

Data Sheet

IKA-ROTOTRON RT 115/KT



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The IKA ROTOTRON® RT is an all-purpose jet-flow agitator used for homogenizing, dispersing, suspending, emulsifying, aerating, dissolving and improvement of heat transfer. The RT is most effectively used for tasks ranging between that of a conventional stirring machine and a dispersing machine with a rotor-stator system.

Different diameters and bending angles of the stator tube, at inlet and outlet, create optimal suctioning and a vertical flow direction. Even in working vessels with unfavourable dimensions and shapes, an intensive circulation is created. High rotor speeds and minimal distances between mixing wings and the jet tube prevent back flow losses and guarantee an intensive dispersion. Deflectors on the stator prevent air entry into the medium at various immersion depths.

A standard propeller stirrer will disseminate energy throughout the entire vessel content. A higher energy density can be achieved with the use of a jet flow agitator and a flow-restricting guiding tube.

The jet-flow agitator ROTOTRON® is considered a uniquely energy-efficient machine because of the substantial circulation and mixing effect provided by the relatively small motor.

The ROTOTRON® RT is suitable for vertical and also submerged mounting into large vessels. It makes unnecessary the use of conventional agitators with extremely long shafts.

The RT machines mix media with a viscosity of up to 15.000 mPas. For higher viscosities, flow direction reversing switch is recommended.

IKA produces the ROTOTRON® stirrers in six standard sizes for vessels with volumes from 200 to 30.000 liters. All models are available with two different types of flanges for installation in open or closed vessels.

The ROTOTRON® for open vessels is available with floor, wall or mobile stands.

The rotating shaft is sealed with either a lip seal or a single-acting mechanical seal. The ROTOTRON® is equipped with a mechanical seal for operations under pressures of up to 10 bar or when processing abrasive media.

The description of the RT machine contains the following information:

Type of machine

Technical Data

| | |
|---------------------------|--------------------|
| Batch size max. (H2O) | 1000 l |
| Viscosity, max. | 15000 mPas |
| Process pressure (max.) | 0 bar |
| Vacuum, max | 100 mbar |
| Process temperature, max. | 120 °C |
| Mixing tools | Propeller |
| Motor power, standard | 1.5 kW |
| Motor power max. | 3 kW |
| Motor speed | 3000 rpm |
| Type of seal | lip seal |
| Built-in length, standard | 1150 mm |
| Built-in length, max. | 1600 mm |
| Weight approx. | 32 kg |
| Ident. No. | 000RT115-KT |

Size of the machine (diameter of the guiding tube)
Type of seal
Type of flange

Example: The RT 150-KT/KD is a ROTOTRON® RT with a 150 mm diameter guiding tube, a lip seal and a KD flange for installation in closed vessels.

Advantages of the ROTOTRON® RT:

- Quick mixing and dispersing results
- Complete homogenous mixing of the product in all (even critical) areas of the vessel
- No back flow losses
- High energy efficiency
- No sedimentation at bottom of tank when producing suspensions
- No rotation of the mixture, which eliminates the need for flow breakers
- Vortices and aeration are prevented
- Flexible installation options in vessels of varying shapes
- Various seals are available depending on application
- Suitable for operations under pressures of up to 16 bar and temperatures up to 120°C
- Optional infinite speed adjustment of the rotor
- All parts that come in contact with the product are made of stainless steel
- Special materials and top-quality surface finish options available
- ATEX-approved, explosion-proof machine versions available

The IKA application specialists would be happy to provide assistance with selection of seals and installation positions for the ROTOTRON® machines.

Technical data for the ROTOTRON® RT

(KT - for open or pressure-less vessels, KD - for closed and pressure vessels):