



Folding and Linear Torque Reaction Arm Series

Linear arms manoeuvre smoothly as they absorb 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. Linear arms keep the tool perpendicular and prevent cross threading and side load. They reduce RMI (Repetitive Motion Injury) and CTS (Carpal Tunnel Syndrome) while boosting production. Each model extends in horizontal direction and arm length is adjustable.

A diameter reduction adapter (code 234545) is available for our PLUTO35 and PLUTO50 screwdriver (Ø 2.24 in).

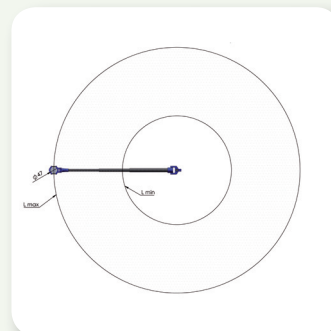
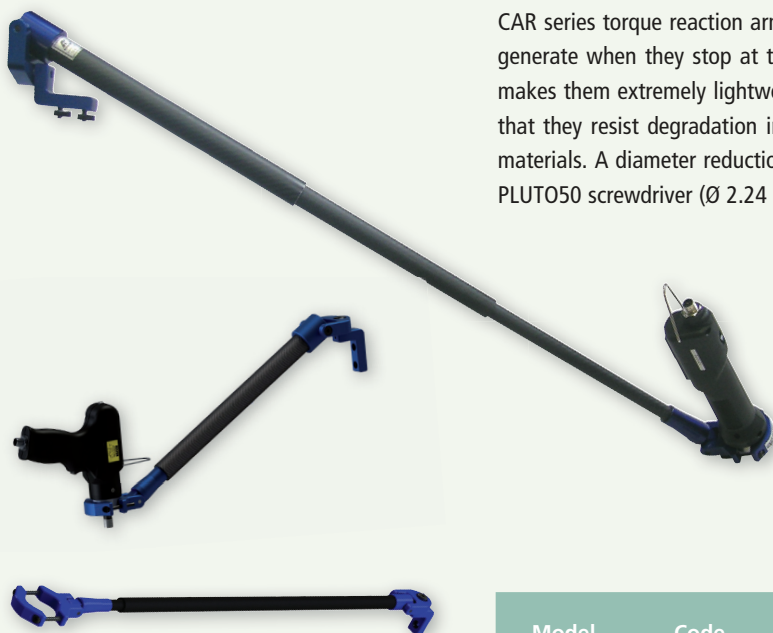
Torque reaction arm PA2KOL, code 010600, has been designed to eliminate the reaction generated by screwdrivers when they stop at the pre-set torque. Options include table or wall mount.

Model	Code	Max Torque in/lbs	Min Reach in	Max Reach in
PA2KOL	010600	177	17.3	25.2
LINAR1	010681	221	7.2	26.2
LINAR2	010682	442	7.2	26.2
LINART	010683	221	4.5	29.1

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 442 in/lbs). Their carbon structure makes them extremely lightweight and incredibly resistant at the same time. This means that they resist degradation in high fatigue applications much better than conventional materials. A diameter reduction adapter (code 234545) is available for our PLUTO35 and PLUTO50 screwdriver (Ø 2.24 in).



Model	Code	Min Reach (L min) in *	Max Reach (L max) in *	Weight lb	Max Torque in/lbs
CAR101	010661	21.6	35.7	0.55	89
CAR281	010663	19.3	37.4	1.30	221
CAR282	010664	28.7	65.0	1.65	221
CAR501	010665	19.3	37.4	1.40	442
CAR502	010666	28.7	65.0	1.80	442

* Measured with clamp Ø 1.9 in

Suspended Torque Arm Series

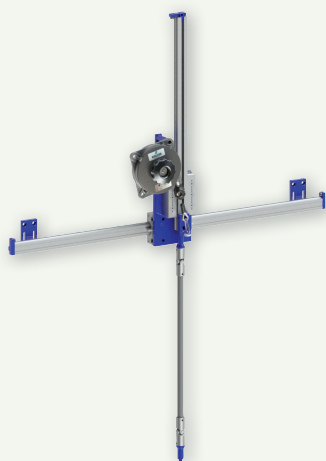
The new Suspended Torque Arms are the ideal solution to increase productivity. They can be easily installed on most workplaces to help the operator handle the screwdriver in total safety and stability:

- 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

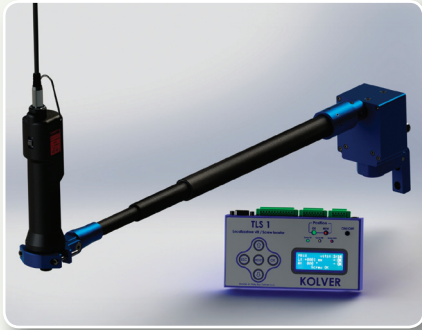


TOOL HOLDER FOR PLUTO
WITH ANGLE HEAD



UNIVERSAL TOOL HOLDER
FOR ANY SCREWDRIVER

Model	Code	Vertical Stroke "Z" (in)	Horizontal Stroke "X" (in)	Lateral Stroke "Y" (in)	Max Torque in/lbs
SAR15 Z	010690/Z/5	14.3	/	/	133
SAR15 XZ 85	010690/XZ/85	14.3	27.2	/	133
SAR15 XYZ 855	010690/XYZ/855	34.8	27.2	14.8	133
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 1.9 in)		

*TLS1/CAR*

TLS1 Positioning Arm

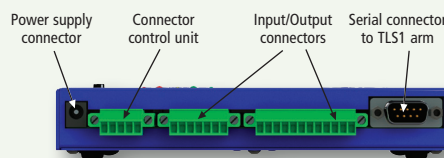
The TLS1 Arm is an "intelligent" system that error-proofs your assembly ensuring that every screw is in the correct location at the right torque. Assembly sequences and X-Y coordinates are easily programmed with user interface screens through the keypad from the intuitive menu. Torque programs are automatically 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/CAR 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 260003/1) or EDU2AE and EDU1BL/SG (code 260004/1) 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 ± 0.04 in; angle $\pm 1^\circ$.
- External keyboard and serial port for easy programming and reporting.

*TLS1 BOX*


TLS1/LINAR1

TLS1 with Linear Arm

The new error proof positioning arms TLS1/LINAR1 and TLS1/LINAR2 work just like LINAR1 and LINAR2 with the addition of positioning sensors a real time feedback on the position of the arm, which is very useful for default calibrations. Max torque and reach are the same as LINAR1 and LINAR2 respectively.

Adapter code 234545 is required for screwdriver model PLUTO35 and PLUTO50.


TLS1/LINART

TLS1 with Folding Arm

The new error proof positioning arm TLS1/LINART features a folding arm for extreme flexibility and accuracy. Thanks to the positioning sensors you can have a real time feedback on the position of the arm, which is very useful for default calibrations. Max torque and reach are the same as LINART.

Adapter code 234545 is required for screwdriver model PLUTO35 and PLUTO50.

All TLS1 arms are supplied standard with TLS1 Unit version 2.00, which adds new features to the existing software and provides different minimum distances between screws at maximum arm reach (see chart below).

Model	Code	Max Torque in/lbs	Dimensions in Min	Dimensions in Max	Min distance between screws at the max arm extension
TLS1/CAR281	010663/TLS1	221	19.7	37.4	0.35 in
TLS1/CAR282	010664/TLS1	221	29.5	65.7	0.59 in
TLS1/CAR501	010665/TLS1	442	19.7	37.4	0.35 in
TLS1/CAR502	010666/TLS1	442	29.5	65.7	0.59 in
TLS1/LINAR1	010681/TLS1	221	10.7	25.7	0.24 in
TLS1/LINAR2	010682/TLS1	442	10.7	25.7	0.24 in
TLS1/LINART	010683/TLS1	221	4.5	29.1	0.28 in

To be used with:

260004/1 Cable TLS1 for EDU2AE + EDU2AE/TOP + EDU1BL/SG

260003/1 Cable TLS1 for EDU1FR/SG