

CEM3-G

DATA TORK/
Digital Torque
Wrench

Direction



RoHS



CEM100N3x15D-G



Common Specifications

Display	7 segments LED 4 lines 10mm (Torque value)
	14 segments LCD 3 lines 7mm (Counter)
	7 segments LCD 4 lines 3mm (Clock)
	Battery life indicator (4 steps)
Judgment LED RED/BLUE	
Number of Data Memory	999 (M-2 mode: 99 data)
Communication	RS232C (2400-19200bps)
Functions	Serial output corresponding to a USB connector
Power Supply	Ni-MH rechargeable battery
Continuous Use	20 hrs with fully charged (8 hours by 1 hour recharging)
Recharging Time	3.5 hours
Operating Temperature	0-40 °C
Basic Functions	Peak Hold, Auto memory & resetting, Tightening completion buzzer, Judgment of measured data, Auto zero setting, Auto off (3 minutes), Clock

Inspection

Digital

Interchangeable

Direct Reading

Re-Chargeable

ISO6789:2003

- Dual LED & LCD displays for optimal viewing
- 999 memory storage capacity
- For inspection and tightening



CEM20N3x10D-G



CEM850N3x32D-G

											Accuracy ±1%		
Model	Torque Range										Hand Force [N]	Overall Length [mm]	Weight [kg]
	N-m		kgf-cm		kgf-m		lbf-in		lbf-ft				
	Min.-Max.	1digit	Min.-Max.	1digit	Min.-Max.	1digit	Min.-Max.	1digit	Min.-Max.	1digit			
CEM10N3×8D-G	2-10	0.01	20-100	0.1	0.200-1.000	0.001	20.0-90.0	0.1	1.50-7.30	0.01	48.1	212	0.46
CEM20N3×10D-G	4-20	0.02	40-200	0.2	0.400-2.000	0.002	36.0-180.0	0.2	3.00-14.50	0.02	92.2	214	0.47
CEM50N3×12D-G	10-50	0.05	100-500	0.5	1.000-5.000	0.005	100.0-440.0	0.5	7.50-36.00	0.05	196.9	282	0.58
CEM100N3×15D-G	20-100	0.1	200-1000	1	2.00-10.00	0.01	200-880	1	15.0-73.0	0.1	275.5	384	0.63
CEM200N3×19D-G	40-200	0.2	400-2000	2	4.00-20.00	0.02	360-1700	2	30.0-150.0	0.2	428.3	475	0.78
CEM360N3×22D-G	72-360	0.4	720-3600	4	7.2-36.00	0.04	650-3100	4	52.0-260.0	0.4	498.6	713	1.13
CEM500N3×22D-G	100-500	0.5	1000-5000	5	10.00-50.00	0.05	890-4400	5	73.0-360.0	0.5	549.5	949	4.00
CEM850N3×32D-G	170-850	1	-	-	17.0-85.0	0.1	-	-	124-620	1	608	1387	5.14

Accuracy ±1%

Note

1. Overall length does not include interchangeable head.
2. For interchangeable head, refer to page 45-48.
3. For infrared data transfer, use with R-DT999. Refer to page 70.
4. PH Pipe wrench head type interchangeable head is not available for this model.
5. CEM500N3x22D-G and CEM850N3x32D-G have knurled handles.
6. For USB data transfer, use optional connecting cable, No.584. Refer to page 50.

Standard Accessories

1. Battery pack/BP-5
2. QH interchangeable head. Refer to page 47.
3. Quick battery charger/BC-3-G (100-240V).

CEM3-P RoHS

- Programmable version of CEM3-G with data management software that links work name with test results.

Torque Accuracy	±1%
Portion Registration Memory	Max. 100 parts (Part name, number of screws, tightening direction, high/low torque, measuring order)
Measurement Data Storage	Up to 3,000 screw data (vary depending on parts registered), measurement part name, measured value, pass/fail judgment, measurement time and date)



CEM50N3x12D-P

Display part
Left: Part name, Right: Torque value

CEM3-P application software

Model
CEM10N3x8D-P
CEM20N3x10D-P
CEM50N3x12D-P

Model
CEM100N3x15D-P
CEM200N3x19D-P
CEM360N3x22D-P

Model
CEM500N3x22D-P
CEM850N3x32D-P

Battery Pack (P.50)

Model
BP-5

Quick Battery Charger (P.50)

Model	Description
BC-3-G	100V-240V

Printer (P.69)

Model
EPP16M3

Connecting Cable (P.50)

Part #	Applicable Model
575	CEM3-G, CEM3-P, R-DT999 - PC, EPP16M3
584	CEM3-G, CEM3-P, R-DT999G - PC

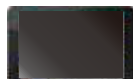
Data Filing System (P.69)

Model	Media
DFS	CD-ROM

Handy Terminal

Compact data collection device
for CEM3-G

- Upload & download torque measuring information
- Guides user through torque assembly & quality inspection processes
- Statistics and charting capabilities
- Contact Tohnichi for lithium battery shipping specifications.



CTB2-G Digital Retightening Torque Wrench

Direction



RoHS



CTB100N2x15D-G



CTB850N2x32D-G

Common Specifications

Data Memory	999 data (T-point torque)
Arithmetic Function	Sampling, Maximum, Minimum, Means
Measurement Mode	Peak/Run
Data Output	RS232C I/F, USB serial output
Zero Adjustment	Auto zero function (C key)
Other Function	Auto power off (3 min./10 min./30 min./non)
Power Source	Ni-MH Nickel metal-hydrate battery
Continuous Use	20 hours (8 hours by 1 hour charging)
Battery Charge	3.5 hours
Operating Temperature	0-40 °C

Inspection	Digital	Interchangeable	Signal	Re-Chargeable	ISO6789:2003
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- Detects movement of fastener for more accurate testing
- For quality inspection applications, confirms previously tightened torque values.

Accuracy ±1%

Model	Torque Range										Hand Force [N]	Overall Length [mm]	Weight [kg]
	N·m		kgf·cm		kgf·m		lbf·in		lbf·ft				
	Min.-Max.	1digit	Min.-Max.	1digit	Min.-Max.	1digit	Min.-Max.	1digit	Min.-Max.	1digit			
CTB10N2×8D-G	2-10	0.01	20-100	0.1	0.2-1	0.001	20-90	0.1	1.5-7.3	0.01	48.1	212	0.46
CTB20N2×10D-G	4-20	0.02	40-200	0.2	0.4-2	0.002	36-180	0.2	3-14.5	0.02	92.2	214	0.47
CTB50N2×12D-G	10-50	0.05	100-500	0.5	1-5	0.005	100-440	0.5	7.5-36	0.05	196.9	282	0.58
CTB100N2×15D-G	20-100	0.1	200-1000	1	2-10	0.01	200-880	1	15-73	0.1	275.5	384	0.63
CTB200N2×19D-G	40-200	0.2	400-2000	2	4-20	0.02	360-1700	2	30-150	0.2	428.3	475	0.78
CTB360N2×22D-G	72-360	0.4	720-3600	4	7.2-36	0.04	650-3100	4	52-260	0.4	498.6	713	1.13
CTB500N2×22D-G	100-500	0.5	1000-5000	5	10-50	0.05	890-4400	5	73-360	0.5	549.5	949	4.00
CTB850N2×32D-G	170-850	1	-	-	17-85	0.1	-	-	124-620	1	608	1387	5.14

Note

1. Overall length does not include interchangeable head.
2. For interchangeable head, refer to page 45-48.
3. For infrared data transfer, use with R-DT999. Refer to page 69.
4. PH type interchangeable head is not available for this model.

