



# INDUSTRIE

*High Pressure Technology*

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- **MAGNETIC STIRRER WITH IN LINE ELECTRIC MOTOR**
  - **STIRRING SHAFT**
  - **IMPELLER**
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S.A.S au capital de 330 000€ / RCS Melun B 328 824 891 / Siret 328 824 891 00043 / APE 2812 Z / N° TVA Intracommunautaire : FR 11 328 824 891

### **USES :**

TOP INDSUTRIE have designed and manufactured a series of compact magnetic stirrers, capable of providing a couple between 30Ncm and 2000Ncm. It is free of dynamic sealing and is not subject to problems commonly associated with swivel joints. In line motorization reduces size, and also improves safety. All moving parts are capped, and there are no pulleys or belts. Its mechanism is very simple (see diagram): the inside clutch (10) drives the stirring shaft (9). These two parts are shielded by the sheaf (part 11).

### **IMPORTANT NOTICE:**

In the event of a sharp increase in fluid viscosity, the stirring shaft may stop while the inside clutch keeps turning. This can lead to a rapid increase in magnet temperature, which could permanently damage the stirrer. To avoid this, the motor's rated torque is set during production to a lower rated torque than that of the stirrer. The motor will thus stop before the stirrer, thus preventing serious damage.

### **STIRRER FEATURES :**

- Magnetic couple between 95 and 2000 N.cm
- Working pressure : 400 bar (1500bar version on request)
- Working temperature : 400°C at connection. For temperatures above 100°C, use cooling jacket Ref. 604 99 00, which must be linked to plastic tubing, with diameter 4 x 2 mm.
- Nominal r.p.m: 1500-2000
- Packless sealing.
- Bearings: Carbide loaded PTFE
- All parts which come into contact with fluid are made of stainless steel.
- HP connection for sampling or feeding.
- Easy to disassemble for cleaning.
- Hollow shaft for feeding and producing gaseous effects.
- Coated O-ring or metallic gasket for higher temperatures.
- Shaft and propeller are sold separately.
- ATEX on request.

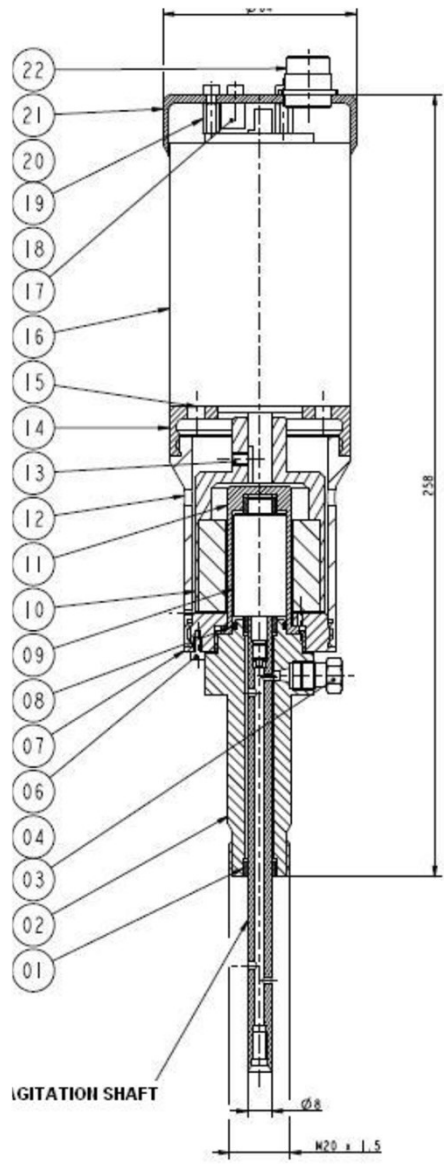
### **MOTOR FEATURES:**

- Power : between 50W and 1,5kW, according to type.
- Control card can be used to adjust max. power output.
- 24V DC motor for 95 N.cm couple,
- Protection is at least IP 44.

