



ISO-MIX®

Ahead in technology

IMLF 10

IMLF 10 Rotary Jet Head Mixer

The patented IMLF 10 is a Rotary Jet Head Mixer which provides fast and efficient, hydraulically-balanced mixing in tanks. It can also be used for efficient gas dispersion. Furthermore, it is the most efficient CIP tank-cleaning machine on the market.

Applications

The IMFL 10 is the smallest mixer in the product portfolio of ISO-MIX. It is typically used in small-scale and pilot-scale tanks of volume 10 L – 500 L used e.g. for testing prior to scale up in the food industry, the beer and beverage industry, the biotech/pharma industry, the chemical industry, and other industries where liquid mixing and gas dispersion are central.

The IMFL 10 is only used in liquids containing no fibrous or abrasive particles.

Operation

The liquid to be mixed is circulated from the tank via a pump to the IMLF 10 which is positioned under the liquid surface. The liquid flow is used to drive a gearing system which makes the nozzles of the IMLF 10 rotate around both the horizontal and vertical axes.

When small volumes are mixed with a large liquid volume, the IMLF 10 is most efficient if the liquid to be mixed into the large liquid volume is added in the recirculation loop at the suction side of the pump.

In gas dispersion applications, gas is added on the pressure side of the pump.

Benefits

Using a Rotary Jet Head Mixer makes it possible to perform fast and efficient mixing in an exceptionally sanitary system. In traditional systems, using impeller mixers, a rotating shaft penetrates the tank wall and a mechanical seal and a gear box are installed. With the ISO-MIX system the shaft, seal, and gearbox are eliminated, and a more sanitary design is obtained.

With impeller mixers it is difficult to achieve good mixing without introducing baffles in the tank. However, if efficient cleaning-in-place is required, baffles make the job difficult. Hence in e.g. the food industry and in the beer and beverage industry they are normally avoided. With the rotary jet head mixing technology good mixing is achieved without the use of baffles.

The ISO-MIX Rotary Jet Head can also be used for gas dispersion.

The Rotary Jet Head can furthermore be used for efficient CIP when the tank is empty, saving liquid, chemicals and energy compared to a fixed spray ball CIP system.

Standards

The IMLF 10 is manufactured in accordance with ISO 9001 standards.

ISO-MIX A/S

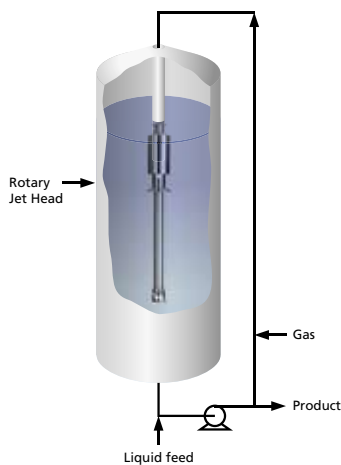
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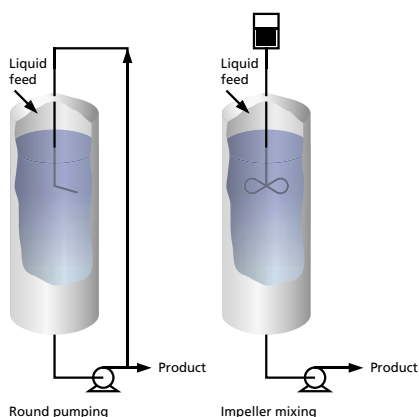
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The ISO-MIX technology



