

LAMINAR AIRFLOW



LAF TROLLEYS

TRANSFER CARTS IN CLASS ISO 5 CONDITIONS FOR MATERIAL TRANSFER BETWEEN DIFFERENT CLASSIFICATION AREAS

DESCRIPTION

Parenteral manufacturing facilities are built with a specific attention to the amount of space included in the sterile block. The layout design is driven by the need to reduce construction costs and classified area maintenance costs.

LAF trolleys have been developed to allow safe material transfer from a classified grade A area to another classified grade A area, passing through a classified grade B area with no need for electrical supply (around 30 minutes of autonomy).

LAF trolleys are mainly used to transfer stoppered vials from the vial-filling line to the freeze dryers and then to the vial-capping machines.

Air is drawn from the surrounding environment via side prefilters, HEPA filtered, forced to move horizontally through the trolley and finally expelled from slots placed on the doors.

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TECHNICAL SPECIFICATIONS

- structure made of AISI 304 stainless steel, Scotch Brite finishing
- HEPA filter, with a 99.999% efficiency on 0.3 micron particles; Eurovent class H14
- high-efficiency flat pre-filters on the low left side of the trolley, with protective mash in stainless steel
- electrical cabinet integrated in the cart, with safety switch
- n. 5 supports for trays, placed in one row, at a distance of 120 mm one from the other*
- n. 10 trays (two for each support), dimensions 423 x 302 x 37h mm*
- variable pitch every 60 mm*
- n. 4 handles for trolley maneuvering
- up to 1 hour battery life. Time to fully charge: 4 hours
- n. 1 differential pressure gauge
- inlet and outlet connection with stopper for filter efficiency testing
- socket and plug to connect the power supply cable (cable not included in the offer)
- n. 4 swivel castors with foot guards, maximum capacity of 250 kg/each
- n. 2 branches in transparent acrylic material with holes for air exhaust
- self-controlled fan with pressure and flow rate that ensure a 0.45 m/sec. \pm 20% speed of the air exiting the HEPA filter upon request

TECHNICAL DATA	
external dimensions (approx.)**	650 x 1100 (+100 for handles) x 1650 mm (L x W x H)
internal usable area (approx.)**	500 x 700 x 660 mm (L x W x H)
airflow rate	450 m ³ /h
contamination class	ISO 5 according to ISO 14644-1
power supply	230 V single phase, 1kW
frequency	50 Hz

-Other sizes available upon request.

DOCUMENTATION AND REFERENCE GUIDELINES

The LAF trolley comes with an operating manual that contains:

- proper use procedure
- regular maintenance procedure
- report of the functional tests performed during the testing phase at our facility
- CE certificate of conformity
- original certificates of the HEPA filters and the fan

Rules and reference guidelines:

- CEI EN 60204-1
- Machinery Directive 2006/42/CE
- Electromagnetic Compatibility Directive 2004/108/CE
- Low Voltage Directive 2006/95/CE (applicable only to the electrical panel)

COMPANY WITH QUALITY MANAGEMENT
SYSTEM CERTIFIED BY DNV
= ISO 9001:2008 =

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