

# TORQUE WRENCHES

## SQUARE DRIVE WRENCHES



When roller coasters at a popular theme park needed maintenance, park engineers called on Simplex for solutions. Assembly of a critical drive shaft required precision torquing and minimal down time. Simplex power units and square drive wrenches filled the park's needs, saving significant cost and down time.

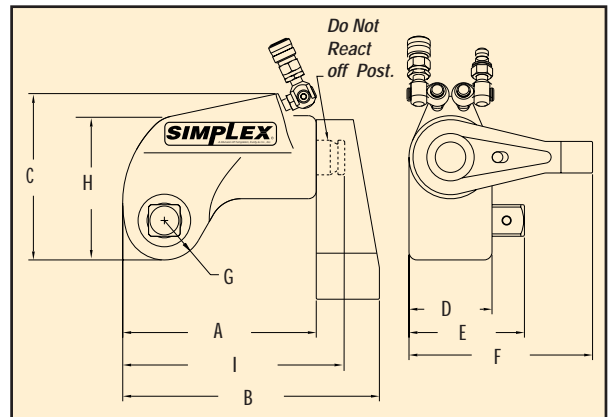
- Harden alloy square drive provides long life.
- No reaction pawl, ELIMINATES tool lockup.
- 27° Stroke for high performance and speed.
- Torque chart & safety information engraved on the tool.
- Push through square drive switches from loosen to tighten instantly.
- Light weight, high torque ratio.
- Compact Uni-Body design for maximum strength.
- Accurate to within  $\pm 3\%$ .
- Slim nose radius for easy positioning in close quarters.
- No leak couplers that swivel on double axis for easy operation.
- Custom wrenches available upon request.
- Special reaction arms and reaction arm extensions available.
- Anti-backlash mechanism prevents tool from backdriving.
- Internal reaction arm spline allows operator to react against the tool body without risk of damage.

**Optional Wrench Handle**  
 Optional handles are available for the WT-5, WT-10 & WT-27. The handle can be screwed on either side of the wrench or on top of the wrench.

Order #: WCH-1



Rail car shock mounting bolts require fast & accurate torquing for change out & maintenance. This rail car maintenance shop relies on a Simplex torque wrench to quickly & easily torque bolts to demanding railroad specifications. "The compact size fits where other wrenches would not & provides more than enough power to do the job right."



### SQUARE DRIVE WRENCH SPECIFICATIONS

Model Number	A Length (in.)	B Length (in.)	C Height (in.)	D Width (in.)	E Width (in.)	F Width (in.)	G Radius (in.)	H Height (in.)	I Length (in.)	Wgt. (lbs.)	Output (ft./lbs.)	Square Drive (in.)	Available Socket Size (in.)	Available Socket Size (mm)
WT-2	4.68	6.10	4.20	2.00	2.76	4.42	0.98	3.42	5.32	3.90	1,270	3/4	1/2 - 2 3/8	13 - 60
WT-3	6.10	8.10	5.30	2.62	3.68	5.81	1.30	4.54	6.68	9.00	3,330	1	3/4 - 4 1/2	19 - 114
WT-5	8.00	10.74	6.99	3.61	5.06	7.98	1.70	6.05	9.48	19.00	7,170	1 1/2	1 5/16 - 5 3/8	33 - 137
WT-10	9.21	12.21	7.79	3.93	5.43	8.72	1.95	6.70	10.36	29.00	11,010			
WT-27	12.29	16.29	10.19	5.26	7.73	11.63	2.43	8.82	13.87	70.00	27,200	2 1/2	1 5/8 - 9 1/4	41 - 235

