

General

In metering technology, agitators are useful accessories in order to mix the media to be metered homogeneously. Especially in the case of powdery additives or liquids which are difficult to dilute, the high-speed propeller agitators are essential.

Suspensions must be circulated permanently or at least periodically so that the distribution of the substance remains homogeneous. A (time) switch working synchronously with the metering pump is recommended.

Agitators must always be protected against dry operation.

Drive

AC or 3-phase current motors are connected directly to the agitator shaft. A 3-phase current motor 230/400V, IP55, ISO Cl. F (type JR ... DS), is supplied as standard the version. In the case of AC operation, the 3-phase current motor is equipped with an operating capacitor (type JR ... WS).

Mixing equipment

The agitators are fitted with a three-blade PVDF or stainless steel propeller which is connected to the shaft via a RH thread. Thus the fixed sense of rotation is also to the right, if looked at the motor fan, in order to avoid the propeller to be detached. The pitch of the propeller blades is left-handed so that the media to be mixed is delivered towards the bottom.

Agitator shaft

The agitator shafts are mounted directly on the motor shaft. They are available in stainless steel, stainless steel with PVDF coating or stainless steel with PP coating. Standard lengths according to the following tables are recommended, other lengths can be supplied upon request. The length should be determined so that the distance of the mixing equipment from the tank bottom equals the diameter of the agitator.

Design

The selection of the agitator depends on whether easily soluble substances are used or badly mixable emulsions/suspensions are to be stabilized. The latter require higher power input for the same tank size and maybe continuous operation instead of intermittent operation.



Effervescent and aggressive media

Escaping gases and splashes may damage the motor of the standard version. Therefore the agitator shaft should be equipped with a protective PP sheet with V-ring sealing, if necessary. It can be supplied additionally in connection with JR - WS and JR - DS-type agitators.

Accessories

- intermediate flange with V-ring as protection against escaping gases (for 0.05-0.12 kW agitators, other sizes upon request).

for motor BG 63 Part No. 32306
for motor BG 71 Part No. 35725

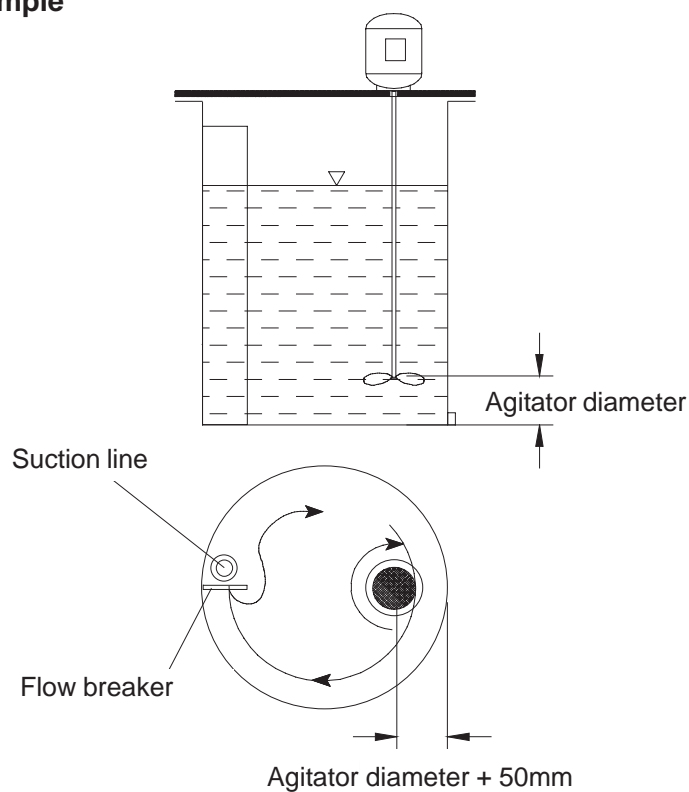
Technical data

Type	Nominal power [kW]	Nominal speed [1/min]	Circulating power [m ³ /h]	Tank size	Propeller diameter [mm]
JR ... WS	0.09	1420	~ 50	up to 300 l	100
JR ... DS	0.12	1370	~ 70	up to 500 l	100
JR ... WS	0.18	1450	~ 70	from 500 l	100
JR ... DS	0.25	1420	~ 70	from 500 l	100
JR ... DS	0.37	1400	~ 100	up to 1000 l	125
	0.75		~ 200	up to 3000 l	150

Other motor versions and shaft lengths upon request.

Notes on installation

It may be useful to provide flow breakers in the tank. The agitator must not be installed concentrically in the tank in order to minimize funnel formation. Suction lines must be rigid. Flexible lines would wind around the agitator shaft. To make sure that metering is not affected the funnel produced during agitation does not allow air to enter into suction line. Therefore the suction line must be installed with the largest possible distance to the agitator. It can be useful to install the flow breaker in front of the suction line so that the funnel flow has no effect.

