

Designed for the extraction of mixed size waste particles, i.e. medium and coarse particles including small shavings. Making it an ideal unit for a control system serving a mixture of machine types. Benefits from automated filter cleaning which prolongs filter life and ensures effective filtration with no manual intervention. Additional safety feature of a filter enclosure with explosion vent above head height to comply with the requirements of HSE WWIS 32 (Safe Collection of Woodwaste: Prevention of Fire and Explosion).

## PJ3-12S-H-AS-4-3-E-V2

### 3 Bag Units-Filter Housed-AS-I

## TECHNICAL INFORMATION

### PERFORMANCE

Fan designed to give a maximum airflow of 6261 m<sup>3</sup>/hr at the inlet, before allowing for the resistance of the ducting, please consult the fan curve to identify the predicted airflow at the resistance pressure loss for your system duct layout.

### NOISE LEVEL

Typically 81.88 dB(A) measured at 2 metres for average acoustic conditions

### INLET

250mm Ø. Unit can be assembled with motor and inlet to the left (standard) or right of the filters. As standard, the motor is fitted below the unit body but can be manufactured with the motor above and inlet below; this must be requested at the time of ordering.

### ELECTRICAL DATA

The following are typical values and may vary slightly from those displayed on the motor plate. Where different use the motor values in place of those listed. The breaker size given is an estimate, the electrician should calculate the correct size for your installation based on the FLC, SLC, cable size and length.

Continuously rated totally enclosed fan cooled (TEFC) electric motor fitted with sealed for life bearings 4 kW 400 volts efficiency rating IE2.

Suitable for location in a non-hazardous area - a place where an explosive atmosphere is not expected to occur in quantities that require special precautions to protect the health and safety of workers and others. ATEX rated motors are available as an option.

Full load current 8.2 amps. Starting Amps DOL 61.5 amps for 10 seconds, typical overload setting 8.2 amps.

### MOTOR CONTROL GEAR

DOL Fan Starter with Auto Shake Cleaning Timer – IP55 Enclosure – Supplied loose for remote mounting in non-hazardous area.

Supply voltage required - 400 volts. AC 3 & earth via - MCB3 P - 25A-Curve C (C 25/3)

A starter suitable for interlocking is available as an option which must be specified on the order; in which case the supply may require a neutral connection to the starter panel and a 400 volt control circuit. Please contact us to discuss if this is required.

### SHAKER MOTOR

1 x 0.18kW ATEX rated for use in DSEAR zones 21 & 22 - 400 volts full load current 0.35 amps. Starting amps DOL 1.75 amps for 5 seconds.

### FAN TYPE

Centrifugal, back swept, highly efficient, radial paddle blade, direct drive impeller. Made from high quality, cold rolled, low carbon, heavy gauge steel plate manufactured to BS EN 10130:2006. Dynamically balanced to ensure stable and vibration free performance. Specifically designed for the extraction and transportation of dust particles.

### FILTERS

12 filters giving a total filtration area of 15.72 m<sup>2</sup>

Filter media for specialist applications available on request, the standard filter media on this unit is polyester needlefelt superglaze finish. Which has excellent tensile strength and abrasion resistance, fair acid and alkali resistance. Superglaze finish provides an extra smooth surface offering superior dust release whilst maintaining good air permeability equivalent to a single finish, for fine dust applications and improved particle collection efficiency. Temperatures up to 150°C, maximum surge 170°C. Typical Applications for this filter media: Aluminium, Asbestos, Cement, Ceramics, Flour, Foundries, Grain, Lead, Mining, Plaster, Pharmaceuticals, Steel and Wood.

### FILTER CLEANING

Auto Shake - Vibrator Motor ATEX Zone 21 - 22 Compliant filter cleaning mechanism fitted. Operates at fan shut down; controlled by the combined controller/starter thus ensuring optimum filter cleaning whilst eliminating manual intervention and prolonging filter life. The maximum recommended interval between cleaning cycles is 4 hours of continuous operation.

### CONSTRUCTION

Unit constructed from continuous hot-dip zinc coated, low carbon steel manufactured to BS EN 103027:2004 and finished in silver, tarnish resistant, durable hammer paint.

Filter House constructed from continuous hot-dip, zinc coated, low-carbon steel manufactured to BS EN 10346:2009

### WASTE COLLECTION

3 x Extraction bag(s) [heavy duty polythene] 0.2 m<sup>3</sup> each, approximate total waste collection volume of 0.6 m<sup>3</sup> / 600 ltr / 21 ft<sup>3</sup> Maximum practical usable capacity will vary according to waste type (density/weight)

### LOCATION

Designed for external use.