# SQUARE DRIVE WRENCHES

# TORQUE WRENCHES



## SOCKETS FOR 3/4", 1" & 1 1/2" DRIVE WRENCHES

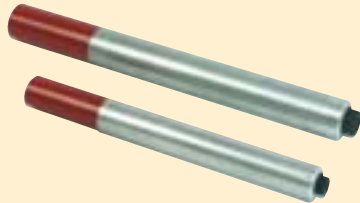
Model Number for 3/4" Drive WT-2 Wrench	Socket Size (in.)	Model Number for 1" Drive WT-3 Wrench	Socket Size (in.)	Model Number for 1" Drive WT-3 Wrench	Socket Size (in.)	Model Number for 1" Drive WT-3 Wrench	Socket Size (in.)	Model Number for 1 1/2" Drive WT-5 & 10 Wrench	Socket Size (in.)	Model Number for 1 1/2" Drive WT-5 & 10 Wrench	Socket Size (in.)
WST1212	3/4 x 3/4	WST1612	1 x 3/4	WST1633	1 x 2 1/16	WST1654	1 x 3 3/8	WST2422	1 1/2 x 1 3/8	WST2443	1 1/2 x 2 11/16
WST1213	3/4 x 13/16	WST1613	1 x 13/16	WST1634	1 x 2 1/8	WST1655	1 x 3 7/16	WST2423	1 1/2 x 1 7/16	WST2444	1 1/2 x 2 3/4
WST1214	3/4 x 7/8	WST1614	1 x 7/8	WST1635	1 x 2 3/16	WST1656	1 x 3 1/2	WST2424	1 1/2 x 1 1/2	WST2445	1 1/2 x 2 13/16
WST1215	3/4 x 15/16	WST1615	1 x 15/16	WST1636	1 x 2 1/4	WST1657	1 x 3 9/16	WST2425	1 1/2 x 1 9/16	WST2446	1 1/2 x 2 7/8
WST1216	3/4 x 1	WST1616	1 x 1	WST1637	1 x 2 5/16	WST1658	1 x 3 5/8	WST2426	1 1/2 x 1 5/8	WST2447	1 1/2 x 2 15/16
WST1217	3/4 x 1 1/16	WST1617	1 x 1 1/16	WST1638	1 x 2 3/8	WST1659	1 x 3 11/16	WST2427	1 1/2 x 1 11/16	WST2448	1 1/2 x 3
WST1218	3/4 x 1 1/8	WST1618	1 x 1 1/8	WST1639	1 x 2 7/16	WST1660	1 x 3 3/4	WST2428	1 1/2 x 1 3/4	WST2449	1 1/2 x 3 1/16
WST1219	3/4 x 1 3/16	WST1619	1 x 1 3/16	WST1640	1 x 2 1/2	WST1661	1 x 3 13/16	WST2429	1 1/2 x 1 13/16	WST2450	1 1/2 x 3 1/8
WST1220	3/4 x 1 1/4	WST1620	1 x 1 1/4	WST1641	1 x 2 9/16	WST1662	1 x 3 7/8	WST2430	1 1/2 x 1 7/8	WST2451	1 1/2 x 3 3/16
WST1221	3/4 x 1 5/16	WST1621	1 x 1 5/16	WST1642	1 x 2 5/8			WST2431	1 1/2 x 1 15/16	WST2452	1 1/2 x 3 1/4
WST1222	3/4 x 1 3/8	WST1622	1 x 1 3/8	WST1643	1 x 2 11/16			WST2432	1 1/2 x 2	WST2453	1 1/2 x 3 5/16
WST1223	3/4 x 1 7/16	WST1623	1 x 1 7/16	WST1644	1 x 2 3/4			WST2433	1 1/2 x 2 1/16	WST2454	1 1/2 x 3 3/8
WST1224	3/4 x 1 1/2	WST1624	1 x 1 1/2	WST1645	1 x 2 13/16			WST2434	1 1/2 x 2 1/8	WST2455	1 1/2 x 3 7/16
WST1225	3/4 x 1 9/16	WST1625	1 x 1 9/16	WST1646	1 x 2 7/8			WST2435	1 1/2 x 2 3/16	WST2456	1 1/2 x 3 1/2
WST1226	3/4 x 1 5/8	WST1626	1 x 1 5/8	WST1647	1 x 2 15/16			WST2436	1 1/2 x 2 1/4	WST2457	1 1/2 x 3 9/16
WST1227	3/4 x 1 11/16	WST1627	1 x 1 11/16	WST1648	1 x 3			WST2437	1 1/2 x 2 5/16	WST2458	1 1/2 x 3 5/8
WST1228	3/4 x 1 3/4	WST1628	1 x 1 3/4	WST1649	1 x 3 1/16			WST2438	1 1/2 x 2 3/8	WST2459	1 1/2 x 3 11/16
WST1229	3/4 x 1 13/16	WST1629	1 x 1 13/16	WST1650	1 x 3 1/8			WST2439	1 1/2 x 2 7/16	WST2460	1 1/2 x 3 3/4
WST1230	3/4 x 1 7/8	WST1630	1 x 1 7/8	WST1651	1 x 3 3/16			WST2440	1 1/2 x 2 1/2		
WST1231	3/4 x 1 15/16	WST1631	1 x 1 15/16	WST1652	1 x 3 1/4			WST2441	1 1/2 x 2 9/16		
WST1232	3/4 x 2	WST1632	1 x 2	WST1653	1 x 3 5/16			WST2442	1 1/2 x 2 5/8		

Impact Rated 6 point sockets are available from Simplex.

