

## INTRODUCTION

NEC ELECTROMAGNETIC HAMMERS are compact, maintenance free, operates better than any other conventional hammering system.

ELECTROMAGNETIC HAMMERS prevent clogging and adhesion of powdery and granular materials in SPRAY DRYERS, CYCLONE, HOPPERS, BINS, POWDER CONVEYING DUCTS, ETC.

## OPERATIONAL FEATURES

Electromagnetic Hammer consist of a stator and rotar, which are made out of high-grade strip lamination to minimize iron losses. There are two salient poles on the stator over which excitation coils are placed. When the hammer is excited by a short duration electric pulse the rotor takes the position of minimum reluctance to magnetic path. The part movement of the rotar shaft is directly transmitted to hammer stroker. The stroker in turn hits the hopper with strong force and returns to the original position. The excitation of hammer coil is controlled by an electronic controller.

### TECHNICAL SPECIFICATIONS

Data	NEC - EH - S	NEC - EH - 50	NEC - EH - 75
Rated Voltage	440VAC,50/60 HZ, 2 $\phi$	440VAC,50/60 HZ, 2 $\phi$	440VAC,50/60 HZ, 2 $\phi$
Operating Voltage Range	380 V - 460 V	380 V - 460 V	380 V - 460 V
Rated pulse current	2.0Amp	4.0 Amp	6.0 Amp
Power consumption@ 10 strokes/min	.001 Unit/hr	0.003 Units/hr	0.045 Units/hr
Impact Force	2.0 Kgf (min)	3.5Kgf (min)	5.5 Kgf (min)
Weight	6 Kg	14 Kg	18 Kg

NEC ELECTROMAGNETIC HAMMERS are available in FLAMEPROOF & WEATHERPROOF construction Certified and Approved by CMRI-Dhanbad

## CONTROL PANEL

A control panel with sequential timer is required for the operation of hammering system. Design of the control panel depends on the model and number of hammers to be installed on the chamber.

## INDUSTRIES

### Chemicals, Pharmaceuticals

Dry Powder, Fertilizers, Detergents, Resin, Bulk Plastics

### Dyes & Dyesftuff

Colour powder, pigments

### Ceramics & Casting

Powder, Cement, Lime

### Food & Grain

Milk powder, Wheat, Barley, Corn, Rice, Flour, Salt, Sugar, Coffee, Tea.



## HELPS SOLVE THE FOLLOWING

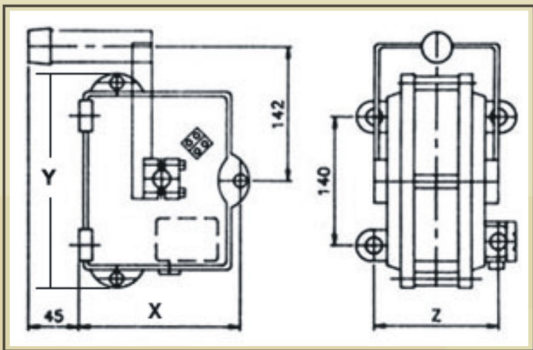
- Smooth Functioning of Downslide
- Ensuring No Sticking
- Smooth Operation
- Low Losses, Low Down Time
- Consistent Quality, Lump Free Product

## SELECTION GUIDE

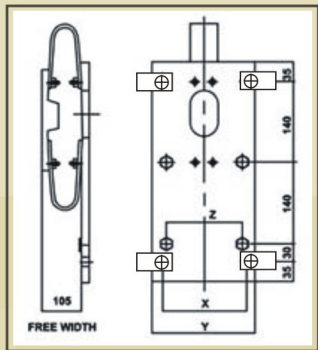
Selection of ELECTROMAGNETIC HAMMER depends on various factors such as plate thickness of chamber, design of stiffeners, type of product etc. however, as a general guide line.

- Model NEC - EH - S for plate thickness less than 2mm
  - Model NEC - EH - 50 for 2mm to 3 mm
  - Model NEC - EH - 75 for plate thickness 6 to 8 mm
  - Model NEC - EH - 75B for heavy impact
- Number of hammers depends on surface area of chamber.

