

#### Technical data

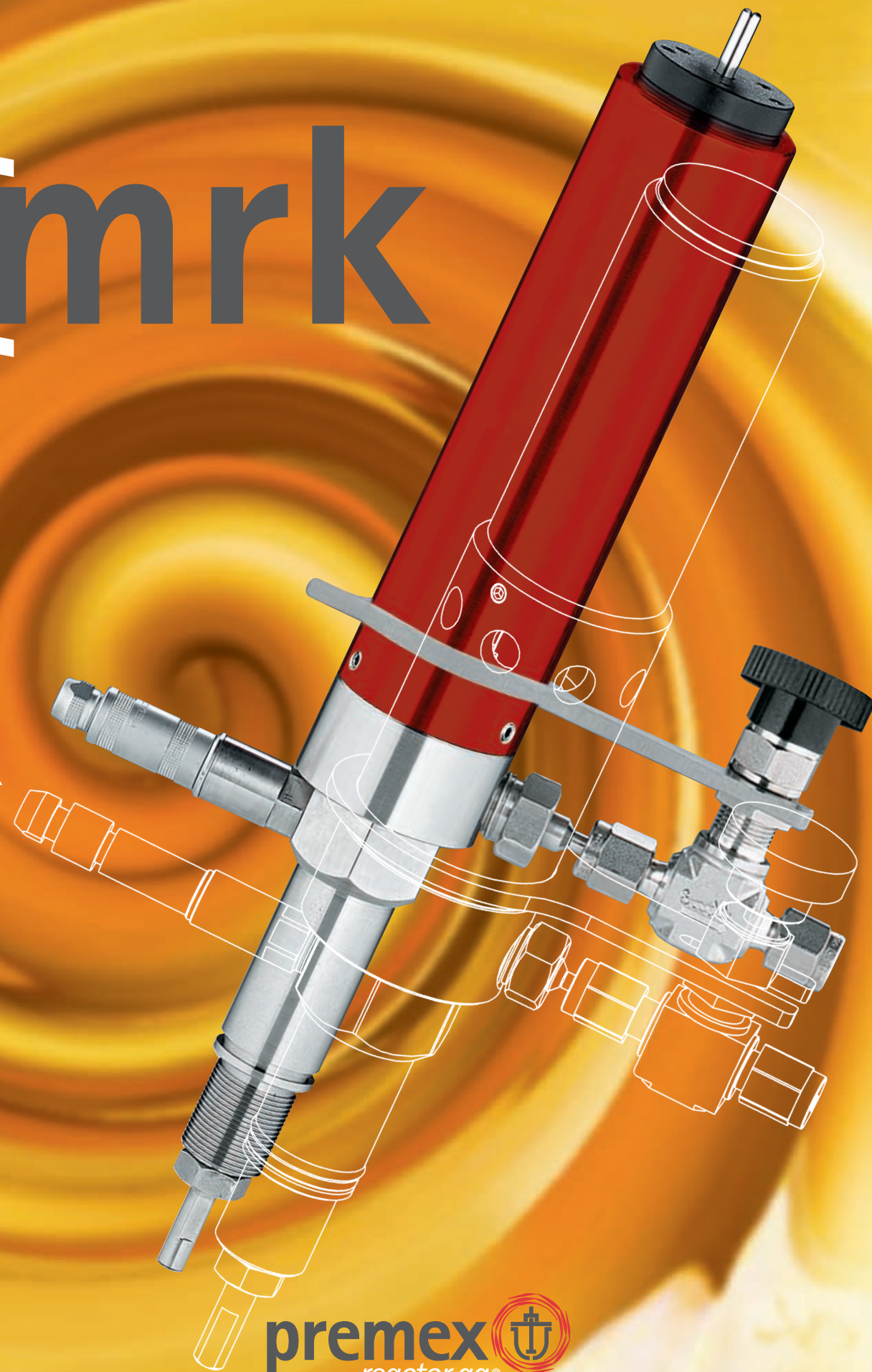
- To be screwed onto autoclave cover.
- M18 x 1 mm threads connection.
- Sealed to the autoclave cover by means of O-ring or metal-to-metal seal (olive).
- Torque for magnetic coupling 20 Ncm or 50 Ncm.
- Stainless steel or Hastelloy C22 as standard. Versions in Hastelloy C276, B3 or titanium Gr. 2 on request.
- Ball bearings on the driven shaft. Hastelloy or titanium versions with friction bearings.
- Maximum speed 1'500 rpm for ball bearings and for friction bearings.
- Micromotor 24V/DC, available complete with control device.
- Speed reading point on driven shaft, using pulse generator and reed contact.

# minimaster

phone  
fax  
internet  
e-mail

premex reactor ag  
industriestrasse 11  
ch-2543 lengnau/switzerland  
+41 (0)32 653 60 20  
+41 (0)32 653 60 25  
[www.premex-reactorag.ch](http://www.premex-reactorag.ch)  
[office@premex-reactorag.ch](mailto:office@premex-reactorag.ch)

