

British Bakels
Granville Way
Off Launton Road
Oxfordshire
Bicester
Oxfordshire
OX26 4JT



Ref : SO-22-LD-DB-049
Date : 13 June 2022

For the attention of Mr Simon Dawson

Dear Sirs,

Re: Food Processing

We thank you for your valued enquiry and now have pleasure in submitting our proposal covering the supply of dust control equipment to serve the above.

The equipment being offered is to Donaldson normal high standards of design and manufacture.

We trust that this quotation is sufficient for your needs and in line with your immediate requirements. However, if you have any queries or need any further information our Mr Daryll Brown will be pleased to discuss further and can be contacted on mobile phone number 07774 276586.

Yours faithfully

Leigh Dunning

Leigh Dunning
Sales Support – IAF
Direct Dial: 0116 256 4307
Email: leigh.dunning@donaldson.com

Donaldson Filtration (GB) Limited



Application Details

Application	:	Food Processing
Air Volume	:	15,200m³/hr @ 400mmwg total system pressure
Dust	:	Sugar / Flour
Dust Explosion Class	:	KST <11 Bar m/s, Pmax <6 Bar, MIE >3.0 mJ
Temperature	:	20°C

- ◆ **The data mentioned above are critical safety factors which determine the design of the final product** (especially dust explosion class and/or Kst value of the dust and venting conditions). We recommend that you check these values and in case of doubt, perform an analysis of the dust explosibility.
- ◆ **The proposed product should not be used outside the scope of this application.** In the event the scope would be modified, we recommend you contact Donaldson to check if the product is still fit for its purpose and eventually propose the necessary modifications.

Filter

To handle this duty we propose our Donaldson Downflo® Evolution Dust Collector type DFE 5-20 manufactured in mild steel suitable for indoor execution, complete with Ultra-Web spun bond filter cartridges, earthing, side mounted bursting panel with detection device, reinforcement, steep hopper, support legs with 1500mm hopper clearance, standard inlet NW560, outlet adaptor NW450, and C300 Cat 3D Powerbox controller with fan starter, inline microfilter and isolation amplifier, all as outlined in the attached filter specification.

MAIN FEATURES AND BENEFITS

- **Compact:** Up to 30% more compact and therefore smaller than conventional dust collectors. Smaller footprint.
- **Better performance:** The increased filter surface per filter cartridge in combination with the proven Ultra-Web technology enables lower emissions and a higher filtration capacity.
- **Cost effective:** Easy maintenance, less filter changeout and reduced maintenance costs. Lowest cost of ownership.
- **Efficient Filter Cleaning:** Superior MaxPulse cleaning system and 27% higher impulse cleaning energy.



Fan-Set

We include for a floor standing fan set complete with a 18.5kW Cat 3D motor, anti-vibration mounts, inlet and outlet flexible connections, drain plug, outdoor execution, outlet damper, and silencer to achieve 81dBA at 1 metre.

Explosion Non-Return Valve

We include for a 550mm diameter Explosion Non-Return valve to prevent flame propagation back down the ductwork in the event of an explosion occurring in the filter.

Rotary Valve

We offer the option for a TBMA 250mm SAX (basic) rotary valve, ATEX Zone 22, with 0.37 kW drive.

Ductwork

We propose the option of a range of interconnecting mild steel ductwork complete with supports, inspection doors and dampers. The ductwork between the filter and the Explosion Non-Return valve would be of explosion proof design, fully welded with flanged joints. We also include for the NRV support.

Installation

We propose the option for the skilled Installation of the above equipment during normal working hours including HIAB delivery.

LEV/Commissioning

We offer the option for commissioning and LEV examination/testing to establish initial airflow rates, volumes and system pressures including quantitative and qualitative testing with a record of each being logged to comply with the latest HSE guidance (HSG258).



