compact form socket



Compact design

The compact tool has a shorter height and smaller external diameter made possible by an ideal design, tough materials, advanced processing technology, and optimal heat processing.

Beautiful surface

Hard chrome plating for anti-wear, anti-corrosion, and anti-peeling.

Rubber ring preventing slippage

The rubber ring greatly improves workability during hand-cranking

Clear engraving

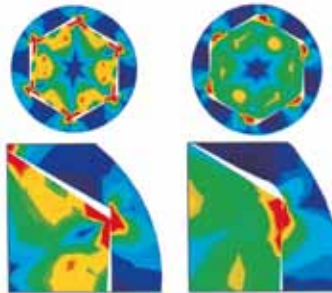
The beautifully-refined engravings are easy to see and increase the efficiency of work.

Unique design for fitting with other drive tools

Uses a larger ball in drive tools. Optimized socket ball groove prevents backlash and achieves superior fitting.

N-PowerFit shape

N-PowerFit shape distributes stress through a gentle arc in the bore by enlarging the contact surface. Ideal contact prevents damage to bolts and nuts and increases the strength of the socket. This shape contributes to compact size of the socket too.



Original dimensional standard

KTC's original dimensional standard reduces the fit gap with bolts and nuts to the absolute minimum, creating a superior fit feeling.



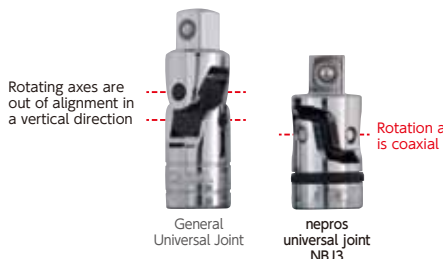
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UNIVERSAL JOINT

Smooth power transfer and superior operability

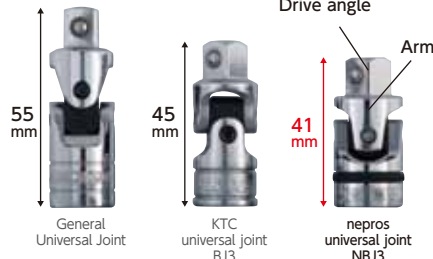
Extra smoothness:Grand Cross mechanism

Universal joint has two rotating axes which are out of alignment in a vertical direction. Consequently, movement becomes jittery as the angle becomes greater. The nepros solution: comfortable work does not bend past an angle where it is possible to rotate and transmit torque, unlike usual versions.



Compact body

Strength was increased by shifting the drive angle by 45° together with achieving a thinner body.



Smooth access with firm holding

The nepros universal joint with spring force provides smooth access to bolts. Universal joint with socket will shake if holding force is not sufficient, and accessing bolt gets difficult.



The nepros universal joint NBJ3 does not shake and provides firm hold even with a 24 mm socket NB3-24 (weight: 90 g).

EXTENSION BAR

Magnificent form for excellent torque transfer



Elegant form for superior torque transfer

Elegant form was created by stress analysis. This form prevents twisting stress from being focusing on one particular point. This achieves excellent torque transfer and smooth feeling during use.

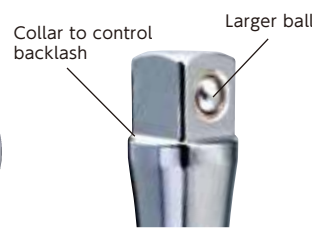
Inserting angle uses N-PowerFit shape which transfers force at the surface

Product strength was improved by N-PowerFit for the insertion angle. N-PowerFit distributes stress by expanding the contact surface.



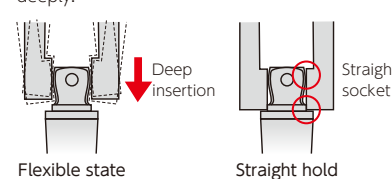
Ball and shape to prevent backlash

A larger ball is used to improve fit with the socket. Installing a collar on the fitting area decreases backlash.



Straight hold mechanism's other use

The nepros wobble extension bar has a flexible joint area and can be used as a swing head extension bar. Using the straight hold mechanism makes it possible to hold the socket straight by inserting the socket more deeply.