# minimaster



**premex**   
reactor ag®



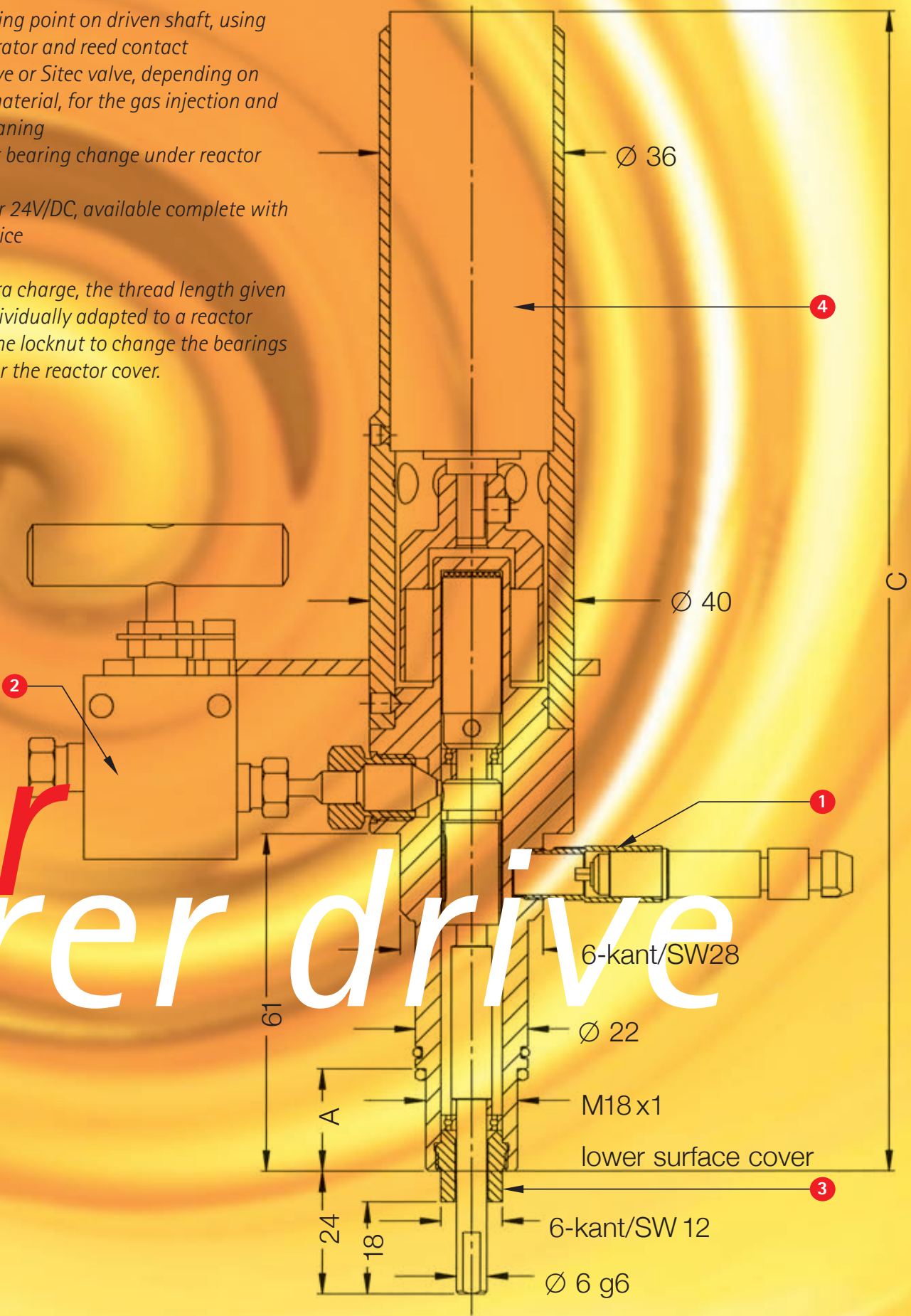
The «minimaster» – the true master of magnetic stirring power. This model combines a modern magnetic coupling with a micromotor. Other outstanding features include a gas feed and a speed reading point.

# mrk minimaster magnetic stirrer drive

Prod. no.	07.487.00630	07.487.00632	07.487.00634	07.487.00636	07.487.00638	07.487.00640
Torque	20 Ncm	20 Ncm	20 Ncm	50 Ncm	50 Ncm	50 Ncm
Mat. no.	1.4435	1.4980	2.4602	1.4435	1.4980	2.4602
AISI	316 L	660	HC22	316 L	660	HC22
p bar	300	700	300	300	700	300
T °C	200	200	200	200	200	200
A mm	20	20	20	20	20	20
C mm	222	222	222	265	265	265
Micromotor 24V/DC	rpm	rpm	rpm	rpm	rpm	rpm
Speed reading	200–1'500	200–1'500	200–1'500	200–1'500	200–1'500	200–1'500

- 1 Speed reading point on driven shaft, using pulse generator and reed contact
- 2 Whitey valve or Sitec valve, depending on choice of material, for the gas injection and interior cleaning
- 3 Locknut for bearing change under reactor cover
- 4 Micromotor 24V/DC, available complete with control device

For a small extra charge, the thread length given at A can be individually adapted to a reactor cover so that the locknut to change the bearings is opened under the reactor cover.





#### Technical data

- To be screwed onto autoclave cover.
- M18 x 1 mm threads connection.
- Sealed to the autoclave cover by means of O-Ring or metal-to-metal seal (olive).
- Torque for magnetic coupling 20 Ncm or 50 Ncm.
- Stainless steel or Hastelloy C22 as standard. Versions in Hastelloy C276, B3 or titanium Gr. 2 on request.
- Ball bearings on the driven shaft. Hastelloy or titanium versions with friction bearings.
- Maximum speed 3'000 rpm for ball bearings and for friction bearings.
- Micromotor 24V/DC, available complete with control device.
- Speed reading point on driven shaft, using pulse generator and reed contact.

phone  
fax  
internet  
e-mail

premex reactor ag  
industriestrasse 11  
ch-2543 lengnau/switzerland  
+41 (0)32 653 60 20  
+41 (0)32 653 60 25  
www.premex-reactorag.ch  
office@premex-reactorag.ch

# mini mrk



premex  
reactor ag®





We have made this model a king! Its name is «miniroyal» and you will be amazed by its elegance and perfection.

