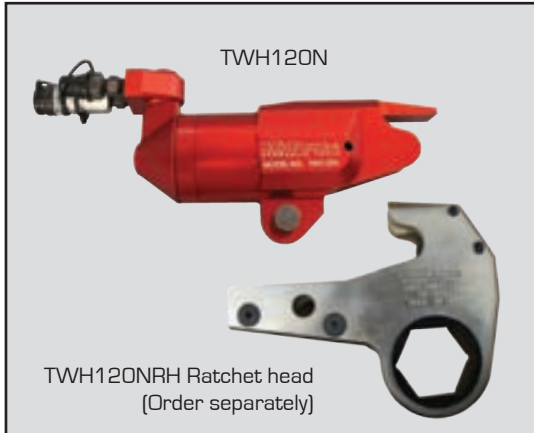


TWH-N - HYDRAULIC TORQUE WRENCH - DRIVE CYLINDERS



Working pressure 700 Bar

Powerful with low clearance design

Fitted with 360° x 360° Uni-Swivel couplings

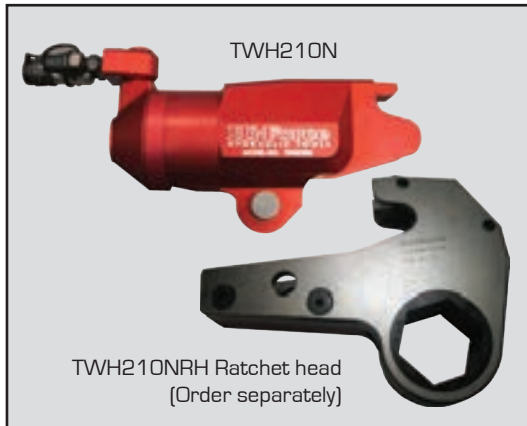
Hi-Force TWH-N series female hexagon cassette head hydraulic torque wrenches offer a choice of 5 models with output torque capacities from 2625 Nm to 48181 Nm [1906 to 34985 lbf.ft]. Manufactured from high grade aluminium (except TWH430N), all models provide direct in-line reaction and a minimal radius clearance for easy fitment in confined spaces. The user friendly design of the tool simply requires the operator to withdraw/insert a single pin to change the ratchet head. Ratchet heads are available in all standard metric and imperial AF sizes from 24 to 175mm (1¹/₁₆" to 6⁷/₈") with low cost hexagon reducer bushes also available (see pages 84 - 85). Uni-Swivel quick release couplers are fitted as standard to all models, enabling easy positioning of the hydraulic hoses.

- >> Compact, lightweight, aluminium drive unit (except TWH430N)
- >> Accurate to +/- 3% with standard torque chart supplied
- >> Low profile design for limited access applications
- >> Minimum radius cassette head for fitment in confined spaces
- >> Suitable for continuous operation at maximum pressure



Note: Model TWH430N manufactured from high grade alloy steel

TWH-N - HYDRAULIC TORQUE WRENCH - DRIVE CYLINDERS



Designed for tightening and loosening applications

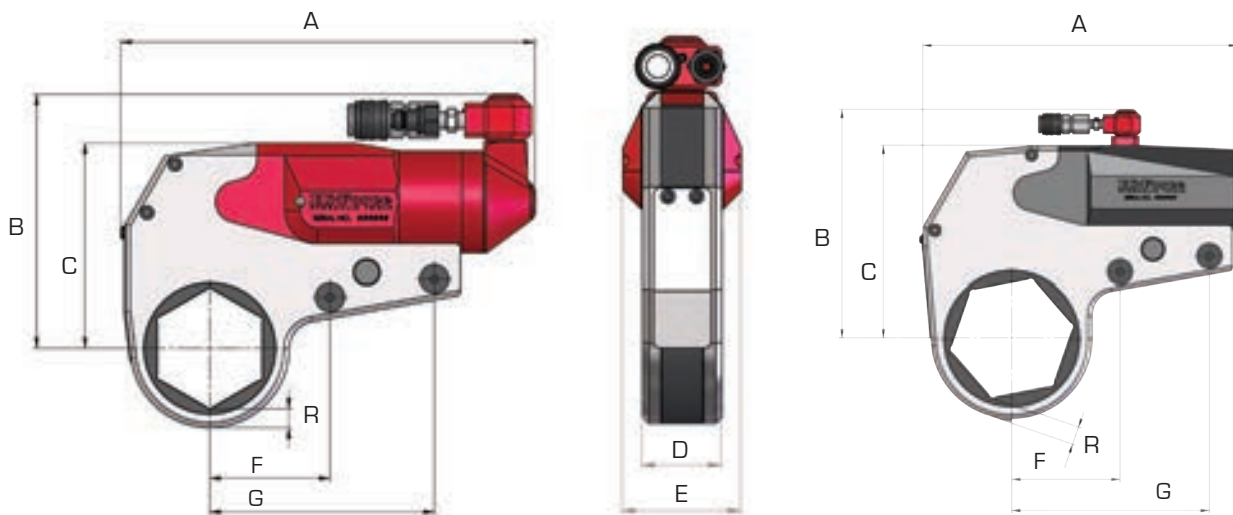
Easily assembled to selected ratchet head

