

CEM3-G

DATA TORK/
Digital Torque
Wrench

- Inspection
- Digital
- Interchangeable
- Direct Reading
- Re-Chargeable
- RoHS

Direction



CEM100N3x15D-G



CEM20N3x10D-G



CEM850N3x32D-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

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			
CEM10N3x8D-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
CEM20N3x10D-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
CEM50N3x12D-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
CEM100N3x15D-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	0.83
CEM200N3x19D-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
CEM360N3x22D-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
CEM500N3x22D-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
CEM850N3x32D-G	170-850	1	-	-	17.0-85.0	0.1	-	-	124-620	1	608	1387	5.14

- Note
- Overall length does not include interchangeable head.
 - For interchangeable head, refer to page 41-44.
 - For infrared data transfer, use with R-DT999. Refer to page 64.
 - PH Pipe wrench head type interchangeable head is not available for this model.
 - CEM500N3x22D-G and CEM850N3x32D-G have knurled handles.
 - For USB data transfer, use optional connecting cable, No.584. Refer to page 46.

- Standard Accessories
- Battery pack/BP-5
 - QH interchangeable head. Refer to page 43.
 - 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

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.



Battery Pack (P.46)

Model
BP-5

Quick Battery Charger (P.46)

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

Printer (P.64)

Model
EPP16M3

Connecting Cable (P.46)

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

Data Filing System (P.63)

Model	Media
DFS	CD-ROM

CTB2-G Digital Retightening Torque Wrench

Inspection

Digital

Interchangeable

Signal

Re-Chargeable

RoHS

Direction



CTB100N2×15D-G

CTB850N2×32D-G

- 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			
CTB100N2×8D-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	82.2	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	0.83
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 41-44.
 3. For infrared data transfer, use with R-DT999. Refer to page 64.
 4. PH type interchangeable head is not available for this model.

- Standard Accessories**
1. Battery pack/BP-5
 2. QH interchangeable head (P.43).
 3. Quick battery charger/BC-3-G, 100-240V

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-hydride battery
Continuous Use	20 hours (8 hours by 1 hour charging)
Battery Charge	3.5 hours
Operating Temperature	0-40 °C

Battery Pack (P.46)

Model
BP-5

Printer (P.64)

Model
EPP16M3

Quick Battery Charger (P.46)

Model	Description
BC-3-G	100-240V

Connecting Cable (P.46)

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

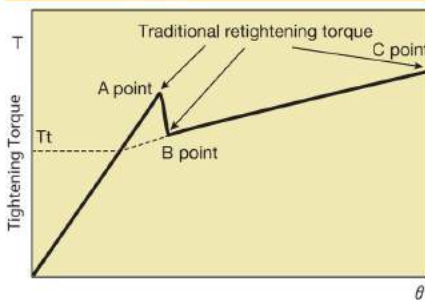
Data Filing System (P.63)

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

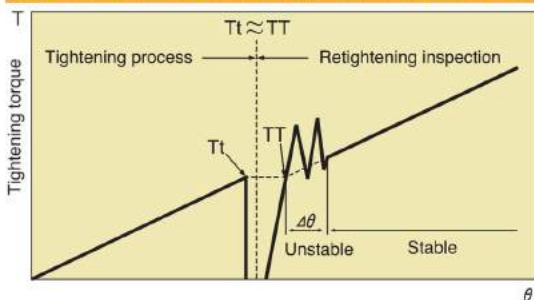
Retightening torque method aims to measure the torque at which a tightened bolt start to rotate again as further torque is applied. The retightening measured values are classified as one of these three kinds:

- 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)

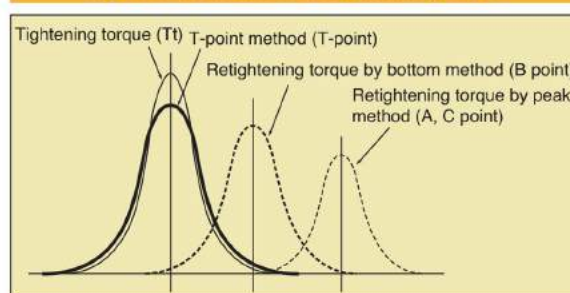
Retightening torque first starts with the rotation of the head only, then the screw starts to rotate. Shifting from static friction to dynamic friction, the friction whip settles and the torque starts to increase at the steady pace again. T-point method figures TT as retightening torque value.

