

# HEPA Minipleat

## Specifications

Description	Semi HEPA 95%@0.3-1um			Semi HEPA 95%@0.3um			99.99% at 0.3um		99.9995% at 0.1-0.2um (MPPS)	
Model	C90			CH			H4MH		U5MH	
Frame Thickness mm (Standard 70mm)	45	70	90	45	70	90	70	90	70	90
Initial Pressure Drop Pa at 0.45 m/s	60	50	50	70	50	50	120	90	160	120
Filter Class to EN1822	F9			E10 / E11			H13 / H14		U15	
IES RP-CC-001.3	-			-			Type A / C / D		Type F	
EN1822 MPPS Global / Integral Value	≥75%			≥95.0%			≥99.95% / 99.995%		≥99.9995%	
PSL/DEHS/DOP Efficiency@ 0.3um	≥85%			≥98.0%			≥99.99% / 99.999%		-	

Frame Thickness of 110mm and HEPA Minipleat GEL frame thickness 80mm and 85mm available. Recommended storage life of Gel filters shall be <12mths. Caution HEPA filters are fragile and extreme caution is required during handling and installation only by trained and experienced personnel.

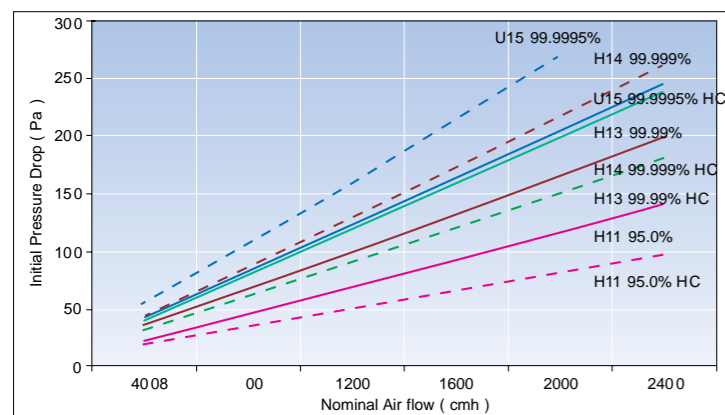
## Dimensions

Module Actual Size L x W x T in mm	Filter Actual Size L x W x T in mm	Rated Air Flow cmh	Media Area sqm	Nett Weight kg	
				Module	Filter
<b>RPM TH Replaceable Modules (GEL) -obsolete</b>					
600 x 600 x 260	558 x 558 x 85	500	10.9	7.0	3.0
1210 x 600 x 260	1168 x 558 x 85	900	19.9	14.0	6.0
<b>RPM TR Replaceable Modules (Gasket) new 2018</b>					
591 x 591 x 260	558 x 558 x 70	500	10.9	7.0	3.0
** 1201 x 591 x 260	1168 x 558 x 70	900	19.9	14.0	6.0
<b>RPM TD Replaceable Modules with Diffuser</b>					
595 x 595 x 260	525 x 525 x 70	450	8.6	7.0	3.0
** 1210 x 600 x 260	1138 x 528 x 70	900	18.2	14.0	6.0

Length and Width dimensions are interchangeable. \*\* RPM TR/TD 1210x600 comes with OD12" (OD300mm) collar

## Technical Data

Continuous Operating Temperature	60 °C
Relative Humidity	80 %
Recommended	250-350 Pa
Final Pressure Drop	
Max Final Pressure Drop	500 Pa



Actual Size L x W x T in mm	Rated Air Flow cmh	Media Area sqm	Nett Weight kg
305 x 305 x 70	150	2.7	2.0
305 x 610 x 70	300	5.5	4.0
610 x 610 x 70	600	11.3	5.60
762 x 610 x 70	750	14.3	6.4
915 x 610 x 70	900	16.9	7.2
1210 x 600 x 70	1200	22.2	9.5
1524 x 610 x 70	1500	27.7	12.0
914 x 914 x 70	1100	25.2	10.4
1170 x 570 x 70	1100	19.6	9.0
525 x 525 x 70	500	8.6	5.0
1138 x 528 x 70	900	18.2	7.8