To order specify both the square drive size and the socket size or determine the Simplex part number from the chart above.

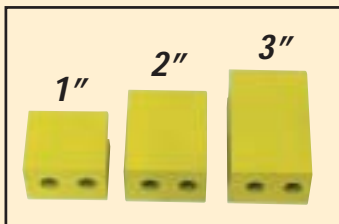
## ALCO REACTION ARMS

Model Number	Length (in)
WT2-ALCO	18.00
WT3-ALCO	22.25
WT5-ALCO	21.00
WT10-ALCO	23.50
WT27-ALCO	N/A



## 1", 2" & 3" REACTION ARM EXTENSIONS

Model Number	Length (in)
WT3-EX1	1
WT3-EX2	2
WT3-EX3	3
WT5-EX1	1
WT5-EX2	2
WT5-EX3	3
WT10-EX1	1
WT10-EX2	2
WT10-EX3	3



To order, specify both the type of WT-Series Wrench and the Allen head size. Additional Allen sizes are available in both imperial and metric sizes.

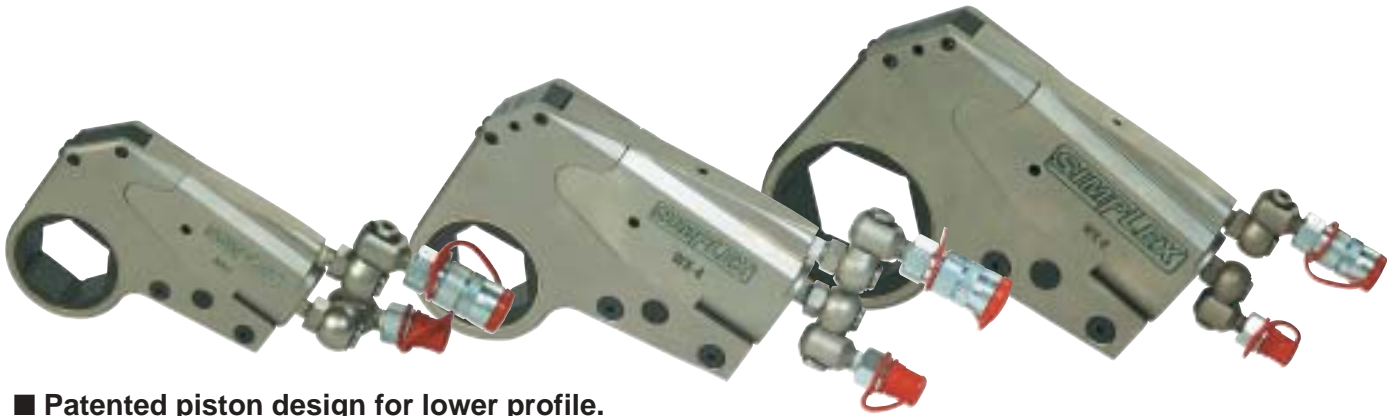
## ALLEN HEX DRIVES FOR WT-SERIES WRENCHES

Model Number	Wrench Model	Allen Hex Size (in.)	Maximum Torque (ft./lbs)
WA-1208	WT-2	1/2	395
WA-1210		5/8	740
WA-1212		3/4	1,270
WA-1214		7/8	1,270
WA-1216		1	1,270
WA-1610	WT-3	5/8	740
WA-1612		3/4	1,330
WA-1614		7/8	2,070
WA-1616		1	3,100
WA-1618		1 1/8	3,330
WA-1620	1 1/4	3,330	
WA-2414	WT-5	7/8	2,070
WA-2416		1	3,100
WA-2418		1 1/8	4,355
WA-2420		1 1/4	6,275
WA-2422		1 3/8	7,170
WA-2424	1 1/2	7,170	
WA-2420-10	WT-10	1 1/4	6,275
WA-2422-10		1 3/8	7,750
WA-2424-10		1 1/2	10,500
WA-2426-10		1 5/8	10,500
WA-2428-10		1 3/4	10,500
WA-4024	WT-27	1 1/2	10,500
WA-4026		1 5/8	13,280
WA-4028		1 3/4	16,230
WA-4030		1 7/8	27,200
WA-4032		2	27,200
WA-4036		2 1/4	27,200

