

HYDRAULIC & MECHANICAL TOOLS



SELECT FROM A WIDE RANGE OF HYDRAULIC & MECHANICAL TOOLS TO COMPLETE YOUR SYSTEM REQUIREMENTS

- Full range of torque wrenches, low clearance in-line drives and pumps for your bolting applications.
- Specialty tools include nut splitters, spreaders, bead breakers and pipe flange tools.
- Hydraulic clamps for those unique applications requiring higher forces
- Hydraulic testers and accessories to monitor hydraulic circuits
- Wide selection of mechanical tools, such as pliers, pry bars, O-ring picks, thread chasers and more.



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Model Shown:
TWHC3



>Features

QUALITY MEANS LOWER COST OF OWNERSHIP

- Designed for high cycle life (2-3x more than existing technology)
- Increased reliability provided by simple drive assembly means less downtime
- Corrosion resistant material for use in harsh environments

ENHANCED USABILITY:

- Compact nose radius allows the tool to fit in tighter, hard-to-reach spaces
- Low weight, high strength design
- Fast operation, long stroke and optimum flow
- Multi-direction high flow swivel manifold
- Push-button square drive reversal and reaction arm positioning for all models except TWHC50.

DESIGNED WITH SAFETY IN MIND:

- Fully-enclosed drive mechanism for operator safety
- Swivel manifold internal relief valve prevents retract side over-pressurization
- Fine tooth pawl prevents tool 'lock-on'

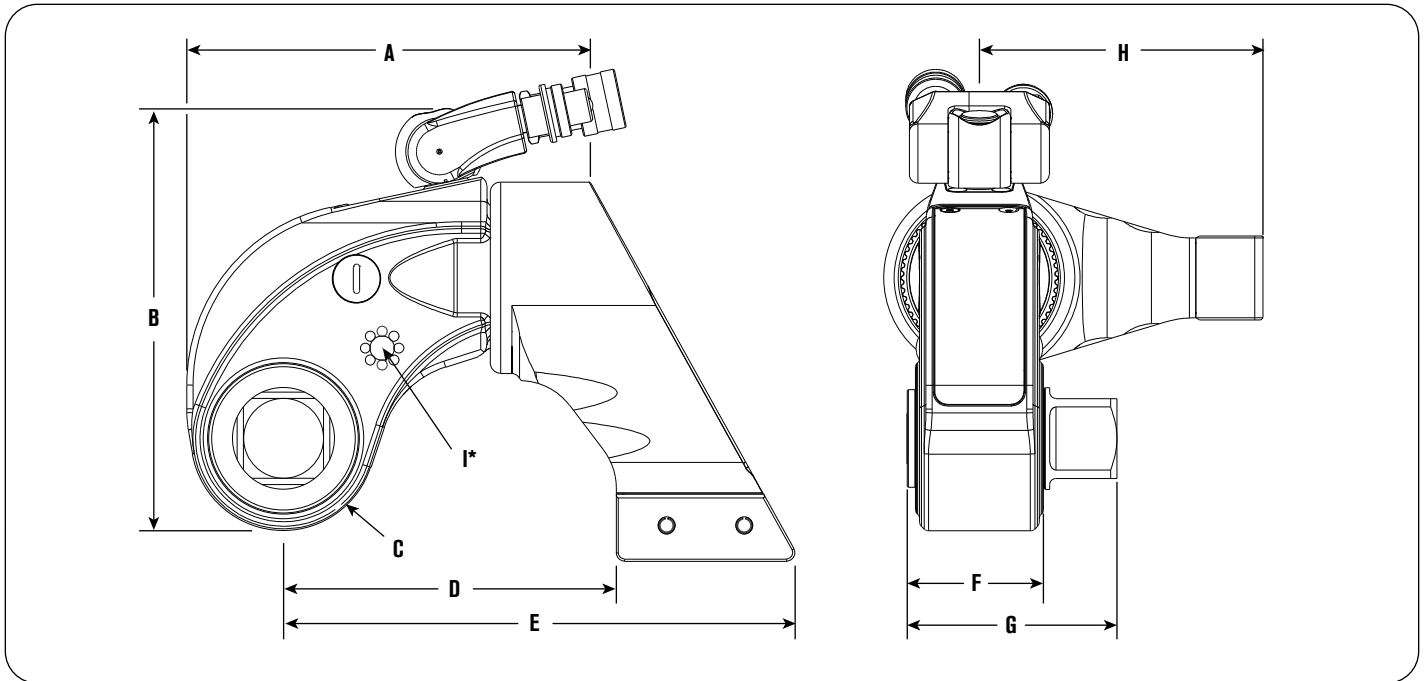
▶ The TWS50 is the perfect choice in this power generation application.



HANDLES SOLD SEPARATELY



The tool's designed long-stroke mechanism imparts a minimum 30 degree nut rotation per stroke while maintaining a tight and compact nose radius. This is a clear advantage over the short stroke and back-up pawl mechanisms of light alloy competitive models. Fewer parts and reduced torsion in operation equals reduced wear, maintenance and associated costs.



* Dimension I shows thread size (on both sides of the tool) for safety handle or lifting point. TWHC50 model available with lifting points only.

Technical Dimensions

Tool Model	Min Torque (ft. lbs.)	Max Torque (ft. lbs.)	Square Drive (in.)	A	B	C	D	E	F	G	H	I	Prod. Wt. (lbs.)
				(in.)	(in.)	(in.)	(in.)	(in.)	(in.)	(in.)	(in.)	(in.)	
TWHC1	170	1,413	0.75	5.20	5.71	1.10	4.39	6.69	1.56	2.67	3.39	M6 x 1.0	6.2
TWHC3	376	3,136	1.00	6.50	6.83	1.44	5.10	7.78	2.09	3.30	4.14	M6 x 1.0	11.7
TWHC6	726	6,050	150	7.56	7.94	1.73	6.24	9.59	2.40	3.93	5.32	M8 x 1.25	19.4
TWHC50	6,360	53,000	2.50	15.93	14.04	3.46	10.49	17.58	4.53	7.57	10.16	M12 x 1.75	152

Tools

Ordering Information

Order No.	Description
TWHC1	Wrench
TWHC3	Wrench
TWHC6	Wrench
TWHC50	Wrench

Order No.	Description
TWHC1H	Wrench with Handle
TWHC3H	Wrench with Handle
TWHC6H	Wrench with Handle

Order No.	Description
DFTAS000001	Handle for TWHC1
DFTAS000001	Handle for TWHC3
DFTAS000002	Handle for TWHC6

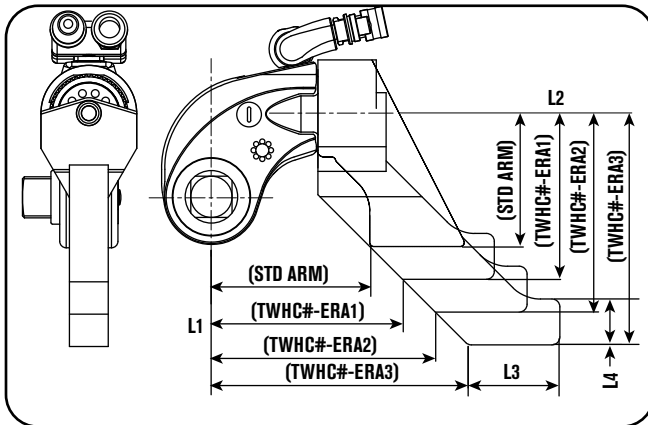
TWHC EXTENDED REACTION ARM TWHC-ERA



Features

- Long reach version of TWHC standard reaction arm
- 3 standard sizes per model (0.98 in./1.97 in./2.95 in.), specials upon request
- Replaces standard reaction arm via quick release locking pin
- Steel alloy construction
- 360° rotation
- Available for full range of tool sizes

Ordering Information



Tool Ref	Order No.	L1 (in.)	L2 (in.)	L3 (in.)	L4 (in.)
STD ARM		4.41	3.39	—	—
TWHC1	TWHC1-ERA1	5.39	4.37	2.36	1.18
	TWHC1-ERA2	6.38	5.35		
	TWHC1-ERA3	7.36	6.34		
STD ARM		5.12	4.13	—	—
TWHC3	TWHC3-ERA1	6.10	5.12	2.76	1.38
	TWHC3-ERA2	7.09	6.10		
	TWHC3-ERA3	8.07	7.09		
STD ARM		6.23	5.35	—	—
TWHC6	TWHC6-ERA1	7.24	6.34	3.74	1.57
	TWHC6-ERA2	8.23	7.32		
	TWHC6-ERA3	9.21	8.31		

TW HANDLE



Features

- Robust steel construction with ribbed polymer grip
- Multi-position on tool for balanced handling
- Cap-screw locking with positive 'docking'
- Is suitable for all wrench models (TWHC, TWSD, TWLC). However, for larger sizes (TWSD25/TWLC 30/TWHC50) we recommend the use of eye-bolt lifting.

Ordering Information

Order No.	Description	Tool Ref
DFTAS000001	Wrench Handle	TWSD1
		TWSD3
		TWHC1
		TWHC3
		TWLC2

Order No.	Description	Tool Ref
DFTAS000002	Wrench Handle	TWSD6
		TWSD11
		TWHC6
		TWLC4
		TWLC8
		TWLC15

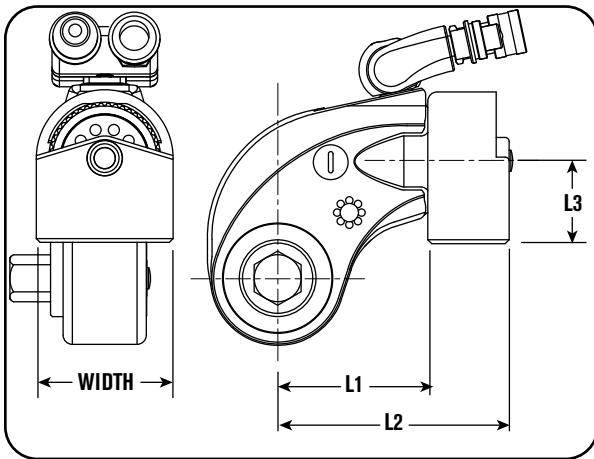
TWHC REACTION PAD TWHC-RP



Features

- In-Line Reaction Pad for TWHC wrenches used as simple pad, or modified platform for specific application (Machine-able/Weld-able platform)
- Replaces standard reaction arm via quick release locking pin
- Steel alloy construction
- 360° rotation
- Available for full range of tool sizes

Ordering Information



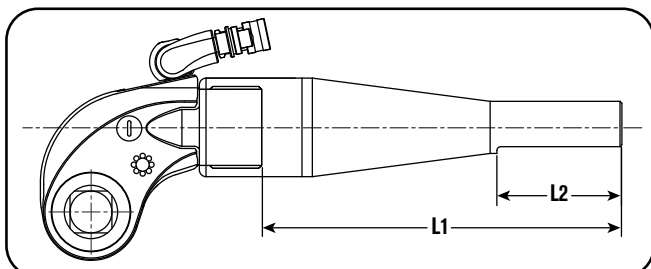
Tool Ref	Order No.	L1 (in.)	L2 (in.)	L3 (in.)	Width (in.)
TWHC1	TWHC1-RP	2.835	4.567	1.93	2.52
TWHC3	TWHC3-RP	3.39	5.43	2.17	2.99
TWHC6	TWHC6-RP	3.90	6.38	2.44	3.50

TWHC LONG REACTION ARM TWHC-LRA



Features

- Tubular extension arm for TWHC wrenches for in-line reaction outside wrench profile
- Replaces standard reaction arm via quick release pin locking
- Steel/light alloy construction (reaction flat machined on tube end)
- Can be cut down to suit specific length
- Available for full range of tool sizes



Ordering Information

Tool Ref	Order No.	L1 (in.)	L2 (in.)
TWHC1	TWHC1-LRA	19.72	6.00
TWHC3	TWHC3-LRA		
TWHC6	TWHC6-LRA		

Model Shown:
TWSD11



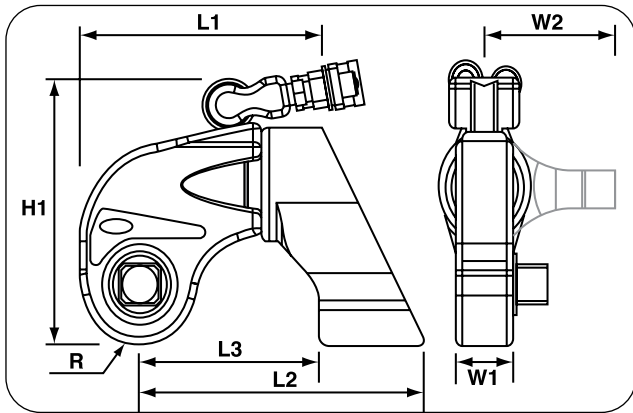
Features

HYDRAULIC SQUARE DRIVE TORQUE WRENCHES

- Corrosion resistant finish, low weight, high strength steel body construction design with superior torsional strength.
- Fast operation cycle, fine tooth ratchet, with floating piston design.
- Multi-axis high flow swivel manifold with internal relief valve prevents retract side over-pressurization
- Push button reversal of square drive
- 360° reaction arm, with push to lock reaction arm.
- Simple design, fully enclosed drive mechanism, provides accurate torque output

NOTE: Standard Reaction Arm included for all models

▶ The TWSD11 is the perfect choice with a large reaction surface to eliminate damage to the gears during the tightening process.