### DTM Disposable Modules

595 x 595 x 220	600	10.7	6.0
600 x 600 x 220	600	10.9	6.0
1210 x 600 x 220	1200	22.2	12.0
1195 x 595 x 220	1200	21.7	12.0
1170 x 570 x 220	1100	20.3	12.0

Odd sizes can be custom fabricated accordingly with longer leadtime  
Length and Width dimensions are interchangeable

## Test Specifications

Standards for Reference

IEST-RP-CC-001.6, IEST-RP-CC034.4

PAO/PSL Overall Testing 99.97-99.999% at 0.3um

1. EN1822-5 for Classes H12, H13 and H14

2. IEST-RP-CC-007 Type H/I/J/K

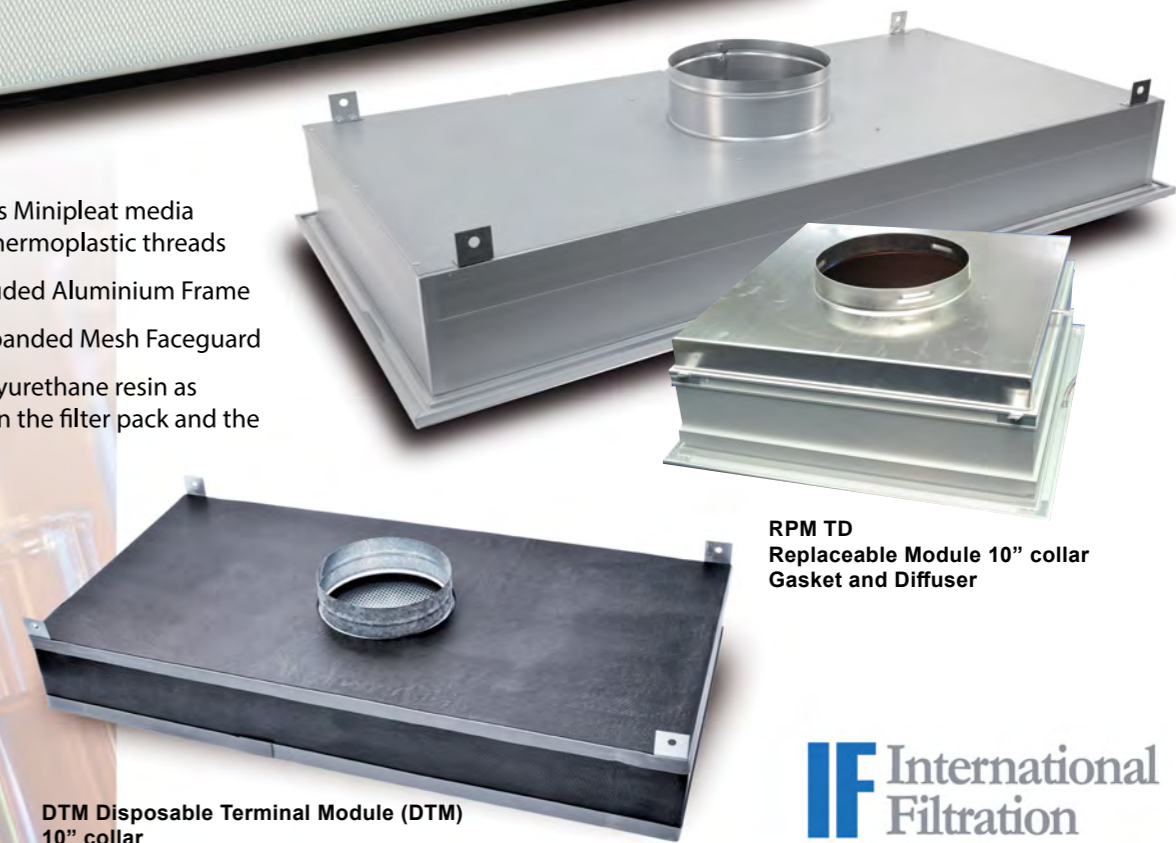
3. IEST-RP-CC-001, for TYPE A/B/C/D

Each single filter media roll used in production is systematically tested in accordance with standard EN 1822-3. In accordance to Recommended Practice, IEST-RP-CC-001 w CC034/ EN1822-4 & 5, at the end of the production, individual filter element is locally scanned tested for leaks/penetration by using non-toxic suitable aerosol of PAO/Emery Oil/ polystyrene latex spheres (PSL) challenge by using aerosol photometer or particle counter and determining filter efficiencies. Global efficiency can also be determined measuring upstream and downstream concentration. For IEST-RP-CC-007/ EN1822-4 & 5, MPPS is determined and for rating above H12, individual filter is locally scanned tested for leaks/penetration using particle counter to determine the global efficiency. The pressure loss is also determined. The filter test results are recorded on labels and affixed onto the HEPA filter.

# Minipleat HEPA



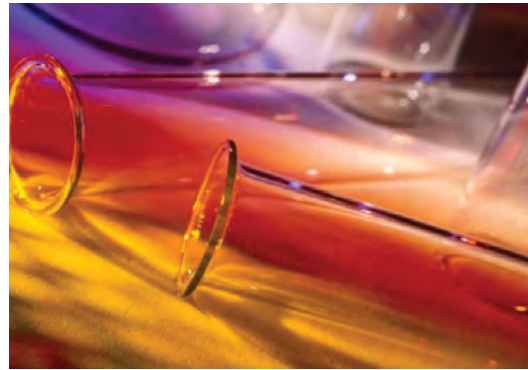
- Micro fibreglass Minipleat media separated by thermoplastic threads
- Anodised Extruded Aluminium Frame
- Aluminium Expanded Mesh Faceguard
- Hotmelt or polyurethane resin as sealant between the filter pack and the frame