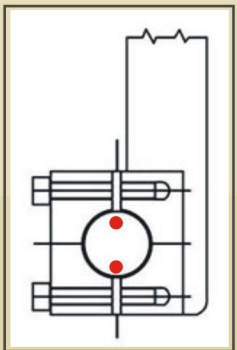
## OVER ALL DIMENSIONS



ELECTROMAGNETIC HAMMER



BASE PLATE



SETTING POINT

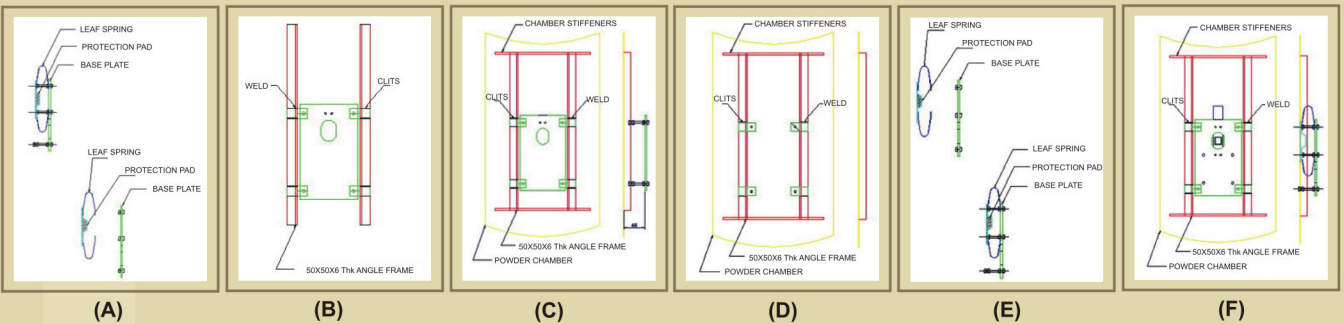
MODEL	DIMENSIONS		
	Xmm	Ymm	Zmm
NEC - EH - S	125	145	110
NEC - EH - 50	175	210	140
NEC - EH - 75	175	210	165

DIMENSIONS		
Xmm	Ymm	Zmm
160	180	110
185	215	140
210	240	165

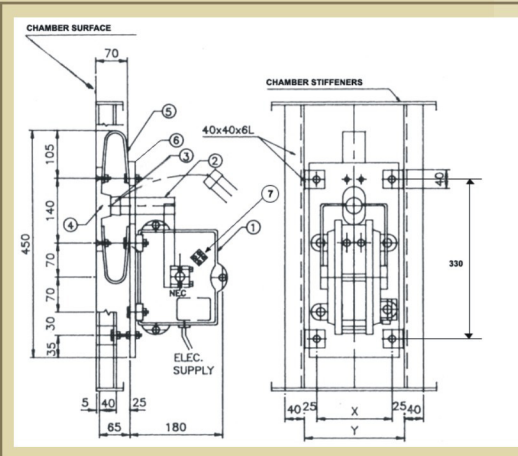
### SETTING IMPORTANT

Two dot Marking on the edge of rotor Shaft. It should be aligned with the gape of fixing clamps.

## HOW TO INSTALL



- Remove base plate from Leaf Spring and protection pad assembly.
- Using angle 40x40x6mm thick 1.5 m long or match the distance between two stiffeners on the Chamber, attach the base plate (with clits) to the angle. Weld four clits attached to base plate to the angle.
- Attach angle structure to chamber stiffeners keeping 65mm distance between base plate and Chamber shell.
- Remove the base plate from the structure by unscrewing the bolts.
- Attach Leaf spring and protection pad with base plate.
- Mount base plate assembly on the clits by tightening the bolts. When base plate assembly is attached and bolts tightened fully, the protection pad will have no gap with the chamber shell.
- Mount the Electromagnetic Hammer unit on the base plate by tightening the bolts.



- (1) Electromagnetic Hammer.
- (2) Striking Handle.
- (3) Striking Cap.
- (4) Protection Pad.
- (5) Leaf Spring.
- (6) Base Plate.
- (7) Rubber Clamp with pad.

Model	X mm	Y mm
NEC -EH- S	160	180
NEC -EH- 50	185	215
NEC -EH- 75	210	240

### Important Note :

During installation ensure that the distance between Chamber surface and base plate should be 70mm (At Top) & 65mm (At bottom) to obtain maximum efficiency.