Fuel Injection Systems

DUAP – Quality is based on History

The history of DUAP is a story of continuity on the one hand and flexibility on the other. Since its establishment in 1943 DUAP has manufactured injection nozzles. The first customer was the leading tractor manufacturer in Switzerland.

Since 1963 DUAP signed co-operation agreements with some of the most important engine builders, for example Sulzer brothers, S.E.M.T. Pielstick and Wärtsilä for whom DUAP has developed and produced modern injection systems for their engines.

During this time injection systems for Diesel engines of all power ranges have been delivered throughout the world covering the complete scope of applications, Marine, Traction, Stationary, Automotive, and Aeronautical. Based on its extensive experience DUAP is pushing forward with its own research and development into new areas of material processing.

1943 Founded
1969 Commencement of high precision manufacture (turned parts from drilling machines)
1983 First pump injector built by DUAP
1985 Continuous extension of own heat treatment plant
1987 Focus on EFI Diesels with manufacture of trial samples and testing equipment
1996 Building of the first Piezo Common Rail injector
1998 Launching of the new high quality DUATOP product range
2000 Market introduction of the DUARAAL common rail system with modular construction, own high pressure pumps (up to 2000 bar), high pressure piping systems and rails, injectors and electronic controls.
2006 Introduction of the RECON for EFI diesels.
2007 Launching of DUATOP low sulphur fuel capable injection components in emission control areas (ECAs)
2008 New production building 2700 m²
2009 Renewal of production technologies
2010 Commissioning DUAP HFO-Common Rail system
2011 DUAP USA established
2012 DUAP Ecuador established
2013 DUAP Russland and DUAP Italia established
2014 Next generation fuel treatment system
2015 Micro Pilot Common Rail concept «one size fit’s all»

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Fuel Injection Systems dedicated to high-precision

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Prospekt DUAP 004/1500/0714e
DUARAIL

Modern electronically controlled fuel injection systems for DFO, MDO and HFO

- Complete rails
- Fuel injectors
- High pressure pumps
- Electronic Engine Control Unit
- Software
- Injection pressure > 2000 bar
- Engines up to 20'000 kW and more
- Marine, power generation and locomotive applications

DUATOP

Components and spare parts for conventional PLN injection systems

- Fuel pumps
- Nozzles
- Plunger & barrels
- Fuel valves
- Fuel pressure lines
- Delivery valves
- Pressure valves
- Baffle screws, etc.

DUATOP® components fit in existing equipment without any modifications.

DUAGAS

Gas and specialty applications

- Pre-chambers
- Gas check-valves
- Micro-pilot systems
- Oil-free gas injectors (FGI)

DEVELOPMENT

PROJECT MANAGEMENT

CONSULTING

DUAP holds all key R&D and manufacturing processes in its own hands and produces exclusively at its factory in Herzogenbuchsee, Switzerland.

Customers who not only need parts but are looking for a consultancy partner also rely on DUAP’s long proven experience.

CUSTOMER SERVICES

Training

DUAP provides technical training on fuel injection equipment at its factory or at customer’s sites.

Reconditioning

DUAP has installed a reconditioning service for fuel injectors and pumps.

QUALITY

Built to the highest quality standards, our components last longer and save fuel compared to most other products in the market.
EFICLEAN 2100

Self contained Diesel fuel treatment system

- Rugged and compact design
- Noise and vibration reduced
- Self-contained operation, auto-monitored
- Self-cleaning particle filter
- Capacity up to 2’500 litres/h (DFO / MDO)
- Fuel filtering < 3 micron particle size
- Water separation < 0.1 %
- CE and US approvals
- Manufactured in Switzerland

Applications

- Marine (work boats, yachts)
- Locomotive
- Fleets (trucks, buses, earth moving, mining) with own fuel stations

BENEFITS

- For all brands, types and ages of Diesel engines
- Reduction of PM – emissions up to 50%
- Clean fuels and tanks
- Easy to install and operate
- Plug and run
- No modifications on the engines or operation mode
- Reduced engine maintenance cost (TCO)
- Be independent from particle contaminated fuel bunkers.

HEAT TREATMENT (HARDENING)

DUAP has extensive experience with general thermal treatment processes as well as with specific processes developed for individual applications

- Hardening and quenching
- Annealing
- Tempering
- Vacuum hardening / vacuum brazing
- Carborizing / cementing
- Gas nitriding
- Soft nitriding
- Nitrocarburizing
- Oxidation treatments (Citrox)

HEAT TREATMENT (HARDENING)

METALLURGICAL LABORATORY

The quality of our heat treatment processes is constantly monitored in our own metallurgical laboratory.

- Guaranteed traceability
- ISO 9001
- ISO 13485

DUAP uses 100% renewable energy to power its manufacturing and heat treatment plants.
COMPANY PHILOSOPHY

It is important for our customers to know what sort of a company we are and how we approach our responsibilities in business.

People stand at the centre of our philosophy. To identify correctly their wishes and complex problems and to offer solutions for these, is in the interests of all parties. We have to listen! «Give and Take» is an intrinsic part of all partnerships and from this stems the AVSP (added value sharing partnership) Philosophy.