Its «kingdom» includes all the basic equipment for a reactor: a micromotor, coupled with a high-performance magnetic coupling, speed reading point, pressure measurement, pressure protection and gas injection.

- 1 Speed reading point on driven shaft, using pulse generator and reed contact
- 2 Whitey valve or Sitec valve, depending on choice of material, for the gas injection and interior cleaning
- 3 Whitey valve or Sitec valve for pressure release
- 4 Micromotor 24V/DC, available complete with control device
- 5 Locknut for bearing change under reactor cover

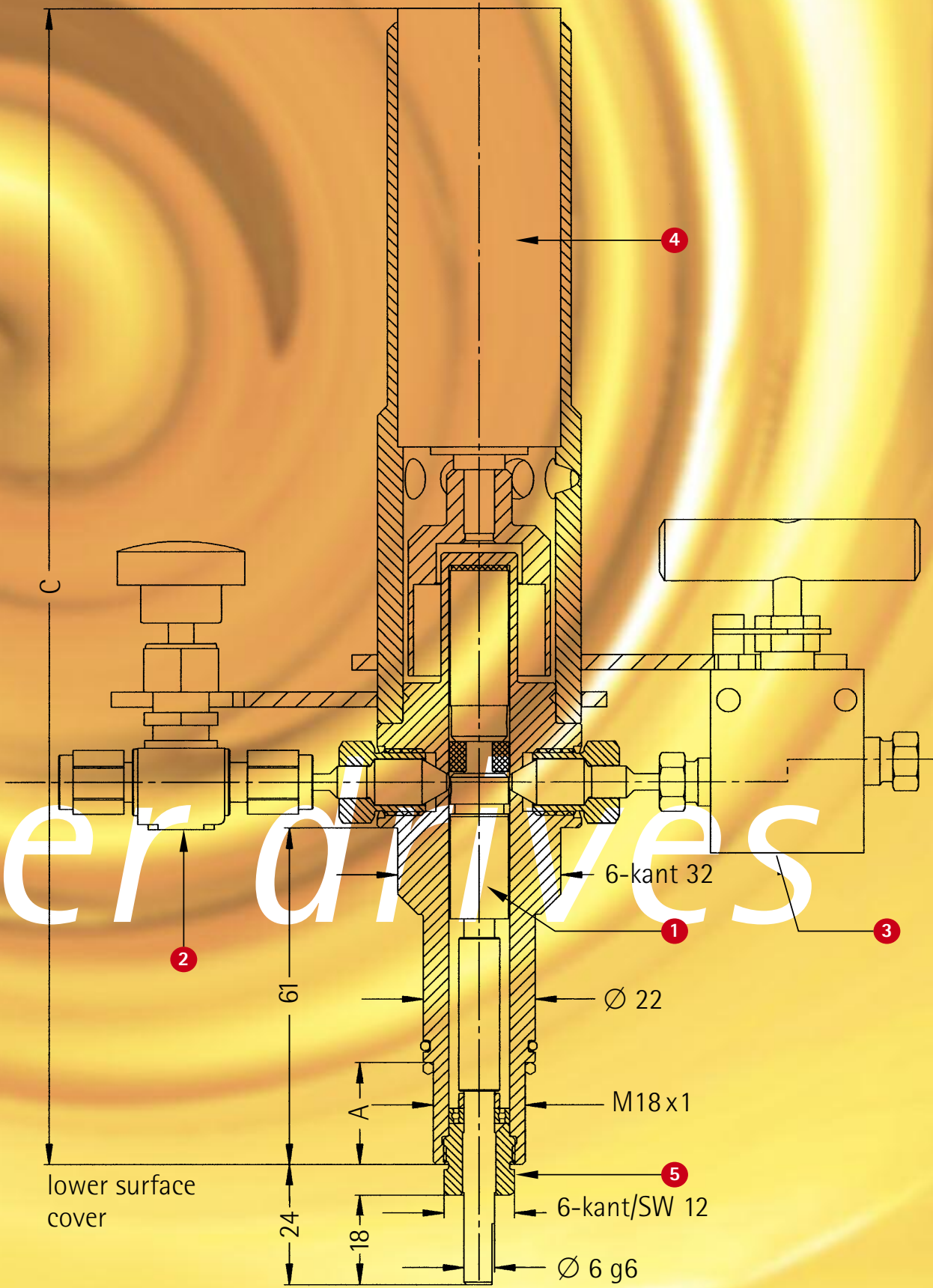
For a small extra charge, the thread length given at A can be individually adapted to a reactor cover so that the locknut to change the bearings is opened under the reactor cover.

