PEISIN

# Pneumatic Power Tools

CATALOGUE

## Structure and Working Mechanism of EYP series of oil pulse tools.

The EYP series of oil pulse tools present highest efficiency with simple pulse mechanism.

Pulse unit mainly consists of Cage, Anvil and Piston combined with Roller.

Inside of Anvil, there are a pair of built-in Pistons and Rollers located 180 degrees opposite. There are two mounted portions protruded from the inside wall of Cage, located 180 degrees opposite, also. A pair of Rollers always contact with the inside wall of Cage.

Anvil is installed inside of Cage and is not connected with the air motor, but Cage is directly connected with the air motor. While Anvil is rotating under no load, i.e. free running, Cage rotates together with Anvil. Once Anvil is on load at the snag point, Anvil begins to stop rotating, but Cage still keeps rotating as Cage is directly connected with the air motor.

After Anvil stops rotating, two mounted portions of Cage begin to push a pair of Rollers toward center of Cage, i.e. Rollers start climbing up on the mounts. Oil is fulfilled everywhere inside of Cage and is able to move freely, but this movement of Rollers forces to form a pair of sealed chambers inside of Anvil and possible oil flow will be finally intercepted.

Oil in the sealed chambers keeps compressed as a pair of Rollers are still climbing up on the way. Just before Rollers climb up at the top of the mounts, the seal points between Pistons and Anvil get separated, generating pulse in a moment by releasing energy accumulated in the high pressure oil.

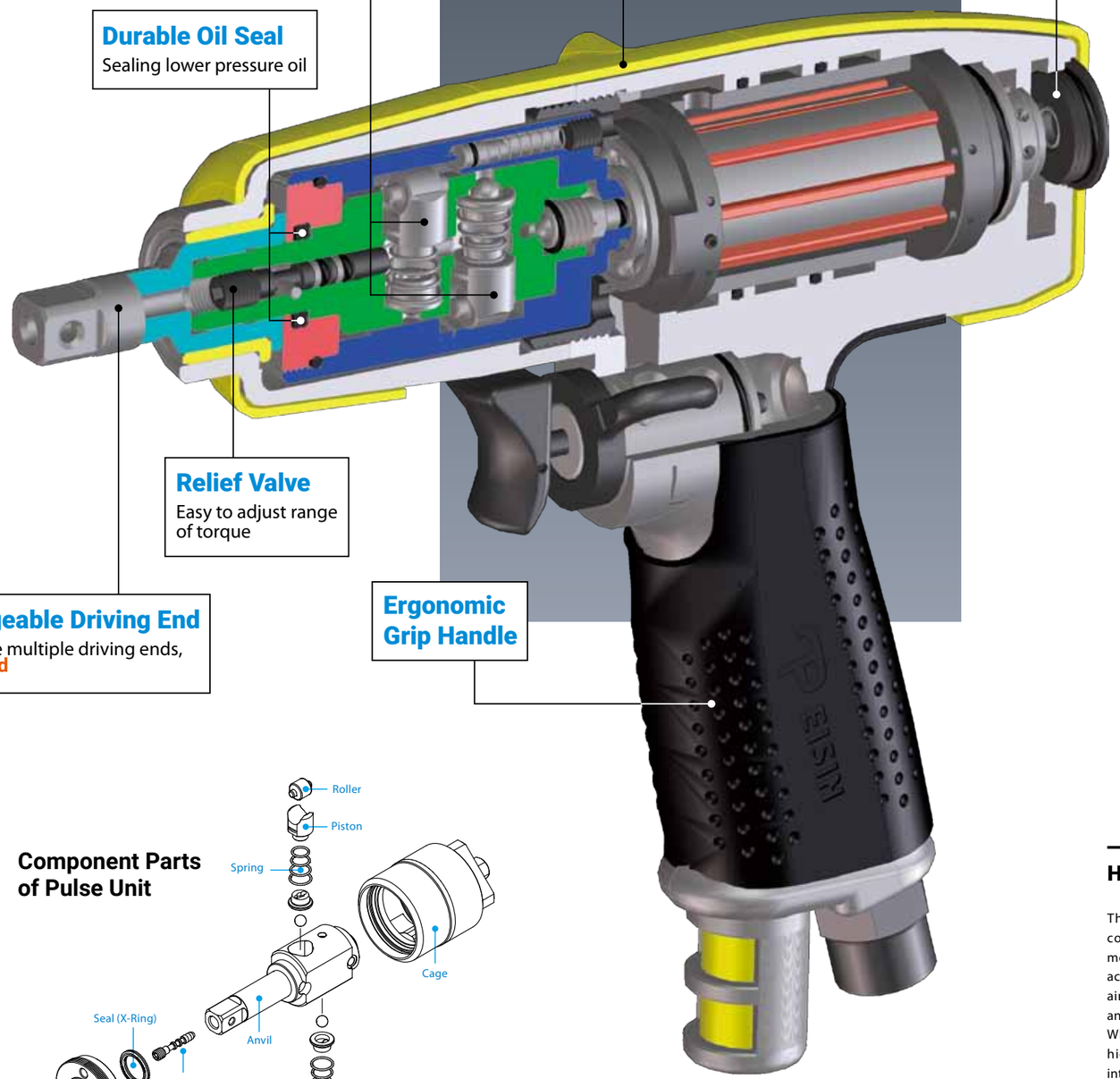
# EYP FEATURES

**Simple Structure**
Presents maximum torque output
**Patented**

**Protector**

**Direct Air Shut-off**
New mechanism,
**Patented**

**Durable Oil Seal**
Sealing lower pressure oil

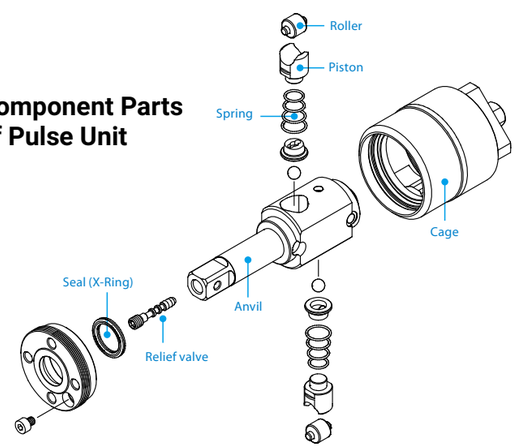


**Relief Valve**
Easy to adjust range of torque

**Changeable Driving End**
Available multiple driving ends,
**Patented**

**Ergonomic Grip Handle**

## Component Parts of Pulse Unit



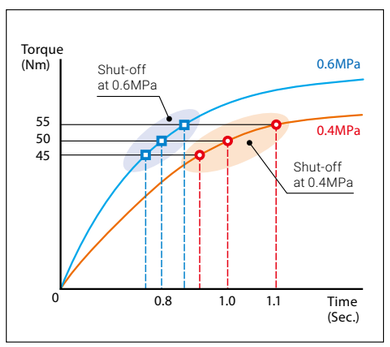

# EYP ADVANTAGES

**enable to minimize total ownership cost**

| | Less Initial Cost | Less Running Cost | Ergono-mics | Excellent Perfor-mance | Easy and Simple Handling |
|---|---|---|---|---|---|
| **DIRECT AIR SHUT-OFF**, patented, makes it possible for EYP pulse tool to provide most accurate and stable shut-off performance despite of possible fluctuation of supply air pressure between 0.4MPa and 0.6MPa. | | | | ✓ | |
| **SIMPLE STRUCTURE** of EYP pulse mechanism, petented, presents maximum torque output, most durable life time, less wearing parts, less overall maintenance cost, as well. | | ✓ | | ✓ | |
| **DURABLE OIL SEAL** having two seal-points configuration can offer no oil leakage for a longer overall service life at less expensive replacement cost; same material adopted as ordinary O-ring. | | ✓ | | | |
| Diesel engine oil, popularly available in the market, used for EYP pulse tool enables less expensive oil replacement cost. | | ✓ | | | |
| **CHANGEABLE DRIVING END** of EYP pulse tool, patented, enables less reserve cost of backup tools. | | ✓ | | | ✓ |
| Simplified method of oil replacement available for EYP pulse tool enables quick oil change service without using vacuum pump system. | | ✓ | | | ✓ |
| Easy change positioning of **RELIEF VALVE**, located in the center of EYP pulse tool, enables less time period for adjustment to meet target torque. | | | | | ✓ |
| Less reaction force from EYP pulse tool combined with **ERGONOMIC GRIP HANDLE** provides operator friendly handling and less fatigue to the operator's wrist, arm and shoulder. | | | ✓ | | |
| Declared values of EYP pulse tools regarding noise level and vibration meet harmonized standards specified in compliance with EC Declaration of Conformity. | | | ✓ | | |
| Competitive tool pricing of EYP pulse tools enables to save customer's investment cost. | ✓ | | | | |

