

Fuji

FLT *3 Series Shut-off Pulse Tools



- 3 Times Longer Service Life
- High Torque Accuracy
- Low Noise/Vibration
- High Productivity
- Ergonomic Design

FLT *3 series pulse tools provide longer service life with advanced pulse unit design. It brings you reduction of maintenance cost and improvement of productivity. FLT *3 series are ideal for the various applications requesting torque control in bolt/nut assembly.



FLT *3 Series Shut-off Pulse Tools

FEATURES & BENEFITS



Advanced Pulse Unit Design

Improve durability 3 times longer

Shut-off Valve

Stabilize shut-off and ensure torque repeatability

Accumulator Mechanism

Minimize torque scatter

Ergonomic Friendly Design

Easily operate with perfect balance

Plunger Mechanism

Improve torque accuracy

● SHUT-OFF VALVE

The Fuji shut-off valve and piston design provide the benefit of stable shut-off and torque levels. The design ensures smooth movement of the piston which means oil pressure is transmitted precisely to the shut-off valve. In effect – both accuracy and consistency of the tightening torque is improved greatly. For low air pressure operations at 0.4-0.5 MPa (4-5 bars), low pressure models (-L) are provided with special design optimizing oil flow from the relief valve. Thanks to this design even low oil pressure can be transmitted exactly to the shut-off valve.

● PLUNGER MECHANISM

Plunger mechanism provides the benefit of improved torque accuracy. For control of low torque the oil pressure applied to the piston is maintained at a low level and it improves torque control. To ensure tight accuracy control of low torque, the plunger mechanism is utilized to deliver torque accurately. Oil leakage is prevented within the mechanism via a passage in the plunger which is designed to accommodate changes in oil pressure when the pulse is generated. Consequently, torque and tightening accuracy stability are maintained.

● ACCUMULATOR MECHANISM

The accumulator functions to compensate against the sudden rise of oil pressure when tightening a hard joint. Torque scatter and error are minimized. As the oil temperature increases during consecutive tightening, the accumulator takes in the expanded volume of oil to maintain a consistent oil volume in the pulse unit. This ensures high tightening torque accuracy.

● ADVANCED PULSE UNIT DESIGN

Advanced pulse unit design provides generation of high hydraulic pressure and reduction of oil deterioration speed during consecutive tightening. Oil deterioration and leakage from metal constructed pulse unit with high sealing technology become minimized level to ensure long service life.

● ERGONOMIC DESIGN

Compared with conventional tools, weight is kept to a minimum. The grip handle size is optimized to provide enhanced level of operator comfort. This special grip also absorbs vibration more effectively. Furthermore, reduced noise and vibration levels are standard with FLT *3 series due to the optimized dimension.

FLT *3 Series Shut-off Pulse Tools

STANDARD MODELS



FLT-4~13-3
Square drive



FLT-4D~6D-3, -30
Bit shank



CD Reporting Type



FLT-4S~6S-3
Square drive



FLT-4SD~6SD-3, -30
Bit shank

GLOBAL SPECIFICATIONS

Pistol Type – Square Drive

Model	Capacity (Bolt Size)	Recommended Torque Range		Free Speed min-1	Square Drive Size		Overall Length (without socket)		Weight (without socket)		Air Consumption (At Load)		Air Inlet Thread	Air Hose Size	
	mm	N.m	ft.lb		mm	in	mm	in	kg	lb	m ³ /min	cfm	in	mm	in
FLT-4-3	M5-M6	5~12	3.7~8.8	6200	9.5	3/8	181.0	7.13	0.97	2.14	0.40	14.1	1/4" Rc	6.3	1/4
FLT-5-3	M6-M8	11~24	8.1~17.7	6500	9.5	3/8	181.0	7.13	0.97	2.14	0.45	15.9	1/4" Rc	6.3	1/4
FLT-6-3	M8-M10	22~35	16.2~25.8	6300	9.5	3/8	193.0	7.60	1.00	2.20	0.55	19.4	1/4" Rc	9.5	3/8
FLT-7-3	M8-M10	30~50	22.1~36.9	6100	9.5	3/8	189.5	7.46	1.10	2.43	0.60	21.2	1/4" Rc	9.5	3/8
FLT-9-3	M10	45~85	33.2~62.7	4800	12.7	1/2	209.0	8.23	1.60	3.53	0.68	24.0	1/4" Rc	9.5	3/8
FLT-11-3	M10-M12	70~120	51.6~88.4	4500	12.7	1/2	217.5	8.56	1.85	4.08	0.80	28.3	1/4" Rc	9.5	3/8
FLT-13-3	M12-M14	110~150	81.1~110.6	3400	12.7	1/2	227.5	8.96	2.10	4.63	0.85	30.0	1/4" Rc	9.5	3/8