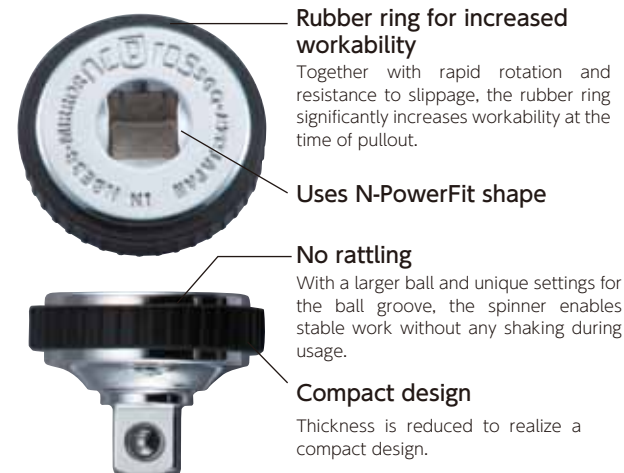


QUICK SPINNER



*Japanese version only

Perfect grip design for rapid turning



Rubber ring for increased workability

Together with rapid rotation and resistance to slippage, the rubber ring significantly increases workability at the time of pullout.

Uses N-PowerFit shape

No rattling

With a larger ball and unique settings for the ball groove, the spinner enables stable work without any shaking during usage.

Compact design

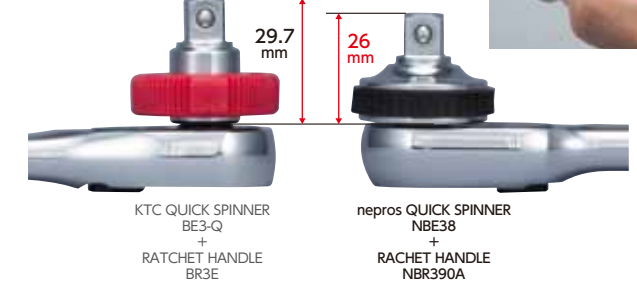
Thickness is reduced to realize a compact design.



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Fast and comfortable

The nepros ratchet handles' excellent external diameter allows rapid rotation by grabbing & rotating with fingertips. Insertion angles: 1/4°sq. (Normal type), 3/8°sq. (Normal/Compact), 1/2°sq. (Normal).



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T-SHAPED WRENCH

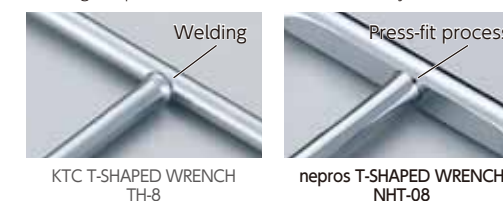
Ultimate T-shaped handle for outstanding balance and operability

Rubber rings for increased grip strength

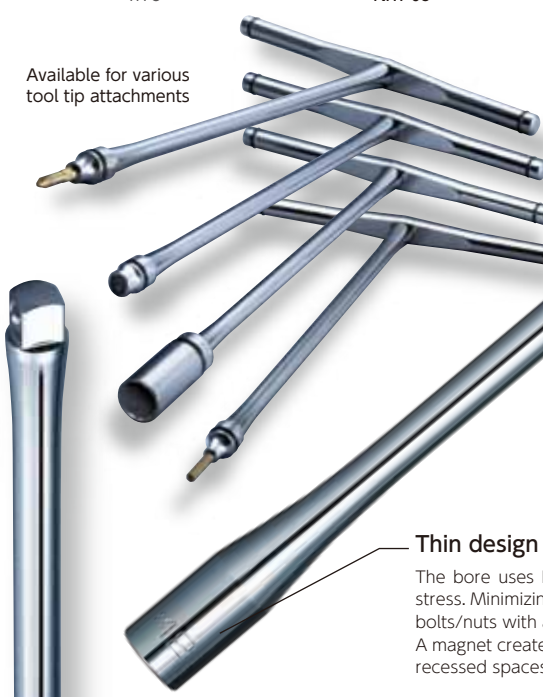
Increasing grip strength by preventing slippage during work, the rubber rings attached to each end of the handle serve as contact surfaces for protection when the handle is placed on the floor.

Precise and accurate press-fit processing

The joint between the handle and shaft uses accurate press-fit processing. Precise processing technology is required in order to open a hole in the center of the handle and press-fit the shaft. This process produces the handle and shaft at a 90° angle and makes rotation extremely smooth. Unlike welding, no protuberances are formed on the joint area.