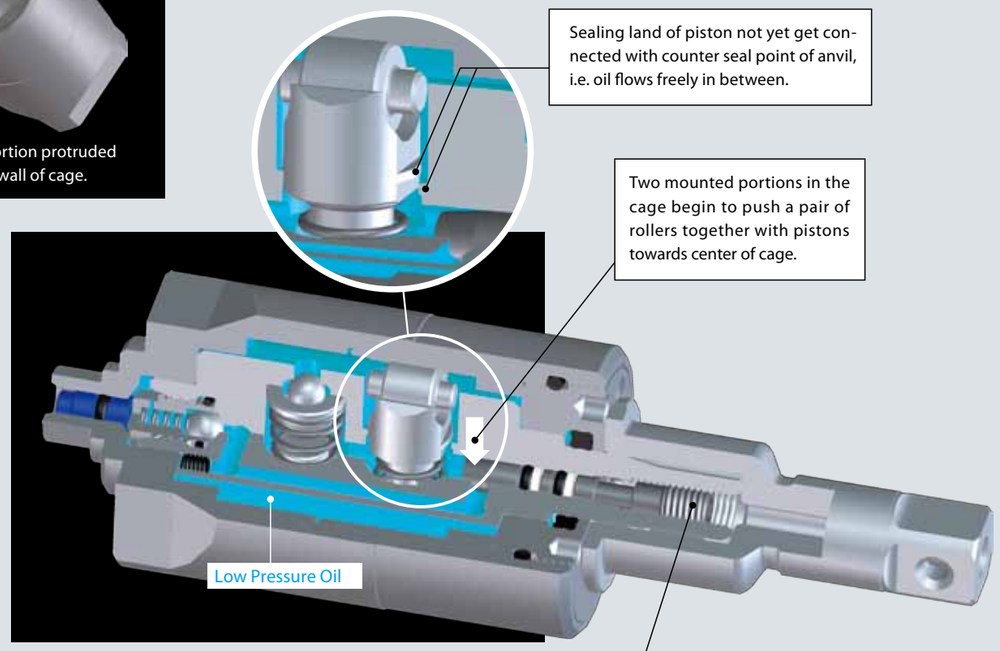
## HOW DOES THE EYP PULSE TOOL WORK WHILE SUPPLY AIR PRESSURE FLUCTUATES ?

The unique design of EYP pulse tool, combining pulse unit and air shut-off mechanism, provides the most excellent accuracy of shut-off torque while supply air pressure fluctuates between 0.4 MPa and 0.6 MPa or more.
While generating pulse, some amount of high pressure oil is going through the internal oil passage (tunnel) in the wall of the anvil and flows into the oil chamber through the check valve orifice. During a series of pulse, accumulated volume of oil in the chamber keeps increasing and finally activates the shutoff piston.
When the supply air pressure goes down, the rotation of the air motor slows down and simultaneously, the number of pulse being generated becomes lower, also. As a result, it takes more time to build up enough fluid pressure to activate the shut-off piston which will transmit fluid force to the air shut-off valve by way of the signal pin located in the center of the rotor. This automatic self-controlled mechanism is called **"DIRECT AIR SHUT-OFF"**, and it is patented.
Amount of oill accumulated in the chamber varies in proportion with the energy per pulse as well as the number of pulse.
Illustration on the right shows how stably shut-off torque can be maintained even if the supply air pressure fluctuates between 0.4 MPa and 0.6 Mpa.



# EYP WORKING PRINCIPLE

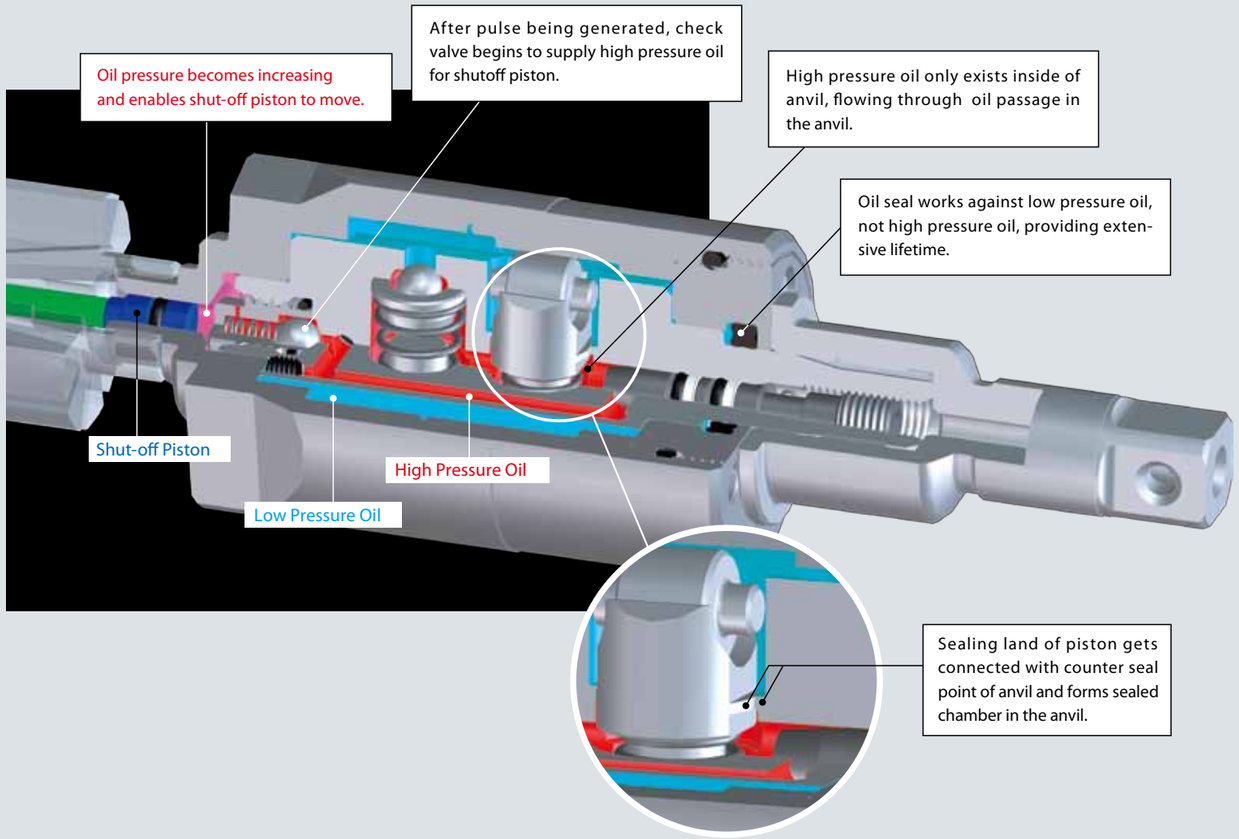
Mounted portion protruded from inside wall of cage.




Sealing land of piston not yet get connected with counter seal point of anvil, i.e. oil flows freely in between.

Two mounted portions in the cage begin to push a pair of rollers together with pistons towards center of cage.

By changing positioning of relief valve, pressure of oil flowing inside of anviil can be adjusted to control output power of pulse as well as transmitting force to activate shut-off valve.




Oil pressure becomes increasing and enables shut-off piston to move.

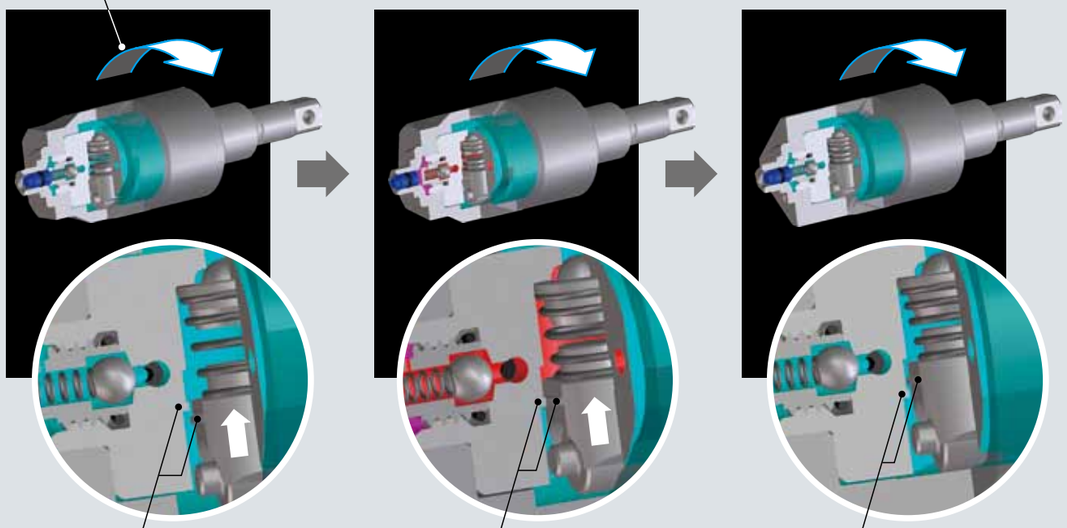
After pulse being generated, check valve begins to supply high pressure oil for shutoff piston.

