

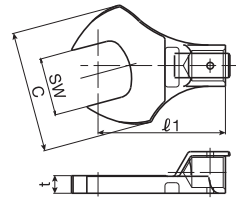
Interchangeable Head

SH

Open Spanner Head

RoHS

The SH type spanner heads suit for the place where sockets can not be used, for flare nuts in piping and for work in narrow places.



SH15Dx19

Tohnichi Head Size	Model (Body Size × Width)	Allowable Torque		Outside Width C [mm]	Thickness t [mm]
		[N·m]	[kgf·cm]		
8D	SH8D×5.5	1.5	15	13	3
	SH8D×6	2.5	25	15	3.5
	SH8D×7	3.5	35	17	4
	SH8D×8	7	70	20	4.5
	SH8D×10	14	140	25	
	SH8D×11			27	5.5
	SH8D×12				
	SH8D×13			29	
	SH8D×14				
	SH8D×16	15	150	31	
10D	SH8D×17			32	6.5
	SH8D×19			35	
	SH8D×21			36	
	SH8D×22			37	
	SH8D×24			38	
	SH10D×7				
	SH10D×8	20	200	28	
	SH10D×10				
	SH10D×11				
	SH10D×12			32	6.5
12D	SH10D×13				
	SH10D×14				
	SH10D×16				
	SH10D×17	25	250		
	SH10D×18			39	
	SH10D×19				
	SH10D×21				
	SH10D×22				
	SH10D×24			43	
	SH12D×8	7	70	20	5
15D	SH12D×10	12	120	24	
	SH12D×11	20.5	205	28	5.5
	SH12D×12	29.5	295	31	6.5
	SH12D×13			32	
	SH12D×14	59	590	38	8
	SH12D×16			40	10
	SH12D×17				
	SH12D×18			41	11
	SH12D×19	70	700		
	SH12D×21			43	
15D	SH12D×22			48	13
	SH12D×24			52	
	SH12D×27				
	SH15D×12				
	SH15D×13	59	590	38	8
	SH15D×14				
	SH15D×16				
	SH15D×17				
	SH15D×18	140	1400	51	13
	SH15D×19				
	SH15D×21				
	SH15D×22				

Tohnichi Head Size	Model (Body Size × Width)	Allowable Torque		Outside Width C [mm]	Thickness t [mm]
		[N·m]	[kgf·cm]		
15D	SH15D×24				
	SH15D×26				
	SH15D×27	140	1400	60	12
	SH15D×30				
	SH15D×32				
	SH15D×36			68	
19D	SH19D×17				
	SH19D×18	200	2000		
	SH19D×19			54	13
	SH19D×21	180	1800		
	SH19D×22				
	SH19D×24	200	2000	60	15
22D	SH19D×27				
	SH19D×30	180	1800		
	SH19D×32				
	SH19D×34	200	2000	76	11
	SH19D×36				
	SH19D×41	180	1800		
27D	SH22D×19				
	SH22D×22	280	2800	63	
	SH22D×24	500	5000		
	SH22D×27			78	
	SH22D×30	420	4200		
	SH22D×32				15
32D	SH22D×34	500	5000		
	SH22D×36	420	4200	85	
	SH22D×41				
	SH22D×46	280	2800		
	SH22D×50			103	
	SH22D×55	500	5000	108	
32D	SH27D×22	255	2550	65	14
	SH27D×24	350	3500	72	15
	SH27D×27	490	4900	82	16
	SH27D×30	670	6700	88	19
	SH27D×32	750	7500	92	
	SH27D×34	670	6700	90	20
32D	SH27D×36			94	21
	SH27D×41	750	7500	98	22
	SH27D×46			100	24
	SH27D×50			103	26
	SH32D×27				
	SH32D×30	850	8500	105	18
32D	SH32D×32				
	SH32D×34				
	SH32D×36				
	SH32D×41			110	24
	SH32D×46	1200	12000		
	SH32D×50				
32D	SH32D×55			120	29
	SH32D×60				

Inch Size Models

Commonly used in the airline industry and for specific American product installation and maintenance.

