

SYSTEM 1: FOR BEAM SAW NPC330
With MODULAR PULSE JET DUST COLLECTOR having **automatic filter bag**
cleaning provision.

SUPPLY,INSTALLATION AND COMMISSIONING OF INDIVIDUAL DUST
EXTRACTION SYSTEM FOR CAPACITY OF 6000-6500 CMH FOR BEAM SAW
NPC330 COMPRISES OF:

1.	Centrifugal Fan of our type AXC-HMB-27.5-Arr"A" directly driven by 7.5HP/2800 RPM TEFC motor having backward curved impellor mounted directly on top of DC .	1 Set
2.	Fan Outlet Silencer	1 No
3.	High ratio Pulsejet dust collector with automatic reverse pulse jet bag cleaning arrangement of our model AXC-PJBF-28-R-1.5M having automatic reverse pulse jet of compressed air bag cleaning provision through solenoid operated pulse diaphragm valves regulated by sequential electronic timer, Filter Bags, Bag supporting Cages, Pressure regulator, Pressure gauge, pressure relief valve, supporting stand, etc.	1 Set
4.	Dustbin with Trolley for easy disposal of dust.	1No
5.	MS/GI fabricated and powder coated ducting as per site condition and system layout drawing.	10 M ²
6.	PVC & PU Flexible hose and Clamps.	1 Set
7.	Duct supports, fasteners, gaskets and sealant.	1 Lot
8.	FASD Starter	1No
9.	System Design & Drawing.	L.S
10.	Installation and commissioning charges.	LS



TECHNICAL SPECS FOR PULSEJET DUST COLLECTOR FOR SYSTEM 1:-

CENTRIFUGAL FAN	
Model	AXC-HMB-27.5-Arr"A"
Type	Centrifugal – having high efficiency backward curved bladed impeller.
Capacity	6000-6500 CMH.
Static pressure	225-250 mm WG AT 20°C.
Drive motor rating	7.5 HP/2P TEFC squirrel cage Induction motor.
HIGH RATIO PULSE JET BAG FILTER	
Model	AXC-PJBF-28-R-1.5M
Type	Reverse pulse jet-automatic filter bag cleaning provision.
Overall size in mm	1400 (L) x 1400 (W)x 3800 (H)
Filter bag size/Area/Qty	Ø140 x 1500 mm long x 28 Nos. (18.2 M²)
Filter bag material	Polyester non-woven needle felt in QPE (IND) PE551+AS (Anti-Static) with PTFE coating.
Solenoid valves	1½" (2 Nos.) pulse diaphragm
Timer	Electronic sequential timer.
Support structure	Channel/Angle-with railings, platform and ladder
DUSTBIN ON TROLLEY	
Size	Ø800 x 600 long
Capacity	.3 m ³
Trolley	Angle frame with wheels
MS POWDER COATED DUCTING	
MS fabricated and powder coated ducting shall be of 18SWG aero dynamically designed to suit site conditions.	

Note:

1. Maintaining **good suction** at machine is **must** for **better performance** of any machine. A **good dust collector** works like a doctor and keeps it always in healthy condition leading to so many advantages. Like increased machine life, good product quality, less spares part issues. Less production down time, good suction acts like lubricant/coolant across tool leading to increased tool life, less running cost etc.
2. **Suction efficiency of any dust collector after good fan and dust collector design depends mainly on cleanliness of filter bag, which in turn depends mainly on type of filter bag cleaning mechanism adopted to keep the filter bag always clean without clogging. Only in Pulse jet dust collector, filter bags can be cleaned thoroughly.**
3. We have offered you high end, high suction efficiency **PULSE JET DUST COLLECTOR** with high suction efficiency polyester needle felt, anti static filter bags with Teflon coating inside, and also having automatic filter bag cleaning arrangement. In this filter bags are cleaned thoroughly by **reversepulsing/blasting** of compressed air into each bag. This will keep the bags always clean without clogging and ensures continuous good suction efficiency across the machine.
4. There are **limitations for suction efficiency in SHAKING TYPE FILTER BAG CLEANING DUST COLLECTORS**, either in **manual hand tapping type, lever shaking type** or **Vibrator type** cleaning. **In all these type of cleaning even after shaking, filter bags cannot be cleaned thoroughly, (NOT RECOMMENDED AS SUCTION EFFICIENCY WILL DROP WITHIN SHORT TIME WHICH WILL AFFECT THE MACHINE LIFE, PRODUCT QUALITY, FREQUENT STOPPAGE OF MACHINE LEADS TO DECREASED PRODUCTION, SPARE PARTS ISSUES, HIGH RUNNING COST ETC).**
5. The Duct quantity has been considered assuming the location of dust collector inside the department close to the machine. **Any additional quantity will be charged extra at Rs.2650 per Sq.mtr. and vice versa.**
6. All civil works like wall opening and closing, Concrete foundation required for the Dust collector if kept outside is in your scope.
7. Compressed air line of **5-6kg/cm²** pressure up to air tank near dust collector is in your scope.

8. All electrical wiring from **mains** to **Starter**, starter to dust collector Fan motor is in your scope. (**Supply of Starters are in our scope**).
9. Dust would be extracted from machine and transported through aerodynamically designed ducts up to dust collector.
10. **Crane/additional Manpower** for lifting dust collector has to be arranged from your side.

WORKING PRINCIPLE OF OUR DUST COLLECTOR- PJBFB

The High ratio bag filter **PJBFB** series bag filter type dust collectors have reverse pulse jet of compressed air automatic filter bag cleaning arrangement. It has high efficiency filter elements which are cleaned on stream by means of reverse pulse jet of compressed air at **5Kg/cm²** pressure. The filter sleeves collect dust on their external surfaces while suitable internal wire cages are provided to prevent them from collapsing. Periodically short blasts of compressed air are discharged downwards from the top of sleeves one row at a time. The shock waves thus produced expands the fabric away from wire cages thus, disturbing the dust cake formed on them. The air blast from the clean side momentarily reverses the flow through the sleeve fabric blowing the dust cake free. The back flushing nozzles are connected via an injector assembly and solenoid valve to a compressed air cylinder. As each solenoid pulse diaphragm valve is operated one after the other in a re-occurring sequence controlled by a sequential electronic timer as per desired interval it opens up the channel from compressed air cylinder and then empties in about **0.2 to 0.3** seconds. The nozzle directs the compressed air along the axis of clean air channels in the reverse of normal air flow. We have offered polyester non-woven needle felt in **QPE/IND/PE551+AS (Antistatic copper wire impregnated) + PTFE** treatment bags for your application. This is a technically and functionally superior dust collector with dependable performance. The dust collector is suitable for outdoor/Indoor installation. We guarantee the performance of the dust collector offered in all respects with a very long life. The **PJBFB** series dust collectors can be with **rotary air lock valve** driven by geared motor for continuous discharge of dust. A trolley cart can be parked under the rotary air lock valve or a big bag can be tied for dust collection and disposal **OR** Dust collector can be with a **Dust Bin** Arrangement with a trolley under the bin for easy movement and disposal of dust.