



FL *3 Series Non Shut-off Pulse Tools



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

FL *3 series pulse tools provide longer service life with advanced pulse unit design. It brings you reduction of maintenance cost and improvement of productivity. FL *3 series are ideal fastening tools in various assembly applications.



FL *3 Series Non Shut-off Pulse Tools

FEATURES & BENEFITS

Advanced Pulse Unit Design
Improve durability 3 times longer

Accumulator Mechanism
Minimize torque scatter



Ergonomic Friendly Design
Easily operate with perfect balance

● 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 becomes 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 levels of operator comfort. This special grip also absorbs vibration more effectively. Furthermore, reduced noise and vibration levels are standard with FL *3 series due to the optimized dimension.

STANDARD MODELS



FL-4SC, 5SC, 6SC

GLOBAL SPECIFICATIONS

Angle Head 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	in	mm	in
FL-4SC-3	M5~M6	5 ~ 13	3.7 ~ 9.6	5000	9.5	3/8	238	9.37	1.20	2.65	0.32	11.3	1/4" Rc	6.3	1/4
FL-5SC-3	M6~M8	10 ~ 22	7.4 ~ 16.2	6600	9.5	3/8	238	9.37	1.20	2.65	0.33	11.7	1/4" Rc	6.3	1/4
FL-6SC-3	M8	19 ~ 29	14.0 ~ 21.4	5900	9.5	3/8	252	9.92	1.30	2.89	0.34	12.0	1/4" Rc	9.5	3/8

FL *3 Series Non Shut-off Pulse Tools

STANDARD MODELS



FL-4, 5, 6
Square drive



FL-7, 9, 11, 13
Square drive



FL-4D, 5D, 6D
Bit shank



FL-4S, 5S, 6S
Square drive



FL-4SD, 5SD, 6SD
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	m³/min	cfm	in	mm	in
FL-4-3	M6	16 ~ 24	11.8 ~ 17.7	6700	9.5	3/8	140	5.51	0.79	1.74	0.36	12.7	1/4" Rc	6.3	1/4
FL-5-3	M6~M8	20 ~ 40	14.7 ~ 29.5	6300	9.5	3/8	140	5.51	0.79	1.74	0.40	14.1	1/4" Rc	6.3	1/4
FL-6-3	M8	28 ~ 56	20.6 ~ 41.3	6700	9.5	3/8	152	5.98	0.83	1.83	0.42	14.8	1/4" Rc	9.5	3/8
FL-7-3	M8~M10	34 ~ 60	25.1 ~ 44.2	6100	9.5	3/8	155	6.10	1.02	2.25	0.60	21.2	1/4" Rc	9.5	3/8
FL-9-3	M10	52 ~ 96	38.3 ~ 70.8	4600	12.7	1/2	173	6.81	1.45	3.20	0.65	23.0	1/4" Rc	9.5	3/8
FL-11-3	M10~M12	80 ~ 136	59.0 ~ 100.2	5000	12.7	1/2	184	7.24	1.80	3.97	0.80	28.3	1/4" Rc	9.5	3/8
FL-13-3	M12~M14	120 ~ 172	88.4 ~ 126.8	3800	12.7	1/2	192	7.56	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	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	m³/min	cfm	in	mm	in
FL-4D-3	M6	14 ~ 20	10.3 ~ 14.7	6700	6.35	1/4	140	5.51	0.79	1.74	0.36	12.7	1/4" Rc	6.3	1/4
FL-4D-30	M6	14 ~ 20	10.3 ~ 14.7	6700	6.35	1/4	140	5.51	0.79	1.74	0.36	12.7	1/4" Rc	6.3	1/4
FL-5D-3	M6~M8	18 ~ 32	13.3 ~ 23.6	6300	6.35	1/4	140	5.51	0.79	1.74	0.40	14.1	1/4" Rc	6.3	1/4
FL-5D-30	M6~M8	18 ~ 32	13.3 ~ 23.6	6300	6.35	1/4	140	5.51	0.79	1.74	0.40	14.1	1/4" Rc	6.3	1/4
FL-6D-3	M8	25 ~ 42	18.4 ~ 31.0	6700	6.35	1/4	152	5.98	0.83	1.83	0.42	14.8	1/4" Rc	9.5	3/8
FL-6D-30	M8	25 ~ 42	18.4 ~ 31.0	6700	6.35	1/4	152	5.98	0.83	1.83	0.42	14.8	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	m³/min	cfm	in	mm	in
FL-4S-3	M6	6 ~ 14	4.4 ~ 10.3	6000	9.5	3/8	210	8.27	0.85	1.87	0.36	12.7	1/4" Rc	6.3	1/4
FL-5S-3	M6~M8	11 ~ 24	8.1 ~ 17.7	7000	9.5	3/8	210	8.27	0.85	1.87	0.40	14.1	1/4" Rc	6.3	1/4
FL-6S-3	M8	21 ~ 32	15.5 ~ 23.6	6400	9.5	3/8	221	8.70	0.90	1.98	0.42	14.8	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	m³/min	cfm	in	mm	in
FL-4SD-3	M6	6 ~ 14	4.4 ~ 10.3	6000	6.35	1/4	210	8.27	0.85	1.87	0.36	12.7	1/4" Rc	6.3	1/4
FL-4SD-30	M6	6 ~ 14	4.4 ~ 10.3	6000	6.35	1/4	210	8.27	0.85	1.87	0.36	12.7	1/4" Rc	6.3	1/4
FL-5SD-3	M6~M8	11 ~ 24	8.1 ~ 17.7	7000	6.35	1/4	210	8.27	0.85	1.87	0.40	14.1	1/4" Rc	6.3	1/4
FL-5SD-30	M6~M8	11 ~ 24	8.1 ~ 17.7	7000	6.35	1/4	210	8.27	0.85	1.87	0.40	14.1	1/4" Rc	6.3	1/4
FL-6SD-3	M8	21 ~ 32	15.5 ~ 23.6	6400	6.35	1/4	221	8.70	0.90	1.98	0.42	14.8	1/4" Rc	9.5	3/8
FL-6SD-30	M8	21 ~ 32	15.5 ~ 23.6	6400	6.35	1/4	221	8.70	0.90	1.98	0.42	14.8	1/4" Rc	9.5	3/8



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



● 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	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	m³/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	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	m³/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	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	m³/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	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	m³/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		mm	in	mm	in	kg	lb	m ³ /min	cfm		mm	in
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		mm	in	mm	in	kg	lb	m ³ /min	cfm		mm	in
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		mm	in	mm	in	kg	lb	m ³ /min	cfm		mm	in
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		mm	in	mm	in	kg	lb	m ³ /min	cfm		mm	in
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