**Allen Hex Drives Use The Standard Reaction Arm. No Additional Reaction Equipment Is Required.**

# TORQUE WRENCHES

## LOW CLEARANCE WRENCHES



- Patented piston design for lower profile.
- Wide range of links in 1/16" increments.
- In-line reaction for maximum strength.
- Light weight, high torque ratio.
- Quick and easy interchangeable links requiring no tools.
- Accurate to within  $\pm 3\%$ .
- Slim nose radius for easy positioning in close quarters.
- No leak couplers that swivel on double axis for easy operation.
- Plated wrenches resist corrosion.
- Links in both imperial and metric measurements.
- Optional reducer inserts available in imperial and metric sizes.
- Custom wrenches available upon request.

**Optional Wrench Handle**  
Optional handles are available for the WX-8, WX-16 & WX-32. The handle can be screwed on either side of the wrench or on top of the wrench.

Order #: WCH-1

"Simplex Low Clearance Torque Wrenches" are the thinnest while having the highest torque output available on the market. A patented "flat" cylinder design allows Simplex drive units to fit in the tightest spaces when other wrenches cannot. Light weight construction allows easy carrying and positioning.

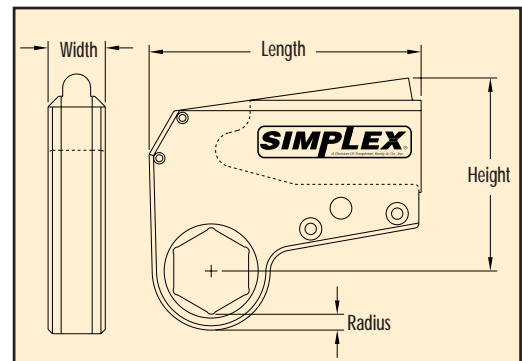


In-line reaction and compact design allows quick and easy torquing in close quarters.

### LOW CLEARANCE DRIVE UNITS

Model Number	Length (in.)	Height (in.)	Radius (in.)	Max. Tool Width (in.)	Output (ft./lbs.)	*Weight (lbs.)
WX-2	5.67	4.00	0.36	1.25	1,930	3.5
WX-4	7.80	5.60	0.46	1.63	3,950	6
WX-8	9.80	7.00	0.54	2.05	8,630	11.7
WX-16	11.90	8.50	0.76	2.45	15,600	16
WX-32	15.30	10.90	0.93	3.24	31,600	34

Available Link Sizes (in./mm)	
From	To
3/4"/19mm	2 3/8"/60mm
1"/25mm	3 1/8"/80mm
1 7/8"/50mm	4"/90mm
2 5/8"/65mm	4 5/8"/115mm
3 1/8"/80mm	6 1/8"/155mm



\*Weights are for Drive Units only. Weight on Links will vary by size.

# LOW CLEARANCE WRENCHES

# TORQUE WRENCHES

## HOW TO BUILD YOUR LOW CLEARANCE WRENCH



1. Select a WX drive unit that will give you the amount of torque you are looking for.
2. Couple your WX drive unit with the WXL hex link that you will need. See chart below for specific WXL link.



When this power plant needed flange maintenance, engineers called on Simplex for solutions. Changing out flange seals requires precision torquing and minimal down time. Simplex power units and low clearance wrenches filled the plant's needs, saving significant cost and down time.

**HEX REDUCER INSERTS**

**STACK SOCKET**

**HEX TO SQUARE DRIVE ADAPTOR**

**OPTIONAL  
WX - SERIES  
ACCESSORIES**

**ALCO ARM**

**LOW POINT REACTION PADDLE**

Accessories are available in imperial and metric sizes.