Pistol Type – Bit Shank

Model	Capacity (Bolt Size)	Recommended Torque Range		Free Speed min-1	Bit Shank Size		Overall Length (without socket)		Weight (without socket)		Air Consumption (At Load)		Air Inlet Thread	Air Hose Size	
	mm	N.m	ft.lb		mm	in	mm	in	kg	lb	m ³ /min	cfm	in	mm	in
FLT-4D-3	M5-M6	5~12	3.7~8.8	6200	6.35	1/4	181	7.13	0.97	2.14	0.40	14.1	1/4" Rc	6.3	1/4
FLT-4D-30	M5-M6	5~12	3.7~8.8	6200	6.35	1/4	181	7.13	0.97	2.14	0.40	14.1	1/4" Rc	6.3	1/4
FLT-5D-3	M6-M8	11~22	8.1~16.2	6500	6.35	1/4	181	7.13	0.97	2.14	0.45	15.9	1/4" Rc	6.3	1/4
FLT-5D-30	M6-M8	11~22	8.1~16.2	6500	6.35	1/4	181	7.13	0.97	2.14	0.45	15.9	1/4" Rc	6.3	1/4
FLT-6D-3	M8-M10	19~28	14.0~20.6	6300	6.35	1/4	193	7.60	1.00	2.20	0.55	19.4	1/4" Rc	9.5	3/8
FLT-6D-30	M8-M10	19~28	14.0~20.6	6300	6.35	1/4	193	7.60	1.00	2.20	0.55	19.4	1/4" Rc	9.5	3/8

Straight Type – Square Drive

Model	Capacity (Bolt Size)	Recommended Torque Range		Free Speed min-1	Square Drive Size		Overall Length (without socket)		Weight (without socket)		Air Consumption (At Load)		Air Inlet Thread	Air Hose Size	
	mm	N.m	ft.lb		mm	in	mm	in	kg	lb	m ³ /min	cfm	in	mm	in
FLT-4S-3	M5-M6	5.5~11	4.1~8.1	4300	9.5	3/8	222	8.74	0.88	1.94	0.33	11.7	1/4" Rc	6.3	1/4
FLT-5S-3	M6-M8	11~20	8.1~14.7	6600	9.5	3/8	222	8.74	0.88	1.94	0.36	12.7	1/4" Rc	6.3	1/4
FLT-6S-3	M8	21~30	15.5~22.1	5600	9.5	3/8	234	9.21	0.95	2.09	0.42	14.8	1/4" Rc	9.5	3/8

Straight Type – Bit Shank

Model	Capacity (Bolt Size)	Recommended Torque Range		Free Speed min-1	Bit Shank Size		Overall Length (without socket)		Weight (without socket)		Air Consumption (At Load)		Air Inlet Thread	Air Hose Size	
	mm	N.m	ft.lb		mm	in	mm	in	kg	lb	m ³ /min	cfm	in	mm	in
FLT-4SD-3	M5-M6	5.5~11	4.1~8.1	4300	6.35	1/4	222	8.74	0.88	1.94	0.33	11.7	1/4" Rc	6.3	1/4
FLT-4SD-30	M5-M6	5.5~11	4.1~8.1	4300	6.35	1/4	222	8.74	0.88	1.94	0.33	11.7	1/4" Rc	6.3	1/4
FLT-5SD-3	M6-M8	11~20	8.1~14.7	6600	6.35	1/4	222	8.74	0.88	1.94	0.36	12.7	1/4" Rc	6.3	1/4
FLT-5SD-30	M6-M8	11~20	8.1~14.7	6600	6.35	1/4	222	8.74	0.88	1.94	0.36	12.7	1/4" Rc	6.3	1/4
FLT-6SD-3	M8	21~30	15.5~22.1	5600	6.35	1/4	234	9.21	0.95	2.09	0.42	14.8	1/4" Rc	9.5	3/8
FLT-6SD-30	M8	21~30	15.5~22.1	5600	6.35	1/4	234	9.21	0.95	2.09	0.42	14.8	1/4" Rc	9.5	3/8