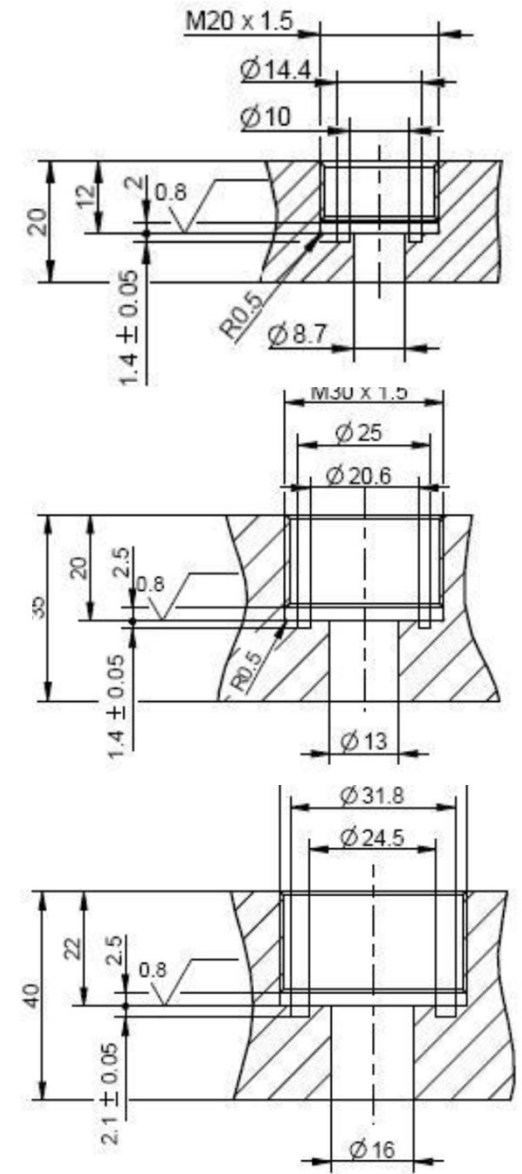
### **FURTHER OPTIONS :**

- Control card of box.
- Other couples and r.p.m.
- Other materials: - Hastelloy C276, B2 ; Titanium ; Inconel
- Speed regulation, measurement and indication.
- Continuous couple measurement.
- Other materials for bearings.
- Mixers/ stirrers: Anchor, propellers, gaseous effect turbines, fixed or mobile baskets
- Adaptor for cone glassware connexion
- In line pneumatic motor.





REFERENCE	COUPLE	POWER	ROTATIONAL SPEED	PRESSURE		SERVICE TEMPERATURE		UA CONNECTOR
				bar	psi	°C	°F	
618 01 00	30	50	2000	400	5800	400	752	M 20 x 150
618 03 00	95	100	2000	400	5800	400	752	M 20 x 150
618 04 00	200	370	1500	400	5800	400	752	M 30 x 150
605 20 00	500	750	1500	400	5800	400	752	M 36 x 150
605 40 00	1000	1500	1500	400	5800	400	752	M 36 x 150





**USES :**

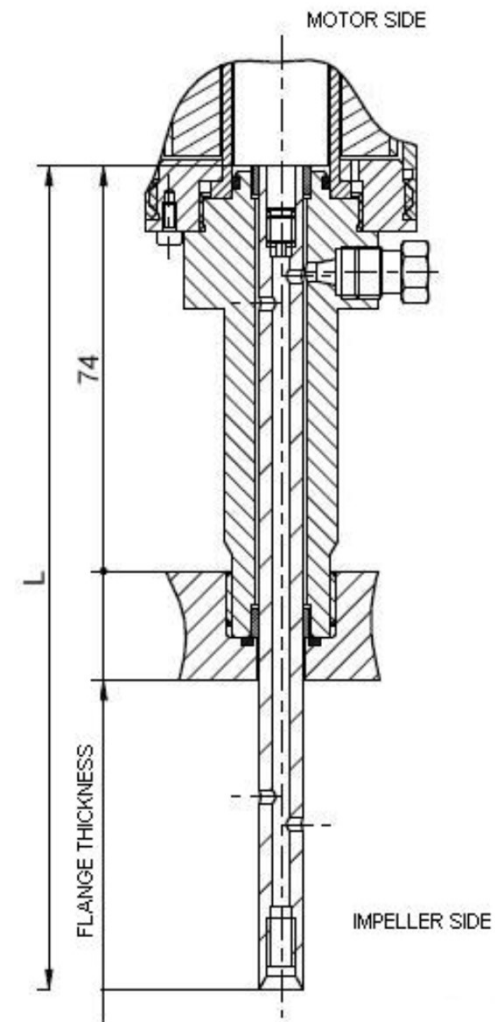
TOP INDUSTRIE's stirring shaft is designed for use with our Magnetic Stirrers with in-line electrical motors (see M1F). They can easily be replaced, and can be sold separately.