Figure-2 New retightening torque method by CTB2-G



Refer to Tohnichi Torque Handbook Vol. 8 on page 42 to 43 for the details.

Figure-3 Distribution of retightening torque



DB/DBE/DBR

Direction Dial Indicating Torque Wrench



DB12N4



DB100N



DBE700N



Memory Pointer, Red color point

DB Optional Accessories



846

Carrying Case (P.45)

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

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

Accuracy ±3%

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	6.35	0.4
DB6N4-S	0.6-6	0.1	60DB4-S	6-60	1	DB40I-2AS	0-40	1			
DB12N4-S	1-12	0.2	120DB4-S	10-120	2	DB75I-2AS	0-75	1			
DB25N-1/4-S			230DB3-1/4-S			DB150I-2AS					
	3-25			30-250			0-150	2	245		
DB25N-S		0.5	230DB3-S		5	DB150I-3AS					0.6
						DB300I-3AS	0-300	5			
DB50N-S	5-50		450DB3-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			900DB3-3/8-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			900DB3-S				lbf·ft	lbf·ft			
						DB50F-4AS	0-50	0.5			
DB200N-S	20-200	2	1800DB3-S	200-2000	20	DB100F-4AS	0-100	1	500	12.7	
				kgf·m	kgf·m						1.0
						DB175F-4AS	0-175	2	580		
DB280N-1/2-S			2800DB3-1/2-S								
	30-280			3-28					690		1.65
DB280N-S		5	2800DB3-S		0.5	DB250F-6AS	0-250	5			
DB420N-S	40-420		4200DB2-S	4-42		DB350F-6AS	0-350		890		2.5
DBE560N-S	50-560		5600DBE2-S	5-56					1100	19.0	4.0
DBE700N-S	70-700		7000DBE2-S	7-70		DB500F-6AS	0-500	10	1260		5.5
DBE850N-S	100-850	10	8500DBE2-S	10-85	1				1360		6.1
DBE1000N-S	100-1000		10000DBE2-S	10-100		DB800F-8AS	0-800		1490		6.4
								10		25.4	
DBE1400N-S	200-1400		14000DBE2-S	20-140		DB1000F-8AS	0-1000		1740		8.6
		20			2	DB1500F-8AS	0-1500		2140		12.8
DBE2100N-S	200-2100		21000DBE2-S	20-210				20			
DBE2800N-S	300-2800	50	28000DBE2-S	30-280		DB2000F-12AS	0-2000		2380		16.8
											38.1
DBR4500N-S	0.5-4.5	0.05	45000DBR-S	50-450	5	DB3000F-12AS	0-3000	50	1285		26.5
DBR5000N-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.

CDB-S Interchangeable Head Type Dial Indicating Torque Wrench

Direction



CDB14N4x8D-S



CDB100Nx15D-S

 Inspection **Dial Indicating** **Interchangeable** **Direct Reading** **Memory Pointer** **RoHS**

- 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	70CDB4-S	7-70	1	70CDB4-A-S	6-60	1	215	0.45
	CDB14N4x8D-S	2-14	0.2	140CDB4-S	20-140	2	140CDB4-A-S	20-120	2		
10D	CDB25Nx10D-S	3-25	0.5	250CDB-S	30-250	5	250CDB-A-S	30-220	5	255	0.48
12D	CDB50Nx12D-S	5-50		500CDB-S	50-500		500CDB-A-S	40-430			
15D	CDB100Nx15D-S	10-100	1	1000CDB-S	100-1000	10	1000CDB-A-S	7-70	1	415	0.76
19D	CDB200Nx19D-S	20-200	2	2000CDB-S	200-2000	20	2000CDB-A-S	14-140	2	525	1.0
22D	CDB300Nx22D-S	30-300	5	3000CDB-S	3-30	0.5	3000CDB-A-S	20-220	5	720	1.65
	CDB420Nx22D-S	40-420		4200CDB-S	4-42		4200CDB-A-S	30-300		920	

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.

SCDB-S European Style Interchangeable Head Type Dial Indicating Torque Wrench

Direction



SCDB50N-9x12-S

 Inspection **Dial Indicating** **Interchangeable** **Direct Reading** **Memory Pointer** **RoHS**

- 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.			
SCDB25N-9x12-S	3-25	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** **RoHS**

- 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.				
T23N-S	3-23	0.5	230T-S	30-230	5	T200I-3AS	20-200	2	205	71	9.5	0.41
T45N-S	5-45		450T-S	50-450		T400I-3AS	50-400	5	261	82		0.53
T90N-S	10-90	1	900T-S	100-900	10	T65F-4AS	10-65	1	376	102.5	12.7	0.8
T180N-S	20-180	2	1800T-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	20	2960		38.1	15.5
T4200N-S	400-4200		42000T-S	40-420		42000T-A-S	400-3000	3860		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.



SF/F/FR

Beam Type Torque Wrench

Direction



Inspection **Beam** Direct Reading

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

RoHS

Accuracy ±3%

S.I. Model	Torque Range [cN·m/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	0.5	120SF	20-120	5	120SF-A	0-100	5	235	9.5	0.25
F23N	3-23		230F	30-230		230F-A	0-200		295		0.4
F46N	5-46	1	460F	50-460	10	460F-A	0-400	10	355		0.6
F92N	10-92	2	920F	100-920	20	920F-A	10-66	2	400	12.7	0.95
F130N	20-130		1300F	200-1300		1300F-A	10-95		445		1.2
F190N	30-190	5	1900F	300-1900	50	1900F-A	25-135	5	490	19.0	1.5
F280N	50-280		2800F	5-28		2800F-A	30-200		565		2.2
F420N	70-420		4200F	7-42		4200F-A	30-300		825		3.5
F600N	100-600		6000F	10-56		6000F-A	50-400		945		4.0
F700N	100-700	10	7000F	10-70	10	7000F-A	50-500	10	1175	25.4	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	38.1	8.8
FR1050N	100-1050		10500FR	10-105		10500FR-A	100-750		835		8
FR1400N	200-1400	50	14000FR	20-140	5	14000FR-A	100-1000	50	981	19.0	11.5
FR2100N	300-2100		21000FR	30-210		21000FR-A	200-1500		1148		14.5
FR2800N	300-2800	100	28000FR	30-280	10	28000FR-A	200-2000	100	1292	38.1	20
FR4200N	400-4200		42000FR	40-420		42000FR-A	300-3000		1460		26
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/CF

Interchangeable Head Type Beam Torque Wrench

Direction



Inspection **Beam** Interchangeable Direct Reading

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

RoHS

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	N·m	N·m	70CSF	kgf·cm	kgf·m	70CSF-A	lbf·in	lbf·ft	220	0.2										
	CSF14N×8D	1-7	0.2	140CSF	10-70	2	140CSF-A	10-60	2												
	CF25N×10D	2-14	0.5	250CF	20-140	5	250CF-A	20-120	5												
10D	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	360	0.6										
15D	CF100N×15D	10-100	2	1000CF	100-1000	20	1000CF-A	lbf·in	lbf·ft	435	1.0										
												1500CF	200-1500	50	1500CF-A	15-110	480	1.3			
19D	CF150N×19D	20-150																			
22D	CF230N×22D	30-230	5	2300CF	3-23	0.5	2300CF-A	lbf·in	lbf·ft	530	1.6										
												CF420N×22D	70-420	10	4200CF	7-42	1	4200CF-A	30-300	725	3.1
												CF850N×32D	100-850	20	8500CF	42-85	2	8500CF-A	60-600	20	1260

- 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/QFR

Ratchet Head Beam Type Torque Wrench

Direction



Inspection **Beam** Ratchet Head Direct Reading

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

RoHS

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	kgf·cm	kgf·m	600QF-A	lbf·in	lbf·ft	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
QF320N	40-320	10	3200QF	6-32	1	3200QF-A	40-230	5	655	19.0	2.6
QF420N	70-420		4200QF	7-42		4200QF-A	30-300		825		3.4
QF560N	100-560		5600QF	10-56		5600QF-A	50-400		950		4.3
QF700N	100-700	20	7000QF	10-70	2	7000QF-A	50-500	20	1170	25.4	6.5
QF850N	100-850		8500QF	10-85		8500QF-A	60-600		1400		8.5
QFR1050N	100-1050	50	10500QFR	10-105	5	10500QFR-A	100-750	50	845	38.1	8.5
QFR1400N	200-1400		14000QFR	20-140		14000QFR-A	100-1000		992		12.5
QFR2100N	300-2100	100	21000QFR	30-210	10	21000QFR-A	200-1500	100	1158	38.1	15.5
QFR2800N	300-2800		28000QFR	30-280		28000QFR-A	200-2000		1305		21
QFR4200N	400-4200	100	42000QFR	40-420	10	42000QFR-A	300-3000	100	1473	38.1	30
QFR6000N	600-6000		60000QFR	60-600		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.

Torque Wrench for Quality Inspection

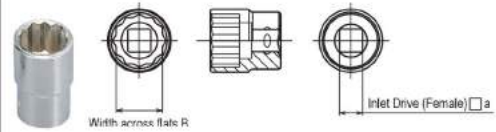
Interchangeable Socket

SOCKET FOR HAND TOOL

	Inlet Drive (Female)	From Torque Tool			
		6.35	9.5	12.7	19.0
	Width Across Flats (B)	2H	3H	4H	6H
From Bolt	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 FOR HAND TOOL



SOCKET

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 #

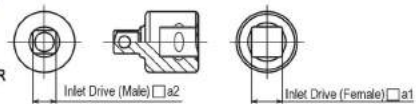
[Ex.] ADAPTER **2H-3** **270**
 Inlet Sign (Female) Purpose sign Inlet sign (Male) Part #

ADAPTER FOR HAND TOOL

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



ADAPTER FOR HAND TOOL



ADAPTER

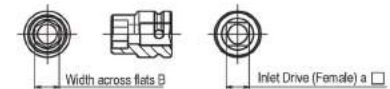
SOCKET FOR PNEUMATIC TOOL

	Inlet Drive (Female)	From Torque Tool		
		9.5	12.7	25.4
	Width Across Flats (B)	3P	4P	8P
From Bolt	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 #

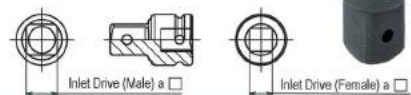
[Ex.] ADAPTER **3P-4** **290**
 Inlet Sign (Female) Purpose sign Inlet sign (Male) Part #

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

ADAPTER FOR PNEUMATIC TOOL

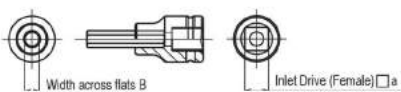


ADAPTER

SOCKET FOR POWER AND HAND TOOL

	Inlet Drive (Female)	From Torque Tool			
		6.35	9.5	12.7	19.0
	Width Across Flats (B)	2C	3C	4C	6C
From Bolt	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 1. O-ring and pin are included in the inlet drive 9.5 to 19.0 socket.
 2. 430, 431, 432 are not through hole type.

