

Downflow Booth

Esco Downflow Booth, Model DFB-G2

Introduction

Downflow booths provide operator, process and / or product protection by utilizing HEPA filtered unidirectional laminar downflow to maintain an ISO 5 environment at rest within the work zone and capture particulates during open handling processes. The standard Esco DFBG2 has over 420 possible dimensional models and approximately 3.5 million possible system configurations ensuring that Esco can provide a standard solution to fit your specific process and facility requirements. Should a standard option not fit your requirements Esco can offer a customized solution.

Airflow Regime



- 100% of the air will bleed into the air exhaust grille at the bottom part of the Backstack where a G4 pre-filter mounted on to trap the debris and other big particulates
- The air will be filtered out by Fine Dust filter and/or HEPA filter
- The filtered air will return to the booth as clean air supply for providing the Safe Working Zone
- The remaining 10% of the air will bleed out to the room to balance the operation flow of the booth.

Key Features

- Safe Change filter configurations are available for potent products, selectable to change either internally or externally to the booth
- Open loop or Closed Loop fan control configurations
- Recirculating airflow configurations allowing use for powder or solvent applications
- Optional cooling coil systems to provide operator comfort
- PVC strip curtains available
- Energy efficient EC fan units available to minimize operating costs
- Optional hazardous area configurations to meet ATEX rated requirements (NEC 505/NEC 500)
- Two control system options (HMI or Push Button)
- Modular design allows future system adjustment without full booth replacement

BEST MODEL TO SUIT THE SITE

Mechanical

- Many standard offerings to fit our clients' needs result in reduced project start-up and fabrication times resulting in quicker equipment deliveries
- Modular design provides the option of increasing / decreasing booth size on-site without purchasing a new piece of equipment

Controller

- DFB control system is pre-programmed for all possible options so existing DFBs can be easily adapted to suit changing customer needs
- Control system offerings (Siemens or Allen-Bradley) provide options for international compliance and true closed loop control

		0.6 m Back Stack	1.0 m Back Stack
	Option SC: Safe Change		4
Series	Option SCNB: Safe Change No-Bag		4
		√	
Explosive Rating	Option ST: Standard	· · ·	✓
	Option SA : Safe Area	· · · · · · · · · · · · · · · · · · ·	
	Option ED: Explosive Dust	· · · · · · · · · · · · · · · · · · ·	· ·
	Option EG: Explosive Gas Internal Height Options (m)		
Dimensional Option	Internal height Options (m)	2.1, 2.5	2.1, 2.5
	External Width Options (m)	1.6, 1.8, 2.0, 2.4, 2.6, 2.8, 3.0, 3.2, 3.4, 3.6, 3.8, 4.0, 4.2, 4.4, 4.6, 4.8, 5.0	1.6, 1.8, 2.0, 2.4, 2.6, 2.8, 3.0, 3.2, 3.4, 3.6, 3.8, 4.0, 4.2, 4.4, 4.6, 4.8, 5.0
	Internal Depth Options (m)	0.8, 1.2, 1.6, 2.0, 2.4	0.8, 1.2, 1.6, 2.0, 2.4, 2.8
Filter Arrangement Options	Option A - G4,F8,H13,H14,PLF		~
	Option B - G4,F8,H13,H14		~
	Option C - G4,F8,H13,PLF		√
	Option D - G4,F8,H14	4	~
	Option E - Carbon,H14		✓
Fan / Filter Access	Option A - Internal to Booth	√	~
	Option B - External Area		✓
Airflow	Option R - Recirculating	4	~
Arrangement	Option S - Single Pass with Downflow Air		✓
Bleed Position	Option T - Top		√
	Option F - Front	4	√
M.O.C. Options	Option P: Ceiling Plenum	A: 316SS, B: 304 SS, C: White P.C. EG Steel	A: 316SS, B: 304 SS, C: White P.C. EG Steel
	Option Q: Side Panels, Rear Wall	A: 316SS, B: 304 SS, C: White P.C. EG Steel	A: 316SS, B: 304 SS, C: White P.C. EG Steel
	Option R: Filter Housings, Fan Boxes, Spacer (if present) & Transition	A: 316SS, B: 304 SS, C: White P.C. EG Steel	A: 316SS, B: 304 SS, C: White P.C. EG Steel
	Option S: Plinth	A: 316SS, B: 304 SS, C: White P.C. EG Steel	A: 316SS, B: 304 SS, C: White P.C. EG Steel
	Option T: Exhaust Grills	A: 316SS, B: 304 SS, C: White P.C. EG Steel	A: 316SS, B: 304 SS, C: White P.C. EG Steel
	Option U: Exterior Side Panels	A: 316SS, B: 304 SS, C: White P.C. EG Steel	A: 316SS, B: 304 SS, C: White P.C. EG Steel
PVC Curtains	Option T - Top		✓
	Option F - Front	✓	✓
Voltage Supply	Option A: 230 V, 50 Hz, 1 Ph		
	Option B: 400 V, 50 Hz, 3 Ph	~	\checkmark
	Option C: 208 V, 60 Hz, 3Ph	√	
	Option D: 480 V, 60 Hz, 3 Ph	✓	✓
	,		
MCP Location	Option E: 120 V, 60 Hz, 1 Ph OR: Onboard Right Access	✓	✓
	OL: Onboard Left Access	✓	✓
	OF: Onboard Front Access		
	RM: Remote Mounted	✓	✓
Control Type			
	Option 1: PLC/PB's/PDI/PDT - Allen Bradley Components - Closed Loop	√	√
	Option 2: PLC/PB's/PDI/PDT - Siemens Components - Closed Loop	✓	4
	Option 3: PLC/HMI/PDT - Allen Bradley Components - Closed Loop	4	d and a second sec
	Option 4: PLC/HMI/PDT - Siemens Components - Closed Loop	✓	~
	Option 5: Sentinel Gold/PDI/PDT - Open Loop/Closed Loop	√	✓
Cooling Type	Option CC: Chilled Water	√	✓
	Option DX: Direct Expansion	√	\checkmark
	Option GL: Glycol	4	~



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