FLT *3 Series Shut-off Pulse Tools

LOW PRESSURE MODELS



FLT-4~13-3L
Square drive



FLT-4D~6D-3L, -30L
Bit shank



CD Reporting Type



FLT-5S, 6S-3L
Square drive



FLT-5SD, 6SD-3L, -30L
Bit shank

GLOBAL SPECIFICATIONS

Pistol Type – Square Drive

Model	Capacity (Bolt Size)	Recommended Torque Range		Free Speed	Square Drive Size		Overall Length (without socket)		Weight (without socket)		Air Consumption (At Load)		Air Inlet Thread	Air Hose Size	
		mm	N.m		ft.lb	min-1	mm	in	mm	in	kg	lb		m ³ /min	cfm
FLT-4-3L	M5~M6	4.5 ~ 8	3.3 ~ 5.9	5300	9.5	3/8	181.0	7.13	0.97	2.14	0.30	10.6	1/4" Rc	6.3	1/4
FLT-5-3L	M6~M8	10 ~ 18	7.4 ~ 13.3	5600	9.5	3/8	181.0	7.13	0.97	2.14	0.35	12.4	1/4" Rc	6.3	1/4
FLT-6-3L	M6~M8	12 ~ 26	8.8 ~ 19.2	5400	9.5	3/8	193.0	7.60	1.00	2.20	0.40	14.1	1/4" Rc	9.5	3/8
FLT-7-3L	M8~M10	24 ~ 45	17.7 ~ 33.2	5300	9.5	3/8	189.5	7.46	1.10	2.43	0.50	17.7	1/4" Rc	9.5	3/8
FLT-9-3L	M10	40 ~ 70	29.5 ~ 51.6	4100	12.7	1/2	209.0	8.23	1.60	3.53	0.58	20.5	1/4" Rc	9.5	3/8
FLT-11-3L	M10~M12	65 ~ 110	47.9 ~ 81.1	3900	12.7	1/2	217.5	8.56	1.85	4.08	0.65	23.0	1/4" Rc	9.5	3/8
FLT-13-3L	M12~M14	80 ~ 125	59.0 ~ 92.1	2900	12.7	1/2	227.5	8.96	2.10	4.63	0.70	24.7	1/4" Rc	9.5	3/8

Pistol Type – Bit Shank

Model	Capacity (Bolt Size)	Recommended Torque Range		Free Speed	Bit Shank Size		Overall Length (without socket)		Weight (without socket)		Air Consumption (At Load)		Air Inlet Thread	Air Hose Size	
		mm	N.m		ft.lb	min-1	mm	in	mm	in	kg	lb		m ³ /min	cfm
FLT-4D-3L	M5~M6	4.5 ~ 8	3.3 ~ 5.9	5300	6.35	1/4	181	7.13	0.97	2.14	0.30	10.6	1/4" Rc	6.3	1/4
FLT-4D-30L	M5~M6	4.5 ~ 8	3.3 ~ 5.9	5300	6.35	1/4	181	7.13	0.97	2.14	0.30	10.6	1/4" Rc	6.3	1/4
FLT-5D-3L	M6~M8	8 ~ 16	5.9 ~ 11.8	5600	6.35	1/4	181	7.13	0.97	2.14	0.35	12.4	1/4" Rc	6.3	1/4
FLT-5D-30L	M6~M8	8 ~ 16	5.9 ~ 11.8	5600	6.35	1/4	181	7.13	0.97	2.14	0.35	12.4	1/4" Rc	6.3	1/4
FLT-6D-3L	M6~M8	14 ~ 22	10.3 ~ 16.2	5400	6.35	1/4	193	7.60	1.00	2.20	0.40	14.1	1/4" Rc	9.5	3/8
FLT-6D-30L	M6~M8	14 ~ 22	10.3 ~ 16.2	5400	6.35	1/4	193	7.60	1.00	2.20	0.40	14.1	1/4" Rc	9.5	3/8

