

## Case Study

## AMADA relies on WITT gas mixers Process gases for optimal laser cutting

Laser technology has been the method of choice in sheet metal processing for many years. The laser delivers first-class cutting results regardless of the type and thickness of the material. In laser cutting, process gases play an important role in cutting quality. The desired results can only be achieved if the quality of the cutting gas remains constant. AMADA GmbH, one of the leading suppliers of high-quality laser cutting machines, achieves optimum process results by equipping its machines with WITT gas mixers.



Only a few companies have a similar wealth of experience in the field of laser technology as AMADA, the pioneer in the field of laser cutting. Founded in Japan, the company presented the world's first industrially used cutting laser for sheet metal processing back in 1980. The German AMADA GmbH was founded in 1973 as a subsidiary of AMADA Holdings Co. Ltd. and today has its headquarters in Haan near Düsseldorf and in Eching near Landshut. The company's laser cutting systems have been continuously developed over the past 40 years and enable excellent cutting performance with maximum precision.

High-quality process gases are used for consistent, first-class cutting results. The cutting gas or a cutting gas mixture is supplied to the cutting process via a nozzle system. This shields the cutting area from negative influences from the ambient air, and also expels molten material is expelled from the cut.

AMADA prefers a mixture of nitrogen and oxygen for cutting certain materials. The nitrogen serves as a flushing gas and at the same time has the function of cooling the surroundings of the laser beam; the oxygen in turn promotes the actual cutting process.

"For the quality of the cutting image, it is extremely important to supply the laser constantly with a very pure cutting gas or a precisely dosed gas mixture. Gas mixers from WITT offer the high quality and reliability required for our applications," explains Axel Willuhn, Product Manager Punching and Laser Technology at AMADA GmbH.

Depending on size requirements, models from the WITT KM and MG product series are used. The gas mixers work with mechanical proportional mixing valves - a process that delivers high-precision gas mixtures, has long-term stability and is extremely robust at the same time.



WITT gas mixers with this mixing principle have been used in laser technology for many years. In addition to mixers for the production of process gases, WITT also successfully supplies mixers for the production of laser gas in CO<sub>2</sub> laser systems to this industry.