

CYTOTOXIC DRUGS HANDLING CABINET

STERIL CTH - CLASS II

Images herein provide are intended for illustration purpose only. The specifications can change without notice.



Introduction

Biohazard Safety Cabinets (BSC) are used in all those situations where it is necessary to protect the operator and the environment from harmful effects deriving from the uncontrolled spread of airport contaminants and, in equal measure, until no environmental interference of a microbiological nature involves and compromises the product during its manipulation.

Applications

Normally used in hospital pharmacies, oncology department, day-hospital and pharmaceutical industries. For a correct use and application of the cabinet here described, it is necessary to refer to the appropriate standard norm and rules in force in the country where the cabinet is used. The main standard for product in Europe is a German Standard DIN 12980.

Definition

CTH C2 produced by ALS is a triple absolute filter cabinet and it is defined:

Class II as designed with a frontal working opening for the aspiration of 30% of the total air involved, at a minimum velocity of 0,40 m/sec., and the remaining 70% is recirculated through a HEPA filter in the working chamber with a laminar flow velocity between of 0,25 and 0,5 m/sec (as defined by DIN 12980 and by EN 12469).

Specifications

- ✓ **External structure in epoxy powder coated cold-rolled steel** for excellent corrosion resistance to the attack by aggressive common chemicals.
- ✓ **Rear wall in stainless steel AISI 304 L**, designed to conform to requirements and pass the “cleanability test” according to EN12469:2000.
- ✓ **Work surface in stainless steel AISI 316L** in one piece (or by sections upon request) which are easily removable for carrying out routine cleaning and/or autoclaving sterilization procedures; closed or perforated on request.
- ✓ **Work chamber in single piece AISI 304 stainless steel** for the best cleanability.
- ✓ **Front window:** Stratified hinged safety glass to give easy access to large items. It is provided with gas springs to keep it open during maintenance or sanitization operations.
- ✓ **Re-circulating and extractor fans:** two centrifugal fans direct driven motor (main and exhaust), with protection factor IP-55, controlled by two automatic independent speed-flow rate regulators and microprocessor system to keep constant airflow, showing laminar flow and protection barrier work conditions.
- ✓ **Filtration:** H14 HEPA/ULPA filters with an efficiency better than 99,995 % MPPS (EN-1822). **Third bank of class H14 HEPA/ULPA filters** with easy replace system is positioned beneath work surface built for handling cytotoxic drugs
- ✓ **Operation Condition:** Air cleanliness in Class ISO 3 as per ISO EN 14644-1.

The **user-friendly practical keyboard** and the rear-lit LCD will continuously display all required data keeping the user constantly informed of the cabinet conditions in operation, and in particular:

- display of laminar airflow velocity and frontal air barrier velocity
- display of inside and outside temperature
- display of residual lifetime of HEPA/ULPA filters, UV Lamp and activated carbon filter (if fitted)
- display of total number of hours of operation
- display of saturation level of HEPA/ULPA filters.

Audio-visual alarms provided for:

- out of range or incorrect laminar airflow velocity and frontal air barrier velocity
- front window opened
- clogging of HEPA/ULPA filters
- end of lifecycle of UV lamp and saturation of activated carbon filter (if fitted)

- blockage in the exhaust duct (if fitted)
- fan-motor malfunction
- power failure

Lighting: fluorescent tubes in built-in housing, placed outside the contaminated area.

Aluminium front closure panel that ensures the sealing of the cabinet for sterilization/fumigation.

D.O.P.-DEHS inlet port for testing the HEPA/ULPA filters.

UV sterilizing lamp (optional) installed on the aluminium front closure panel complete two switch-off countdown timers, one variable on a 0-3 hours scale (1-minute steps), the other set to 3 fixed hours.

Direct Ducting: As standard supplied with 200 mm diameter collar on the top of the cabinet for optional direct ducting to facility exhaust system

Standard equipment

- Blind work surface
- Floor stand (integrated, as there's the third HEPA filter)
- Power socket
- Empty circuit with tap
- Gas circuit with tap and solenoid valve
- Front closing panel in anodized aluminium
- 100% DES door

Optional accessories

- UV lamp (mounted on the front closure panel)
- Armrest (pair)
- Chest of drawers on wheels, with three drawers
- Additional filter in expulsion with activated carbon (without collar)
- Additional power socket
- Compressed air circuit with tap
- Nitrogen circuit with manual tap
- NO/NC clean contact

Testing

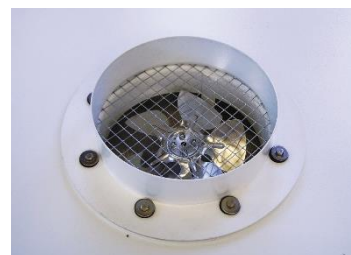
Each cabin is individually tested by the quality control office of our production site, with certified instrumentation in SIT centres and in accordance with internal procedures included in the ISO 9001 quality manual.

Upon request it is possible to carry out "VALIDATION TESTS" on site with IQ / OQ PROTOCOLS

Installation of exhaust duct

The hoods of the CTH series are equipped with provision for connection outside the room; the indications relating to the maximum length of the channel to be connected do not consider any curve. It should be considered that each curve provides a pressure drop equivalent to one linear meter (10 linear meters with three curves = 13 linear meters)

Model	Flange diameter	Duct max length
CTH 36	200mm	15m
CTH 48		
CTH 60		
CTH 72		18m



Technical Data

Description	Unit	CTH 36	CTH 48	CTH 60	CTH 72
Code		14561	14562	14563	14564
External dimensions WxDxH (1)	mm	1015x785x 2245	1320x785x 2245	1625x785x 2245	1930x785x 2245
Internal dimensions WxDxH	mm	885x580x660	1190x580x660	1495x580x660	1800x580x660
Working frontal aperture	mm	200			
Max frontal aperture	mm	430			
Weight	kg	250	295	380	460
Exhaust air volume	m3/h	290	390	485	585
Noise (2)	dB(A)	<57	<58	<59	<60
Light	lux	>1000	>1100	>1200	>1200
Voltage		230V / 1 + T / 50Hz			
Power consumption (3)	A	2,22	2,24	3,9	4,2
Electrical class/IP		1/20			
Internal electrical outlet	The electrical outlets have a total load capacity of 6A and are protected by a T6A fuse				
Heat emission	W	175	240	295	360
(1) The total height can be reduced to 1995mm for narrow passages during transport (2) Under operating conditions, in accordance with EN12469: 000 (3) Clean filters, activated lighting, internal sockets without loads					

Product name	CTH series. STERIL™ brand is full property of Angelantoni Group
Manufacturer	Angelantoni Life Science S.r.l. Loc. Cimacolle, 464 06056 Massa Martana (PG) - Italy
Voltage	208 – 253 VAC 50 Hz
Environmental conditions - operations	Temperature: +2° ~ +50° C RH%: 30 ~ 85% without condensation
Environmental conditions - storage	Temperature: +2° ~ + 50° C RH%: 20 ~ 80% without condensation
Alarms	Acoustic and visual
In case of black-out	System shuts down
Warranty	12 (twelve) months