



I Application

The BMI series is a range of vertical agitators with direct drive. They can be used in mixing, dissolution, dispersion, and maintenance processes requiring strong agitation at high speeds, in the food processing, cosmetics, and chemical industries, with the appropriate finish for each case.

These agitators are designed for use in tanks with capacities of up to 10 000 litres, usually with low viscosity products.

I Operating principle

The agitators are usually installed off-centred to prevent product rotation but they can also be installed centred with deflectors in the tank.

The rotating propeller pushes the product towards the bottom of the tank, where it is diverted generating an upward flow along the tank walls so that the product reaches the surface of the liquid. This effect is enhanced if the tank has a rounded base.

I Design and features

Vertical agitator.

Sealing by means of retainer.

Bearing support.

The propeller is fitted and secured to the shaft and the shaft is secured to the half shaft head by means of allen studs; in the case of sawtooth propeller a one-piece shaft is used.

Motor IEC B5, 4 poles, IP55, F-class insulation.

Maximum power 5,5 kW.

Marine propeller (type 10).

I Materials

Parts in contact with the product	AISI 316L
Retainer ring	NBR
Bearing support	Aluminium
Base plate	AISI 316L
Surface finish (except sawtooth propeller)	$Ra \leq 0,8 \mu m$

I Options

Different sealing options.

FPM retainer ring.

Propeller with $Ra \leq 0,5 \mu m$ surface finish and welded to the shaft.

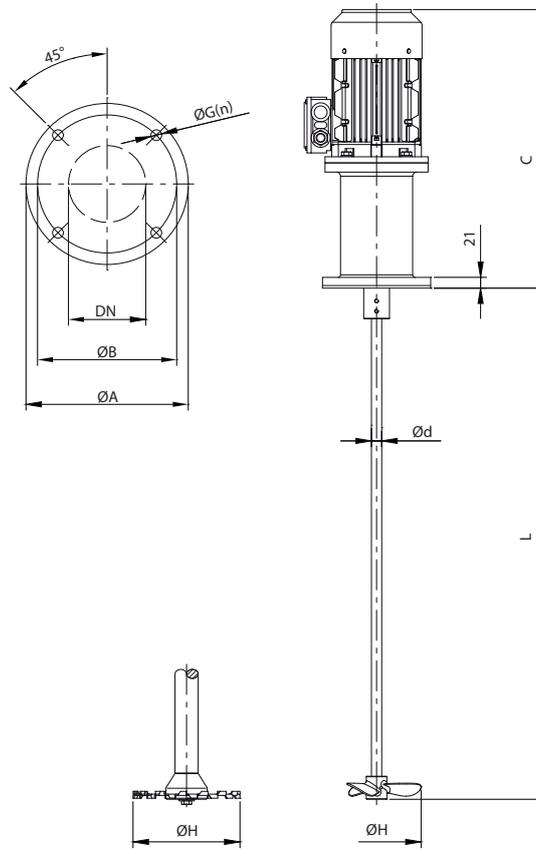
Sawtooth propeller (cowler) in AISI 316L.

Motor shroud.

Other motors and protections on request.



I Technical specifications and dimensions



Agitator	Motor power [kW]	Speed [rpm]	Motor frame	Dimensions [mm]				Agitator shaft [mm]		Type						
				C	Flange			Ø d	L _{max.}	10	4					
					Ø A	Ø B	DN			Ø G(n)	Marine propeller [mm]	Cowler [mm]				
BMI 1.10-4011-1-160	1,1	1500	90	515	210	180	100	14(4)	20	1400	160					
BMI 1.10-4015-1-175	1,5			540							175					
BMI 1.10-4030-1-200	3		100	570							200					
BMI 1.10-4055-1-225	5,5		112	595							225					
BMI 1.10-6007-1-175	0,75	1000	90	515					210	180	100	14(4)	ø depending on application	1400	175	
BMI 1.10-6011-1-200	1,1			540											200	
BMI 1.10-6015-1-225	1,5		570	225												
BMI 1.4-4022-1-150	2,2	1500	100	570											210	180
BMI 1.4-4040-1-200	4		112	595		200										

This selection table is for guidance only. The selection may vary depending on application.