Available for various tool tip attachments



Clear engraving

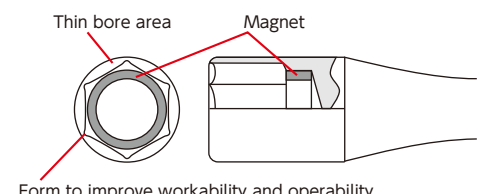
Size is displayed in large engraving on the handle top and in the socket hole. The Handle/Body press-fit portion is processed into a hexagonal shape for T-shape wrenches/a square shape for T-shape handles. This makes recognition easy.

Unique form for fast-rotation performance

Handle top & bottom are shaved down into equal weight. During rapid rotation, this design creates inertia which produces smooth rotation. Moreover, the handle length is different for each size. Tools with ultimate length for rapid rotation exert required torque on bolts and nuts of all sizes.

Thin design and magnets for tiny space

The bore uses N-Power Fit shape for distributing stress. Minimizing the gap between the handle and bolts/nuts with a thin design improves workability. A magnet creates holding bolts/nuts and access to recessed spaces.



Form to improve workability and operability

COMBINATION WRENCH



*Japanese version only

Form to improve workability and operability

Compact head

This new spear-shaped head was born from stress analysis. Shaving away extra thickness while maintaining thickness in areas exposed to stress allowed us to achieve an even slimmer tip shape.

15° rise angle with compact box end area for both sides

The rise angle on the box end side has a 15° angle for common use. The step between the handle and joint makes it possible to use both the front and back sides. The compact external diameter is among the smallest in the world and is ideal for work in tight spaces.

Clear engravings

Large and easy-to-see engravings are used on the front and back. Visibility as well as workability are improved.

Side surface shape is ideal for hands

The side of the handle is wide and easy to grip. The shape prevents hand pain.

N-Power Fit protection for bolts/nuts and bore with minimized taper

Features N-Power Fit shape, which increases the contact surfaces with bolts and nuts, as well as a bore section with minimized taper. Gripping from the bottom of the bolt/ nut prevents sliding.

Various sizes

Three lengths: short, standard, long. Possible to select the best length to use for your work environment.

ADJUSTABLE WRENCH



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Unique grip shape born for of easy gripping.

Handy spear-shaped head

The head features a spear shape for tight spaces.

Width-across-flat scale

Features an easy-to-see width-across-flat dimension scale.

Well-balanced & Handy Grip

The grip features an elliptical shape. Grip gets thicker in order to improve the weight balance.

15°-type to use with hexagon bolts

Normal adjustable wrenches have an angle of 23°. However, nepros adjustable wrenches have an angle of 15° for use with hexagon bolts. This improves workability in tight spaces.

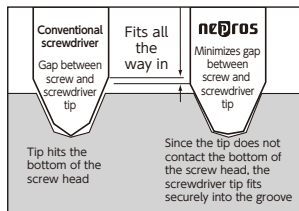
WOODEN GRIP SCREWDRIVER



*Japanese version only

Beautiful and functional form; special tip shape for perfect fit with screws

Magnetic tip shape for less gap/slippage



Bolster corresponding to hard screw

Push the screwdriver with one hand, and use a box end wrench to turn the bolster and apply even stronger torque.

Beautiful elegant grip for force control

The grip is elegant for a beautiful and original form. High-quality maple wood is used in the grip. The hexagonal shape is easy to grip with the warmth of the wooden material. Furthermore, the center part has a depression which makes it easier to push and turn.

Different color of cross (plus) and flat (minus)

Cross (plus) has a red (cherry red) finish while flat (minus) has a green (forest green) finish.

KTC original steel

Considering cross (plus) and flat (minus) driver, KTC uses original steel of chromium vanadium of different hardness.

BOX END WRENCHES



*Japanese version only

Basic functions and variations for reliable use

Bore area/N-Power Fit shape prevent damage to bolts/nuts

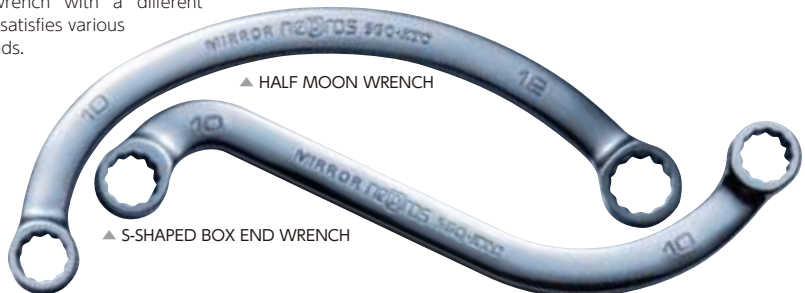
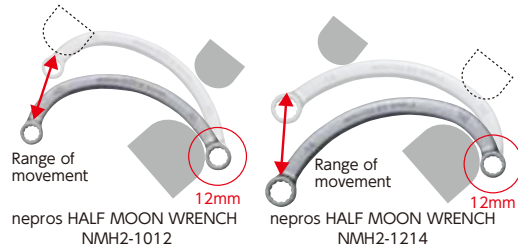
The N-Power Fit shape increases the contact surface with bolts and nuts. The bore area minimizes taper to ensure contact of the bolt bottom with the nut head.

Side surface shape: ideal size for hands and easy to put in force

Handle is wide and easy to grip.

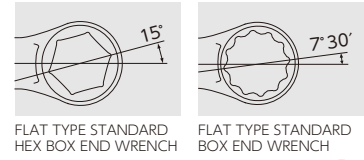
Asymmetrical design: Expanding the range of use

The nepros half-moon wrenches have a unique asymmetrical design with different radius from left/right sides. The different radius enlarges the range of use and provides support for a variety of situations. Combination with a same-sized S-shape box end wrench satisfies various demands.



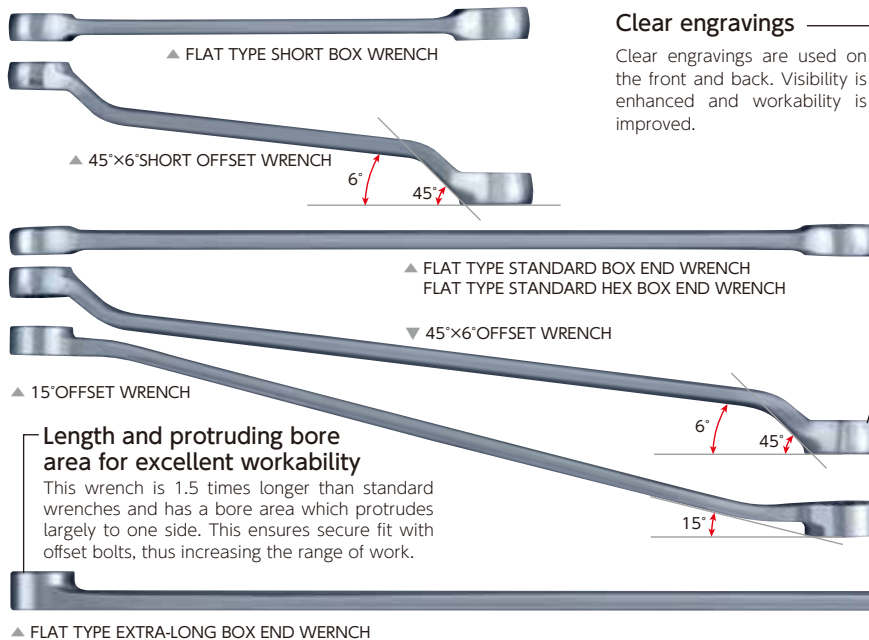
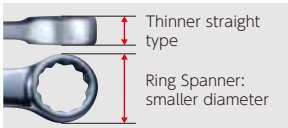
Improving workability: Adding an angle to box end wrench

KTC added a 15° angle to the bore of the straight standard hexagonal box end wrench and a 7°30' angle to the straight standard box end wrench. Using both the front and back of the tools enables work in a range of 30° for the hexagonal type and 15° for the dodecagon type. *The dodecagon type fixed at an angle of 7°30' is only available for the straight standard box end wrench.



Thickness controlled according to direction of work

A thin design is used for the straight type, which is often used to access in vertical directions. On the other hand, a smaller external diameter is used for the normal box end wrench, which is often used to access in a horizontal direction. This realizes excellent design for the work situation.



Clear engravings

Clear engravings are used on the front and back. Visibility is enhanced and workability is improved.

Rise angles of 45° and 6°

Rise angles of 45° and 6° are used to bring the center of the bolt closer to an imaginary line extending straight from the handle. This design reduces stripping and transfers torque directly.

Ultimate torque transfer and workability

Torque transference is further improved by special design with the center of the bolt closer to an imaginary line extending straight from the handle. The protruding shape on one side enables usage even when there is spot facing around the bolt or nut. The rise angle is designed to start straight and then reach 15° ideal for tiny spaces.