Tools

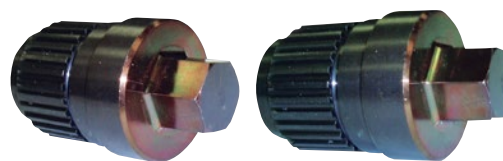
Technical Dimensions

Tool Model	L1	L2	L3	H1	R	W1	W2	Square Drive	Max. Torque	Tool Wt.
	(in.)	(in.)	(in.)	(in.)	(in.)	(in.)	(in.)	(in.)	(ft. lbs.)	(lbs.)
TWSD1	5.47	6.69	4.41	5.71	1.10	1.30	3.39	0.75	1,390	5.07
TWSD11	9.21	11.50	7.01	9.49	2.20	2.40	6.50	1.50	10,940	28.88
TWSD25	12.01	14.80	9.09	12.40	2.80	2.99	7.87	2.50	24,700	65.04

Ordering Information

Order No.	Description
TWSD1	Wrench - 1,300 lb-ft
TWSD11	Wrench - 10,940 lb-ft
TWSD25	Wrench - 24,500 lb-ft

Order No.	Description
DFTAS000001	Wrench Handle Size 1 Tool Ref. TWSD1 and TWSD3
DFTAS000002	Wrench Handle Size 2 Tool Ref. TWSD06 and TWSD11



Ordering Information

SQUARE DRIVE - ADAPTERS & SOCKETS

Torque Wrench	Hexagon Drive Size AF (in.)	Order No.		Torque Wrench	Hexagon Drive Size AF (in.)	Order No.	
		TWSD	TWHC			TWSD	TWHC
(TWSD1) (TWHC1)	0.63	TWD1-063	TWHCHD01-063	(TWSD6) (TWHC6)	1.25	TWD6-125	TWHCHD06-125
	0.75	TWD1-075	TWHCHD01-075		1.38	TWD6-138	TWHCHD06-138
	0.88	TWD1-088	TWHCHD01-088		1.50	TWD6-150	TWHCHD06-150
	1.00	TWD1-100	TWHCHD01-100		1.63	TWD6-163	TWHCHD06-163
(TWSD3) (TWHC3)	0.63	TWD3-063	TWHCHD03-063	(TWSD11)	1.13	TWD11-113	-
	0.75	TWD3-075	TWHCHD03-075		1.25	TWD11-125	-
	0.88	TWD3-088	TWHCHD03-088		1.38	TWD11-138	-
	1.00	TWD3-100	TWHCHD03-100		1.50	TWD11-150	-
	1.13	TWD3-113	TWHCHD03-113		1.63	TWD11-163	-
	1.25	TWD3-125	TWHCHD03-125		1.75	TWD11-175	-
	1.38	TWD3-138	TWHCHD03-138	(TWSD25)	1.50	TWD25-150	-
	1.50	TWD3-150	TWHCHD03-150		1.63	TWD25-163	-
1.63	TWD3-163	TWHCHD03-163	1.75		TWD25-175	-	
0.88	TWD6-063	TWHCHD06-063	1.88		TWD25-188	-	
(TWSD6) (TWHC6)	0.75	TWD6-075	TWHCHD06-075	2.00	TWD25-200	-	
	0.88	TWD6-088	TWHCHD06-088	2.25	TWD25-225	-	
	1.00	TWD6-100	TWHCHD06-100	2.50	TWD25-250	-	
	1.13	TWD6-113	TWHCHD06-113	2.75	TWD25-275	-	



Ordering Information

SQUARE DRIVE - IMPACT SOCKETS

Socket Size (in.)	0.75" Drive	1.00" Drive	1.50" Drive	2.50" Drive	Socket Size (in.)	0.75" Drive	1.00" Drive	1.50" Drive	2.50" Drive
	Part No.	Part No.	Part No.	Part No.		Part No.	Part No.	Part No.	Part No.
0.88	TWSIA088	TWSIB088	—	—	3.13	—	TWSIB313	TWSIC313	TWSIF313
1.06	TWSIA106	TWSIB106	—	—	3.38	—	TWSIB338	TWSIC338	TWSIF338
1.25	TWSIA125	TWSIB125	—	—	3.50	—	TWSIB350	TWSIC350	TWSIF350
1.38	TWSIA138	TWSIB138	—	—	3.75	—	TWSIB375	TWSIC375	TWSIF375
1.44	TWSIA144	TWSIB144	—	—	3.88	—	TWSIB388	—	TWSIF388
1.63	TWSIA163	TWSIB163	TWSIC163	—	4.13	—	TWSIB413	TWSIC413	TWSIF413
1.81	TWSIA181	TWSIB181	-	—	4.25	—	TWSIB425	TWSIC425	TWSIF425
2.00	TWSIA200	TWSIB200	TWSIC200	—	4.63	—	—	TWSIC463	TWSIF463
2.19	TWSIA219	TWSIB219	TWSIC219	—	5.00	—	—	—	TWSIF500
2.38	TWSIA238	TWSIB238	TWSIC238	—	5.38	—	—	—	TWSIF538
2.56	—	TWSIB256	TWSIC256	—	5.75	—	—	—	TWSIF575
2.75	—	TWSIB275	TWSIC275	—	6.13	—	—	—	TWSIF613
2.94	—	TWSIB294	TWSIC294	—					

Note: For Long Reach (Extended Length) sockets add "LR" to the end of the part number. For 12 point (bi-hex) sockets, add "BH" to the end of the part number.

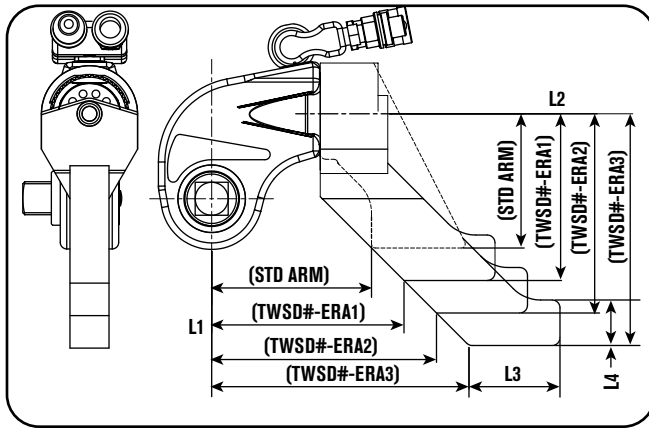
TWSD EXTENDED REACTION ARM TWSD-ERA



Features

- Long reach version of TWSD standard reaction arm
- 3 standard sizes per model (0.98 in./1.97 in./2.95 in.), specials upon request
- Replaces standard reaction arm via quick release locking pin
- Steel alloy construction
- 360° rotation
- Available for full range of tool sizes

Ordering Information



Tool Ref	Order No.	L1 (in.)	L2 (in.)	L3 (in.)	L4 (in.)
STD ARM		4.41	3.39		
TWSD1	TWSD1-ERA1	5.39	4.37	2.36	1.18
	TWSD1-ERA2	6.38	5.35		
	TWSD1-ERA3	7.36	6.34		
STD ARM		4.88	4.13		
TWSD3	TWSD3-ERA1	5.87	5.12	2.76	1.38
	TWSD3-ERA2	6.85	6.10		
	TWSD3-ERA3	7.83	7.09		
STD ARM		5.59	5.35		
TWSD6	TWSD6-ERA1	6.57	6.34	3.74	1.57
	TWSD6-ERA2	7.56	7.32		
	TWSD6-ERA3	8.54	8.31		
STD ARM		7.05	6.5		
TWSD11	TWSD11-ERA1	8.03	7.48	4.33	1.57
	TWSD11-ERA2	9.02	8.46		
	TWSD11-ERA3	10	9.45		
STD ARM		9.09	7.87		
TWSD25	TWSD25-ERA1	10.08	8.86	5.71	1.97
	TWSD25-ERA2	11.06	9.84		
	TWSD25-ERA3	12.05	10.83		

TW HANDLE

Tools



Features

- Robust steel construction with ribbed polymer grip
- Multi-position on tool for balanced handling
- Cap-screw locking with positive 'docking'
- Is suitable for all wrench models (TWHC, TWSD, TWLC). However, for larger sizes (TWSD25/TWLC30/TWHC50) we recommend the use of eye-bolt lifting.

Ordering Information

Order No.	Description	Tool Ref
DFTAS000001	Wrench Handle	TWSD1
		TWSD3
		TWHC1
		TWHC3
		TWLC2

Order No.	Description	Tool Ref
DFTAS000002	Wrench Handle	TWSD6
		TWSD11
		TWHC6
		TWLC4
		TWLC8
		TWLC15

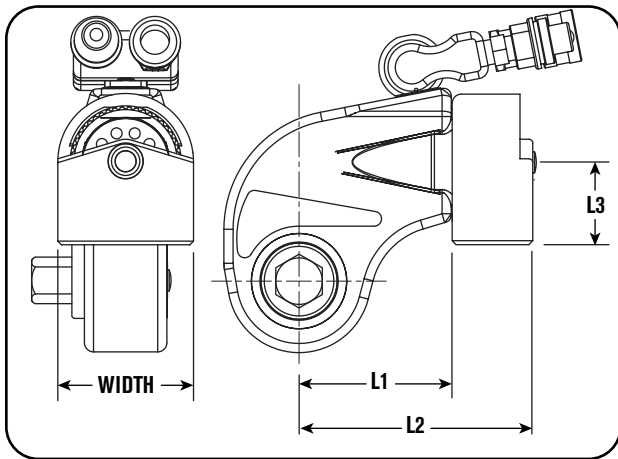
TWSD REACTION PAD TWSD-RP



Features

- Wrench In-Line Reaction Pad for TWSD wrenches used as simple pad, or modified platform, for specific application (Machine-able/Weld-able platform)
- Replaces standard reaction arm via quick release locking pin
- Steel alloy construction
- 360° rotation
- Available for full range of tool sizes

Ordering Information



Tool Ref	Order No.	L1 (in.)	L2 (in.)	L3 (in.)	Width (in.)
TWSD1	TWSD1-RP	2.835	4.567	1.713	2.480
TWSD3	TWSD3-RP	3.307	5.354	1.890	2.913
TWSD6	TWSD6-RP	3.681	6.122	2.244	3.543
TWSD11	TWSD11-RP	4.311	7.264	2.579	4.133
TWSD25	TWSD25-RP	5.374	9.587	3.484	5.630

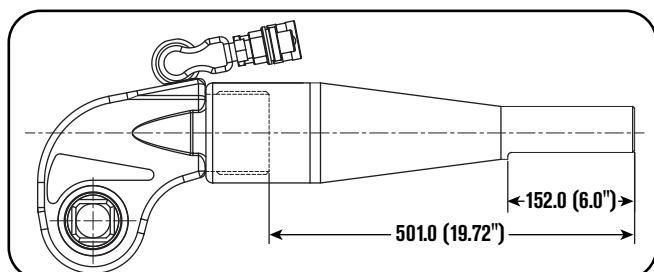
TWSD LONG REACTION ARM TWSD-LRA



Features

- Tubular extension arm for TWSD wrenches for in-line reaction outside wrench profile
- Replaces standard reaction arm via quick release locking pin
- Steel/light alloy construction (reaction flat machined on tube end)
- Can be cut down to suit specific length
- Available for full range of tool sizes

Tools



Ordering Information

Tool Ref	Order No.	L1 (in.)	L2 (in.)
TWSD1	TWSD1-LRA	19.72	6.00
TWSD3	TWSD3-LRA		
TWSD6	TWSD6-LRA		
TWSD11	TWSD11-LRA		
TWSD25	TWSD25-LRA		

Model Shown:
TWLC Body



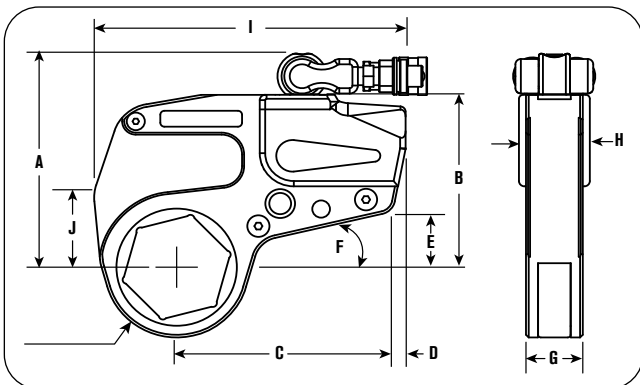
* Links sold separately.
Tool is not shipped with link.

Features

THE CLEARANCE TOOL FEATURES A LONG NECK, SHORT HEIGHT, AND SMALL NOSE RADIUS FOR INACCESSIBLE BOLTING AREAS FOUND IN INDUSTRY.