Tohnichi Head Size	Model (Body Size × Inner Width [in])	Inner Width [mm]	Allowable Torque		Outside Width C [mm]	Thickness t [mm]
			N·m [lbf·in]	mm [in]		
8D	NEW SH8D×1/4	6.35	2.5 [22]	15 [0.59]	3.5 [0.14]	
	NEW SH8D×5/16	7.94	7 [61]	20 [0.79]	4.5 [0.18]	
	NEW SH8D×3/8	9.53	14 [123]	25 [0.98]		
	NEW SH8D×7/16	11.11		27 [1.06]	5.5 [0.22]	
	NEW SH8D×1/2	12.7	15 [132]			
	NEW SH8D×9/16	14.29		29 [1.14]	6.5 [0.26]	
10D	SH10D×1/4	6.35				
	SH10D×5/16	7.94	20 [177]	28 [1.10]		
	SH10D×3/8	9.53			6.5 [0.26]	
	SH10D×7/16	11.11		32 [1.26]		
	SH10D×1/2	12.7	25 [221]			
	SH10D×9/16	14.29		39 [1.54]		
12D	SH12D×3/8	9.53	12 [106]	24 [0.94]	5 [0.20]	
	SH12D×7/16	11.11	20.5 [181]	31 [1.22]		
	SH12D×1/2	12.7	29.5 [261]	32 [1.26]	6.5 [0.26]	
	SH12D×9/16	14.29				
	SH12D×5/8	15.88	59 [522]	40 [1.57]	10 [0.39]	
	SH12D×11/16	17.46	70 [620]	41 [1.61]	11 [0.43]	
15D	SH15D×1/2	12.7		38 [1.50]	8 [0.31]	
	SH15D×9/16	14.29	59 [522]			
	SH15D×5/8	15.88				
	SH15D×11/16	17.46		51 [2.01]	13 [0.51]	
	SH15D×3/4	19.05				
	SH15D×13/16	20.64	140 [1239]			
15D	SH15D×7/8	22.23				
	SH15D×15/16	23.81				
	SH15D×1	25.40		60 [2.36]	12 [0.47]	
	SH15D×1-1/16	26.99				

Tohnichi Head Size	Model (Body Size × Inner Width [in])	Inner Width [mm]	Allowable Torque		Outside Width C [mm]	Thickness t [mm]
			N·m [lbf·in]	mm [in]		
15D	SH15D×1-1/8	28.58				
	SH15D×1-3/16	30.16			60 [2.36]	
	SH15D×1-1/4	31.75				
	SH15D×1-5/16	33.34	140 [1239]		66 [2.59]	12 [0.47]
	SH15D×1-3/8	34.93				
	SH15D×1-7/16	36.51			69 [2.72]	
19D	SH15D×1-1/2	38.10				
	NEW SH19D×15/16	23.81				
	NEW SH19D×1	25.4			60 [2.36]	15 [0.59]
	NEW SH19D×1-1/16	26.99				
	NEW SH19D×1-1/8	28.58				
	NEW SH19D×1-3/16	30.16	200 [1947]		72 [2.83]	
19D	NEW SH19D×1-1/4	31.75				
	NEW SH19D×1-5/16	33.34				11 [0.43]
	NEW SH19D×1-3/8	34.93			76 [2.99]	
	NEW SH19D×1-7/16	36.51				
19D	NEW SH19D×1-1/2	38.1				

The Relationship between Interchangeable Heads and Torque Wrenches

Tohnichi's interchangeable head wrenches have specific diameter round ends that fit into corresponding head base openings. Head and wrench model names include the diameter sizes so heads can be matched to wrenches that will accept those heads.

For example: SH15D×17 will fit on CL100N×15D

A variety of different head types (SH, RH, QH, RQH, FH, DH, AH and SP-N) can be used on one wrench or different types of wrenches such as CL (for tightening) and CEM3 (for inspection) can use the same head that has the corresponding diameter size.



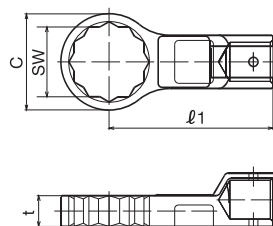
RH

Ring Head

RoHS

The RH type ring heads guarantee the safe work as the axes of bolt and RH ring head are always aligned and prevent the heads will drop.

Note: RH8D×5.5 to RH8D×7 are hex shape.