Straight Type – Square Drive

Model	Capacity (Bolt Size)	Recommended Torque Range		Free Speed	Square Drive Size		Overall Length (without socket)		Weight (without socket)		Air Consumption (At Load)		Air Inlet Thread	Air Hose Size	
		mm	N.m		ft.lb	min-1	mm	in	mm	in	kg	lb		m ³ /min	cfm
FLT-5S-3L	M6~M8	10 ~ 18	7.4 ~ 13.3	5700	9.5	3/8	222	8.74	0.88	1.94	0.22	7.8	1/4" Rc	6.3	1/4
FLT-6S-3L	M6~M8	19 ~ 27	14.0 ~ 19.9	4800	9.5	3/8	234	9.21	0.95	2.09	0.28	9.9	1/4" Rc	9.5	3/8

Straight Type – Bit Shank

Model	Capacity (Bolt Size)	Recommended Torque Range		Free Speed	Bit Shank Size		Overall Length (without socket)		Weight (without socket)		Air Consumption (At Load)		Air Inlet Thread	Air Hose Size	
		mm	N.m		ft.lb	min-1	mm	in	mm	in	kg	lb		m ³ /min	cfm
FLT-5SD-3L	M6~M8	10 ~ 18	7.4 ~ 13.3	5700	6.35	1/4	222	8.74	0.88	1.94	0.22	7.8	1/4" Rc	6.3	1/4
FLT-5SD-30L	M6~M8	10 ~ 18	7.4 ~ 13.3	5700	6.35	1/4	222	8.74	0.88	1.94	0.22	7.8	1/4" Rc	6.3	1/4
FLT-6SD-3L	M6~M8	19 ~ 27	14.0 ~ 19.9	4800	6.35	1/4	234	9.21	0.95	2.09	0.28	9.9	1/4" Rc	9.5	3/8
FLT-6SD-30L	M6~M8	19 ~ 27	14.0 ~ 19.9	4800	6.35	1/4	234	9.21	0.95	2.09	0.28	9.9	1/4" Rc	9.5	3/8

FLT *3 Series Shut-off Pulse Tools

TOOL SELECTION GUIDE

Standard models

Pistol Type – Square Drive

Model No.	Part No.	P type anvil	BF type anvil	CE certified	CD reporting
FLT-4-3 P	5412105398	x			
FLT-4-3 P CD	5412105529	x			x
FLT-4-3 BF	5412105757		x		
FLT-4-3 BF EC	5412105758		x	x	
FLT-4-3 BF CD	5412105762		x		x
FLT-5-3 P	5412105401	x			
FLT-5-3 P CD	5412105537	x			x
FLT-5-3 BF	5412105763		x		
FLT-5-3 BF EC	5412105764		x	x	
FLT-5-3 BF CD	5412105767		x		x
FLT-6-3 P	5412105404	x			
FLT-6-3 P CD	5412105543	x			x
FLT-6-3 BF	5412105769		x		
FLT-6-3 BF EC	5412105770		x	x	
FLT-6-3 BF CD	5412105774		x		x
FLT-7-3 P	5412105407	x			
FLT-7-3 P CD	5412105551	x			x
FLT-7-3 BF	5412105703		x		
FLT-7-3 BF EC	5412105704		x	x	
FLT-7-3 BF CD	5412105708		x		x
FLT-9-3 P	5412105637	x			
FLT-9-3 P CD	5412105733	x			x
FLT-9-3 BF	5412105638		x		
FLT-9-3 BF EC	5412105639		x	x	
FLT-9-3 BF CD	5412105734		x		x
FLT-11-3 P	5412105663	x			
FLT-11-3 P CD	5412105741	x			x
FLT-11-3 BF	5412105664		x		
FLT-11-3 BF EC	5412105665		x	x	
FLT-11-3 BF CD	5412105742		x		x
FLT-13-3 P	5412105674	x			
FLT-13-3 P CD	5412105749	x			x
FLT-13-3 BF	5412105675		x		
FLT-13-3 BF EC	5412105676		x	x	
FLT-13-3 BF CD	5412105750		x		x

