

TVS-F20 E VAD

Powder Conveyor Sieving Station

Overview

- Explosion-proof design, CNEX certificate, CE certificate, ATEX certificate.
- Motor directional vibration design, over-sized powder collection, continuous and efficient screening.
- Europe imported ultrasonic system with high efficiency.
- Inert gas protection, provide high powder quality.
- Over pressure protection, automatic pressure releasing.
- Ease of changing sieving mesh.
- Mesh frame produced by CNC, with good sealing ability.
- Plug-in level sensor, automatic stop and alarm when full level or finishing screening.
- Highly reactive flammable and explosive powders like aluminum, magnesium and titanium is not allowed in this machine.

Material

- Body: Carbon steel spraying plastic
- Internal: SUS304

Working environment

- Ambient temperature: $+5^{\circ}\text{C} \leq T_a \leq +40^{\circ}\text{C}$
- This product is only used in safe area, inside(sieve chamber and powder bin) is classified as an explosive environment.

Requirement for working environment and protection

- For indoor use only.
- Atmospheric pressure 80kPa(0.8bar)-110kPa(1.1bar).
- Standard air oxygen content ratio is 21%.
- No significant vibration shock occasion.
- No gas or vapor to damage the insulation.
- The equipment should be placed in a flat surface with good ventilation and dry air. It is forbidden to be near heat source or heating equipment.

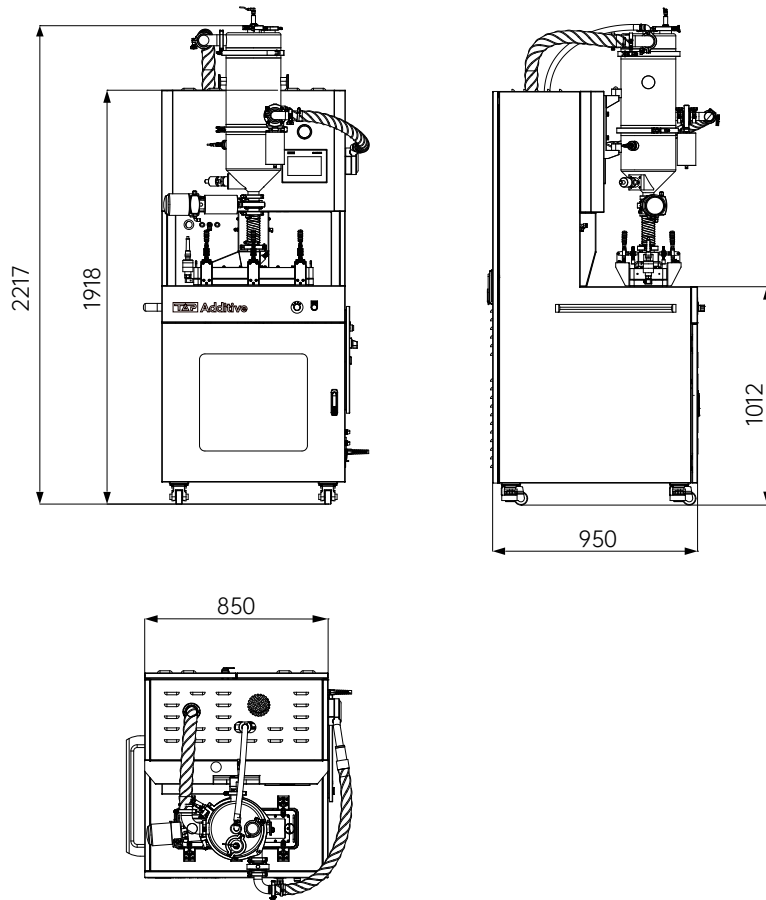
Air supply requirement

- Inert gas: with connector 1/2, 3/8 or 1/4 inner thread. Air flow > 60L/min.
- Compressed air: Oil-free, water-free, dried air, with connector 1/2, 3/8 or 1/4 female thread, air pressure 6-8 bar.

Power supply requirement

- Specification of industrial socket: 16A 3P+N+PE industrial socket, protection requirements IP44 or above.
- Voltage and frequency requirements: 400V($\pm 10\%$)(3P+N+PE), 50/60Hz($\pm 1\text{Hz}$).
- Specification of front protection circuit breaker: D trip characteristic, rated current 16A.
- Equipment should have front protection circuit breaker in the circuit.
- Grounding: the equipment needs to be grounded internally and the body needs to be grounded externally, and provide external grounding device for body grounding.













Order no.	TVS-F20 E VAD
Ex mark	Ex h IIIC T135°C Dα*
Ambient temperature	+5°C-+40°C
Rated voltage (V)	380/400
Rated frequency (Hz)	50
Rated power (kW)	4.6
Max air flow(m3/h)	320
Max vacuum degree (-kPa)	36
Compressed air supply pressure (bar)	6-8
Inert gas air flow (L/min)	60
Powder suction port	DN40
Powder bin capacity (L)	10L (for reused powder) (optional), 5L (for over-sized powder) (optional)
Filter degree	H
Dimension (W*D*H) (mm)	850×950×2217
Net weight (Kg)	550

* This product is only used in safe area, inside (sieve chamber and powder bin) is classified as an explosive environment.






Accessories

Picture	Description	Unit	
	<p>KF40-5L powder bin</p> <ul style="list-style-type: none"> ■ SUS304 material,with KF40 valve ■ Capacity: 5L, with level sensor port: plug-in magnet connection ■ For over-sized powder ■ Optional 	Pcs	EX863
	<p>KF50-10L powder bin</p> <ul style="list-style-type: none"> ■ SUS304 material,with KF50 valve ■ Capacity: 10L, with level sensor port: plug-in magnet connection ■ For reused powder ■ Optional 	Pcs	EX838
	<p>Mesh</p> <ul style="list-style-type: none"> ■ SUS316 material, one pcs finished CNC processing ■ Size: 522x141mm ■ For TVS-F20, TSF-F20 series ■ Optional 	Pcs	EX862-□
	<p>Conductive hose</p> <ul style="list-style-type: none"> ■ Complies with ATEX, RoSH ■ Size: Φ38mm, length: 3m ■ Optional 	Pcs	EX817-3
	<p>Anti-static hose</p> <ul style="list-style-type: none"> ■ Complies with ATEX, RoSH ■ Length: 3m ■ Optional 	Pcs	EX867-3






Accessories

Picture	Description	Unit	Order no.
	Anti-static hose kit	Pcs	EX835-170
	<ul style="list-style-type: none"> ■ KF50 end with DN50 end 		
	<ul style="list-style-type: none"> ■ Length: 170mm, for connection of vacuum silo and sieving chamber 		
	<ul style="list-style-type: none"> ■ Size: Φ50mm ■ Standard 		
	Anti-static hose kit	Pcs	EX857-240
	<ul style="list-style-type: none"> ■ KF50 at both ends 		
	<ul style="list-style-type: none"> ■ Length: 240mm, for connection of 10L powder bin and sieving chamber 		
	<ul style="list-style-type: none"> ■ Size: Φ50mm ■ Optional 		
	Anti-static hose kit	Pcs	EX875-330
	<ul style="list-style-type: none"> ■ KF40 at both ends 		
	<ul style="list-style-type: none"> ■ Length: 330mm, for connection of 5L powder bin and sieving chamber 		
	<ul style="list-style-type: none"> ■ Size: Φ40mm ■ Optional 		
	Stainless steel round suction head	Pcs	EX833
	<ul style="list-style-type: none"> ■ SUS304 material 		
	<ul style="list-style-type: none"> ■ Size: Φ32mm 		
	<ul style="list-style-type: none"> ■ Standard 		
	Stainless steel flat suction head	Pcs	EX834
	<ul style="list-style-type: none"> ■ SUS304 material 		
	<ul style="list-style-type: none"> ■ Size: Φ32mm 		
	<ul style="list-style-type: none"> ■ Standard 		

Accessories

Picture	Description	Unit	Order no.
	<ul style="list-style-type: none"> With one pneumatic butterfly valve, one speed control valve, one level sensor, one anti-static sintered filter, one pneumatic vibrator and one SUS304 vacuum silo. For TVS-F20 E, TVS-400 Standard 	Pcs	EX825
	<ul style="list-style-type: none"> Imported hose Size: O.D. 16mm, I.D. 10mm. Quick connector at both ends, size 1/2, 3/8, 1/4 Standard 	Pcs	EX806-6
	<ul style="list-style-type: none"> Max loading: 130Kg Charging voltage: AC220V Max lifting height: 2000mm Power supply: maintenance-free battery Optional 	Pcs	TL2000
	<ul style="list-style-type: none"> Specification: 16A, 3P+N+PE, 6h 200-250V/380-415V, IP67, cable 5x1.5mm² Phase change freely plug Standard 	Pcs	EX807-6
	<ul style="list-style-type: none"> Size: 6mm, plug at both ends Length: 5000mm Standard 	Pcs	PED6-5000

Accessories

Picture	Description	Unit	Order no.
	<p>Powder supply change station</p> <ul style="list-style-type: none"> Working station: 2 Fine steel, surface spraying plastic Optional 	Set	TCS-2
	<p>Oxygen sensor</p> <ul style="list-style-type: none"> Sensor range: 0-100% O₂ Accuracy: ±1%(full range) Output: analog Output range: 0-60mV Standard 	Pcs	EX874
	<p>Phase change industrial plug</p> <ul style="list-style-type: none"> 16A, 200-250V/380-415V, 5P(3P+N+PE),6h Red, with phase change function Optional 	Pcs	P551
	<p>Wall-mounted socket</p> <ul style="list-style-type: none"> 16A, 200-250V/380-415V, 5P(3P+N+PE),6h Red, with phase change function Optional 	Pcs	PS2-65
	<p>Anti-static sintered filter</p> <ul style="list-style-type: none"> Efficiency of 99.95% on 0.3 microns Size: Φ146xΦ85x230mm Standard 	Pcs	EX511