## LINKS FOR LOW CLEARANCE WRENCHES

Model Number for WX-2 Links	Hex Size (in.)	Model Number for WX-4 Links	Hex Size (in.)	Model Number for WX-4 Links	Hex Size (in.)	Model Number for WX-8 Links	Hex Size (in.)	Model Number for WX-8 Links	Hex Size (in.)	Model Number for WX-16 Links	Hex Size (in.)	Model Number for WX-32 Links	Hex Size (in.)	Model Number for WX-32 Links	Hex Size (in.)
WXL2-12	3/4	WXL4-16	1	WXL4-43	2 11/16	WXL8-30	1 7/8	WXL8-57	3 9/16	WXL16-42	2 5/8	WXL32-50	3 1/8	WXL32-87	5 7/16
WXL2-13	13/16	WXL4-17	1 1/16	WXL4-44	2 3/4	WXL8-31	1 15/16	WXL8-58	3 5/8	WXL16-43	2 11/16	WXL32-51	3 3/16	WXL32-88	5 1/2
WXL2-14	7/8	WXL4-18	1 1/8	WXL4-45	2 13/16	WXL8-32	2	WXL8-59	3 11/16	WXL16-44	2 3/4	WXL32-52	3 1/4	WXL32-89	5 9/16
WXL2-15	15/16	WXL4-19	1 3/16	WXL4-46	2 7/8	WXL8-33	2 1/16	WXL8-60	3 3/4	WXL16-45	2 13/16	WXL32-53	3 5/16	WXL32-90	5 5/8
WXL2-16	1	WXL4-20	1 1/4	WXL4-47	2 15/16	WXL8-34	2 1/8	WXL8-61	3 13/16	WXL16-46	2 7/8	WXL32-54	3 3/8	WXL32-91	5 11/16
WXL2-17	1 1/16	WXL4-21	1 5/16	WXL4-48	3	WXL8-35	2 3/16	WXL8-62	3 7/8	WXL16-47	2 15/16	WXL32-55	3 7/16	WXL32-92	5 3/4
WXL2-18	1 1/8	WXL4-22	1 3/8	WXL4-49	3 1/16	WXL8-36	2 1/4	WXL8-63	3 15/16	WXL16-48	3	WXL32-56	3 1/2	WXL32-93	5 13/16
WXL2-19	1 3/16	WXL4-23	1 7/16	WXL4-50	3 1/8	WXL8-37	2 5/16	WXL8-64	4	WXL16-49	3 1/16	WXL32-57	3 9/16	WXL32-94	5 7/8
WXL2-20	1 1/4	WXL4-24	1 1/2			WXL8-38	2 3/8			WXL16-50	3 1/8	WXL32-58	3 5/8	WXL32-95	5 15/16
WXL2-21	1 5/16	WXL4-25	1 9/16			WXL8-39	2 7/16			WXL16-51	3 3/16	WXL32-59	3 11/16	WXL32-96	6
WXL2-22	1 3/8	WXL4-26	1 5/8			WXL8-40	2 1/2			WXL16-52	3 1/4	WXL32-60	3 3/4	WXL32-97	6 1/16
WXL2-23	1 7/16	WXL4-27	1 11/16			WXL8-41	2 9/16			WXL16-53	3 5/16	WXL32-61	3 13/16	WXL32-98	6 1/8
WXL2-24	1 1/2	WXL4-28	1 3/4			WXL8-42	2 5/8			WXL16-54	3 3/8	WXL32-62	3 7/8		
WXL2-25	1 9/16	WXL4-29	1 13/16			WXL8-43	2 11/16			WXL16-55	3 7/16	WXL32-63	3 15/16		
WXL2-26	1 5/8	WXL4-30	1 7/8			WXL8-44	2 3/4			WXL16-56	3 1/2	WXL32-64	4		
WXL2-27	1 11/16	WXL4-31	1 15/16			WXL8-45	2 13/16			WXL16-58	3 5/8	WXL32-65	4 1/16		
WXL2-28	1 3/4	WXL4-32	2			WXL8-46	2 7/8			WXL16-60	3 3/4	WXL32-66	4 1/8		
WXL2-29	1 13/16	WXL4-33	2 1/16			WXL8-47	2 15/16			WXL16-62	3 7/8	WXL32-68	4 1/4		
WXL2-30	1 7/8	WXL4-34	2 1/8			WXL8-48	3			WXL16-64	4	WXL32-70	4 3/8		
WXL2-31	1 15/16	WXL4-35	2 3/16			WXL8-49	3 1/16			WXL16-66	4 1/8	WXL32-72	4 1/2		
WXL2-32	2	WXL4-36	2 1/4			WXL8-50	3 1/8			WXL16-68	4 1/4	WXL32-74	4 5/8		
WXL2-33	2 1/16	WXL4-37	2 5/16			WXL8-51	3 3/16			WXL16-70	4 3/8	WXL32-76	4 3/4		
WXL2-34	2 1/8	WXL4-38	2 3/8			WXL8-52	3 1/4			WXL16-72	4 1/2	WXL32-78	4 7/8		
WXL2-35	2 3/16	WXL4-39	2 7/16			WXL8-53	3 5/16			WXL16-74	4 5/8	WXL32-80	5		
WXL2-36	2 1/4	WXL4-40	2 1/2			WXL8-54	3 3/8					WXL32-82	5 1/8		
WXL2-37	2 5/16	WXL4-41	2 9/16			WXL8-55	3 7/16					WXL32-84	5 1/4		
WXL2-38	2 3/8	WXL4-42	2 5/8			WXL8-56	3 1/2					WXL32-86	5 3/8		