Further connections

- Burst disk holder fitted with burst disk
- Pressure gauge Ø 40 mm, chemical design

miniroyal  
magnetic stirrer drives

Prod. no.	07.489.00650	07.489.00652	07.489.00654	07.473.00056	07.489.00058	07.489.00060
Torque	20 Ncm	20 Ncm	20 Ncm	50 Ncm	50 Ncm	50 Ncm
Mat. no.	1.4435	1.4980	2.4602	1.4435	1.4980	2.4602
AISI	316 L	660	HC22	316 L	660	HC22
p bar	300	700	300	300	700	300
T °C	200	200	200	200	200	200
A mm	20	20	20	20	20	20
C mm	222	222	222	265	265	265
Micromotor 24V/DC	rpm	rpm	rpm	rpm	rpm	rpm
Speed reading	200-1'500	200-1'500	200-1'500	200-1'500	200-1'500	200-1'500





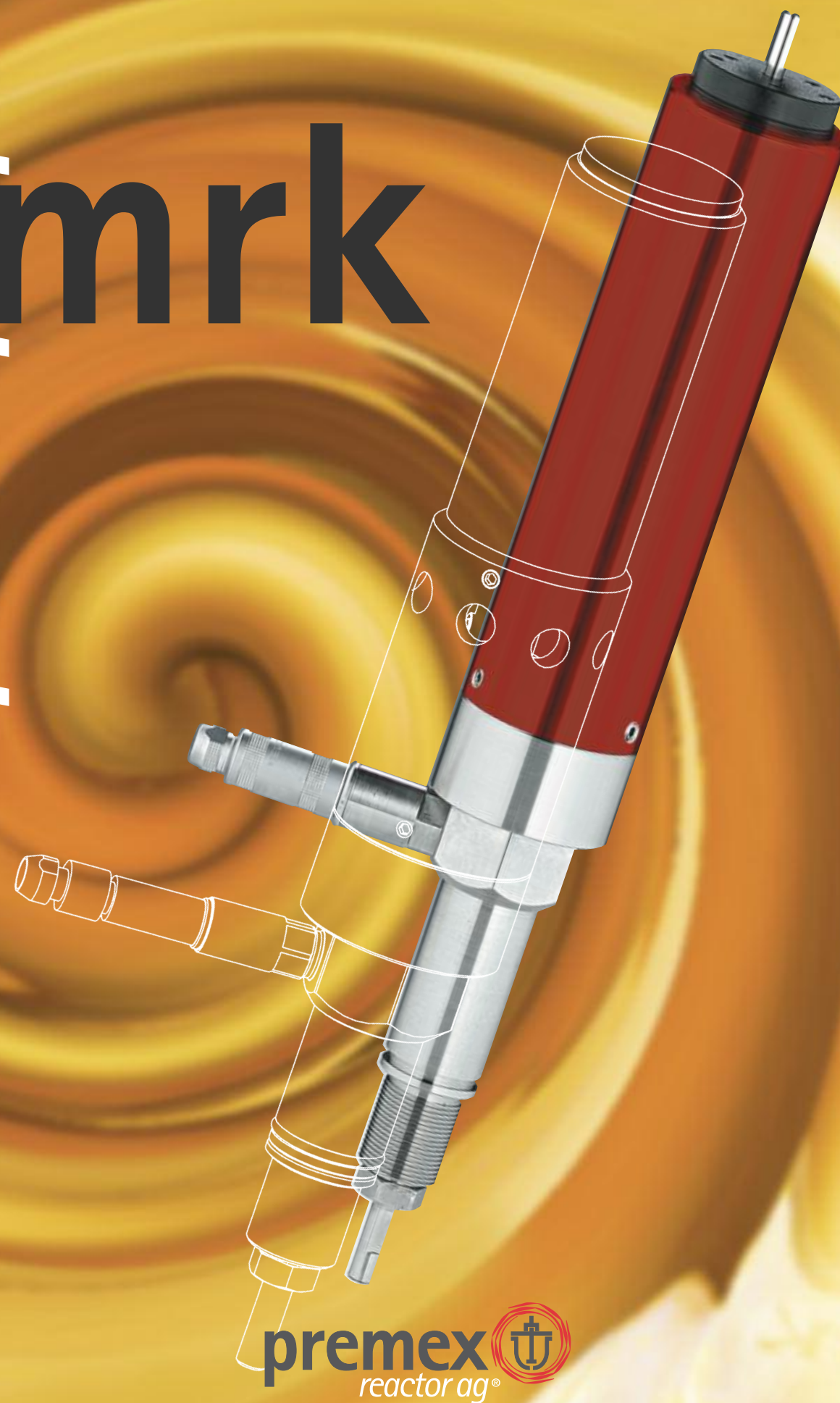
#### Technical data

- To be screwed onto autoclave cover.
- M18 x 1 mm threads connection.
- Sealed to the autoclave cover by means of O-Ring or metal-to-metal seal (olive).
- Torque for magnetic coupling 20 Ncm or 50 Ncm.
- Stainless steel or Hastelloy C22 as standard. Versions in Hastelloy C276, B3 or titanium Gr. 2 on request.
- Ball bearings on the driven shaft. Hastelloy or titanium versions with friction bearings.
- Maximum speed 1'500 rpm for ball bearings and for friction bearing.
- Micromotor 24V/DC, available complete with control device.
- Speed reading point on driven shaft, using pulse generator and reed contact.

phone  
fax  
internet  
e-mail

premex reactor ag  
industriestrasse 11  
ch-2543 lengnau/switzerland  
+41 (0)32 653 60 20  
+41 (0)32 653 60 25  
[www.premex-reactorag.ch](http://www.premex-reactorag.ch)  
[office@premex-reactorag.ch](mailto:office@premex-reactorag.ch)

# mini print mrk



**premex**  
reactor ag® 



The latest addition to the premex mini-family is bound to be a hit. A micromotor coupled with a minimised magnetic coupling – that's the winning concept for the «minisprint».

Put the «minisprint» – the smallest of all magnetic stirrer drives – at the top of your hit parade!

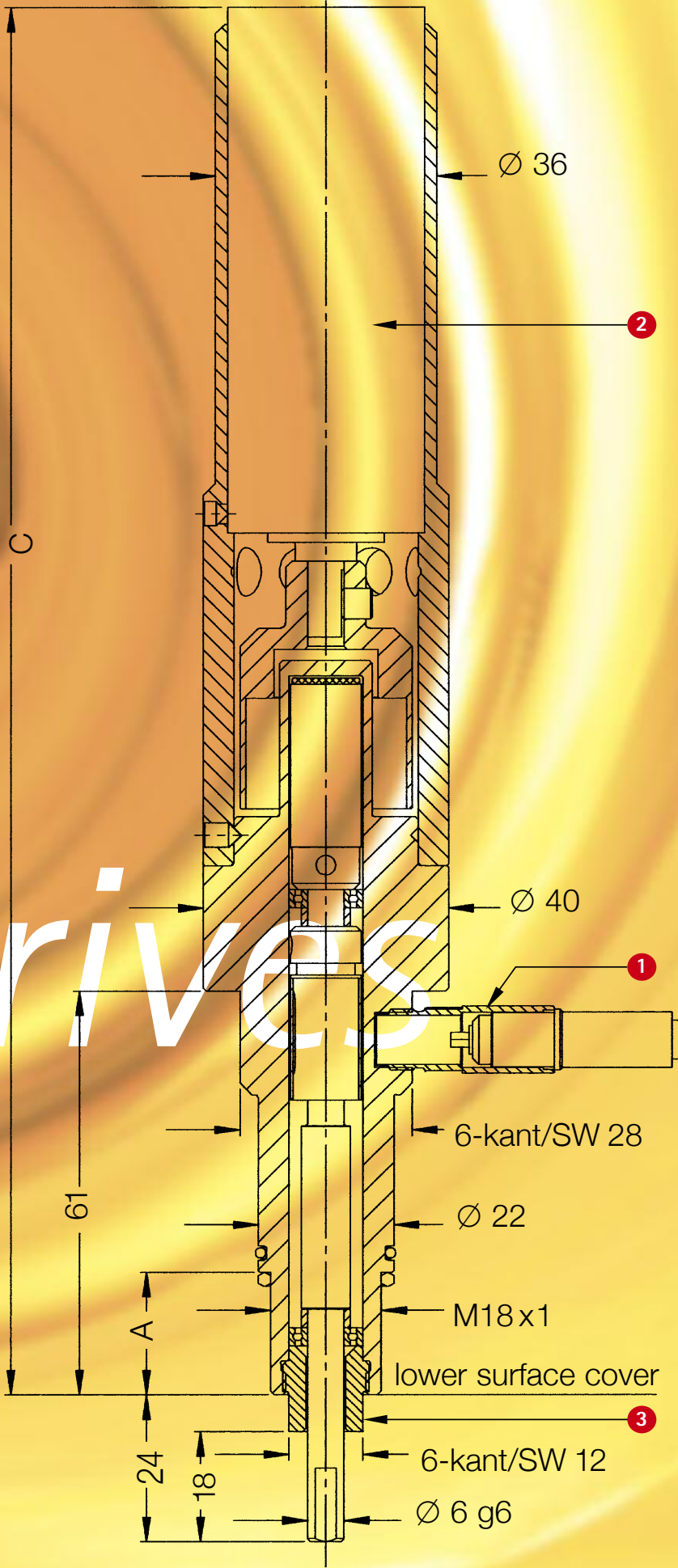
# minisprint

## magnetic stirrer drives

Prod. no.	07.485.00610	07.485.00612	07.485.00614	07.485.00616	07.485.00618	07.485.00620
Torque	20 Ncm	20 Ncm	20 Ncm	50 Ncm	50 Ncm	50 Ncm
Mat. no.	1.4435	1.4980	2.4602	1.4435	1.4980	2.4602
AISI	316 L	660	HC22	316 L	660	HC22
p bar	300	700	300	300	700	300
T °C	200	200	200	200	200	200
A mm	20	20	20	20	20	20
C mm	222	222	222	265	265	265
Micromotor 24V/DC	rpm	rpm	rpm	rpm	rpm	rpm
Speed reading	200–1'500	200–1'500	200–1'500	200–1'500	200–1'500	200–1'500

- 1 Speed reading point on driven shaft, using pulse generator and reed contact
- 2 Micromotor 24V/DC, available complete with control device
- 3 Locknut for bearing change under reactor cover

For a small extra charge, the thread length given at A can be individually adapted to a reactor cover so that the locknut to change the bearings is opened under the reactor cover.





#### Connection and seal

- The mrk 40-47 «funrun» is easily fitted to the autoclave cover by means of an M30x2 mm threaded connection. We recommend using a metal olive to create a seal.

#### Material

- All product parts coming into contact with the medium are made of corrosion-resistant material or Hastelloy. The product line also comes in versions using titanium, tantalum and types of Inconel.

#### Speed reading point

- A speed reading point is fitted to the driven shaft as standard. The mrk can easily be upgraded with the digital DZA-2B speed indicator or, for motor version .1, the DZA-3 which also includes a frequency converter for motor control.

#### Bearings

- In the corrosion-resistant versions, ball bearings are used for the driven shaft. Hastelloy or titanium drives use friction bearings. The shaft can be used with ball bearings or friction bearings.

#### Drive versions

Two drive systems are available with a rated output of 120 Watt. We can supply an a.c. motor controlled either by a frequency converter or by a «Planetroll» gear system. In version .1, the speed of the drive shaft is set at the potentiometer on the control unit, with a range of 200-2'000 rpm (other speeds can be selected). In version .2 the speed can be continuously regulated manually from 0-1'150 rpm. Connection: 3x240/400 V 50 Hz.

phone  
fax  
internet  
e-mail

premex reactor ag  
industriestrasse 11  
ch-2543 lengnau/switzerland  
+41 (0)32 653 60 20  
+41 (0)32 653 60 25  
www.premex-reactorag.ch  
office@premex-reactorag.ch

# funrun mrk



premex  
reactor ag®



mrk 40–47 «funrun» magnetic stirrer drives  
are a ideal alternative when existing high-pressure  
autoclaves have to be upgraded or modernised.



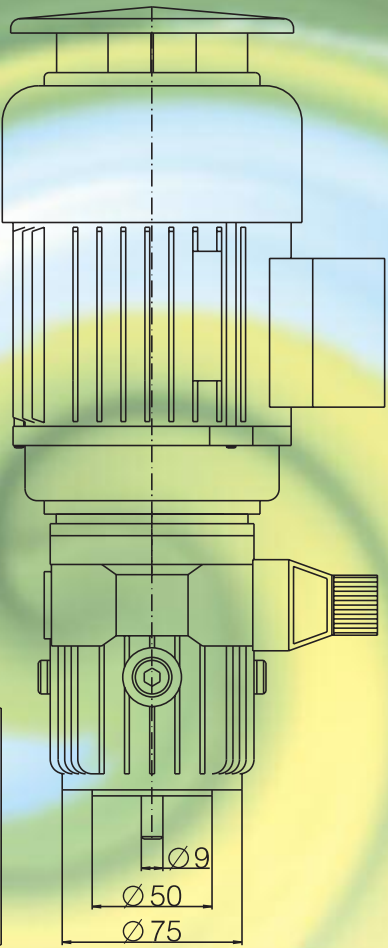
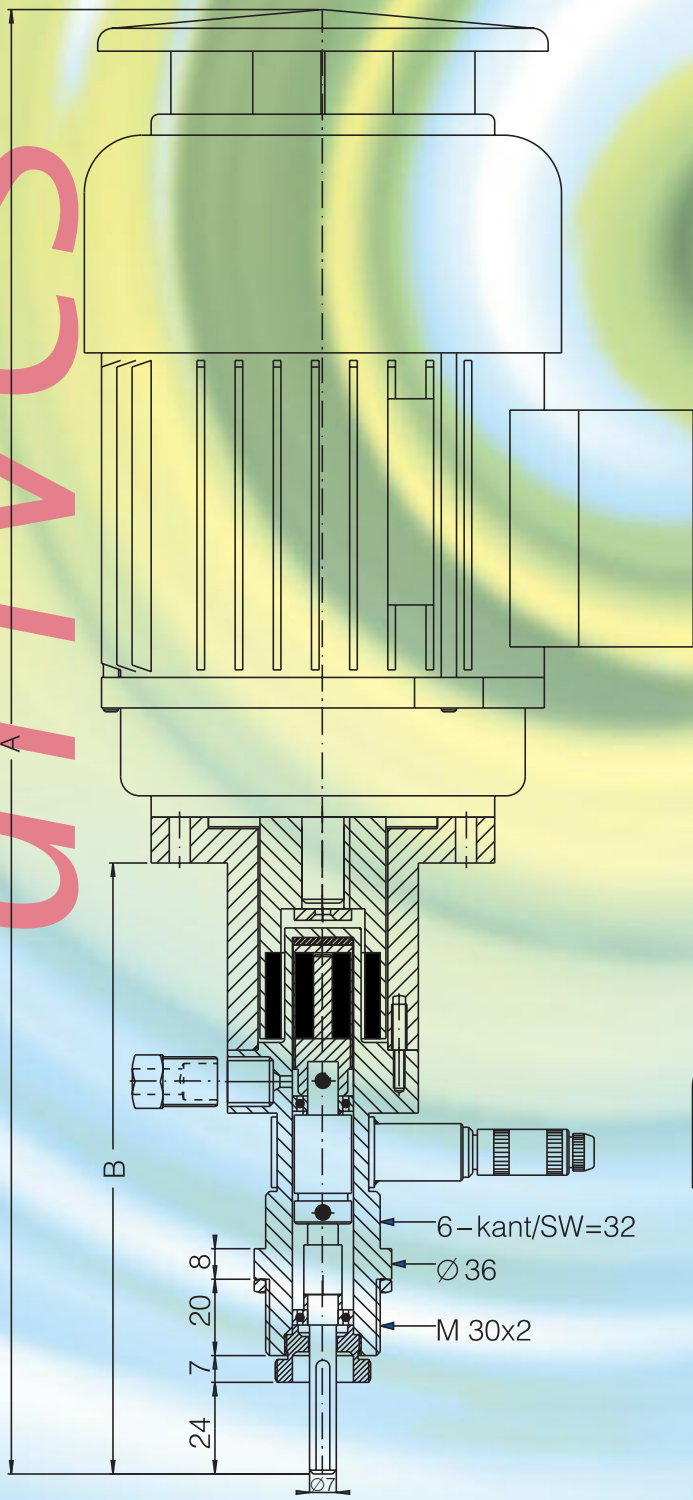
**Stainless steel versions**

Prod.no.	07.465.00256	07.465.00258	07.465.00262	07.465.00264	07.465.00268	07.465.00270	07.465.00274	07.465.00276
Type/Variation	mrk 40.1	mrk 41.1	mrk 42.1	mrk 43.1	mrk 44.1	mrk 45.1	mrk 46.1	mrk 47.1
Prod.no.	07.465.00337	07.465.00339	07.465.00343	07.465.00345	07.465.00349	07.465.00351	07.465.00355	07.465.00357
Type/Variation	mrk 40.2	mrk 41.2	mrk 42.2	mrk 43.2	mrk 44.2	mrk 45.2	mrk 46.2	mrk 47.2
Torque	20 Ncm	20 Ncm	40 Ncm	40 Ncm	60 Ncm	60 Ncm	90 Ncm	90 Ncm
Mat. WNr.	1.4435	1.4980	1.4435	1.4980	1.4435	1.4980	1.4435	1.4980
AISI	316 L	660	316 L	660	316 L	660	316 L	660
p bar	200	700	200	700	200	700	200	700
T °C	300	300	300	300	300	300	300	300
Vol. ml	1000	1000	2000	2000	5000	5000	10000	10000
A mm	370/482	370/482	382/494	382/494	394/506	394/506	406/518	406/518
B mm	160/157	160/157	172/169	172/169	184/181	184/181	196/193	196/193

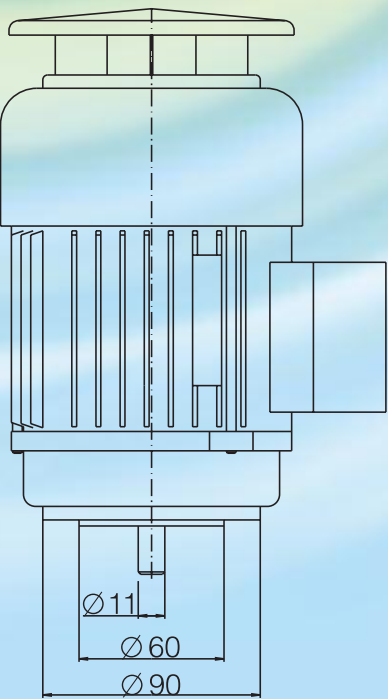
**Hastelloy versions**

Prod. no.	07.465.00260	07.465.00341	07.465.00266	07.465.00347	07.465.00272	07.465.00353	07.465.00278	07.465.00359
Type	mrk 40.1 HC22	mrk 40.2 HC22	mrk 42.1 HC22	mrk 42.2 HC22	mrk 44.1 HC22	mrk 44.2 HC22	mrk 46.1 HC22	mrk 46.2 HC22
Torque	20 Ncm	20 Ncm	40 Ncm	40 Ncm	60 Ncm	60 Ncm	90 Ncm	90 Ncm
Mat. WNr.	2.4602	2.4602	2.4602	2.4602	2.4602	2.4602	2.4602	2.4602
AISI	HC22	HC22	HC22	HC22	HC22	HC22	HC22	HC22
p bar	300	300	300	300	300	300	300	300
T °C	300	300	300	300	300	300	300	300
Vol. ml	1000	1000	2000	2000	5000	5000	10000	10000
A mm	370	482	382	494	394	506	406	518
B mm	160	157	172	169	184	181	196	193

funrun  
magnetic stirrer  
mrk



Version .2



Version .1



# redvo mrk

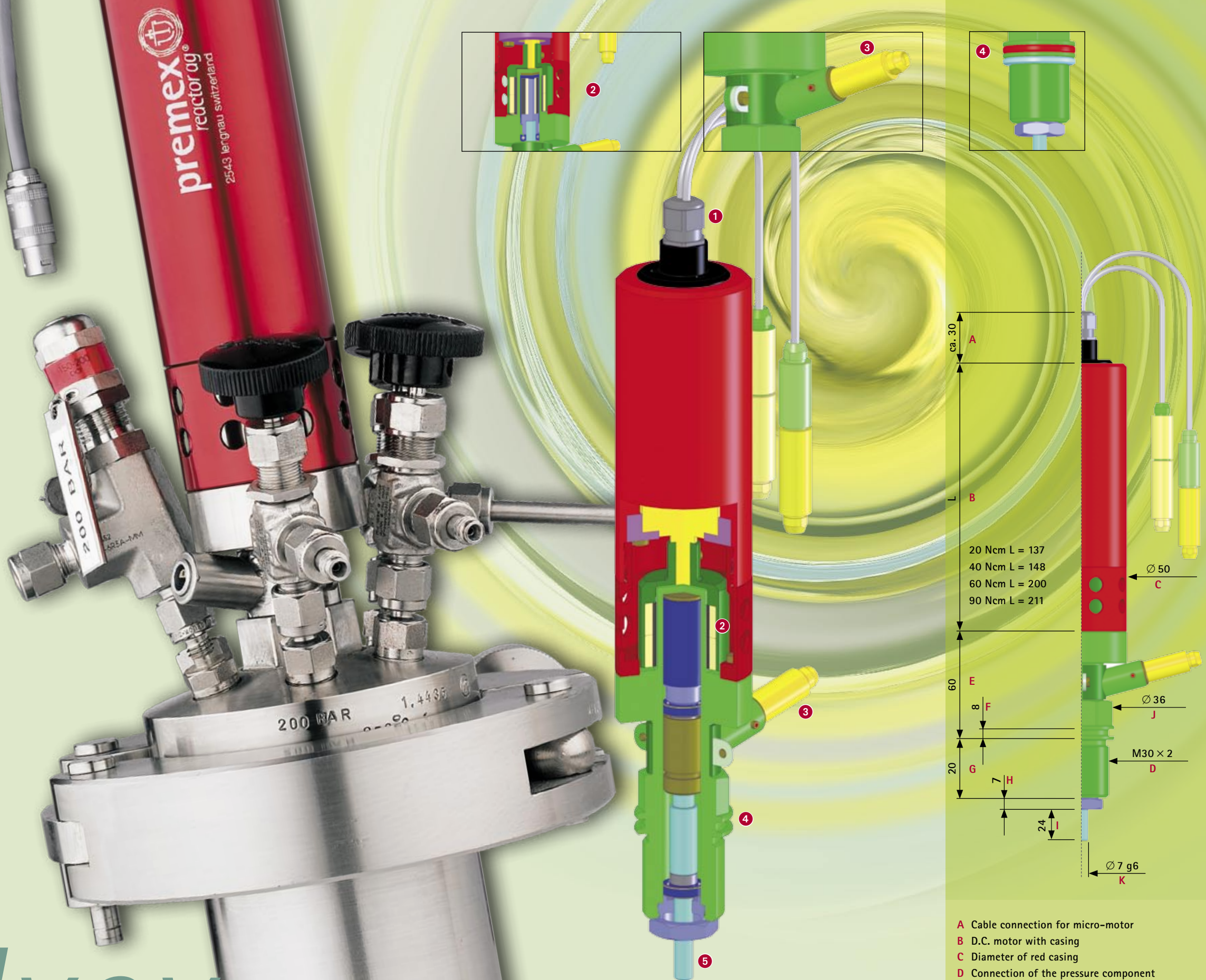




We have designed and created an ambitious collection for you with the spirit of the age. The refreshing result that we are presenting to you here is the "redvoy". It can be mounted directly into an autoclave cover without a flange.

RED has style

- 1 To create the "redmagic", we have become stylists. On the one hand, we have given it an unmistakable red motor housing, and, on the other, the ventilation openings make it stylish. The motor connection takes place via a two-part cable guide to the DZA-6/24 control unit. Everything here is focussed on a simple and logical operation, and nothing distracts from the essential.
- 2 A particularly dynamic power transmission takes place from the outer magnet ring to the inner ring by means of mutually attracting magnetic fields. With this unique process, stirring can be carried out in an absolutely gas-tight manner, because the power is transmitted through the metal wall. We refer to the transmitted power as the driven torque. We offer this torque between 20–90 Ncm, according to the reactor volume or the viscosity.
- 3 Every rotation that is registered by the pulse generator and transferred via the reed contact flows continuously to the DZA-6/24 for evaluation. You can conveniently read off the result on the LED display.
- 4 This position outlines the pressure vessel of the "redvoy", which is screwed into the autoclave cover with the M30 × 2 mm threaded connection. Great importance is thereby placed on the correct type of seal. Choose between an O-ring and an olive.
- 5 It goes without saying that the "redvoy" can count on the right components in the RED line equipment. The double bearings and the pulse generator are therefore located on the driven shaft, next to the central inner magnets. The pulse generator is responsible for the registration of the rotary speed.



- A Cable connection for micro-motor
- B D.C. motor with casing
- C Diameter of red casing
- D Connection of the pressure component (pressure component M30 x 2)
- E Sealing edge up to the upper edge of the pressure component
- F Seal area
- G Thread length to the flange
- H Hexagon cap nut
- I Driven shaft protrusion
- J Diameter of the hexagon on the pressure component
- K Diameter of driven shaft

All dimensional data in mm

redvoy  
magnetic stirrer drive

mrk



---

## Material

---

- All components that come into contact with the medium are manufactured from stainless material WNo. 1.4435 (AISI 316L) or WNo. 1.4980 (AISI 660). We offer the same line in Hastelloy C22 for aggressive media. Titanium, tantalum and Inconel types are also possible

---

## Operating pressure and temperature

---

- Exactly matched to your application, the "redvoy" is available up to 200 bar in WNo. 1.4435 or up to 700 bar in WNo. 1.4980 at a maximum temperature of 300°C.
- If your chemical reactions require an acid-resistant steel, we can, for example, offer you the Hastelloy C22 for 300 bar and 300°C.
- For all other applications or requests, you are advised to ask our specialists. We have the right solution ready for you.

---

## Connection and seal

---

- The compact magnetic stirrer drive with its M30 × 2 mm connection can be mounted directly on any autoclave cover. An O-ring or an olive can be used as the seal.

---

## 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.
- The torques provided by the magnetic coupling extend from 20–90 Ncm
- Corrosion-resistant ball bearings on the driven shaft for a maximum speed of 1,300 rpm. Hastelloy or titanium models are fitted with slider bearings for the same speed range.

---

*delivery address*

---

*postal address*

---

*phone*

---

*fax*

---

*internet*

---

*e-mail*

---

---

*premex reactor ag*

---

*industriestrasse 11*

---

*postfach 444*

---

*ch-2543 lengnau/switzerland*

---

*+41 (0)32 653 60 20*

---

*+41 (0)32 653 60 25*

---

*www.premex-reactorag.ch*

---

*office@premex-reactorag.ch*

---