

TLS

Preset Torque Limiting Screwdrivers (Internally Adjustable)

KEY FEATURES

Designed and manufactured to meet or exceed the accuracy and repeatability requirements of ISO 6789:2003 ($\pm 6\%$ of setting).

Various models that range from 0.7 ozf.in to 120 lbf.in.

Precision radial ball clutch "slips-free" when the preset torque is reached preventing overtorquing.

Thrust bearings insure that the torque setting is independent of any end load applied by the operator.

All models provide bi-directional operation and are calibrated in either the CW or CCW direction.

Four different colored lightweight aluminum handles allow color coding of specific torque values in production areas (TLS1360 - Black only).

FEATURES TLS-IFR

The design action of the standard TLS cammed screwdriver is such that when the tool reaches its preset torque value the mechanism disengages from the drive thus limiting the torque applied. Further rotation of the screwdriver handle resets the mechanism ready for the next torquing operation. The IFR models eliminates any small reaction during resetting.

All IFR models are "impact-free" when the cam resets.

Screwdriver is torque limiting in the CW direction only.

CCW operation available upon request.

FEATURES TLS-OWC

One-way clutch system is designed for the screwdriver to apply torque in one direction and lockup in the opposite direction for easy screw removal.

Ideal for maintenance and refurbishing applications.

Screwdriver is torque limiting in the CW direction only.

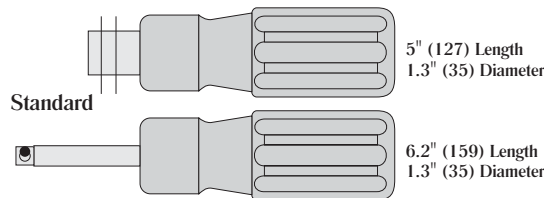
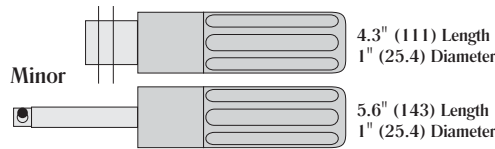
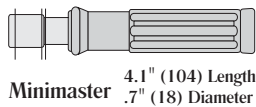
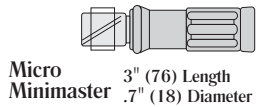
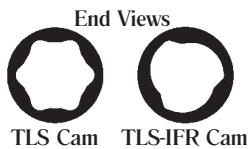
CCW operation available upon request.

1/4" male square drive models available upon request.



EASY TORQUE ADJUSTMENT

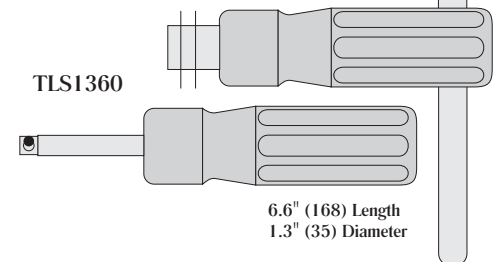
Tamper-proof internal adjustment.
No external adjustment scale - must be preset using a torque analyzer.



SMA Connector Bit

Detachable T-Bar
6.5" (165) Length
.4" (11) Diameter

5.3" (137) Length
1.3" (35) Diameter



Model	1/4" Male Square Drives		1/4" Female Hex Drives			Color	Torque Ranges			Weight			
	TLS Item #	TLS-IFR Item #	TLS Item #	TLS-IFR Item #	TLS-OWC Item #		American	S.I.	Metric	TLS & IFR		TLS OWC	
										oz.	gm.	oz.	gm.
Micro Minimaster (TLS0022M)	-	-	020083	-	-	Red	3 - 32 ozf.in	2 - 22 cN.m	0.2 - 2.2 kgf.cm	1.8	50	-	-
Minimaster (TLS0022)	-	-	020074	-	020289	Gold	0.7 - 32 ozf.in	0.5 - 22 cN.m	0.05 - 2.2 kgf.cm	2.5	72	3	86
Minor (TLS0135)	020062	020465	020066	020464	020298	Blue	3 ozf.in - 12 lbf.in	2 - 135 cN.m	0.2 - 13.7 kgf.cm	7.4	210	7.9	224
	020063	020467	020067	020466	020301	Gold							
	020064	020469	020068	020468	020299	Green							
	020065	020471	020069	020470	020300	Red							
Standard (TLS0406)	020075	020473	020079	020472	020302	Blue	8 ozf.in - 36 lbf.in	6 - 406 cN.m	0.6 - 41 kgf.cm	9.9	280	10.4	294
	020076	020475	020080	020476	020304	Gold							
	020077	020477	020081	020478	020293	Green							
	020078	020479	020082	020480	020303	Red							
TLS1360	020060	020481	020061	020482	020290	Black	10 - 120 lbf.in	1 - 13.6 N.m	10.5 - 138 kgf.cm	11.5	325	12	339