Standard Accessories

1. Battery pack/BP-5
2. QH interchangeable head (P.47).
3. Quick battery charger/BC-3-G, 100-240V

Battery Pack (P.50)

Model
BP-5

Quick Battery Charger (P.50)

Model	Description
BC-3-G	100-240V

Printer (P.69)

Model
EPP16M3

Connecting Cable (P.50)

Part #	Applicable Model
575	CTB2-G - PC, EPP16M3
584	CTB2-G, R-DT999G - PC

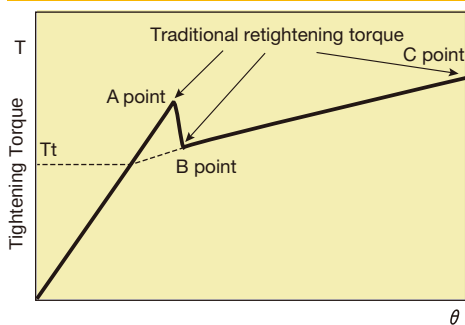
Data Filing System (P.69)

Model	Media
DFS	CD-ROM

Advantages of the New Retightening Method: T-point Method

- Anyone can measure the tightening torque easily.
- Requires less time to perform the measurement.
- Dispersion of data is small (Figure-3).
- No individual interpretation or performance variable is involved in measuring the torque (Figure-3).
- Internal software converts measured torque to initial tightening torque value (Figure-3).

Figure-1 Traditional retightening torque method



Retightening Torque Method

Retightening torque method aims to measure the torque at which a tightened bolt start to rotate again as further torque is applied. The retightening measured values are classified as one of these three kinds:

- The torque which overcome the static friction of the bolt (A point).
- The torque at which the bolt starts on turn continuously (B point).
- The maximum torque at this inspection (C point).

Proposal of T-point method (Figure-2)

Retightening torque first starts with the rotation of the head only, then the screw starts to rotate. Shifting from static friction to dynamic friction, the friction whip settles and the torque starts to increase at the steady pace again. T-point method figures TT as retightening torque value.

Figure-2 New retightening torque method by CTB2-G

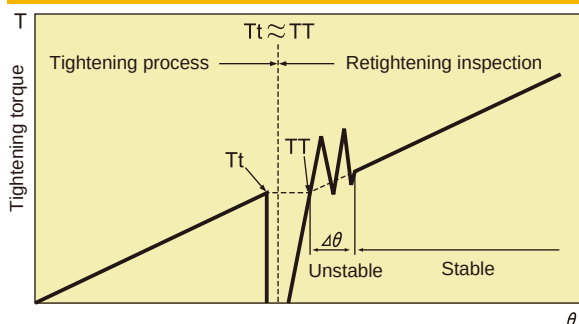
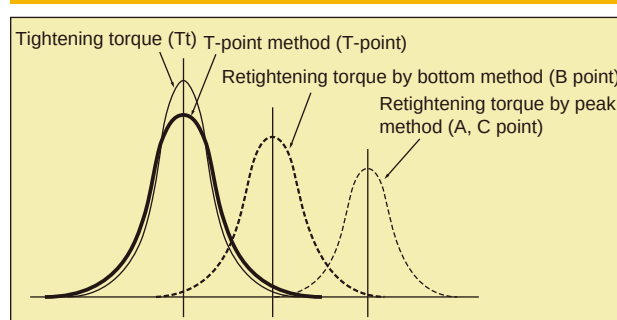


Figure-3 Distribution of retightening torque



Refer to Tohnichi Torque Handbook Vol. 9 on page 46 to 47 for the details.

DB/DBE/DBR

Direction Dial Indicating Torque Wrench



RoHS



DB12N4



DB100N



DBE700N



Memory Pointer, Red color point

DB Optional Accessories



846

Carrying Case (P.49)

Part #	Applicable Model Dimension [mm]	Weight [kg]
846	DB100N-S, CDB100N×15D-S or less H170 × W500 × D100	1.0
847	DB280N-S, CDB280N×22D-S or less H170 × W740 × D100	1.6

Inspection Dial Indicating Direct Reading ISO6789:2003
2017

- Memory pointer for easy torque reading
- Ideal for torque measuring and quality check applications

S.I. Model	Torque Range [N·m/kN·m]		Metric Model	Torque Range [kgf·cm/kgf·m]		American Model	Torque Range [lbf·in/lbf·ft]		Overall Length [mm]	Square Drive [mm]	Weight [kg]
	Min.-Max.	Grad.		Min.-Max.	Grad.		Min.-Max.	Grad.			
DB1.5N4-S	0.2-1.5	0.02	15DB4-S	2-15	0.2	DB13I-2AS	0-13	0.2			
DB3N4-S	0.3-3	0.05	30DB4-S	3-30	0.5	DB26I-2AS	0-26	0.5	205		0.4
DB6N5-S	0.7-6	0.1	DB60M5-S	7-60	1	DB40I-2AS	0-40	1		6.35	
DB12N5-S	1.4-12	0.2	DB120M5-S	14-120	2	DB75I-2AS	0-75	1			
DB25N5-1/4-S	3.5-25		DB250M5-1/4-S	35-250		DB150I-2AS	0-150	2	245		
DB25N5-S			DB250M5-S			DB150I-3AS					
		0.5			5	DB300I-3AS	0-300	5			0.6
DB50N-S	5-50		DB500M-S	50-500			lbf·ft	lbf·ft	320		
						DB25F-3AS	0-25	0.5		9.5	
							lbf·in	lbf·in			
						DB600I-3AS	0-600	10			
DB100N-3/8-S			DB1000M-3/8-S				lbf·ft	lbf·ft			
						DB50F-3AS	0-50	0.5			
	10-100	1		100-1000	10		lbf·in	lbf·in	400		0.7
						DB600I-4AS	0-600	10			
DB100N-S			DB1000M-S				lbf·ft	lbf·ft			
						DB50F-4AS	0-50	0.5			
DB200N-S	20-200	2	DB2000M-S	200-2000	20	DB100F-4AS	0-100	1	500	12.7	
				kgf·m	kgf·m						1.0
						DB175F-4AS	0-175	2	580		
DB280N5-1/2-S	35-280		DB2800M5-1/2-S	3.5-28					690		1.65
DB280N5-S			DB2800M5-S			DB250F-6AS	0-250	5			
DB420N-S	40-420	5	DB4200M-S	4-42	0.5	DB350F-6AS	0-350	5	890		2.5
DBE560N-S	50-560		DBE5600M-S	5-56					1100		4.0
DBE700N-S	70-700		DBE7000M-S	7-70		DB500F-6AS	0-500	10	1260		5.5
DBE850N-S	100-850	10	DBE8500M-S	10-85	1				1360		6.1
DBE1000N-S	100-1000		DBE10000M-S	10-100		DB800F-8AS	0-800	10	1490		6.4
DBE1400N-S	200-1400	20	DBE14000M-S	20-140	2	DB1000F-8AS	0-1000	20	1740		8.6
DBE2100N-S	200-2100		DBE21000M-S	20-210		DB1500F-8AS	0-1500		2140		12.8
DBE2800N5-S	350-2800	50	DBE28000M5-S	35-280		DB2000F-12AS	0-2000		2380		16.8
	kN·m	kN·m								38.1	
DBR4500N-S	0.5-4.5	0.05	45000DBR-S	50-450	5	DB3000F-12AS	0-3000	50	1285		26.5
DBR6000N-S	0.6-6	0.1	60000DBR-S	60-600					1585	44.5	27.5

