

MotoLAC

Laser Applied Calibration with verification and automatic correction of the tool position and angle.



Long, trouble-free operation with consistent quality.

The MotoLAC tool for calibration and automatic correction will ensure a long and trouble-free operation with consistent quality.

It can also reduce downtime during a change of tools or after a collision. The MotoLAC sensor design makes it possible to measure several of the tool's positions and thus adjust both its position and angle. Adjustment can be made in X, Y and Z but also in Rx and Ry.

Thanks to its robust housing, the laser sensor can tolerate harsh environments and can be used in almost all robot applications - from laser cutting systems to material handling.

Scope of delivery

- Fork sensor.
- Metal bracket.
- MotoLAC Wizard and cable kit.

MotoLAC Wizard workflow

Options

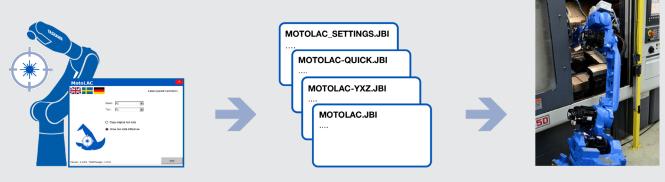
• Floor stand.

Key benefits

- Quick and easy tool calibration.
- Trouble-free operation.
- Minimizes downtime.
- Ideal when changing fixtures or tools.
- Reduces the need for touch up robot jobs after minor collisions.
- Three levels of control and adjustment from high speed Quick Check to complete control and adjustment of TCP and angle.
- Can be used in systems with our servo tracks or gantry.
- Language: English, German or Swedish.

Note

- Not available with ATEX classification.
- The object used for calibration must be circular and with a recommended size of 5 to 50 mm in diameter.



1. The Wizard guides you through the initial calibration and original tool data.

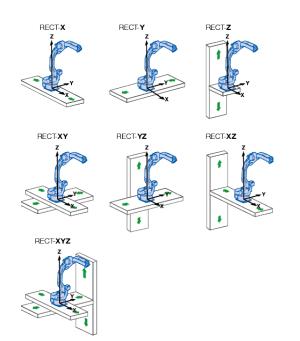


3. These robot jobs can be implemented at suitable intervals in the production process.

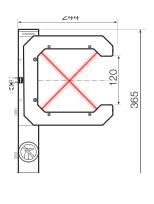
MotoLAC at a glance

With the simple and straightforward interface for the teach pendant, you can easily create reference data for up to 64 tools. Positions and I/O can be verified before implementation with a "Dry run". With the command "Show tool data difference", you will see the difference between the current tool data and its original values.

Three robot jobs are generated: Total TCP (including angle and position), positions XYZ only, and a Quick Check.



MotoLAC			
		Laser Applied Calibration	
	Robot : R2 Tool : T1		
	Copy original tool data Show tool data difference		Previously selected tool: -1 - "Invalid tool"
Version: 1.1.0.9 MotoPlusApp:	1.1.0.9	V 2.000 Kg	RX 180.0000 deg. Ry 0.0000 deg. Rz 0.0000 deg.
MotoLAG	C		0.010 Kg.m2 0.010 Kg.m2
	TOOL NO. : 1 / 63 NAME R2 STANDARD TOOL Present tool:		0,100 Kg.m2 Next
	X -106,125 mm R) Y 0,825 mm R) Z 447,054 mm R2	-44.9985 deg.	
	Orginal tool: X -106.131 mm R: Y 0.824 mm R; Z 447.033 mm R;	-45.0000 deg.	
	Difference: X 0.006 mm Ri Y 0.001 mm Ri Z 0.021 mm Ri	0.0015 deg.	





Standard assembly

MotoLAC unit is mounted to the right. However, it is easy to dismantle the sensor unit from the bracket, and mount it to the left instead.

Calibration tool size			
Tool diameter [mm]	Maximum detection [mm]		
50	25		
40	20		
30	15		
20	10		
10	5		
5	2.5		

Technical data		
Laser	Red light, 650 nm, class 1	
Housing material	Aluminium, anodised	
Max/min angle	3°	
Tool diameter	5 to 50 mm	
Accuracy	0.2 mm	
Adjustment size	tool radius	



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 $\hfill \ensuremath{\mathbb{O}}$ YASKAWA Nordic AB \cdot RegNo. 6643EN-02, November 2024 Technical data may be subject to change without previous notice.

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