# TORQUE WRENCHES

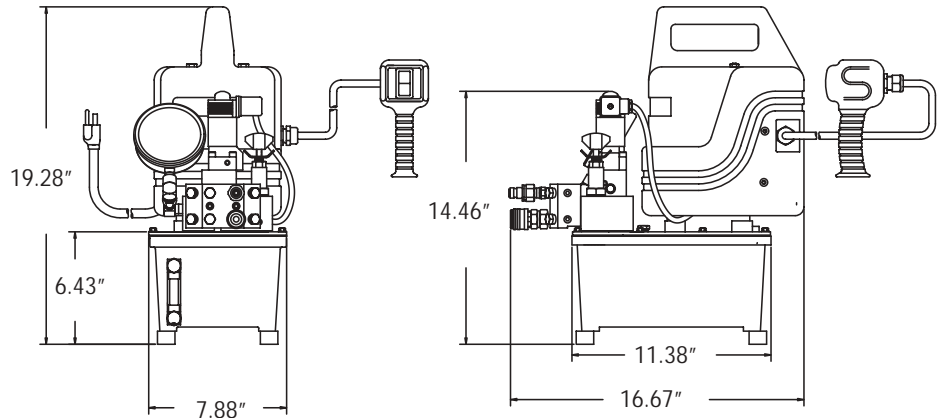
## TORQUE WRENCH PUMPS

- The PET20 Series is a light weight, two speed, easy to carry workhorse, ideal for smaller wrenches.
- The PET70 Series is a fast, two speed design with higher crossover, ideal for larger wrenches.
- The PET 70 Series is available in 4 port or 8 port configurations for 2 or 4 tool simultaneous operation.
- Rated for continuous duty.
- PET7042 incorporate a psi/bar top mounted gauge at a 30° angle for accurate control.
- PET7842 incorporate a psi/bar flush mounted gauge for accurate control.
- Ideal for use with long extension cords.
- Quick-connect, No-Drip couplers with Safety Locking Collar.
- PET2041 & PET7042 incorporate an auto shut-off switch to prevent inadvertent overheating.
- Powerful permanent magnet motor starts at full load and runs on as little as 60 VAC.
- Pumps include one set of couplers installed for single tool use.

### PET2041 - .5 HP ELECTRIC POWER UNIT



PET2841



Model Number	Resvr. Size (Gal.)	Valve		Motor Control	*Manifold	Motor Specifications (Permanent Magnet)	Flow Rate @ 115 VAC		Weight (lbs)	Type of Wrench
		Control	Type				600	10,000		
PET2041	1	Solenoid	4 Way/3 Pos.	Auto Shut-Off	8 Ports for 4 Tool Use	0.5 HP Single Phase	400	20	65	Double Acting
PET2841				Manual Shut-Off	2 Ports for 1 Tool Use					

Optional multi-port kit for the PET2841, order (1) WMT4 bolt-on manifold kit and a CTP212 for each additional tool you need up to 4 tools maximum. Retract pressure is preset at 1,300 PSI.

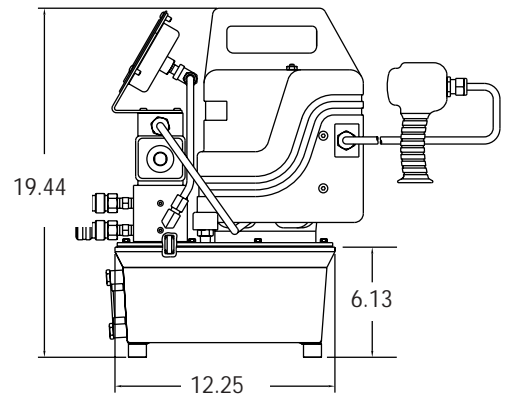
### PET7042 - 1.5 HP ELECTRIC POWER UNIT



