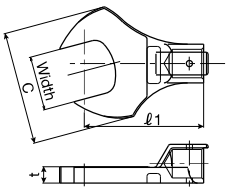
Interchangeable Head

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.



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

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

Inch Size Models

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

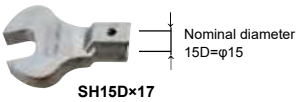
Tohnichi Head Size	Model (Body Size × Inner Width [in])	Inner Width [mm]	Allowable Torque N·m [lbf·in]	Outside Width C mm [in]	Thickness t mm [in]
8D	SH8D×1/4	6.35	2.5 [22]	15 [0.59]	3.5 [0.14]
	SH8D×5/16	7.94	7 [61]	20 [0.79]	4.5 [0.18]
	SH8D×3/8	9.53	14 [123]	25 [0.98]	5.5 [0.22]
	SH8D×7/16	11.11	15 [132]	27 [1.06]	
	SH8D×1/2	12.7		29 [1.14]	
	SH8D×9/16	14.29			6.5 [0.26]
10D	SH10D×1/4	6.35	20 [177]	28 [1.10]	6.5 [0.26]
	SH10D×5/16	7.94			
	SH10D×3/8	9.53			
	SH10D×7/16	11.11	25 [221]	32 [1.26]	
	SH10D×1/2	12.7			
	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]	6.5 [0.26]
	SH12D×1/2	12.7	29.5 [261]	32 [1.26]	
	SH12D×9/16	14.29	59 [522]	40 [1.57]	10 [0.39]
	SH12D×5/8	15.88			
	SH12D×11/16	17.46	70 [620]	41 [1.61]	11 [0.43]
15D	SH15D×1/2	12.7	59 [522]	38 [1.50]	8 [0.31]
	SH15D×9/16	14.29	140 [1239]	51 [2.01]	13 [0.51]
	SH15D×5/8	15.88			
	SH15D×11/16	17.46			
	SH15D×3/4	19.05			
	SH15D×13/16	20.64			
	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 N·m [lbf·in]	Outside Width C mm [in]	Thickness t mm [in]
15D	SH15D×1-1/8	28.58	140 [1239]	60 [2.36]	12 [0.47]
	SH15D×1-3/16	30.16			
	SH15D×1-1/4	31.75		66 [2.59]	
	SH15D×1-5/16	33.34			
	SH15D×1-3/8	34.93			
	SH15D×1-7/16	36.51		69 [2.72]	
	SH15D×1-1/2	38.10			
19D	SH19D×15/16	23.81	200 [1947]	60 [2.36]	15 [0.59]
	SH19D×1	25.4			
	SH19D×1-1/16	26.99			
	SH19D×1-1/8	28.58		72 [2.83]	
	SH19D×1-3/16	30.16			
	SH19D×1-1/4	31.75			
	SH19D×1-5/16	33.34		76 [2.99]	11 [0.43]
	SH19D×1-3/8	34.93			
	SH19D×1-7/16	36.51			
	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 SH-N) can be used on one wrench or different types of wrenches such as CL (for tightening) and CEM3-G (for inspection) can use the same head that has the corresponding diameter size.

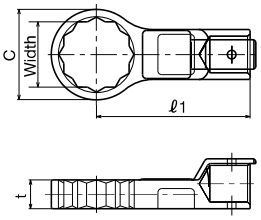
CL100N×15D



SH15D×17

RH Ring Head

RoHS



RH15D×17

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 single hex shape.

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

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

Inch Size Models

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

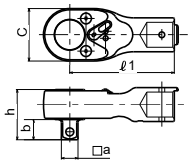
Tohnichi Head Size	Model (Body Size × Inner Width [in])	Inner Width [mm]	Allowable Torque N·m [lbf·in]	Outside Width C mm [in]	Thickness t mm [in]
8D	RH8D×1/4	6.35	3.6 [31]	11 [0.43]	5 [0.20]
	RH8D×5/16	7.94	7.2 [63]	13.5 [0.53]	6 [0.24]
	RH8D×3/8	9.53	12.2 [108]	15 [0.59]	7 [0.28]
	RH8D×7/16	11.11	15 [132]	17 [0.67]	
10D	RH10D×1/4	6.35	7.2 [64]	11 [0.43]	6 [0.24]
	RH10D×5/16	7.94		12.5 [0.49]	
	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	59 [522]	20 [0.79]	10 [0.39]
	RH12D×5/8	15.88		24 [0.94]	

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	59 [522]	22 [0.87]	8 [0.31]
	RH15D×5/8	15.88		25 [0.98]	
	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 SH-N) can be used on one wrench or different types of wrenches such as CL (for tightening) and CEM3-G (for inspection) can use the same head that has the corresponding diameter size.

