

# Air•Frame™ 509 Ceiling System



DAW TECH

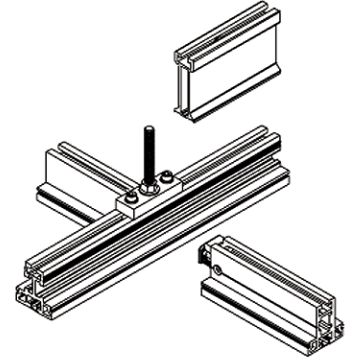
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The 509 ceiling grid is a new Daw product designed specifically for the heavier hanger load requirements of wafer transport systems for 300mm fabs.

## OVERVIEW

The Air•Frame™ 509 is designed specifically for attaching Automated Material Handling Systems (AMHSs) and the additional loads associated with them. A unique cam-lock connection (patents pending) used at the grid intersections dramatically simplifies installation, reducing install time by more than one half that of comparable systems and permits future modification of the grid layout.

The Air•Frame™ 509 is a 2" (50mm) wide gasket-seal ceiling grid system comprised of clear anodized extruded aluminum tee members. Each grid member is pre-cut then anodized. The cam-loc clips used for grid assembly are preinstalled in the factory. At the construction site grid members are simply connected together using a single 5mm Allen wrench. Once assembled the grid forms a continuous gasketed ledge to receive HEPA or ULPA filters for ultraclean manufacturing environments. An integral nut slot continuous along the top and bottom of the grid compatible with Bosch' tee nuts facilitates grid hanging from above and (AMHS) hangers at the room side of the grid.

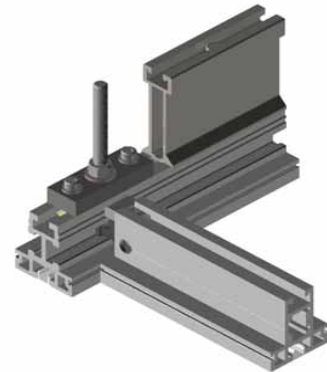


## CHARACTERISTICS

- The ceiling grid components are comprised of clear anodized extruded aluminum
- Hangers are provided at 48" on center in both directions. Structural capacities and hanger spacing are standards and may be increased upon review by Daw Technologies or a qualified engineer.
- Wall headtrack and appurtenances are attached using Bosch™ tee nuts and the integral nut slot extruded into the grid.
- Net filter area per filter is 1081 square inches (.7 square meter).

## FEATURES

- The basic grid is designed to be walkable. With the addition of a "Backbone" the system is capable of suspending minienvironments and/or AMHS. The "Backbone" is a retrofit member that bolts to the top of the grid using the integral nut slot. The "Backbone" increases the carrying capacity of the grid 2.6 times. They can be factory installed or retrofit in the future without effecting adjacent filters.
- Sprinklers may be located at blank pans or at grid intersections
- Diffusion screens and blank pans may be flush with the underside of the grid.
- Mixing screens are available in place of diffusion screens.
- Hangers may be placed anywhere below the grid to suspend minienvironments or AMHS.
- The 509 is compatible with teardrop, sealed troffer, flow through troffer light fixtures and fan filter modules (FFUs).



## BENEFITS

- The unique grid connection (patents pending) speeds installation to less than 1/3 that of comparable systems and permits future modification of the grid layout. This is especially useful when servicing fan filter modules (FFUs).
- The 1/4 - turn Bosch™ tee nuts install quickly without damaging the grid.
- The gaskets can be factory installed on the grid or integral to filters and blank pans.