High pressure oil only exists inside of anvil, flowing through oil passage in the anvil.

Oil seal works against low pressure oil, not high pressure oil, providing extensive lifetime.

Sealing land of piston gets connected with counter seal point of anvil and forms sealed chamber in the anvil.

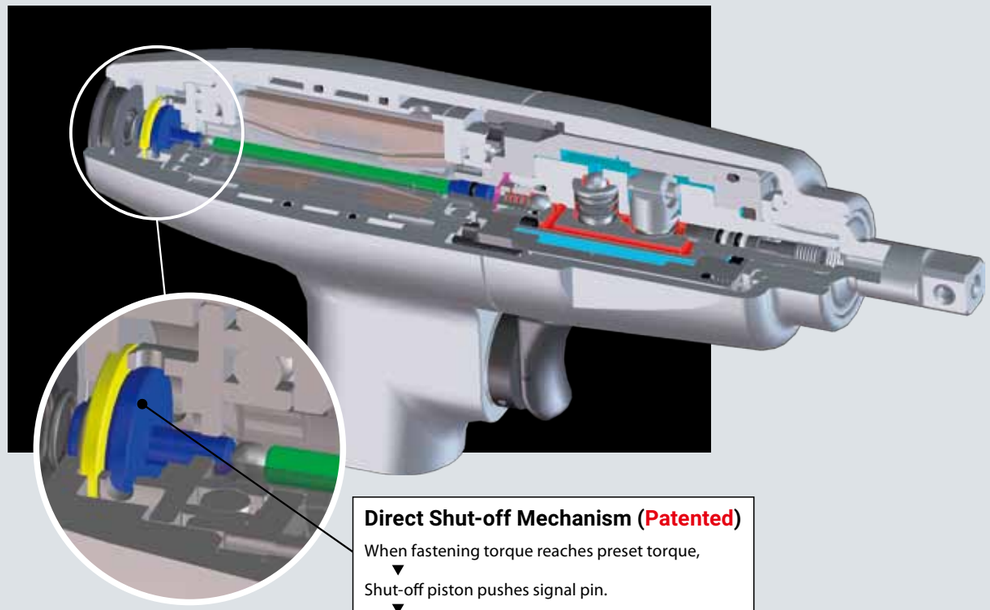
Cage which is directly connected with rotor of air motor always keeps rotating.



Sealing land of piston not yet get connected with counter seal point of anvil i.e. oil flows freely in between.

Sealing land of piston reaches counter seal point of anvil and forms sealed chamber in the anvil.
Oil in the chamber becomes compressed and generates power of pulse.

After roller together with pistons go over the mounted portions in the cage, each sealing land becomes disconnected and sealed chambers will disappear.



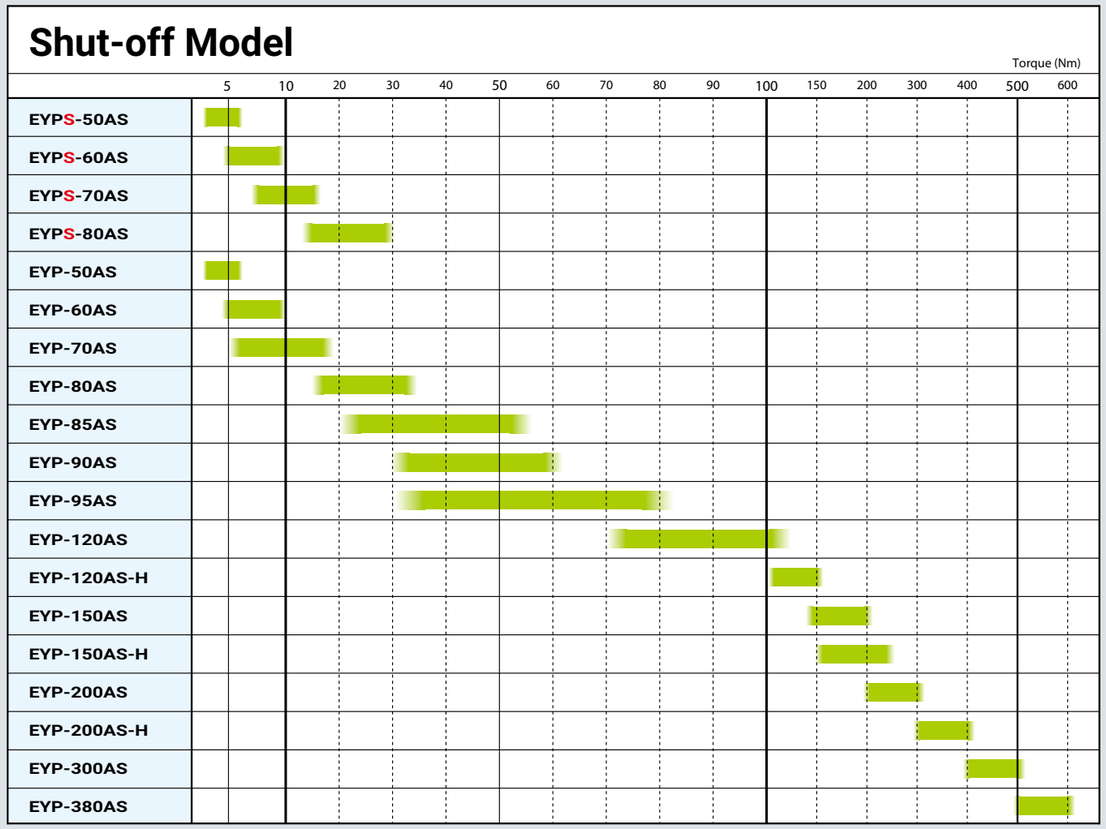
**Direct Shut-off Mechanism (Patented)**

When fastening torque reaches preset torque,
▼
Shut-off piston pushes signal pin.
▼
Signal pin pushes shut-off valve,
then air supply will be shut off.

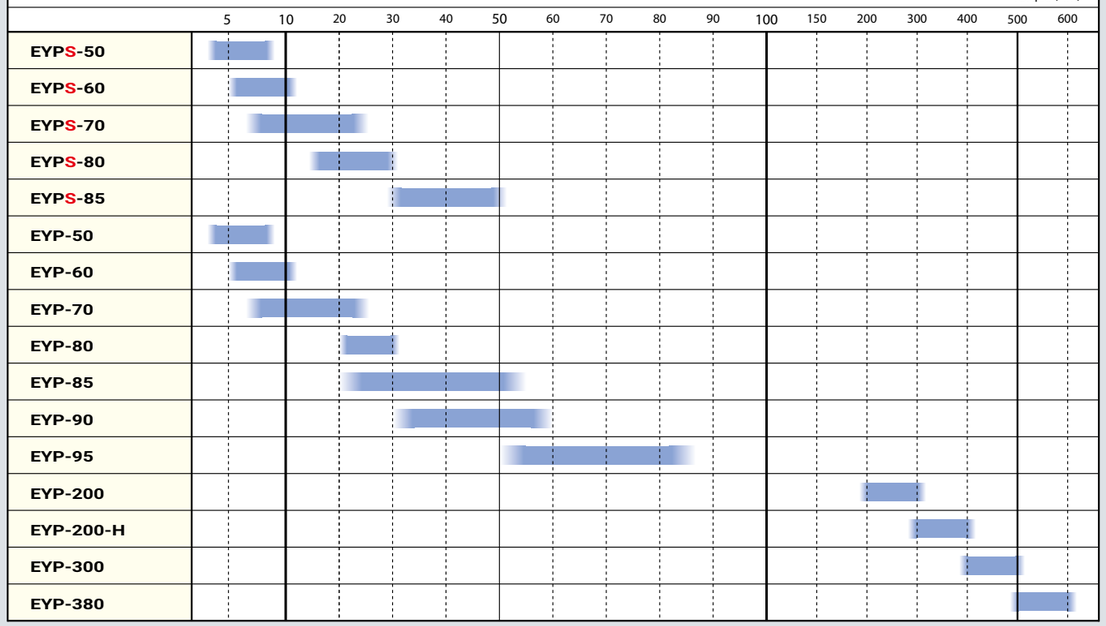
# Tool Selection Guide

Helps to select appropriate EYP tool model for your fastening application. Actual torque values may vary depending on the application and tightening conditions on the job site. It is recommended to use this guide as a reference.