Pistol Type – Bit Shank

Model No.	Part No.	Short type	Long type	CE certified	CD reporting
FLT-4D-3	5412105399	x			
FLT-4D-3 CD	5412105530	x			x
FLT-4D-3 EC	5412105759	x		x	
FLT-4D-30	5412105400		x		
FLT-4D-30 CD	5412105531		x		x
FLT-5D-3	5412105402	x			
FLT-5D-3 CD	5412105538	x			x
FLT-5D-3 EC	5412105765	x		x	
FLT-5D-30	5412105403		x		
FLT-5D-30 CD	5412105539		x		x
FLT-6D-3	5412105405	x			
FLT-6D-3 CD	5412105544	x			x
FLT-6D-3 EC	5412105771	x		x	
FLT-6D-30	5412105406		x		
FLT-6D-30 CD	5412105545		x		x

Straight Type – Square Drive

Model No.	Part No.	P type anvil	BF type anvil	CE certified	CD reporting
FLT-4S-3 P	5412105450	x			
FLT-4S-3 P CD	5412105846	x			x
FLT-4S-3 BF CD	5412105847		x		x
FLT-4S-3 BF EC	5412105776		x	x	
FLT-5S-3 P	5412105453	x			
FLT-5S-3 P CD	5412105652	x			x
FLT-5S-3 BF CD	5412105653		x		x
FLT-5S-3 BF EC	5412105778		x	x	
FLT-6S-3 P	5412105456	x			
FLT-6S-3 P CD	5412105658	x			x
FLT-6S-3 BF CD	5412105659		x		x
FLT-6S-3 BF EC	5412105780		x	x	

Straight Type – Bit Shank

Model No.	Part No.	Short type	Long type	CE certified	CD reporting
FLT-4SD-3	5412105451	x			
FLT-4SD-3 EC	5412105777	x		x	
FLT-4SD-3 CD	5412105782	x			x
FLT-4SD-30	5412105452		x		
FLT-5SD-3	5412105454	x			
FLT-5SD-3 EC	5412105779	x		x	
FLT-5SD-3 CD	5412105654	x			x
FLT-5SD-30	5412105455		x		
FLT-6SD-3	5412105457	x			
FLT-6SD-3 EC	5412105781	x		x	
FLT-6SD-3 CD	5412105848	x			x
FLT-6SD-30	5412105458		x		

Low Pressure models

Pistol Type – Square Drive

Model No.	Part No.	P type anvil	BF type anvil	CD reporting
FLT-4-3L P	5412105486	x		
FLT-4-3L P CD	5412105578	x		x
FLT-4-3L BF	5412105761		x	
FLT-4-3L BF CD	5412105579		x	x
FLT-5-3L P	5412105489	x		
FLT-5-3L P CD	5412105583	x		x
FLT-5-3L BF	5412105766		x	
FLT-5-3L BF CD	5412105584		x	x
FLT-6-3L P	5412105492	x		
FLT-6-3L P CD	5412105589	x		x
FLT-6-3L BF	5412105773		x	
FLT-6-3L BF CD	5412105590		x	x
FLT-7-3L P	5412105504	x		
FLT-7-3L P CD	5412105597	x		x
FLT-7-3L BF	5412105706		x	
FLT-7-3L BF CD	5412105598		x	x
FLT-9-3L P	5412105684	x		
FLT-9-3L P CD	5412105737	x		x
FLT-9-3L BF	5412105685		x	
FLT-9-3L BF CD	5412105738		x	x
FLT-11-3L P	5412105690	x		
FLT-11-3L P CD	5412105743	x		x
FLT-11-3L BF	5412105691		x	
FLT-11-3L BF CD	5412105744		x	x
FLT-13-3L P	5412105697	x		
FLT-13-3L P CD	5412105751	x		x
FLT-13-3L BF	5412105698		x	
FLT-13-3L BF CD	5412105752		x	x

Pistol Type – Bit Shank

Model No.	Part No.	Short type	Long type	CD reporting
FLT-4D-3L	5412105487	x		
FLT-4D-3L CD	5412105580	x		x
FLT-4D-30L	5412105488		x	
FLT-5D-3L	5412105490	x		
FLT-5D-3L CD	5412105585	x		x
FLT-5D-30L	5412105491		x	
FLT-6D-3L	5412105493	x		
FLT-6D-3L CD	5412105591	x		x
FLT-6D-30L	5412105494		x	

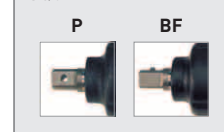
Straight Type – Square Drive

Model No.	Part No.	P type anvil	BF type anvil
FLT-5S-3L P	5412105520	x	
FLT-5S-3L BF	5412105575		x
FLT-6S-3L P	5412105523	x	
FLT-6S-3L BF	5412105582		x

