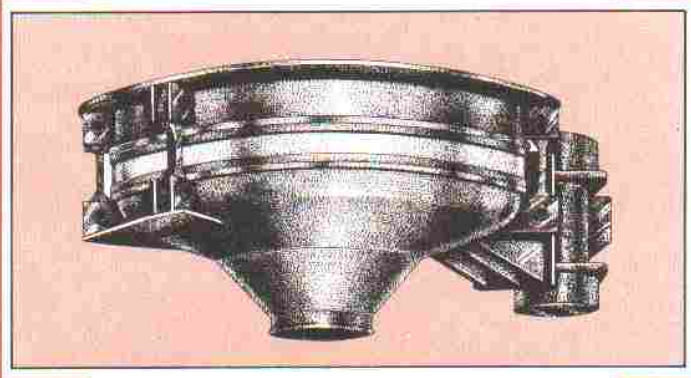


The logo for Shakti, featuring a stylized 'S' with a circular emblem containing the number '21' inside, followed by the word 'Shakti' in a bold, italicized sans-serif font.

BIN ACTIVATOR



**AN ULTIMATE
SOLUTION FOR
HANDLING
MATERIALS IN
BINS AND HOPPERS**

INTRODUCTION:

It is a common experience that most materials stored in bins, hoppers or silos do not easily flow through discharge opening. When called upon to flow, the materials tend to plug, bridge or rat-hole because of their inherent characteristics, environmental conditions or undesirable surrounding vibrations. The conventional solutions employed, viz., electromagnetic vibrators, air/ steam jets, pounding on the bin body or even manual poking of material from top or through discharge opening, are largely inefficient, noisy and lead to intermittent and erratic discharge of materials. The use of above techniques results in,

- Loss of production
- Down-time on part of down-stream equipments
- Worker fatigue due to additional strenuous work and/or unpleasant vibrator noise.
- Contamination, dusting and spillage of product
- Damage to structure due to repeated heavy pounding
- Impaired product quality and down-stream process wherever flow rates and charging time are important.

SHAKTI BIN ACTIVATOR ELIMINATES THESE PROBLEMS TO ASSURE YOU POSITIVE CONTINUOUS FLOW WITHOUT ANY OPERATIONAL HEADACHES.

CONSTRUCTION AND WORKING:

SHAKTI Bin Activator provides ON DEMAND, positive, trouble free, continuous discharge from storage, of wide range of difficult to handle materials in a variety of densities and particle sizes. Available in preassembled form, this bin activator is built up of a specially profiled discharge head which is flexibly hung from bin. The gap between the bin and discharge head is sealed by an elastic sleeve.

A specially engineered gyrator with matched characteristics imparts powerful vibrations of low amplitude and high frequency to the discharge head and hence to the material but not the bin. The horizontal vibratory thrust unpacks the contained material and throws it towards discharge opening where it falls down easily by gravity. The discharge head resolves the horizontal thrusts into strong vertical impulses which extend far up into main bin to cause loosening of contained material. The whole phenomena is silent and demands very little power and attention.

FEATURES:

- Discharges material continuously at a uniform rate on FIRST IN, FIRST OUT' basis without segregation.
- Material is handled gently without damaging particles.
- Material gets deaerated and conditioned to uniform bulk density. This aspect is particularly important for bagging and packaging operations. Uniform density and flow rate facilitate precise filling and speed up these operations.
- Bin activator offers an advantage of headroom saving. Unlike

static bins, the bin activator permits higher cone angle. Hence the use of bin activator results in increased storage capacity.

- * Unlike in cases where compressed air/steam jets are used to loosen the material, use of our bin activator does not cause product contamination, wetting or dusting.
- * Besides saving labour costs, this device consumes minimum power and hence is economical.
- * It is totally reliable, rugged and safe device and is ideally suitable for continuous day-in and day-out operations. It operates quietly with virtually no maintenance.

SHAKTI Bin Activator being available in preassembled form, can be rapidly installed by bolting/welding on to existing steel or concrete bins of any shape, round or square. The bin activators are available in standard sizes right from 300 MM diameter to 3600 MM diameter. The bin activators can be supplied separately or as a self contained ready to operate integrated unit by combining a static bin and a bin activator. This package called as SELF DISCHARGING BIN, is available in volumetric capacity ranging from 30 litres to 20,000 litres. The SELF DISCHARGING BINS can be designed to be supported on rigid legs or suspended from a suitable structure.

The Standard units are made of carbon steel, however 304 and 316 stainless steel can also be considered if customer so desires. The external and internal surfaces can be painted with enamel paint, epoxy paint or any other paint and colour of customer's choice. The standard motors are of totally enclosed and non vented type and work on 440 V, 3 ϕ , 50 C/S. Here too variations in specification can be considered in accordance with the requirements of application. The standard elastic sleeve is made of white food quality neoprene rubber.

Besides BIN ACTIVATORS and SELF DISCHARGING BINS other products manufactured by **SHAKTI ENGINEERS** are BIN UNLOADERS, FLEXIFEEDERS, VIBRO-METERING FEEDERS, VIBRO BLENDERS and completely integrated and automated CONTINUOUS BLENDING SYSTEMS.