Note

1. "Without memory pointer" models are available. Remove "S" from the model name when ordering.
Ex. DB100N
2. DBR models require winch or mechanical loading device.
3. DBR Models are supplied upon request.
4. For models having over 25.4mm square drive, use with a through-hole socket.
5. Accuracy of American models is warranted from 20% of max. torque.
6. DB1.5N4, DB3N4 and the equivalent metric models, American unit models come with ISO6789-2003 certificate.

CDB-S

Interchangeable
Head Type Dial
Indicating Torque
Wrench

Direction



CDB14N4x8D-S



CDB100N15D-S

Inspection Dial Indicating Interchangeable Memory Pointer ISO6789:2003
2017

- Interchangeable head version of DB
- Ideal for torque measuring and quality inspections

Accuracy ±3%

Head Size	S.I. Model	Torque Range [N·m]		Metric Model	Torque Range [kgf·cm/kgf·m]		American Model	Torque Range [lbf·in/lbf·ft]		Overall Length [mm]	Weight [kg]
		Min.-Max.	Grad.		Min.-Max.	Grad.		Min.-Max.	Grad.		
8D	CDB7N4x8D-S	0.7-7	0.1	CDB70Mx8D-S	7-70	1	70CDB4-A-S	6-60	1	215	0.45
	CDB14N4x8D-S	2-14	0.2	CDB140Mx8D-S	20-140	2	140CDB4-A-S	20-120	2	255	0.48
10D	CDB25N5x10D-S	3.5-25	0.5	CDB250M5x8D-S	35-250	5	250CDB-A-S	30-220	5	330	0.53
12D	CDB50N12D-S	5-50		CDB500Mx12D-S	50-500		500CDB-A-S	40-430			
15D	CDB100N15D-S	10-100	1	CDB1000Mx15D-S	100-1000	10	1000CDB-A-S	7-70	1	415	0.76
19D	CDB200N19D-S	20-200	2	CDB2000Mx15D-S	200-2000	20	2000CDB-A-S	14-140	2	525	1.0
22D	CDB300N5x22D-S	35-300	5	CDB300M5x22D-S	35-300	0.5	3000CDB-A-S	20-220	5	720	1.65
	CDB420N22D-S	40-420		CDB4200Mx22D-S	4-42		4200CDB-A-S	30-300		920	2.7

- Note
1. Overall length does not include interchangeable head.
 2. PH (Pipe wrench head) type interchangeable head is not available.
 3. Interchangeable heads are optional.
 4. American models come with ISO:6789-2003 certificate.

SCDB-S

European Style
Interchangeable
Head Type
Dial Indicating
Torque Wrench

Direction



SCDB50N-9x12-S

Inspection Dial Indicating Interchangeable Memory Pointer ISO6789:2017

- Specialized version of DB
- Accepts DIN interchangeable head connection

Accuracy ±3%

S.I. Model	Torque Range [N·m]		Head Size [mm]	Overall Length [mm]	Weight [kg]
	Min.-Max.	Grad.			
SCDB25N5-9x12-S	3.5-25	0.5	9x12	271	0.48
SCDB50N-9x12-S	5-50		9x12	342	0.53
SCDB100N-9x12-S	10-100	1	9x12	422	0.76
SCDB200N-14x18-S	20-200	2	14x18	535	1

- Note
1. Overall length does not include interchangeable head.
 2. Applicable to European style head. Tohnichi's interchangeable heads are not available for SCDB-S.

T-S

T-Handle Dial Indicating
Torque Wrench

Direction



T90N-S

Inspection Dial Indicating Direct Reading Memory Pointer ISO6789:2003
2017

- Dual handle for increased stability
- Memory pointer for easy reading

Accuracy ±3%

S.I. Model	Torque Range [N·m]		Metric Model	Torque Range [kgf·cm/kgf·m]		American Model	Torque Range [lbf·in/lbf·ft]		Overall Length [mm]	Neck Length [mm]	Square Drive [mm]	Weight [kg]
	Min.-Max.	Grad.		Min.-Max.	Grad.		Min.-Max.	Grad.				
T23N2-S	3.5-23	0.5	T230M2-S	35-230	5	T200I-3AS	20-200	2	205	71	9.5	0.41
T45N-S	5-45		T450M-S	50-450		T400I-3AS	50-400	5	261	82		0.53
T90N-S	10-90	1	T900M-S	100-900	10	T65F-4AS	10-65	1	376	102.5	12.7	0.8
T180N-S	20-180	2	T1800M-S	200-1800	20	T130F-4AS	20-130	2	656	118.5		1.2
T700N-S	70-700	10	7000T-S	7-70	1	7000T-A-S	50-500	5	1300		19.0	4
T1000N-S	100-1000		10000T-S	10-100		10000T-A-S	50-700		1630			4.8
T1400N-S	200-1400	20	14000T-S	20-140	2	14000T-A-S	100-1000	10	1880		25.4	6.2
T2100N-S	200-2100		21000T-S	20-210		21000T-A-S	200-1500		2500			10
T2800N-S	300-2800	50	28000T-S	30-280	5	28000T-A-S	200-2000		2960			15.5
T4200N-S	400-4200		42000T-S	40-420		42000T-A-S	400-3000	50	3660		38.1	21.5

- Note
1. T700N-S to T4200N-S models are supplied upon request.
 2. For models having over 25.4mm square drive, use with a through-hole socket.
 3. American models come with ISO:6789-2003 certificate.