RH15D×17

Tohnichi Head Size	Model (Body Size × Width)	Allowable Torque		Outside Width C [mm]	Thickness t [mm]
		[N·m]	[kgf·cm]		
8D	RH8D×5.5	1.5	15	10.5	5
	RH8D×6	2.4	24	11	
	RH8D×7	3.6	36	12	
	RH8D×8	7.2	72	13.5	6
	RH8D×10	12.2	122	15.5	
	RH8D×11			17	
	RH8D×12	15	140	18	7
	RH8D×13			19	
	RH10D×8	7.2	72	12.5	6
	RH10D×10	12.2	122	15.5	7
10D	RH10D×11	20	200	17	
	RH10D×12			18	
	RH10D×13			19	
	RH10D×14			20	
	RH10D×16			22	
	RH10D×17	25	250	24	8
	RH10D×18			25	
	RH10D×19			26	
	RH10D×21			28	
	RH10D×22			29	
12D	RH12D×8	7.2	72	15	5
	RH12D×10	12.2	122	16	
	RH12D×11	20	200	18	5.5
	RH12D×12			20	
	RH12D×13	29.5	295	21	6.5
	RH12D×14	59	590	20	10
	RH12D×16			24	
	RH12D×17			25	
	RH12D×18			26	12
	RH12D×19	70	700		
15D	RH12D×21			29	
	RH12D×22			30	13
	RH15D×12	29.5	295	19	7
	RH15D×13			22	
	RH15D×14	59	590	25	8
	RH15D×16			26	
	RH15D×17	100	1000		10
	RH15D×18			28	
	RH15D×19			31	
	RH15D×21			34	13
15D	RH15D×22	140	1400	37	
	RH15D×24			41	
	RH15D×27				
	RH15D×30				

Tohnichi Head Size	Model (Body Size × Width)	Allowable Torque		Outside Width C [mm]	Thickness t [mm]
		[N·m]	[kgf·cm]		
19D	RH19D×14	59	590	22.5	8
	RH19D×17			27	10
	RH19D×18	100	1000	28	11
	RH19D×19			29	
	RH19D×21	166	1660	32	13
	RH19D×22				
	RH19D×24			35	
	RH19D×27			39	
	RH19D×30			41	
	RH19D×32	200	2000	44	15
22D	RH19D×34			47	
	RH19D×36			49	
	RH19D×41			55	
	RH22D×19	166	1660	30	14
	RH22D×22			34	
	RH22D×24	255	2550	37	15
	RH22D×27	490	4900	41	
	RH22D×30			44	
	RH22D×32			45	
	RH22D×34	500	5000	49	17
27D	RH22D×36			51	
	RH22D×41			57	
	RH22D×46			62	
	RH27D×22	255	2550	38	14
	RH27D×24	350	3500		15
	RH27D×27	490	4900	42	16
	RH27D×30	670	6700	46	19
	RH27D×32	750	7500	48	
	RH27D×34	670	6700	51	20
	RH27D×36			52	21
32D	RH27D×41			58	22
	RH27D×46	750	7500	64	24
	RH27D×50			69	26
	RH32D×27	490	4900	43	16
	RH32D×30	670	6700	46.5	
	RH32D×32	860	8600	49	18
	RH32D×34			52	
	RH32D×36			53	
	RH32D×41			59	24
	RH32D×46			65	
32D	RH32D×50	1200	12000	69	27
	RH32D×55			75	
	RH32D×60			80	29

Inch Size Models

Commonly used in the airline industry and for specific American product installation and maintenance.

Tohnichi Head Size	Model (Body Size × Inner Width [in])	Inner Width [mm]	Allowable Torque N·m [lbf·in]	Outside Width C [mm [in]]	Thickness t [mm [in]]
8D	NEW RH8D×1/4	6.35	3.6 [31]	11 [0.43]	5 [0.20]
	NEW RH8D×5/16	7.94	7.2 [63]	13.5 [0.53]	6 [0.24]
	NEW RH8D×3/8	9.53	12.2 [108]	15 [0.59]	
	NEW RH8D×7/16	11.11	15 [132]	17 [0.67]	7 [0.28]
10D	RH10D×1/4	6.35		11 [0.43]	
	RH10D×5/16	7.94	7.2 [64]	12.5 [0.49]	6 [0.24]
	RH10D×3/8	9.53	12.2 [108]	15.5 [0.61]	7 [0.28]
	RH10D×7/16	11.11		17 [0.67]	
	RH10D×1/2	12.7	25 [221]	19 [0.75]	8 [0.31]
	RH10D×9/16	14.29		20 [0.79]	
12D	RH12D×3/8	9.53	12.2 [108]	16 [0.63]	5 [0.20]
	RH12D×7/16	11.11	20 [177]	18 [0.71]	5.5 [0.22]
	RH12D×1/2	12.7	29.5 [261]	21 [0.83]	6.5 [0.26]
	RH12D×9/16	14.29		20 [0.79]	
12D	RH12D×5/8	15.88	59 [522]	24 [0.94]	10 [0.39]