## Shut-off Model




## Non Shut-off Model




# Oil Pulse Wrench

**Shut-off Model**

## Pistol Grip


## SPECIFICATIONS

| Model Name | Bolt Size | Torque Range | | Size of Driving End | | I.D of Hose | Weight | RPM under no load | | Average Air Consumption |
|---|---|---|---|---|---|---|---|---|---|---|
| | | 0.6 MPa | 0.4 MPa | mm | inch | mm | kg | 0.4 MPa | 0.6 MPa | $m^3$/min |
| **EYP-50AS-D** | M4 - M6 | 2.5 - 5.5 Nm | 2.5 - 5.5 Nm | 6.35 Hex | 1/4 Hex | 8.5 | 0.9 | 8,200 | 8,400 | 0.2 |
| **EYP-60AS (3/8)** | M5 - M6 | 4.5 - 10 Nm | 4.5 - 10 Nm | 9.5 | 3/8 | 8.5 | 1.1 | 7,500 | 7,800 | 0.25 |
| **EYP-60AS-D** | M5 - M6 | 4.5 - 10 Nm | 4.5 - 10 Nm | 6.35 Hex | 1/4 Hex | 8.5 | 1.1 | 7,500 | 7,800 | 0.25 |
| **EYP-70AS (3/8)** | M6 - M8 | 7 - 20 Nm | 5 - 18 Nm | 9.5 | 3/8 | 8.5 | 1.1 | 8,000 | 8,800 | 0.25 |
| **EYP-70AS (1/2)** | M6 - M8 | 7 - 20 Nm | 5 - 18 Nm | 12.7 | 1/2 | 8.5 | 1.1 | 8,000 | 8,800 | 0.25 |
| **EYP-70AS-D** | M6 - M8 | 7 - 20 Nm | 5 - 18 Nm | 6.35 Hex | 1/4 Hex | 8.5 | 1.1 | 8,000 | 8,800 | 0.25 |
| **EYP-80AS (3/8)** | M6 - M8 | 18 - 35 Nm | 15 - 33 Nm | 9.5 | 3/8 | 8.5 | 1.1 | 6,700 | 7,200 | 0.25 |
| **EYP-80AS (1/2)** | M6 - M8 | 18 - 35 Nm | 15 - 33 Nm | 12.7 | 1/2 | 8.5 | 1.1 | 6,700 | 7,200 | 0.25 |
| **EYP-80AS-D** | M6 - M8 | 18 - 35 Nm | 15 - 33 Nm | 6.35 Hex | 1/4 Hex | 8.5 | 1.1 | 6,700 | 7,200 | 0.25 |
| **EYP-85AS (3/8)** | M10 - M12 | 25 - 60 Nm | 20 - 55 Nm | 9.5 | 3/8 | 8.5 | 1.1 | 6,700 | 7,200 | 0.25 |
| **EYP-85AS (1/2)** | M10 - M12 | 25 - 60 Nm | 20 - 55 Nm | 12.7 | 1/2 | 8.5 | 1.1 | 6,700 | 7,200 | 0.25 |
| **EYP-90AS (3/8)** | M10 - M12 | 33 - 65 Nm | 30 - 60 Nm | 9.5 | 3/8 | 8.5 | 1.4 | 5,000 | 5,500 | 0.27 |
| **EYP-90AS (1/2)** | M10 - M12 | 33 - 65 Nm | 30 - 60 Nm | 12.7 | 1/2 | 8.5 | 1.4 | 5,000 | 5,500 | 0.27 |
| **EYP-90AS-D** | M10 - M12 | 30 - 50 Nm | 25 - 45 Nm | 6.35 Hex | 1/4 Hex | 8.5 | 1.4 | 5,000 | 5,500 | 0.27 |
| **EYP-95AS** | M10 - M12 | 30 - 85 Nm | 30 - 80 Nm | 12.7 | 1/2 | 8.5 | 1.5 | 4,700 | 5,100 | 0.32 |
| **EYP-120AS** | M14 | 70 - 120 Nm | 70 - 120 Nm | 12.7 | 1/2 | 8.5 | 2.7 | 3,000 | 3,500 | 0.4 |
| **EYP-120AS-H** | M14 | 100 - 150 Nm | 100 - 150 Nm | 12.7 | 1/2 | 8.5 | 2.7 | 3,000 | 3,500 | 0.4 |
| **EYP-150AS** | M16 | 140 - 200 Nm | 140 - 200 Nm | 19 | 3/4 | 9.5 | 4.1 | 2,300 | 2,600 | 0.48 |
| **EYP-150AS-H** | M16 | 160 - 280 Nm | 160 - 250 Nm | 19 | 3/4 | 9.5 | 4.1 | 2,300 | 2,600 | 0.48 |

※Air consumption data was taken at air pressure 0.4MPa on load

# Oil Pulse Wrench Shut-off Model

## Straight Grip


### SPECIFICATIONS

| Model Name | Bolt Size | Torque Range | | Size of Driving End | | I.D of Hose | Weight | RPM under no load | | Average Air Consumption |
|---|---|---|---|---|---|---|---|---|---|---|
| | | 0.6 MPa | 0.4 MPa | mm | inch | mm | kg | 0.4 MPa | 0.6 MPa | $m^3$/min |
| **EYPS-50AS-D** | M4 - M5 | 2.5 - 5.5 Nm | 2.5 - 5.5 Nm | 6.35 Hex | 1/4 Hex | 8.5 | 0.9 | 5,400 | 6,100 | 0.2 |
| **EYPS-60AS** | M5 - M6 | 4.5 - 10 Nm | 4.5 - 10 Nm | 9.5 | 3/8 | 8.5 | 1.0 | 4,800 | 5,400 | 0.24 |
| **EYPS-60AS-D** | M5 - M6 | 4.5 - 10 Nm | 4.5 - 10 Nm | 6.35 Hex | 1/4 Hex | 8.5 | 1.0 | 4,800 | 5,400 | 0.24 |
| **EYPS-70AS** | M6 - M8 | 7 - 18 Nm | 7 - 16 Nm | 9.5 | 3/8 | 8.5 | 1.0 | 4,800 | 5,400 | 0.24 |
| **EYPS-70AS-D** | M6 - M8 | 7 - 18 Nm | 7 - 16 Nm | 6.35 Hex | 1/4 Hex | 8.5 | 1.0 | 4,800 | 5,400 | 0.24 |
| **EYPS-80AS** | M6 - M8 | 15 - 30 Nm | 13 - 30 Nm | 9.5 | 3/8 | 8.5 | 1.0 | 4,800 | 5,400 | 0.24 |
| **EYPS-80AS-D** | M6 - M8 | 15 - 30 Nm | 13 - 30 Nm | 6.35 Hex | 1/4 Hex | 8.5 | 1.0 | 4,800 | 5,400 | 0.24 |

※Air consumption data was taken at air pressure 0.4MPa on load

## Straight Grip


### SPECIFICATIONS

| Model Name | Bolt Size | Torque Range | | Size of Driving End | | I.D of Hose | Weight | RPM under no load | | Average Air Consumption |
|---|---|---|---|---|---|---|---|---|---|---|
| | | 0.6 MPa | 0.4 MPa | mm | inch | mm | kg | 0.4 MPa | 0.6 MPa | $m^3$/min |
| **EYP-200AS** | M18 - M20 | 200 - 300 Nm | 200 - 300 Nm | 19 | 3/4 | 9.5 | 7.9 | 3,500 | 4,000 | 0.27 |
| **EYP-200AS-H** | M18 - M20 | 300 - 400 Nm | 300 - 400 Nm | 19 | 3/4 | 9.5 | 7.9 | 3,500 | 4,000 | 0.27 |
| **EYP-300AS** | M20 - M22 | 400 - 500 Nm | 400 - 500 Nm | 25.4 | 1 | 12.7 | 10.3 | 4,200 | 4,800 | 0.45 |
| **EYP-380AS** | M20 - M22 | 500 - 600 Nm | 500 - 600 Nm | 25.4 | 1 | 12.7 | 10.7 | 3,300 | 4,000 | 0.5 |

