



*Downflow Booths  
For Weighting and Dispensing  
Standard Series*



## *Highest operator protection*

The Telstar downflow booth provides the highest levels of operator protection from potentially harmful airborne contaminants generated during manual powder handling operations such as sampling, charging and dispensing.

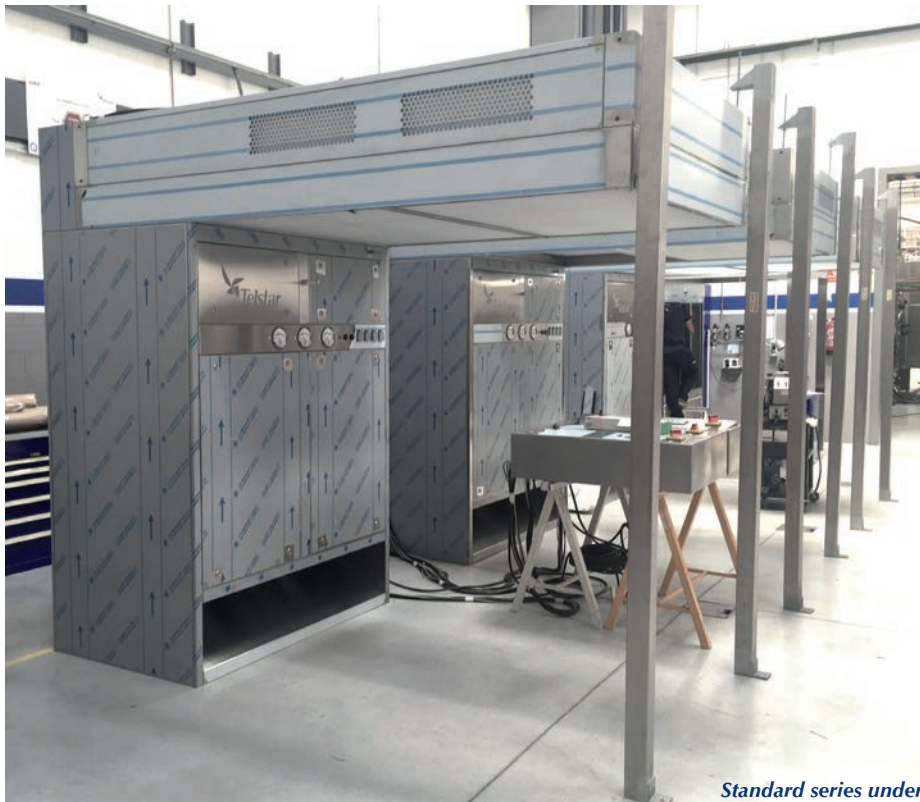
Achieving Operator Exposure Levels (OEL) typically between 50 and 100µg/m<sup>3</sup> TWA the booth also provides product protection (Class ISO 5) from surrounding area contamination by creating a clean processing zone minimizing cross contamination risk from other products/processes. Lower levels of containment (10µg/m<sup>3</sup>) can be achieved by utilizing purpose designed workstations and containment screens.

The downflow booth operates on a recirculatory push-pull airflow principle providing containment by air movement. A clean, constant, turbulence free, unidirectional downflow of air is supplied from the ceiling, suppressing any dust clouds generated during open powder processing, removing and capturing airborne particles from the operator's breathing zone.

Exhaust air grilles at the base of the rear wall capture the generated airborne contaminants. The exhaust airflow then passes through a series of filtration stages before returning through the booth ceiling plenum. A small percentage of air is discharged from the booth through the bleed exhaust port to maintain the working space under negative pressure, minimizing airborne contamination breakout.

The common advantages of containment by airflow systems are:

- Unrestricted operator access to the target operation (i.e. no physical impediment offered by the containment equipment).
- Flexibility to handle a large range of container types (i.e. fibre kegs, bags, IBC's, etc.).
- Capability to integrate additional process equipment.



