

Technical data

- All product parts coming into contact with the medium are made of high-grade steel. Versions are also available in Hastelloy, titanium, tantalum, monel metal, etc.
- 55 Watt d.c. motor, sealed to IP 44 with maximum speed of 3'000 rpm. Connection to control box 1 x 220 V, 50 Hz.
- Torque of magnetic coupling 20 Ncm or 40 Ncm.
- All the types listed are equipped with stainless steel ball bearings.

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cirrojiet mrk

premex
reactor ag®



Our «cirojet», a universal magnetic stirrer drive. The mrk 20–29 «cirojet» magnetic stirrer drive has demonstrated its value as a combination of a magnetic coupling and an integrated d.c. motor. premex reactor ag offers this versatile mrk with NS 29/32, NS 45/40 glass connections, and with M30x2 mm metal connections for reaction vessels up to 700 bar.

Power is transmitted from the outer magnetic ring to the inner magnet. The forces of attraction are responsible for transferring the rotation from the drive collar to the stirrer shaft in a non-contacting process.

Hastelloy versions

Prod. no.	07.469.00311	07.469.00313	07.469.00315	07.469.00317	07.469.00319	07.469.00322
Type	mrk 20 HC22	mrk 21 HC22	mrk 22 HC22	mrk 23 HC22	mrk 28 HC22	mrk 29 HC22
Torque	20 Ncm	40 Ncm	20 Ncm	40 Ncm	20 Ncm	40 Ncm
Connection	NS 29/32	NS 29/32	NS 45/40	NS 45/40	M30x2mm	M30x2mm
Mat. WNr.	2.4602	2.4602	2.4602	2.4602	2.4602	2.4602
AISI	HC22	HC22	HC22	HC22	HC22	HC22
p bar	–	–	–	–	300	300
T °C	240	240	240	240	300	300
Vol. ml	2000	4000	2000	4000	2000	4000

Stainless steel versions

Prod. no.	07.469.00310	07.469.00312	07.469.00314	07.469.00316	07.469.00318	07.469.00320	07.469.00321	07.469.00323
Type	mrk 20	mrk 21	mrk 22	mrk 23	mrk 24	mrk 25	mrk 26	mrk 27
Torque	20 Ncm	40 Ncm	20 Ncm	40 Ncm	20 Ncm	20 Ncm	40 Ncm	40 Ncm
Connection	NS 29/32	NS 29/32	NS 45/40	NS 45/40	M30x2mm	M30x2mm	M30x2mm	M30x2mm
Mat. WNr.	1.4435	1.4435	1.4435	1.4435	1.4435	1.4980	1.4435	1.4980
AISI	316 L	316 L	316 L	316 L	316 L	660	316 L	660
p bar	–	–	–	–	200	700	200	700
T °C	240	240	240	240	300	300	300	300
Vol. ml	2000	4000	2000	4000	2000	2000	4000	4000

cirojet
magnetic stirrer drive
mrk



mrk redjaro



The lasting impression that certain magnetic stirrer drives leave in your mind indicates that they are part of a particularly sophisticated system. It's the newly designed line in RED.

Make a mark in RED

- 1 The micro-motor with a nominal power of 60 Watt (24 V/DC) attracts attention. It is also attractive due to its power transmission, which leads to a driven shaft speed of 200–1300 rpm.
- 2 Our “redjaro” magnetic stirrer drive ensures an unmistakable appearance with its distinctive red jacket.
- 3 The micro-motor is driven by the DZA-6/24 controller. You can adjust the rpm on the front panel with a single movement. The current speed can be seen optimally on the LED display.
- 4 The drive bell takes on the function of a carrier for the outer magnet and is simultaneously firmly anchored to the d.c. motor.
- 5 The power transmission takes place from the outer magnetic ring to the inner. You select the torque according to your viscosity or your reactor volume. The available selection extends from 20 Ncm (2 l), 40 Ncm (4 l), 60 Ncm (6 l) to 90 Ncm (10 l).
- 6 Bearing change made easy: The driven shaft can be removed for the fast replacement of ball or friction bearings by opening the hexagon cap nut.
- 7 The special feature of the “redjaro” is its NS 29/32 tapered connection. According to the area in which it will be used, we manufacture it as standard in stainless quality (WNo. 1.4435/ AISI 316L) or from Hastelloy C22. Models in Hastelloy C276, B3 or titanium Gr. 2 on request. The taper is sealed against the glass reactor using two O-rings in inch dimensions lying one behind the other. Their quality is either Viton, EPDM or Kalrez, depending on the medium or the temperature.

redjaro
magnetic stirrer drive



- A Cable connection to the control unit
- B Motor retainer with d.c. drive
- C Diameter of motor retainer
- D NS 29/32 taper with hexagon cap nut
- E Driven shaft protrusion
- F Diameter of driven shaft

All dimensional data in mm

Operating pressure and temperature

- The "redjaro" is basically intended for use with glass reactors and is thereby suitable for pressure-free operation or for vacuum
- It has a maximum operating temperature of up to 240°C.

Connection and seal

- Tapered connection NS 29/32
- The seal to the glass reactor is doubly assured by means of two O-rings lying one behind the other. Please order the sealing rings separately. For the stainless variants, we would recommend the Viton quality. For the models in Hastelloy or titanium, on the other hand, EPDM or Kalrez seals will be used. The grooves in the taper are provided for O-rings in inch dimensions, and can thereby be replaced at any time.

