

K-TLS



TLS1

Positioning Arms | Up to 50 Nm

K-TLS, the smart positioning system for the K-DUCER!

K-TLS is Kolver's new intelligent positioning system for precision assembly, ensuring that every screw is not only fastened to the correct torque but also in the right position. The key innovation lies in its ability to be fully managed through the K-DUCER, eliminating the need for additional control units for arm positioning. With all the advanced features of the K-DUCER at your disposal, including connectivity and interoperability with MES and PLC systems, K-TLS simplifies the process.

By centralizing control within a single, intuitive interface, K-TLS enhances efficiency and ease of use, making error-proof assembly accessible to all.

Key features

- Plug-and-play connection with the K-DUCER
- Control unit integrated within the K-DUCER
- 24 sequences, 200 programs, and up to 150 screws per program
- High precision with programmable tolerance
- Connectivity with MES or PLC systems
- Real-time position data
- Compatible with CAR, LINAR1, LINAR2, LINART, and SAR XYZ arms
- Use two arms and screwdrivers simultaneously with a single K-DUCER via Dock05.

TLS1 positioning system

For all of our other screwdrivers, the TLS1 is an intelligent system that error-proofs your assembly ensuring that every screw is in the correct location at the right torque. The TLS1 control unit, connected to the desired arm and screwdriver controller, allows the user to program assembly sequences and X-Y coordinates for each screw with its integrated keypad. Fastening programs are automatically selected and enabled from the screwdriver controller based on the TLS1 Arm locations and current sequence step. No PC is required.

Note: if a plug-and-play solution that is integrated directly into the screwdriver controller is needed, we recommend the K-TLS.

Key features

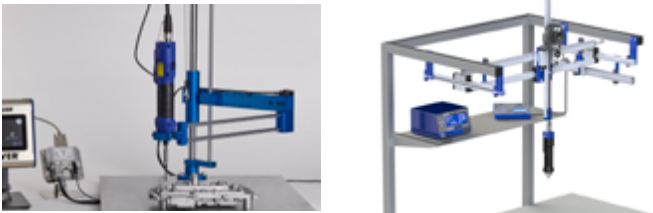
- 8 programs, and up to 35 screws per program
- Screw position (length/angle) with accuracy: length  $\pm 1$  mm; angle  $\pm 1^\circ$ .
- Programmable tolerance and manual reset.
- Password protected.
- External keyboard and serial port for easy programming and statistics.
- Compatible with CAR, LINAR1, LINAR2, LINART, and SAR XYZ arms

TLS1 Positioning arm models



TLS1/CAR Positioning Carbon Arm

TLS1/LINAR1 and TLS1/LINAR2



K-TLS/LINART Positioning Folding Arm

TLS1/SAR XYZ Suspended Arm



Folding and Linear Positioning Arms

Code	Model	Max Torque Nm	Min Reach mm	Max Reach mm	Min distance between screws at max extension
010681/K-TLS	LINAR1/K-TLS	25	184	665	6 mm
010682/K-TLS	LINAR2/K-TLS	50	184	665	6 mm
010683/K-TLS	LINART/K-TLS	25	114	740	7 mm
Code	Model	Max Torque Nm	Min Reach mm	Max Reach mm	Min distance between screws at max extension
010681/TLS1	LINAR1/TLS1	25	184	665	6 mm
010682/TLS1	LINAR2/TLS1	50	184	665	6 mm
010683/TLS1	LINART/TLS1	25	114	740	7 mm

Linear Positioning Arms with Autoadvance Kit

Code	Model	Arm Weight kg	Piston Stroke mm	Min Reach mm	Max Reach mm	Min distance between screws at max ext
010682/K-TLS/A	LINAR2/K-TLS/A	50	0 - 50	184	665	6
Code	Model	Arm Weight kg	Piston Stroke mm	Min Reach mm	Max Reach mm	Min distance between screws at max ext
010682/TLS1/A	LINAR2/TLS1/A	50	0 - 50	184	665	6
Autoadvance kit						
020099	Autoadvance kit can be supplied separately.					

Telescopic Positioning Arms

Code	Model	Max Torque Nm	Min Reach mm	Max Reach mm	Min distance between screws at max extension
010663/K-TLS	CAR281/K-TLS	25	490	950	9 mm
010664/K-TLS	CAR282/K-TLS	25	730	1650	15 mm
010665/K-TLS	CAR501/K-TLS	50	490	950	9 mm
010666/K-TLS	CAR502/K-TLS	50	730	1650	15 mm
Code	Model	Max Torque Nm	Min Reach mm	Max Reach mm	Min distance between screws at max extension
010663/TLS1	CAR281/TLS1	25	490	950	9 mm
010664/TLS1	CAR282/TLS1	25	730	1650	15 mm
010665/TLS1	CAR501/TLS1	50	490	950	9 mm
010666/TLS1	CAR502/TLS1	50	730	1650	15 mm

Suspended Positioning Arms

Code	Model	Max Torque Nm	Arm Weight kg	Vertical Stroke Z mm	Vertical Stroke X mm	Vertical Stroke Y mm
010690/XYZ/K-TLS	SAR15 XYZ/K-TLS	15	8	885	692	376
Code	Model	Max Torque Nm	Arm Weight kg	Vertical Stroke Z mm	Vertical Stroke X mm	Vertical Stroke Y mm
010690/XYZ/TLS1	SAR15 XYZ/TLS1	15	8	885	692	376
Tool holders for SAR arms						
010695	Tool holder for PLUTO and RAF series inline screwdrivers					
010698	Tool holder for FAB, NATO & MITO series inline screwdrivers					
010695/P	Tool holder for right angle PLUTO screwdrivers (up to 15 Nm)					
010695/UNI	Universal Tool Holder for any screwdriver (max diameter 47 mm)					

For all of our TLS1 arms, one of the following cables must be specified at time of purchase:

260003/1	Cable to connect TLS system to EDU1FR/SG controller
260004/1	Cable to connect TLS system to EDU1BL/SG, EDU2AE, EDU2AE/HPro, EDU2AE/TOP or EDU2AE/TOP/TA controller
260004/KDU	Cable to connect TLS system to KDU controller

A diameter reduction adapter (code 234545) is required when LINAR and CAR arms are used with PLUTO35 or PLUTO50 screwdrivers (Ø 57 mm).