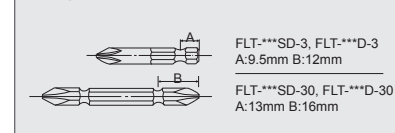
Straight Type – Bit Shank

Model No.	Part No.	Short type	Long type
FLT-5SD-3L	5412105521	x	
FLT-5SD-30L	5412105522		x
FLT-6SD-3L	5412105524	x	
FLT-6SD-30L	5412105525		x

SQUARE DRIVE ANVIL



BIT SIZE



HYDRAULIC TORQUE TESTERS (NOT AVAILABLE FOR CE)

The hydraulic torque testers are designed to satisfy the need for accurate torque checking and adjustment of shut-off type pulse wrenches and screwdrivers.



Features

- Bright LED digital display for easy reading in poor light conditions
- Easy operation and high precision
- Joint rate setting (soft joint to hard joint) is applicable

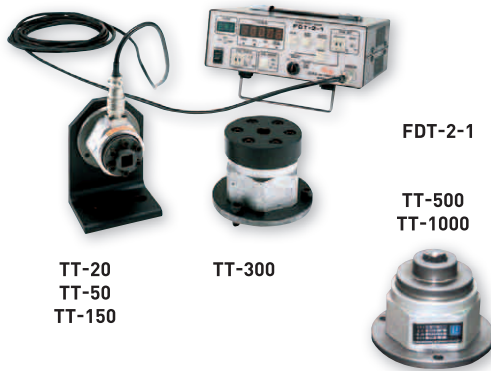
HYDRAULIC TORQUE TESTER

Model	Weight		Testing Bolt Size mm	Measuring Range	
	Kg	lb		N.m	kgf.m
FJT-5-1 4	10.0	22.0	M4	1.6 - 3.2	1.2 - 2.4
FJT-5-1 5			M5	3.2 - 5.4	2.4 - 4.0
FJT-5-1 K			M4,5	1.6 - 5.4	1.2 - 4.0
FJT-10-1 6	11.5	25.3	M6	5.4 - 14.7	4.0 - 10.9
FJT-10-1 8			M8	14.7 - 31.4	10.9 - 23.3
FJT-10-1 10			M10	31.4 - 54.0	23.3 - 40.0
FJT-10-1 K	21.7	47.7	M6,8,10	5.4 - 54.0	4.0 - 40.0
FJT-16-1 12			M12	54.0 - 88.2	40.0 - 65.3
FJT-16-1 14			M14	88.2 - 149	65.3 - 110
FJT-16-1 16			M16	149 - 190	110 - 141
FJT-16-1 K			M12,14,16	54 - 190	40 - 141

DIGITAL TORQUE TESTERS (NOT AVAILABLE FOR CE)

FDT-2-1 is the ideal Digital Torque Tester for initial setting, periodical torque checking and adjustment of pulse wrenches, nutrunners, and hand torque wrenches. Equipped with interfaces and terminals, the FDT-2-1 can communicate with personal computers, printers, data recorders and other peripheral instruments.

The Fuji FDT-2-1 is ideal technical assistant in your laboratory and tool-control facility.



Features

- High accuracy within more or less 0.5 per cent of full scale
- Wide measuring range up to 9 900 N.m, 1 000 kgf.m, 7 230 ft.lb
- Bright LED Display for quick and accurate reading
- Built-in Blow Counter for easy blow number adjustment
- 3 measuring units : N.m, kgf.m and ft.lb can be selected
- Easy calibration check for circuitry function check of the transducer
- RS232C port is available for communication with PC
- 2 types of printer port (Bit parallel and Centronics) are equipped
- 2 types of Auto Pulse Analysis are equipped
 - AVL Average torque
 - PEAK Peak torque

DIGITAL TORQUE TESTER

Model	Part Number	Dimensions						Weight		Power Sources	Power Consumption
		Width		Height		Depth		kg	lb	V	W
		mm	in	mm	in	mm	in				
FDT-2-1	541 205 2586	258	10.156	116	4.57	243	9.58	3.7	8.16	AC100 - 240	12

Fuji Authorized Distributor:

