

# 8. PLUMBING TOOLS

## PLUMBING TOOLS



**CAUTION** Ratchet pipe cutters, Miniature ratchet tube cutter, Tube cutter, Flex pipe cutter, PVC cutter

- Make sure that you read the Owner's Operator Manual carefully before use.
- Do not use these tools to cut unspecified materials.
- Do not use the tools if they are cracked, chipped, worn or deformed, etc.
- Do not customize tools. The tools quality will decrease significantly if heated or modified.

Application Table of Ratchet Pipe Cutters

\* A special blade (PCRK-S) is needed for cutting stainless steel pipes.

	Product and Product Code	Application	Copper Pipe	Steel Pipe	SUS Pipe	SUS Flexible Pipe	Plastic Pipe		
							Rigid polyvinyl chloride pipes for waterworks	Polyethylene pipes for waterworks	Polyethylene pipes for gas
Ratchet Pipe Cutters	 PCR2-35 PAT. Ratchet Pipe Cutter	Applicable Outer Diameter		15.88~35mm	15.88~35mm				
		Nominal		10~25	13Su~30Su				
		Applicable Thickness		Max.3.2mm	Max.1.2mm				
	 PCR2-66 PAT. Ratchet Pipe Cutter For Large Size	Applicable Outer Diameter		35~66mm	35~66mm				
		Nominal		25~50	30Su~60Su				
		Applicable Thickness		Max.3.8mm	Max.1.5mm				
	 PCRT2-35 PAT. Ratchet Pipe Cutter For Copper And Resin Pipe	Applicable Outer Diameter	15.88~35mm				15.88~35mm	15.88~35mm	15.88~35mm
		Nominal	1/2"~1 1/4"				13~25	10~25	20~25
		Applicable Thickness	Max.1.65mm				Max.3.5mm	Max.5.0mm	Max.3.4mm
	 PCRT2-66 PAT. Ratchet Pipe Cutter For Copper And Resin Pipe, Large Size	Applicable Outer Diameter	35~66mm				35~66mm	35~66mm	35~66mm
		Nominal	1 1/4"~2 1/2"				30~50	25~50	25~50
		Applicable Thickness	Max.2.03mm				Max.4.5mm	Max.6.5mm	Max.5.5mm
	 PCRT-23 D.PAT. Miniature Ratchet Pipe Cutter	Applicable Outer Diameter	6~23mm						
		Nominal	1/4"~7/8"						
		Covered copper piping	1/4"~1/2"						
 PC2-66 Tube Cutter	Applicable Outer Diameter	6~66mm			6~66mm				
	Nominal	1/4"~2 1/4"							
	Applicable Thickness	Max.2.0mm			Max.1.5mm		Max.4.5mm		
 ZC30 D.PAT. Tube Cutter	Applicable Outer Diameter	3~30mm				3~30mm	3~30mm	3~30mm	
	Nominal								
	Applicable Thickness	Max.2.0mm				Max.3.0mm	Max.3.0mm	Max.3.0mm	
 FV20 D.PAT. Flex pipe cutter	Applicable Outer Diameter				15.88~21mm				
	Nominal				1/2" - 3/4"				
	Applicable Thickness				Max.0.3mm				
 PP-30 PVC Cutter	Applicable Outer Diameter					Max.38mm			
	Nominal								
	Applicable Thickness								

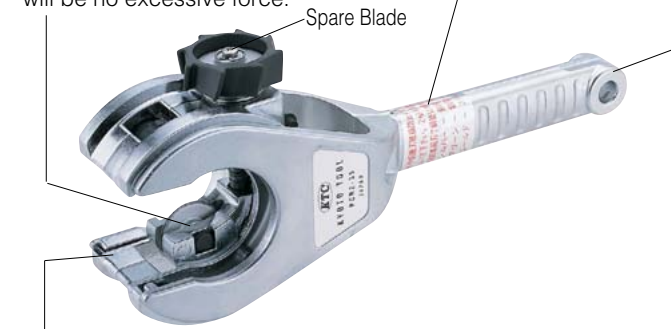
\*Please check the merchandise inventory for a product that is marked by  before placing an order.

● **RATCHET PIPE CUTTER** PAT. D. PAT.

- Cut surface smooth because blade is a thin, special type.
- By automatic feeding mechanism, cutter maintains a stable feeding (force). There will be no excessive force.
- Body is made of aluminum. with chrome plated surface having good wear-resistance.

