

# DELTA RL4-1600-3kg

Article number: AL\_10008



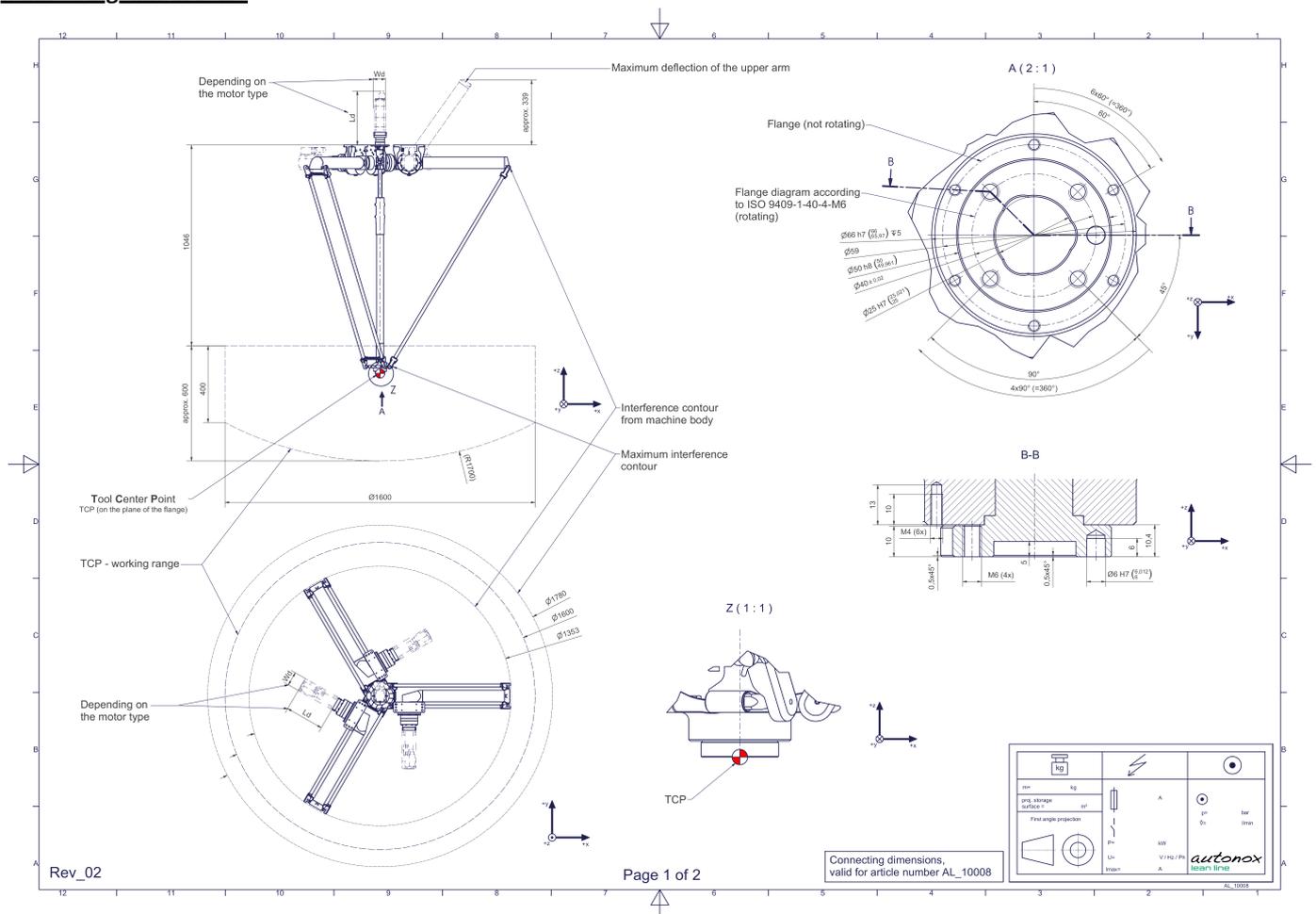
**Description:**

This type of robot is based on the principle of parallel kinematics. All drives are mounted in a fixed position on the robot head. Motor cables are not moved. The robot has three (3) translational and one (1) rotational degree(s) of freedom. This robot mechanics is characterized by its attractive pricing. Due to the joint design, the nominal payload is limited and the average performance and/or lifetime is reduced compared to classic autonox mechanics. The robot is delivered in pre-assembled main assemblies to save space.

**Scope of delivery:**

Robot mechanics incl. gearbox, Servo motor adapter, Threaded protection caps, Transport and packing instructions

**Connecting dimensions:**



**Downloads:** [Connecting dimensions \(PDF\)](#), [3D model \(STP\)](#), [3D model \(PDF\)](#)

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## Technical specifications:

Field of application	Standard (not hygienic)
Kinematics	Parallel
Translatory Degrees of Freedom (X,Y,Z)	3
Rotational Degrees of Freedom ( $\alpha, \beta, \gamma$ )	1
Nominal payload [kg   lbs] *	3   6.6
Working area-diameter [mm   in]	1600   63.0
Working height outside [mm   in]	400   15.7
Working height center [mm   in]	600   23.6
Max. acceleration torque of the rotation $\gamma$ around Z at the output [Nm   in.lbs]	10   88.5
Nominal torque of the rotation $\gamma$ around Z at the output [Nm   in.lbs]	4,8   42.5
Max. speed of the rotation $\gamma$ around Z at the output [1/min]	1000
Nominal speed of the rotation $\gamma$ around Z at the output [1/min]	460
Bearing type of the telescopic shaft(s)	Roller bearing
Bearing type of the arm joints	Journal bearing
Lubricants of the bearings	Food-grade (FO)
Lubricants of the gearboxes	Food-grade (FO)
Cleaning	No high pressure
Ambient temperature [°C   °F]	0 to +40   +32 to +104
Relative humidity level [%]	95 (free of condensation)
Mounting position	Floor, Ceiling, Wall (on request), Angle (on request)
Special features	The head plate is not included in the scope of delivery, i.e. the gearbox supports have to be attached directly to the machine frame. Advantages: Compact, inexpensive

\* All given values are nominal values (nominal payload referred to a nominal performance) and can vary under realworld conditions depending on the application (tool specifications, load distances, reduction (partly) of the nominal performance when using food-grade lubricants, ...). Please consider our technical data sheets regarding the load capacity.

## Gearbox article number for this robot mechanics:

Function	Article number	Document
Drive of the upper arms	MT_WST00108764-xx-FO	Operating manual gearbox type 3 (PDF)
Drive of the telescopic shaft for rotation $\gamma$ around Z	MT_WST00109440-xx-FO	Operating manual gearbox type 1 (PDF)

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