

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 the 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, Trac-tion, 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 DUARAIL 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 (ECA's)
- 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 fits all»



Fuel Injection Systems dedicated to high-precision



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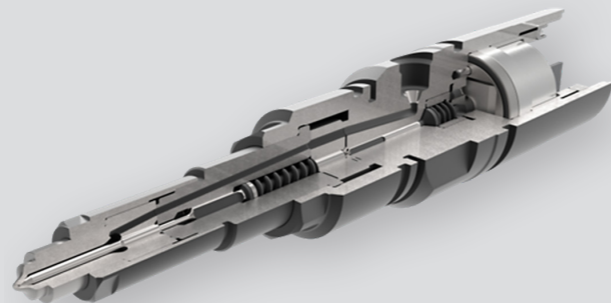
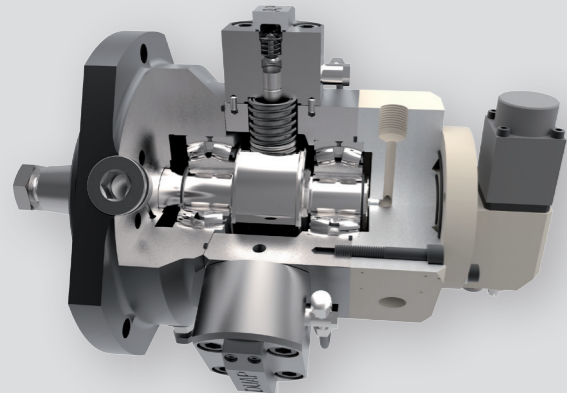
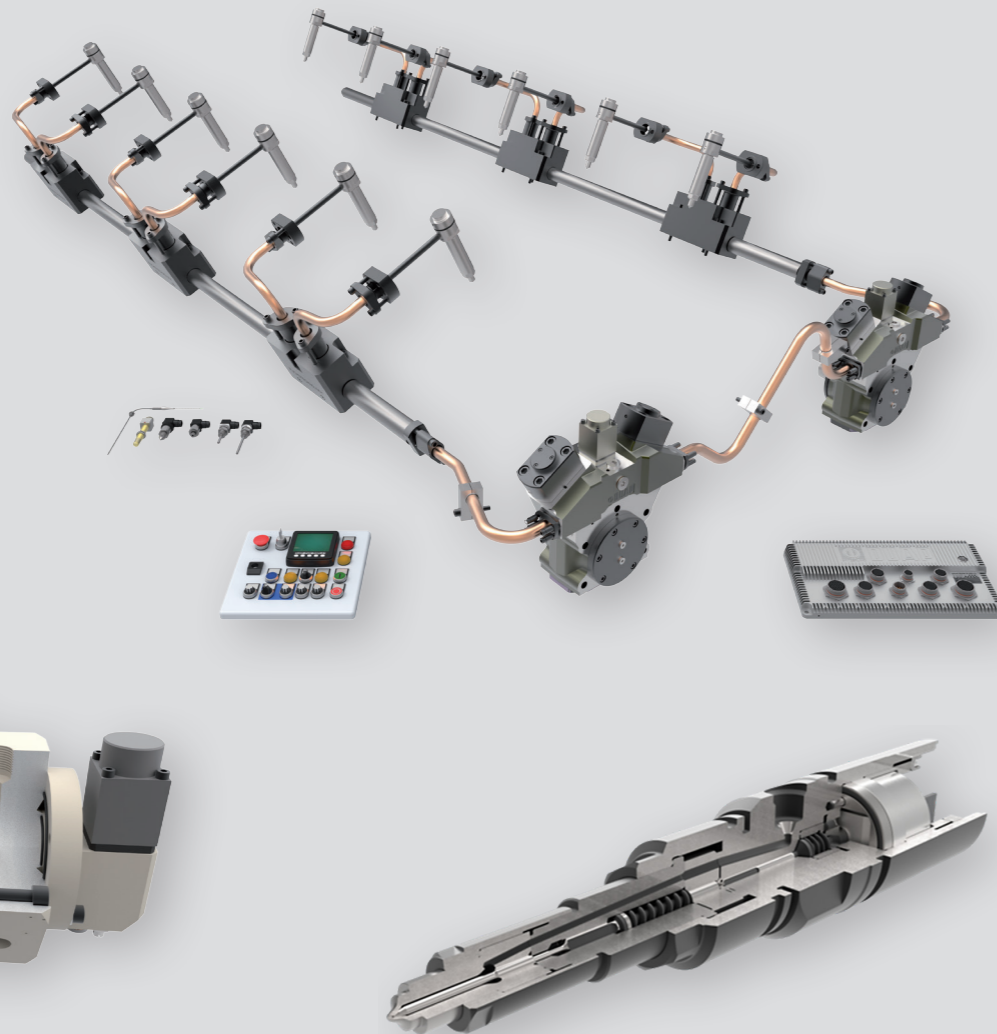
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DUARAIL

