

Technical Parameters :

KVM- 10L Lab Emulsifying Mixer



Equipment Information

Description			KVM-10L Lab Emulsifying Mixer
Pot capacity(L)	Main pot	10L	
Motor (KW)	Blending power(kw)	1.5+0.55KW	
	Blending rotation speed(r/min)	0-63	
	Vacuum pump(kw)	0.75kw	
	Electric heating(kw)	3kw*1	
	Homogenizing rotation speed(r/min)	0-2800	
	Hydraulic motor(kw)	0.75	
Machine weight (KG)			560
Air pressure			0.7Mpa
Control power			380v 50/60Hz
Size			1200mm×760mm×2060 mm

OBJECTIVE

- Suitable for production of ketchup, mayonnaise, sauce, cheese, oral syrup, Mayonnaise, infant food, chocolate, saccharine, etc.
- Item: 10L vacuum emulsifying mixer

EQUIPMENT PERFORMANCE

- With the performance of heating the materials by electric heating and cooling the materials by cold/tap water.
- The external of the emulsifier with the function of heat preservation that can avoid the operators be scalded during operation.
- The emulsifier is vacuum that can suck the materials and achieve defoaming material.
- With the performance of paddle mixing (Two directions) and Teflon scrapping.
- The Kettle Cover & Scrapping mixer is hydraulic lifting.
- Contact with materials all adopt sanitary grade polishing which is coincident with GMP standard.

APPLICATION

- Daily chemical and cosmetics industry: baby cream, shaving cream, cream shampoo, toothpaste, cold cream, sunscreen cream, face cleanser, moisture cream, detergent, shampoo.
- Pharmacy industry: Emulsion, emulsifier, ointment, syrup.
- Food industry: ketchup, mayonnaise, sauce, cheese, oral syrup, Mayonnaise, infant food, chocolate, saccharine, etc.
- Chemical industry: latex, saponification, paint, resin, adhesives, lubricating agent.

MAIN POT COVER DESCRIPTION & FUNCTION

No.	Name	Function	Remark
***	Tank Cover	1. Essence inlet, 2. Material inlet, 3. Air filter, 4. Viewing light, 5. Sight glasses with scraper, 6. Vacuum valve, 7.Pressure gauge, 8. CIP Cleaning Ball, 9. Vacuum Sensor, 10. Add pressure port	Sanitation grade accessories & valves
1	Essence inlet	Add the spice, perfume from the essence inlet	
2	Material inlet	Suck the material from premix pot by vacuum, there is a filter screen in it.	
3	Air filter	When release the vacuum pressure, the air will come from the air filter.	
4	Viewing light	For providing light to observe the inside tank.	
5	Sight glasses with scraper	Observe the production situation.	
6	Vacuum valve	Open the vacuum valve to start vacuuming.	
7	Pressure gauge	To set vacuum pressure	
8	CIP Cleaning Ball	Adopting the water pressure of 360° rotating type automatic cleaning ball	
9	Add pressure port	When you material is high viscosity, you can add the pressure to push the material out.	

MAIN POT CONSTRUCTION

No.	Item.	Configuration and parameter	Remark
1	Structure	1. Three Layer Stainless Steel. 2. Hydraulic lift the pot body 3. Bottom or tilt down the material. 4. One direction paddle mixing with scraper 5. Bottom Homogenizer 6. PLC touch screen	
2	Pressure	Working pressure in the pot: -0.85-0.02Mpa	
		Working pressure in the jacket: ≤0.2Mpa	

3	Polishing level	Internal and external sanitation polishing, Fully meet the requirement of GMP hygiene standards.	≥300mesh
4	Pot cover parts	1. Essence inlet, 2. Material inlet, 3. Air filter, 4. Viewing light, 5. Sight glasses with scraper, 6. Vacuum valve, 7. Pressure gauge, 8. CIP Cleaning Ball, 9. Vacuum Sensor, 10. Add pressure port.	Sanitation grade accessories & valves (Additional port can be customized)
5	Cleaning way	Adopting the water pressure of 360°rotating type automatic cleaning ball	
6	Material feeding way	• Vacuum feeding; • Or add from the manhole.	
7	Discharging way	• Bottom manual valve discharge • Pot tilt down discharge • Positive pressure discharge (optional)	
8	Mixer scrapper type	Teflon scrapper	

MAIN POT TECHNICAL INFORMATION

No.	Item	Technical	KVM-10L	Remark
1	Volume	Working volume	15L	
		Design volume	10L	
2	Material & Thickness	Internal layer: SUS316L	3mm	Double side welding between dished head and main tank, mirror polish.
		Middle layer: SUS304	3mm	Cooling water:Bottom- In and Top-Out.
		External layer (Insulation): SUS304	4mm	Double size welding between Middle side and Outside.
3	Mixing system	Mixing way	double directions paddle mixing	
		Mixing power(kw)	1.5+0.55	
		Mixing speed(rpm)	0-63	
		Mixing motor	SIEMENS Motor	
		Sealing type	Mechanical seal	

		Mixer bearing	NSK from Japan	
4	Homogenizer system	Homogenizer way	Bottom Type Homogenizer	
		Homogenizer power(kw)	2.2	
		Homogenizer speed(rpm)	0-2800	
		Homogenizer motor	SIEMENS Motor	
		Sealing type	Double end water cooled mechanical seal	
5	Heating type	Electric heating(KW)	3	Working pressure normal
6	Cooling type	Tap water cooling (cold water cooling is additional option)		Working pressure normal
7	Hydraulic lifting	power (kw)	0.75	
8	Vacuum system	Vacuum pump power (kw)	0.75	
HOMOGENIZER ELECTRIC CONTROL SYSTEM				
No.	Item.	Configuration		Remark
1	Shell material	- Stainless steel: SUS304 - Thickness: 2mm		Stainless steel
2	Control way	PLC Touch Screen Control		
3	Component	- Indicated light, - light button, - emergency stop		
MACHINE COMBINATION				
No.	Item.	Configuration		Remark
1	Main pot	Equipped with hopper and filter		
2	Vacuum pump	Water cycle		
3	Pipe	All contact material parts adopt SUS 316L		
4	Hopper and Filter	SUS 316L		
5	Lifting system	Hydraulic lifting		
POWER CONSUMPTION				
No.	Item	Technical	KVM-10L	Remark
1	Total Power	KW	8.75	
EQUIPMENT CONFIGURATION OF ORIGIN				
1	Inverter	SIEMENS		
2	Motor	SIEMENS		

3	Main electric components	Schneider
The complete set of equipment: the upper pipe piece up to the national pharmaceutical standards (GMP)		
SPARE PARTS		
• Tool box Qty: 1set • Valve seal ring Qty: 1set • Oil sealing Qty: 2pcs • Sensor switch (Hydraulic lift) Qty: 1pc • Heating element Qty: 2pcs		
SAFETY		
• This equipment is corresponded with the standard of European machinery, and passes the CE certificate. • This equipment has installed with emergency switch on the electric control box which is convenient to close all power under emergency situation. In addition, it is added with exhaust fan, which can avoid the high temperature of the inner control box during operation. • The mixing system power will automatic close when the equipment is during rising process. • At the side of the jacket, there is installed an adjustable safety valve. When using steam heating, if the pressure is surpass, it will automatic relief the pressure. • There is a temperature meter installed in the control box, which can adjust the temperature as you need casually when the material in vessel is heating.		
OPERATIONAL CONSIDERATIONS		
• None operators are better not run this equipment casually. • Total in line power of the control box is 380V, 50HZ, three phase. • Please make sure there is material in the vessel and make sure there is enough water in the mechanical seal recycle water vessel. • Please make sure there is enough water in vacuum pump recycle water vessel when open vacuum. • Please make sure there is enough water in the middle jacket when the vessel is electric heating, make sure the water is well discharged in the middle jacket and make sure the exhaust valve is open.		

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