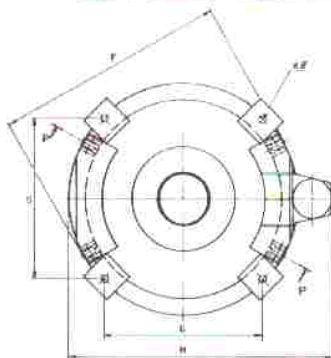
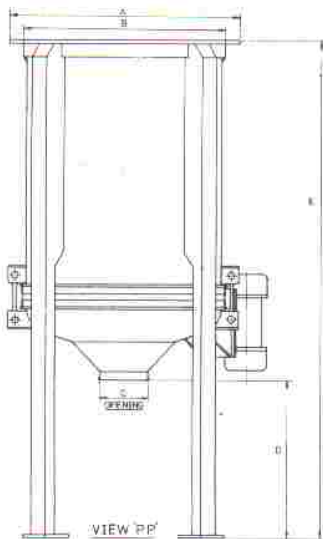
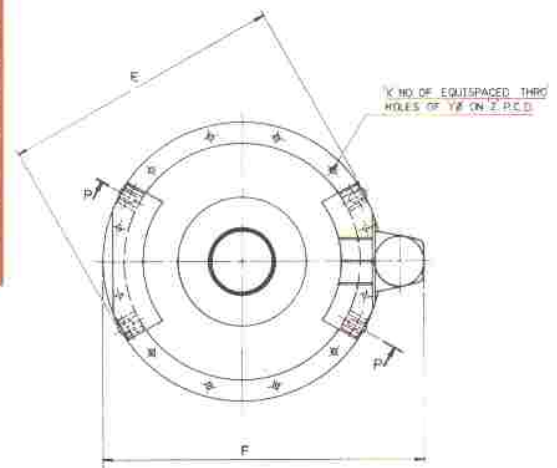
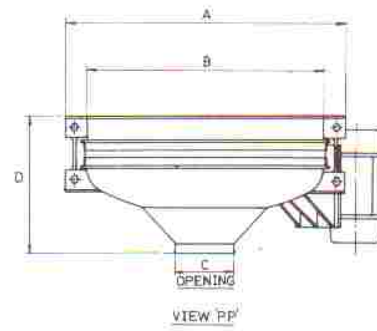
You are most welcome to try your powders and granules on our demonstration unit free of charge and without obligation. Do contact us for the further clarification and consultation. It will indeed be our pleasure to assist you in your projects.

Since it is the company's policy to be continuously on the lookout to effect improvements on its products, the description in this leaflet is subject to alterations without notice.

BIN ACTIVATOR

MODEL NO.	MOTOR H.P.	A ϕ	B ϕ	C ϕ	D	E	F	X	Y ϕ	Z ϕ
BA-30	0.33	400	300	75	235	405	563	8	10	365
BA-45	0.5	550	450	100	287	555	753	10	10	515
BA-60	0.5	716	600	150	357	720	917	12	12	675
BA-75	0.75	865	750	150	425	870	1092	15	12	825
BA-90	1.0	1050	900	200	511	1060	1267	18	14	1000
BA-120	1.5	1350	1200	200	644	1360	1567	24	14	1300
BA-150	1.5	1650	1500	200	776	1660	1867	30	14	1600
BA-180	2.0	1990	1800	200	943	1995	2210	36	14	1920
BA-210	3.0	2290	2100	250	1076	2295	2510	42	14	2220
BA-240	3.0	2590	2400	250	1213	2595	2820	48	14	2520
BA-300	5.0	3190	3000	250	1485	3197	3467	60	14	3120
BA-360	5.0	3790	3600	250	1768	3797	4063	72	14	3720

All dimensions in MM.



SELF DISCHARGING BINS

MODEL NO.	VOLUME CAPACITY LITRES	MOTOR H.P.	A ϕ	B ϕ	C ϕ	D	E	F	G	H	K ϕ
SDB-30/30	30						1058				
SDB-30/60	60	0.33	400	300	75	500	1488	406	223	583	12
SDB-30/80	80						1756				
SDB-45/80	80						1188				
SDB-45/140	140	0.5	550	450	100	500	1558	555	329	753	12
SDB-45/200	200						1833				
SDB-60/200	200						1442				
SDB-60/300	300	0.5	716	600	150	500	1802	720	436	917	12
SDB-60/400	400						2142				
SDB-75/400	400						1806				
SDB-75/600	600	0.75	865	750	150	600	2255	870	542	1092	15
SDB-75/800	800						2705				
SDB-90/800	800						2220				
SDB-90/1100	1100	1.0	1050	900	200	600	2695	1060	654	1267	15
SDB-90/1500	1500						3320				
SDB-120/1500	1500						2428				
SDB-120/2000	2000	1.5	1350	1200	200	600	2853	1380	868	1567	15
SDB-120/2500	2500						2278				
SDB-150/2600	2600						2835				
SDB-150/3600	3600	1.5	1650	1500	200	750	3366	1660	1081	1867	20
SDB-150/5000	5000						4170				
SDB-180/5000	5000						3450				
SDB-180/6300	6300	2	1990	1800	200	750	3950	1995	1294	2210	20
SDB-180/8000	8000						4625				
SDB-210/8000	8000						3910				
SDB-210/10000	10000	3	2290	2100	250	750	4485	2295	1510	2510	20
SDB-210/12000	12000						5060				
SDB-240/12000	12000						4395				
SDB-240/15000	15000	3	2590	2400	250	750	5060	2595	1725	2820	20
SDB-240/20000	20000						6170				

All dimensions in MM.

Shakti Engineers 8/F New Empire Industrial Estate,
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