

# **DHARMA ENGINEERING**

AN ISO 9001 CERTIFIED COMPANY

# BLENDERS

## RIBBON BLENDER

Many solid-solid and Liquid-solid mixing applications rely on the ribbon blender for fast, straight forward and reliable mixing.

Its simplicity, functionality and affordability contribute its widespread use in many industries.

Agitator design consists of Inner and Outer helical ribbons which produce a well balanced axial and radial flow ofmaterials. This combination promotes fast and effective blending

Surfaces of the U shaped trough are in close proximity to the agitator. Tip speed shall be in the range of 1.4 to 1.6mtr. / minutes

Soft start option provided on higher capacity versions. A variable sped drive allows you to fine tune the blending process.









- •Do use a variable frequency drive to allow slow start under full load and protect the system against a spike in start up torque. Electronics soft starters are also available. But these allow only single speed operation during blending.
- Do equip your Ribbon Blender with discharge extruder if mixing thick paste and other viscous applications. The extruder enhances mixing and enables full discharge of the finished products.



- The Ribbon agitator design inherently generates pinch points near the container wall
  where in delicate products may be compressed or damaged due to high shear force. So
  do consider paddle type agitator instead of Ribbon agitator for blending fragile
  materials.
- •Optimal mixing in a Ribbon blender Requires enough batch materials, equivalent to atleat 30-40% of the rated volumetric capacity. Working with smaller volume, the Blender fails to generates adequate contact between the agitator and the rooduct.

#### **TECHNICAL SPECIFICATIONS**

MODEL	DERB1000	DERB2000	DERB3000	DERB5000	DERB8000
Working Volume , Ltrs.	1000	2000	3000	5000	8000
Gross Volume Ltrs.	1170	2350	3470	5725	8900
Trough Dimensions	1980*760*865	2440*970*1100	3000*1070*1200	3250*1325*1475	3300*1650*1820
Overall Dimenisons	2900*1200*2000	3450*1500*2300	4300*1450*2500	4500*1700*2800	4700*2100*3100
Drive Motor HP	15.0 HP	20.0	25.0	40.0	50.0
Ribbon RPM	25	25	22	18	16



#### OCTAGONAL BLENDER

Very useful for any powder processing industries where gentle blending of dry powders / granules is to be done. TheBlending takes place at low to medium speed during operation, depending on process requirement.

Octagonal Blender is used for Blending the most delicate & fragile free flow products like powder or granules, in 20 to 30 minutes It is also the best way to mix very heavy & abrasive products like colour, plastic, flour, drugs, metal powders, minerals, fibers& many others.

It is revolved over and over, moving the products in & out of the constricted octagonal areas. This causes multiple folding action that ensure a thorough blending of all the ingredients in the batch.

The result is a homogeneous blend regardless of particle size distribution, particle shape or density with a great efficiency.

icle at

Charging into the Blender plays vital role in Blending. Lower filling level induces faster mixing rates. however very low fill rate (<25%) interfere with natural mixing mechanism and hinder mixing rates. Filling the Blender to more than 60% of its rated capcity can lead to dead zone in the middle of the mixure that do not interact with rest of the mixures.

#### **TECHNICAL SPECIFICATIONS**

	MODEL	GROSS CAPACITY	WORKING CAPACITY	RPM	MOTOR HP	OVER ALL DIMENSIONS (WITHOUT CHARGING BIN)
	DEOCB 500	500	350	8	2.0 HP	2350 x 1 100 x 2100
	DEOCB 750	750	500	- 8	3.0 HP	2450 x 1200 x 2250
	DEOCB 1000	1000	750	- 8	5.0 HP	2600 x 1400 x 2400
Š	DEOCB 1500	1500	1000	8	10.0 HP	2800 x 1600 x 2600
	DEOCB 2000	2000	1500	6	10.0 HP	3000 x 1800 x 2650
	DEOCB 3000	3000	2150	- 6	15.0 HP	3175 x 1850 x 2800
	DEOCB 4000	4000	3000	6	15.0 HP	3200 x 1950 x 2900



## DOUBLE CONE BLENDER

"V" BLENDER



SPECIALIEST IN

POWDER PROCESING

LIQUID PROCESSING

DEVING

#### **SALIENT FEATURES**

- Available from 100 Ltrs. to 8000 Ltrs. capacity.
- CGMP Design with AISI 316Q contact material
- Machine will be dynamically & Statistically balanced
- Options available for external powder transfer system to charge the material, in higher capacity model
- Different M.O.C options available to suit process requirement
- Tailor made design available up on request



# **DHARMA ENGINEERING**

Mfgr's : Equipments and Machines for Pharmaceuticals,

Chemicals, Cosmetics and Food Industries.

SPECIALIST IN: Liquid & Powder Processing Equipments

Plot No 5133 GIDC

Ankleshwar-393002.

Dist.: Bharuch, Gujarat, India Mobile: +91 94271 45962 Phone: +91 2646 225133 Fax: +91 2646 225134

E-mail: dharmaengineering@gmail.com

www.dharmaengineering .com