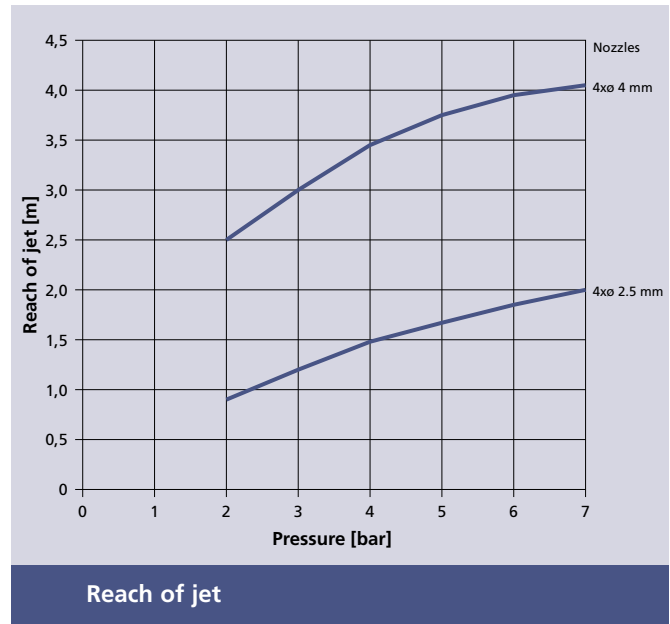
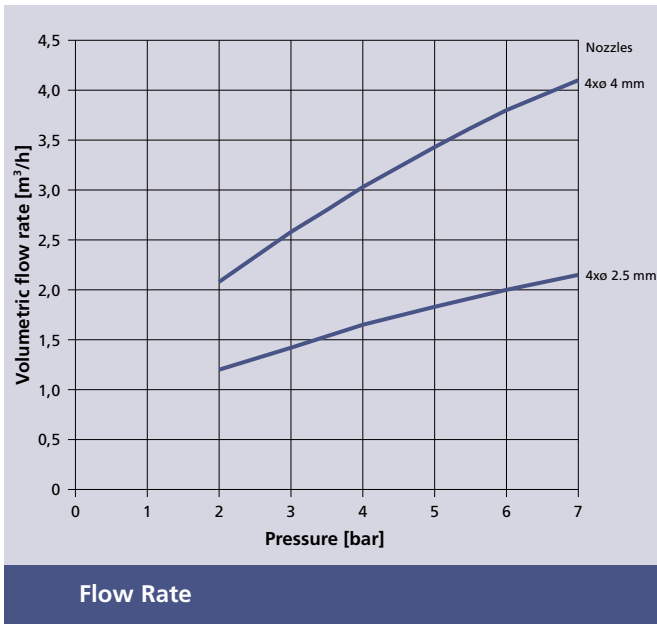
Traditional mixing technology





ISO-MIX®

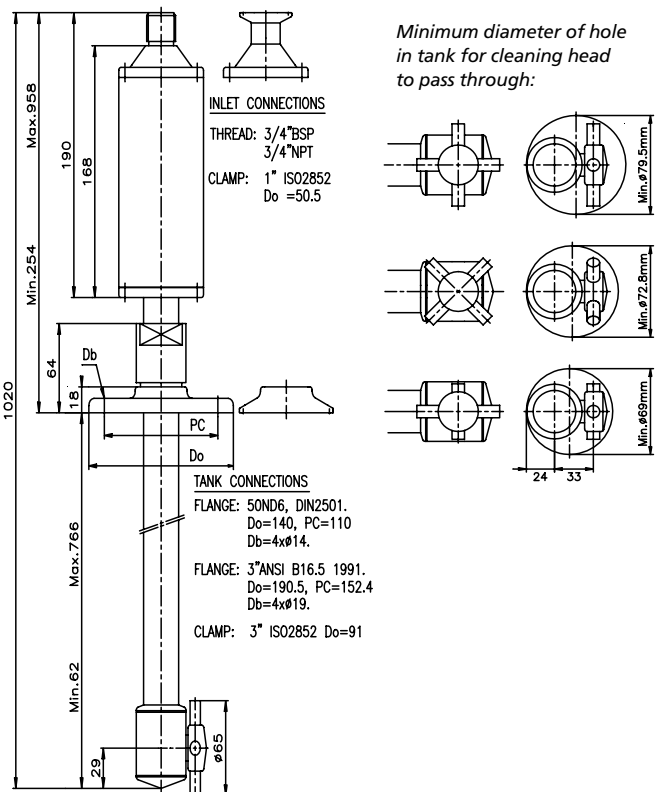
Ahead in technology



Relationship between inlet pressure and flow rate for liquids with water-like properties for the IMLF 10 Rotary Jet Head.

Reach of jet for the IMLF 10 during cleaning.

Dimensions [mm]



Specifications

Materials: AISI 316L, AISI 316, SAF 2205 (UNS 31803), PTFE, PVDF, PEEK, FEBI Silicone

Weight: 7 kg (15 lbs)

Lubricant: Self-lubricating with the mixing/cleaning fluid

Working pressure: 2 - 7 bar (30 - 100 psi)

Recommend pressure during mixing: 2-6 bar (30-85 psi)

Recommended pressure during CIP: 3-6 bar (45-85 psi)

Max. working temperature: 95°C (203°F)

Max. ambient temperature: 140°C (284°F)

Inlet connection: Thread: 3/4" BSP or NPT, male
 Clamp: 1" ISO 2852

Tank connection: Flange: 50 ND6 DIN 2501, or 3" ANSI B 16.5
 Clamp: 3" ISO 2852

Min. tank opening: See dimension drawings