Minimal nose radius for fitment in confined spaces

TWH27N, TWH54N,
TWH120N, TWH210N

TWH430N

All Models



Note: Drawing shows drive cylinder, including ratchet head as detailed on pages 81 - 82.
Drive cylinder and ratchet head are separate items and must be ordered separately.

Model number (drive cyl.)	Torque capacity		Hexagon AF size		Weight kg	Dimensions in mm							
	Nm at 700 Bar	lbf. ft at 10,000PSI	Metric min	Metric max		Imperial min	Imperial max	A max	B max	C max	D	E	F
TWH27N	2625	1906	24 to 46	1 1/16" to 1 13/16"	1.4	193	125	97	32	51	54	109	9.5 - 12.2
	3068	2228	50 to 60	2" to 2 3/8"	1.4	193	136	108	32	51	54	109	10.1 - 10.5
TWH54N	5372	3901	38 to 65	1 7/16" to 2 9/16"	2.3	250	158	125	41	64	73	137	10.7 - 13.8
	6037	4384	70 to 80	2 3/4" to 3 1/8"	2.3	250	169	136	41	64	73	137	11.7 - 14.6
TWH120N	11737	8522	50 to 80	2 3/16" to 3 1/8"	3.8	310	189	157	52	78	92	112	14.7 - 15.2
	14349	10419	85 to 100	3 1/2" to 3 7/8"	3.8	310	214	182	52	78	92	112	15.9 - 18.7
TWH210N	21216	15405	70 to 100	2 3/4" to 3 7/8"	6.4	378	223	191	64	97	114	213	18.1 - 18.6
	23124	16791	105 to 115	4 1/4" to 4 5/8"	6.4	378	236	204	64	97	114	213	18.3 - 20.7
TWH430N	43792	31798	80 to 115	3 3/8" to 4 5/8"	16.1	405	291	242	83	93	146	267	25.6 - 31.3
	48181	34985	130 to 175	5" to 6 7/8"	16.1	425	309	260	83	93	146	267	24.8 - 27.3

Note: Above selection table is for drive unit only. Ratchet head(s) to be ordered separately - see pages 81 - 82.
Weight as stated is drive cylinder only, exact radius size (R) varies according to ratchet AF size selected.

TWH-NRH - IMPERIAL SIZE RATCHET HEADS



- >> Choice of standard imperial sizes
- >> Easily fitted to TWH-N drive units
- >> Strong steel construction
- >> Non standard and special design ratchet heads can be made to order



The TWH-NRH range of imperial hexagon ratchet heads, suitable for use with TWH-N series low profile hydraulic torque wrenches (see pages 79-80), provide exceptional flexibility with across flats (AF) sizes from 1 1/16" to 6 7/8" available as standard. All models feature extremely low profile design combined with a minimum nose radius (R) that enables fitment in very confined limited access places. For even greater versatility a comprehensive range of imperial hexagon reducer bushes (see page 84) and square drive conversion kits (see page 83) to suit TWH-NRH imperial ratchet heads are also available.