※Air consumption data was taken at air pressure 0.4MPa on load

# Oil Pulse Wrench Non Shut-off Model

## Pistol Grip


### SPECIFICATIONS

| Model Name | Bolt Size | Torque Range | | Size of Driving End | | I.D of Hose | Weight | RPM under no load | | Average Air Consumption |
|---|---|---|---|---|---|---|---|---|---|---|
| | | 0.6 MPa | 0.4 MPa | mm | inch | mm | kg | 0.4 MPa | 0.6 MPa | $m^3$/min |
| **EYP-50-D** | M4 - M5 | 4 - 10 Nm | 3 - 7 Nm | 6.35 Hex | 1/4 Hex | 8.5 | 0.95 | 7,000 | 7,500 | 0.25 |
| **EYP-60 (3/8)** | M5 - M6 | 8 - 15 Nm | 5 - 12 Nm | 9.5 | 3/8 | 8.5 | 1.0 | 6,500 | 7,000 | 0.3 |
| **EYP-60-D** | M5 - M6 | 8 - 15 Nm | 5 - 12 Nm | 6.35 Hex | 1/4 Hex | 8.5 | 1.0 | 6,500 | 7,000 | 0.3 |
| **EYP-70 (3/8)** | M6 - M8 | 10 - 30 Nm | 7 - 25 Nm | 9.5 | 3/8 | 8.5 | 1.0 | 8,500 | 9,500 | 0.35 |
| **EYP-70-D** | M6 - M8 | 10 - 30 Nm | 7 - 25 Nm | 6.35 Hex | 1/4 Hex | 8.5 | 1.0 | 8,500 | 9,500 | 0.35 |
| **EYP-80 (3/8)** | M6 - M8 | 25 - 35 Nm | 20 - 30 Nm | 9.5 | 3/8 | 8.5 | 1.0 | 8,500 | 9,500 | 0.35 |
| **EYP-80 (1/2)** | M6 - M8 | 25 - 35 Nm | 20 - 30 Nm | 12.7 | 1/2 | 8.5 | 1.0 | 8,500 | 9,500 | 0.35 |
| **EYP-80-D** | M6 - M8 | 25 - 35 Nm | 20 - 30 Nm | 6.35 Hex | 1/4 Hex | 8.5 | 1.0 | 8,500 | 9,500 | 0.35 |
| **EYP-85 (3/8)** | M10 - M12 | 35 - 65 Nm | 30 - 60 Nm | 9.5 | 3/8 | 8.5 | 1.0 | 8,500 | 9,500 | 0.35 |
| **EYP-85 (1/2)** | M10 - M12 | 35 - 65 Nm | 30 - 60 Nm | 12.7 | 1/2 | 8.5 | 1.0 | 8,500 | 9,500 | 0.35 |
| **EYP-90 (3/8)** | M10 - M12 | 35 - 70 Nm | 30 - 65 Nm | 9.5 | 3/8 | 8.5 | 1.35 | 4,900 | 5,300 | 0.37 |
| **EYP-90 (1/2)** | M10 - M12 | 35 - 70 Nm | 30 - 65 Nm | 12.7 | 1/2 | 8.5 | 1.35 | 4,900 | 5,300 | 0.37 |
| **EYP-95** | M10 - M12 | 60 - 95 Nm | 50 - 85 Nm | 12.7 | 1/2 | 8.5 | 1.35 | 4,900 | 5,300 | 0.37 |

※Air consumption data was taken at air pressure 0.4MPa on load

## Straight Grip


### SPECIFICATIONS

| Model Name | Bolt Size | Torque Range | | Size of Driving End | | I.D of Hose | Weight | RPM under no load | | Average Air Consumption |
|---|---|---|---|---|---|---|---|---|---|---|
| | | 0.6 MPa | 0.4 MPa | mm | inch | mm | kg | 0.4 MPa | 0.6 MPa | $m^3$/min |
| **EYPS-50-D** | M4 - M5 | 4 - 10 Nm | 3 - 7 Nm | 6.35 Hex | 1/4 Hex | 8.5 | 0.95 | 5,200 | 5,800 | 0.48 |
| **EYPS-60 (3/8)** | M5 - M6 | 8 - 15 Nm | 5 - 12 Nm | 9.5 | 3/8 | 8.5 | 0.95 | 4,700 | 5,000 | 0.52 |
| **EYPS-60-D** | M5 - M6 | 8 - 15 Nm | 5 - 12 Nm | 6.35 Hex | 1/4 Hex | 8.5 | 0.95 | 4,700 | 5,000 | 0.52 |
| **EYPS-70 (3/8)** | M6 - M8 | 10 - 30 Nm | 7 - 25 Nm | 9.5 | 3/8 | 8.5 | 0.95 | 4,700 | 5,000 | 0.52 |
| **EYPS-70-D** | M6 - M8 | 10 - 30 Nm | 7 - 25 Nm | 6.35 Hex | 1/4 Hex | 8.5 | 0.95 | 4,700 | 5,000 | 0.52 |
| **EYPS-80 (3/8)** | M6 - M8 | 20 - 35 Nm | 15 - 30 Nm | 9.5 | 3/8 | 8.5 | 0.95 | 4,700 | 5,000 | 0.52 |
| **EYPS-80-D** | M6 - M8 | 20 - 35 Nm | 15 - 30 Nm | 6.35 Hex | 1/4 Hex | 8.5 | 0.95 | 4,700 | 5,000 | 0.52 |
| **EYPS-85 (3/8)** | M10 - M12 | 35 - 60 Nm | 30 - 50 Nm | 9.5 | 3/8 | 8.5 | 0.95 | 4,700 | 5,000 | 0.52 |
| **EYPS-85 (1/2)** | M10 - M12 | 35 - 60 Nm | 30 - 50 Nm | 12.7 | 1/2 | 8.5 | 0.95 | 4,700 | 5,000 | 0.52 |
| **EYP-200** | M18 - M20 | 200 - 300 Nm | 200 - 300 Nm | 19 | 3/4 | 9.5 | 7.2 | 3,500 | 4,000 | 1.4 |
| **EYP-200-H** | M18 - M20 | 300 - 400 Nm | 300 - 400 Nm | 19 | 3/4 | 9.5 | 7.2 | 3,500 | 4,000 | 1.4 |
| **EYP-300** | M20 - M22 | 400 - 500 Nm | 400 - 500 Nm | 25.4 | 1 | 12.7 | 9.5 | 4,200 | 4,800 | 1.6 |
| **EYP-380** | M20 - M22 | 500 - 600 Nm | 500 - 600 Nm | 25.4 | 1 | 12.7 | 9.8 | 3,300 | 4,000 | 1.8 |

※Air consumption data was taken at air pressure 0.4MPa on load

# POKAYOKE (Fool Proof) System

## Air Pressure Detecting Type

POKAYOKE (fool proof) system detects supply air pressure inside the air motor and correctly counts down the number of bolts or nuts fastened. Once bolts or nuts are not fastened accidintally, POKAYOKE display alarms by changing color from green to red. Buzzer to alarm erroneous fastening is available as an option, as well.


### FEATURES

- To be used with PY model tools.
- Counts down and displays balance due numbers of bolts or nuts to be fastened after the pulse tool shuts off.
- Monitors four different works with different numbers of bolts or nuts to be fastened.
- Alarms on the display if the bolts or nuts are not fastened accidentaly.
- Becomes active in right hand rotation for tightening bolts or nuts.
- Becomes inactive in left hand rotation for loosening bolts or nuts.
- Becomes inactive during free running.
- Easy to set up parameter on the front panel.
- Either one of the English or Chinese langauge can be sellected on the display.

### SPECIFICATION

Power Source
: 100-240 VAC 50-60 h

Power Consumption
: 1amp @ 115 VAC

Operating Conditions
: 0 to +50℃

Humiditi
: 0 to 95% non-condensing

Weight : 3.1kg

Approximatery Dimensions
: 227(L) × 155(W) × 155(H) (mm)

## Compatible Models

| Model Name | Bolt Size |
|---|---|
| **EYP-50AS-PY-D** | M4 - M5 |
| **EYP-60AS-PY (3/8)** | M5 - M6 |
| **EYP-60AS-PY-D** | M5 - M6 |
| **EYP-70AS-PY (3/8)** | M6 - M8 |
| **EYP-70AS-PY (1/2)** | M6 - M8 |
| **EYP-70AS-PY-D** | M6 - M8 |
| **EYP-80AS-PY (3/8)** | M6 - M8 |
| **EYP-80AS-PY (1/2)** | M6 - M8 |
| **EYP-80AS-PY-D** | M6 - M8 |
| **EYP-85AS-PY (3/8)** | M10 - M12 |
| **EYP-85AS-PY (1/2)** | M10 - M12 |
| **EYP-90AS-PY (3/8)** | M10 - M12 |
| **EYP-90AS-PY (1/2)** | M10 - M12 |
| **EYP-90AS-PY-D** | M10 - M12 |
| **EYP-95AS-PY** | M10 - M12 |
| **EYP-120AS-PY** | M14 |
| **EYP-120AS-H-PY** | M14 |
| **EYP-150AS-PY** | M16 |
| **EYP-150AS-H-PY** | M16 |

| Model Name | Bolt Size |
|---|---|
| **EYPS-50AS-PY-D** | M4 - M5 |
| **EYPS-60AS-PY (3/8)** | M5 - M6 |
| **EYPS-60AS-PY-D** | M5 - M6 |
| **EYPS-70AS-PY (3/8)** | M6 - M8 |
| **EYPS-70AS-PY-D** | M6 - M8 |
| **EYPS-80AS-PY (3/8)** | M6 - M8 |
| **EYPS-80AS-PY-D** | M6 - M8 |
| **EYP-200AS-PY** | M18 - M20 |
| **EYP-200AS-H-PY** | M18 - M20 |
| **EYP-300AS-PY** | M20 - M22 |
| **EYP-380AS-PY** | M20 - M22 |

| Model Name | Bolt Size |
|---|---|
| **EYI-160T-PY** | M16 |

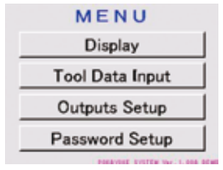

## Wireless Type



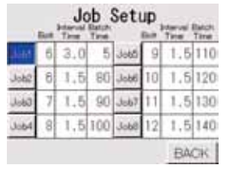
### FEATURES

- Eliminates missing bolts.
- Counts down only a tool shut-off protecting from premature trigger release.
- Possible to stop whole operation or conveyor line using solenoid valve attachment as an option.
- Caution message automatically appears on the monitor and alerts maintenance service or oil replacement due for a tool based on the number of rundowns or cycles.
- Mobile tablet available for monitoring.
- Capable to track and monitor daily and total count graph.
- User friendly programming, easy to customize.
- Language selection.
- Outputs for lights and alarms.
- Compact and light weight pokayoke box.
- Eliminates air tube for signal transfer.

