

# POWERMASTER

## PNEUMATIC TORQUE WRENCHES



*Tools for every conceivable need.....*

[www.powermaster.in](http://www.powermaster.in)

## PNEUMATIC TORQUE WRENCHES

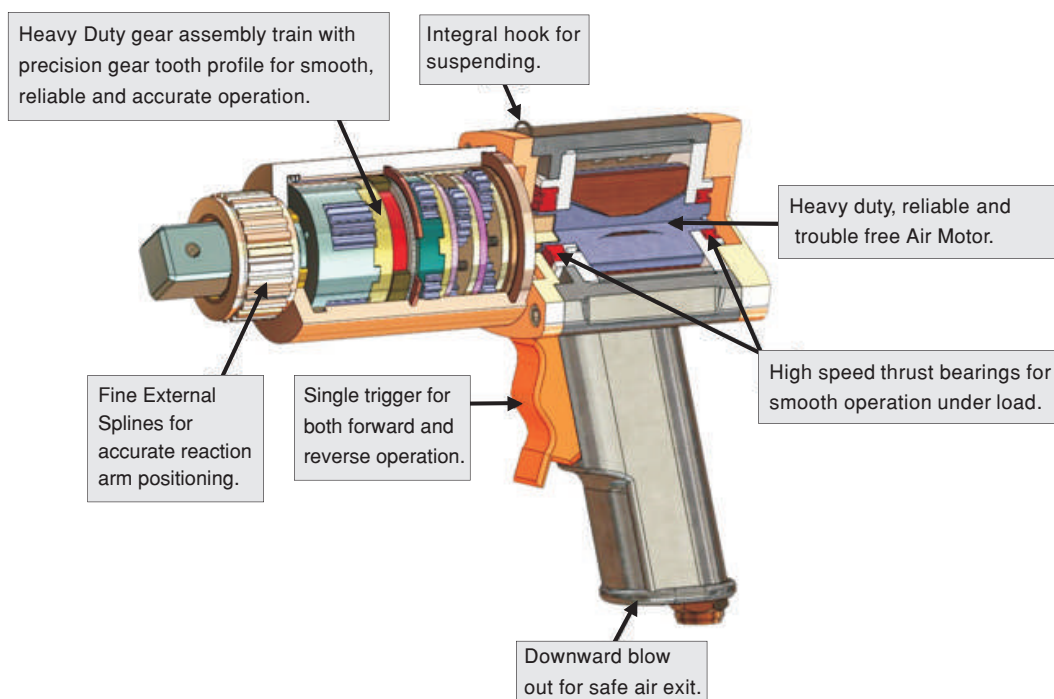


A Pneumatic torque wrench is an air motor driven planetary gear box having a very high reduction ratio. The gear box is provisioned with a reaction arm to absorb the torque reaction. Unlike impact wrench a pneumatic torque wrench is driven by continuous gearing and hence has no noisy and hazardous hammering. This is why a pneumatic torque wrench has an excellent accuracy and repeatability. Pneumatic torque wrench offers following significant advantages:

- Pneumatic is always known for clean and tidy way of working.
- Combination of Air motor with planetary gear guarantees, a much faster, safe and economical operation.
- Easy and fast operation.

