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# ROTARY VACUUM PADDLE DRYER



# PADDLE DRYERS



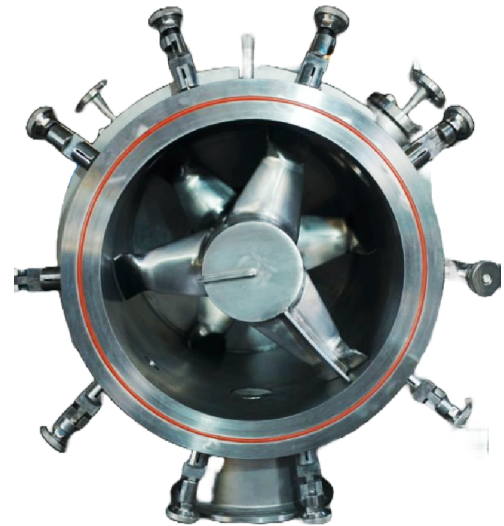
## INTRODUCTION

PRs Tech. Rotary Vacuum Paddle Dryers are used to attain dry powders from wet cake or solutions. Mostly these dryers are operated under Vacuum & are a batch operation . It consists of a fixed cylindrical shell with a central rotating agitator. The rotating shaft is hollow & heated with hot water / steam circulation through the same. Both the Utility Side & the Vacuum side are provided with mechanical seals.

A large heat transfer area is achieved due to the heated shaft and the heated paddles giving a maximum heat transfer co-efficient.

The drive mechanism consists of a reduction Gearbox with a chain sprocket system coupled to the drive Motor. The entire assembly along with the Dryer chamber is mounted on a Skid which avoids foundation cost & reduces the maintenance cost .

Materials of Construction are usually Stainless Steel AISI 316 & other special alloys namely C22 , C276 etc can be supplied on request .



**CANTILEVER DRYER**

## ADVANTAGE'S OF PADDLE DRYER :

- Safety for the operator, the environment and the product.
- High vacuum achieved with very low final moisture values of final product.
- Uniformity & homogeneity of the dried batch.
- Reduced power consumption.
- Ease of washing for changeover of batch due to effective CIP.
- Recovery of solvents possible .

### All in one process :

PRs Tech. RVPD has the ability to carry out multiple operations in a single unit. Process steps like Mixing ,Liquid addition, Evaporative Concentration, Reaction, Drying & Cooling steps are carried out in a single unit. These intermediate steps are performed without Intermediate Storage, Transportation or Cleaning.

# TURN-KEY SUPPLY SYSTEM



Chemiplant provides accessories for the RVP Dryer along with necessary fittings that are suitably designed in order to satisfy every process requirement :

- **Heating & Cooling Assembly**

for the Jacket /Limpet comprising of a hot water Tank, Circulation Pump, heating / cooling coil & necessary Control Valves & or hand Operated Valves.

- **Dust Collector System**

is employed to arrest valuable product carried away with the vapors in a Filter Bag. Reverse flow of N<sub>2</sub> air in pulsation circuit throws back the product in the dryer.

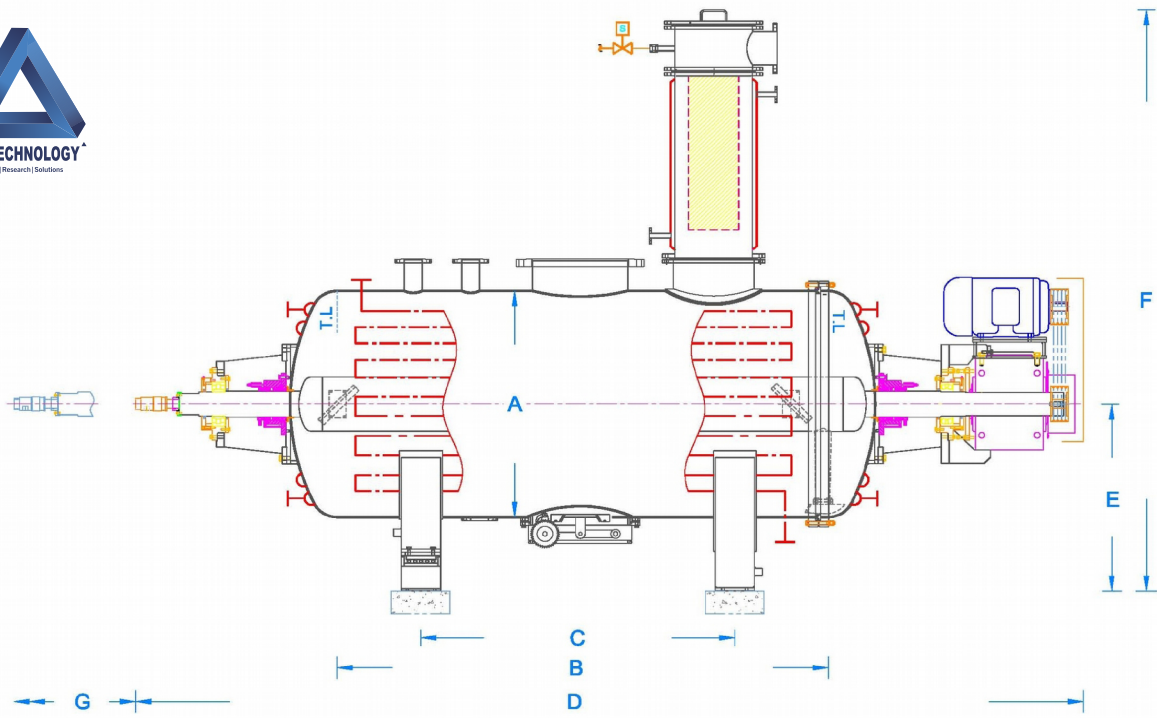
- **Vacuum Pump .**

- **Necessary Piping & Valves on request .**

- **Control Panel With PLC (SCADA)**

comprises of VFD, Timers, Contactors, Relays, Temperature Indicator / Controller and the Drying process can be managed & also reproducibility ensured with the centralized supervision system (SCADA)





### RVPD - ROTARY VACUUM PADDLE DRYER

Sr.	Model	Net Vol	Sh Dia	SheLen	SupDis	OALen	CentHt	OAht	DisLen	MPower	H.TrA
		KL *	mm	mm	mm	mm	mm	mm	mm	KP	SqM
			A	B	C	D	E	F	G		
1	CRVD 2	2.00	1000	2550	1900	4350	900	3200	3950	12.50	5.70
2	CRVD 3	3.00	1200	2800	2100	4900	1100	4175	4350	15.00	7.80
3	CRVD 5	5.00	1250	4150	2650	6850	1550	3900	5750	30.00	11.60
4	CRVD 6	6.00	1400	4000	2400	6100	1100	3118	5250	40.00	14.40
5	CRVD 8	8.00	1500	4650	3000	7550	1390	3850	6450	50.00	18.40
6	CRVD 10	10.00	1600	5220	4360	8880	1430	4750	6950	75.00	18.80
7	CRVD 12	12.00	1700	5680	4400	8950	1430	4850	7250	75.00	37.50
8	CRVD 14	14.00	1800	5650	4400	8950	1530	4225	7550	100.00	25.40
9	CRVD 16	16.00	1800	6420	4600	9590	1530	4225	8250	100.00	28.3

Dimensions are indicative/subject to change

\*Recommended Fill Factor 0.5 to 0.6

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