Revolutionary Airflow Management

Directs incoming air to an intelligent dropout zone for reduced filter loading

Breakthrough Filter Cleaning

MaxPulse Cleaning System delivers 27% more cleaning energy to filtration media

Industry-Leading Filtration Design






Positions more filtration media in beneficial locations and Ultra-Web MERV13 media as standard



Results

A smaller cartridge collector with fewer filters and the lowest cost of ownership


Price

Item No.	Item Type.	Description.	Qty.	Unit Ex-Works Price In GBP.	Total Ex-Works Price In GBP.
1.		For Supply of Donaldson Downflo® Evolution DFE 5-20 filter unit complete with floor mounted fan with 18.5kW motor	1	£29,630.00	£29,630.00
2.		For supply of 250mm diameter Rotary Valve	1	£2,279.00	£2,279.00
3.		For supply of 550mm diameter Explosion Non-Return Valve	1	£2,421.00	£2,421.00
4.		For supply of ducting and installation of the equipment	1	£52,016.00	£52,016.00
5.		For supply of commissioning and LEV examination/testing to HSG258	1	£3,448.00	£3,448.00
Delivery UK					£5,712.00
Steel Surcharge					£3,090.00
• Above prices excluding VAT					



- Ultra-Web® Nanofibre filter media ensures longer filter life at reduced pressure drop.
- Surface filtration offers superior particle release during pulse cleaning.
- Easy filter changeout for quick maintenance.
- High filtration efficiency.

Extended Warranty (with Integrated Service Package)

Item No.	Item Type.	Description.	Qty.	Unit Price In GBP.	Total Price In GBP.
6.		Extended Warranty with Integrated Service Package increases our normal Warranty terms from 1 year to 3 years which includes replacement warranted items, annual inspection/check, site service visit and new full set of replacement original specification filter media supplied and fitted after 2 years	1	£5,702.84	£5,702.84
Grand Total					£5,702.84
• Above prices excluding VAT					

Extended Warranty

Payment Terms

100% at sale/invoice of filter unit.

We would like to point out that these terms are subject to satisfactory credit references.

What is Extended Warranty?

Extended Warranty Offer with Integrated Service Package.

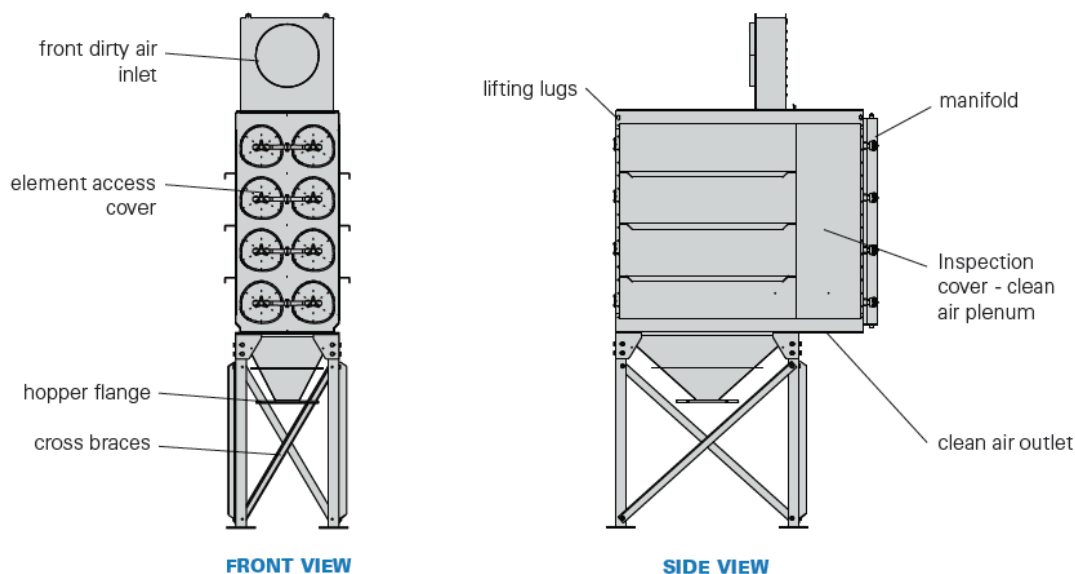
Our Extended Warranty increases our normal Warranty terms from 1 year to 3 years. We include for annual site inspections. Filter media is supplied and changed out as per offer.