RPM TD Replaceable Module 10" collar Gasket and Diffuser

DTM Disposable Terminal Module (DTM) 10" collar

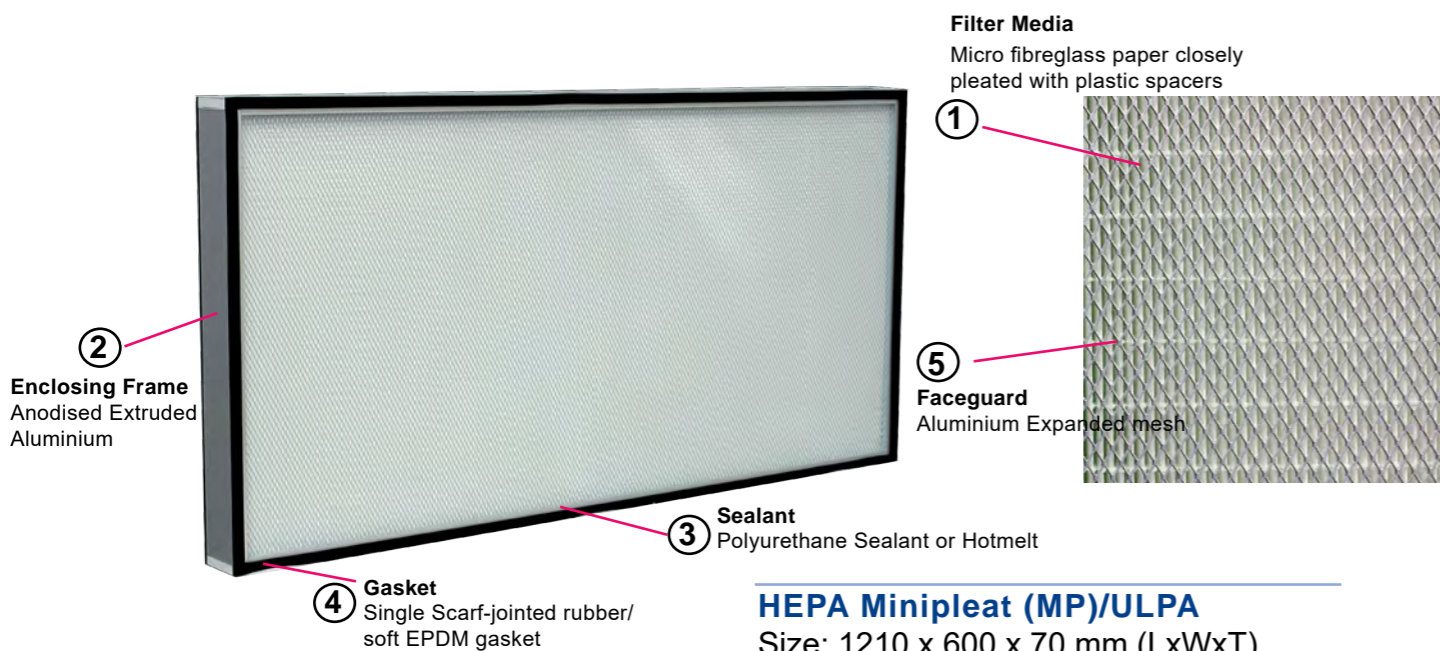
## General Characteristics



Minipleat (MP) HEPA filters have been widely used in a wide range of industries. They are used as terminal modules in directional clean rooms, to acquire laminar air flow in clean rooms and aseptic environments. Selection include 1. Disposable, 2. Replaceable Modules or 3. FU (Fan Unit) w Replaceable Module or FFU w HEPA Filter

- Nuclear Establishments
- Pharmaceutical Productions
- Clean rooms
- Electronics Production
- Hospitals and Operating Theatres
- Isolation Wards, Laboratories

Being lightweight and slim, MP HEPA filters require less space and are used in laminar flow clean benches, biological safety cabinets, Fan Filter units, terminal housings and T-ceiling grids.



### HEPA Minipleat (MP)/ULPA

Size: 1210 x 600 x 70 mm (LxWxT)

Filter Grade	H13, H14, U15