QH Ratchet Head RoHS



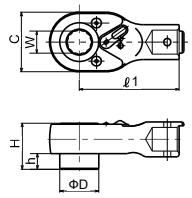
QH15D

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

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	15.5
	QH22D	19.05		46.5	20.5
27D	QH27D		70	49.7	21.5
32D	QH32D	25.4	74	55.7	26.5

Note
1. 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
2. Ratchet protective cover is available. Refer to page 49.

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.

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	
	RQH12D×14				
15D	RQH15D×14	24.5	37.5	29	
	RQH15D×17				
	RQH19D×17				10
19D	RQH19D×19	31	45	28	
	RQH19D×22				
22D	RQH22D×22	35.2	51	35	
	RQH22D×24				

Ratchet Protective Cover for QH/RQH

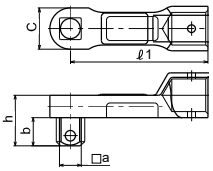
Fit on your Tohnichi Ratchet Head to protect your work

872 with QH12D

870

Part #	Applicable Interchangeable Head
870	QH8D
871	QH10D
872	QH12D/RQH12D
874	QH15D/RQH15D
875	QH19D
876	RQH19D
878	QH22D/RQH22D

DH Square Drive Head RoHS



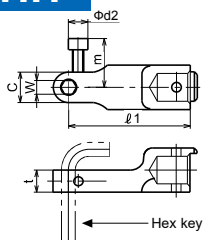
DH15D

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.

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			23	
15D	DH15D	12.7	22	29.5	16.5
19D	DH19D		24		
22D	DH22D	19.05	34	43.3	23.5
27D	DH27D		42	44.5	
32D	DH32D	25.4	50	58.5	30.25

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.

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

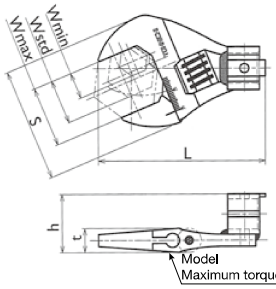
Head Size	Model (Body Size × Width)	Dimensions			
		Outside Width C [mm]	t [mm]	m [mm]	φd2 b [mm]
8D	HH8D	12	14.5	-	-
	HH10D×5	11			
10D	HH10D×6	12	8		
	HH10D×8	15			
	HH12D×5	11		19	7
12D	HH12D×6	14	10		
	HH12D×8	15			
	HH12D×10	17			
	HH15D×8	14			
15D	HH15D×10	17		21	
	HH15D×12	20			
	HH15D×14	21.5			
	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
1. To be used with hex. key inserted.
2. HH8D is not used with hex. key but interchangeable bit.
3. Insertion of HH10D×5 and HH10D×6 are hexagon. Others are double hexagon.

HH8D

Bits are sold separately.
Refer to page 10.

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.

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

PH Pipe Wrench Head RoHS

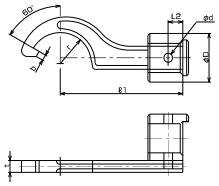
PH15D×350

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

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	350	13-38	25.5	CSP
19D	PH19D×350				
22D	PH22D×350				
	PH22D×450	450	26-52	39	

Note:
1. PH can be used with CSP model (P.18) 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.

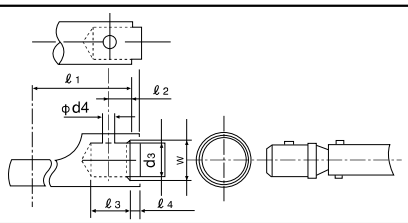
FH Hook Head RoHS



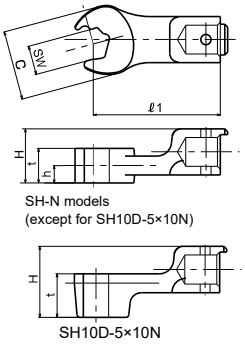
FH

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

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	60	3	6	30	25	7.5	4.5
	FH15D×38	38-45	M25	20							
	FH15D×45	45-52	M30	24		3.5	7	30.5			
	FH15D×52	52-58	M35	27							
	FH15D×58	58-65	M40	31		4.5		31			
19D	FH19D×65	65-75	M45, M50	35.5			8	35.5	29	9.5	
22D	FH22D×75	75-85	M60, M65	39	45	5		38.5	32	11	5.5
	FH22D×85	85-98	M70, M75	45.5			10	40			



SH-N Open End Head with Notch RoHS

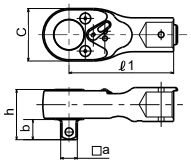


SH10D-1×10N

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

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

CPQH Corrosion-Resistant Ratchet Head



CPQH12D

QH type ratchet head with anticorrosion coating is ideal for wet conditions and features ratcheting action for narrow spaces.

Head Size	Model	Dimensions Sq. Drive a [mm]	Dimensions Outside Width c [mm]	Dimensions h [mm]	Dimensions b [mm]
10D	CPQH10D	9.53	26	22	11
12D	CPQH12D		32	25.6	
15D	CPQH15D	12.7	37.5	33.5	14
19D	CPQH19D		40	38.4	15.4

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.