IMPERIAL RATCHET HEAD SELECTION TABLE:

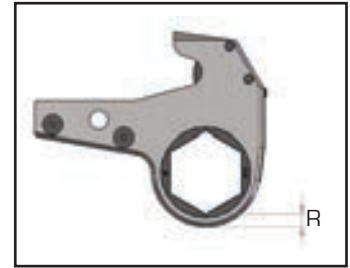
Bolt size	Nut AF size	For TWH27N			For TWH54N			For TWH120N			For TWH210N			For TWH430N		
		Model number	R mm	Wt kg	Model number	R mm	Wt kg	Model number	R mm	Wt kg	Model number	R mm	Wt kg	Model number	R mm	Wt kg
5/8"	1 1/16"	TWH27NRH1.1/16	10.4	1.5												
3/4"	1 1/4"	TWH27NRH1.1/4	9.7	1.6												
7/8"	1 7/16"	TWH27NRH1.7/16	9.8	1.6	TWH54NRH1.7/16	13.5	2.9									
1"	1 5/8"	TWH27NRH1.5/8	10.0	1.6	TWH54NRH1.5/8	10.8	2.8									
1 1/8"	1 13/16"	TWH27NRH1.13/16	10.5	1.7	TWH54NRH1.13/16	10.7	2.9									
1 1/4"	2"	TWH27NRH2	10.5	1.7	TWH54NRH2	11.7	3.0									
1 3/8"	2 3/16"	TWH27NRH2.3/16	10.3	1.8	TWH54NRH2.3/16	11.8	3.1	TWH120NRH2.3/16	14.7	6.1						
1 1/2"	2 3/8"	TWH27NRH2.3/8	10.5	1.8	TWH54NRH2.3/8	11.8	3.2	TWH120NRH2.3/8	14.8	6.4						
1 5/8"	2 9/16"				TWH54NRH2.9/16	11.6	3.3	TWH120NRH2.9/16	14.8	6.4						
1 3/4"	2 3/4"				TWH54NRH2.3/4	11.8	3.4	TWH120NRH2.3/4	14.9	6.5	TWH210NRH2.3/4	18.3	12.1			
1 7/8"	2 15/16"				TWH54NRH2.15/16	14.8	3.5	TWH120NRH2.15/16	14.9	6.5	TWH210NRH2.15/16	18.3	12.2			
2"	3 1/8"				TWH54NRH3.1/8	12.1	3.5	TWH120NRH3.1/8	15.1	6.5	TWH210NRH3.1/8	18.5	12.3	TWH430NRH3.1/8	26.0	23.2
2 1/4"	3 1/2"							TWH120NRH3.1/2	16.9	7.9	TWH210NRH3.1/2	19.3	12.4	TWH430NRH3.1/2	26.8	23.9
2 1/2"	3 7/8"							TWH120NRH3.7/8	19.6	8.5	TWH210NRH3.7/8	19.5	12.5	TWH430NRH3.7/8	26.5	25.7
2 3/4"	4 1/4"										TWH210NRH4.1/4	19.5	13.3	TWH430NRH4.1/4	26.9	26.1
3"	4 5/8"										TWH210NRH4.5/8	19.3	13.8	TWH430NRH4.5/8	25.9	26.3
3 1/4"	5"													TWH430NRH5	27.4	27.9
3 1/2"	5 3/8"													TWH430NRH5.3/8	25.8	28.3
3 3/4"	5 3/4"													TWH430NRH5.3/4	24.8	29.3
4"	6 1/8"													TWH430NRH6.1/8	25.0	30.1
4 1/4"	6 1/2"													TWH430NRH6.1/2	25.0	31.0
4 1/2"	6 7/8"													TWH430NRH6.7/8	27.3	31.8

F

TWH-NRH - METRIC SIZE RATCHET HEADS



- >> Choice of standard metric sizes
- >> Easily fitted to TWH-N drive units
- >> Strong steel construction
- >> Non standard and special design ratchet heads can be made to order



The TWH-NRH range of metric hexagon ratchet heads, suitable for use with TWH-N series low profile hydraulic torque wrenches (see pages 79-80), provide exceptional flexibility with across flats (AF) sizes from 24mm to 175mm available as standard. All models feature extremely low profile design combined with a minimum nose radius (R) that enables fitment in very confined limited access places. For even greater versatility a comprehensive range of metric hexagon reducer bushes (see page 85) and square drive conversion kits (see page 83) to suit TWH-NRH metric ratchet heads are also available.



