Fristam PE Powder Induction

The turbo intake for large volumes of powder.



Scan here with your device to see the PE in 3D, and in your own space.

Fristam
Mixing & Blending Experts

Fristam PE - Our Powder Intake Solution

For fast, continuous and powerful intake of soluble powders into liquid.
With its compact, mobile design the Fristam PE can be easily incorporated into an existing production line or used as a stand-alone, portable powder induction station.

DESIGN PRINCIPLE

The PE's design principle of forced passage ensures that powder is quickly blended with the liquid medium.

With the Fristam PE you can achieve significant time and raw material savings compared to conventional methods of dissolving substances in large tanks or chambers using mixers.

The ergonomic working height eliminates health and safety risks brought on by having to add the powder to tanks from above: No more climbing ladders with heavy powder bags.

POWERFUL INTAKE

The Fristam PE is designed to be a universal powder-intake station. Its design allows for the especially fast intake of large volumes of easily soluble powder in liquids.

CONSULTING & TRIALS

Fristam are happy to loan you the PE to use in your system for a trial period free of charge. We'll help you with the initial set-up and will be available to you throughout the entire lifecycle of the PE.

CORE BENEFITS OF THE PE

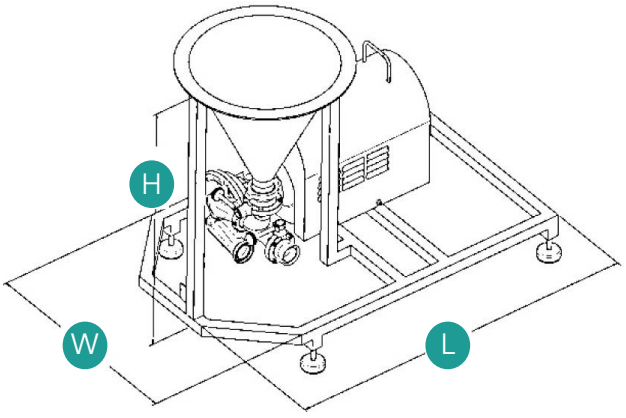
- A simple and economic solution for integrating a powder induction element into your process
- Rapid powder intake speeds up to 8 tonnes/hr
- Waist-height working - improving health & safety
- Reduced energy consumption

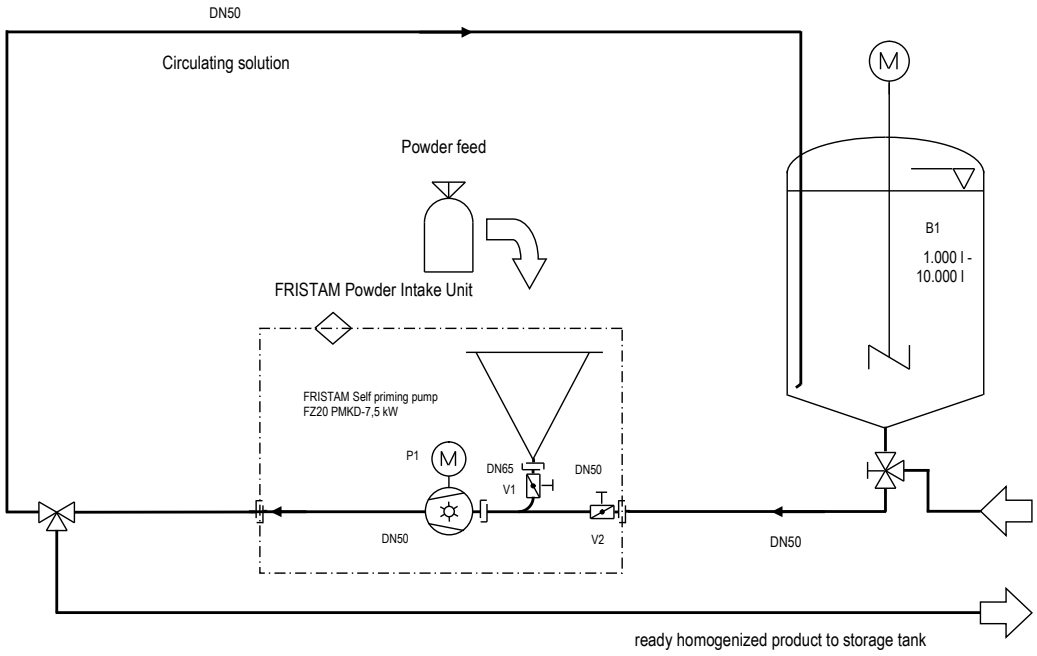




TECHNICAL DETAILS - FRISTAM PE POWDER INTAKE SOLUTION

SIZE	Self-priming side-channel pump 1,450 rpm – 50 Hz		Max. powder intake capacity [kg/h]		Recommended min. Ø of system pipe [mm]	Dimensions L x W x H [mm]
	Pump model	Output [kW]	Granulated sugar	Milk or protein powder		
PE 01	FZ 15	3 – 4	400	350	40	1,150 x 700 x 1,050
PE 02	FZ 17	4 – 5.5	1,500	1,200	50	1,100 x 800 x 1,050
PE 03	FZ 20	5.5 – 7.5	3,000	2,800	65	1,300 x 800 x 1,070
PE 04	FZ 22	11 – 15	4,000	3,800	80	1,400 x 800 x 1,200
PE 05	FZ 25	15 – 18.5	8,000	6,500	125	1,400 x 900 x 1,150





Powder mixer comparison table
Which mixer do you need?






	PM	PM-D	PL	PE
Maximum viscosity	2,500 cP	up to 1,000,000 cP	500 cP	2,000 cP
Soluble powder (e.g. as sugar & salt)	Yes	Yes	Yes	Yes
Thickening agents (e.g. xanthan Gum, carbomers, etc.)	Yes	Yes	No	No
Waist-height table top	Yes	Yes	Optional	Optional
Maximum shear rate	125,000 1/s	125,000 1/s	125,000 1/s	NA
Configuration	FZ induction pump FS Shear Blender Hopper, table top and control panel	FDS induction pump FS Shear Blender, Hopper, table top and control panel	FSI Shear Blender + Hopper and frame	FZ induction pump Hopper and frame



This table is intended as a helpful starting point for identifying a suitable mixer for your application. However, selecting the right system depends on a detailed understanding of your process. For a more precise recommendation, contact our Mixing & Blending engineers to review your requirements and advise on the most appropriate solution.

Only the best mixers for the best products: ideal solutions for even the most challenging applications

Around the globe, Fristam Shear Blenders, Powder Mixers and Colloid Mixers are used by leading companies in food, beverage, pharmaceutical and chemical industries. The exceptional quality of construction and manufacturing makes our rotational homogenizers ideal for blending and dispersing in any industrial process.

PRODUCT GROUPS

- Alcoholic beverages: liqueurs, wine, champagne, distiller's wash, spirits, alcoholic solutions
- Biotechnology: cell suspensions, nutritive solutions, enzymes
- Brewing: mash, yeast, beer, hot and cold wort, waste beer
- Chemicals: inks, dyes, detergents, cleaning agents, photographic emulsions, wastewater
- Dairy products: butter, yogurt, cream, skimmed milk, milk concentrate, set milk, flavoured milk, whey, whey concentrate, raw milk, cream cheese
- Foods: sauces, soups, flavorings, broth, vinegar, fruit and vegetable juices and purees, mayonnaise, oils and fats, whole egg, brine, dough
- Non-alcoholic beverages: syrup, concentrates, fruit juices, mineral water, sodas and mixed drinks containing CO2, concentrates with fruit pulp
- Paper and cellulose: glues, starch, resin and kaolin solutions
- Pharmaceuticals: infusion solutions, lotions, ointments, plant extracts, perfumes, suspensions, toothpaste, ethanol, enzymes, culture mediums, toxic and alcoholic solutions, special pastes
- Sugar and confectionery: chocolate, liquid sugar, molasses as well as starch solutions



Examples of Fristam Mixing & Blending in action, across a range of different industries

Fristam mixing and blending solutions enable manufacturers to achieve consistently homogenized products of superior quality in a single processing step. They can also be integrated downstream to refine products from earlier production stages, delivering precise consistency and a high quality finished product.

DAIRY INDUSTRY

- Dissolving and homogenizing stabilizers such as gelatin, pectin, carrageen, xanthan gum, guar flour, carob gum etc. in fermented milk products
- Dissolving sugar, milk-, whey-, yogurt-, cream- or protein powder
- Recombining milk with skim-milk powder, water, butterfat or vegetable oil
- Producing shakes with whey, soy milk or milk, ice cream, etc.
- Dissolving concentrated milk protein, oil or fat in milk, in order to raise protein or fat levels in the production of cheese

FOOD INDUSTRY

- Dissolving yeast extract for health products
- Dissolving protein powder, thickeners and stabilizers
- Dissolving starch, salt, sugar, etc. (in the production of additives, eg. for tomato ketchup and sauces)
- Dissolving aspartame and other sugar substitutes
- Producing toffee cream from sugar, glucose, carrageen and fat
- Dissolving aromas and citric acid
- Dissolving spray-dried protein powder in the production of baked goods
- Dissolving wheat and rye flour or shred in the production of sourdough, breakfast cereals or baking mixes
- Dissolving pectin, carboxymethyl cellulose (CMC), Carbopol, arabic gum and other thickeners such as carob gum, guar flour, and xanthan gum

BEVERAGE INDUSTRY

- Dissolving sugar, minerals, pectin, xanthan, aromas, citric acid, bentonite etc.
- Dissolving dry yeast in the production of beer
- Dissolving sugar in alcohol

CHEMICAL INDUSTRY

- Dissolving powders in liquids such as Polytetrafluoroethylene (PTFE), and additives in lubricants
- Dissolving minerals such as calcium carbonate, carboxymethyl cellulose
- (CMC), bentonite, layered silicate when producing drilling emulsions
- Dissolving micro-capsule powders and fillers such as zeolite and aluminum hydroxide in the production of polyurethane sheets

PHARMACEUTICAL AND BEAUTY CARE INDUSTRIES

- Dissolving saline eg. for isotonic solutions suitable for injection
- Dissolving phosphate and iodine powder in the production of disinfectant ointments
- Dissolving emulsifiers and additives in the production of creams and lotions
- Dispersing carbopol in the production of hand sanitizer



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