



The Appearance

M&L engaging the design and manufacture of air screwdriver. From the user's point of view to plan the product map. From the owner's point of view to calculate the efficiency of tool. Furthermore, base on accuracy, environment, technology and quality, M&L owns several patents and awards. An excellent air screwdriver tool can increase not only efficiency but the quality.

M&L air screwdriver has following 10 features

- Accuracy** : M&L provide patent clutch with 3% deviation of torque, assure the best quality.
- Economic** : Wide-ranging torque with many patent and longer life cycle of motor.
- Delicacy** : Combination of art, ergonomics and mechanical design.
- Technology** : Special mechanical structure and patent motor give you low noise, low vibration and high accuracy.
- Honorary** : Award "Excellent Tool" at Japan 2002 Osaka exhibition.



Color torque system

M&L color torque system gives you an easily visible torque marking system at a glance for all the R-series tools. Choose the color for each torque level used on your assembly line.

Easy Operation

Special design of level for easy operation.

Comfort

Unity sharpening soft resin ergonomic grip "Top Wave" ergonomic design, best balance and easy to grip. The grip made thermoplastic elastomer, the best material so far, with good touch and anti-glossy feature.

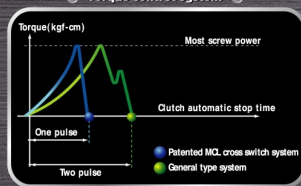
Torque fix system

To avoid the adjustment by operator and easy to mark the torque through the window. This up-to-the-date design let you either adjust the torque rapidly or without using the torque lock-out.

Speediness

Operator can change the bit rapidly by push the bit head.

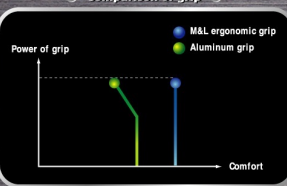
Torque control system



Patented MCL cross switch control system (Automatic start shut-off type)

The one pulse has low vibration (less than 2.5ms) and low torque deviation ($\pm 3\%$).
General type
2-3 times vibration (over 2.5ms) when pulse with higher torque deviation.

Comparison of grip



Patented M&L ergonomic grip
More comfortable for operator to raise the efficiency.

General type
To feel uncomfortable when grip for long time.



STRAIGHT HANDLE



STRAIGHT HANDLE

Push start-shut off

Model No.	Free speed	Wei	O.A.L.	Dai	Noise level	Air hose bore		Air consumption	Torque range	Vibration level	Standard deviation	Fastening Capacity	
						6 kg/cm ²	5 kg/cm ²					Machine Screw Dia	Tapping Screw Dia
R10PB	1000	480	180	31	70	5.0	6.35	0.2	0.5-2	<1.0	$\pm 3\%$	M1.0-M2.2	M1.1-M1.7
R20PB	1000	480	180	31	70	5.0	6.35	0.2	1-8	<1.0	$\pm 3\%$	M1.7-M3.3	M1.3-M2.7
R30PB	1800	480	180	31	74	5.0	6.35	0.28	3-17	<1.2	$\pm 3\%$	M2.2-M4.2	M1.7-M3.2
R40PB	1000	480	180	31	74	5.0	6.35	0.28	5-30	<1.2	$\pm 3\%$	M2.8-M5.0	M2.3-M4.0
R45PB	800	480	180	31	78	6.35	8.0	0.3	8-40	<1.2	$\pm 3\%$	M3.0-M5.7	M2.7-M4.4
R50PB	1400	790	215	39	78	8.0	9.5	0.55	7-50	<1.2	$\pm 3\%$	M2.9-M6.0	M2.6-M4.9
R55PB	1000	790	215	39	78	8.0	9.5	0.55	7-65	<1.2	$\pm 3\%$	M2.9-M6.4	M2.6-M5.4
R60PB	550	790	215	39	78	8.0	9.5	0.55	15-95	<1.2	$\pm 3\%$	M4.1-M7.0	M3.3-M6.0

