

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

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'



HANDLES SOLD SEPARATELY

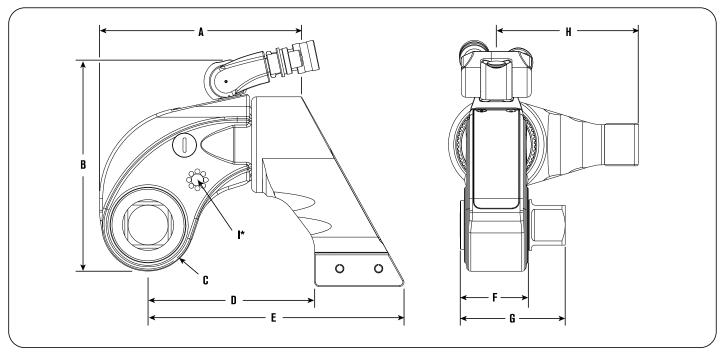


The tool's designed long-stroke mechanism imparts a minimum 30 degree nut rotation per stroke while maintaining a tight and compact nose radius. This is a clear advantage over the short stroke and back-up pawl mechanisms of light alloy competitive models. Fewer parts and reduced torsion in operation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

Tools

The TWSD50 is th perfect choice in this power generation application.





^{*} 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	Max Torque	Square Drive	A	В	С	D	E	F	G	Н	I	Prod. Wt.
	lb-ft	lb-ft	(in)	(in.)		(lb)							
TWHC1	170	1,413	3/4	5.2	5.71	1.1	4.39	6.69	1.56	2.67	3.39	M6 x 1.0	6.2
TWHC3	376	3,136	1	6.5	6.83	1.44	5.1	7.78	2.09	3.3	4.14	M6 x 1.0	11.7
TWHC6	726	6,050	1 1/2	7.56	7.94	1.73	6.24	9.59	2.4	3.93	5.32	M8 x 1.25	19.4

Ordering Information

Order No.	Description
TWHC1	Wrench
TWHC3	Wrench
TWHC6	Wrench

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

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

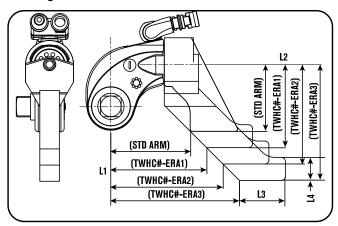
TWHC EXTENDED REACTION ARM TWHC-ERA



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	Order	L1	L2	L3	L4
Ref	No.	(in.)	(in.)	(in.)	(in.)
STD ARM		4.41	3.39	_	_
	TWHC1-ERA1	5.39	4.37		
TWHC1	TWHC1-ERA2	6.38	5.35	2.36	1.18
	TWHC1-ERA3	7.36	6.34		
STD ARM		5.12	4.13	_	_
	TWHC3-ERA1	6.10	5.12		
TWHC3	TWHC3-ERA2	7.09	6.10	2.76	1.38
	TWHC3-ERA3	8.07	7.09		
STD ARM		6.23	5.35	_	_
	TWHC6-ERA1	7.24	6.34		
TWHC6	TWHC6-ERA2	8.23	7.32	3.74	1.57
	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		
		TWSD1		
	VA/ la la la calla	TWSD3		
DFTAS000001	Wrench Handle	TWHC1		
		TWHC3		
		TWLC2		

Order No.	Description	Tool Ref
		TWSD6
		TWSD11
DFTAS000002	Wrench Handle	TWHC6
DF 1A3000002		TWLC4
		TWLC8
		TWLC15

Tools

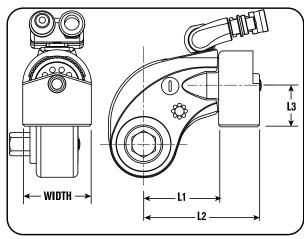
TWHC REACTION PAD TWHC-RP



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



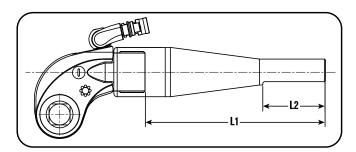
Tool Ref	Order No.	L1 (in.)	L2 (in.)	L3 (in.)	Width (in.)
TWHC1	TWHC1-RP	2.835	4.567	1.93	2.52
TWHC3	TWHC3-RP	3.39	5.43	2.17	2.99
TWHC6	TWHC6-RP	3.90	6.38	2,44	3,50