## PTW SERIES PNEUMATIC TORQUE WRENCHES

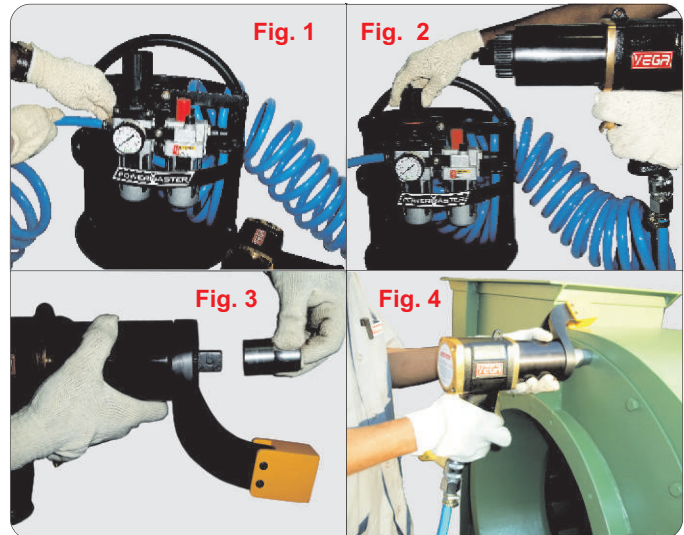
Pneumatic Torque wrenches are the preferred torquing method to achieve productivity with less man-power. Powermaster Pneumatic torque wrenches offer the reliable and dependable solution for the torquing and un-torquing of heavy duty bolts and nuts at various industries where speed, power, accuracy and safety are required. Maximum operating pressure is 90 psi (6 bar).



# PTW SERIES PNEUMATIC TORQUE WRENCHES

## Brief Operational Sequence

- Connect the inlet air source to FRL Unit (fig.1), if required adjust the lubricant flow rate on FRL
- Set the required pressure as per chart provided, on the FRL while trigger pressed in torquing direction (fig.2).
- Fix the required socket and reaction arm on to the tool (fig.3).
- Place the tool along with socket on the fastener, (fig.4) operate the trigger for giving torque.



## Features

- (A) **Light & Compact** : Light and compact tool design, suitable for variety of applications.
- (B) **Heavy duty Gear box** : Heavy duty gear box with thrust bearing for low friction and longer operational life.
- (C) **Single Trigger** : Single trigger for both forward and reverse operation.
- (D) **Integral Hook point** : Integral hook for use of tool balancer etc.
- (E) **Low Noise level** : Low noise level with no vibration.
- (F) **High Accuracy** : PTW has an accuracy of better than + 5% with repeatability within 2% variation.
- (G) **Reaction Boot** : Reaction arm provisioned with removable boot for soft padding or extension as required.
- (H) **Customised Reaction Arm** : A wide range of standard and customized reaction arm available as per customer requirement.
- (I) **Wheel Extension** : Variety of wheel extension available for deep reach, where tool clearance is a problem.
- (J) **Accessories** : Accessories like universal socket, universal joint and thin wall sockets available.



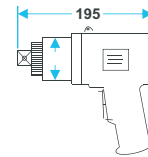
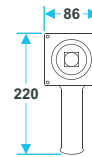
## PTW SERIES PNEUMATIC TORQUE WRENCHES



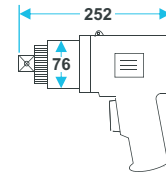
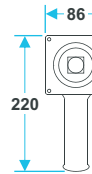
## Technical Specifications

**PTW 04**

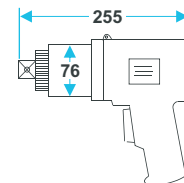
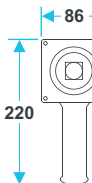
Torque Range 35-300 lbs ft / 50-400 Nm  
 Free Speed 40 rpm  
 Square Drive 1/2"  
 Weight 4.5 Kg.

**PTW 06**

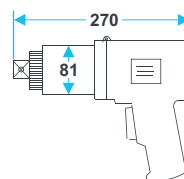
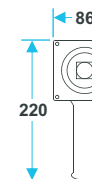
Torque Range 90-450 lbs ft / 120-600 Nm  
 Free Speed 35 rpm  
 Square Drive 3/4"  
 Weight 4.9 Kg.

**PTW 10**

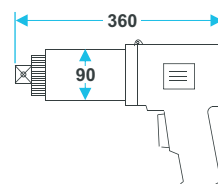
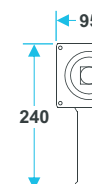
Torque Range 150-725 lbs ft / 200-1000 Nm  
 Free Speed 25 rpm  
 Square Drive 3/4"  
 Weight 5.7 Kg.