**FEATURES:**

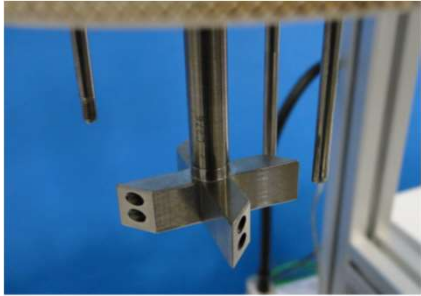
- Is mounted directly on to magnetic elements. (see diagram, M1F) Snap shaft
- Single piece shaft from stirrer to magnetic elements.
- Stirrer is screwed on to the end of the shaft.
- Hollow shaft for gaseous effects.
- Materials: 1.4404 (316L)

Other available materials : Hastelloy, Inconel, Titanium

The length L characterises the stirring shaft. Part of the shaft is inside the stirrer and passes through the autoclave's obturator. Total available shaft length is thus less than L.



REFERENCES	
Réf. 608 00 50	generic reference for all types
Réf. 608 00 51 L ...	(L =length in mm) for autoclaves Top 30 to Top 60
Réf. 608 00 52 L ...	(L =length in mm) for autoclaves Top 80 toTop 100
Réf. 608 00 53 L ...	(L= length in mm) for autoclave Top 120 to Top 160



**FEATURES:**

- Materials : 1.4404 (316L)
- Other available materials: Hastelloy, Inconel, Titanium, Teflon
- Matériaux : 1.4404 (316L)

**TYPES :**

The following impellers are available. The best choice depends on the type of reactants it will be used for.

- Rushton Impeller
- Rushton gas impeller.
- Gas projection impeller.
- Ship propeller.
- Anchor
- Propeller with inclined blades.

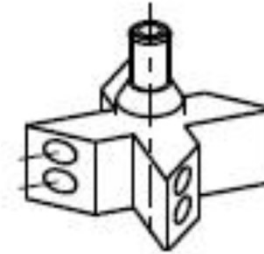
**USES :**

TOP INDUSTRIE impellers are designed for use with our stirring shafts. They constitute a vital part of a highly quality stirring mechanism. They are designed to be easily replaceable, and can be sold separately.

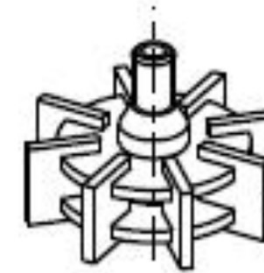
REFERENCE	DIAMETER (mm)
608 00 98 00	40
608 00 97 00	35
608 00 96 00	30
608 00 95 00	25

REFERENCE	DIAMETER (mm)
608 01 98 00	40
608 01 97 00	35
608 01 96 00	30
608 01 95 00	25

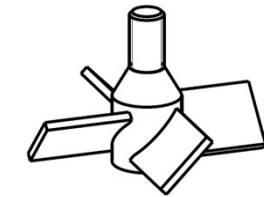
REFERENCE	DIAMETER (mm)
608 02 98 00	90
608 02 97 00	80
608 02 96 00	70
608 02 95 00	60
608 02 94 00	50
608 02 93 00	40
608 02 92 00	35
608 02 91 00	30
608 02 90 00	25



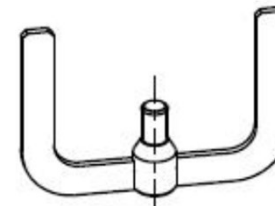
**GAS PROJECTION IMPELLER**



**RUSHTON TURBINE**



**4 INCLINED BADE PROPELLER**



**ANCHOR**