*Standard series under manufacturing*

## *Modular and compact design*

The integration of the modular and compact design offers the advantage of both solutions, allowing either full integration of the equipment to the facility architecture or a stand-alone installation as required when installing within existing locations.

The main advantages of standard series are:

- A wide range of possible sizes to suit at the space and the process (9 models available including different configurations and accessories).
- Pre designed models so there is no need of dedicated engineering or project management resources. That means a significant cost and delivery time reduction.
- From 3 to 7 weeks delivery time (ExWorks) depending of the model and accessories chosen.
- Proven worldwide design.
- Fully definition of the equipment at the purchase order.

**IMPORTANT NOTE; the standard series range cannot be customized out of the accessories and configurations described into this brochure.**

There are different downflow booths within Telstar's product portfolio that allow fully best spoke designs to meet any special requirement, as well as Explosion proof versions (ATEX) for both explosive gas and/or dust.

## *Operating conditions*

- Laminar flow velocity: 0,45 m/s (+/-20 %)
- Bleed air: around al 10% - 15%
- LED Light intensity: > 600 lux
- Voltages:
  - 230 V II + T 50/60 Hz
  - 380 V III + N + T 50/60 Hz
  - 230 V III + N + T 50/60 Hz



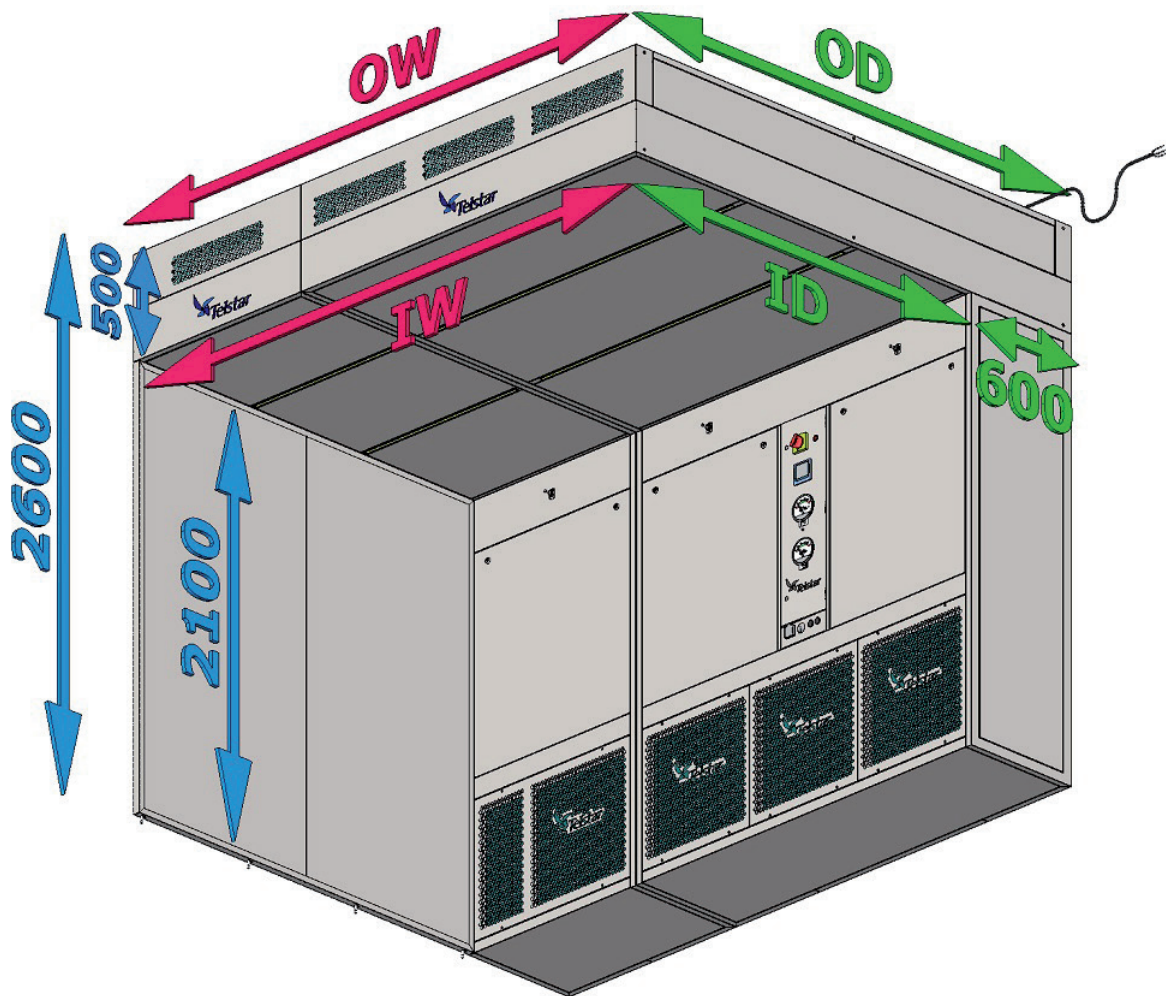
*Touch screen and magnehelic*

## *Main standard features*

- Available 304L stainless steel.
- Triple Stage filtration: Pre-filter, Fine dust pre-filter, HEPA filter.
- Quadruple Stage filtration for BIBO version: Fine dust pre-filter, HEPA filter H-13 and Terminal H-14 HEPA filter.
- Easy maintenance (filters and rest of components) from working area.
- Control board with general switch.
- User friendly Touch screen HMI and PLC.
- Several working languages (Spanish, English and French).
- Standby function for energy saving when the unit is not in use.
- On board energy saving LED lighting flush mounted.
- HEPA filter and Pre-filter pressure gauge (acoustic and visual alarm).
- Automatic speed control by pressure sensor to compensate filters clogging.
- 2 sockets and 2 RJ 45 connectors.
- Internal FAT tested at Telstar's facilities.
- Low noise level.
- High energy efficiency EC fans.
- Green Tech Equipment.
- Safe change version Bag in Bag Out (BIBO) available in 3 different sizes.