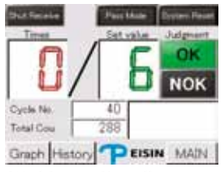
### MONITOR



Main menus

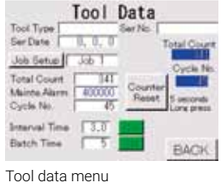


Job Set Up menu up to 8 jobs

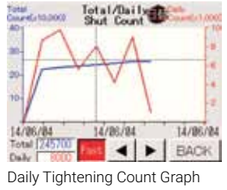


OK of Correct Shut-off

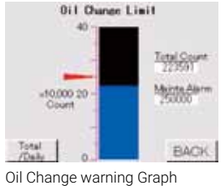
NOK when batch time over



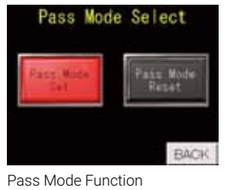
Tool data menu



Daily Tightening Count Graph



Oil Change warning Graph



Pass Mode Function

# Testers

## EYT Series JOINT SIMULATING TESTER


### FEATURES

EYT series of Testers are specially designed for the oil pulse tool and are capable of simulating actual fastening application using a bolt and indicate tightening torque values on the digital counter, providing most repeatable and linear joint rate simulation.

It is recommended to use EYP testers before commencing fastening job at every shift change to ensure the torque output of pulse tool.

### SPECIFICATIONS

| Model Name | Bolt Size | Torque Range | Weight |
|---|---|---|---|
| | | Nm | kg |
| **EYT-6** | M4 | 0.1 ~ 2.7 | 4.5 |
| | M5 | 2.7 ~ 5.4 | |
| | M6 | 5.4 ~ 14.7 | |
| **EYT-10** | M6 | 5.4 ~ 14.7 | 5.5 |
| | M8 | 14.7 ~ 31.4 | |
| | M10 | 31.4 ~ 53.9 | |
| **EYT-16** | M12 | 53.9 ~ 88.2 | 11.0 |
| | M14 | 88.2 ~ 149 | |
| | M16 | 149 ~ 190 | |

## TET Series DIGITAL TORQUE TESTER

TET series of torque testers are specially designed for detecting the maximum torque per blow and the number of blows of oil pulse tool experienced in a preset certain time period.
After a series of usage, performance of the pulse tool may change. TET series of testers are capable of detecting possible changes on the pulse unit and ensure performance at the time. TET series of torque testers are suitable for periodical preformance check on the pulse unit.


### FEATURES

Red colored LED digital counter on the front panel provides visible indication of values.

Easy to engage the digital counter unit with the rundown fixtures; heavy duty and light duty fixtures available.

Easy to connect to optional printer for data recording.

Easy to use, compact, accurate and durable design.

### SPECIFICATIONS

| Model Name | Capacity | | Accuracy | Size mm(about) ( W x D x H ) | Weight | | Socket Adapter |
|---|---|---|---|---|---|---|---|
| | Range of torque | Range of blow | | | Digital Counter | Rundown Fixture | |
| **TET-200** | 10 - 200 Nm | 1 - 99 Hz | ±0.55% | W160 x D128 x H108 | 2.0 kg | 6.0 kg | 3/8 or 1/2 |
| **TET-500** | 10 - 500 Nm | 1 - 99 Hz | ±0.55% | W200 x D185 x H116 | 2.0 kg | 18.0 kg | 3/4 |

Digital Counter Specification Size W260 x D180 x H100
Power Source AC 100V

# Others

## Optimal Torque of Bolt

The optimal torque of bolt is based on the clamp force achieved.
The clamp force applied to bolt should not exceed 70% of the proof load of bolt and the optimal torque applied to bolt should be as much as 60% of the proof load. See the following equation to calculate the optimal torque.

T = k • D • N
Torque = Coefficient of friction × Nominal Diameter × Clamp Force (Tension)

| Property Class | 4.8 | | 5.8 | | 6.8 | | 8.8 | | 10.9 | | 12.9 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Nominal Diameter | Torque (Nm) | Proof Load (N) | Torque (Nm) | Proof Load (N) | Torque (Nm) | Proof Load (N) | Torque (Nm) | Proof Load (N) | Torque (Nm) | Proof Load (N) | Torque (Nm) | Proof Load (N) |
| **M3** | 0.6 | 1560 | 0.8 | 1910 | 0.9 | 2210 | 1.2 | 2920 | 1.7 | 4180 | 2.0 | 4880 |
| **M4** | 1.4 | 2720 | 1.8 | 3340 | 2.0 | 3860 | 2.7 | 5100 | 4.0 | 7290 | 4.6 | 8520 |
| **M5** | 2.9 | 4400 | 3.6 | 5400 | 4.1 | 6250 | 5.5 | 8230 | 8.0 | 11800 | 9.4 | 13800 |
| **M6** | 4.9 | 6230 | 6.1 | 7640 | 7.0 | 8840 | 9.3 | 11600 | 13.6 | 16700 | 15.9 | 19500 |
| **M8** | 12.0 | 11400 | 14.8 | 13900 | 16.9 | 16100 | 22.5 | 21200 | 33.0 | 30400 | 38.7 | 35500 |
| **M10** | 23.7 | 18000 | 29.2 | 22000 | 33.4 | 25500 | 44.6 | 33700 | 65.4 | 48100 | 76.6 | 56300 |
| **M12** | 41.3 | 26100 | 51.0 | 32000 | 58.3 | 37100 | 77.7 | 48900 | 114.1 | 70000 | 133.5 | 81800 |
| **M14** | 65.7 | 35600 | 81.2 | 43700 | 92.7 | 50600 | 123.7 | 66700 | 181.6 | 95500 | 212.5 | 112000 |
| **M16** | 102.5 | 48700 | 126.6 | 59700 | 144.7 | 69100 | 192.9 | 91000 | 283.4 | 130000 | 331.6 | 152000 |
| **M18** | 141.0 | 59500 | 174.2 | 73000 | 199.1 | 84500 | 273.7 | 115000 | 389.8 | 159000 | 456.2 | 186000 |
| **M20** | 199.9 | 76000 | 247.0 | 93100 | 282.2 | 108000 | 388.1 | 147000 | 552.7 | 203000 | 646.8 | 238000 |
| **M22** | 272.0 | 93900 | 336.0 | 115000 | 384.0 | 133000 | 528.0 | 182000 | 751.9 | 252000 | 879.9 | 294000 |
| **M24** | 345.7 | 109000 | 427.0 | 134000 | 488.0 | 155000 | 671.0 | 212000 | 955.7 | 293000 | 1118.3 | 342000 |
| **M27** | 505.6 | 142000 | 624.6 | 174000 | 713.8 | 202000 | 981.5 | 275000 | 1397.9 | 381000 | 1635.9 | 445000 |
| **M30** | 686.7 | 174000 | 848.2 | 213000 | 969.4 | 247000 | 1332.9 | 337000 | 1898.4 | 466000 | 2221.6 | 544000 |
| **M33** | 934.4 | 215000 | 1154.3 | 264000 | 1319.2 | 305000 | 1813.8 | 416000 | 2583.4 | 576000 | 3023.1 | 673000 |

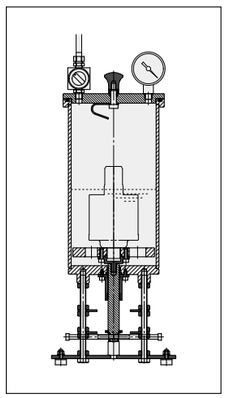
The torque values listed are based on the clamp force (tension) applied to hexagon metric course thread bolt and coefficient of friction 0.2 (guidance only).
Select the best tool for your application.

## Oil Filler EOF-1

VACUUM PUMP OIL FILLER

### FEATURES

OIL FILLER, EOF-01, offers compact and simple design, providing proper procedures of oil replacement for repair and maintenance of EYP oil pulse tools.
Use diesel engine oil, Idemitsu DAPHNE BIOS HIDRO 46SE or equivallent.