Conditions of Extended Warranty

- Equipment supplied is used on the application and used within the performance and design parameters specified within our equipment offer.
- Donaldson is permitted to carry out the initial set up check, annual inspection/s and filter media changes at the intervals determined.
- Regular maintenance is carried out in accordance with Donaldson's operation manual.
- Filter cleaning mechanism and any compressed air settings are as per manufacture requirements.
- Where Donaldson iCue (connected solution) is supplied as part of the initial equipment this must be fully installed and connected.
- All ancillary equipment would remain on a 1-year warranty (i.e. Non Donaldson manufacture fan sets, rotary valves etc.)
- In the event of any extra filter media changes outside of our offer, these would be subject to an additional charge.
- For all other terms and conditions please refer to Donaldson Site Services.
- The payment schedule needs to be complied with.

FILTER SPECIFICATION

One	:	Donaldson DownFlo® Evolution DFE 5-20
Dust Discharge Arrangement	:	Hopper to rotary valve
Filter Media	:	Ultra-Web Spun Bond
Filter Area	:	224 m ²
Filtration Velocity	:	0.6 m/min
Filter Cleaning	:	C300 Cat 3D Powerbox controller with inline micrafilter, fan starter, and isolation amplifier 1ch
Fan Type/Size	:	Floor mounted with 18.5kW Cat 3D motor to IP55 spec
Power Requirements (Fan & C300)	:	400 Volts 3 phase 50 Hertz
Compressed Air Requirements	:	Refer to data sheet
Fan Starter	:	Included
Indoor Execution to C2 specification	:	Included
Earthing, Side Explosion Venting & Reinforcement	:	Included
Steep Hopper & support legs (with 1500mm clearance below hopper)	:	Included
ATEX CAT 22 Rotary Valve	:	Included
Standard Inlet NW560	:	Included
Outlet Adaptor NW450	:	Included
Design Temperature	:	- 10°C to + 60°C
Dimension Tolerances	:	+/-5 mm on main dimensions +/-2 mm on detail dimensions
Paint Finish	:	Capri Blue RAL 5019 Single Pack, synthetic, zinc rich textured - semi gloss paint



Model DFE 4-16 shown

Liability Limits

Donaldson cannot be held responsible in any way when the unit is used outside the scope of application described in this quote.

Installation, connections and maintenance of the dust collector have to be done in accordance with Donaldson Installation & Operation Manual. More information can be obtained from a Donaldson specialist or by consulting a dust explosion expert.

Guidelines VDI 3673 and VDI 2263, research work and practical experience of several years together with the exchange of information between experts in Europe, have formed the basis for the design of the dust collector.

Documentation

Above Prices include the Supply of the below Documentation, Additional Documentation, information or FAT's can be offered at an additional cost, the additional cost is dependant of the Scale of the requirements and can be advised on request.

Standard Documentation supplied:

Data sheet of Primary Equipment & Media Supplied
OEM Manuals of any Equipment Supplied
CE Certification
Atex Certification where applicable
Outline Drawings of Equipment Supplied in PDF & Auto Cad 2D Form
Key Recommended spares List and Service Offering

Explosion Relief Guidance Notes

The guidelines give alternatives listed in preferred and recommended order.
Points 1-3 applies to all Donaldson collectors fitted with explosion relief panels.
Point 4 only applies to certain Donaldson range collectors fitted with explosion relief panels.
Consult Donaldson for installations that do not comply with the following.

