



# SPHERICAL VACUUM DRYER (SVD)



Shiv Shakkti Process Equipment Leaders in Filtration and Drying Technology

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# **ABOUT SHIV SHAKKTI**

Shiv Shakkti Process Equipment is a leading manufacturer and supplier of high-quality industrial process equipment, specializing in centrifuge machines, Nutsche filters, filter dryers, conical dryers and mixers, rotary vacuum paddle dryers, and Rotocone mixer dryers. With decades of expertise, we serve industries such as pharmaceuticals, chemicals, food processing, and more.

Our commitment to innovation, efficiency, and compliance ensures that our equipment meets global standards, including CE, cGMP, and ATEX. By integrating cutting-edge technology with robust engineering, we deliver reliable and high-performance solutions tailored to our clients' needs.

At Shiv Shakkti Process Equipment, we prioritize quality, safety, and customer satisfaction, making us a trusted partner for businesses worldwide.

45+

Years of Experience

35+

**Countries Served** 

**7000+** 

**Equipments Delivered** 

僧 135K+

**Sq Ft of Production space** 

**2000+** 

**Customer Served** 



**Manufacturing Units** 



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# SPHERICAL VACUUM DRYER (SVD)

The Spherical Vacuum Dryer (SVD) is a multifunctional system designed to perform drying, mixing, and lump breaking in a single, compact unit. Material is charged while the hollow-blade agitator rotates. Under vacuum, moisture evaporates efficiently while heat is transferred through both the vessel jacket and shaft. Vapors are condensed and collected, and the final product is discharged from the lowest point, ensuring zero material hold-up. An integrated high-speed chopper enhances disintegration, improving batch uniformity and drying performance.

#### **ADVANTAGES OF SVD TECHNOLOGY**

- **Spherical Geometry -** Eliminates dead zones, ensures complete product discharge critical for high-value, low-volume materials.
- Vacuum Drying with Agitation Efficient heat transfer from both jacket and hollow agitator improves batch uniformity and reduces drying time.
- Lump Breaker Integration High-speed choppers break down product agglomerates, enhancing surface area and drying speed.
- **cGMP Compliance** Fully compliant construction with easy-to-clean, inspectable design ideal for regulated industries.
- Quick Open/Close Special Bayonet and Super 'C' Lock systems enable rapid access for CIP/SIP, inspection, and changeover.
- Containment Ready Easily integrated with isolators or split butterfly valves for OEB 4/5 level containment during handling of potent APIs.
- Explosion & Surge Resistance Spherical design naturally resists internal pressure spikes due to thermal decomposition or product dusting.

#### **FEATURES**

- Vacuum-compatible design with heated agitator & shaft
- High-speed lump breaker with independent drive
- Bayonet/Super 'C' quick locking mechanism
- Bottom-most discharge with minimal heel
- Contained sampling & discharge
- ATEX/Explosion-proof designs available
- Fully automated system with PLC-HMI-SCADA
- Cleanroom/maintenance room segregation possible
- Batch reproducibility with consistent drying results





#### TECHNICAL DATA

Model	SSPE-SVD 100	SSPE-SVD 200	SSPE-SVD 400	SSPE-SVD 1000	SSPE-SVD 2000	SSPE-SVD 4000
Total Volume (L)	150	350	650	1500	3200	6500
Working Capacity (L)	100	200	400	1000	2000	4000
QD (Dia. mm)	700	900	1050	1400	1700	2100
Gross Weight (Kg)	1500	2500	3000	8000	12000	17000
Heat Transfer Area (m²)	1.5	3.5	3.5	6.4	9.4	16.5
Main Motor (KW)	11	15	25	45	55	75
Main Motor RPM	4-40	4–40	4–30	4–18	4–18	4–15
Chopper Motor (KW)	3.75	3.75	5.5	7.5	12	15
Chopper RPM	1000	1000	1000	1000	1000	1000

NOTE: Design & Dimensions of above are subject to change without notice.



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#### **FILTRATION**

Pressure / Nutsche Filter
Agitated Nutsche Filter
Sparkler Filter - Zero Hold Up
Pressure / Leaf Filter



#### CENTRIFUGATION

Manual Top Discharge Centrifuge
Bottom Discharge Type Centrifuge
Bag Lifting Type Centrifuge
Horizontal Peeler Type Centrifuge



#### **VACUUM DRYING**

Agitated Nutsche Filter Dryer Nauta Conical Vacuum Dryer Rotary Vacuum Paddle Dryer Roto Cone Vacuum Dryer Spherical Vacuum Dryer Vacuum Tray Dryer



#### MIXING

Conical Screw Mixer
Double Cone Blenders
Octagonal Blenders
Ribbon Blenders



#### REACTION

SS/Hastelloy Reactor
Mixing Tank
ANFD Reactor
Crystallizer

### **COMMITTED TO EXCELLENCE FOR 45 YEARS**

With 45 years of excellence in the industry, we are committed to delivering the highest quality products and innovative solutions. Our dedication to precision, reliability, and customer satisfaction drives us forward. Trust us for world-class equipment that meets your needs today and beyond.

## Corporate office

406, 407, Shivam Chambers, S.V. Road, Goregaon West, Mumbai 400104 India.

## Manufacturing Facilities

Unit #1 J-232 Tarapur MIDC, Boisar, Dist.: Palghar-401506, Maharashtra, India

Unit #2 L-73 Tarapur MIDC, Boisar, Dist.: Palghar-401506, Maharashtra, India

Unit #3 L-98, MIDC Tarapur, Boisar, Dist. Palghar-401506, Maharashtra, India.

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