Filter Efficiency	99.99, 99.995% at 0.3um
Rated Airflow	1200cmh / 0.45m/s
Initial Pressure Drop	120Pa +/- 15%

## Construction

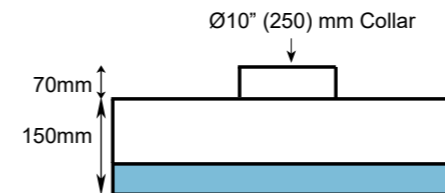
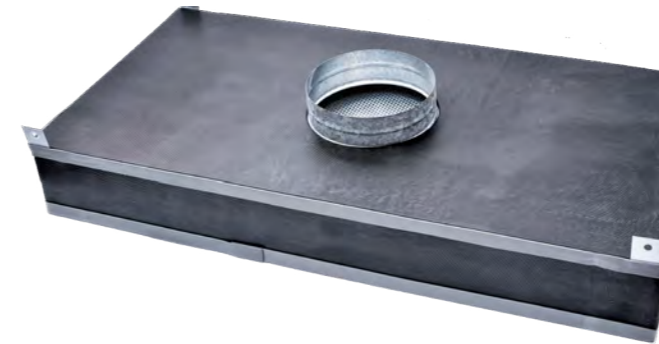
Minipleat (MP) filter media packs are constructed using continuously mini-pleated borosilicate micro fibreglass paper. Sem-HEPA are synthetic which offers extreme low pressure drop. The pleats are separated using thermosetting adhesive hotmelt beads. Each filter pack is assembled into an anodised extruded aluminium casing with both faces protected by aluminium expanded mesh. The filter media is sealed to the casing with hotmelt or polyurethane PU adhesive.

Optional frame casing materials include galvanised and stainless steel. A single scarf-jointed soft

EPDM/ 5mm gasket is usually affixed at the downstream face or air outlet. HEPA GEL Minipleat (MP) filters are installed in knife-edge housings. Our modules with gasket or gel seal will achieve leak-free installation.

