

T L S 1 P O S I T I O N I N G A R M



TLS1

TLS1 Positioning Arm

The TLS1 Arm is an "intelligent" system that error-proofs your assembly ensuring that every screw is in the correct location at the right torque. Assembly sequences and X-Y coordinates are easily programmed with user interface screens through the keypad from the intuitive menu. Torque programs are automatically selected and enabled from the screwdriver controller based on the TLS1 Arm locations and current sequence step. No PC is required. A fixture to hold your work in the same place every time is highly recommended. The TLS1 Arm consists of a torque reaction arm with an encoder mounted at the pivot point and with a linear metering resistor. The encoder records the angle and the linear resistor records the distance. The TLS1 Control Box converts the angle counts of the encoder and the distance detected by the resistor to the precise X-Y position of the screwdriver. X-Y accuracy can be set by the operator according to each application.

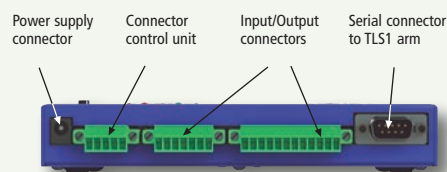
TLS1 arm includes cable for EDU1FR/SG (code 260003) or EDU2AE and EDU1BL/SG (code 260004) controllers.

Main features:

- 8 available programs.
- Up to 35 screws per program.
- Screw position (length/angle).
- Programmable tolerance.
- Statistics.
- Manual reset.
- Password protected.
- Units of measurement (mm, in).
- Language option.
- Accuracy: length ± 1 mm.
angle $\pm 1^\circ$.
- External keyboard and serial port for easy programming and reporting.



TLS1 BOX



Model	Code	Min Reach mm	Max Reach mm	Max Torque Nm
TLS1/CAR281	010663/TLS1	550	1000	25
TLS1/CAR282	010664/TLS1	800	1720	25
TLS1/CAR501	010665/TLS1	550	1000	50
TLS1/CAR502	010666/TLS1	800	1720	50

REACTION ARMS

Linear Arm

The Linear arm (code 010681) maneuvers smoothly as it absorbs the torque reactions from the screwdrivers providing ergonomic support for the operator. The fluid movement increases precision and production for a variety of torque applications. Prevents cross threading and side load. Keeps tool perpendicular. Reduces RMI (Repetitive Motion Injury) and CTS (Carpal Tunnel Syndrome) while boosting production. Extends in horizontal direction and arm length is adjustable.



Model	Code	Max Torque Nm	Max Reach mm	Min Reach mm
LINAR1	010681	25	665	184

TELESCOPIC TORQUE REACTION ARMS

Telescopic Arm Series

CAR series torque reaction arms are designed to eliminate the reaction that screwdrivers generate when they stop at the preset torque (up to 50 Nm). Their carbon structure makes them extremely lightweight and incredibly resistant at the same time. For such reasons they resist degradation in high fatigue applications much better than conventional materials.



Model	Code	Min reach mm	Max Reach mm	Weight Kg	Max Torque Nm
CAR101	010661	549	906	0,25	10
CAR281	010663	490	950	0,60	25
CAR282	010664	730	1650	0,75	25
CAR501	010665	490	950	0,65	50
CAR502	010666	730	1650	0,80	50



Suspended Torque Arm Series

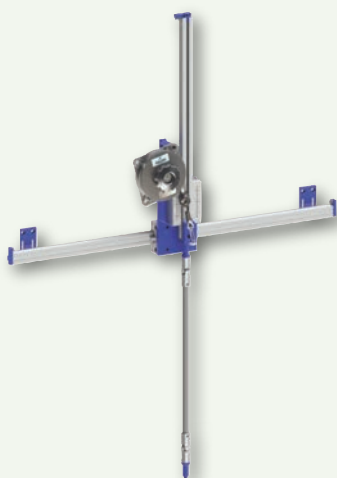
The new Suspended Torque Arms are the ideal solution to increase productivity. They can be easily installed on most workplaces to help the operator handle the screwdriver in total safety and stability:

- With minimized reaction force you will also improve finished product quality because there is no movement of the tool and all torque is absorbed in the joint.
- Improve the comfort of the operator and the productivity clearing the work area.

Three models available, depending on the motion of the axes:

- SAR15 Z -> Z Axis
- SAR15 XZ 85 -> XZ Axes
- SAR15 XYZ 855 -> XYZ Axes

The new arms are supplied without tool holder - to be purchased depending on the screwdriver:



TOOL HOLDER FOR PLUTO
INLINE



TOOL HOLDER FOR PLUTO
WITH ANGLE HEAD



UNIVERSAL TOOL HOLDER
FOR ANY SCREWDRIVER



Model	Code	Vertical Stroke "Z" mm	Horizontal Stroke "X" mm	Lateral Stroke "Y" mm	Max Torque Nm
SAR15 Z	010690/Z/5	364	/	/	15
SAR15 XZ 85	010690/XZ/85	364	692	/	15
SAR15 XYZ 855	010690/XYZ/855	885	692	376	15
Tool holder for PLUTO inline	010695	For any PLUTO..D, PLUTO..FR, PLUTO..D/TA e RAF.NS/FR			
Tool holder for PLUTO w/angle head	010695/P	For any PLUTO..ANG			
Universal Tool Holder	010695/UNI	For any screwdriver (max diameter 47mm)			