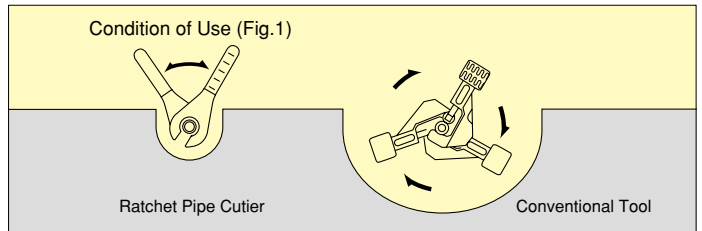
- Purpose : For cutting various pipes from water supply pipes to electric or gas pipes.

- Cutting is possible with the handle's swing of 8° Works well in cutting operation in a narrow space.



- Has a wide application up to outer diameter of 15.88mm (PCR2-35, PCRT2-35 only).

- Easy cutting in tight space.



- Spare Blades : Spare blades are colored differently for each applicable pipe. It is easy to distinguish.



● **How to Use**

- Turn the rotary head to fit the main body and the opening section of rotary head.
- If cutter interferes with inserting pipe in the opening, turn the knob and move the cutter until pipe can be inserted.
- Fit the pipe on the roller, turn the knob until it gets a little tight, and pinch the pipe with the cutter.
- If you move the grip forward and backward, rotary head turns and with automatic cutter feeding mechanism, pipe is cut.

**RATCHET PIPE CUTTER**

No.	L	W	R	H	▼g
PCR2-35	240	102	70	54	960

\*A blade for steel pipes is attached on the main body.

Applicable Spare Blades

No.	Contents	
PCRK-F	For Copper Pipe	1 piece
PCRK-S	For SUS Pipe	1 piece

Applicable Outer Diameter  
15.88~35mm

Copper Pipe	SUS Pipe
Maximum thickness 1.2mm	Maximum thickness 3.2mm
Nominal 10~25	Nominal 13Su~30Su



\*Replacement blade for copper pipes is included.

● **RATCHET PIPE CUTTER** PAT. D. PAT.



**RATCHET PIPE CUTTER**

No.	L	W	R	H	▼g
PCR2-66	335	135	90	62	1,650

\*A blade for steel pipe is attached on the main body.

Applicable Spare Blades

No.	Contents	
PCRK-F	For Copper Pipe	1 piece
PCRK-S	For SUS Pipe	1 piece

Applicable Outer Diameter  
35~66mm

Copper Pipe	SUS Pipe
Maximum thickness 3.8mm	Maximum thickness 1.5mm
Nominal 25~50	Nominal 30Su~60Su



\*Replacement blade for copper pipes is included.

● **RATCHET PIPE CUTTER FOR LARGE SIZE**

PAT. D. PAT.



\*Please check the merchandise inventory for a product that is marked by before placing an order.

**● RATCHET PIPE CUTTER FOR COPPER AND RESIN PIPE PAT. D. PAT.**



Spare Blades  
PCRK-C  
For Copper and Resin Pipes  
  
Green

\*With 1 spare blade

**RATCHET PIPE CUTTER FOR COPPER AND RESIN PIPE**





No.	L	W	R	H	▼g
PCRT2-35	240	102	70	54	960

\*Cannot be used on steel or SUS pipes.

Applicable Spare Blades

No.	Contents	
PCRK-C	For Copper & Plastic Pipe	1 piece

Applicable Outer Diameter  
15.88~35mm

Copper Pipe	Rigid polyvinyl chloride pipes for waterworks	Polyvinyl pipes for waterworks	Polyvinyl pipes for gas
 Maximum thickness 1.65mm Nominal 1/2~1 1/4"	 Maximum thickness 3.5mm Nominal 13~25	 Maximum thickness 5.0mm Nominal 10~25	 Maximum thickness 3.4mm Nominal 20~25

**● RATCHET PIPE CUTTER FOR COPPER AND RESIN PIPE PAT. D. PAT.**



Spare Blades  
PCRK-C  
For Copper and Resin Pipes  
  
Green

\*With 1 spare blade

**RATCHET PIPE CUTTER FOR COPPER AND RESIN PIPE**





No.	L	W	R	H	▼g
PCRT2-66	335	135	90	62	1,650

\*Cannot be used on steel or SUS pipes.