METRIC RATCHET HEAD SELECTION TABLE:

Bolt size	Nut AF size	For TWH27N			For TWH54N			For TWH120N			For TWH210N			For TWH430N		
		Model number	R mm	Wt kg	Model number	R mm	Wt kg	Model number	R mm	Wt kg	Model number	R mm	Wt kg	Model number	R mm	Wt kg
16	24	TWH27NRH-24	12.1	1.5												
18	27	TWH27NRH-27	10.4	1.5												
20	30	TWH27NRH-30	10.7	1.6												
22	32	TWH27NRH-32	9.5	1.6												
24	36	TWH27NRH-36	10.1	1.6	TWH54NRH-36	13.8	2.9									
-	38				TWH54NRH-38	12.6	2.8									
27	41	TWH27NRH-41	10.1	1.6	TWH54NRH-41	10.9	2.8									
30	46	TWH27NRH-46	10.5	1.7	TWH54NRH-46	10.7	2.9									
33	50	TWH27NRH-50	10.4	1.7	TWH54NRH-50	12.1	3.0	TWH120NRH-50	15.2	5.8						
36	55	TWH27NRH-55	10.1	1.8	TWH54NRH-55	12.1	3.1	TWH120NRH-55	15.0	6.1						
39	60	TWH27NRH-60	10.5	1.8	TWH54NRH-60	12.0	3.2	TWH120NRH-60	15.0	6.4						
42	65				TWH54NRH-65	11.7	3.3	TWH120NRH-65	14.9	6.4						
45	70				TWH54NRH-70	11.7	3.4	TWH120NRH-70	14.8	6.5	TWH210NRH-70	18.2	12.1			
48	75				TWH54NRH-75	14.6	3.5	TWH120NRH-75	14.7	6.5	TWH210NRH-75	18.1	12.2			
52	80				TWH54NRH-80	11.7	3.5	TWH120NRH-80	14.7	6.5	TWH210NRH-80	18.1	12.3	TWH430NRH-80	25.6	23.2
56	85							TWH120NRH-85	16.4	7.8	TWH210NRH-85	18.2	12.4	TWH430NRH-85	29.0	24.0
60	90							TWH120NRH-90	16.2	7.9	TWH210NRH-90	18.6	12.4	TWH430NRH-90	31.3	26.0
64	95							TWH120NRH-95	15.9	7.9	TWH210NRH-95	18.6	12.5	TWH430NRH-95	28.5	25.8
68	100							TWH120NRH-100	18.7	8.5	TWH210NRH-100	18.6	12.5	TWH430NRH-100	25.6	25.6
72	105										TWH210NRH-105	18.4	12.9	TWH430NRH-105	28.6	26.5
76	110										TWH210NRH-110	18.3	13.3	TWH430NRH-110	25.7	26.2
80	115										TWH210NRH-115	20.7	13.8	TWH430NRH-115	27.3	26.4
90	130													TWH430NRH-130	25.6	27.3
-	135													TWH430NRH-135	26.6	28.3
100	145													TWH430NRH-145	25.4	29.4
110	155													TWH430NRH-155	25.0	30.1
115	165													TWH430NRH-165	25.0	31.0
-	175													TWH430NRH-175	27.3	31.8

TWH-N ACCESSORIES



Suitable for TWH-N range up to 23124 Nm

Square drive sizes from 1" to 2½"

Easily fitted, no special tools required

- >> Supplied complete with reaction foot
- >> Makes your hexagon drive torque wrench even more versatile
- >> Full range of heavy duty sockets available (see pages 77 & 78)