Material

All components that come into contact with the medium are manufactured from stainless material WNo. 1.4435 (AISI 316L). We offer the same line in Hastelloy C22 for aggressive media. Titanium, tantalum and Inconel types are also possible

Drive, torque and bearings

- D.C. motor 60 Watt, 24 V/DC. The drive is linked to the required DZA-6/24 control unit by means of a two-part cable arrangement. Connection to the control unit 1 and 220 V, 50 Hz.
- The torques provided by the magnetic coupling can be increased from 20–90 Ncm
- Corrosion-resistant ball bearings on the driven shaft for a maximum speed of 1300 rpm. Hastelloy or titanium models are fitted with slider bearings for the same speed range.

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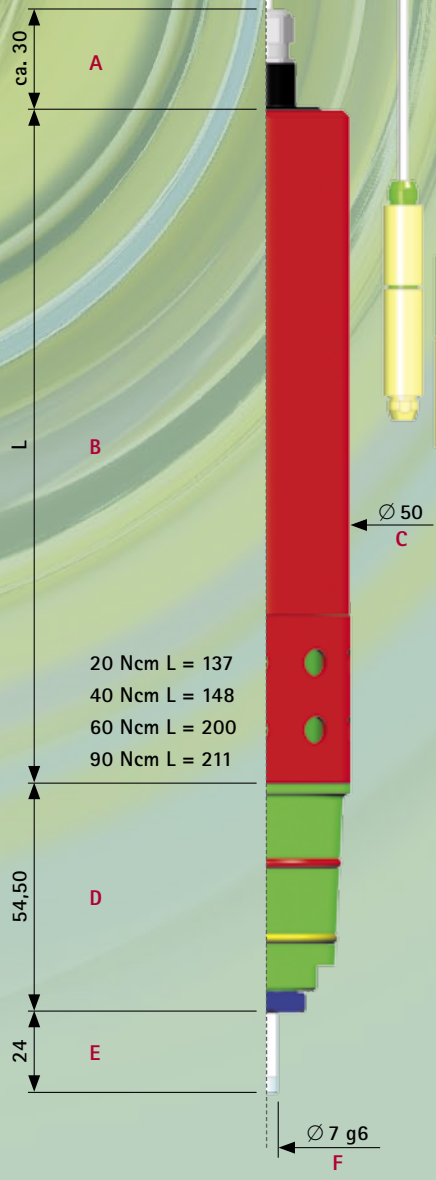
mrk redmag ic



Five new basic models in RED. And three good reasons for using them: Standard parts from existing modules, expansion through the micro-motor and the highest level of flexibility through a variety of connection possibilities. The "redmagic" magnetic stirrer drive has the tapered NS 45/40 connection ready for you.

The red magic of "redmagic"

- 1 The micro-motor of the «redmagic» magnetic stirrer drive permits a range of drive speeds from 200–1300 rpm (24V/DC). It is in the very best form, both optically and technically. Let yourself be convinced by its sleek design and modern motor variants.
- 2 The distinctive red housing of the "redmagic" with its wide motor cooling zone ensures an unmistakable appearance.
- 3 The new speed indicators appear in the eye-catching "vortex design", and match the RED line in both appearance and functionality. The "redmagic" magnetic stirrer drive is connected via the two plug connections.
- 4 The drive bell with its integrated permanent magnet ensures a respectable torque of up to 90 Ncm.
- 5 The power is transmitted to the drive shaft through the optimal interplay from the outer magnet to the inner magnet. Depending on your reactor volume or the viscosity, the following torques are available for selection: 20 Ncm (2 l), 40 Ncm (4 l), 60 Ncm (6 l) and, as already mentioned, the max. 90 Ncm (10 l).
- 6 A thrust washer, a drive magnet and the guided shaft are hidden under the flawless surface of the tapered NS 45/40 connection component. The shaft is guided because two ball bearings or slide bearings hold it in position together with the hexagon cap nut.
- 7 The magic formula for the magnetic stirrer drive in the glass sector is called "redmagic". It is basically designed for glass reactors with the tapered NS 45/40 connection. Its application area is limited to non-pressurised or vacuum area at a maximum operating temperature of 240°C. The grooves in the taper are provided for O-rings in inch dimensions. Different qualities such as EPDM, Viton or Kalrez can thereby be interchanged.



- A Cable connection for micro-motor
- B D.C. motor with casing
- C Diameter of red casing
- D NS 45/40 taper with hexagon cap nut
- E Driven shaft protrusion
- F Diameter of driven shaft

All dimensional data in mm

redmagic
magnetic stirrer drive

mrk

Operating pressure and temperature

- The "redmagic" is used with tapered glass connections in the non-pressurised or vacuum area.
- It has a maximum operating temperature of up to 240°C.

Connection and seal

- Tapered connection NS 45/40
- The grooves in the tapered section are designed for inch dimensions. Different qualities such as Viton, EPDM or Kalrez can thereby be used without any problems. Select the correct O-rings according to the operating temperature or your medium, and order them separately.

Material

- The components of the "redmagic" that come into contact with the medium can, of course, be manufactured in Hastelloy C22/C276, titanium Grade 2, tantalum etc. on request. We regard the stainless variants in Material WNo. 1.4435 (AISI 316L) as the standard or basic models.

Drive, torque and bearings

- D.C. motor 60 Watt, 24V/DC. The drive is linked to the required DZA-6/24 control unit by means of a two-part cable arrangement. Connection to the control unit 1 and 220 V, 50 Hz.
- Torques from 20–90 Ncm are available for reactor volumes from 2 litres to max. 10 litres.
- The speed range from 200–1300 rpm at the driven shaft permits the use of ball bearings or slider bearings.

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