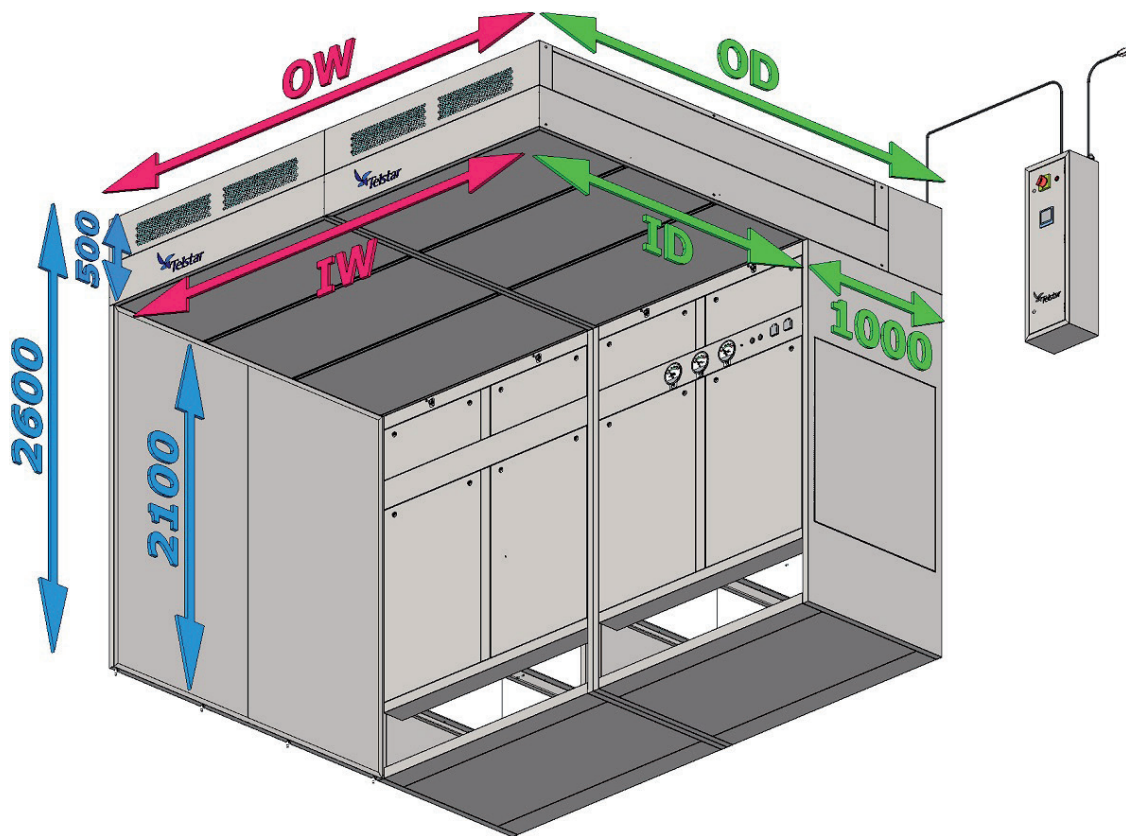
Technical details



	Internal Width IW Note 1* m	Overall Width OW m	Internal Depth ID m	Overall Depth OD m	Laminar Flow Area m²	% Bleed Air Approx.	Total m³/h	Noise Level dB(A)	Total Installed Power kW	Standard Consumption kW	Approx. Net Weight kg	Approx. Brut Weight kg
MDFB 16S	1,6	1,6	1,4	2	2,24	17%	4361	65	5,2	1,0	432	562
MDFB 16L	1,6	1,6	2	2,6	3,2	12%	5.881	67	5,3	1,1	480	624
MDFB 20S	2	2	1,4	2	2,8	14%	5.298	66	5,2	1,0	540	702
MDFB 20L	2	2	2	2,6	4	14%	7.569	66	6,1	1,5	600	780
MDFB 26L	2,6	2,6	2	2,6	5,2	11%	9.486	69	6,2	1,6	780	1.014
MDFB 30L	3	3	2	2,6	6	13%	11.172	68	7,0	2,1	900	1.170

NOTE 1: internal width IW will be reduced 40 mm each side in case of side panels.

BAG IN BAG OUT VERSION (BIBO)



	Internal Width IW (Note 1)* m	Overall width OW m	Internal Depth ID m	Overall Depth OD m	Laminar Flow Area m²	% Bleed Air Approx.	Total m³/h	Noise Level dB(A)	Total Installed Power kW	Standard Consumption kW	Net Weight Approx. kg	Brut Weight Approx. kg
MDFBSC 16L	1,6	1,6	2	3	3,2	12%	5.881	70	5,3	1,4	480	624
MDFBSC 20L	2	2	2	3	4	14%	7.569	69	6,1	2,1	600	780
MDFBSC 32L	3,2	3,2	2	3	6,4	12%	11.762	71	7	2,8	960	1.248

NOTE 1: internal width IW will be reduced 40 mm each side in case of side panels.



Bag in Bag Out (BIBO) version

## Options and accessories

A complete range of alternatives, accessories, and options allows for a wide range of configurations to suit different containment applications:

- Double skin side panels SS 304.
- Low static PVC front and side curtains.
- Front legs supports.
- SG Screen laminator downstream terminal HEPA H-14 including concealed LED lighting.
- Cooling fan or chiller coil system for temperature regulation.
- FAT documentation.
- IQ/OQ protocols.
- Rigid containment screen with glove ports for improved operator protection.
- Wide range of perforated working tables.



*Flush mounted LED lighting*



*Accessories: containment screen with glove ports and perforated working table*



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Telstar reserves the right to improvements and specifications changes without notice.