SF/F/FRBeam Type
Torque
Wrench

Direction



RoHS



SF6N



F92N

Inspection Beam Direct Reading ISO6789:2003

- Direct reading torque wrench with scale plate
- For measuring and tightening applications

Accuracy ±3%

S.I. Model	Torque Range [N·m]		Metric Model	Torque Range [kgf·cm/kgf·m]		American Model	Torque Range [lbf·in/lbf·ft]		Overall Length [mm]	Square Drive [mm]	Weight [kg]
	Min.-Max.	Grad.		Min.-Max.	Grad.		Min.-Max.	Grad.			
SF40CN	8-40	2	4SF	0.8-4	0.2	4SF-A	0-3.4	0.2	115		0.04
SF70CN	10-70		7SF	1-7		7SF-A	0-6		135		0.05
SF1.5N	0.2-1.5	0.05	15SF	2-15	0.5	15SF-A	0-13	0.5	145	6.35	0.07
SF3N	0.5-3	0.1	30SF	5-30	1	30SF-A	0-26	1	175		0.09
SF6N	0.6-6	0.2	60SF	6-60	2	60SF-A	0-50	2	205		0.2
SF12N	2-12		120SF	20-120		120SF-A	0-100		235		0.25
F23N	3-23	0.5	230F	30-230	5	230F-A	0-200	5	295		0.4
F46N	5-46	1	460F	50-460	10	460F-A	0-400	10	355	9.5	0.6
F92N	10-92		920F	100-920		920F-A	10-66		400		0.95
F130N	20-130	2	1300F	200-1300	20	1300F-A	10-95	2	445	12.7	1.2
F190N	30-190		1900F	300-1900	50	1900F-A	25-135		490		1.5
F280N	50-280	5	2800F	5-28	0.5	2800F-A	30-200	5	565		2.2
F420N	70-420		4200F	7-42		4200F-A	30-300		825	19.0	3.5
F560N	100-560	10	5600F	10-56	1	5600F-A	50-400	10	945		4.0
F700N	100-700		7000F	10-70		7000F-A	50-500		1175		6.0
F850N	100-850		8500F	10-85		8500F-A	60-600		1410		7.8
F1000N	100-1000	20	10000F	10-100	2	10000F-A	70-700	20	1640		8.8
FR1050N	100-1050		10500FR	10-105		10500FR-A	100-750		835	25.4	8
FR1400N	200-1400		14000FR	20-140		14000FR-A	100-1000		981		11.5
FR2100N	300-2100	50	21000FR	30-210	5	21000FR-A	200-1500	50	1148		14.5
FR2800N	300-2800		28000FR	30-280		28000FR-A	200-2000		1292		20
FR4200N	400-4200	100	42000FR	40-420	10	42000FR-A	300-3000	100	1460	38.1	28
FR6000N	600-6000		60000FR	60-600		60000FR-A	400-4300		1624		30

Note

1. FR models are supplied upon request.
2. FR models require winch or mechanical loading device.
3. For models having over 25.4mm square drive, use with a through-hole socket.
4. Accuracy of American models is warranted from 20% of max. torque.

CSF/CFInterchangeable
Head Type Beam
Type Torque
Wrench

Direction



RoHS



CSF7N×8D



CF25N×10D

Inspection Beam Interchangeable Direct Reading ISO6789:2003

- Interchangeable head version of SF/F
- For measuring and tightening applications

Accuracy ±3%

Head Size	S.I. Model	Torque Range [N·m]		Metric Model	Torque Range [kgf·cm/kgf·m]		American Model	Torque Range [lbf·in/lbf·ft]		Overall Length [mm]	Weight [kg]
		Min.-Max.	Grad.		Min.-Max.	Grad.		Min.-Max.	Grad.		
8D	CSF7N×8D	1-7	0.2	70CSF	10-70	2	70CSF-A	10-60	2	220	0.2
	CSF14N×8D	2-14	0.5	140CSF	20-140	5	140CSF-A	20-120	5	250	0.25
	CF25N×10D	5-25	1	250CF	50-250	10	250CF-A	40-220	10	320	0.4
12D	CF50N×12D	10-50		500CF	100-500		500CF-A	80-420	20	380	0.6
			2			20			lbf·ft		
15D	CF100N×15D	10-100		1000CF	100-1000		1000CF-A	6-70	2	435	1.0
19D	CF150N×19D	20-150		1500CF	200-1500	50	1500CF-A	15-110		480	1.3
			5		kgf·m						
22D	CF230N×22D	30-230		2300CF	3-23	0.5	2300CF-A	20-160	5	530	1.6
	CF420N×22D	70-420	10	4200CF	7-42	1	4200CF-A	30-300		725	3.1
32D	CF850N×32D	100-850	20	8500CF	42-85	2	8500CF-A	60-600	20	1260	7.1

Note

1. Overall length does not include interchangeable head.
2. PH (Pipe wrench head) type interchangeable head is not available.
3. Interchangeable heads are optional.

QF/QFRRatchet Head
Beam Type
Torque Wrench

Direction



RoHS



QF120N

Inspection Beam Ratchet Head Direct Reading ISO6789:2003

- Fixed ratchet head flat beam style
- Ideal for working in narrow spaces

Accuracy ±3%

S.I. Model	Torque Range [N·m]		Metric Model	Torque Range [kgf·cm/kgf·m]		American Model	Torque Range [lbf·in/lbf·ft]		Overall Length [mm]	Square Drive [mm]	Weight [kg]
	Min.-Max.	Grad.		Min.-Max.	Grad.		Min.-Max.	Grad.			
QF60N	6-60	1	600QF	60-600	10	600QF-A	0-520	10	455	9.5	0.8
QF120N	10-120	2	1200QF	100-1200	20	1200QF-A	6-86	2	515	12.7	1.2
QF220N	30-220	5	2200QF	300-2200	50	2200QF-A	25-160		580		1.8
				kgf·m							
QF320N	60-320		3200QF	6-32		3200QF-A	40-230	5	655		2.6
QF420N	70-420		4200QF	7-42		4200QF-A	30-300		825		3.4
QF560N	100-560	10	5600QF	10-56	1	5600QF-A	50-400		950	19.0	4.3
QF700N	100-700		7000QF	10-70		7000QF-A	50-500	10	1170		6.5
QF850N	100-850		8500QF	10-85		8500QF-A	60-600		1400		8.5
QFR1050N	100-1050	20	10500QFR	10-105	2	10500QFR-A	100-750	20	845	25.4	8.5
QFR1400N	200-1400		14000QFR	20-140		14000QFR-A	100-1000		992		12.5
QFR2100N	300-2100		21000QFR	30-210		21000QFR-A	200-1500		1158		15.5
QFR2800N	300-2800	50	28000QFR	30-280	5	28000QFR-A	200-2000	50	1305		21
QFR4200N	400-4200		42000QFR	40-420		42000QFR-A	300-3000		1473	38.1	30
QFR6000N	600-6000	100	60000QFR	60-600	10	60000QFR-A	400-4300		1624		32

Note

1. QFR models are supplied upon request.
2. QFR models require winch or mechanical loading device.
3. For models having over 25.4mm square drive, use with a through-hole socket.