Tohnichi Head Size	Model (Body Size × Inner Width [in])	Inner Width [mm]	Allowable Torque N·m [lbf·in]	Outside Width C [mm [in]]	Thickness t [mm [in]]
15D	RH15D×1/2	12.7	29.5 [261]	19 [0.81]	7 [0.28]
	RH15D×9/16	14.29		22 [0.87]	
	RH15D×5/8	15.88	59 [522]	25 [0.98]	8 [0.31]
	RH15D×11/16	17.46	100 [885]	26 [1.06]	10 [0.39]
	RH15D×3/4	19.05	140 [1239]	28 [1.10]	13 [0.51]



The Relationship between Interchangeable Heads and Torque Wrenches

Tohnichi's interchangeable head wrenches have specific diameter round ends that fit into corresponding head base openings. Head and wrench model names include the diameter sizes so heads can be matched to wrenches that will accept those heads.

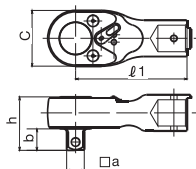
For example: SH15D×17 will fit on CL100N×15D

A variety of different head types (SH, RH, QH, RQH, FH, DH, AH and SP-N) can be used on one wrench or different types of wrenches such as CL (for tightening) and CEM3 (for inspection) can use the same head that has the corresponding diameter size.

QH

Ratchet Head

RoHS



QH15D

As the QH type ratchet heads need only small swing for tightening, they suit for operations in narrow spaces.

Tohnichi Head Size	Model	Dimensions			
		Sq. Drive a [mm]	Outside Width c [mm]	h [mm]	b [mm]
8D	QH8D	6.35	23	17.5	7.5
10D	QH10D-1/4		26	18.5	
	QH10D			22	
12D	QH12D	9.53	32	25.6	11
15D	QH15D-3/8		37.5	30.5	
	QH15D			33.5	14
19D	QH19D	12.7	40	38.4	15.4
22D	QH22D-1/2		51	41.5	
	QH22D			46.5	20.5
27D	QH27D	19.05	70	49.7	21.5
32D	QH32D		74	55.7	

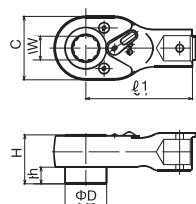
Note

- For the model having 25.4mm square drive, use a through-hole socket.
QH15D-3/8 Tmax 100N-m
QH22D-1/2 Tmax 280N-m
- Ratchet protective cover is available. Refer to page 46.

RQH

Female Ratchet Head

RoHS



RQH15D×17

As the RQH type ratchet heads need only small swing for tightening, they suit for operations in narrow and low ceiling spaces.

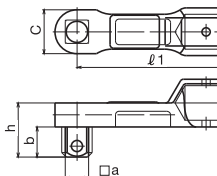
Tohnichi Head Size	Model (Body Size × Width)	Dimensions			
		D [mm]	Outside Width C [mm]	H [mm]	h [mm]
12D	RQH12D×12	20.5	32	24.1	10
	RQH12D×14				
15D	RQH15D×14	24.5	37.5	29	
	RQH15D×17				
19D	RQH19D×17	31	45	28	
	RQH19D×19				
	RQH19D×22				
22D	RQH22D×22	35.2	51	35	
	RQH22D×24				



DH

Square Drive Head

RoHS



DH15D

The DH square drive heads are the standard interchangeable head. They are useful when tightening a large number of matching screws with a common torque wrench. It is recommended to keep one set. They are used with sockets.

Tohnichi Head Size	Model	Dimensions			
		Sq. Drive a [mm]	Outside Width c [mm]	h [mm]	b [mm]
10D	DH10D	9.53	18	22.5	13
12D	DH12D		22	23	
15D	DH15D		22	29.5	
19D	DH19D	12.7	24	34	16.5
22D	DH22D		34	43.3	
27D	DH27D	19.05	42	44.5	23.5
32D	DH32D		50	58.5	

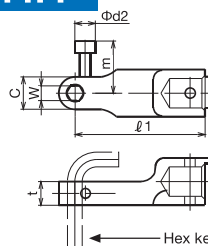
Note

DH32D is a through hole type.

HH

Hex Head

RoHS



HH10D×6

HH hex-head is for hexagon socket head bolts. A hex key can be inserted.

Hex key (Sold separately)

The HH hex-head is for hex. socket head cap screws.

Tohnichi Head Size	Model (Body Size × Width)	Dimensions			
		Outside Width C [mm]	t [mm]	m [mm]	Φd2 b [mm]
8D	HH8D	12	14.5	-	-
	HH10D×5	11			
10D	HH10D×6	12	8		
	HH10D×8	15			
	HH12D×5	11		19	7
12D	HH12D×6	14	10		
	HH12D×8	15			
	HH12D×10	17			
	HH15D×8	14			
15D	HH15D×10	17		21	
	HH15D×12	20			
	HH15D×14	21.5			
	HH19D×10	17	13		8.5
	HH19D×12	21.5			
19D	HH19D×14	23		23	
	HH19D×17	27			
	HH19D×19	29			
	HH22D×12	19.5			
	HH22D×14	27			
22D	HH22D×17	30	17	26	10
	HH22D×19	32			
	HH22D×22	35			

Note

- To be used with hex. key inserted.
- HH8D is not used with hex. key but interchangeable bit.



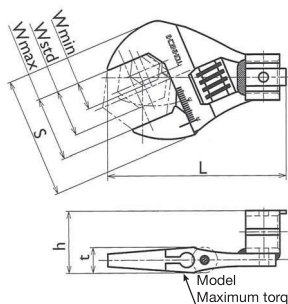
HH8D

Bits are sold separately.
Refer to page 11.

AH/AH2

Adjustable Open End Head

RoHS



AH15D2×30

AH is easy and convenient to use for applications that require different size bolt heads. Available currently only for the 15mm diameter root shaped Tohnichi torque wrenches.

Tohnichi Head Size	Model (Body Size × Width)	Allowable Torque		Inner Width Min.-Standard-Max. [mm]	Dimensions			
		[N-m]	[kgf-cm]		S [mm]	L [mm]	t [mm]	h [mm]
10D	NEW AH10D×13	25	250	3-8-13	36	57	9	23
	NEW AH10D×26			7-17-26	49	62	11	25
	NEW AH12D×13	30	300	3-8-13	36	66	9	23
12D	NEW AH12D×26			7-17-26	49	71	11	26
	NEW AH12D×36	50	500	8-22-36	65	78	13	27
	AH15D2×26			10-18-26	50	77	11	31
15D	AH15D2×30	100	1000	13-22-30	60	84	12	32
	AH15D2×36	140	1400	13-24-36	65	87	13	33

Note Use with a click type torque wrench (for tightening).

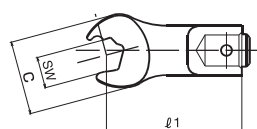
Model	Recommendable Torque Wrench
AH10D×13	CL25N5×10D
AH10D×26	CL25N5×10D-MH
AH12D×13	CL50N×12D
AH12D×26	CL50N×12D-MH
AH12D×36	

Model	Recommendable Torque Wrench
AH15D2×26	CL50N×15D (-MH)
AH15D2×30	CL100N×15D (-MH)
AH15D2×36	CL140N×15D (-MH)

SH-N

Open End Head with Notch

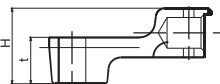
RoHS



SH-N models (except for SH10D-5×10N)



SH10D-1×10N



SH10D-5×10N

The notch creates speed in the tightening process by grasping the side of the fastener without removing the wrench. Ideal for brake line assembly.

Tohnichi Head Size	Model (Body Size × Width)	Allowable Torque		Outside Width C [mm]	Dimensions			
		[N-m]	[kgf-cm]		H [mm]	t [mm]	h [mm]	
10D	SH10D-1×10N				18.75	12	6	
	SH10D-3×10N	22.5	225		20.25		7.5	
	SH10D-5×10N	19	190		24.5	15	-	
	SH10D-4×10N			24	17.75		5	
	SH10D-9×10N	22.5	225		18.75	10		
	SH10D×11N				18.8	12	6	
12D	SH10D×12N	25	250	32	16	6.5	3.25	
	NEW SH12D×11N			30	19	7.5	-	
	NEW SH12D-1×12N				21	12	6	
	NEW SH12D-3×12N	30	300	32	22.5	15	7.5	
	NEW SH12D-5×12N				26		-	
	NEW SH12D-4×12N				20	10	5	
	NEW SH12D-1×14N				21	12	6	
	NEW SH12D-3×14N	40	400	35	22.5	15	7.5	
	NEW SH12D-5×14N				26		-	
	NEW SH12D-4×14N				20	10	5	
	NEW SH12D-1×17N				21	12	6	
	NEW SH12D-3×17N	50	500	38	22.5	15	7.5	
15D	NEW SH12D-5×17N				26		-	
	NEW SH12D-4×17N				20	10	5	

PH

Pipe Wrench Head

RoHS



PH15D×350

The PH heads suit for use with pipes and plumbing applications.

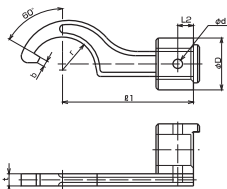
Tohnichi Head Size	Model (Body Size × Width)	Pipe Wrench Head Max. Length [mm]	Applicable Pipe Diameter [mm]	Standard Pipe Diameter [mm]	Recommendable Torque Wrench
15D	PH15D×350				
19D	PH19D×350	350	13-38	25.5	CSP
22D	PH22D×350				
	PH22D×450	450	26-52	39	

Note 1. PH can be used with CSP model (P.19) only.
2. When ordering with CSP, please specify PH model name and required set torque.
3. In case of using graduated torque wrench, order PHL models.

FH

Hook Head

RoHS



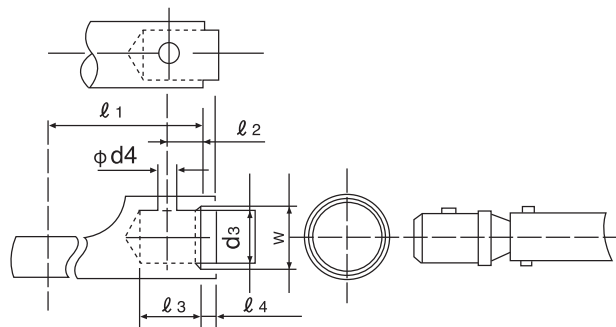
FH

The FH hook heads are ideal for use with bearing locknut applications.

Tohnichi Head Size	Model (Body Size × Width)	Applicable Size of Nut Outside Diameter [mm]	Nominal Size of Screw	Dimensions							
				r [mm]	Θ' [mm]	b [mm]	t [mm]	H [mm]	D [mm]	L2 [mm]	d [mm]
15D	FH15D×30	30-38	M20	16							
	FH15D×38	38-45	M25	20		3	6	30			
	FH15D×45	45-52	M30	24							
	FH15D×52	52-58	M35	27	60	3.5	7	30.5	25	7.5	4.5
	FH15D×58	58-65	M40	31				31			
19D	FH19D×65	65-75	M45, M50	35.5			8	35.5	29	9.5	
22D	FH22D×75	75-85	M60, M65	39				38.5			
	FH22D×85	85-98	M70, M75	45.5	45	5	10	40	32	11	5.5

Common Dimensions for Interchangeable Head

Model	Dimensions [mm]						
	ℓ1	ℓ2	ℓ3	ℓ4	d3	d4	W
SH8D, RH, QH, HH	35	4	10	2	8	3.0	9
SH10D, RH, QH, HH, DH, SH-N	44	5	12	2.5	10	3.5	12
SH12D, RH, QH, HH, DH, RQH	53	6	14	3	12	3.5	14
SH15D, RH, QH, HH, DH, RQH, FH	63	7.5	17	3	15	4.5	17
SH19D, RH, QH, HH, DH, RQH, FH	80	9.5	21	3	19	4.5	21
SH22D, RH, QH, HH, DH, RQH, FH	100	11	24	3.5	22	5.5	24
SH27D, RH, QH, DH	125	13.5	29	5	27	6.5	30
SH32D, RH, QH, DH	160	16	34	7	32	6.5	35



Note When requesting a special head that is used with various types of torque wrench, it is strictly required to follow the "ℓ1" dimension to keep torque accuracy. Any deviation from the "ℓ1" dimension affects torque accuracy.