- 1) The collector should be sited outside with the explosion relief panels vented to a designated safe area. Adequate guarding to prevent access to this area by others.
- 2) If (1) is not possible the explosion relief panels should be vented to an outside safe area by means of an explosion relief duct of sufficient strength to withstand the explosion pressure and conform to the design criteria laid down in the Institute of Chemical Engineers Guidelines.
- 3) If (2) is not possible the explosion relief panels should be vented inside vent to a designated safe area. Adequate guarding to prevent access to this area by others.
- 4) If (3) is not possible the explosion relief panel should be directed towards a substantial wall capable of withstanding the explosion pressure shock wave. A minimum of 500mm clearance is required between the explosion panel and the wall. Adequate guarding to prevent access to the area behind the collector by others.

Explosion Venting Inside

The final location of the unit relative to venting of the explosion relief panel is to be determined by the end user. The explosion relief panel must be vented to a designated safe area and guidance in the appropriate Donaldson installation, operation and maintenance manual must be followed. End users are obliged to comply with ATEX Directive 2014/34/EU which includes the creation of an Explosion Protection Document which should contain a risk assessment of the equipment, its safe use, details of the surrounding area etc. The course of an explosion within a building will be affected by several parameters such as the shape of the building, the presence of equipment/structural elements and the possibility of propagation from room to room with the presence of flammable dusts if left to lie on surfaces such as window sills and pipework etc.

Example - Hoerbiger explosion relief valve with flame arrestor



Use In Potentially Explosive Atmosphere (ATEX - Directive 2014/34/EU)

The proposed equipment is not suitable for use in an atmosphere that is classified as potentially explosive as defined by the above Directive. However since a potentially explosive atmosphere is present within both the clean and dirty chambers of the filter unit the components in these areas are rated to suit the zones created.

Selection of the filter components is based on the following information:

Conductive dust - No

Minimum ignition energy less than 3mj - No

Cloud ignition temperature higher than 187C if dust - Yes

Layer ignition temperature higher than 200C if dust – Yes

The data mentioned above has been assumed on your behalf and are critical safety factors, which determine the design of the final product. We recommend that you check these values and notify us by return if any of this information is incorrect.

Prevention of flame front

We have a duty to point out that there is a risk of a flame front being transmitted back down the suction ductwork in the event of an explosion occurring in the filter. This risk can be minimised by the fitting of a non-return duct in the ductwork system and we have included for the supply of this item in our price.



Delivery

Our ex-works lead-time of this equipment is approx. 10 working weeks from receipt of order.

Incoterms: CPT

Conditions of Sale

This quotation is subject to our Conditions of Sale, a copy of which is available by clicking this link:

<https://www.donaldson.com/content/dam/donaldson/legal/Terms-Conditions-Sale-ENG.pdf>

Validity of quotation 15 days.

Payment

30% with order (terms; within 10 days of official order – any delay could affect our delivery time)

50% on delivery (terms: 30 days)

20% on completion of installation (terms: 30 days)

Commissioning and LEV examination would be subject to receipt of a separate order, 100% payable upon completion of work and issue of written report.

We would like to point out that these terms are subject to satisfactory credit references.

Exclusions

In calculating our prices we have excluded the following items:

- ◆ Civil/builders work
- ◆ Off-loading
- ◆ All on-site wiring, isolators and electrical work and the provision of same
- ◆ Provision and erection of scaffolding, ladders, lifting tackle, cranes etc. required for off-loading and installation
- ◆ Pre-erection storage and erection of our equipment
- ◆ Compressed air services and pipework
- ◆ Our prices do not include VAT and this will be shown separately on any invoice



Site Services

In addition to the complete range of Donaldson filtration products, we are also able to offer the following after sales service:

AFTERCARE

LEV TESTING

- P601 Qualified Engineers
- HSG 258 Compliance
- Regulation 9 of the COSHH legislation
- Detailed quality report(s)
- System schematics

SERVICE

- Full-service offering
- Qualified engineers
- From single service visit to total system management through Donaldson iCue™ offering

SPARES

- Held in our European Distribution centre
- Immediate shipping on selected items
- shop.donaldson.com site for ease of purchase
- Critical spares held on service vehicles



DISCOVER PEACE OF MIND

CONSULTATION & SYSTEM DESIGN



Donaldson offer tailored design and consultation to ensure equipment and systems supplied are correct for your application requirements.

