

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 N₂ air in pulsation circuit throws back the product in the dryer.

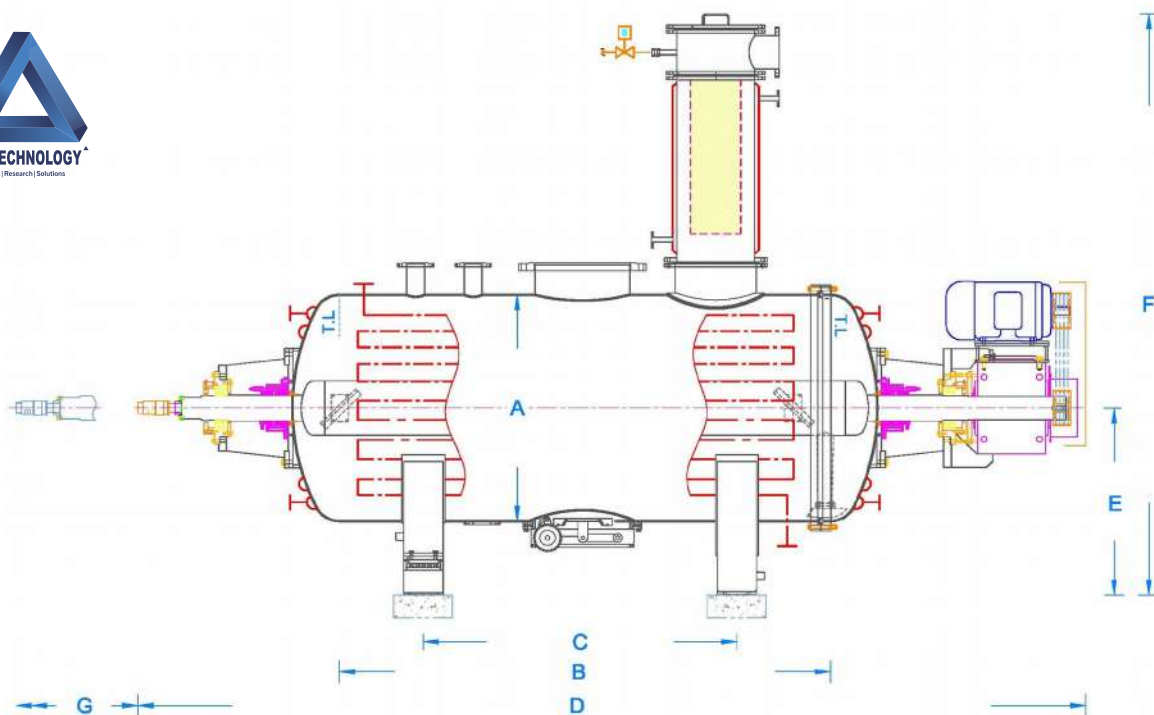
- **Vacuum Pump .**

- **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	ShLen	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