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		
TWHC3	TWHC3-LRA	19.72	6.00
TWHC6	TWHC6-LRA		

TWHC20



H1 W2 W2 W1

Features

QUALITY MEANS LOWER COST OF OWNERSHIP

- Designed for high cycle life (2-3x more than existing technology)
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- 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

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 TWHC11 is th perfect choice with a large reaction surface to eliminate damage to the gears during the tightening process.



Technical Dimensions

Tool Model	Min. Torque	Max. Torque	Square Drive	A	B	C	D	E	F	G	H	I	Wt.
TWHC11	1336	1b-ft 11,134	(in) 1 1/2	(in.) 9.09	(in.) 9.18	(in.) 2.07	(in.) 7.34	(in.) 11.81	(in.) 3.39	(in.) 5.12	(in.) 8.16	M8 x 1.25	(lb) 34.9
TWHC20	2439	20,325	2 1/2	11.01	12.21	2.52	8.65	14.34	3.68	6.10	8.35	M12 x 1.75	60.8
TWHC35	3890	32,418	2 1/2	13.40	13.61	3.05	9.90	16.73	4.74	7.15	8.97	M12 x 1.75	102
TWHC50	6360	53,000	2 1/2	15.93	14.04	3.46	10.49	17.58	4.53	7.57	10.16	M12 x 1.75	152

Ordering Information

Order No.	Description
TWHC11	Wrench
TWHC20	Wrench

Order No.	Description
TWHC35	Wrench
TWHC50	Wrench

Tools





Ordering Information

SQUARE DRIVE - ADAPTERS & SOCKETS					
Torque	Hexagon	Order No.			
Wrench	Drive Size AF (in.)	TWSD	TWHC		
	0.63	TWD1-063	TWHCHD01-063		
(TWHC1)	0.75	TWD1-075	TWHCHD01-075		
(TWHCT)	0.88	TWD1-088	TWHCHD01-088		
	1.00	TWD1-100	TWHCHD01-100		
	0.63	TWD3-063	TWHCHD03-063		
	0.75	TWD3-075	TWHCHD03-075		
	0.88	TWD3-088	TWHCHD03-088		
(TWHC3)	1.00	TWD3-100	TWHCHD03-100		
	1.13	TWD3-113	TWHCHD03-113		
	1.25	TWD3-125	TWHCHD03-125		
	1.38	TWD3-138	TWHCHD03-138		
	1.50	TWD3-150	TWHCHD03-150		
	1.63	TWD3-163	TWHCHD03-163		
	0.88	TWD6-063	TWHCHD06-063		
	0.75	TWD6-075	TWHCHD06-075		
(TWHC6)	0.88	TWD6-088	TWHCHD06-088		
(1 WHCD)	1.00	TWD6-100	TWHCHD06-100		
	1.13	TWD6-113	TWHCHD06-113		

Torque	Hexagon	Order No.		
Wrench	Drive Size AF (in.)	TWSD	TWHC	
	1.25	TWD6-125	TWHCHD06-125	
/TIMUCC)	1.38	TWD6-138	TWHCHD06-138	
(TWHC6)	1.50	TWD6-150	TWHCHD06-150	
	1.63	TWD6-163	TWHCHD06-163	
	1.13	TWD11-113	•	
	1.25	TWD11-125	•	
	1.38	TWD11-138	•	
(TWSD11)	1.50	TWD11-150	•	
	1.63	TWD11-163		
	1.75	TWD11-175		
	1.50	TWD25-150	•	
	1.63	TWD25-163		
	1.75	TWD25-175	•	
(TWSD25)	1.88	TWD25-188	•	
	2.00	TWD25-200	•	
	2.25	TWD25-225	•	
	2.50	TWD25-250	•	
	2.75	TWD25-275	•	