Interchangeable Socket

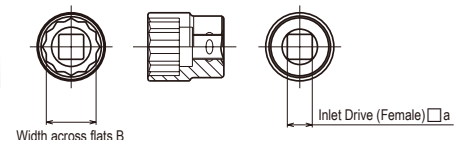
SOCKET FOR HAND TOOL

	Inlet Drive (Female)	From Torque Tool			
		6.35	9.5	12.7	19.0
From Bolt	Width Across Flats (B)	2H	3H	4H	6H
	8	201			
	10	202	210		
	12	203	211		
	13	204	212		
	14		213	220	
	16		216	227	
	17		214	221	
	18		217	228	
	19		215	222	
	21			229	237
	22			223	230
	24			224	231
	27			225	232
	30			226	233
	32				234
	34				236
	36				235
	41				
	46				
	50				
	55				



SOCKET

SOCKET FOR HAND TOOL



How to Order (Hand Tools)

SOCKET

Indicate model name and Part #

[Ex.] SOCKET **2H-10** **202**
 Socket Inlet sign Purpose sign Width across flats Part #

ADAPTER

Indicate model name and Part #

[Ex.] ADAPTER **2H-3** **270**
 Inlet Sign (Female) Purpose sign Inlet sign (Male) Part #

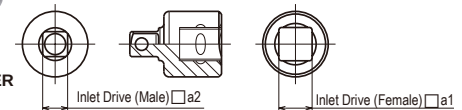
ADAPTER FOR HAND TOOL

	Inlet Drive (Female)	From Torque Tool			
		6.35	9.5	12.7	19.0
To Socket	Inlet Drive (Male)	2H	3H	4H	6H
	6.3 (2)		271		
	9.5 (3)	270		273	
	12.7 (4)	277	272		275
	19 (6)			274	
	25.4 (8)				276



ADAPTER

ADAPTER FOR HAND TOOL



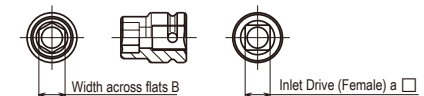
SOCKET FOR PNEUMATIC TOOL

	Inlet Drive (Female)	From Torque Tool		
		9.5	12.7	25.4
From Bolt	Width Across Flats (B)	3P	4P	8P
	10	250		
	12	251		
	13	252		
	14	253	260	
	16	255	264	
	17	254	261	
	18		265	
	19		262	
	21		266	
	22		263	
	32			303
	34			304
	36			305
	41			306
	46			307
	50			308
	55			309



SOCKET

SOCKET FOR PNEUMATIC TOOL



How to Order (Air Tools)

SOCKET

Indicate model name and Part #

[Ex.] SOCKET **3P-10** **250**
 Socket Inlet sign Purpose sign Width across flats Part #

ADAPTER

Indicate model name and Part #

[Ex.] ADAPTER **3P-4** **290**
 Inlet Sign (Female) Purpose sign Inlet sign (Male) Part #

Note O-ring and pin are included.

ADAPTER FOR PNEUMATIC TOOL

	Inlet Drive (Female)	From Torque Tool			
		9.5	12.7	19.0	25.4
To Socket	Inlet Drive (Male)	3P	4P	6P	8P
	9.5 (3)		291		
	12.7 (4)	290		293	
	19 (6)		292		295
	25.4 (8)			294	

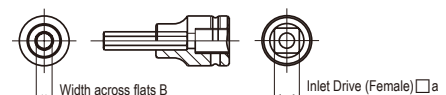
ADAPTER FOR PNEUMATIC TOOL



SOCKET FOR POWER AND HAND TOOL

	Inlet Drive (Female)	From Torque Tool			
		6.35	9.5	12.7	19.0
From Bolt	Width Across Flats (B)	2C	3C	4C	6C
	2.5	430			
	3	431	440		
	4	432	441		
	5		442		
	6		443	450	
	8			451	
	10			452	
	12			453	
	14			454	460
	17				461
	19				462

SOCKET FOR HEX HEAD CAP SCREWS



Note

- O-ring and pin are included in the inlet drive 9.5 to 19.0 socket.
- 430, 431, 432 are not through hole type.

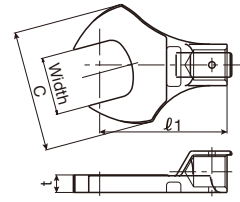
Interchangeable Head

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.



SH15D×19

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	
	SH8D×12				5.5
	SH8D×13			29	
	SH8D×14				
	SH8D×16	15	150	31	
10D	SH8D×17			32	
	SH8D×19			35	6.5
	SH8D×21			36	
	SH8D×22			37	
	SH8D×24			38	
	SH10D×7				
	SH10D×8				
	SH10D×10	20	200	28	
	SH10D×11				
	SH10D×12				
12D	SH10D×13			32	
	SH10D×14				6.5
	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			31	
	SH12D×13	29.5	295	32	6.5
	SH12D×14			38	8
	SH12D×16	59	590		
	SH12D×17			40	10
	SH12D×18				
	SH12D×19			41	11
	SH12D×21	70	700		
22D	SH12D×22			43	
	SH12D×24			48	13
	SH12D×27			52	
	SH15D×12				
	SH15D×13	59	590	38	8
	SH15D×14				
	SH15D×16				
	SH15D×17				
	SH15D×18				
	SH15D×19	140	1400	51	13
27D	SH15D×21				
	SH15D×22				
	SH22D×19				
	SH22D×22				
	SH22D×24				
	SH22D×27				
	SH22D×30				
	SH22D×32				
	SH22D×34				
	SH22D×36				
32D	SH22D×41				
	SH22D×46				
	SH22D×50				
	SH22D×55				
	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	21
32D	SH27D×36			94	21
	SH27D×41			98	22
	SH27D×46	750	7500	100	24
	SH27D×50			103	26
	SH32D×27				
	SH32D×30				
	SH32D×32	850	8500	105	18
	SH32D×34				
	SH32D×36				
	SH32D×41			110	24
32D	SH32D×46				
	SH32D×50	1200	12000		
	SH32D×55			120	29
	SH32D×60				

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	
	SH19D×17				
	SH19D×18	200	2000		
	SH19D×19			54	13
	SH19D×21	180	1800		
19D	SH19D×22				
	SH19D×24	200	2000	60	15
	SH19D×27				
	SH19D×30	180	1800		
	SH19D×32				
	SH19D×34	200	2000	76	11
	SH19D×36				
	SH19D×41	180	1800		
	SH22D×19	280	2800	63	
	SH22D×22				
22D	SH22D×24	500	5000		
	SH22D×27				
	SH22D×30	420	4200	78	
	SH22D×32				
	SH22D×34	500	5000		15
	SH22D×36	420	4200		
	SH22D×41			85	
	SH22D×46	280	2800		
	SH22D×50			103	
	SH22D×55	500	5000	108	
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	21
	SH27D×36			94	21
	SH27D×41			98	22
	SH27D×46	750	7500	100	24
	SH27D×50			103	26
32D	SH32D×27				
	SH32D×30				
	SH32D×32	850	8500	105	18
	SH32D×34				
	SH32D×36				
	SH32D×41			110	24
	SH32D×46				
	SH32D×50	1200	12000		
	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	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]		
	SH8D×7/16	11.11		27 [1.06]	5.5 [0.22]	
	SH8D×1/2	12.7	15 [132]	29 [1.14]		
	SH8D×9/16	14.29			6.5 [0.26]	
	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]		
10D	SH10D×1/2	12.7	25 [221]			
	SH10D×9/16	14.29		39 [1.54]		
	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]	
	SH15D×1/2	12.7		38 [1.50]	8 [0.31]	
	SH15D×9/16	14.29	59 [522]			
15D	SH15D×5/8	15.88				
	SH15D×11/16	17.46				
	SH15D×3/4	19.05		51 [2.01]	13 [0.51]	
	SH15D×13/16	20.64	140 [1239]			
	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				

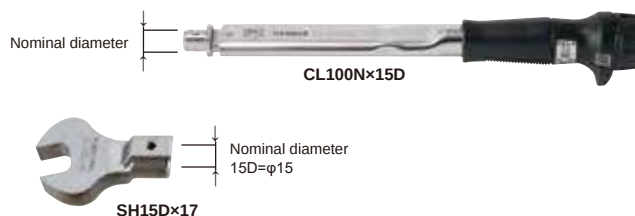
Tohnichi Head Size	Model (Body Size × Inner Width [in])	Inner Width [mm]	Allowable Torque		Outside Width C [mm]	Thickness t [mm]
			N·m [lbf·in]	mm [in]		
15D	SH15D×1-1/8	28.58				
	SH15D×1-3/16	30.16			60 [2.36]	
	SH15D×1-1/4	31.75				
	SH15D×1-5/16	33.34	140 [1239]		66 [2.59]	12 [0.47]
	SH15D×1-3/8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

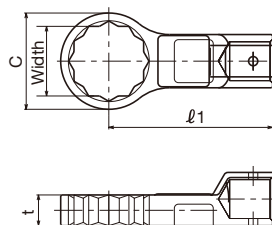


RH Ring Head

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 single 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	6
	RH8D×8	7.2	72	13.5	
	RH8D×10	12.2	122	15.5	
	RH8D×11			17	7
10D	RH10D×12	15	140	18	
	RH10D×13			19	
	RH10D×8	7.2	72	12.5	6
	RH10D×10	12.2	122	15.5	7
	RH10D×11	20	200	17	
	RH10D×12			18	
12D	RH12D×13			19	
	RH12D×14			20	
	RH12D×16			22	
	RH12D×17	25	250	24	8
	RH12D×18			25	
	RH12D×19			26	
15D	RH15D×21			28	
	RH15D×22			29	
	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
22D	RH22D×13			21	
	RH22D×14			20	
	RH22D×16	59	590	24	10
	RH22D×17			25	
	RH22D×18			26	12
	RH22D×19	70	700	29	
32D	RH32D×21			30	13
	RH32D×22				
	RH15D×12	29.5	295	19	7
	RH15D×13			22	
	RH15D×14	59	590	25	8
	RH15D×16			26	10
32D	RH15D×17	100	1000	28	
	RH15D×18			31	
	RH15D×19			34	13
	RH15D×20	140	1400	37	
	RH15D×21			41	
	RH15D×22				

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			35	
22D	RH22D×24			39	
	RH22D×27			41	
	RH22D×30	200	2000	44	15
	RH22D×32			47	
	RH22D×34			49	
	RH22D×36			55	
27D	RH27D×19	166	1660	30	14
	RH27D×22	255	2550	34	
	RH27D×24	490	4900	37	15
	RH27D×27			41	
	RH27D×30			44	
	RH27D×32			45	
32D	RH32D×34	500	5000	49	17
	RH32D×36			51	
	RH32D×41			57	
	RH32D×46			62	
	RH27D×22	255	2550	38	14
	RH27D×24	350	3500	42	15
32D	RH32D×27	490	4900	46	19
	RH32D×30	670	6700	48	20
	RH32D×32			51	
	RH32D×34			52	21
	RH32D×36			58	22
	RH32D×41	750	7500	64	24
32D	RH32D×46			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	
32D	RH32D×41			59	24
	RH32D×46			65	
	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		Outside Width C [mm]	Thickness t [mm]
			N·m [lbf·in]	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		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]		
12D	RH12D×1/2	12.7	25 [221]	19 [0.75]	8 [0.31]	
	RH12D×9/16	14.29		20 [0.79]		
	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]	
15D	RH15D×1/2	12.7	29.5 [261]	21 [0.83]	6.5 [0.26]	
	RH15D×9/16	14.29		20 [0.79]		
15D	RH15D×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		Outside Width C [mm]	Thickness t [mm]
			N·m [lbf·in]	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]	
15D	RH15D×3/4	19.05	140 [1239]	28 [1.10]	13 [0.51]	

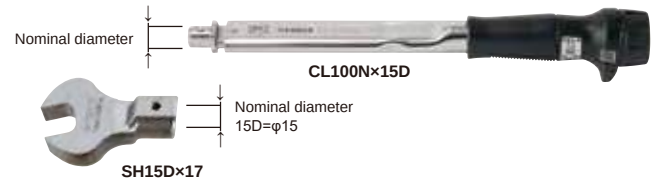


The Relationship between Interchangeable Heads and Torque Wrenches

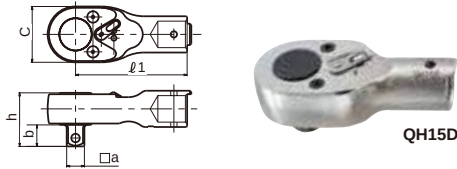
Tohnichi's interchangeable head wrenches have specific diameter round ends that fit into corresponding head base openings. Head and wrench model names include the diameter sizes so heads can be matched to wrenches that will accept those heads.

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



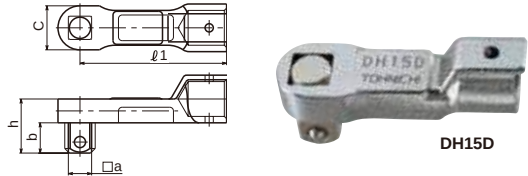
As the QH type ratchet heads need only small swing for tightening, they suit for operations in narrow spaces.

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	
	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 49.

DH Square Drive Head RoHS



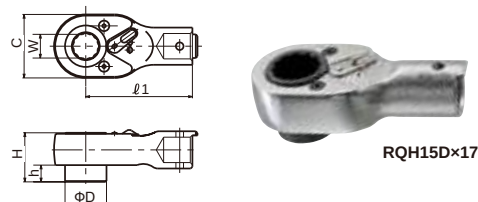
The DH square drive heads are the standard interchangeable head. They are useful when tightening a large number of matching screws with a common torque wrench. It is recommended to keep one set. They are used with sockets.

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		22	29.5	
19D	DH19D	12.7	24	34.3	16.5
22D	DH22D		34	44.5	
27D	DH27D	19.05	42	58.5	30.25
32D	DH32D		50		

Note

DH32D is a through hole type.

RQH Female Ratchet Head RoHS



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	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				

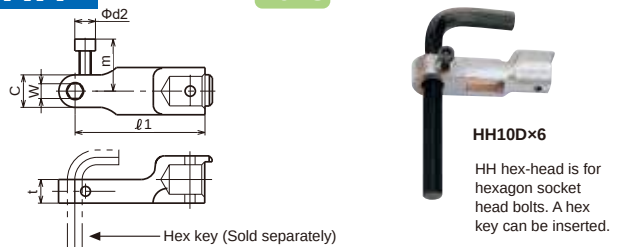
Ratchet Protective Cover for QH/RQH

Fit on your Tohnichi Ratchet Head to protect your work



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

HH Hex Head RoHS



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	8	19	7
10D	HH10D×6	12			
	HH10D×8	15			
	HH12D×5	11	10	21	8.5
12D	HH12D×6	14			
	HH12D×8	15			
	HH12D×10	17	13	23	10
	HH15D×8	14			
15D	HH15D×10	17			
	HH15D×12	20	17	26	10
	HH15D×14	21.5			
	HH19D×10	17			
	HH19D×12	21.5	26	26	10
19D	HH19D×14	23			
	HH19D×17	27			
	HH19D×19	29	30	32	10
	HH22D×12	19.5			
	HH22D×14	27			
22D	HH22D×17	30	35	35	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.
- Insertion of HH10D×5 and HH10D×6 are hexagon. Others are double hexagon.

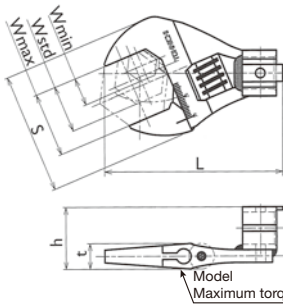


Bits are sold separately.
Refer to page 10.

AH/AH2

Adjustable Open End Head

RoHS



AH15D2x30

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		Inner Width Min.-Standard- Max.[mm]	Dimensions			
		[N·m]	[kgf·cm]		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
	AH12D×13	30	300	3-8-13	36	66	9	23
12D	AH12D×26			7-17-26	49	71	11	26
	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.

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

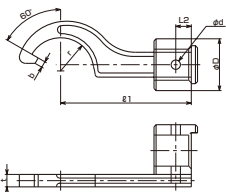
Note

1. PH can be used with CSP model (P.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

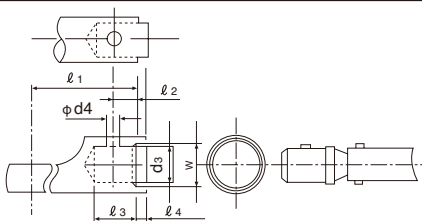
RoHS



FH

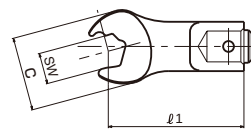
The FH hook heads are ideal for use with bearing locknut applications.

Head Size	Model (Body Size × Width)	Applicable Size of Nut Outside Diameter [mm]	Nominal Size of Screw	Dimensions							
				r [mm]	Ø [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					25	7.5	4.5
	FH15D×52	52-58	M35	27	60	3.5	7	30.5			
	FH15D×58	58-65	M40	31		4.5		31			
19D	FH19D×65	65-75	M45, M50	35.5			8	35.5	29	9.5	
	FH22D×75	75-85	M60, M65	39				38.5			
22D	FH22D×85	85-98	M70, M75	45.5	45	5	10	40	32	11	5.5

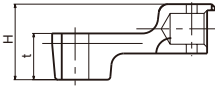
**SH-N**

Open End Head with Notch

RoHS

SH-N models
(except for SH10D-5×10N)

SH10D-1×10N



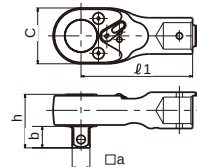
SH10D-5×10N

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

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
	SH10D×12N	25	250	32	16	6.5	3.25
	SH12D×11N			30	19	7.5	-
	SH12D-1×12N				21	12	6
	SH12D-3×12N	30	300	32	22.5	15	7.5
12D	SH12D-5×12N				26		-
	SH12D-4×12N				20	10	5
	SH12D-1×14N				21	12	6
	SH12D-3×14N				22.5		7.5
	SH12D-5×14N	40	400	35	26	15	-
	SH12D-4×14N				20	10	5
	SH12D-1×17N				21	12	6
	SH12D-3×17N	50	500	38	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]	Outside Width c [mm]	h [mm]	b [mm]
10D	CPQH10D		26	22	
12D	CPQH12D	9.53	32	25.6	11
15D	CPQH15D		37.5	33.5	14
19D	CPQH19D	12.7	40	38.4	15.4

Common Dimensions for Interchangeable Head

Model	Dimensions [mm]						
	Ø1	Ø2	Ø3	Ø4	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 "Ø1" dimension to keep torque accuracy. Any deviation from the "Ø1" dimension affects torque accuracy.



Auxiliary Equipment

To facilitate effective and convenient use of Tohnichi products, a number of auxiliary parts and special tools are available (Some torque tools are provided with the necessary auxiliary parts). We are ready to manufacture custom-made parts and tools to meet your requirements.

For Torque Wrench

QH/QL/PQL/QSP PROTECTIVE HEAD COVER

Fit on your Tohnichi Ratchet Head to protect your work



Part #	Applicable Interchangeable Head & Model	
870	QH8D	QL-PQL2N-15N/-MH, QSP1.5N4-12N4
871	QH10D	QL-PQL-QSP25N/-MH
872	QH12D/RQH12D	QL-PQL-QSP50N/-MH
873	-	QL-PQL-QSP100N4/-MH
874	QH15D/RQH15D	QL-PQL-QSP140N/-MH
875	QH19D	QL-PQL-QSP200N4/-MH
876	RQH19D	-
877	-	QL-PQL-QSP280N4/-MH
878	QH22D/RQH22D	QL-PQL-QSP420N

TiQLE ADJUSTING TOOL FOR TiQLE

For previous large QLE and current TiQLE models



Part #	Applicable Model
301	TiQLE750N-TiQLE1400N

SP THRUSTING TOOL FOR SP

This tool is used to set the torque of preset types SP, RSP, QSP and CSP torque wrenches.