# Impact Wrench

## Shut-off Model


### FEATURES

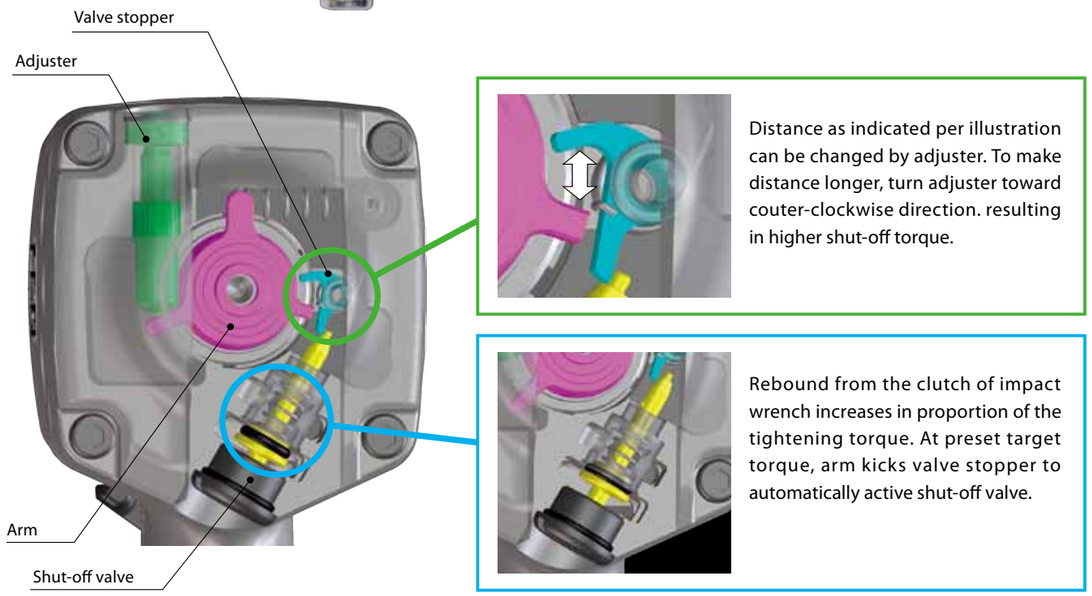
Automatically shuts off air supply at the preset target torque, eliminating unnecessary time consuming operation for longer tool life.

Built-in torque control device provides precise reliability.

Easy external torque adjuster provides 24 different steps for adjustment.

Reliable shut-off for minimum torque reaction.

Light weight and compact body.






Distance as indicated per illustration can be changed by adjuster. To make distance longer, turn adjuster toward couter-clockwise direction. resulting in higher shut-off torque.



Rebound from the clutch of impact wrench increases in proportion of the tightening torque. At preset target torque, arm kicks valve stopper to automatically active shut-off valve.

### SPECIFICATIONS

| Model Name | Bolt Size | Torque Range | | Size of Square End | | I.D of Hose | Weight | RPM under no load | | Average Air Consumption |
|---|---|---|---|---|---|---|---|---|---|---|
| | | 0.6 MPa | 0.4 MPa | mm | inch | mm | kg | 0.4 MPa | 0.6 MPa | $m^3$/min |
| **EYI-160T** | M16 | 300 - 380 Nm | 230 - 300 Nm | 12.7 | 1/2 | 8.5 | 2.8 | 6,500 | 7,800 | 0.38 |

※Air consumption data was taken at air pressure 0.6MPa on load

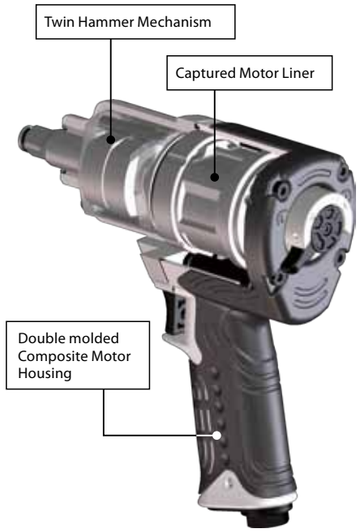
## Composite Housing Model


### FEATURES

**Double molded Composite Motor Housing**
Produced from Patented Molding System
All made in Japan
Provides Ergonomic Pistol Grip Handle
Less Reaction Force to operator
Realizing ideal Lightweight

**Twin Hammer Mechanism**
With Oil Bath Clutch
Provides most Durable and Reliable hammering
Eliminating Hammerlock failures

**Captured Motor Liner**
Ensures Stable and Maximum power output.




### SPECIFICATIONS

| Model Name | Bolt Size | Maximum Torque | Size of Square End | | I.D of Hose | Weight | RPM under no load | Average Air Consumption |
|---|---|---|---|---|---|---|---|---|
| | | Nm | mm | inch | mm | kg | rpm | $m^3$/min |
| **ERI-16 (3/8)** | M16 | 450 | 9.5 | 3/8 | 8.5 | 1.47 | 10,500 | 0.5 |
| **ERI-16 (1/2)** | M16 | 450 | 12.7 | 1/2 | 8.5 | 1.47 | 10,500 | 0.5 |
| **ERI-17** | M16 | 600 | 12.7 | 1/2 | 8.5 | 2.1 | 7,600 | 0.38 |

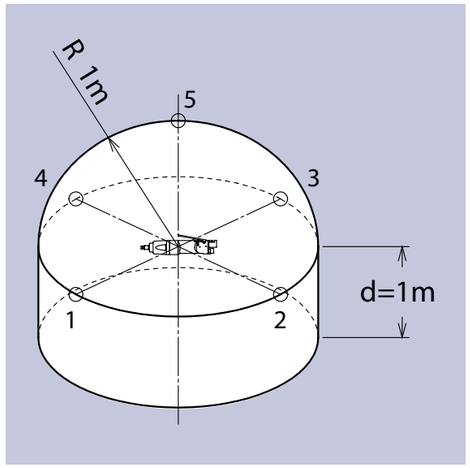
※Air consumption data was taken at air pressure 0.6MPa on load

# Noise Level and Vibration Value

## Noise Level

Values are determined in accordance with EN ISO 15744.2008 using as basic standards EN ISO 3744:2010 and EN ISO 11203:2009
The sum of a measured noise emission value and its associated uncertainty represents an upper boundary of the range of values which is likely to occur in measurement.
Five microphones, MIC1 ~ MIC5, are set as illustrated.

**Microphone height above reflecting plane :**
MIC1 ~ MIC4 / 1m, MIC5 / 2m
**Brake system :** Conformed to EN ISO 28937-2:3009
**LWA :** A-weighted sound power level.
**KWA :** Uncertainty
**LPA :** A-weighted emission sound pressure level at work station.
**KPA :** Uncertainty

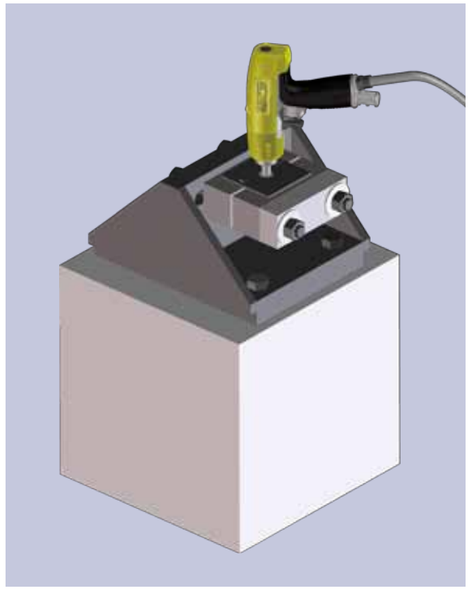



## Vibration

Values are measured in accordance with EN ISO 28927-2:2009; Hand-held portable tools – Test method for evaluation of vibration emission – Part2: Wrenches, nut runners and screwdrivers.

**Socket :** conformed to EN ISO 28927-2:2009 1010-02
**Brake material :** asbestos free
**ahd :** Declared vibration emission value
**K :** uncertainty

The declared values were obtained by laboratory type testing in compliance with the standards and are not adequate for use in risk assessments. Valves measured in individual work places may be higher than the declared values. The actual exposure values and risk of harm experienced by an individual user are unique and depend upon the way the user works, work piece and the workstation design, as well as upon the exposure time and the physical condition of the user. We, Eisin Co., Ltd., cannot be held liable for the consequences of using the declared values, instead of values reflecting the actual exposure, in an individual risk assessment in the work place situation over which we have no control.