HEPA GEL minipleat utilises special formulated Silicone as gaskets and jelly gel like and forms a permanent adhesive bond between the filter frame gel channel and the housing knife edges. The HEPA GEL Minipleat (MP) filters have extruded casing depth 80mm or 85mm.

## Disposable Terminal Modules (DTM)

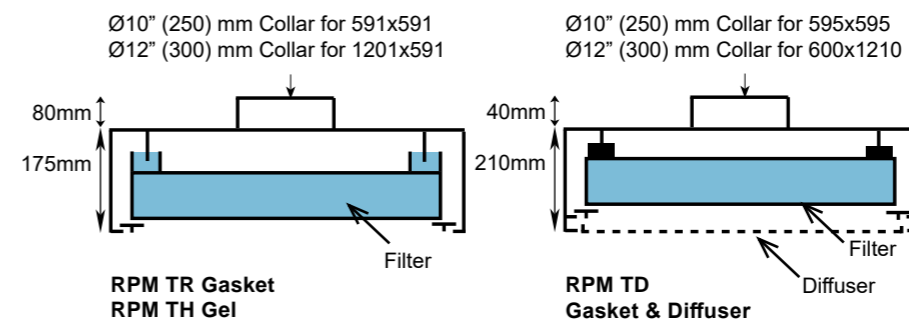
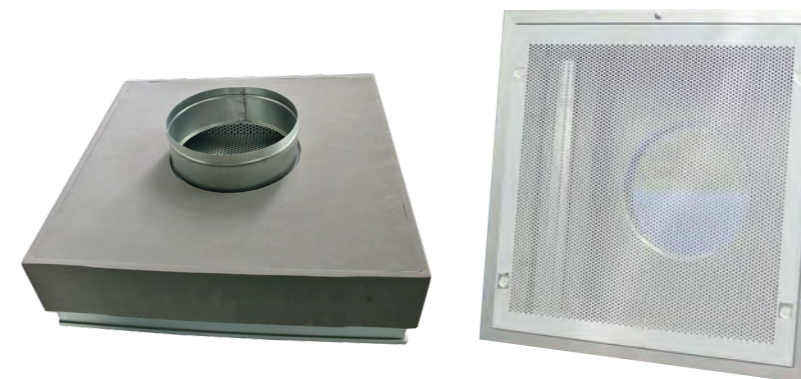


The DTM range offers feasible and lower cost solution to ensure clean air over critical work areas. They are suitable for ceiling or wall mounting in single or in multiples depending on the size of area of protection.

The minipleat filter cell is factory-sealed into the aluminium constructed casing and comes with foam insulation and an aluminium expanded mesh as faceguard.

Hanging brackets are provided. The standard size 600x1210mm (LxW) is suitable for standard T-bar ceiling grid, 10"(250mm) round collar is attached, provided for flexible or rigid duct connection to the air supply.

## Replaceable Modules (RPM)



The Replaceable Modules (RPM) comes in T-Grid Gel (TH) installations, T-Grid Rubber Gasket (TR) or T-Grid Rubber Gasket (TD) wD iffuser and are similar to DTM in terms of applications. Although with a higher initial cost, it offers an easy and cheaper option upon HEPA filter replacement.

The RPM TR module housing is made of Aluminium (Al), 100% sealed and comes with knife edges. The filter is secured in the housing with four Aluminium T-plates (clips) underneath. The installation and replacement for filters can be achieved quickly with the design clips installation. The module housing is installed with HEPA Gasket filters. RPM TH modules with GEL filters.

RPM TRFU does not come with collar and insulation for FFU (Fan Filter Unit) installations. Optional: Diffuser Flange

RPM TD comes Aluminium Diffuser and bracket clamps for tightening rubber gaskets filters for room side replacement to ensure leak-free installation. Well suited for Use in laminar air flow ultra clean major operating theatres, pharmaceutical or clean room installations. Hanging brackets, pressure ports are provided

Optional: Adjustable inlet damper