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



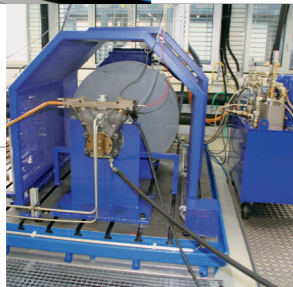
- Pre-chambers
- Gas check-valves
- Micro-pilot systems
- Oil-free gas injectors (PGI)



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

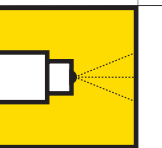
DUAP provides technical training on fuel injection equipment at its factory or at customer's sites.

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.



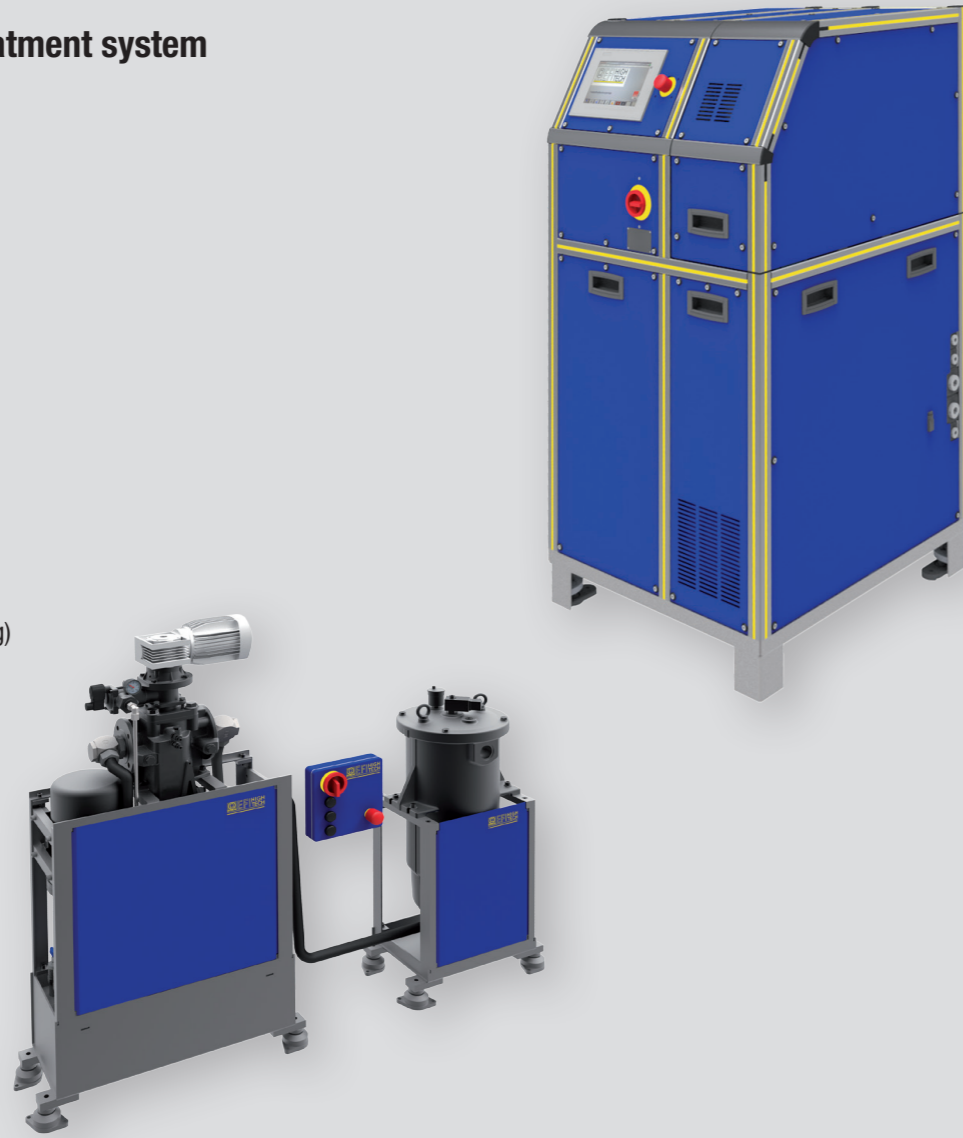
EFICLEAN

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 2500 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



HEAT TREATMENT (HARDENING)

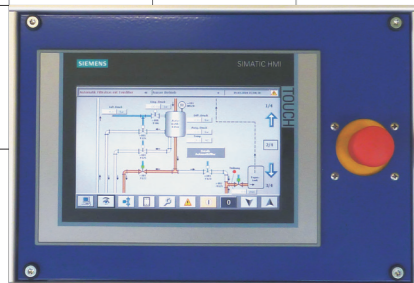
DUAP has extensive experience with general thermal treatment processes as well as with specific processes developed for individual applications

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



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.