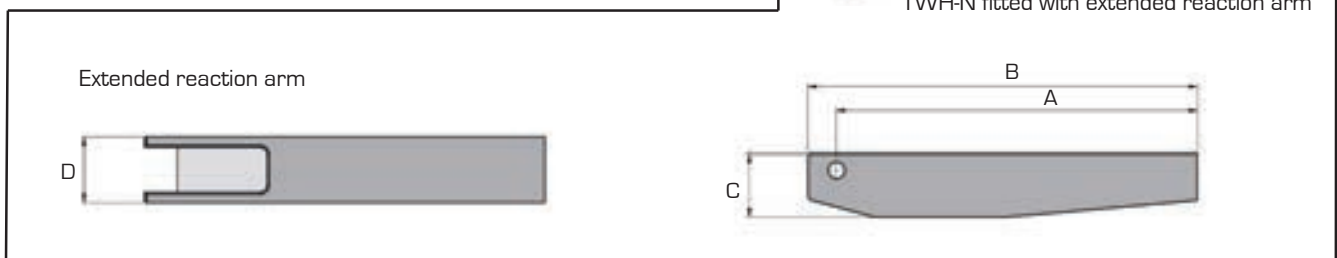
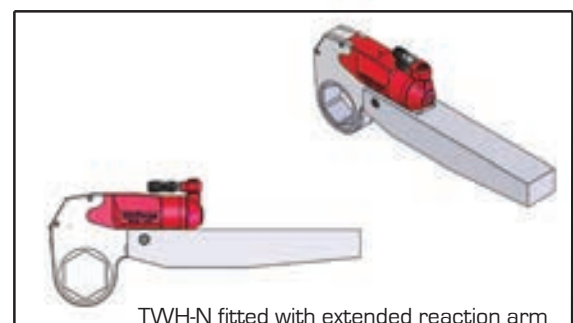
Hi-Force SDC square drive conversion kits, suitable for Hi-Force TWH-N hexagon drive hydraulic torque wrenches (see pages 79-82) are available for all models, excluding TWH430N. All models are supplied complete with an easily attachable reaction foot and a standard hexagon AF size adaptor, suitable for fitment to a commonly used size of imperial or metric ratchet head, per tool type (see table for more details). These SDC square drive conversion kits provide the most flexible and cost effective method of converting a female hexagon drive hydraulic torque wrench into a square drive wrench.



Model number	Square drive	Hexagon AF Size	Maximum torque Nm	Maximum torque lbf.ft	Suitable for drive cylinder incl. ratchet head		Weight
SDC27-I	1"	1 ¹³ / ₁₆ "	3068	2263	TWH27N	TWH27NRH-1¹³/₁₆"	1.1
SDC27-M	1"	46mm	3068	2263	TWH27N	TWH27NRH-46	1.1
SDC54-I	1½"	2 ⁹ / ₁₆ "	6037	4453	TWH54N	TWH54NRH-2⁹/₁₆"	3.0
SDC54-M	1½"	65mm	6037	4453	TWH54N	TWH54NRH-65	3.0
SDC120-I	1½"	3 ¹ / ₈ "	14349	10583	TWH120N	TWH120NRH-3¹/₈"	4.4
SDC120-M	1½"	80mm	14349	10583	TWH120N	TWH120NRH-80	4.4
SDC210-I	2½"	3 ⁷ / ₈ "	23124	17055	TWH210N	TWH210NRH-3⁷/₈"	9.1
SDC210-M	2½"	100mm	23124	17055	TWH210N	TWH210NRH-100	9.1

Extended Reaction Arms

Model Number	Length A		Length B		Height (C)		Width (D)	
	Inch	mm	Inch	mm	Inch	mm	Inch	mm
ERA27-20	19.6"	499	20.7"	525	1.8"	45	2.0"	50
ERA54-20	20.2"	513	21.1"	535	2.2"	55	2.5"	65
ERA120-21	20.8"	527	21.7"	550	3.0"	75	3.4"	85
ERA210-21	21.5"	545	23.2"	588	3.7"	95	3.7"	95
ERA430-22	22.2"	565	24.7"	628	4.7"	120	4.7"	120



IB - IMPERIAL HEXAGON REDUCER BUSHES



To reduce the female hexagon AF size of the TWH-NRH imperial ratchet heads (see page 81), these Hi-Force hexagon reducer bushes offer an easy and economical solution. Just select your outside AF size (i.e ratchet head AF size) and the required inside AF size to determine the model number. Please note that wall thickness (specified below as 'W' dimension) must be added to the minimum radius dimension of your ratchet head when using a reducer bush.