- Corrosion resistant finish, low weight, high strength steel body construction design with superior torsional strength.
- Fine tooth ratchet with floating piston design with small nose radius, allows for a fast operation cycle.
- Link pin does not fall out.
- Multi-axis high flow swivel manifold with internal relief valve prevents retract side over-pressurization
- “Hardened” steel reaction pad on TWLC8, 15 & 30
- Simple design, auto-connect drive piston quick interchangeable heads, no tools necessary, consistent torque output
- Replaceable reaction pad on larger models
- Power Team PowerThon™ Limited Lifetime Warranty

Tools



Torque Wrench Hoses - Non-Conductive Dual Line



Order No.	Hose Length (ft.)	Hose I.D. (in.)
TWH15	15	1/4"
TWH20	20	1/4"
TWH30	50	1/4"

Technical Dimensions

Body Order No.	A (in.)	B (in.)	C (in.)	D (in.)	E (in.)	F (deg.)	G (in.)	H (in.)
TWLC2	5.4	4.1	5.0	0.3	1.4	13	1.3	1.7
TWLC4	6.4	5.1	6.3	0.4	1.7	13	1.7	2.0
TWLC8	7.7	6.2	7.0	1.0	1.6	14	2.1	2.6
TWLC15	8.8	7.3	7.9	1.1	1.7	14	2.5	3.0
TWLC30	10.9	9.4	10.5	1.0	2.4	15	3.2	3.7

Ordering Information

Tool Model	Hex Range (in.)	Min. Torque (ft. lbs.)	Max. Torque (ft. lbs.)	Weight (Body Only) (lbs.)
TWLC2	1.25 - 2.38	189	1,575	2.2
TWLC4	1.50 - 3.13	477	3,975	4.4
TWLC8	2.38 - 3.88	954	7,950	7.7
TWLC15	2.56 - 4.63	1,782	14,850	15.4
TWLC30	3.13 - 6.13	3,456	28,800	31.9

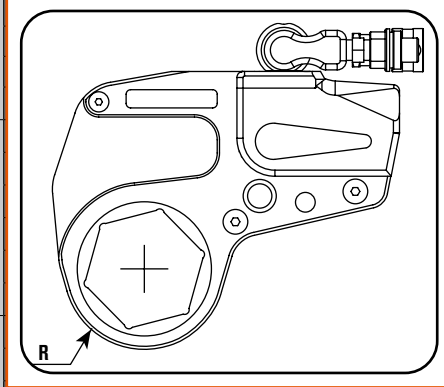


Special sizes available upon request.

LOW CLEARANCE - REDUCERS								
Body	Link	Nut A/F	Reducer	Reducer	Reducer	Reducer	Reducer	Reducer
Order No.	Part No.	(in.)	(in.)	Part No.	(in.)	Part No.	(in.)	Part No.
TWLC2	TWL2-032	1.25	—	—	—	—	—	—
	TWL2-036	1.44	—	—	—	—	—	—
	TWL2-041	1.63	1.63 - 1.44	TWR2-041036	1.63 - 1.25	TWR2-041032	—	—
	TWL2-046	1.81	1.81 - 1.63	TWR2-046041	1.81 - 1.44	TWR2-046036	1.81 - 1.25	TWR-046032
	TWL2-050	2.00	2.00 - 1.81	TWR2-050046	2.00 - 1.63	TWR2-050041	2.00 - 1.44	TWR2-050036
	TWL2-055	2.19	2.19 - 2.00	TWR2-055050	2.19 - 1.81	TWR2-055046	2.19 - 1.63	TWR2-055041
TWLC4	TWL2-060	2.38	2.38 - 2.19	TWR2-060055	2.38 - 2.00	TWR2-060050	2.38 - 1.81	TWR2-060046
	TWL4-041	1.63	1.63 - 1.44	TWR4-041036	1.63 - 1.25	TWR4-041032	—	—
	TWL4-046	1.81	1.81 - 1.63	TWR4-046041	1.81 - 1.44	TWR4-046036	1.81 - 1.25	TWR4-046032
	TWL4-050	2.00	2.00 - 1.81	TWR4-050046	2.00 - 1.63	TWR4-050041	2.00 - 1.44	TWR4-050036
	TWL4-055	2.19	2.19 - 2.00	TWR4-055050	2.19 - 1.81	TWR4-055046	2.19 - 1.63	TWR4-055041
	TWL4-060	2.38	2.38 - 2.19	TWR4-060055	2.38 - 2.00	TWR4-060050	2.38 - 1.81	TWR4-060046
	TWL4-065	2.56	2.56 - 2.38	TWR4-065060	2.56 - 2.19	TWR4-065055	2.56 - 2.00	TWR4-065050
	TWL4-070	2.75	2.75 - 2.56	TWR4-070065	2.75 - 2.38	TWR4-070060	2.75 - 2.19	TWR4-070055
TWLC8	TWL4-075	2.94	2.94 - 2.75	TWR4-075070	2.94 - 2.56	TWR4-075065	2.94 - 2.38	TWR4-075060
	TWL4-080	3.13	3.13 - 2.94	TWR4-080075	3.13 - 2.75	TWR4-080070	3.13 - 2.56	TWR4-080065
	TWL8-060	2.38	2.38 - 2.19	TWR8-060055	2.38 - 2.00	TWR8-060050	2.38 - 1.81	TWR8-060046
	TWL8-065	2.56	2.56 - 2.38	TWR8-065060	2.56 - 2.19	TWR8-065055	2.56 - 2.00	TWR8-065050
	TWL8-070	2.75	2.75 - 2.56	TWR8-070065	2.75 - 2.38	TWR8-070060	2.75 - 2.19	TWR8-070055
	TWL8-075	2.94	2.94 - 2.75	TWR8-075070	2.94 - 2.56	TWR8-075065	2.94 - 2.38	TWR8-075060
	TWL8-080	3.13	3.13 - 2.94	TWR8-080075	3.13 - 2.75	TWR8-080070	3.13 - 2.56	TWR8-080065
	TWL8-085	3.38	3.38 - 3.13	TWR8-085080	3.38 - 2.94	TWR8-085075	3.38 - 2.75	TWR8-085070
TWLC15	TWL8-090	3.50	3.50 - 3.38	TWR8-090085	3.50 - 3.13	TWR8-090080	3.50 - 2.94	TWR8-090075
	TWL8-095	3.75	3.75 - 3.50	TWR8-095090	3.75 - 3.38	TWR8-095085	3.75 - 3.13	TWR8-095080
	TWL8-100	3.88	3.88 - 3.75	TWR8-100095	3.88 - 3.50	TWR8-100090	3.88 - 3.38	TWR8-100085
	TWL15-070	2.75	2.75 - 2.56	TWR15-070065	2.75 - 2.38	TWR15-070060	2.75 - 2.19	TWR15-070055
	TWL15-075	2.94	2.94 - 2.75	TWR15-075070	2.94 - 2.56	TWR15-075065	2.94 - 2.38	TWR15-075060
	TWL15-080	3.13	3.13 - 2.94	TWR15-080075	3.13 - 2.75	TWR15-080070	3.13 - 2.56	TWR15-080065
	TWL15-085	3.38	3.38 - 3.13	TWR15-085080	3.38 - 2.94	TWR15-085075	3.38 - 2.75	TWR15-085070
	TWL15-090	3.50	3.50 - 3.38	TWR15-090085	3.50 - 3.13	TWR15-090080	3.50 - 2.94	TWR15-090075
	TWL15-095	3.75	3.75 - 3.50	TWR15-095090	3.75 - 3.38	TWR15-095085	3.75 - 3.13	TWR15-095080
	TWL15-100	3.88	3.88 - 3.75	TWR15-100095	3.88 - 3.50	TWR15-100090	3.88 - 3.38	TWR15-100085
TWLC30	TWL15-105	—	—	—	—	—	—	—
	TWL15-425	4.25	4.25 - 3.88	TWR15-425388	4.25 - 3.75	TWR15-425375	4.25 - 3.50	TWR15-425350
	TWL15-110	—	—	—	—	—	—	—
	TWL15-115	—	—	—	—	—	—	—
	TWL15-463	4.63	4.63 - 4.25	TWR15-463425	4.63 - 3.88	TWR15-463388	4.63 - 3.75	TWR15-463375
	TWL30-080	3.13	3.13 - 2.94	TWR30-080075	3.13 - 2.75	TWR30-080070	3.13 - 2.56	TWR30-080065
	TWL30-085	3.38	3.38 - 3.13	TWR30-085080	3.38 - 2.94	TWR30-085075	3.38 - 2.75	TWR30-085070
	TWL30-090	3.50	3.50 - 3.38	TWR30-090085	3.50 - 3.13	TWR30-090080	3.50 - 2.94	TWR30-090075
	TWL30-095	3.75	3.75 - 3.50	TWR30-095090	3.75 - 3.38	TWR30-095085	3.75 - 3.13	TWR30-095080
	TWL30-100	3.88	3.88 - 3.75	TWR30-100095	3.88 - 3.50	TWR30-100090	3.88 - 3.38	TWR30-100085
	TWL30-105	—	—	TWR30-105100	—	TWR30-105095	—	TWR30-105090
	TWL30-425	4.25	4.25 - 3.88	TWR30-425388	4.25 - 3.75	TWR30-425375	4.25 - 3.50	TWR30-425350
	TWL30-110	—	—	—	—	—	—	—
	TWL30-115	—	—	—	—	—	—	—
	TWL30-463	4.63	4.63 - 4.25	TWR30-463425	4.63 - 3.88	TWR30-463388	4.63 - 3.75	TWR30-463375
TWL30-120	—	—	—	—	—	—	—	
TWL30-500	5.00	5.00 - 4.63	TWR30-500463	5.00 - 4.25	TWR30-500425	5.00 - 3.88	TWR30-500388	
TWL30-130	—	—	—	—	—	—	—	
TWL30-135	5.38	5.38 - 5.00	TWR30-135125	5.38 - 4.63	TWR30-135120	5.38 - 4.25	TWR30-135115	
TWL30-145	5.75	—	—	—	—	—	—	
TWL30-150	—	—	—	—	—	—	—	
TWL30-155	6.13	—	—	—	—	—	—	
AVAILABLE UPON REQUEST								

Tools

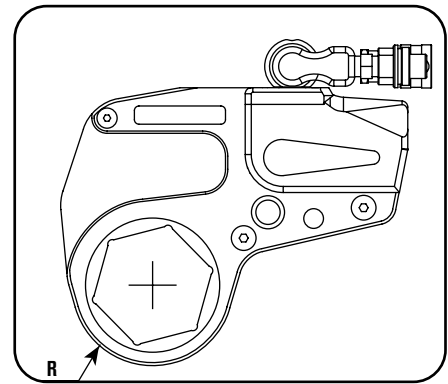
Nut A/F (in.)	TWLC2					TWLC4					TWLC8				
	Link Order No.	Radius R (in.)	I (in.)	J (in.)	Weight (Link Only) (lbs.)	Link Order No.	Radius R (in.)	I (in.)	J (in.)	Weight (Link Only) (lbs.)	Link Order No.	Radius R (in.)	I (in.)	J (in.)	Weight (Link Only) (lbs.)
1.13	TWL2-026					-					-				
1.06	TWL2-027					-					-				
1.13	TWL2-029					-					-				
1.19	TWL2-030					-					-				
1.25	TWL2-032	1.24	7.09	1.50	4.41	-					-				
1.31	TWL2-033					TWL4-033					-				
1.38	TWL2-035					TWL4-035					-				
1.44	TWL2-036					TWL4-036					-				
1.50	TWL2-150					TWL4-150	1.44	8.94	2.09	8.82	-				
1.56	TWL2-040	1.36	7.13	1.57	4.41	TWL4-040					-				
1.63	TWL2-041					TWL4-041					-				
1.69	TWL2-043					TWL4-043					-				
1.75	TWL2-044	1.46	7.20	1.57	4.41	TWL4-044	1.54	8.94	2.09	8.82	-				
1.81	TWL2-046					TWL4-046					-				
1.88	TWL2-188					TWL4-188					TWL8-188				
1.94	TWL2-049	1.57	7.28	1.69	4.41	TWL4-049	1.65	8.94	2.09	8.82	TWL8-049				
2.00	TWL2-050					TWL4-050					TWL8-050				
2.06	TWL2-052					TWL4-052					TWL8-052				
2.13	TWL2-054	1.67	7.28	1.69	4.41	TWL4-054	1.75	8.94	2.09	8.82	TWL8-054	1.99	10.79	3.03	15.43
2.19	TWL2-055					TWL4-055					TWL8-055				
2.25	TWL2-057					TWL4-225					TWL8-057				
2.31	TWL2-059	1.79	7.28	1.69	4.41	TWL4-059	1.87	8.94	2.09	8.82	TWL8-059				
2.38	TWL2-060					TWL4-060					TWL8-060				
2.44	-					TWL4-062					TWL8-062				
2.50	-					TWL4-063	1.97	8.94	2.09	8.82	TWL8-063	2.09	10.79	3.03	16.53
2.56	-					TWL4-065					TWL8-065				
2.63	-					TWL4-067					TWL8-067				
2.69	-					TWL4-068	2.09	9.02	2.20	8.82	TWL8-068	2.20	10.79	3.03	16.53
2.75	-					TWL4-070					TWL8-070				
2.81	-					TWL4-071					TWL8-071				
2.88	-					TWL4-073	2.19	9.02	2.20	9.92	TWL8-073	2.30	10.79	3.03	16.53
2.94	-					TWL4-075					TWL8-075				
3.00	-					TWL4-077					TWL8-077				
306	-					TWL4-313	2.32	9.06	2.28	9.92	TWL8-313	2.44	10.91	2.83	17.64
3.13	-					TWL4-080					TWL8-080				
3.19	-					-					TWL8-081				
3.25	-					-					TWL8-083				
3.31	-					-					TWL8-084				
3.38	-					-					TWL8-085	2.64	10.91	2.83	17.64
3.44	-					-					TWL8-087				
	-					-					TWL8-089				
3.50	-					-					TWL8-090				
3.56	-					-					TWL8-091				
3.63	-					-					TWL8-092				
3.69	-					-					TWL8-094				
3.75	-					-					TWL8-095	2.89	10.91	2.83	7.64
3.81	-					-					TWL8-097				
	-					-					TWL8-388				
3.88	-					-					TWL8-100				



Tools

NOTE:
The sizes listed on these pages encompass both heavy hex and standard hex nut sizes.
Check your local SPX FLOW Power Team Office for availability as some items may be special order.