Installation example

Selection table

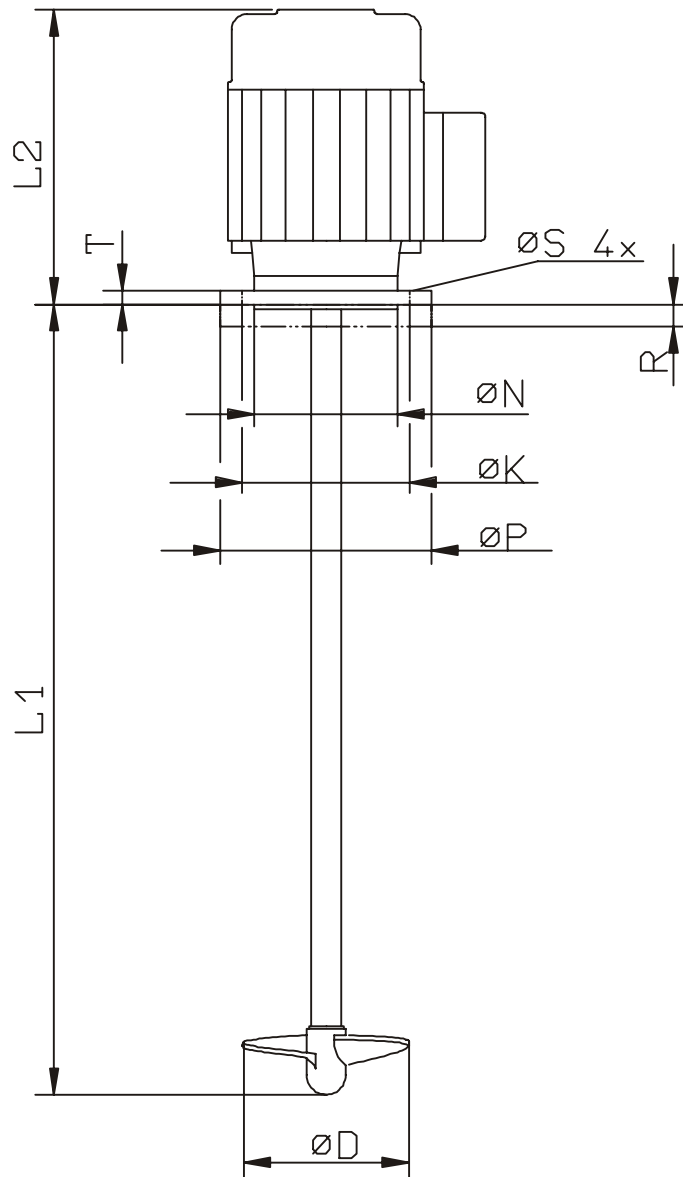
Type	Shaft length	Shaft-material*	Part No. with motor 0.09 kW	Part No. with motor 0.12 kW	Part No. with motor 0.18 kW	Part No. with motor 0.25 kW
JR ... WS (230V 1~)	500	Stainless steel	13600301	-	-	-
		PVDF-coated	13600302	-	-	-
	700	Stainless steel	13600303	-	-	-
		PVDF-coated	13600304	-	-	-
	800	Stainless steel	13600313	-	-	-
PVDF-coated		13600315	-	-	-	
900	Stainless steel	13600305	-	-	13600405	-
	PVDF-coated	13600306	-	-	13600406	-
1000	Stainless steel	13600319	-	-	13600419	-
	PVDF-coated	13600320	-	-	13600420	-
JR ... DS (400V 3~)	500	Stainless steel	-	13600307	-	-
		PVDF-coated	-	13600308	-	-
	700	Stainless steel	-	13600309	-	-
		PVDF-coated	-	13600310	-	-
	800	Stainless steel	-	13600314	-	-
PVDF-coated		-	13600316	-	-	
900	Stainless steel	-	13600311	-	13600411	
	PVDF-coated	-	13600312	-	13600412	
1000	Stainless steel	-	13600321	-	13600421	
	PVDF-coated	-	13600322	-	13600422	

*) propeller in PVDF, stainless steel propeller upon request.
Shaft end fitting: PVDF standard, stainless steel on request.

Type	Shaft length	Shaft material / propeller	Part No. with motor 0.37 kW	Part No. with motor 0.75 kW
JR ... DS (400V 3~)	1000	1.4571 / 1.4571	13600501	-
		PP / PVDF	13600502	-
	1200	1.4571 / 1.4572	13600511	-
		PP / PVDF	13600512	-
1200	1200	1.4571 / 1.4573	-	13600521
		PP / PVDF	-	13600522

Dimensions

Agitator JR as standard version



Dimension table [dimensions in mm]

Motor size	Flange-Ø P	Ø K	Ø N	R	T	Ø S	Ø D	L1	L2
0.09/0.12 kW	140	115	95	15	9	4 x Ø 9.5	100	refer to selection table	195
0.18/0.25 kW	160	130	110	-	9	4 x Ø 9.5	100		220
0.37 kW	160	130	110	-	9	4 x Ø 9.5	125		201
0.75 kW	200	165	130	-	10	4 x Ø 11.5	150		232