PET7042



PET7842



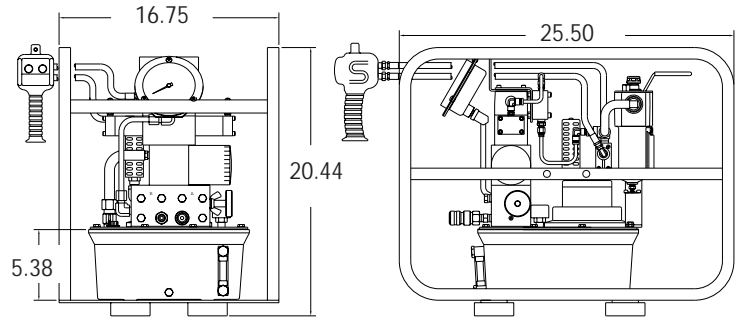
Model Number	Resvr. Size (Gal.)	Valve		*Manifold	Pump Coupler Set	Motor Specifications (Permanent Magnet)	Flow Rate @ 115 VAC		Weight (lbs)	Type of Wrench
		Control	Type				600	10,000		
PET7042	2	Solenoid	4 Way/3 Pos.	8 Ports for 4 Tool Use	CTP212	1.5 HP Single Phase	400	50	75	Double Acting
PET7842				4 Ports for 2 Tool Use						

\*Order a CTP212 for each additional tool to be used simultaneously with a single pump. Retract pressure is preset at 1,300 PSI

# PUMP & ACCESSORIES

# TORQUE WRENCHES

## PAT4542 - 1.5 HP AIR POWER UNIT



- Air powered for use in hazardous environments.
- The 8 port configuration allows operation of up to 4 tools simultaneously.
- Rated for continuous duty.
- Auto dump relieves all pressure from hoses for added safety.
- Fast two speed design with higher crossover.
- Includes psi/bar pressure gauge which is top mounted at a 30° angle for accurate control.
- Quick-connect, No-Drip couplers with Safety Locking Collar.
- External filter & roll bars standard.
- Pumps include one set of couplers installed for single tool use.

Model Number	Resvr. Size (Gal.)	Valve		*Manifold	Pump Coupler Set	Motor Specifications	Flow Rate (cu. in.) @ 50 cfm/90 psi		Weight (lbs)	Type of Wrench
		Control	Type							
PAT4542	2	Solenoid	4 Way/3 Pos.	8 Ports for 4 Tool Use	CTP212	1.5 HP Rotary Air	400	50	50	Double Acting
PAT5042				2 Ports for 1 Tool Use		4 HP Rotary Air	550	80		

\*Order a CTP212 for each tool to be used simultaneously with a PAT4542.  
Retract pressure is preset at 1,300 PSI.

## TORQUE WRENCH INTENSIFIER

Model Number	Valve		Input Flow Range (GPM)	Input Pres. (PSI)	Output Pres. Max. (PSI)	Output Flow Range (GPM)	Output Flow Ratio	Output Pres. Ratio	Weight (lbs)
	Type	Function							
PIT4	4 Way/3 Position	Advance/Hold/Retract	5 - 10	300-2,000	10,000	2	1:5	5:1	30



## TORQUE WRENCH HOSES

Model Number	Length (Ft.)	Hose Type
WH-15	15	15' Blue & Yellow Duplex Hose w/ Quick Disconnect Couplers
WH-20	20	20' Blue & Yellow Duplex Hose w/ Quick Disconnect Couplers
WH-40	40	40' Blue & Yellow Duplex Hose w/ Quick Disconnect Couplers



## TORQUE WRENCH GAUGES

Model Number	Dia (in)	Increments (psi/bar)	Type of Gauge
G7	4	100/10	0 to 10,000 PSI / 0 to 700 BAR Liquid Filled Gauge



Standard on all Simplex Torque Wrench Pumps.

## TORQUE WRENCH COUPLERS

Model Number	NPTF (in.)	Coupler Type
CT210	1/4	10,000 PSI/700 BAR Male Coupler
CT211		10,000 PSI/700 BAR Female Coupler
CT212		10,000 PSI/700 BAR Coupler Complete
CTP212*		10,000 PSI/700 BAR Pump Coupler Set



\*Includes coupler complete plus pump mounting hardware.