**PTW 20**

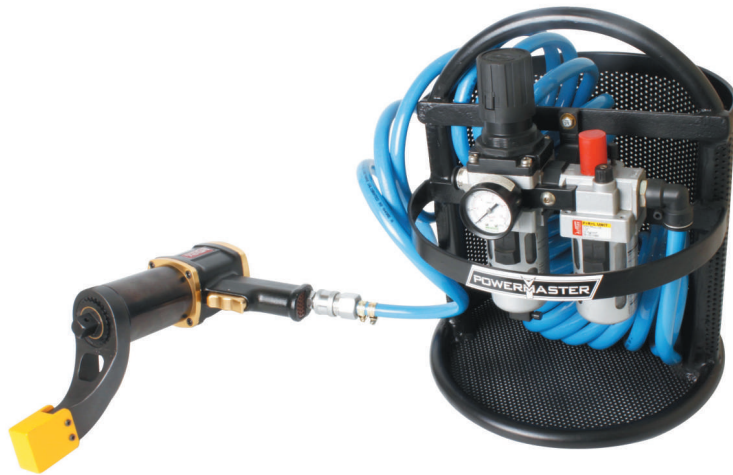
Torque Range 330-1475 lbs ft / 450-2000 Nm  
 Free Speed 12 rpm  
 Square Drive 1"  
 Weight 7.2 Kg.

**PTW 40**

Torque Range 950-3000 lbs ft / 1300-4000 Nm  
 Free Speed 6 rpm  
 Square Drive 1 1/2"  
 Weight 9.1 Kg.



## AIR OPERATED FRL UNIT



It is used to regulate the air pressure and properly lubricate the air motor for ultimate life. The Regulator regulates the inlet air pressure and controls the output torque of pneumatic torque wrench. All pneumatic tools must be used with FRL Unit. It is strongly advised not to exceed the maximum operating pressure as specified in the individual tool certificate.

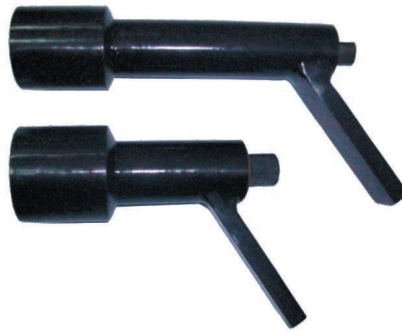
FRL	
Adaptor Size	½" BSP
Element	Sinter, Bronze (25 micron)
Bowl Capacity	150 ml
Bowl Guard	Steel
Pressure Gauge	0 - 150 psi
Diaphragms and Seals	Nitrile
Recommended Oil	ISO VG 32
Media (inlet air)	Compressed Air
HOSE	
Coiled Hose	10 mtrs
Adaptor Size	½" BSP
CAGE	
Metallic Handy and Portable	Wt. 9 Kg