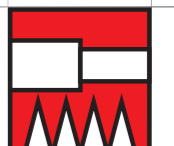
METALLURGICAL LABORATORY

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

- Guaranteed traceability
- ISO 9001
- ISO 13485

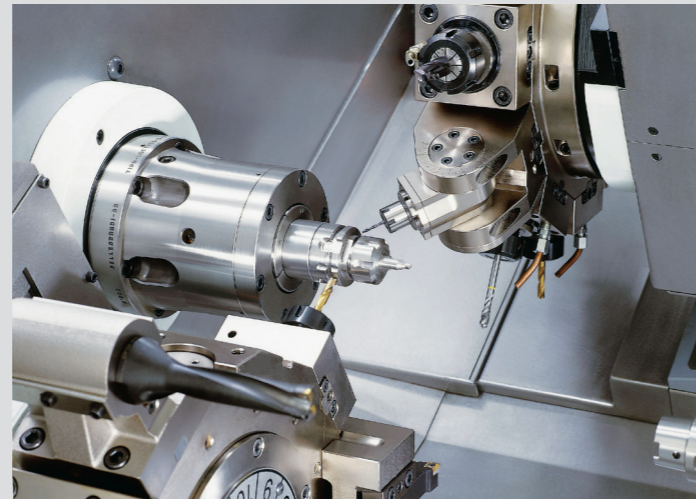
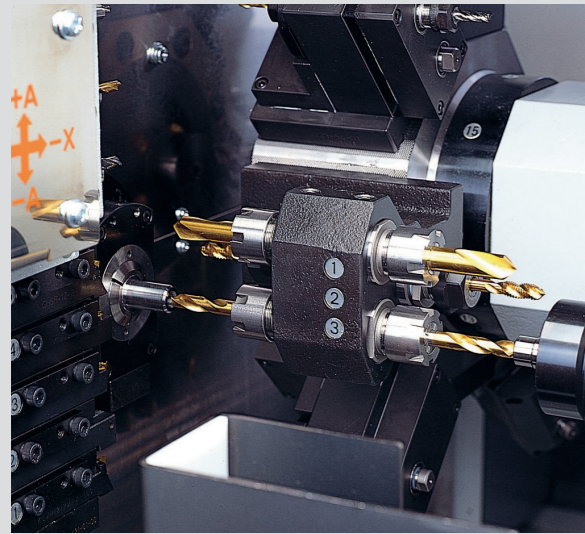
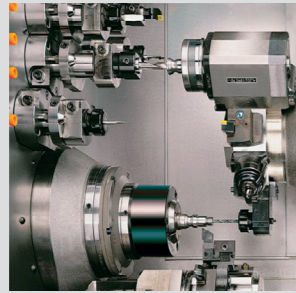


DUAP uses 100% renewable energy to power its manufacturing and heat treatment plants.



HIGH PRECISION PARTS (MACHINING)

DUAP is a specialist in high precision machining. Our extensive experience combined with our modern and flexible work centres ensure the highest quality in all processing areas from turning and milling to heat treatment and the finest finishing processes such as grinding, lapping and honing. Irrespective of whether non-ferrous metals or high value tool steels are to be machined, DUAP will meet even the most unusual demands.



Our machining centre is equipped with «state of the art» drilling machines. They form the basis for a successful co-operation. We gain new experience from the processing of high precision parts every day.

We machine:

- Rotationally symmetrical parts on multi axis turning machines and
- Cubical parts on palette loaded machining centres

Our specialities:

- Deep hold boring using machines which were developed by us
- Internal, external, flat and round grinding
- Honing, lapping, producing precision radii
- Assembly of complete units in clean room conditions (absolutely dust free)

The machining centre has profited from the long-term development of DUAP and is today in the position to operate as an independent profit centre.

We work mainly for the aerospace, medical, turbocharger, security, engine, turbine, defence industries and for special processes where the highest quality is required.

The all embracing professional competence of our staff and our modern infrastructure provide the necessary preconditions for satisfying the many demands of our diverse customer base.



EVERYTHING FROM ONE SOURCE

Our specialised workforce forms the basis of our high precision manufacture of injection systems and components to $\pm 2/10'000$ mm. Our scope of supply covers everything from the planning of new developments, production in our own high precision machine centre, heat treatment, stringent quality control up to and including a highly effective world-wide distribution network.



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.

