



Emulsifying, mixer and blenders Stursan

Pumping solutions for the food, beverage,
pharmaceutical and chemical industry

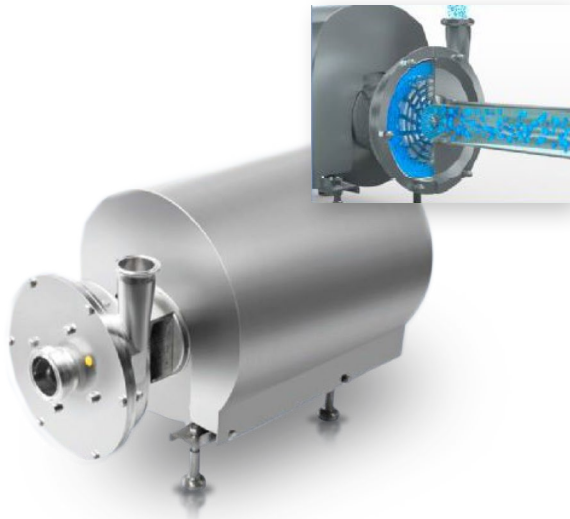
STURSAN

Rev 1. 07/2024

Emulsifying, mixer and blenders Series

Single Stage JZ1 Series

Emulsifying homogenizing



Solution for high-efficiency, dispersion, cut, refinement, smash, emulsification, mixing, homogenization, high purity.

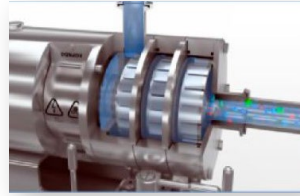
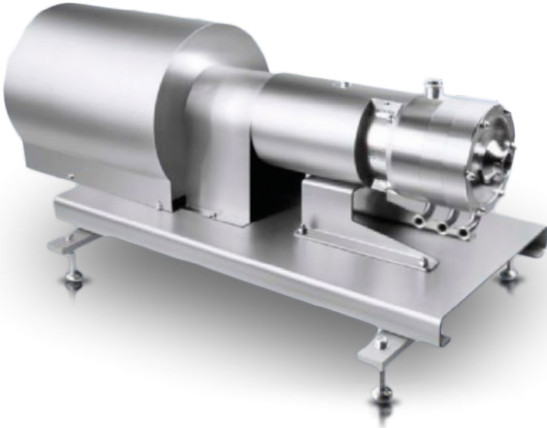
- **Max. Flow Rate:** 50 m³/h - 2900 rpm
- **Media refinement:** < 60 mesh (300 μm)
- **Temperature:** -20°C to 140°C
- **Max. power:** 75 KW



Model	Viscosity (CPS)	Power (kw)	Flow (m ³ /h)	Outlet Pressure (bar)	Rotate Speed (r/min)	Inlet/Outlet	Weight (kg)				
DJ-JZ1-130	≤200	2.2	8	≤1.5 bar	2950	1.5"/1.5" DN40/DN40"	43.0				
	≤500	5.5					74.0				
	≤800	7.5					78.0				
	≤1000	3.0	4	≤1.5 bar	1450	1.5"/1.5" DN40/DN40	55.0				
	≤2000	5.5					77.0				
	≤3000	7.5	2.7	≤1.5 bar	950	1.5"/1.5" DN40/DN40	88.0				
	≤3000	3.0					75.0				
	≤5000	5.5					97.0				
≤7000	7.5	133.0									
DJ-JZ1-150	≤200	4.0	12	1.5	2950	2"/1.5" DN50/DN40	66.0				
	≤250	5.5					84.0				
	≤350	7.5					88.0				
	≤500	11.0					132.0				
	≤500	3.0					85.0				
	≤1000	5.5					107.0				
	≤1500	7.5	6	1.5	1450	2"/1.5" DN50/DN40	143.0				
	≤2000	11.0					163.0				
	≤1000	3.0	4	1.5	950	2"/1.5" DN50/DN40	85.0				
	≤2000	5.5					107.0				
	≤3000	7.5					143.0				
	≤5000	11.0					163.0				
DJ-JZ1-170	≤100	4.0	15	1.5	2950	2.5"/2" DN65/DN50	80.0				
	≤200	7.5					102.0				
	≤300	11.0					146.0				
	≤500	18.5					167.0				
	≤300	3.0					79.0				
	≤600	5.5					101.0				
	≤800	7.5	7.5	1.5	1450	2.5"/2" DN65/DN50	112.0				
	≤1000	11.0					154.0				
	≤1500	15.0					169.0				
	≤2000	18.5	5.5	1.5	950	2.5"/2" DN65/DN50	199.0				
	≤1000	4.0					107.0				
	≤2000	7.5					157.0				
	≤3000	11.0					177.0				
	≤4000	15.0					212.0				
	≤5000	22.0					263.0				
	DJ-JZ1-190	≤120	7.5	25	1.5	2950	2.5"/2.5" 3"/2.5"	107.0			
		≤200	11.0					151.0			
		≤320	22.0					199.0			
≤500		30.0	247.0								
≤500		7.5	12.5					1.5	1450	2.5"/2.5" 3"/2.5"	117.0
≤700		11.0									159.0
≤1000		15.0		174.0							
≤1300		22.0	8.3	1.5	950	2.5"/2.5" 3"/2.5"	217.0				
≤1800		30.0					271.0				
≤1000		7.5					162.0				
≤2000		15.0					217.0				
≤3000		22.0					268.0				
≤4000		30.0					331.0				
≤5000		37.0	385.0								
DJ-JZ1-210		≤120	11.0	40	1.5	2950	3"/2.5" DN80/65	167.0			
		≤220	22.0					215.0			
		≤320	30.0					263.0			
		≤500	37.0					294.0			
	≤500	11.0	20					1.5	1450	3"/2.5" DN80/65	175.0
	≤700	15.0									190.0
	≤1000	22.0		233.0							
	≤1500	30.0	13.3	1.5	950	3"/2.5" DN80/65	287.0				
	≤2000	45.0					355.0				
	≤800	7.5					178.0				
	≤1200	11.0					198.0				
	≤1500	15.0					233.0				
	≤2000	18.5					270.0				
	≤3000	30.0	347.0								
	≤4000	37.0	65	1.5	2950	4"/3" DN100/80	401.0				
	≤5000	45.0					581.0				
	≤120	15.0					32.5	1.5	1450	4"/3" DN100/80	167.0
	≤150	22.0									202.0
≤200	30.0	250.0									
≤300	45.0	325.0									
≤400	55.0	386.0									
≤500	75.0	598.0									
≤300	11.0	21.7	1.5	950	4"/3" DN100/80	162.0					
≤500	18.5					207.0					
≤800	30.0					274.0					
≤1000	37.0					315.0					
≤1500	55.0					391.0					
≤500	7.5					165.0					
≤800	11.0	185.0									
≤1000	15.0	220.0									
≤1500	22.0	271.0									
≤2000	30.0	334.0									
≤4000	45.0	568.0									
≤5000	75.0	774.0									

Multi Stage JZ2 and JZ3 Series

Emulsifying homogenizing JZ2 and JZ3 Series



- Max. Flow Rate: 50 m³/h - 2900 rpm
- Media refinement: < 1000 mesh (200 μm)
- Temperature: -20°C to 140°C
- Max. power: 160 KW

DJ-JZ2 series multi-stage emulsifying homogenizing pump selection table (without motor)

Model	Viscosity (CPS)	Flow (m ³ /h)	Outlet pressure (bar)	Rotate Speed (r/min)	Inlet/Outlet	Weight (kg)
DJ-JZ2-130	≤1500	8	1.5	2950	1.5"/1.5"-1.25" DN40/DN40-32	49
	≤3500	4	1.5	1450		
	≤6000	2.7	1.5	950		
DJ-JZ2-150	≤700	12	2.0	2950	2"/1.5" DN50/40	54
	≤3000	6	2.0	1450		
	≤5000	4	2.0	950		
DJ-JZ2-170	≤1000	15	2.0	2950	2.5"/2" DN65/50	57
	≤3000	7.5	2.0	1450		
	≤5000	5	2.0	950		
DJ-JZ2-190	≤500	25	2.0	2950	2.5"/2.5" 3"/2.5"	78
	≤3000	12.5	2.0	1450		
	≤5000	8.3	2.0	950		
DJ-JZ2-210	≤900	40	2.0	2950	3"/2.5" DN80/65	89
	≤2700	20	2.0	1450		
	≤5000	13.3	2.0	950		
DJ-JZ2-240	≤550	65	2.0	2950	4"/3" DN100/80	104
	≤2300	32.5	2.0	1450		
	≤6000	21.7	2.0	950		



DJ-JZ3 series multi-stage emulsifying homogenizing pump selection table (without motor)

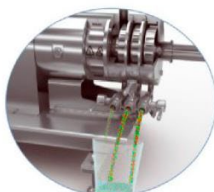
Model	Viscosity (CPS)	Flow (m ³ /h)	Outlet pressure (bar)	Rotate Speed (r/min)	Inlet/Outlet	Weight (kg)
DJ-JZ3-130	≤1500	8	1.5	2950	1.5"/1.5"-1.25" DN40/DN40-32	56
	≤3500	4	1.5	1450		
	≤6000	2.7	1.5	950		
DJ-JZ3-150	≤700	12	2.0	2950	2"/1.5" DN50/40	62
	≤3000	6	2.0	1450		
	≤5000	4	2.0	950		
DJ-JZ3-170	≤1000	15	2.0	2950	2.5"/2" DN65/50	67
	≤3000	7.5	2.0	1450		
	≤5000	5	2.0	950		
DJ-JZ3-190	≤500	25	2.0	2950	2.5"/2.5" 3"/2.5"	88
	≤3000	12.5	2.0	1450		
	≤5000	8.3	2.0	950		
DJ-JZ3-210	≤900	40	2.0	2950	3"/2.5" DN80/65	102
	≤2700	20	2.0	1450		
	≤5000	13.3	2.0	950		
DJ-JZ3-240	≤550	65	2.0	2950	4"/3" DN100/80	120
	≤2300	32.5	2.0	1450		
	≤6000	21.7	2.0	950		



Bottom drain valve



Single-stage discharge or sampling



All discharge or sampling



First stage stators and rotors



Second stage stators and rotors



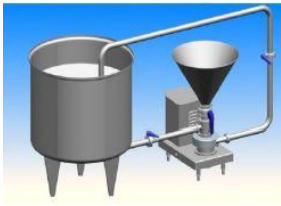
Third stage stators and rotors

HHQ Vertical and horizontal Series

Blender solid/liquid mixer

Solution for emulsifying, mixing, adjustable, multi-tasking powder and liquid mixing.

This mixing units are for mixing solid or powder into the liquid.



Model	Power	Outlet pressure (bar)	Flow (m ³ /h)	Applicable mixture viscosity	Hopper volume	Solid suction volume	Solid Inlet	Liquid Inlet	Outlet	Connection way
Stur ST-HHQ - 10	3kw	3.0	10	≤2000	45L	2000kg/h	DN65-3"	DN40-1.5"	DN50-2"	Clamp, Thread
	5.5kw			≤3000						
Stur ST-HHQ - 20	4kw	3.0	20	≤2000	45L	3000kg/h	DN65-3"	DN40-1.5"	DN50-2"	Clamp, Thread
	7.5kw			≤3000						
Stur ST-HHQ - 30	5.5kw	3.0	30	≤2000	45L	4200kg/h	DN80-3.5"	DN50-2"	DN65-2.5"	Clamp, Thread
	11kw			≤3000						
Stur ST-HHQ - 40	7.5kw	3.0	40	≤2000	45L	5500kg/h	DN80-3.5"	DN50-2"	DN65-2.5"	Clamp, Thread
	15kw			≤3000						
Stur ST-HHQ - 50	11kw	3.0	50	≤2000	65L	7000kg/h	DN100-4"	2.5"	DN80-3"	Clamp, Thread
	18.5kw			≤3000						
Stur ST-HHQ - 60	15kw	3.0	60	≤2000	65L	9000kg/h	DN100-4"	2.5"	DN80-3"	Clamp, Thread
	22kw			≤3000						

HHQ-KTF Horizontal Series

- **Max. Flow Rate:** 9000 kg/h
- **Max. thickeners processing capacity:** 3000kg/h (Base on material's viscosity and density)
- **Temperature:** < 130°C



Materials

- **Wetted parts:** 316L Stainless Steel Cast and machined.
- **Impeller:** AISI-316L Stainless.
- **Mechanical Seal:** Simple SiC/SiC or Double SiC/SiC with Flush.
- **O’rings:** EPDM, FKM, NBR (FDA)

Surface finished

- **Surface finished:** Hygienic quality, hand polished welds.
- **Standard (Wetted parts Ra < 0,8 CNC mechanical finishing. Open impeller Ra<3,2)**
- **On demand (Wetted parts and impeller; Ra < 0,8 or Ra < 0,5 CNC mechanical finishing)**

Connections

- **Input/Output connection:** DIN 11851 / SMS/ ISO / IDF / RJT / ASME BPE 3A.
- **Type:** thread, clamp, flange, aseptic flange.

Certification and Compliance



Applications



- **Food and beverage:** Juice, jam, ice cream, dairy products, food additives, tea drinks, chocolate, soy milk, essence, salad dressing, chill sauce, mayonnaise, tomato sauce, mustard, yogurt, sour cream, pudding, etc.



- **Dairy chemical:** Liquid detergent, liquid soap, facial cleanser, emulsified silicone oil, fragrance compound, skin care product, cosmetics, cream, shampoo, shower gel, etc.



- **Bio-pharmaceutical:** Injection, antibiotic, medicine emulsion, medicine emulsifiable paste, health care products, microcapsule emulsification, lotion, cell tissue smash, etc.



- **Additives and Thickeners:** Aspartame, non-skimmed milk powder, salt, citric acid, sugar, egg powder, whey protein concentrate, calcium carbonate, honey, powder essence and other additives, gels, pectin, synthetic thickeners, starch, gelatin and other thickeners.



- **Fine chemical engineering:** Pigment, dyestuff, plastic additive, textile assistant, adhesive, resin emulsification, hot melt adhesive, sealant, glue, sizing agent, finishing agent, surfactant, dye leveller, carbon black dispersion, anti-sticking agent, textile finishing agent, brightener, leather auxiliaries, pigment paste, etc. Which media need to be emulsified and homogenized.



- **Coating & ink:** Printing ink, oil paint, emulsion paint, coating, nano paint, photocurable coating, coating adhesive, carbon black dispersion, glaze, bentonite, dye compounds, etc.



- **Pesticide:** Insecticide, herbicide, pesticide miscible oil, fertilizer, inert ingredient, etc. Which media need to be emulsified and homogenized.

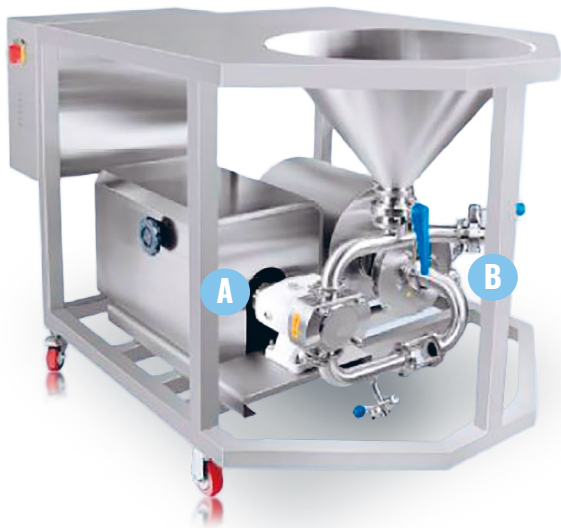


- **Semiconductor:** Dispersion & depolymerization of nanometre materials, etc.

Emulsifying, mixer and blenders SKID Series

PMTU Series

Complete mixer system with hopper, emulsifying unit and lobe pump to mixtures with high viscosity.



Lobe Pump



Emulsifying Pump



Powder and liquid are strongly sucked into the pump chamber



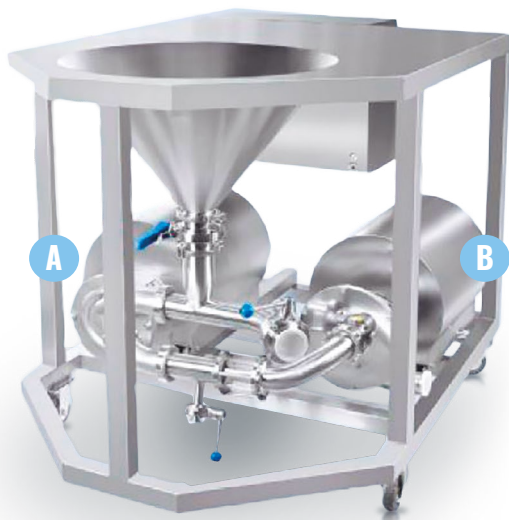
The material is being homogeneously mixed



The homogeneous mixture is delivered to the tank equipment

PMZX Series

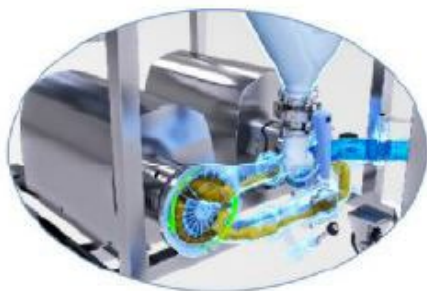
Complete mixer system with hopper, emulsifying unit and centrifugal pump to mixtures with low viscosity.



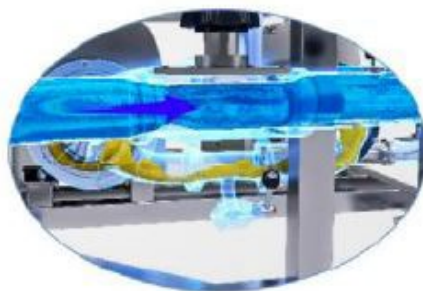
Emulsifying Pump



Centrifugal Pump



Powder and liquid are strongly sucked into the pump chamber



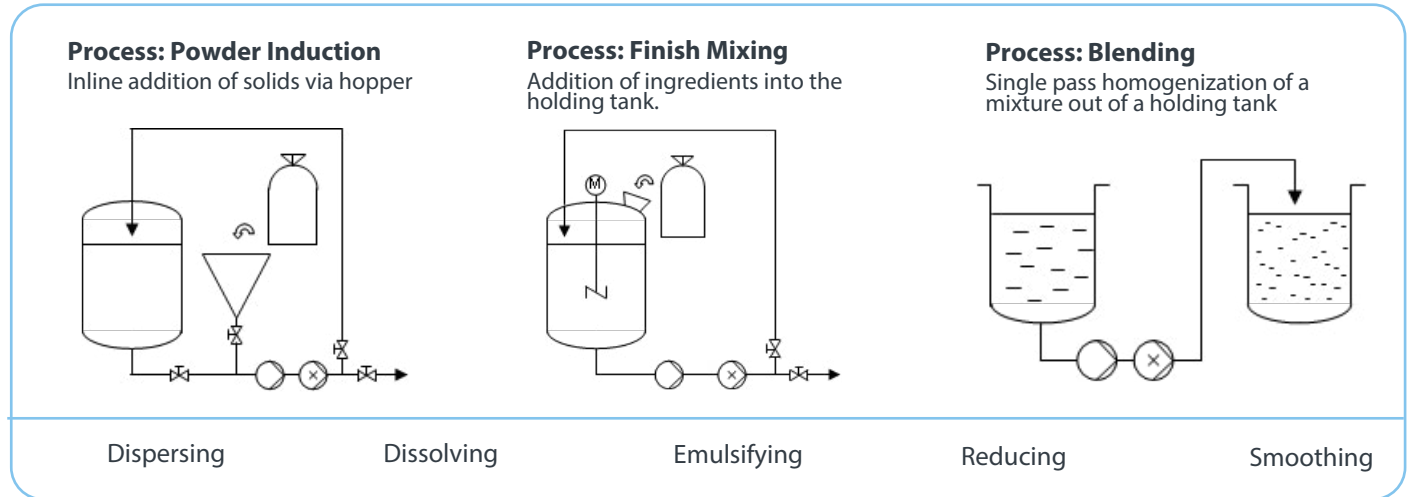
The material is being homogeneously mixed



The homogeneous mixture is transported to the tank equipment

Application Data Sheet: Mixing and Blending

Process Requirements



Process Parameters

Batch Size (liter) Flow Rate(l/min)
 Batch Process Time (min) Max Pressure (Bar)

End Product

Description

Total Quantity (Kg | L)

Max Viscosity (cP @ °C)

Density (Kg/m³)

Max Temp °C

Flow Properties similar to:

Does the end product tend to foam?

No A Little A Lot

Is the end product abrasive?

No Slightly Very


Liquid Ingredients	Description	Qty (m ³)	Density Kg/m ³	Viscosity (cP)
Liquid 1				
Liquid 2				


Dry Ingredients	Description	Qty (m ³)	Bulk Density Kg/m ³	Soluble (y/n)
Powder 1				
Powder 2				

Electrical Requirements

Voltage Phase Hz IP Inverter Yes No



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