Outside AF size	Inside AF size	For TWH27NRH		For TWH54NRH		For TWH120NRH		For TWH210NRH		For TWH430NRH	
		Model number	W _{mm}	Model number	W _{mm}	Model number	W _{mm}	Model number	W _{mm}	Model number	W _{mm}
1 1/4"	1 1/16"	IB27-104-101	2.4								
1 7/16"	1 1/16"	IB27-107-101	4.8								
1 7/16"	1 1/4"	IB27-107-104	2.4								
1 5/8"	1 1/4"	IB27-110-104	4.8	IB54-110-104	4.8						
1 5/8"	1 7/16"	IB27-110-107	2.4	IB54-110-107	2.4						
1 13/16"	1 7/16"	IB27-113-107	4.8	IB54-113-107	4.8						
1 13/16"	1 5/8"	IB27-113-110	2.4	IB54-113-110	2.4						
2"	1 5/8"	IB27-200-110	4.8	IB54-200-110	4.8						
2"	1 13/16"	IB27-200-113	2.4	IB54-200-113	2.4						
2 3/16"	1 5/8"	IB27-203-110	7.2	IB54-203-110	7.2						
2 3/16"	1 13/16"	IB27-203-113	4.8	IB54-203-113	4.8						
2 3/16"	2"	IB27-203-200	2.4	IB54-203-200	2.4						
2 3/8"	1 13/16"	IB27-206-113	7.2	IB54-206-113	7.2						
2 3/8"	2"	IB27-206-200	4.8	IB54-206-200	4.8						
2 3/8"	2 3/16"	IB27-206-203	2.4	IB54-206-203	2.4	IB120-206-203	2.4				
2 9/16"	2"			IB54-209-200	7.2	not available	-				
2 9/16"	2 3/16"			IB54-209-203	4.8	IB120-209-203	4.8				
2 9/16"	2 3/8"			IB54-209-206	2.4	IB120-209-206	2.4				
2 3/4"	2 3/16"			IB54-212-203	7.2	IB120-212-203	7.2				
2 3/4"	2 3/8"			IB54-212-206	4.8	IB120-212-206	4.8				
2 3/4"	2 9/16"			IB54-212-209	2.4	IB120-212-209	2.4				
2 15/16"	2 3/8"			IB54-215-206	7.2	IB120-215-206	7.2				
2 15/16"	2 9/16"			IB54-215-209	4.8	IB120-215-209	4.8				
2 15/16"	2 3/4"			IB54-215-212	2.4	IB120-215-212	2.4	IB210-215-212	2.4		
3 1/8"	2 9/16"			IB54-302-209	7.2	IB120-302-209	7.2	not available	-		
3 1/8"	2 3/4"			IB54-302-212	4.8	IB120-302-212	4.8	IB210-302-212	4.8		
3 1/8"	2 15/16"			IB54-302-215	2.4	IB120-302-215	2.4	IB210-302-215	2.4		
3 1/2"	2 15/16"					IB120-308-215	7.2	IB210-308-215	7.2		
3 1/2"	3 1/8"					IB120-308-302	4.8	IB210-308-302	4.8	IB430-308-302	4.8
3 7/8"	3 1/8"					IB120-314-302	9.5	IB210-314-302	9.5	IB430-314-302	9.5
3 7/8"	3 1/2"					IB120-314-308	4.8	IB210-314-308	4.8	IB430-314-308	4.8
4 1/4"	3 1/2"							IB210-404-308	9.5	IB430-404-308	9.5
4 1/4"	3 7/8"							IB210-404-314	4.8	IB430-404-314	4.8
4 5/8"	3 7/8"							IB210-410-314	9.5	IB430-410-314	9.5
4 5/8"	4 1/4"							IB210-410-404	4.8	IB430-410-404	4.8
5"	4 1/4"									IB430-500-404	9.5
5"	4 5/8"									IB430-500-410	4.8
5 3/8"	4 5/8"									IB430-506-410	9.5
5 3/8"	5"									IB430-506-500	4.8
5 3/4"	5"									IB430-512-500	9.5
5 3/4"	5 3/8"									IB430-512-506	4.8
6 1/8"	5 3/8"									IB430-602-506	9.5
6 1/8"	5 3/4"									IB430-602-512	4.8
6 1/2"	5 3/4"									IB430-608-512	9.5
6 1/2"	6 1/8"									IB430-608-602	4.8
6 7/8"	6 1/8"									IB430-614-602	9.5
6 7/8"	6 1/2"									IB430-614-608	4.8