### RECIRCULATION (WARM AIR RETURN)

May be available as an optional extra

### WEIGHT

480Kg (excluding weight of waste)

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#### HAZARDOUS SUBSTANCES TO BE CONTROLLED

Please refer to your quotation which details the hazardous substance and particle size, or ask P&J to confirm that this unit & filter media specification is appropriate for your process and substances

#### EXPLOSION RELIEF

Explosion relief - Open top filter house with weather cowl, venting to atmosphere

### ATEX & DSEAR

#### ATEX Components and Zoning Inside the Extraction Unit

P&J have assessed the risk of ignition sources igniting the dust/vapour cloud that is naturally formed within the extraction unit in use and ensured that ATEX compliant components are used within the unit where appropriate. It has been assumed that the user will not permit spark generating materials including tramp metal to enter the extraction system and will ensure that HSE guidance regarding only using ductwork made from conductive materials (i.e. steel) and earthing protocols are followed. The ATEX rating of specific components is detailed in the relevant sections.

The shaker motor is ATEX rated for DSEAR zones 21 and 22.

This unit is suitable for mixed size waste particles, i.e. medium and coarse particles including shavings, if you will be generating sufficient quantity of fine dust capable of creating a potentially explosive atmosphere within the extraction unit you may require ATEX certified explosion protection in which case please request a unit from our ST2 range.

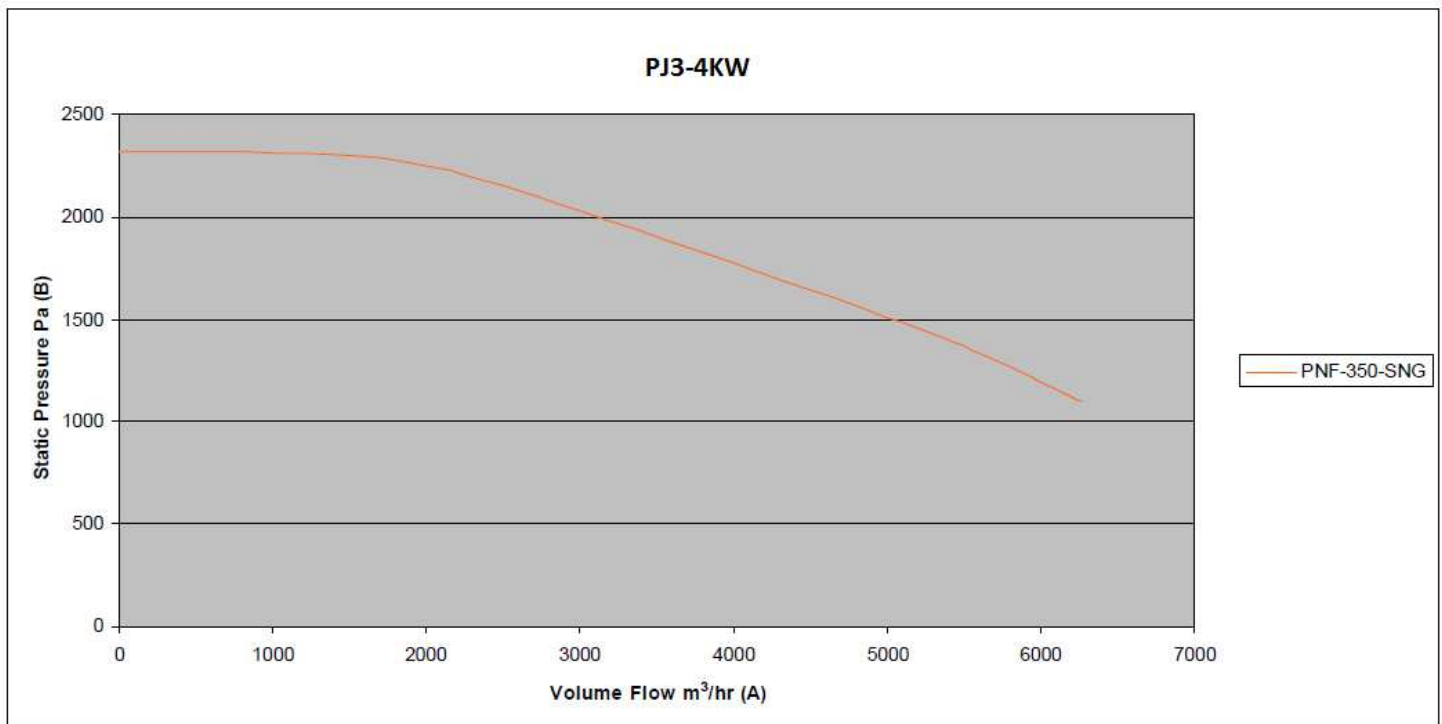
This unit is not a fully enclosed type.