Applicable Spare Blades

No.	Contents	
PCRK-C	For Copper Pipe	1 piece

Applicable Outer Diameter  
35~66mm

Copper pipe	Rigid polyvinyl chloride pipes for waterworks	Polyvinyl pipes for waterworks	Polyvinyl pipes for gas
 Maximum thickness 2.03mm Nominal 1 1/2~2 1/2"	 Maximum thickness 4.5mm Nominal 30~50	 Maximum thickness 6.5mm Nominal 25~50	 Maximum thickness 5.5mm Nominal 20~50

**● MINI RATCHET TUBE CUTTER FOR COPPER D. PAT.**



**MINI RATCHET TUBE CUTTER**

No.	L	W	H	R (Operation Radius)	▼g
PCRT-23	140	64	42	45	180

Applicable Spare Blades

No.	Included Items	
PCRK-CM	For Copper Pipe	1 piece



**Purpose**

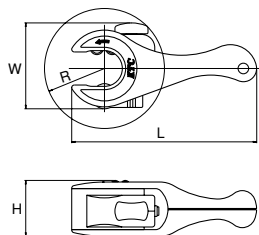
● For cutting copper pipes for air conditioners, and bare or coated copper pipes for water/hot water supply.

**Features**

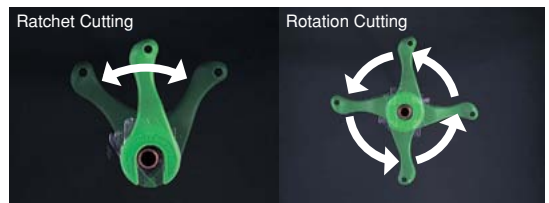
- With ratchet mechanism, you can cut pipes even in tight spaces such as wall side or where pipes are located next to each other.
- If work space permits, you can cut pipes by rotating the cutter.
- Cutter's automatic feeding mechanism enables quick cutting without tightening the knob more than once. Difference from conventional type cutters.
- With resin body and aluminum rotary head, the cutter weighs only 180g, allowing you to work with one hand (weight is approximately 2/3 of out conventional model ZC30).
- Streamlined handle shape assures operation in less wearing condition compared with conventional wrench.
- Body in light green which stands out even in somber places.
- Resin used for the body is recyclable polyamide.

Applicable Outer Diameter  
6~23mm

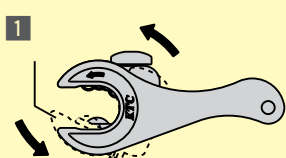
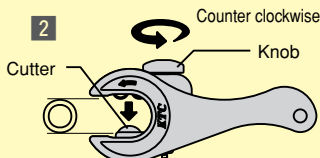
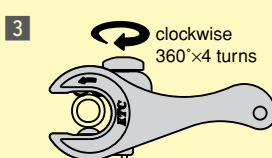
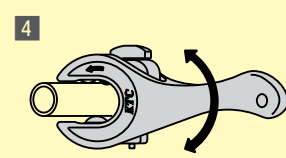
Bare Copper pipe	Coated Copper Pipes
 Maximum thickness 1.24mm Nominal 1/4~3/8"	 Maximum thickness 1.24mm Nominal 1/4~3/8"



● Two functions with 1 cutter.



**● How to Use**

-   
Turn the rotary head and fit the main body and the opening section of rotary head.
-   
If cutter interferes with inserting pipe in the opening, turn the knob counterclockwise and move the cutter until pipe can be inserted.
-   
Fit the copper pipe on the roller, turn the knob about 4 complete turns.
-   
Move the handle forward and backward or rotate to cut the pipe. Automatic cutter feeding mechanism cuts the pipe completely.

**TUBE CUTTER**

No.	L	W	H	▼g
ZC30	126	42	45	270

\*A blade for copper, resin and stainless steel flexible pipe is attached on the main body.

**Purpose**

● For cutting copper or resin pipes.

**Features**

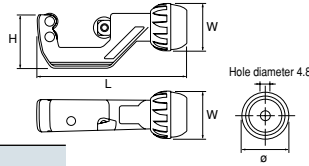
● Adoption of resin roller and assisting roller has reduces deformation of pipe, burrs, etc. on the cut surface.