MB - METRIC HEXAGON REDUCER BUSHES



To reduce the female hexagon AF size of the TWH-NRH metric ratchet heads (see page 82), these Hi-Force hexagon reducer bushes offer an easy and economical solution. Just select your outside AF size (i.e ratchet head AF size) and the required inside AF size to determine the model number. Please note that wall thickness (specified below as 'W' dimension) must be added to the minimum radius dimension of your ratchet head when using a reducer bush.

Outside AF size	Inside AF size	For TWH27NRH		For TWH54NRH		For TWH120NRH		For TWH210NRH		For TWH430NRH	
		Model number	W _{mm}	Model number	W _{mm}	Model number	W _{mm}	Model number	W _{mm}	Model number	W _{mm}
30	24	MB27-30-24	3.0								
32	24	MB27-32-24	3.0								
32	27	MB27-32-27	3.0								
36	30	MB27-36-30	3.0	MB54-36-30	3.0						
41	36	MB27-41-36	2.5	MB54-41-36	2.5						
46	36	MB27-46-36	5.0	MB54-46-36	5.0						
46	41	MB27-46-41	2.5	MB54-46-41	2.5						
50	41	MB27-50-41	4.5	MB54-50-41	4.5						
50	46	MB27-50-46	2.0	MB54-50-46	2.0						
55	41	MB27-55-41	7.0	MB54-55-41	7.0						
55	46	MB27-55-46	4.5	MB54-55-46	4.5						
55	50	MB27-55-50	2.5	MB54-55-50	2.5	MB120-55-50	2.5				
60	46	MB27-60-46	7.0	MB54-60-46	7.0	not available					
60	50	MB27-60-50	5.0	MB54-60-50	5.0	MB120-60-50	5.0				
60	55	MB27-60-55	2.5	MB54-60-55	2.5	MB120-60-55	2.5				
65	50			MB54-65-50	7.5	MB120-65-50	7.5				
65	55			MB54-65-55	5.0	MB120-65-55	5.0				
65	60			MB54-65-60	2.5	MB120-65-60	2.5				
70	55			MB54-70-55	7.5	MB120-70-55	7.5				
70	60			MB54-70-60	5.0	MB120-70-60	5.0				
70	65			MB54-70-65	2.5	MB120-70-65	2.5				
75	60			MB54-75-60	7.5	MB120-75-60	7.5				
75	65			MB54-75-65	5.0	MB120-75-65	5.0				
75	70			MB54-75-70	2.5	MB120-75-70	2.5	MB210-75-70	2.5		
80	65			MB54-80-65	7.5	MB120-80-65	7.5	not available	-		
80	70			MB54-80-70	5.0	MB120-80-70	5.0	MB210-80-70	5.0		
80	75			MB54-80-75	2.5	MB120-80-75	2.5	MB210-80-75	2.5		
85	70					MB120-85-70	7.5	MB210-85-70	7.5		
85	75					MB120-85-75	5.0	MB210-85-75	5.0		
85	80					MB120-85-80	2.5	MB210-85-80	2.5	MB430-85-80	2.5
90	75					MB120-90-75	7.5	MB210-90-75	7.5	not available	-
90	80					MB120-90-80	5.0	MB210-90-80	5.0	MB430-90-80	5.0
90	85					MB120-90-85	2.5	MB210-90-85	2.5	MB430-90-85	2.5
95	80					MB120-95-80	7.5	MB210-95-80	7.5	MB430-95-80	7.5
95	85					MB120-95-85	5.0	MB210-95-85	5.0	MB430-95-85	5.0
95	90					MB120-95-90	2.5	MB210-95-90	2.5	MB430-95-90	2.5
100	85					MB120-100-85	7.5	MB210-100-85	7.5	MB430-100-85	7.5
100	90					MB120-100-90	5.0	MB210-100-90	5.0	MB430-100-90	5.0
100	95					MB120-100-95	2.5	MB210-100-95	2.5	MB430-100-95	2.5
105	90							MB210-105-90	7.5	MB430-105-90	7.5
105	95							MB210-105-95	5.0	MB430-105-95	5.0
105	100							MB210-105-100	2.5	MB430-105-100	2.5
110	95							MB210-110-95	7.5	MB430-110-95	7.5
110	100							MB210-110-100	5.0	MB430-110-100	5.0
110	105							MB210-110-105	2.5	MB430-110-105	2.5
115	100							MB210-115-100	7.5	MB430-115-100	7.5
115	105							MB210-115-105	5.0	MB430-115-105	5.0
115	110							MB210-115-110	2.5	MB430-115-110	2.5
130	105									MB430-130-105	12.5
130	110									MB430-130-110	10.0
130	115									MB430-130-115	7.5
145	110									MB430-145-110	17.5
145	115									MB430-145-115	15.0
145	130									MB430-145-130	7.5