## Pulse Wrench

| Model Name | ISO 15744 | | ISO 28927-2 measured under load | | Grip Style | Shut-off Style |
|---|---|---|---|---|---|---|
| | Sound Pressure Level (LpA) | Sound Power Level (LwA) | Vibration Total Value (ahd) | Vibration Uncertainty (K) | | |
| | dB(A) | dB(A) | m/sec² | m/sec² | | |
| **EYP-50AS** | 71.09 | 82.09 | 0.84 | 0.58 | Pistol Grip | Shut-off |
| **EYP-60AS** | 82.23 | 93.13 | 0.86 | 0.58 | | |
| **EYP-70AS** | 80.07 | 91.07 | 0.86 | 0.56 | | |
| **EYP-80AS** | 79.39 | 90.39 | 0.86 | 0.58 | | |
| **EYP-85AS** | 79.91 | 90.91 | 1.09 | 0.60 | | |
| **EYP-90AS** | 80.32 | 91.32 | 1.65 | 0.66 | | |
| **EYP-95AS** | 81.09 | 92.09 | 4.6 | 0.95 | | |
| **EYP-120AS** | 77.42 | 88.42 | 6.5 | 1.14 | | |
| **EYP-120AS-H** | 77.42 | 88.42 | 6.5 | 1.14 | | |
| **EYP-150AS** | 81.82 | 92.82 | 5.8 | 1.07 | | |
| **EYP-150AS-H** | 80.43 | 91.43 | 4.4 | 0.94 | | |
| **EYPS-50AS** | 73.46 | 84.46 | 1.94 | 0.68 | Straight Grip | |
| **EYPS-60AS** | 76.56 | 87.56 | 3.9 | 0.88 | | |
| **EYPS-70AS** | 77.68 | 88.68 | 3.8 | 0.88 | | |
| **EYPS-80AS** | 76.42 | 87.42 | 2.7 | 0.76 | | |
| **EYP-200AS** | 96.15 | 107.15 | 3.0 | 0.79 | | |
| **EYP-200AS-H** | 96.15 | 107.15 | 3.9 | 0.88 | | |
| **EYP-300AS** | 89.47 | 100.47 | 3.0 | 0.79 | | |
| **EYP-380AS** | 89.57 | 100.57 | 4.8 | 0.97 | | |
| **EYP-50** | 70.40 | 81.40 | 2.1 | 0.71 | Pistol Grip | Non Shut-off |
| **EYP-60** | 82.23 | 93.23 | 0.86 | 0.58 | | |
| **EYP-70** | 80.07 | 91.07 | 0.86 | 0.56 | | |
| **EYP-80** | 80.42 | 91.42 | 2.5 | 0.74 | | |
| **EYP-85** | 79.91 | 90.91 | 1.09 | 0.60 | | |
| **EYP-90** | 80.92 | 91.92 | 4.5 | 0.94 | | |
| **EYP-95** | 80.71 | 91.71 | 3.5 | 0.84 | | |
| **EYPS-50** | 76.04 | 87.04 | 1.75 | 0.67 | Straight Grip | |
| **EYPS-60** | 76.56 | 87.56 | 3.9 | 0.88 | | |
| **EYPS-70** | 76.62 | 87.62 | 5.8 | 1.07 | | |
| **EYPS-80** | 75.94 | 86.94 | 6.3 | 1.12 | | |
| **EYPS-85** | 74.38 | 85.38 | 4.4 | 0.93 | | |

## Impact Wrench

| Model Name | ISO 15744 | | ISO 28927-2 measured under load | | Grip Style | Shut-off Style |
|---|---|---|---|---|---|---|
| | Sound Pressure Level (LpA) | Sound Power Level (LwA) | Vibration Total Value (ahd) | Vibration Uncertainty (K) | | |
| | dB(A) | dB(A) | m/sec² | m/sec² | | |
| **EYI-160T** | 89.97 | 100.97 | 6.6 | 1.15 | Pistol Grip | Shut-off |
| **ERI-16** | 91 | 102 | 6.0 | 1.09 | | Non Shut-off |
| **ERI-17** | 93 | 104 | 9.4 | 1.42 | | |

Uncertainty : KWA,KPA=3dB(A)

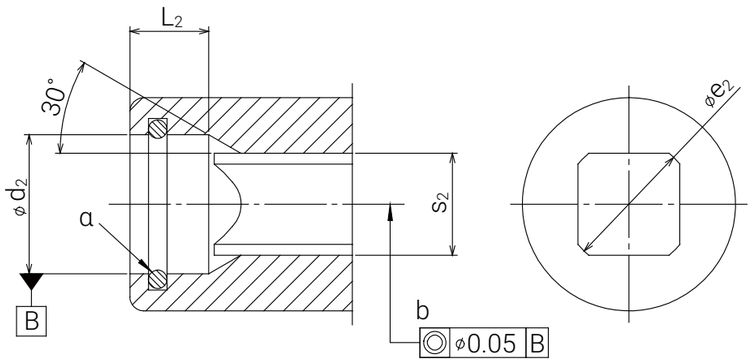
## Oil Pulse Wrenches — Dimensions and tolerances of interface to power socket

ISO/TS 21108:2005(E) Technical Specification specifies the dimensions and tolerances for the interface between impulse wrenches and their power sockets: output spindle of power tool - female drive end of power socket.
This interface is based on the principle of a socket centred on the cylindrical spindle.
Alternative dimensions and tolerances for two options, A and B, are provided.
It is applicable to both pneumatically and elecrically driven impulse tools, and could also be used in other applications.
EYP series of oil pulse wrenches have been made according to above option "B" ,
therefore the power sockets made according to following Figure and Table
as specified per ISO/TS 21108:2005(E) are strongly recommended to be used together with EYP oil pulse wrenches.

### Female drive end

The dimensions and tolerances for the female drive end of the power socket shall be in accordance with Figure and Table hereunder.

**Figure — Dimensions and tolerances — Female drive end**




**Key**

$d_2$ socket internal diameter
$e_2$ diameter across square
$L_2$ length of socket internal diameter
$s_2$ width across flats of square
a Rubber O-ring: may be used to take up the clearance to the male spindle.
b Refers to centre of square.

**Table — Dimensions and tolerances — Female drive end**

| Nominal square dimension | $s_2$[a] | | $e_2$[a] | $d_2$ F8 | $L_2$ |
|---|---|---|---|---|---|
| | max. | min. | min. | Option B | 0 −0.5 |
| **6.3** | 6.5 | 6.41 | 8.5 | 8.4 | 8 |
| **10** | 9.67 | 9.58 | 12.9 | 12 | 10 |
| **12.5** | 12.87 | 12.76 | 17.1 | 16 | 10 |
| **16** | 16.04 | 15.93 | 21.4 | 20 | 10 |
| **20** | 19.24 | 19.11 | 25.6 | 25 | 10 |
| **25** | 25.59 | 25.46 | 34.3 | 33 | 10 |

[a] Dimension according to ISO 1174-2.

# Message
## from the President

President
Yoshiaki Yoshimura

### How to survive in the globalized economy?

With rapid advance in globalization of economy, the industrial world has been changing in pursuit of efficiency and growth. The way of business has been varied and growth. sophisticated accordingly, and it becomes more and more difficult to have an appropriate outlook on the economic surroundings.
Years of exper ience or a rule of thumb used to work effectively, but such sence of values can not always be suifficient to foresee thing s in the business field. In order to survive in the competititve market place, it is required to review and have a different look at intercompany operating system and corport organization which would be the same as always be.
We, as Eisin personnel, will aim at realizing corporate progress and growth through effectively adapting ourselves to the changes in environment which new era dynamically generate. Feasibility study as well as research and development will be the most important role of Eisin, and these are to be the core functions to lead group companies of Toku to having ability to reform by themselves to keep up with the possible changes in the economic circumstances.

### We will provide new values for the customers.

To give shape to corporate philisophy, we are working together with Toku Pneumatic Tool Manufacturing Company which is responsible for manufacturing and Toku Pneumatic Company which is responsible for sales, so that all of the corporate group efforts can be focussing on the customers' satisfactions which, we believe, will only be the source of benefit we could expect to have.
Separated from Toku Pneumatic Tool Manufacturing Company, the engineering division handling designing and R&D and the sales & delivery division are now belonging to Eisin. This transferense within the group companies is to define the role of each corporate body, furthermore aiming at growth and progress even if the state of world economy should not be in favourable environment.
To accomplish our aim, we will continully improve ourselves

to develop new products which will create new values and dig up potential demand in the market place. As for the sales, we expect much about the emerging countries like BRICs and the rising countries of Asia. Great deal of our sales efforts will be put into these areas under the new brand name of Eisin, providing new values for the market.

### How to satisfy customers?

As a management concept, we declare a "customer oriented" policy. This is beyond the idea of, what is called, "customers' satisfaction". Our thought is that the source of our benefit comes from customers' satisfaction in every phase of our activities and communications with them. In other words, customers' satisfaction not only comes from their getting the visible values such as products or service, but comes from receiving invisible values like technical knowledge or good faith we present and as a result of their satisfaction, we could have considerations from them in return. Our principle is to have the customers satisfied with both visible and invisible values we are able to offer.
This corporate principle has been basically adopted in Toku Tool Manufacring Company for many years. Based on this principle, we will accelerate the intercompany innovations, applying same to management control, sales training, market research and product development.
In order to achieve our highest goals, it should be inevitable to enhance quality of overall intelligence we could have and training program for personnel skillup. Capability to accurately anayize huge amount of information sourrounded with us is most important, and in this sence we will strive for intercompany training to bring out sales staff and engineers having views from global viewpoint and innovation oriented consciousness. Succeeding Toku group companies from generation to generation is always our ongoing mission. Strong and steady steps to achieve our goals have been already taken.

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GERMANY : 1502707