* PB-for 1/4" bits. PA-for 5mm bits



STRAIGHT HANDLE

environment protect



STRAIGHT HANDLE

for environment protect Push start-shut off

Model No.	Free speed	Wei	O.A.L.	Dai	Noise level	Air hose bore		Air consumption	Torque range	Vibration level	Standard deviation	Fastening capacity	
						6 kg/cm ²	5 kg/cm ²					Machine Screw Dia	Tapping Screw Dia
R10PB/E	1000	520	198	31	67	5.0	6.35	0.2	0.5-2	<1.0	$\pm 3\%$	M1.0-M2.2	M1.1-M1.7
R20PB/E	1000	520	198	31	67	5.0	6.35	0.2	1-8	<1.0	$\pm 3\%$	M1.7-M3.3	M1.3-M2.7
R30PB/E	1800	520	198	31	67	5.0	6.35	0.28	3-17	<1.2	$\pm 3\%$	M2.2-M4.2	M1.7-M3.2
R40PB/E	1000	520	198	31	67	5.0	6.35	0.28	5-30	<1.2	$\pm 3\%$	M2.8-M5.0	M2.3-M4.0
R45PB/E	800	520	198	31	69	6.35	8.0	0.3	8-40	<1.2	$\pm 3\%$	M3.0-M5.7	M2.7-M4.4
R50PB/E	1400	820	237	39	69	8.0	9.5	0.55	7-50	<1.2	$\pm 3\%$	M2.9-M6.0	M2.6-M4.9
R55PB/E	1000	820	237	39	69	8.0	9.5	0.55	7-65	<1.2	$\pm 3\%$	M2.9-M6.4	M2.6-M5.4
R60PB/E	550	820	237	39	69	8.0	9.5	0.55	15-95	<1.2	$\pm 3\%$	M4.1-M7.0	M3.3-M6.0

* PB/O.E. for push start-shut off. LBO.E. for lever handle start-shut off



LEVER HANDLE



LEVER HANDLE

start-shut off

Model No.	Free speed	Wei	O.A.L.	Dai	Noise level	Air hose bore		Air consumption	Torque range	Vibration level	Standard deviation	Fastening capacity	
						6 kg/cm ²	5 kg/cm ²					Machine Screw Dia	Tapping Screw Dia
R10LB	1000	520	210	31	70	5.0	5.0	0.2	0.5-2	<1.0	$\pm 3\%$	M1.0-M2.2	M1.1-M1.7
R20LB	1000	520	210	31	70	5.0	5.0	0.2	1-8	<1.0	$\pm 3\%$	M1.7-M3.3	M1.3-M2.7
R30LB	1800	520	210	31	74	5.0	6.35	0.28	3-17	<1.2	$\pm 3\%$	M2.2-M4.2	M1.7-M3.2
R40LB	1000	520	210	31	74	5.0	6.35	0.28	5-30	<1.2	$\pm 3\%$	M2.8-M5.0	M2.3-M4.0
R45LB	800	520	210	31	78	6.35	8.0	0.3	8-40	<1.2	$\pm 3\%$	M3.0-M5.7	M2.7-M4.4
R50LB	1400	820	245	39	78	8.0	9.5	0.55	7-50	<1.2	$\pm 3\%$	M2.9-M6.0	M2.6-M4.9
R55LB	1000	820	245	39	78	8.0	9.5	0.55	7-65	<1.2	$\pm 3\%$	M2.9-M6.4	M2.6-M5.4
R60LB	550	820	245	39	78	8.0	9.5	0.55	15-95	<1.2	$\pm 3\%$	M4.1-M7.0	M3.3-M6.0

* LB-for 1/4" bits, LA-for 5mm bits, SB-for push and lever start-shut off. SBN-for push and lever start-shut off.



ANGLE TYPE



ANGLE HEAD ASSY

ANGLE TYPE LEVER

start-shut off

Model No.	Free speed	Wei	O.A.L.	Dai	Noise level	Air hose bore		Air consumption	Torque range	Vibration level	Standard deviation	Fastening capacity	
						6 kg/cm ²	5 kg/cm ²					Machine Screw Dia	Tapping Screw Dia
R10AB	1000	690	270	31	70	5.0	6.35	0.2	0.5-2	<1.0	$\pm 3\%$	M1.0-M2.2	M1.1-M1.7
R20AB	1000	690	270	31	70	5.0	6.35	0.2	1-8	<1.0	$\pm 3\%$	M1.7-M3.3	M1.3-M2.7
R30AB	1800	690	270	31	74	5.0	6.35	0.28	3-17	<1.2	$\pm 3\%$	M2.2-M4.2	M1.7-M3.2
R40AB	1000	690	270	31	74	5.0	6.35	0.28	5-30	<1.2	$\pm 3\%$	M2.8-M5.0	M2.3-M4.0
R45AB	800	690	270	31	78	6.35	8.0	0.3	8-40	<1.2	$\pm 3\%$	M3.0-M5.7	M2.7-M4.4
R50AB	1400	1300	335	39	78	8.0	9.5	0.55	7-50	<1.2	$\pm 3\%$	M2.9-M6.0	M2.6-M4.9
R55AB	1000	1300	335	39	78	8.0	9.5	0.55	7-65	<1.2	$\pm 3\%$	M2.9-M6.4	M2.6-M5.4
R60AB	550	1300	335	39	78	8.0	9.5	0.55	15-95	<1.2	$\pm 3\%$	M4.1-M7.0	M3.3-M6.0