Nut A/F (in.)	TWLC15					TWLC30					Nut A/F (in.)	TWLC30 (Continued)														
	Link Order No.	Radius R (in.)	I (in.)	J (in.)	Weight (Link Only) (lbs.)	Link Order No.	Radius R (in.)	I (in.)	J (in.)	Weight (Link Only) (lbs.)		Link Order No.	Radius R (in.)	I (in.)	J (in.)	Weight (Link Only) (lbs.)										
2.44	TWL15-062					-					4.81	TWL30-122														
2.50	TWL15-063					-						TWL30-123														
2.56	TWL15-065	2.38	12.32	3.46	27.56	-					4.88	TWL30-124	3.90	15.75	4.29	62.83										
2.63	TWL15-067					-				4.94	TWL30-125															
2.69	TWL15-068					-				5.00	TWL30-500															
2.75	TWL15-070					-				5.06	TWL30-129															
2.81	TWL15-071					-				5.13	TWL30-130															
2.88	TWL15-073	2.48	12.32	3.46	27.56	-				5.19	TWL30-132	4.13	15.75	4.29	62.83											
2.94	TWL15-075					-				5.25	TWL30-133															
3.00	TWL15-077					-				5.38	TWL30-135															
3.06	TWL15-313	2.62	12.32	3.46	28.66	-				5.44	TWL30-538					4.33	15.75	4.29	62.83							
3.13	TWL15-080									5.50	TWL30-138															
3.19	TWL15-081					TWL30-080	3.03	15.47	4.09	58.42	5.56	TWL30-141	4.57	15.75	4.29					65.04						
3.25	TWL15-083					TWL30-081					5.63	TWL30-143														
3.31	TWL15-084	2.83	12.32	3.46	29.76	TWL30-083					5.69	TWL30-144														
3.38	TWL15-085					TWL30-084					5.75	TWL30-145														
3.44	TWL15-087					TWL30-085											5.81	TWL30-148								
	TWL15-089					TWL30-087				5.88	TWL30-149															
3.50	TWL15-090					TWL30-089					TWL30-150															
3.56	TWL15-091					TWL30-090				5.94	TWL30-151	6.00	TWL30-152	6.06	TWL30-154	6.13	TWL30-155									
3.63	TWL15-092					TWL30-091				6.00	TWL30-152															
3.69	TWL15-094					TWL30-092				6.06	TWL30-154															
3.75	TWL15-095	3.07	12.44	3.15	29.76	TWL30-094	3.27	15.47	4.09	58.42	6.13							TWL30-155								
3.81	TWL15-097					TWL30-095																				
	TWL15-388					TWL30-097																				
3.88	TWL15-100					TWL30-388																				
4.00	TWL15-102					TWL30-100																				
4.06	TWL15-103					TWL30-102																				
4.13	TWL15-105	3.25	12.44	3.15	30.86	TWL30-103	3.50	15.47	4.09	60.63																
4.19	TWL15-106					TWL30-105																				
4.25	TWL15-425					TWL30-106																				
4.31	TWL15-110					TWL30-425																				
4.38	TWL15-111					TWL30-110																				
4.44	TWL15-113					TWL30-111																				
4.50	TWL15-114	3.44	12.44	3.15	30.86	TWL30-113	3.62	15.47	4.09	60.63																
	TWL15-115					TWL30-114																				
4.56	TWL15-116					TWL30-115																				
4.63	TWL15-463					TWL30-116																				
4.69	-					TWL30-463																				
4.75	-					TWL30-119	3.90	15.75	4.29	62.83																
						TWL30-120																				



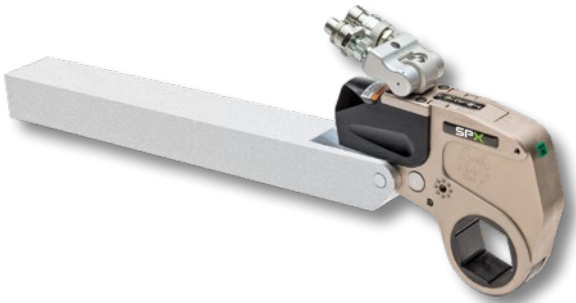
Tools

TO SPECIFY A TWLC SOLUTION:

1. Find a link for your application (nut size)
2. Choose the appropriate drive body
3. Add reducers for additional nut sizes

NOTE: Please order Drive Body and Link separately and pay attention to the same size, for Example TWLC2 and TWL2-041.

TWLC REACTION BAR TWLC-RB



Features

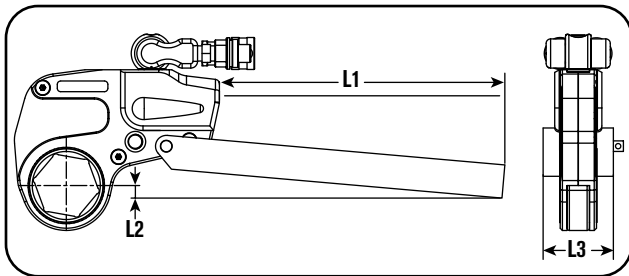
- In-Line Extension Reaction Bar for TWLC wrenches allows extended reach on the same plane
- Pin engagement, no tools required
- Available for full range of tool sizes



Reaction Accessories

Power Team offers a varied range of alternative and optional reaction accessories which help to find a reaction point solution no matter how unusual the bolted application is.

Ordering Information



Tool Ref	Order No.	L1 (in.)	L2 (in.)	L3 (in.)
TWLC2	TWLC2-RB	15.00	1.10	2.17
TWLC4	TWLC4-RB	18.00	1.38	2.60
TWLC8	TWLC8-RB	18.00	1.46	3.35
TWLC15	TWLC15-RB	20.00	1.57	4.01
TWLC30	TWLC30-RB	20.00	1.38	5.00

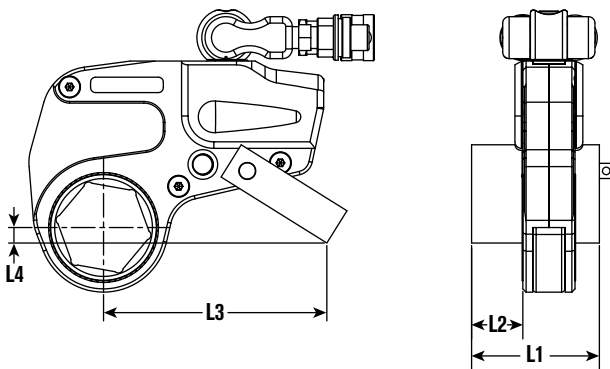
TWLC REACTION PADDLE TWLC-RP



Features

- Off-Set Reaction Arm for TWLC wrenches allows off-set reaction within wrench profile
- Pin engagement, no tools required
- Light alloy construction
- Available for full range of tool

Ordering Information



Tool Ref	Order No.	L1 (in.)	L2 (in.)	L3 (in.)	L4 (in.)
TWLC2	TWLC2-RP	3.31	1.38	5.59	0.51
TWLC4	TWLC4-RP	4.29	1.81	7.01	0.75
TWLC8	TWLC8-RP	5.37	2.25	8.66	1.02
TWLC15	TWLC15-RP	6.50	2.76	9.92	1.77
TWLC30	TWLC30-RP	7.874	3.39	12.48	1.73

HAVE A UNIQUE APPLICATION?
DOES STANDARD PRODUCT NOT FIT?



CUSTOM REACTION PADS AND REDUCERS ARE AVAILABLE.

Contact SPX FLOW, or an authorized Power Team distributor, for more details!

WHEN NOTHING ELSE WILL WORK,
SPLIT ADAPTERS ARE MADE TO ORDER
AND AVAILABLE UPON REQUEST.



TWLC15 split adapter,
closed position



TWLC15 split adapter,
open position

Model Shown:

TWSL4-046 Link (left) & TWSL4-060 Link with TWLC4 Drive Body (right)



Features

ENGINEERED TO FIT INACCESSIBLE APPLICATIONS WITH MINIMAL CLEARANCE.

- Dynamic engineering modeling (Finite Element Analysis and optimized tool design to extend life and durability).
- The SlimLine links use the same quick change Drive Body as the existing TWLC links
- Small nose radius, fits all standard API and ANSI flanges.
- Rigid steel body construction with corrosion resistant plating.
- Fully-enclosed drive mechanism for operator safety.
- Swivel manifold has an internal relief valve to prevent retract side over-pressurization.
- Multi-axis swivel technology for free positioning of tool and hoses.



Other Related Items

Contact your nearest Power Team sales representative for assistance in sizing the proper tool for your application, or go to powerteam.com website for details about other available link sizes not listed.



Pumps



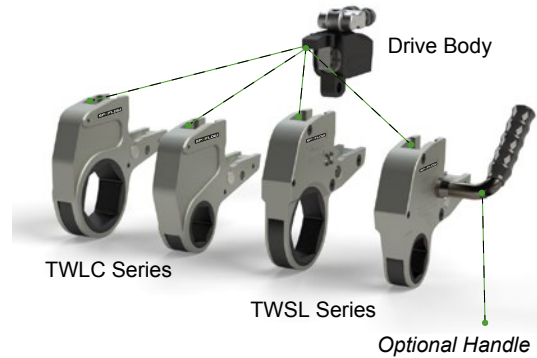
Hoses



Tools



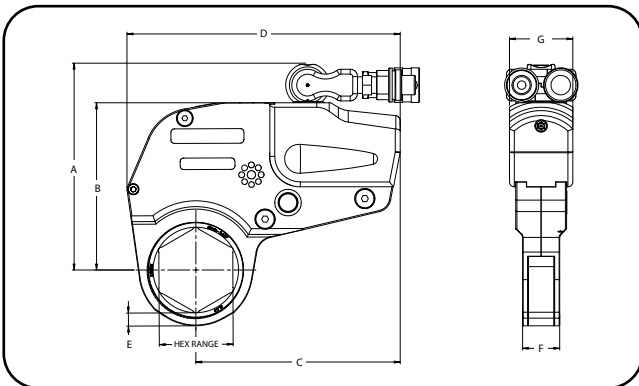
Drive Body interchanges with the TWLC & TWSL link sizes



Order #: *DFTAS000001* for TWSL2
DFTAS000002 for TWSL4

The Drive Body is designed to interchange with the TWLC (Low Clearance) and the new TWSL (SlimLine) Links, lowering your tool investment across each series to broaden your application reach.

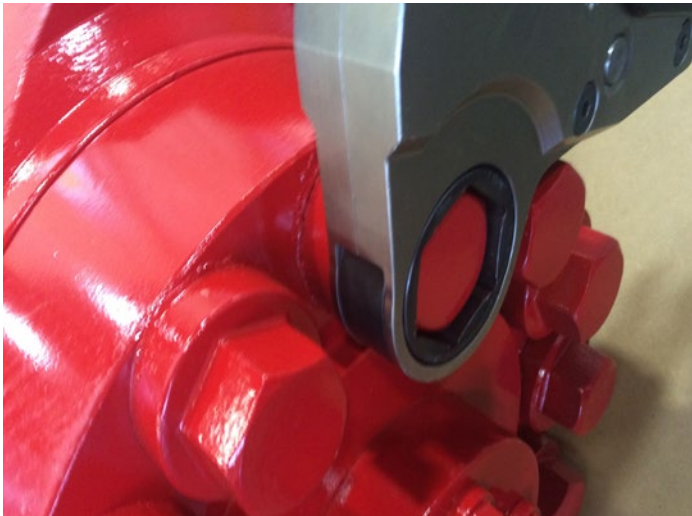
Tools



Technical Dimensions

Order No.	A (in.)	B (in.)	C (in.)	D (in.)	E (in.)	F (in.)	G (in.)
TWSL2	5.71	4.49	5.04	7.26	0.35	0.98	1.65
TWSL4	6.61	5.39	6.61	8.83	0.42	1.20	2.04

▶ Technical Fit Overview

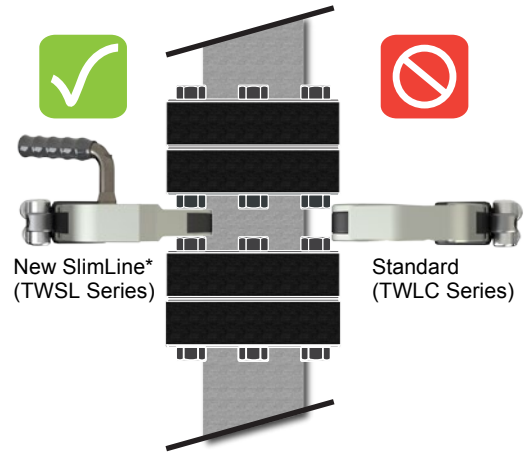


▶ The TWSL's narrow width and reduced radius design enables the tool to fit into tight areas where standard low clearance links cannot.



SlimLine Application Range

Due to the compact design, the maximum torque of the TWSL links vary depending on link size, reference the information below for complete details.



* Shown with optional handle, order # DFTAS000001 for TWSL2, DFTAS000002 for TWSL4.

▶ Torque Wrench Drive Body Ordering Information for SlimLine

Drive Body Order No.	Hex Range for SlimLine		SlimLine Min. Torque (ft. lbs.)	SlimLine Max. Torque (ft. lbs.)	Weight (Link Only) (lbs.)
	(in.)	(in.)			
TWLC2	1.13	2.38	222	1,240 - 1,850	2.2
TWLC4	1.81	3.13	505	2,639 - 4,210	4.4

Note: Links are sold separately from the drive body, refer to the tables below.

▶ Torque Wrench Link Ordering Information for SlimLine

Link Order No.	Hex Range for SlimLine		SlimLine Min. Torque (ft. lbs.)	SlimLine Max. Torque (ft. lbs.)	Weight (Link Only) (lbs.)
	(in.)	(in.)			
TWSL2-#	1.13	2.38	222	1,240 - 1,850	4.2 - 4.5
TWSL4-#	1.81	3.13	505	2,639 - 4,210	8.0 - 8.4

Note: The “#” suffix will be replaced with the actual link size in a numeric value.

▶ TWSL2 SlimLine Link Reference Table*

Nut A/F (in.)	Link Order No.	Max. Torque (ft. lbs.)	Weight (Link Only) (lbs.)
1.25	TWSL2-032	1,240	4.1
1.44	TWSL2-036	1,430	4.2
1.63	TWSL2-041	1,600	4.3
1.81	TWSL2-046	1,850	4.3
2.00	TWSL2-050	1,850	4.3
2.19	TWSL2-055	1,850	4.4
2.38	TWSL2-060	1,850	4.4

▶ TWSL4 SlimLine Link Reference Table*

Nut A/F (in.)	Link Order No.	Max. Torque (ft. lbs.)	Weight (Link Only) (lbs.)
1.81	TWSL4-046	2,639	8.0
2.00	TWSL4-050	3,271	8.2
2.19	TWSL4-055	3,568	8.2
2.38	TWSL4-060	3,867	8.3
2.56	TWSL4-065	4,210	8.4
2.75	TWSL4-070	4,210	8.4
2.94	TWSL4-075	4,210	8.4
3.13	TWSL4-080	4,210	8.4

Model Shown:
X1E1-PT



Features

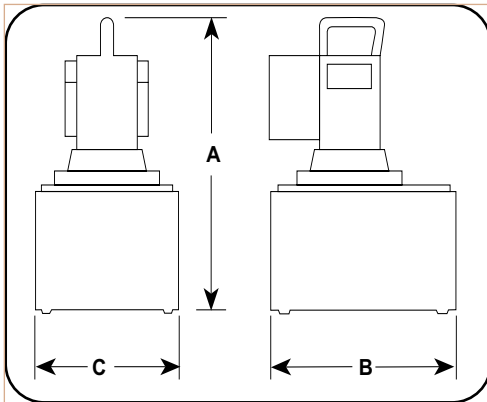
THE POWER TEAM X1E1-PT: SOLD FOR YEARS TO END CUSTOMERS.

- Base pump unit: Power Team PE55 series – the standard in the industry
- Two-speed high-performance pump
- Retract side internal relief-valve protects tools
- 4-way / 2-position solenoid valve standard
- Utilizes rugged electrical controls
- External adjustable pressure regulator
- Hand remote standard
- For single or double-acting tools



CAUTION

THIS PUMP SHOULD NOT BE USED FOR LIFTING APPLICATIONS, IT'S DESIGN FOR TORQUE WRENCH APPLICATIONS ONLY.



Ordering Information

Order No.	A	B	C	Description	Electric Motor	Oil Delivery per min.	Oil Reservoir Cap.	Prod. Wt.
	(in.)	(in.)	(in.)		Volt	(cu. in.)	(gal.)	(lbs.)
X1E1-PT	18.00	13.00	13.88	Electric-Powered Torque Wrench Pump	110VAC	55	2.5	72.80
X1E2-PT	18.00	13.00	13.88	Electric-Powered Torque Wrench Pump	220VAC	55	2.5	72.80

Model Shown:
X1A1-PT



> Features

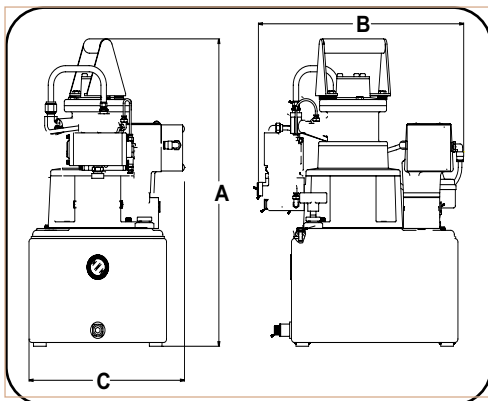
X1A1-PT FEATURES THE SAME RUGGED TIME-PROVEN DESIGN AS THE POWER TEAM X1E1-PT.

- Base pump unit, Power Team PA55 series – the standard in the industry
- Two-speed high-performance pump
- Retract side internal relief-valve protects tools
- 4-way / 2-position air valve standard
- External adjustable pressure regulator
- Hand remote standard



CAUTION

THIS PUMP SHOULD NOT BE USED FOR LIFTING APPLICATIONS, IT'S DESIGN FOR TORQUE WRENCH APPLICATIONS ONLY.



▶ Ordering Information

Order No.	A	B	C	Description	Oil Delivery per min. (cu. in.)	Oil Reservoir Cap. (gal.)	Prod. Wt. (lbs.)
	(in.)	(in.)	(in.)				
X1A1-PT	18.75	18.00	10.75	Air-Powered Torque Wrench Pump	55	2.5	75.00

Model Shown:
PE30TWP



Features

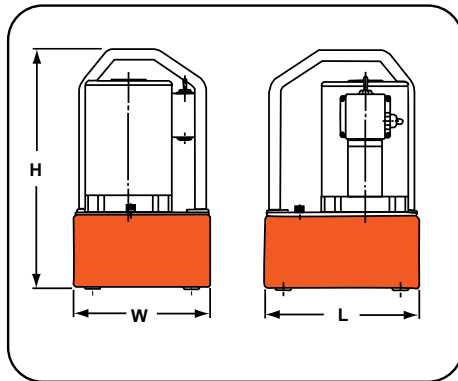
VANGUARD® ELECTRIC HYDRAULIC TORQUE WRENCH PUMPS.

- Two-speed general duty pump.
- External adjustable pressure regulator.
- Retract side internal relief valve protects tool.
- Hand remote control with 20 ft. cord.
- Use for single or double-acting tools.



CAUTION

THIS PUMP SHOULD NOT BE USED FOR LIFTING APPLICATIONS, IT'S DESIGN FOR TORQUE WRENCH APPLICATIONS ONLY.



Ordering Information

Order No.	Width (in.)	Length (in.)	Height (in.)	Electric Motor (4,000 rpm)	Oil Delivery per min. (cu. in.)	Oil Reservoir Cap. (gal.)	Usable Oil (cu. in.)	Prod. Wt. (lbs.)
PE30TWP	13.82	13.13	16.62	1 hp, 115VAC / 60Hz, 13 amps		1.25	280	68.00
PE30TWP-E110*	13.82	13.13	16.62	110VAC / 50Hz, 13 amps	300 @ 100 psi 30 @ 10,000 psi	1.25	280	68.00
PE30TWP-E220*	13.82	13.13	16.62	220VAC / 50Hz, 7 amps		1.25	280	68.00

* CE Approved - designed for 50 Hz applications

Model Shown:

PE55TWP, PE55TWP-4



Features

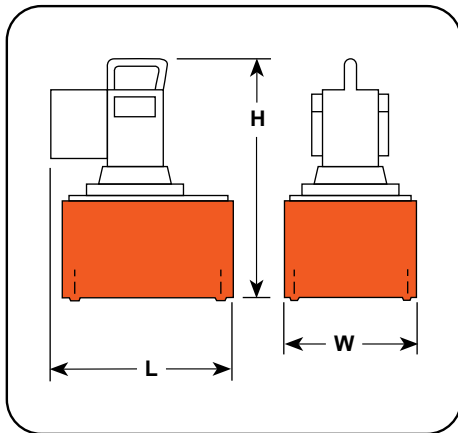
VANGUARD® ELECTRIC HYDRAULIC TORQUE WRENCH PUMPS.

- Two-speed high-performance pump.
- External adjustable pressure regulator
- Retract side internal relief valve protects tool.
- Hand remote control with 20 ft. cord.
- Use for single or double-acting tools.
- Four-tool manifold allows use of up to four tools simultaneously.



CAUTION

THIS PUMP SHOULD NOT BE USED FOR LIFTING APPLICATIONS, IT'S DESIGN FOR TORQUE WRENCH APPLICATIONS ONLY.

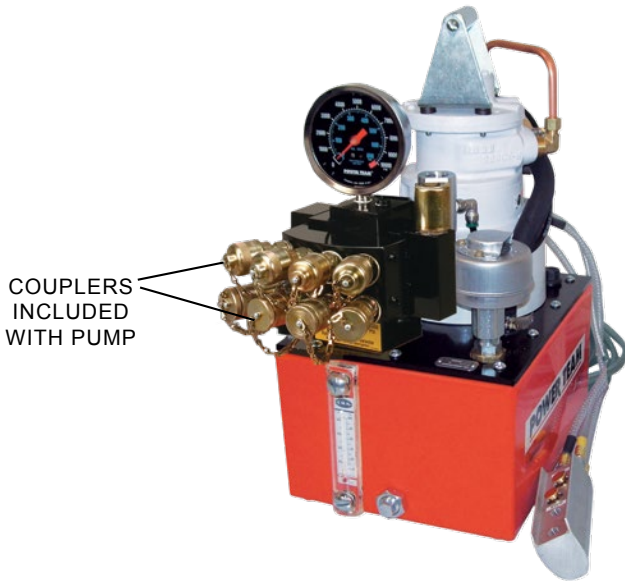


Ordering Information

Order No.	Width (in.)	Length (in.)	Height (in.)	Electric Motor (12,000 rpm)	Oil Delivery per min. (cu. in.)	Oil Reservoir Cap. (gal.)	Usable Oil (cu. in.)	Prod. Wt. (lbs.)
PE55TWP	17.14	9.50	18.12	1-1/8 hp, 115VAC, 25 amps		1.25	280	75.00
PE55TWP-E110*	17.14	9.50	18.12	110VAC / 50Hz, 25 amps	704 @ 0 psi	1.25	280	75.00
PE55TWP-E220*	17.14	9.50	18.12	220VAC / 50Hz, 13 amps	56 @ 10,000 psi	1.25	280	75.00
PE55TWP-4	18.49	9.50	19.15	1-1/8 hp, 115VAC, 25 amps		1.25	280	78.00
PE55TWP-4-E110*	18.49	9.50	19.15	110VAC / 50Hz, 25 amps	704 @ 0 psi	1.25	280	78.00
PE55TWP-4-E220*	18.49	9.50	19.15	220VAC / 50Hz, 13 amps	56 @ 10,000 psi	1.25	280	78.00

* CE Approved - designed for 50 Hz applications

Model Shown:
RWP55-4



Features

AIR HYDRAULIC TORQUE WRENCH PUMP

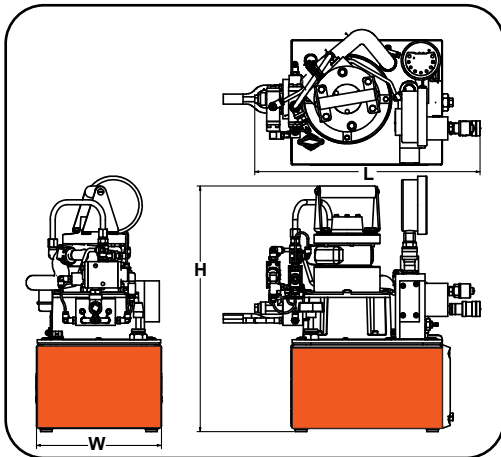
- Use where air is the preferred source of power.
- Powerful 3 hp motor starts under load.
- External adjustable pressure regulator.
- Retract side internal relief valve protects tools.
- Use for single or double-acting tools.
- Four-tool manifold allows use of up to four tools simultaneously.
- 25 ft. pneumatic remote controller included.



CAUTION

THIS PUMP SHOULD NOT BE USED FOR LIFTING APPLICATIONS, IT'S DESIGN FOR TORQUE WRENCH APPLICATIONS ONLY.

Tools

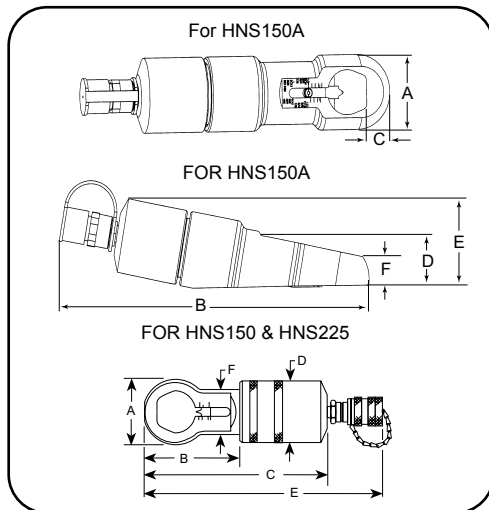


Ordering Information

Order No.	Width (in.)	Length (in.)	Height (in.)	Air Motor	Oil Delivery per min. (cu. in.)	Oil Reservoir Cap. (gal.)	Usable Oil (cu. in.)	Prod. Wt. (lbs.)
RWP55	16.55	9.50	19.83	3 hp, 50 cfm @ 80 psi	465 @ 100 psi 55 @ 10,000 psi	2.50	590	78.00
RWP55-4 (4-TOOL MANIFOLD)	16.55	9.50	19.83	3 hp, 50 cfm @ 80 psi	465 @ 100 psi 55 @ 10,000 psi	2.50	590	78.00

Model Shown:

HNS150, HNS150A, HNS225



Features

HYDRAULIC NUT SPLITTERS

- Specially designed “tool steel” cutter blade penetrates the nut to the precise point where it cracks, stopping short of the bolt threads.
- Dial-in” feature on HNS150 makes adjustment of splitter simple, without the worry of damaging the bolt.
- Nut splitter features a dramatically improved cutter blade with an 800% greater resistance to chipping and breaking over previous models.
- Compact size allows you to use it in confined areas where it will deliver enough force to split the toughest “fused” or rusted-on grade 2H nuts.
- All models feature a rugged one-piece cutting frame coupled to a heavy-duty hydraulic cylinder.

Align mark on cutter blade with scale.



Ordering Information

Order No.	A	B	C	D	E	F	Head Thickness (in.)	Replacement Blade	Prod. Wt. (lbs.)
	(in.)	(in.)	(in.)	(in.)	(in.)	(in.)			
HNS150	2.88	3.38	0.65	2.75	10.38	2.06	1.0	308840	8.10
HNS150A	3.02	14.20	1.03	2.11	3.70	1.16	1.0	351985	15.80
HNS225	4.25	6.00	14.38	3.88	—	3.25	1.5	308022	29.00

NUT GRADE CAPACITIES

Order No.	2 or A	5 or B	8 or C	2H
HNS150	1/2 - 1-1/2 in. hex	1/2 - 1-1/2 in. hex	1/2 - 1-5/16 in. hex	1/2 - 1-1/8 in. hex
HNS150A	1/2 - 1-1/2 in. hex	1/2 - 1-1/2 in. hex	1/2 - 1-5/16 in. hex	1/2 - 1-1/8 in. hex
HNS225	1-1/8 - 2-1/4 in. hex	1-1/8 - 2-1/4 in. hex	1-1/8 - 2-1/16 in. hex	1-1/8 - 1-11/16 in. hex

Model Shown:
FLS15, FLS15-ST

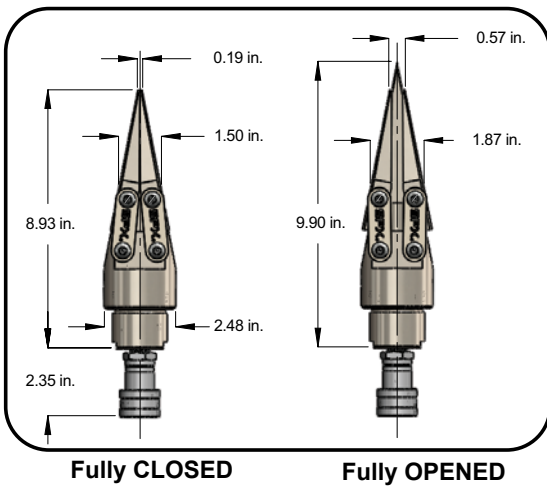


Features

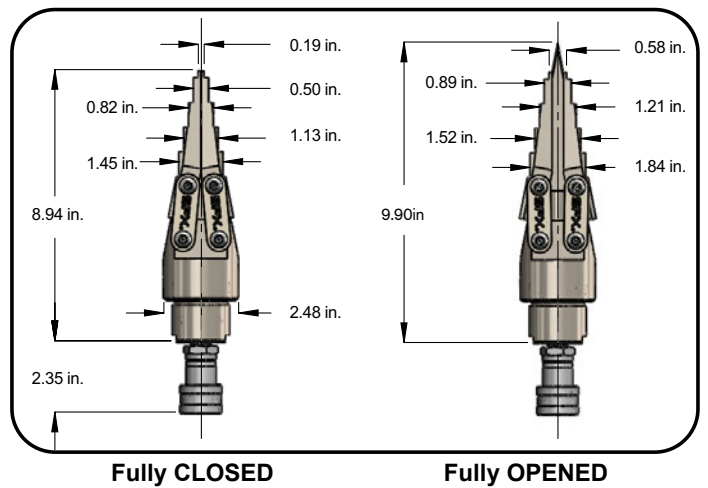
INTEGRATED WEDGE CONCEPT IDEAL FOR CREATING SPACE FOR FLANGE SURFACE CLEANING AND REPAIR

- 33,000 pound wedge-driven spreader. Jaws fully supported by wedge for excellent durability.
- Low friction provided by heavy-duty extended-life lubricant, ideal for flanges with narrow gaps (only 0.2 inches required for entry).
- Compact and lightweight design (only 9.9 inches long at a weight of 7 pounds).
- Ergonomically balanced handle included.
- Suitable for the offshore environment due to superior corrosion resistance
- Quick adjustments for various tasks due to interchangeable shoes (both stepped and serrated)
- Easy and quick maintenance without special tools required.
- Includes female half coupler & mates to standard 3/8" male half coupler (9798).

FLS15 Spreader

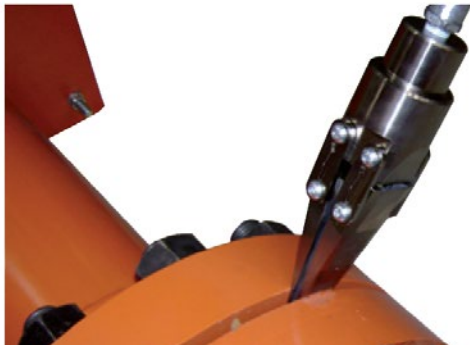


FLS15-ST Spreader



Tools


Order No.	Maximum Spreading Force (lbs.)	Minimum Tip Clearance (in.)	Maximum Tip Spread (in.)	Spreader Type	Oil Cap. (cu. in.)	Maximum Operating Pressure (psi.)	Prod. Weight (lbs.)
FLS15	33,000	0.197 Inches	0.59 Inches	Hydraulic	1	10,000	7.00
FLS15-ST							



TYPICAL APPLICATIONS:


- Pipe and flange repair
- Removing elbows
- Couplers & gasket and metal seal replacement
- Heavy equipment maintenance


OTHER OPTIONAL ACCESSORIES


HANDLE		
	Order No.	Description
	2008410	Lightweight spreaders handle is designed for use with FLS15 or FLS15-ST. Wt., 0.12 lbs.


STEPPED BLOCK		
	Order No.	Description
	SB15	Use to increase the wedge opening. Designed to use with FLS15 or FLS15-ST. (1 piece).



STEPPED SHOE		
	Order No.	Description
	2008083*	Lightweight spreader stepped shoe with an interlocking friction-free smooth, parallel wedge design, Wt. 0.64 lbs.

SERRATED SHOE		
	Order No.	Description
	2008082*	Lightweight spreader serrated shoe.

PUMP		
	Order No.	Description
	P19L	Two-speed, single-acting hand pump. 29 cu. in. oil capacity. Wt. 5.10 lbs.

HOSE		
	Order No.	Description
	9764	Hydraulic hose assembly.

ANALOG GAUGE		
	Order No.	Description
	9040	Pressure gauge.

COUPLER & GAUGE ADAPTER		
	Order No.	Description
	9798	Male half coupler.
	9670	Gauge adapter

* Part number is for one shoe only. Two shoes required per spreader.

Tools

Model Shown:
HFS3A



▶ HFS6AP59L spreader offers up to 10 tons of spreading force to safely separate this flange.



Tools

Features

CONTROLLED AND GUIDED FLANGE SEPARATION TOOL

- You'll never again have to resort to "hammer and chisel" methods that waste time and effort. Flange spreaders should be used in pairs to provide even spreading force.
- Use HFS3A for applications where total thickness of flanges and max. spread gap is 3 or less, and flange bolts are a min. of 0.69" diameter.
- Use HFS6A if total thickness of flanges and max. spread gap is 6" or less, and flange bolts are a min. of 0.81" diameter.



OPTIONAL WEDGE ENDS

Standard 60° wedge is suitable for most flanges; 30° "thin" and 60° "blunt" wedges are optional.



350823



350822



350549



350550

Ordering Information

Order No.	Cap. (ton)	Standard Wedge Type	Optional Wedges		Min. Flange Opening			Min. Flange Opening			Min. Combined Flange Opening (in.)	Pin Dia. (in.)	Prod. Wt. (lbs.)
			30° Thin	60° Blunt	60° Std. (in.)	60° Blunt (in.)	30° (in.)	60° Std. (in.)	60° Blunt (in.)	30° (in.)			
HFS3A	5	60° Sharp	350823	350822	0.06	1.00	0.06	1.25	1.25	0.72	3.50	0.69	9.00
HFS6A	10	60° Sharp	350549	350550	0.06	1.50	0.06	2.00	2.00	0.97	6.56	0.81	18.00

Model Shown:
HS2000, HS3000



Features

HYDRAULIC SPREADERS OFFER A GREATER FORCE THAN TRADITIONAL MECHANICAL TOOLS.

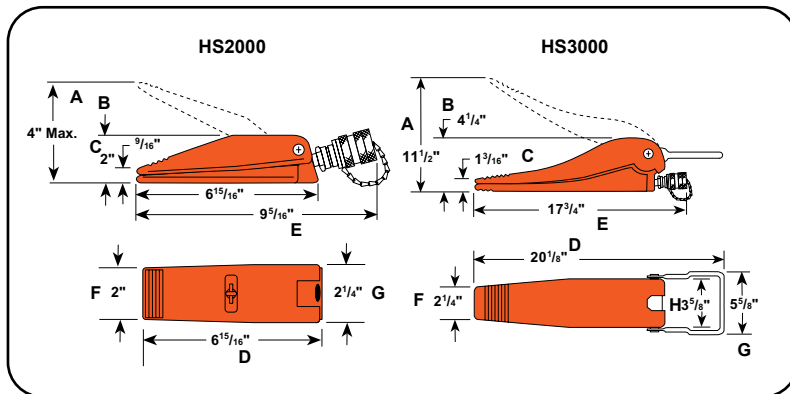
- Use to lift machines to spread concrete forms or rebar and perform straightening jobs.
- Conforms to ASME B30.1 standard.
- High strength alloy steel forged upper and lower jaws on HS2000.
- Jaws are spring-return to retract automatically when pressure is released.

HS2000 (FORGED STEEL)

- 1 ton capacity spreader, full 2,000 lbs. capacity at 10,000 PSI with 4" spread.
- Can be "dead-ended" at 4" spread under full load.

HS3000 (HIGH GRADE DUCTILE IRON)

- 1.5 ton capacity spreader, full 3,000 lb. capacity at 10,000 psi. with 11.5" spread.
- Needs only 1.25" clearance to engage jaws.
- Can be "dead-ended" at 11.50" spread at full load.



Ordering Information

Order No.	Cap. (ton)	Max. Spread (in.)	A	B	C	D	E	F	G	H	Oil Cap. (cu. in.)	Min. Clearance Required (in.)	Prod. Wt. (lbs.)
			(in.)	(in.)	(in.)	(in.)	(in.)	(in.)	(in.)	(in.)			
HS2000	1.0	4.00	4.00	2.00	0.56	6.94	9.31	2.00	2.25	—	0.63	0.56	4.80
HS3000	1.5	11.50	11.50	4.50	1.19	20.13	17.75	2.25	5.63	3.63	3.50	1.25	22.00

Model Shown:

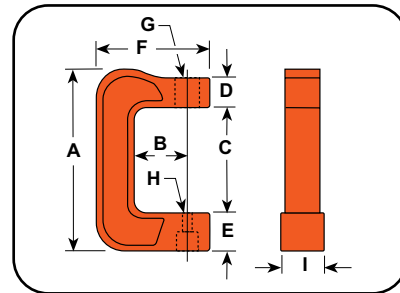
CC10



Features

- In 5, 10 and 25 ton capacities. For use with Power Team general purpose single-acting series cylinders of comparable capacity.
- For clamping, pressing and bending. Ideal for welding and metal fabrication for fit-up of sheet or plate steel.
- Clamps withstand full rated capacity of the cylinders for which they are intended.

Note: To minimize the effects of off-center loading, the CC5, CC10 and CC25 should be used with the optional 350144 and 350145 swivel caps.



Ordering Information

Order No.	Cap. (ton)	A (in.)	B (in.)	C (in.)	D (in.)	E (in.)	F (in.)	G (in.)	H (in.)	I (in.)	Use With Cyl. No.	Prod. Wt. (lbs.)
CC5	5	12.38	3.75	7.31	2.00	2.50	7.75	1 1/2" - 16 UN	0.88	3.00	C51C-C57C	25.00
CC10	10	15.88	6.00	9.81	2.00	3.00	10.75	2 1/4" - 14 UNS	0.88	3.50	C101C-C1010C	50.00
CC25	25	21.00	6.00	13.00	3.00	4.00	12.31	3 5/16" - 12 UNS	1.44	4.63	C251C-C2514C	96.00

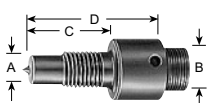
OTHER OPTIONAL ACCESSORIES WITH CC5, CC10 & CC25 HYDRAULIC CLAMPS

SWIVEL CAPS



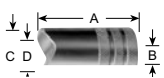
Order No.	Cap. (ton)	A (in.)	B (in.)
350144*	5 - 10	1.38	0.75
350145	25	2.00	1.00

THREADED ADAPTERS



Order No.	Cap. (ton)	A (in.)	B (in.)	C (in.)	D (in.)
38597	10	1 - 8	1 - 8	0.75	2.00
38953	25	1.5 - 16	1.5 - 16	2.75	4.38

V PUSHING ADAPTERS

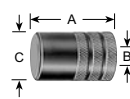


Order No.	Cap. (ton)	A (in.)	B (in.)	C (in.)	D (in.)
34806**	10	2.63	1 - 8	1.50	1.00
34807**	25	3.13	1.25 - 7	1.75	1.25

* May be used with CC5

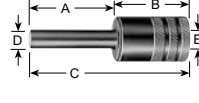
** Must be used with a threaded adapter.

PUSHING ADAPTERS



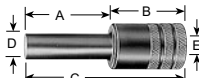
Order No.	Cap. (ton)	A (in.)	B (in.)	C (in.)
25228**	10	2.38	1 - 8	1.50
28229**	25	2.88	1.25 - 7	1.75

PUSHING ADAPTERS



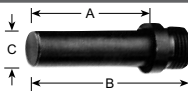
Order No.	Cap. (ton)	A (in.)	B (in.)	C (in.)	D (in.)	E (in.)
201923**	10	3.13	2.25	5.38	0.50	1 - 8
34510**	25	3.25	2.63	5.88	0.75	1.25 - 7

PUSHING ADAPTERS



Order No.	Cap. (ton)	A (in.)	B (in.)	C (in.)	D (in.)	E (in.)
201454**	10	3.06	2.63	5.69	0.75	1 - 8
34511**	25	3.25	2.63	5.88	1.00	1.25 - 7

PUSHING ADAPTERS



Order No.	Cap. (ton)	A (in.)	B (in.)	C (in.)
309874*	5	2.03	2.78	0.63

Tools

Model Shown:

BB1600



> Features

TIRE REMOVING TOOL

- Made to fit into the pry bar pocket
- Hydraulic pressure does all the unseating.
- Lightweight and portable.



RECOMMENDED PRODUCTS



P59L hydraulic hand pump and 9764 hose recommended to be used with BB1600.

▶ BB1600 bead breaker and the P59L hand pump is the perfect choice for this tire removal application.



▶ **Ordering Information**

Order No.	Cylinder Capacity (@ 10,000 psi.)	Stroke (in.)	Rim Size (in.)	Prod. Wt. (lbs.)
BB1600	11.20	4.00	25" - 49"	22.50
BB1601	11.20	4.00	25" - 49"	24.00

For use with single, two, or three-piece rims

Model Shown:

HP35S



Features

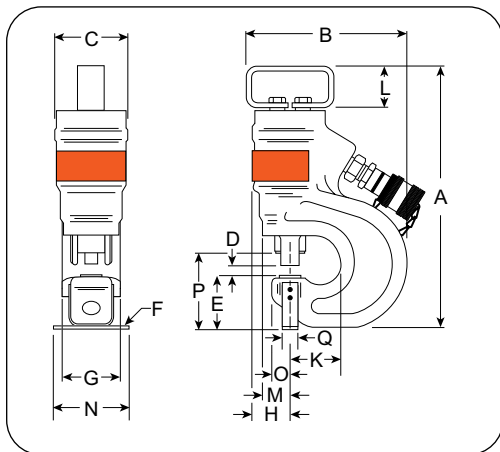
- Punch smooth, precise holes in seconds. Much faster than drilling.
- Fully portable for construction, maintenance and service applications, or can be mounted on a workbench for production jobs.
- Has carrying handle for precise locating.
- Rugged, forged steel C-Frame for great strength and durability.
- Dual-action, spring-loaded stripper holds material during punching operation, strips material from punch on return. Scribe lines on stripper aid in locating the punch.



RECOMMENDED PRODUCTS

The PE172 electric/hydraulic pump is an ideal power source, which is included in item # HP35SP.

Tools



Technical Dimensions

Order No.	Cap. (ton)	Max. Oper. Press. (psi)	Oil Cap. (cu. in.)	Max. Material Thickness (in.)	A (in.)	B (in.)	C (in.)	D (in.)	E (in.)	F (in.)	G (in.)	H (in.)	K (in.)	L (in.)	M (in.)	N (in.)	O (in.)	P (in.)	Q (in.)
HP35	35	10,000	4.6	0.50	13.75	9.00	3.75	0.56	2.88	0.25	3.00	1.81	2.81	2.25	1.50	3.50	0.88	4.00	0.75

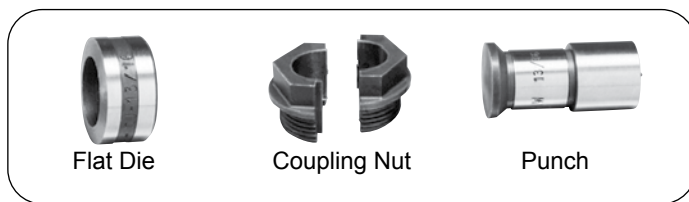
Model Shown:
HP35SP



Ordering Information

Order No.	Description	Prod. Wt. (lbs.)
HP35	Punch only, includes metal case and die change tools.	42.50
HP35S	Punch with punches and dies. Includes HP35 punch, metal case and 250459 punch/die set.	44.00
HP35P *	Punch set with pump. Same as HP35SP, but does not include punch/die set.	86.30
HP35SP *	Punch set with pump. Includes HP35 punch, PE172 electric/hydraulic pump, 9756 hose, 9798 hose half coupler, 250459 punch/die set, metal case.	87.80
250459	Punch/die set for round holes. Includes one each: PD437 0.44" punch/die, PD562 0.56" punch/die, PD688 0.69" punch/die, PD812 0.81" punch/die.	1.50

* NOTE: Available in 220VAC, 50 Hz. Order with suffix "-220".



Flat Die

Coupling Nut

Punch



Optional Coupling Nut Wrench



Order No.	Description
252000	Makes punch/die changes easier without "rounding-off" coupling nuts. Wt., 0.5 lbs.

Tools

PUNCH / DIE SETS FOR HP35 HYDRAULIC PUNCHES				
Punch Size (in.)	Punch Style	Hole Dia. (in.)	Punch with Flat Die Set	Punch with Bevel Die Set
0.25	○ Round	0.25	—	—
0.31		0.31	PD313	—
0.38		0.38	PD375	PD375B
0.44		0.44	PD437	PD437B
0.53		0.53	PD531	PD531B
0.56		0.56	PD562	PD562B
0.69		0.69	PD688	—
0.78		0.78	PD781	—
0.81		0.81	PD812	—

Model Shown:
HT50A, HT200



>Features

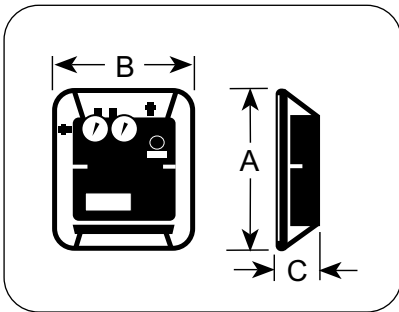
75 AND 200 GPM IN-LINE HYDRAULIC TESTERS

- Accurately measure oil flow, pressure and temperature on in-plant equipment, forklifts, machine tools and more.
- Temperature and flow readings are in Imperial and Metric and accurate to within $\pm 2\%$ of full scale.
- Dual pressure gauges for high and low pressure readings. Low pressure gauge is automatically shut-off and protected as pressure rises beyond its maximum reading.
- Automatic pressure compensating feature lets you increase flow without affecting pressure setting.
- Reverse flow through tester will not cause damage. A replaceable safety disc ruptures if pressure exceeds upper limit.
- Solid state voltage regulator eliminates errors caused by voltage change during testing.

50 GPM IN-LINE HYDRAULIC TESTER

- Troubleshoots systems with capacities to 50 gpm at pressures less than 5,000 psi. Accurately measure oil flow to $\pm 5\%$, pressure to within 2% and temperature readings within 1%.
- Pressure gauge is liquid filled to dampen system pulsation.

Tools



Ordering Information

Order No.	Max. Flow (gpm)	Scale	Flow Range		Max. Oper. Press. (psi.)	Temp. Scale Range (°F)	Port Sizes	A	B	C	Prod. Wt. (lbs.)
			(gpm)	(l/min..)				(in.)	(in.)	(in.)	
HT50A	50	—	0 - 50	0 - 200	5,000	20 - 240	1-1/16-12UN Female O-Ring with Union Adapt 3/4" NPTF female.	12.25	6.25	10.00	30.30
HT75	75	High	15 - 75	50 - 300	5,000	100 - 250	3/4" NPT Swivel	13.75	11.88	5.75	18.20
		Low	3 - 15	10 - 60							
HT200	200	High	25 - 200	100 - 750	5,000	100 - 250	1 1/2" SAE Split Flange	15.88	13.25	6.75	28.20
		Low	5 - 40	20 - 150							

DUAL GAUGE CONVERSION KIT FOR 50 GPM TESTER.



Provides more precise low pressure readings. Remove pressure gauge block and gauge from tester and replace it with this block. Install high pressure gauge from tester (0-5,000 psi) onto this new block.

Order No.	Description
307281	Dual gauge conversion kit. Consists of gauge mounting block, pulsation dampener, thermal overload protector, low pressure gauge and gauge protector. Low pressure gauge calibrated 0-600 psi (0-42 bar). Wt. 1.0 lb.

AUXILIARY POWER CORDS FOR USE WITH 75 AND 200 GPM TESTERS



CAUTION: For use on negative ground systems only.

Order No.	Description
37045	Auxiliary power cord. For use with any 12 or 24VAC battery to remotely power tester. Wt. 0.1 lb.

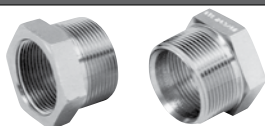
HOSES



Order No.	Description
9785	Hose, 3/4" I.D. x 3/4" NPTF male both ends. 10 ft. length. 2,250 psi working pressure. (2 req'd on 50 and 75 gpm testers). Wt., 0.7 lb.
9786 *	Hose, 1" I.D. x 1-1/4" NPT male both ends. Recommended max. flow 90 gpm, with a working pressure of 4,000 psi. Wt., 14.0 lbs.
9787 *	Hose, 1-1/4" I.D. x 1-1/4" NPT male both ends. Recommended max. flow 140 gpm, with a working pressure of 3,000 psi. Wt., 21.0 lbs.
9788 *	Hose, 1-1/2" I.D. x 1-1/2" NPT male both ends. Recommended max. flow 200 gpm, with a working pressure of 2,500 psi. Wt., 25.0 lbs.

* Hose assemblies are all 4-ply spiral wound wire, 10 ft. long. For use with 200 gpm testers.

HOSE REDUCER BUSHINGS

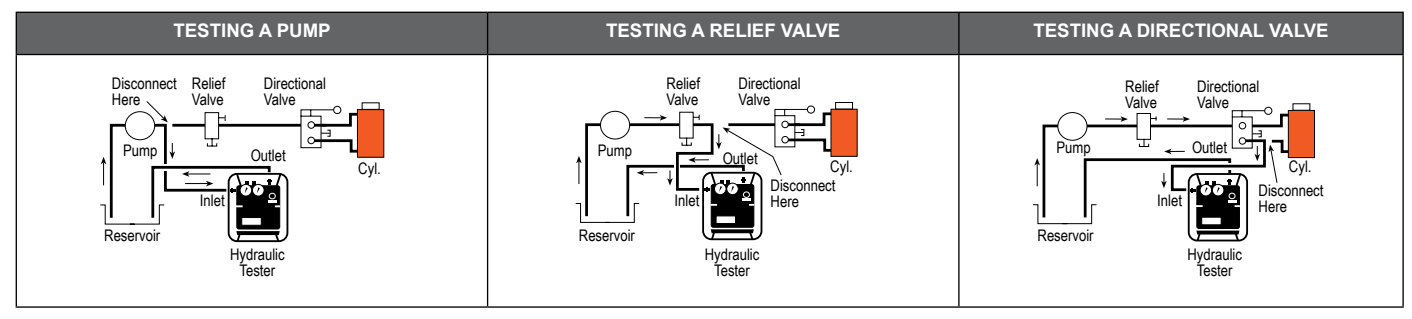


Order No.	Description
203264	Consists of two hose reducer bushings, 1-1/4" NPT female x 1-1/2" NPT male end. Needed to adapt 9786 1" I.D. hose and 9787 1-1/4" I.D. hose to tester. Wt., 2.2 lbs.

Tools



Typical Set-up: Testing the pump, relief valve, and directional valve



HYDRAULIC FITTINGS FOR USE WITH ALL TESTERS.

	16954	90° Swivel Adapter. 3/4" NPTF male x 3/4" NPSM female. Wt., 0.8 lb.		26073	Swivel adapter. 3/4" NPTF female x 1/2" NPSM female. Wt., 0.3 lb.
	22041	Coupler. 3/4" NPTF male x 3/4"-16 female ORB. Wt., 0.5 lb.		26074	45° Swivel Adapter. 3/4" NPSM female x 3/4" NPTF male. Wt., 0.6 lb.
	22042	Coupler. 3/4" -16 female ORB x 1-1/16"-12 female 37° JIC. Wt., 0.4 lb.		26075	Swivel Adapter. 3/4" NPSM female x 3/4" NPTF female. Wt., 0.4 lb.
	22043	Coupler. 3/4" -16 female ORB x 9/16"-18 female 37° JIC. Wt., 0.4 lb.		26076	Swivel Adapter. 3/4" NPTF male x 3/4" NPSM female. Wt., 0.4 lb.
	22044	Coupler. 3/4" -16 female ORB x 1/2"-20 female 37° JIC. Wt., 0.4 lb.		26077	Cap. 3/4" NPTF. Wt., 0.6 lb.
	27737	Swivel Adapter. 3/4" -16 male x 3/4" NPSM female. For use with No. 9785 hose, which has 3/4" NPTF male thread. Wt., 0.3 lb.		26078	Plug. 3/4" NPTF. Wt., 0.3 lb.
	27287	Coupler. 3/4" -16 UNF female ORB x 7/8"-14 UNF female 37° JIC. Wt., 0.4		26079	Adapter. 3/4" NPTF female x 1-1/16" -12 male ORB. Wt., 0.4 lb.
	13449	Cap. 1-1/16"-12 UNF female, 3/4" O.D. tube, 37° flare. Wt., 0.2 lb.		208402	45° Union Adapter. 7/8"-14 UNF male 37° JIC x 3/4" NPTF female. 3,000 psi working pressure. Wt., 0.6 lb.
	26068	45° Swivel Adapter. 1" NPTF male x 3/4" NPSM female. Wt., 0.8 lb.		208401	45° Union Adapter. 7/8"-14 UNF male 37° JIC x 3/4" NPTF female. Wt., 0.7 lb.
	26069	Swivel Adapter. 1" NPTF female x 3/4" NPSM female. Wt., 0.5 lb.		206753	Coupler. 1-15/16"-12 UNF female 37° JIC x 3/4" NPTF female. Wt., 1.1 lbs.
	26070	Adapter. 1" NPTF male x 3/4" NPTF female. Wt., 0.3 lb.		26666	Connector. 1-5/16"-12 UNF male 37° JIC x 3/4" NPTF male. Wt., 0.4 lb.
	26071	Service Tee. 3/4" NPTF female (2) x 3/4" NPTF male. Wt., 0.9 lb.		28984	Straight Adapter. 3/4" NPTF female x 1-3/16" -12 UN male 37° JIC. Wt., 0.6 lb.
	26072	Swivel Adapter. 3/4" NPSM female x 1/2" NPTF male. Wt., 0.4 lb.		28985	Straight Adapter Union. 1-3/16"-12 UN female 37° JIC x 3/4" NPTF female. Wt., 1.3 lbs.