BW - BACKUP WRENCHES



Suitable for use with TWS-N & TWH-N Wrenches

Interchangeable hexagon links

Positive release mechanism

The Hi-Force BW series of backup wrenches provide an easily fitted and easily removable back nut reaction arm to prevent both nuts rotating during tightening applications. The 'T-Bar' design adjustable reaction point prevents lock up once tightening is completed.

Complete set:

Model Number	Description	Backup wrench holder incl. set of links:			
		From		To	
		Imperial	Metric	Imperial	Metric
BWI-SET	Holder complete with imperial link set (12 pcs)	1 7/16"	-	3 7/8"	-
BWM-SET	Holder complete with metric link set (14 pcs)	-	36mm	-	100mm

Individual components:

Model Number	Description	Hexagon AF size	
		Imperial	Metric
Holder			
BWH	Backup wrench holder	-	-
Hexagon links			
BWI-107	Female hexagon link for backup wrench (imperial)	1 7/16"	-
BWI-110	Female hexagon link for backup wrench (imperial)	1 5/8"	-
BWI-113	Female hexagon link for backup wrench (imperial)	1 13/16"	-
BWI-200	Female hexagon link for backup wrench (imperial)	2"	-
BWI-203	Female hexagon link for backup wrench (imperial)	2 3/16"	-
BWI-206	Female hexagon link for backup wrench (imperial)	2 3/8"	-
BWI-209	Female hexagon link for backup wrench (imperial)	2 9/16"	-
BWI-212	Female hexagon link for backup wrench (imperial)	2 3/4"	-
BWI-215	Female hexagon link for backup wrench (imperial)	2 15/16"	-
BWI-302	Female hexagon link for backup wrench (imperial)	3 1/8"	-
BWI-308	Female hexagon link for backup wrench (imperial)	3 1/2"	-
BWI-314	Female hexagon link for backup wrench (imperial)	3 7/8"	-
BWM-36	Female hexagon link for backup wrench (metric)	-	36 mm
BWM-41	Female hexagon link for backup wrench (metric)	-	41 mm
BWM-46	Female hexagon link for backup wrench (metric)	-	46 mm
BWM-50	Female hexagon link for backup wrench (metric)	-	50 mm
BWM-55	Female hexagon link for backup wrench (metric)	-	55 mm
BWM-60	Female hexagon link for backup wrench (metric)	-	60 mm
BWM-65	Female hexagon link for backup wrench (metric)	-	65 mm
BWM-70	Female hexagon link for backup wrench (metric)	-	70 mm
BWM-75	Female hexagon link for backup wrench (metric)	-	75 mm
BWM-80	Female hexagon link for backup wrench (metric)	-	80 mm
BWM-85	Female hexagon link for backup wrench (metric)	-	85 mm
BWM-90	Female hexagon link for backup wrench (metric)	-	90 mm
BWM-95	Female hexagon link for backup wrench (metric)	-	95 mm
BWM-100	Female hexagon link for backup wrench (metric)	-	100 mm