

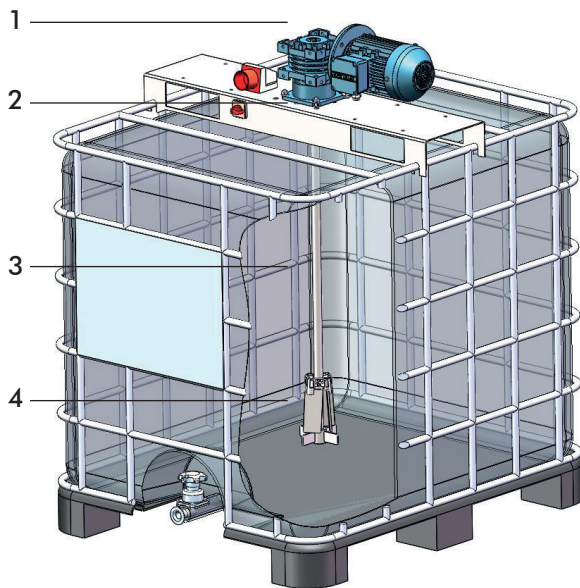
INVENT iBC-MIX®

IBC, Tote, Pallet Tank Mixing

IBCs¹, tote, or pallet tanks are often used for the transport and storage of bulk liquids, such as chemicals, flocculants, coagulants, food and beverage ingredients, paint and coatings pre-products or final products, or other commodities. Many of these products or pre-products consist of more than one phase, and segregate if the suspension is not mixed continuously or at least before the liquid suspension or liquid/liquid mixture is withdrawn from the tank. For any of such applications the **INVENT iBC-MIX®** is an easy solution for container mixing.

DESIGN

The **INVENT iBC-MIX®** is designed for the continuous operation in steel caged IBC tanks of various standard sizes and liquids of different composition, viscosity, and rheology. It consists of an AC drive unit, a docking traverse, the shaft and an impeller of application dependent design.



The **INVENT iBC-MIX®**: 3D representation

CONSTRUCTION

1 AC Drive Unit

A heavy duty geared or direct drive unit with an AC motor is used to drive the shaft and impeller at the desired rotational speed. The drive unit is fully equipped with start/stop switch and cable connection. It also can be supplied in an explosion proof version according to ATEX Directive 2014/34/EU in gas or dust explosion-proof designs or with pneumatic drive unit.

2 Docking Traverse

The docking traverse is made from stainless steel (SS 304). It supports the drive unit, integrates start/stop switch and cable connection. The complete assembly docks onto the IBC. It also can be securely handled with a fork lift. If required, it can be supplied with a seal, which prevents any vapors from leaving the IBC.

3 Shaft

The shafts are coupled with the drive unit and carry the application dependent impeller(s). They are made from stainless steel SS 316.

4 Impeller

The **INVENT iBC-MIX®** impellers are chosen according to the application or to client's specification. The main parameters for the selection are the size of the IBC and the viscosity of the fluid. In the majority of applications pitched blade or marine type impellers are used. For lower speed application with larger impeller diameters a folding impeller design is available. All impeller are made from stainless steel SS 316 on site.

The shafts can be supplied in stainless steel or coated carbon steel or according to the client's specification.

¹ IBC: Intermediate Bulk Container

iBC-MIX®

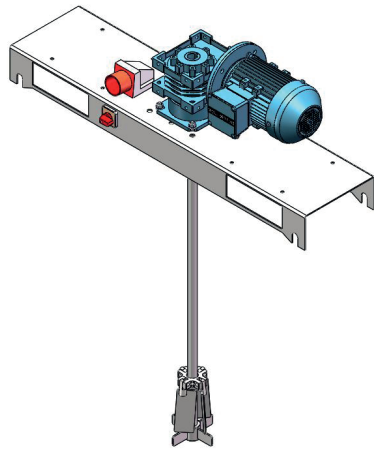
APPLICATIONS

The **INVENT iBC-MIX®** has a wide range of applications. It can be used for the continuous mixing of chemicals, flocculants, coagulants or limestone in the IBCs to ensure homogeneous concentration of the suspension before it is dosed into the process. Other applications are the mixing of paint or metal particles in suspension in the paint and coating industry or the suspension of ingredients in the food and beverage industry.

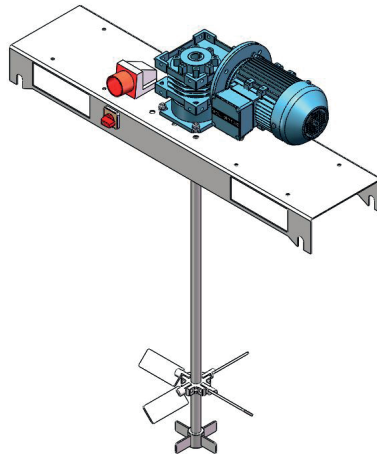
Any application in the IBC container which requires any kind of mixing can be catered with the **INVENT iBC-MIX®**.

OPTIONS

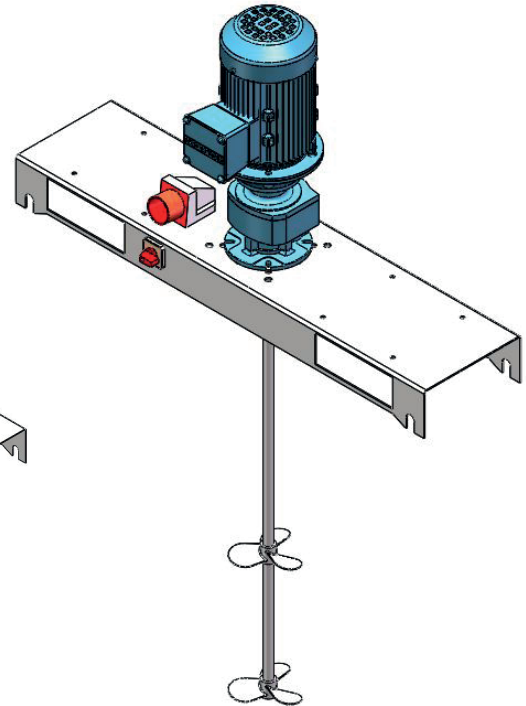
We can offer tailor-made solutions for special mixing tasks and supply the whole system explosion proof according to ATEX Directive 2014/34/EU (formerly Directive 94/9/EC) in gas or dust explosion-proof designs.



Folding Impeller (folded)



Folding Impeller (unfolded)



Dual Marine Impeller with direct drive

TECHNICAL DATA

		iBC-MIX® System 1	iBC-MIX® System 2	iBC-MIX® System 3
Motor Power, P [hp]		1 / 2	1	2
Rotational Speed, n [rpm]		1,000 / 1,500	200	300
Mixer Type	1	Marine Impeller	Folding Impeller	Folding Impeller
	2	Marine Impeller	Flat Blade Disc Turbine	Flat Blade Disc Turbine
Mixer Diameter, D [inch]	1	5.0 / 6.0	13.8	13.8
	2	5.0 / 6.0	5.5	5.5
Viscosity Range, μ [mPas]		1 - 500	501 - 2,000	2,001 - 10,000

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