**Spare Blade**

No.	Cutting Dia.	Maximum Thickness	Quantity
ZCK305	Cooper Pipe (ø3~30)	2.0mm	5 pieces
	Plastic Pipe (ø3~30)	3.0mm	
	Stainless Steel Flexible Pipe (ø3~30)	0.3mm	
ZCK305S	Thin-wall Stainless Steel Pipe (ø3~30)	1.0mm	5 pieces

• Rigidity against torsion and stability during cutting have been increased.

● **TUBE CUTTER** D. PAT.



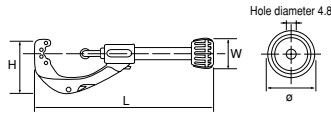
\*With 1 spare blade

**TUBE CUTTER**

No.	Cutting Dia.	L	W	H	▼g	📦
PC2-66	ø6~66	201~282	42	90.5	730	1

• For cutting and chamfering copper pipes, copper pipes, etc.

● **TUBE CUTTER**



\*With 1 spare blade

**Spare Blade**

No.	Content	Quantity
PCK305	For Copper Pipe	5pcs.
PCK305S	For Stainless Pipe	5pcs.
PC2665C	For P.V.C. Pipe	5pcs.

**FLEX TUBE CUTTER**

No.	L	W	H	▼g
FV20	126	42	45	220

**Purpose**

● For cutting stainless steel flexible pipes.

**Application**

● Stainless Steel Flexible Pipes for Gas Piping. Nominal 8A~20A  
 ● Stainless Steel Flexible Pipes for Water/Hot Water Supply. Nominal 13, 20 (except spiral types)

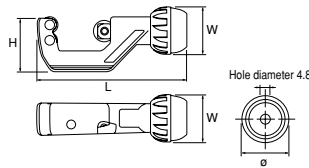
**Features**

● Adoption of resin roller and assisting roller has reduced deformation of pipe, burrs, etc. on the cut surface.

**Spare Blade**

No.	Cutting Dia.	Maximum Thickness	Quantity
ZCK305	Stainless Steel Flexible Pipe (ø3~30)	0.3mm	5 pieces

● **FLEX TUBE CUTTER** D. PAT.



\*With 1 spare blade

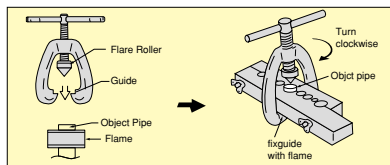
**TUBING TOOL SET**

No. VS31	▼kg 1.8	📦 1
Tube Cutter (ø3~30)	ZC30	
Flaring Tool		
Metal Case L230×W130×H35		

**Application**

Pipe Type	Size
Brake Pipe, Copper Pipe	3/16 · 1/4 · 5/16 · 3/8 · 7/16 · 1/2 · 5/8

• A set of flaring tool and tube cutter necessary for flaring of connection section of brake pipes or air conditioner pipes.

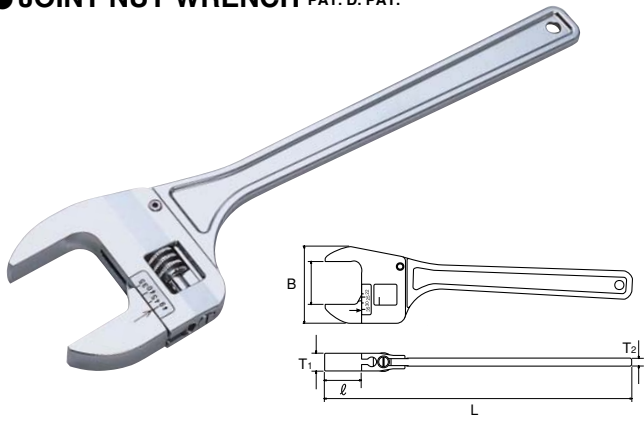


**CAUTION** • Make sure that you read the Owner's Operator Manual carefully before use.





● JOINT NUT WRENCH PAT. D. PAT.



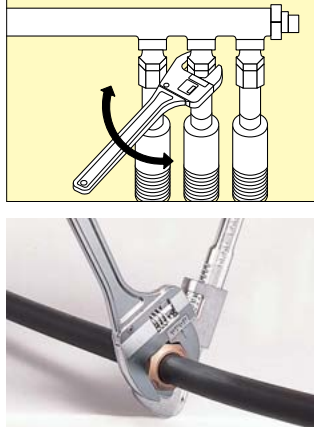
JOINT NUT WRENCH

No.	B	T <sub>1</sub>	T <sub>2</sub>	Applicable Nut Width Across Flats	L	ℓ	▼g	📦
FMR260	66	15	7.5	22~35	260	31	500	5
FMR330	88	15	7.5	35~49	330	43	700	5

- Purpose**  
 ● A Wrench for tightening and loosening of mechanical joints for gas, water, hot water, or air conditioning pipes.
- Features**  
 ● With ratchet mechanism, quick tightening and loosening of nuts possible with ease even in narrow spaces.  
 ● Spanner type end enables application to both hexagonal and octagonal nuts with one wrench.  
 ● Applicable to joints of different sizes.  
 ● Engraved scale facilitates adjustment of size.

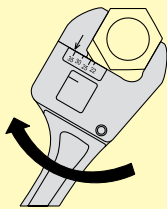
Type of Joint	No. (Applicable Nut Width Across Flats)	FMR260	FMR330
Stainless Steel Flexible Pipe Joint for Water and Hot Water	Hexagonal	8A, 10A, 13A, 15A, 16A	20A
Metal Joints for Polyethylene Water Pipe	Hexagonal/Octagonal	13A	13A, 20A, 25A
Union Nuts for Water Supply	Hexagonal/Octagonal	13A	20A, 25A
Flex Pipe Joint for Gas	Hexagonal	8A, 10A, 15A, 20A	20A, 25A
Stainless Steel Flexible Pipe Joint for Water and Hot Water	Hexagonal	1/2", 3/4"	—
Flare Pipe Joint for Air Conditioner	Hexagonal	3/8", 1/2", 5/8"	3/4"

Also applicable to work on headers of cross-linked pipes.



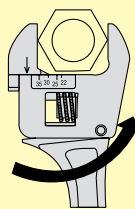
● How to Use Adjust the opening of joint nut wrench to fit width across flat of the nut in advance.

1 Tighten the nut.



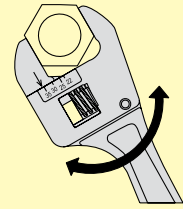
Turn the nut to tightening direction with joint nut wrench.

2 Turn the joint nut wrench back to loosening direction.



With nut still held in between, turn the wrench to loosening direction.

3 Tighten the nut



Repeat procedures 1 and 2 to complete.

FLANGING TOOL

No.	L	W	H	▼kg
FV10	350	90	145	3.7

Flange can easily be made with a simple operation.

- Purpose**  
 ● A tool to make sealing surface on joint section of stainless steel flexible pipes for water/hot water supply.

**Application**  
 ● Stainless flex pipes, nominal 13.20 (except spiral shapes).

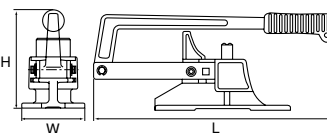
- Features**  
 ● You only push down the handle to make flanges quickly and efficiently.  
 ● It applies force to create uniform flanges.  
 ● One holder is applicable to flexible pipes of 2 different sizes.

● FLANGING TOOL



Holder

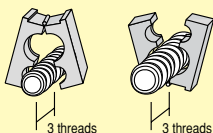
No.	
FV10-1	



● How to Use

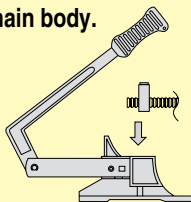
1 Set flexible pipe on the holder.

Nomination 13 (1/2") Nomination 20 (3/4")



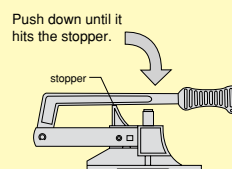
Set the flexible pipe into the holder of appropriate size with 3 threads projecting out of the holder end.

2 Attach the holder onto the main body.



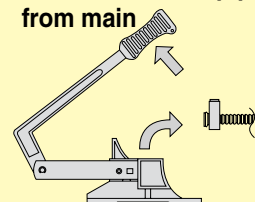
Attach the holder fixed with flexible pipe into the tool.

3 Push down the handle.



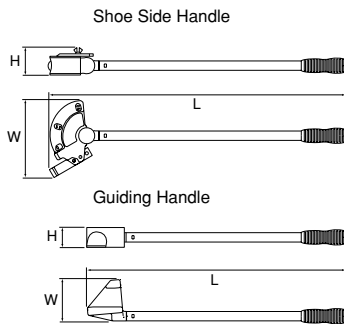
Push down the handle until it hits the stopper.

