

# DELTA RL4-1100-3kg

Article number: AL\_00030



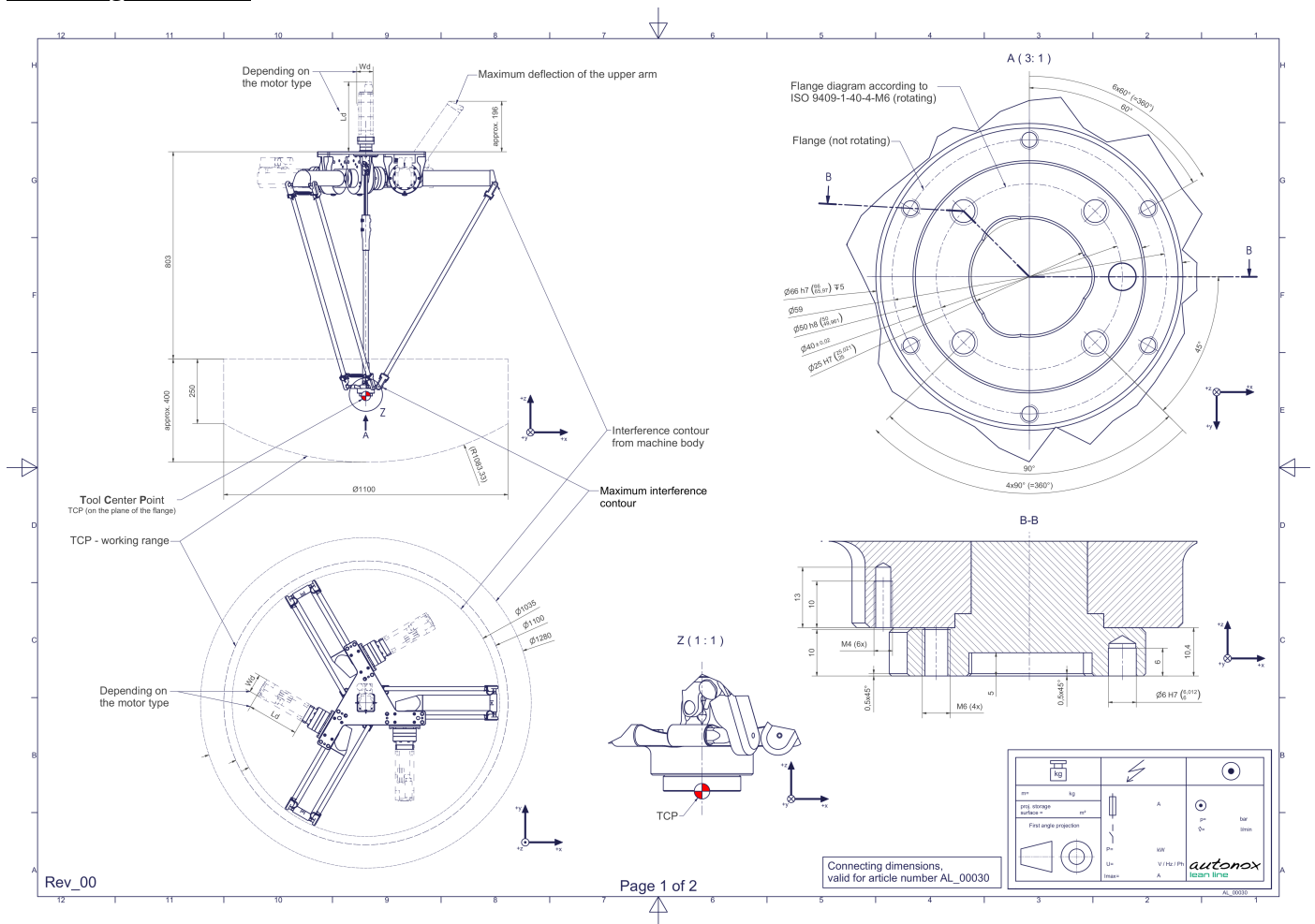
**Description:**

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]                                                        | 1100   43.3                                           |
| Working height outside [mm   in]                                                       | 250   9.8                                             |
| Working height center [mm   in]                                                        | 400   15.7                                            |
| Max. acceleration torque of the rotation $\gamma$ around Z at the output [Nm   in.lbs] | 7,2   63.7                                            |
| 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]                     | 500                                                   |
| Nominal speed of the rotation $\gamma$ around Z at the output [1/min]                  | 400                                                   |
| 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 [ $^{\circ}\text{C}$   $^{\circ}\text{F}$ ]                        | 0 to +40   +32 to +104                                |
| Relative humidity level [%]                                                            | 95 (free of condensation)                             |
| Mounting position                                                                      | Floor, Ceiling, Wall (on request), Angle (on request) |

\* 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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