It is suitable for use if your DSEAR Risk Assessment identifies that the materials and processes that you use may generate a concentration of potential explosive or combustible fine dust particles inside the LEV system. To provide ignition source minimisation within the unit P&J have ensured that ATEX compliant components are used for the devices within the unit such as the vibrator shaker, however the explosion vent is not an ATEX rated protection it is an open area above head height that complies with the requirements for partially enclosed filter bag units given in HSE WWIS 32 Safe Collection of Woodwaste: Prevention of Fire and Explosion.

#### User Specified DSEAR Zone for Extraction Unit Location

This unit is designed for use in a location that is a Non-Hazardous Area [an area in which combustible dust, fumes or vapours are not present to an extent that will permit the formation of significant explosive dust/air mixtures]. P&J also manufacture units which are suitable to be located in and used in Hazardous Areas [areas in which combustible dust, fumes and vapours are, or can be expected to be, present in a quantity that requires special precautions for the construction and use of equipment in order to prevent ignition of an explosive mixture with the air] If your risk assessment has classified the area as a Hazardous Area Zone 20, 21 or 22 for Dust or Zone 0, 1 or 2 for gases, vapours or mists you must request a unit specified for use located in those areas.

You are unlikely to have classified the proposed location of the extraction unit as a Hazardous Area if all sources of dust, fume and vapours are controlled by effective extraction, and you comply with HSE advice and standard industrial practice with regard to good housekeeping and cleanliness.

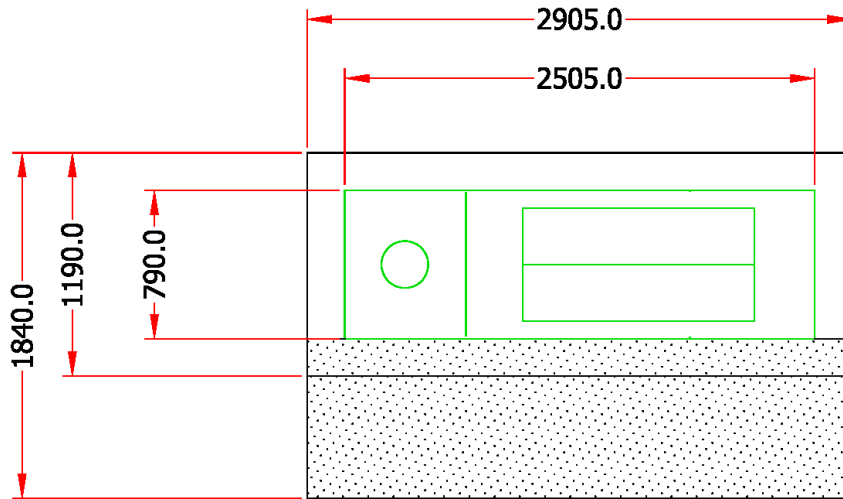


# PRODUCT SPECIFICATION SHEET

PJ3-12S-H-AS-4-3-E-V2

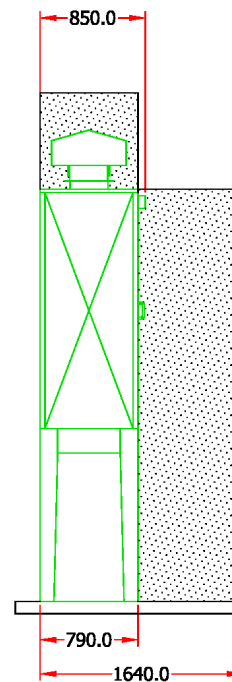
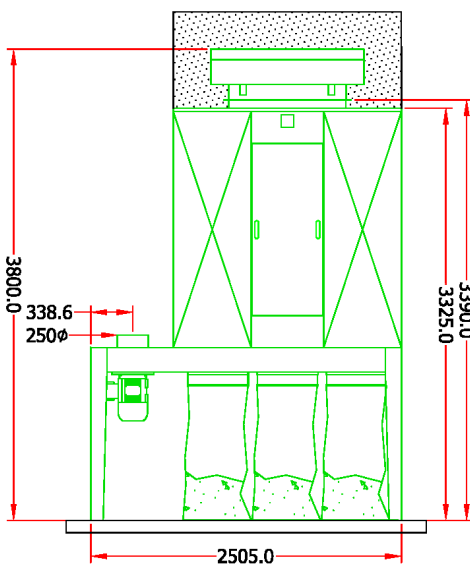
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In the interests of continued product development P&J reserve the right to amend specifications and dimensions without notice.  
As bespoke manufacturers P&J may be able to vary dimensions to suit site requirements.  
Any space constraints must be specified on your written order.  
Unless shown otherwise all dimensions are in millimetres.



Flat level base of a specification suitable to support weight of both dust extraction unit and stored waste, as well as provide suitable support for unit fixing bolts.

Minimum of 300mm clearance required above unit to allow cleaned air to discharge



Minimum of 850mm clearance required for waste emptying and filter replacement.