VANTERM

Passion for excellence in clean air solutions.

CASE STUDY NAME

FILTRATION OF IPG LASER CUTTER

Case Study Facts

Product:	Modified PL-4000 Filter Unit	Process:	IPG Laser Cutter

Application plant: IPG laser Cutter – Bronz Automotive

IPG PHOTONICS

Requirements & Challenges

Bronz Automotive operates as a job-shopper in defense industry and automotive industry to provide its customers with parts, manufactured from flat steel or pipes according to the technical drawings of its customers.

A filter unit / dust collector was required for the new, compact type **IPG Laser cutting machine** that was recently put in service. In this new compact laser cutter with **fiber laser technology**, apart from steel parts, rubber-coated stainless steel parts are also cut. **IPG Laser cutter** with its high cutting speed, creates very intense and **carcinogenic** emissions, especially when **the rubber material** is cut. Therefore, capturing and filtration of these emissions generated in the laser cutter, before they spread around the production hall, was the first priority.

SOLUTION

VANTERM, in consultation with international **IPG Laser**, made the necessary preliminary studies about the cutting characteristics of the laser system and its dust load. Especially, the fume-smoke load, which is released during the cutting of rubber material, could cause a rapid clogging of filter elements. In order to **avoid such a clogging problem**, VANTERM selected the most suitable filter media in line with the data obtained. As result, VANTERM provided a **custom-made PL-4000 filter unit** as a solution for the **IPG Laser cutter**.

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