### Technical Features :

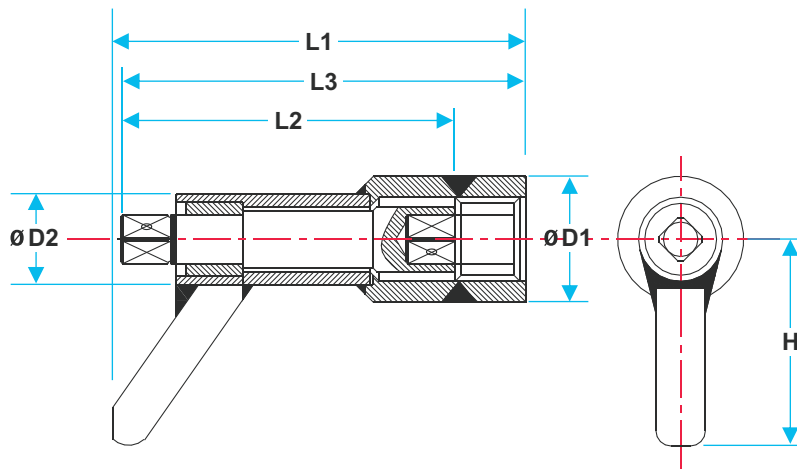
- **Metallic Cage** : The Filter, Regulator, Lubricator & Hose are mounted on a strong handy metallic cage.
- **Calibrated Pressure Gauge** : Calibrated 0 - 150 psi pressure gauge for perfect torque output.
- **Regulator Knob** : Smooth operating regulator knob for easy setting of pressure, provided with safety lock.
- **Fine adjustment knob** : Fine adjustment of lubrication for tool available on FRL.
- **Manual Drain** : Easy push type manual drain to clear the water dispenser.
- **Safety Bowl Guard** : Steel bowl guard for safety in case of glass bowl failure.
- **Easy detachable bowl** : Easy detachable bowl for replenishing the oil / cleaning.
- **Hose** : Coiled 10 mtrs hose for easy stowage in the cage.
- **Quick Connect Adaptors** : FRL comes fitted with quick connect adaptors for easy connection to Tool.

## PTW SERIES ACCESSORIES

### Wheel Extension



Wheel extensions are used to reach the wheel hub bolts and nuts, where fitment of tool is not feasible. Powermaster has complete range of wheel extensions as referred below :



### Technical Specifications

Model No.	Sq. Drive inch	L1 mm	L2 mm	L3 mm	D1 mm	D2 mm	H mm
PE 1206	3/4	210	150	185	70	45	100
PE 12008	3/4	260	200	235	70	45	100
PE 1210	3/4	310	250	285	70	45	100
PE 1608	1	265	200	235	70	52	100
PE 1610	1	315	250	285	70	52	100
PE 1608H	1"	265	200	235	90	60	130

### Reaction Arm

Different type of reaction arms are available for variety of application. Customized reaction arm are available on requirement.



# HEAVY DUTY INDUSTRIAL IMPACT WRENCHES

## Mechanisms

### Pin Clutch – (DYNA PACT CLUTCH)

Two Pin Clutch hammers strike the anvil, provides high torque, low vibration and fast run downs.

This mechanism delivers higher performance and extended durability.



### Pin Hammer

Good connection of Pin & Hammer produces excellent stability and durability.

It generates in creditable high torque and low vibration.



### Thin Hammer

Unique Mechanism for continuous torque increase with two solid ring hammers.

It delivers an instantaneous, balanced blow.

More powerful than any other mechanism on the market.



### Features / Benefits :

Heavy Duty for toughest applications.

Highest torque output to weight ratio in industry.

Available Twin Hammer or Pin Clutch Mechanisms for maximum versatility.

Minimum Noise and Vibration.

Available in 3/4", 1" and 1.1/2" square drives.

Uses standard air supply.



TIW - 27



TIW - 48



TIW - 76

Model No.	TIW - 27	TIW - 48	TIW - 76
Bolt Capacity	27 mm (1.1/8")	48 mm (1.7/8")	76 mm (3")
Square Drive Size	3/4"	1"	1.1/2"
Max. Torque	1018 Nm (750 ft.lb)	2712 Nm (2000 ft.lb)	4068 Nm (3000 ft.lb)
Air Inlet	1/4"	3/8"	1/2"
Hose Size (mm)	10	13	19
Sound Level (dBA)	95	95	95
Vibration (m/s <sup>2</sup> )	3/4	5.5	11.0
Air Pressure Needed	90 psi (6 bar)	90 psi (6 bar)	90 psi (6 bar)
Net Weight (kg)	4.8	10.8	16.9

**POWERMASTER ENGINEERS PVT. LTD**

229, Pragati Industrial Estate, 316, N. M. Joshi Marg, Bombay - 400 011. INDIA.  
Phone: +91.22.4345 3100 Fax: +91.22.2307 3761 email: sales@powermaster.in