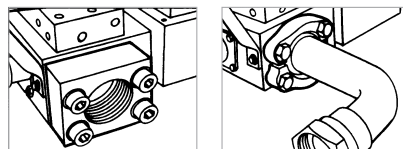
NOTE: The recommended maximum working pressure on the above fittings is 5,000 psi (except the 208402 is 3,000 psi).

HT200 HYDRAULIC TESTER ACCESSORIES

Attach to the HT200 hydraulic tester by the use of flanged-head adapters and split flanges, or by a set of female straight adapters.

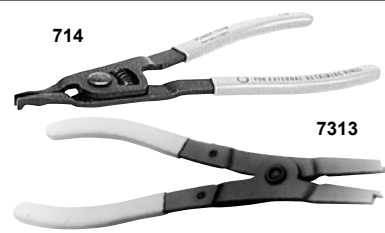


FLANGED HEAD ADAPTER UNIONS & SPLIT FLANGE KIT	
Order No.	Description
203154	Straight flange adapter. 1-1/2" flanged-head to 1-1/2" NPSM female swivel. Wt., 2.2 lbs.
203155	45° flange adapter. 1- 1/2" flanged-head by 1-1/2" NPSM female swivel. Wt., 3.2 lbs.
203156	90° flange adapter. 1-1/2" flanged-head by 1-1/2" NPSM female swivel. Wt., 4.2 lbs.
203017	Split Flange Kit. Consists of four flange halves and attaching bolts to permit use of 1-1/2" I.D. flange adapters listed at left. Wt., 2.9 lbs.



FEMALE STRAIGHT FLANGE ADAPTER	
Order No.	Description
203003	Consists of two female straight flange adapters with attaching bolts. When attached to inlet/outlet ports, allows connection of 1-1/2" NPT male hose ends to tester. Wt., 8.5 lbs.

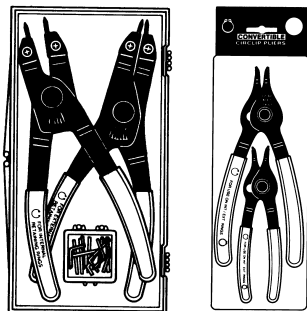
HORSESHOE LOCK RING PLIER



For removing horseshoe lock rings used on hydraulic brakes, differentials, etc. Plier is 8" long; max. spread: 15/16"

Order No.	Description
714	Horseshoe lock ring plier. Wt., 0.4 lb.
7313	External snap ring plier easily removes snap rings used to retain bearings on shafts. Max. spread: 17/16".

RETAINING RING PLIER KITS



7053K

7123K

Choose from four sets; internal ring, external ring and convertible pliers for either internal or external rings.

Order No.	Description
7053K	Replaceable tip pliers kit. This versatile kit contains (1) internal and (1) external pliers with (8) tip sets. Two sets each: .038 dia. 90° bend, .047" dia. straight, .047" dia. 90° bend, .070" dia. straight. Recommended for 1/4"-2" rings. Packaged in plastic storage case. Wt., 0.8 lb.
15702	Replaceable tip kit (only) for 7053K.
7123K	Convertible pliers kit. Contains 1120 (.038" dia./straight tip) and No. 1340 (.070" dia./straight tip). Each pliers "converts" to handle both internal and external rings. Packaged in a reusable plastic storage case. Wt., 0.8 lb.
7125K	Convertible pliers kit. Contains 1125 (.038" dia./45° bent tip) and No. 1345 (.070" dia./45° bent tip). Each pliers "converts" to handle both internal and external rings. Packaged in a reusable plastic storage case. Wt., 0.8 lb.



7406K

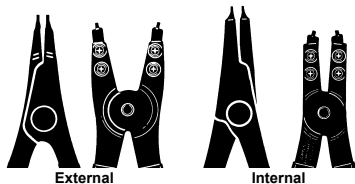
Order No.	Description
7406K	Professional pliers kit. Contains (6) retaining convertible pliers to handle both internal and external rings from 1/4"-2". Includes straight and 90° off-set pliers with .038", .047", and .070" tip diameters. Includes Nos. 1120, 1131, 1320, 1329, 1340 and 1349. Packaged in an impact resistant storage case. Wt., 2.0 lbs.

REPLACEMENT TIPS FOR 7300 AND 7301 PLIERS

Order No.	Description
209201	Replacement tips (pr.) for the 7300 and 7301 pliers. Wt., 0.1 lb. Fed. Spec.:GGG-P-480

RETAINING RING PLIERS SELECTION GUIDE

Order No.	Type of Pliers	Tip Bend	Tip Size Dia. (in.)	For Internal Rings † Bore Dia. (in.)	For External Rings † Shaft Dia. (in.)	Order No.	Type of Pliers	Tip Bend	Tip Size Dia. (in.)	For Internal Rings † Bore Dia. (in.)	For External Rings † Shaft Dia. (in.)
0100	Internal	Str.	0.038	0.375 - 1.023	—	1120	Convertible	Str.	0.038	0.375 - 0.562	0.250 - 0.672
0200	External	Str.	0.038	—	0.250 - 0.875	1125*	Convertible	45°	0.038	0.375 - 0.562	0.250 - 0.672
0300	Internal	Str.	0.070	1.062 - 1.750	—	1131**	Convertible	90°	0.038	0.375 - 0.562	0.250 - 0.672
0400	External	Str.	0.070	—	0.938 - 1.438	1320	Convertible	Str.	0.047	0.625 - 1.023	0.687 - 0.875
0500	Internal	Str.	0.090	1.812 - 3.500	—	1329	Convertible	90°	0.047	0.625 - 1.023	0.687 - 0.875
0600	External	Str.	0.115	—	1.500 - 3.500	1340	Convertible	Str.	0.070	1.062 - 1.750	0.938 - 1.438
7300	Internal	Str.	0.120	3.062 - 6.000	—	1345*	Convertible	45°	0.070	1.062 - 1.750	0.938 - 1.438
7301	External	Str.	0.120	—	3.543 - 6.500	1349**	Convertible	90°	0.070	1.062 - 1.750	0.938 - 1.438



External

Internal



Convertible

Fed. Spec.:GGG-P-480-E



* 45° Angled Tips

** 90° Angled Tips


† Capacities are shown for basic style rings.

CAUTION: Always wear safety goggles when using pliers


RATCHETING CHAIN WRENCHES

	Special head design allows you to turn wrench in either direction. Ratcheting action makes it possible to re-grip without removal. Fits parts of most any size and shape.	
	Order No.	Description
	7400	Chain wrench, cap. 0.50" to 4.75" O.D. (Capacity= 333 ft. lbs.) Handle length: 12.50". Wt., 2.0 lbs.
	209199	Replacement chain with pin for 7400 chain wrench (16" long).
	7401	Chain wrench, cap. 3" to 6.75" O.D. (Capacity= 666 ft. lbs.) Handle length: 19.00" Wt., 5 lbs.
	209200	Replacement chain with pin for 7401 chain wrench (24" long).


ADJUSTABLE GLAND NUT WRENCH

	Designed to handle 2" to 6" dia. hydraulic cylinder gland nuts on many construction vehicles. Fits 0.25" and 0.31" dia. pin holes. Features a 0.75" sq. drive.	
	Order No.	Description
	1266	Adjustable gland nut wrench. Wt., 3.0 lbs.
	204928	Replacement pin for 1266 (2 required)

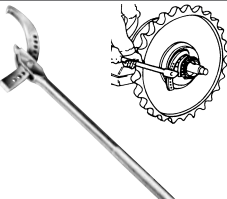
ADJUSTABLE HOOK SPANNER WRENCH

	Needed wherever turret adjusting nuts or packing gland nuts are used. Adjust 1.5" to 4". Handle overall length: 19".	
	Order No.	Description
	885	Adjustable hook spanner wrench. Wt., 3.0 lbs.



ADJUSTABLE HOOK SPANNER WRENCH

	Replace many fixed-size wrenches and cover a range of capacities needed to service industrial tractors and other equipment. Drop-forged jaws adjust to eleven positions for a capacity of 4.75" to 12.75" O.D. Handle overall length: 24"; diameter: 1".	
	Order No.	Description
	7307	Spanner wrench with one 0.38" thick jaw. Wt., 7.3 lbs.
	7308	Spanner wrench with two interchangeable jaws: one 0.38" thick, one 0.75" thick. Wt., 11.0 lbs.


HEAVY-DUTY ADJUSTABLE SPANNER

	Extra heavy construction. Has one 0.75" thick, eleven-position hook-jaw for a capacity of 4.75" to 12.75" O.D. Drop-forged. Handle length: 25.75"; handle dia.: 0.94".	
	Order No.	Description
	7309	Heavy-duty adjustable hook spanner wrench. Wt., 13.3 lbs.


PRY BARS

	Our rolling head pry bars are an extremely popular and useful tool. Head may be used for almost any prying job since a great deal of leverage can be obtained. Long tapered body may be used as a lining-up drift.	
	Order No.	Description
	7162	Pry bar; 0.38" round, 6" long. Wt., 0.3 lb.
	7163	Pry bar; 0.44" round, 12" long. Wt., 0.6 lb.
	7164	Pry bar; 0.56" round, 16" long. Wt., 1.1 lbs.
	7165	Pry bar; 0.75" round, 18" long. Wt., 2.2 lbs.

JIMMY BARS

	Ideal for general lifting or prying. Heat treated chrome alloy steel to resist bending or breaking.	
	Order No.	Description
	7166	Jimmy bar; 0.63" round, 18" long. Wt., 1.4 lbs.
	7167	Jimmy bar; 0.75" round, 24" long. Wt., 2.5 lbs.
	7168	Jimmy bar; 0.88" round, 30" long. Wt., 4.3 lbs.

"MAJOR PERSUADER" JIMMY BARS

	Two big jimmy bars for big jobs. Forged from chrome alloy steel.	
	Order No.	Description
	7420	Jimmy bar; 0.88" round, 46" long. Wt., 7.5 lbs.
	7421	Jimmy bar; 1" round, 54" long. Wt., 11.3 lbs.

HTS50 HEAVY-DUTY PIPE SEALANT WITH PTFE



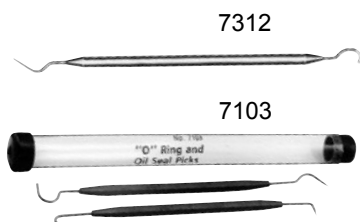
- Seals new or damaged threads; resists water, chemicals and oils.
- Replaces conventional tape methods; forms a clog-free seal.
- Effective at 10,000 psi.

When "plumbing" a hydraulic system, there's now a better answer than tapes which can tear or shred, possibly plugging filters, valves or gauges. This compound combines the lubricating qualities of PTFE with a fast curing anaerobic sealant. Seals all metal fittings, plugs and threaded joints quickly and easily. Cures to form a permanent seal which is inert to hydrocarbons, most acids, chemicals, solvents and steam. Allows adjustment up to 16 hours after assembly; won't loosen under vibration. Prevents galling of mating parts upon disassembly. Withstands temperatures from 65° F to +375° F.

Note: Product labeling may vary from picture.

Order No.	Description
HTS50	Sealant, 50 ml. tube. Wt., 0.4 lb.

O-RING SEAL PICKS



Even the seemingly simple job of removing and installing O-ring seals can be difficult without the aid of the proper tool. The 7312 is constructed with plastic & steel O-ring seal pick does the job with ease. Two special picks in set 7103 get right to the trouble areas.

Order No.	Description
7312	O-ring seal pick. Wt., 0.1 lb.
7103	Set of two O-ring seal picks. Wt., 0.1 lb.

UNIVERSAL OUTSIDE THREAD CHASER



Restore damaged threads on shafts, housings, cages, etc., for re-assembly of matching parts. Eliminates need for thread-cutting equipment. Will not harm threads. V-pads and dies can be replaced. Cap. 1-1/4" to 5" O.D.

Order No.	Description
7402	Thread chaser, complete (with 6 dies: threads per inch – 4, 5, 6, 7, 7.5, 8, 9, 10, 11, 11.5, 12, 14, 16, 18, 20 and 24). Wt., 4.5 lbs.
202817	Metric die set (3 dies: mm per thread: 1, 1.25, 1.5, 1.75, 2, 2.5, 3, 3.5, and 4). Wt., 0.2 lb.

MAGNETIC PICK-UP TOOL



Has permanent magnetic head for retrieving parts from otherwise inaccessible places.

Order No.	Description
7395	Pick-up tool with pocket clip. 6" lg. Wt., 0.1 lb.

Tools