Part #	Tool #	Applicable Model
310	A-1	QSP/CSP1.5N-6N
311	A-2	SP2N-SP19N, QSP/CSP12N, QSP/CSP25N
312	A-3	SP38N, SP67N, QSP/CSP50N-140N
313	A-4	SP120N-SP310N, QSP200N-QSP280N
314	A-5	QSP/CSP420N, BQSP/BCSP400N
315	A-6	SP420N, SP560N

QSP3 ADJUSTING TOOLS FOR QSP3



Part #	Dimensions [mm]	Applicable Model
931	2.5 × 1.5 × 6	QSP/CSP25N3, QSP1.5N4-12N4 SP2N2-19N2, SP19N2-N BQSP/BCSP10N-20N CSP1.5N4-CSP12N4 QSPCA6N, 12N
930	4 × 2.5 × 8	QSP/CSP50N3-QSP/CSP280N3 SP38N2-N, SP/RSP38N2-310N2 BQSP/BCSP40N-300N MQSP50N-200N, MCSP50N-140N QSPCA30N-70N

DB TOOL SET FOR DB

This set of pliers is used to adjust the torque for dial type torque wrenches and torque checkers.



Part #	Applicable Model
316	DB, DBE, CDB-S, T-S, DOT

CARRYING CASE



842



846

Part #	Dimensions [mm]	Weight [kg]
842	QL50N/-MH, MTQL40N/70N, QL100N4/-MH, CL50N×12D/-MH, CL50N×15D/-MH, CL100N×15D/-MH H60 × W400 × D70	0.25
843	QL140N/-MH, MTQL140N, QL200N4/-MH, CL140N×15D/-MH, CL200N×19D/-MH H60 × W520 × D80	0.36
846	QL140N/-MH and below, MTQL and below, CL200N×19D/-MH and below H170 × W500 × D100	1.0
847	QL280N/-MH and below, CL280N×22D/-MH and below H170 × W740 × D100	1.6

For Torque Screwdriver

LTD, RTD ADJUSTING TOOL FOR LTD/RTD

This tool is used to adjust the torque of LTD and RTD torque screwdrivers.



Part #	Applicable Model
51	LTD/RTD15CN, LTD/RTD30CN
46	LTD/RTD60CN
47	LTD/RTD260CN
48	LTD/RTD500CN
49	LTD/RTD1000CN
1046	LTD/RTD120CN
1050	LTD2000CN2

LTD TIGHTENING TOOL FOR LTD

This tool makes tightening with large LTD much easier.



Part #	Applicable Model
31	LTD/RTD/NTD/RNTD500CN FTD400CN
32	LTD/NTD1000CN FTD8N, FTD16N
40	LTD2000CN, LTD2000CN2

LTD/RTD/MNTD HOOK SPANNER

This tool makes it easier to set the torque for mid. to large capacity torque screwdrivers.



Part #	Applicable Model
52	LTD/RTD260CN, MNTD120CN
53	LTD/RTD500CN, MNTD260CN
54	LTD1000CN, MNTD500CN
55	LTD2000CN, LTD2000CN2

NTD/RNTD ADJUSTING BAR FOR NTD/RNTD

This tool is used to set the torque of preset types NTD and RNTD screwdrivers.



Part #	Applicable Model
42	NTD/RNTD15CN-120CN
43	NTD/RNTD260CN, RNTD260CN
44	NTD/RNTD500CN-1000CN, RNTD2500CN

TORQUE SCREWDRIVER ADAPTER

This accessory is used with TME2 and TM torque meters to check UNITORK and torque screwdrivers.



Part #	Applicable Model
30	LTD/RTD/NTD/RNTD FTD50CN-FTD400CN

Lubricant for repairing torque products EVERTORQUE

Model	Part #
EVERTORQUE	830



RoHS

Applicable Models and Parts

	Applicable Model	Applicable Part
Click Type Torque Wrench	QL, QLE2, CL, CLE2, PQL, PCL, YCL etc.	Thrusting; Steel Ball Scale Piece, Adjusting Screw; Thread
	WQL	Thrusting; Steel Ball Scale Piece, Adjusting Screw; Thread Screw Knob, Protector; Joint
	MPQL	Thrusting; Steel Ball Scale Piece, Adjusting Screw; Thread Ratchet, Marker Pipe; Joint
Click Type Torque Screwdriver	RTD, RNTD	Main Shaft, Toggle Sheet; Serration
	RTD, LTD, BMLD	Case, Adjusting Piece; Thread

Connecting Cable

* The cable length is 2m.

■ EPP16M3 Printer Connecting Cable

Part #	Applicable Model	Figure		Plug
383	DOT4-G (P.55), TDT3-G (P.57), LC3-G (P.58), TME2 (P.61), CD5 (P.69)			D-SUB 9 Pin Female
575	CTA2-G (P.23), CEM3-G/CEM3-P (P.35), CTB2-G (P.36), R-DT999 (P.69),			D-SUB 9 Pin Female

■ PC Connecting Cable

Part #	Applicable Model	Figure		Plug
575	CTA2-G (P.23), CEM3-G/CEM3-P (P.39), CTB2-G (P.40), R-DT999 (P.69),			D-SUB 9 Pin Female
584	CTA2-G (P.23), CEM3-G/CEM3-P (P.39), CTB2-G (P.40), R-DT999 (P.69),			USB A type
585	CPT-G (P.22)			D-SUB 9 Pin Female
383	DOT4-G (P.55), TDT3-G (P.57), LC3-G (P.58), TME2 (P.61), CD5 (P.69)			D-SUB 9 Pin Female
384	STC2-G (P.9), ST3-G (P.58), ATGE-G (P.59), BTGE-G (P.60)			USB A type
385	DOT4-G (P.55), TDT3-G (P.57), LC3-G (P.58)			USB A type
387	R-CM(P29), SB-FH2(P.29)			RS232C Straight Female-Female

Quick Charger, Battery Pack, AC Adapter

■ Quick Charger

Model	Applicable Model	Figure
RoHS BC-3-G	CEM3-G/CEM3-P (P.39), CTA2-G (P.23) CTB2-G (P.40) (100-240V)	
RoHS BC-4-2	ST3-G (P.58)	

■ Battery Pack

Model	Applicable Model	Figure
RoHS BP-5	CTA2-G (P.23), CEM3-G/CEM3-P (P.39), CTB2-G (P.40)	
RoHS BP-7	STC2-G (P.9)	

■ AC Adapter

Model	Applicable Model	Figure
RoHS BA-6	DOT4-G (P.55), TDT3-G (P.57), LC3-G (P.58), CD5 (P.67)	
RoHS BA-7	STC2-G (P.9), ATGE-G (P.59), BTGE-G (P.60)	
RoHS BA-8W	TPC/TPC2 (P.68)	

Model	Applicable Model	Figure
RoHS BA-4	TME2 (P.61)	
RoHS BA-8R	R-CM (P.29), R-FMA (P.32.), R-BT (P.52)	