4 Take out the flex pipe from main



Pull up the handle and take out the flex pipe with holder.

● PIPE BENDER FOR STAINLESS FLEXIBLE PIPE



PIPE BENDER FOR STAINLESS FLEXIBLE PIPE

No.	Shoe Side Handle			Guiding Handle			▼kg	📦
	W	H	L	W	H	L		
FV30	210	77	803	112	65	700	3.5	1

Purpose

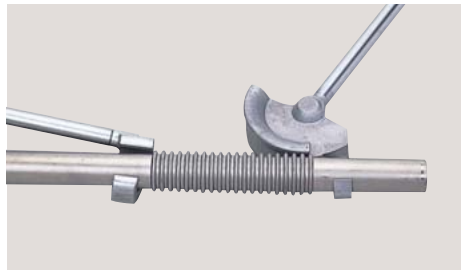
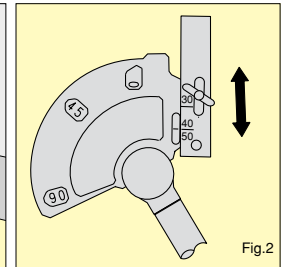
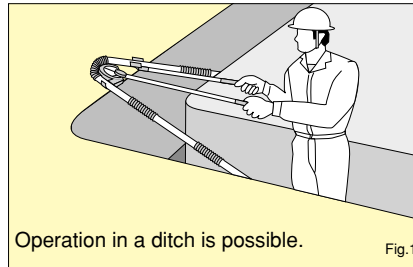
● A special tool for bending wavy stainless steel pipes used in piping from water supply pipe to meter up to 90 degrees.

Application

● Wavy Stainless Steel Pipes Nomination 30su, 40su, 50su.  
 (Cannot be used for bending any other types of pipes.)

Features

- Use of guiding handle ; eliminates need of setting the pipe on the ground. Operation in a ditch (for piping) is possible (Fig.1).
- No need for complicated preparations. You can quickly, easily and smoothly bend the stainless steel pipe.
- With indication of angle (Fig.2).
- Mobile hook enables most appropriate bending for the pipe size.
- Made of high strength aluminum, the tool is light and easy to carry around.

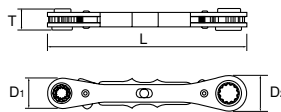


4 SIZE STANDARD RATCHET BOXEND WRENCH

No.	Size	D <sub>1</sub>	D <sub>2</sub>	T	L	▼g	📦
MR-0813	8×12 · 10×13	21	25	15	143	130	10
-1014	10×13 · 12×14	25	28	15	166	160	10

Features

- Thin socket convenient for work in narrow spaces.
- Side is green which stands out in working environment. Made of resin and light.
- Wave shape grip : hand-fitted and easy to transmit force.



● 4 SIZE STANDARD RATCHET BOXEND WRENCH



- CAUTION**
- The changeover switch must be operated properly to prevent breakages and idling.
  - For temporary tightening only. Do not carry out the final tightening adjustment with this tool.

4 SIZE LONG RATCHET BOXEND WRENCH

No.	Size	h <sub>1</sub>	h <sub>2</sub>	h <sub>3</sub>	h <sub>4</sub>	D <sub>1</sub>	D <sub>2</sub>	T <sub>1</sub>	T <sub>2</sub>	L	▼g	📦
MR-0813L	8×12 · 10×13	10	17.5	15	17.5	21	25	34.5	44.5	143	180	10
-1014L	10×13 · 12×14	15	18	15	30	25	28	39.5	57.5	166	230	10

A "must" for piping work. Works in various situations.

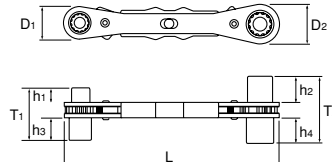


Purpose

● Tightening various cable way or piping support materials.

Features

- Long socket enables to work in deep sections.
- Side is green which stands out in working environment. Made of resin and light.
- Wave shape grip ; hand-fitted and easy to transmit force.



● 4 SIZE LONG RATCHET BOXEND WRENCH



- CAUTION**
- The changeover switch must be operated properly to prevent breakages and idling.
  - For temporary tightening only. Do not carry out the final tightening adjustment with this tool.