Ordering Information

SQUARE DRIVE - IMPACT SOCKETS					
Socket Size	0.75" Drive	1.00" Drive	1.50" Drive	2.50" Drive	
(in.)	Part No.	Part No.	Part No.	Part No.	
0.88	TWSIA088	TWSIB088	_	_	
1.06	TWSIA106	TWSIB106	_	_	
1.25	TWSIA125	TWSIB125	_	_	
1.38	TWSIA138	TWSIB138	_	_	
1.44	TWSIA144	TWSIB144	_	_	
1.63	TWSIA163	TWSIB163	TWSIC163	_	
1.81	TWSIA181	TWSIB181	-	_	
2.00	TWSIA200	TWSIB200	TWSIC200	_	
2.19	TWSIA219	TWSIB219	TWSIC219	_	
2.38	TWSIA238	TWSIB238	TWSIC238	_	
2.56	_	TWSIB256	TWSIC256	_	
2.75	_	TWSIB275	TWSIC275	_	
2.94	_	TWSIB294	TWSIC294	_	

Socket Size	0.75" Drive	1.00" Drive	1.50" Drive	2.50" Drive
(in.)	Part No.	Part No.	Part No.	Part No.
3.13	_	TWSIB313	TWSIC313	TWSIF313
3.38	_	TWSIB338	TWSIC338	TWSIF338
3.50	_	TWSIB350	TWSIC350	TWSIF350
3.75	_	TWSIB375	TWSIC375	TWSIF375
3.88	_	TWSIB388		TWSIF388
4.13	_	TWSIB413	TWSIC413	TWSIF413
4.25	_	TWSIB425	TWSIC425	TWSIF425
4.63	_	_	TWSIC463	TWSIF463
5.00	_	_	_	TWSIF500
5.38	_	_	_	TWSIF538
5.75	_	_	_	TWSIF575
6.13	_	_	<u> </u>	TWSIF613

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.



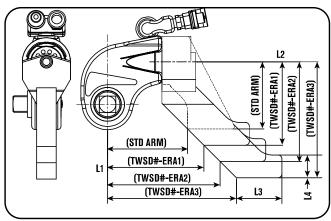
TWHC EXTENDED REACTION ARM TWHC-ERA



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	Order	L1	L2	L3	L4
Ref	No.	(in.)	(in.)	(in.)	(in.)
STD ARM		4.41	3.39		
	TWHC1-ERA1	5.39	4.37		
TWSD1	TWHC1-ERA2	6.38	5.35	2.36	1.18
	TWHC1-ERA3	7.36	6.34		
STD ARM		4.88	4.13		
	TWHC3-ERA1	5.87	5.12		
TWSD3	TWHC3-ERA2	6.85	6.10	2.76	1.38
	TWHC-ERA3	7.83	7.09		
STD ARM		5.59	5.35		
	TWHC6-ERA1	6.57	6.34		
TWSD6	TWHC6-ERA2	7.56	7.32	3.74	1.57
	TWHC6-ERA3	8.54	8.31		
STD ARM		7.05	6.5		
	TWHC11-ERA1	8.03	7.48		
TWSD11	TWHC11-ERA2	9.02	8.46	4.33	1.57
	TWHC11-ERA3	10	9.45		

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, TWLC). However, for larger sizes we recommend the use of eye-bolt lifting.

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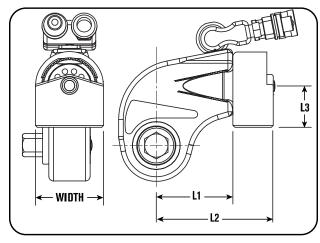
Description	Tool Ref
	TWHC1
Wrench Handle	TWHC3
	TWLC2

Order No.	Description	Tool Ref	
		TWHC6	
		TWHC11	
DFTAS000002	Wrench Handle	TWLC4	
		TWLC8	
		TWLC15	

TWHC REACTION PAD TWSD-RP

- Wrench 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	Order	L1	L2	L3	Width
Ref	No.	(in.)	(in.)	(in.)	(in.)
TWHC11	TWHC11	4.311	7.264	2.579	4.133

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 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

Ordering Information

Tool	Order	L1	L2
Ref	No.	(in.)	(in.)
TWHC11	TWHC11-LRA	19.72	6.00