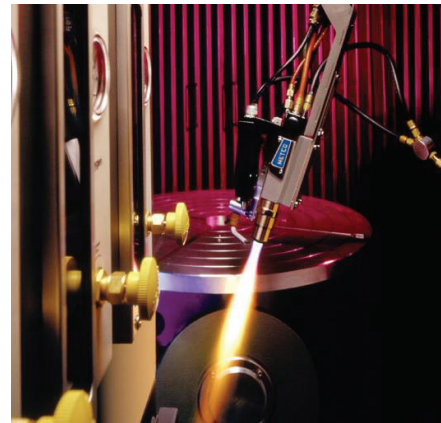


Focus on Thermal Spray



GSX64 unit on Thermal Spray

THE CHALLENGE

Capturing dust and fumes generated during thermal spraying presents a unique challenge. With thermal spray, floor space is typically at a premium. Combining guidelines found in the ACGIH "Industrial Ventilation: A Manual of Recommended Practice for Design" with our in-field experience and state-of-the-art filtration, Camfil APC will correctly size a cost- and space-saving filtration system that is reliable, durable and easy to maintain. **Let Camfil APC's expertise in this application help you to put in a safe dust collection system.**

An enhanced cleaning mechanism on the Gold Series X-Flo is designed to handle difficult thermal spray applications extremely well, maintaining a stable differential pressure during operation. It is standard on all Gold Series X-Flo collectors. This cleaning mechanism, along with the inlet design and Gold Cone X-Flo cartridge, have given our customers superior performance and long media life.



TYPES OF THERMAL SPRAY:

- Flame Spray Powder or Wire
- HVOF and HVOF
- Plasma Spray
- Cold Spray
- Detonation Spray
- TSA
- TWA
- PTWA (Plasma Transferred Wire Arc)

Flame retardant filters should always be used in this application.



Focus on Thermal Spray

SIZING RECOMMENDATIONS

With thermal spray applications, it is crucial to gather information on the specific processes and material coatings being used, as they will react differently inside the dust collector. Although there are different powders used in plasma spray, for example, the process generally produces spherical particulate at a consistent size of around three microns, making it fairly easy to capture. There are numerous variables with every thermal spray application, including hours of operation, flammable/hazardous/combustible material being collected by the ventilation system, and dust loading going into the collector. With the Camfil APC Gold Series collector, plasma spray, powder and wire applications are sized to meet the rigors of production, giving the end user longer filter life and protecting personnel from hazardous pollutants.

Two of the most important factors in sizing the collector is the expected amount of fume particulate being collected and material being cut. Several things affect the amount of particulate being collected or loaded. First is the amperage of the laser cutter itself. A 300 amp laser will cut much faster and have a much higher loading than a 100 amp laser. Also, some tables may have two heads operating at the same time.

A zoned table will have a much higher loading due to the lower airflow for the amount of material being collected. It can be compared to source capture versus general ventilation on non-zoned tables.

SAFETY CONSIDERATIONS

At Camfil APC, we design our systems to meet the requirements of OSHA, EPA and

NFPA. The Gold Series X-Flo is equipped with three layers of fire protection including a spark baffle, automatic shut-off and flame retardant filters. Certain hazardous powders and metals (such as nickel and chromium) will require secondary or after-filters when discharging to atmosphere. There are a number of critical steps that need to be employed when selecting the most appropriate dust collection system for every application. That includes evaluating the application, understanding the dust characteristics through testing, and designing a dust collection system that will minimize the total cost of ownership – reducing operating expenses beyond the capital cost. Camfil APC can help you in all these areas.

WE GUARANTEE PERFORMANCE DESIGNED BY CAMFIL APC!

Our units come with start up and on-site operator and maintenance training with each unit. Each dust collector is designed for zoned, unzoned and central systems, utilizing multiple laser wattages or acetylene torches. We offer dust testing and compliance with NFPA fire and explosion industry guidelines.



Two GS32s on plasma spraying



HEMI-PLEAT® FILTERS WILL IMPROVE THE PERFORMANCE OF ANY CARTRIDGE DUST COLLECTOR. GUARANTEED.

Power up your dust collector with HemiPleat. With lower pressure drop HemiPleat filters, you can pull more air with less energy, thus capturing pollutants better. Filtration efficiencies up to MERV 16 per ASHRAE 52.2.



The patented Gold Cone X-Flo filter has allowed many facilities to reduce the number of filters they have to use and change. The innovative cone of filter media expands the usable area of the filter, reducing the required number of filters by at least a third. The design also promotes long filter life with low pressure drop.