INSTALLATION



Our engineers and authorised partners ensure that all equipment is installed in accordance with your site and regulatory guidelines.

COMMISSIONING



Our engineers examine and test in accordance with standards for maximum safety and performance.

BENEFITS OF DONALDSON SITE SERVICE PACKAGES

- Expertise in dust filtration technology and media
- Fully trained and qualified service engineers
- Local service capability of a global organization
- Comprehensive service offering from a single source, simplifying processes and reducing administration costs
- Donaldson Genuine filter media and components



Customer information:
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Customer reference: Food Processing Date: 13/06/2022
 Our reference: EW3-SV-22-AC-DB-049

Please refer to our reference number when placing an order

Dear Simon

We are pleased to provide you our quote...

Nr	Service Type	Service Parts	Net Unit Price (GBP)	Freight	Total Price (GBP)
Filter Model: DFE 5-20		Serial No: -	Location: Food Processing		
1	EXTENDED WARRANTY STD	Extended Warranty with Integrated Service Package increases our normal Warranty terms from 1 year to 3 years which includes replacement warranted items, annual inspection/check, site service visit and new full set of replacement original specification filter media supplied and fitted after 2 years.	5347.00	355.84	5702.84
				Freight cost	355.84 GBP
				Total	5702.84 GBP








DONALDSON SITE SERVICE

Comprehensive service offering from a single source
Simplifying processes
Donaldson Genuine filter media and components





Conditions:
 Prices mentioned are ex VAT
 Payment Terms: REF EQPT OFFER
 Incoterms:
 Validity offer:

Donaldson Service Offers

Protect 12 (previously Gold 12 Month)

A comprehensive service of the dust collector, readings of air flow and pressure differential are recorded pre and post service, a new set of filter media is supplied and fitted and the overall collector is also checked with minor adjustments as required for the control system and any other components. A detailed report of the service is provided along with feedback and any recommendations.

Protect 24 (previously Gold 24 Month)

In addition to the Protect 12, our Protect 24 covers 2 services, the initial visit as described above and then 12 months hence we also carry out an inspection visit, report and feedback.

Inspect (previously Silver)

An inspection only visit to fully check the dust collector, readings of air flow and pressure differential are recorded pre and post visit, report and feedback and any recommendations.

Extended Warranty Offer

3 Year Standard Warranty Extension Offer includes

On delivery of the collector/s – inspection visit to ensure correct function and adjustment of equipment and recording of

End of Year 1 – inspection visit to ensure correct function and adjustment of equipment and recording of

End of Year 2 – inspection visit to ensure correct function and adjustment of equipment and recording of – plus the supply and installation of a complete new set of original specification filter media.

3 Year Special Warranty Extension Offer includes

On delivery of the collector/s – inspection visit to ensure correct function and adjustment of equipment and recording of

End of Year 1 – inspection visit to ensure correct function and adjustment of equipment and recording of – plus the supply and installation of a complete new set of original specification filter media.

End of Year 2 – inspection visit to ensure correct function and adjustment of equipment and recording of – plus the supply and installation of a complete new set of original specification filter media.

Exclusions

Disposal – Any redundant filter media, components & packaging.

Access Equipment – Unless specifically stated our prices do not include for any site access equipment (scaffold, platform, tenting or other required for safety access/working).

Non Std PPE – Any site-specific hazardous material PPE requirements.

Additional Onsite Time – Outside of normal H&S formalities, permit to work and typical 30 min induction.

Working outside normal working hours – Unless specifically stated, weekend, bank holiday or night work.

Additional spares parts * – Should additional spares be identified, these will be an extra charge and will be supplied from the Service Van or through a return visit. Parts will only be supplied/fitted with customer sign off.

**Excluding Extended Warranty Offers*

Comments: