

MIKHAIL SHATOV

MECHANICAL DESIGN ENGINEER

PORTFOLIO

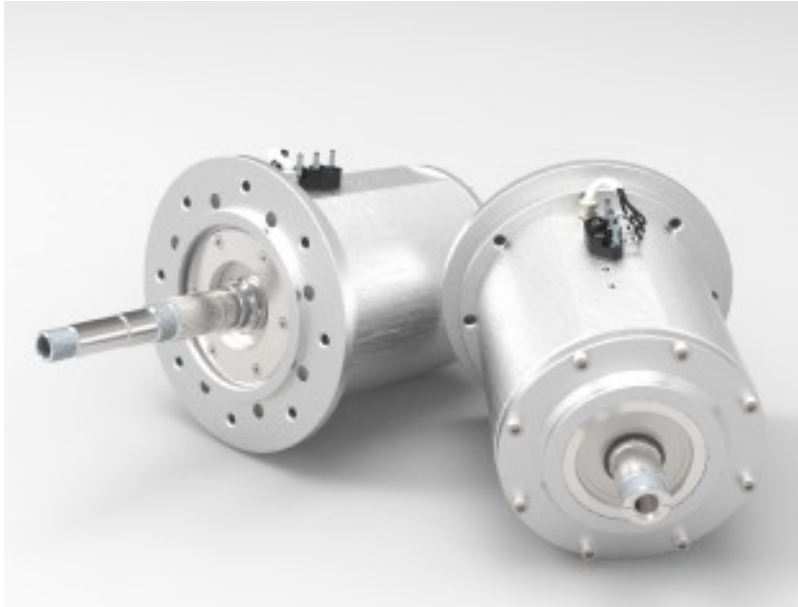
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HIGH SPEED ELECTRIC MOTORS

? The factory is looking for new contracts. One of the customers wants a product line of high speed electric motors. The long shaft does not fit our casting machine for casting the rotor pack together with the shaft (classic technology).

! Developed all required documentation in a tight deadline due to my CAD skills. Supported all development stages. Made and implemented a proposal to cast the pack separately from the shaft and then assemble them.



CONTROL SYSTEM CABINET

? The prototype (photo) had been made several years before I got the task. Documentation had been lost.

! I redesigned the cabinet in order to improve manufacturability. Many original parts were replaced with standard parts, thus primary cost was decreased.

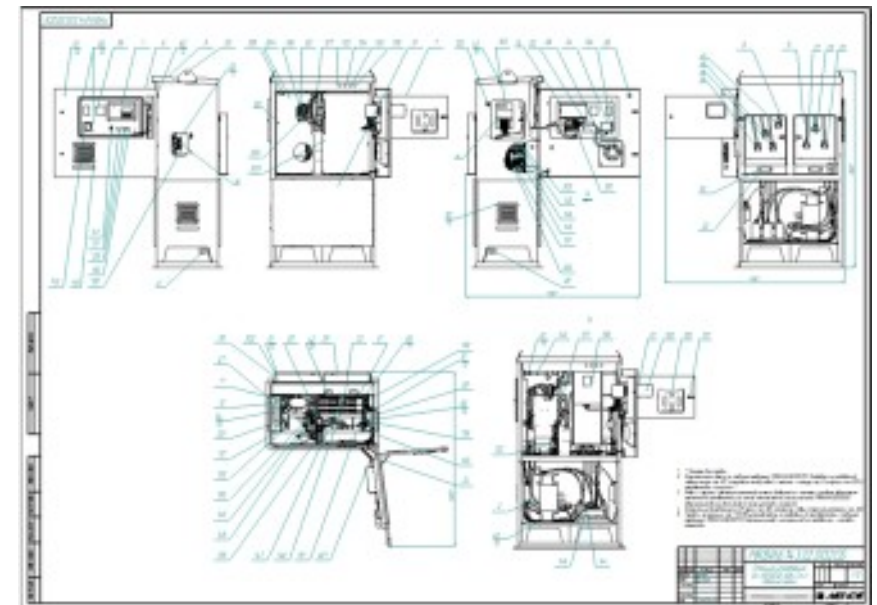
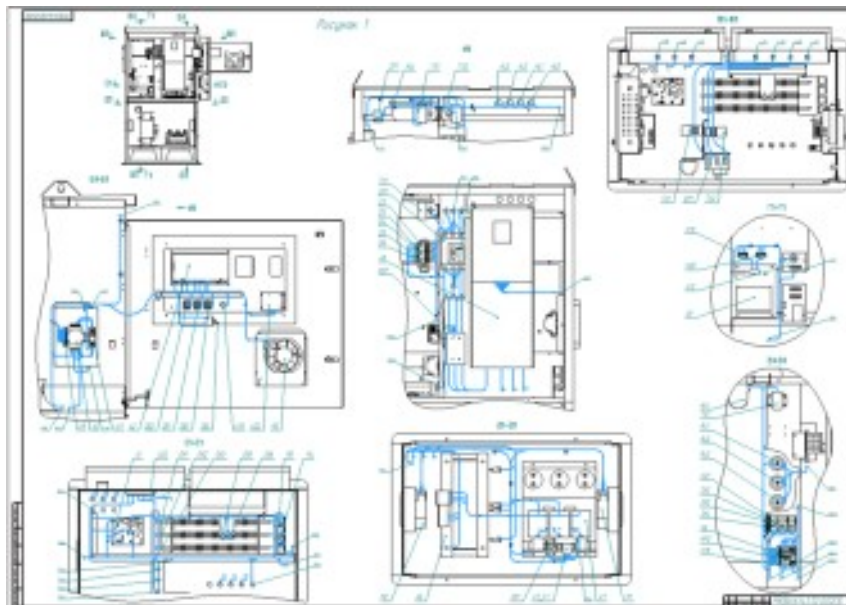


OLD VERSION



NEW VERSION

Could not take a photo



ELECTRIC POWER TOOLS

? The factory wants to increase sales of consumer products while decreasing production of aircraft mechanisms.

! I designed and developed some new types, redesigned some old models of electric power tools. Independently designed a concrete mixer with a two-speed gearbox with spring synchronizer; an adapter with a planetary reducer, which allowed to combine our motors and KETT cutting heads.



KEY-LESS NUT

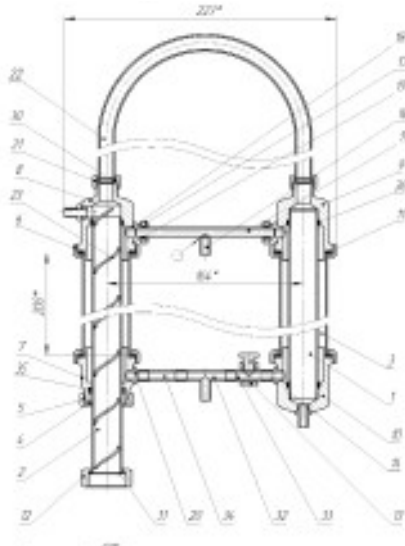
? Design SDS-like nut at an affordable price.

! Designed the nut to manufacture with classic machining technologies, in contrast to sds-clic (Bosch), which uses powder metal technologies.

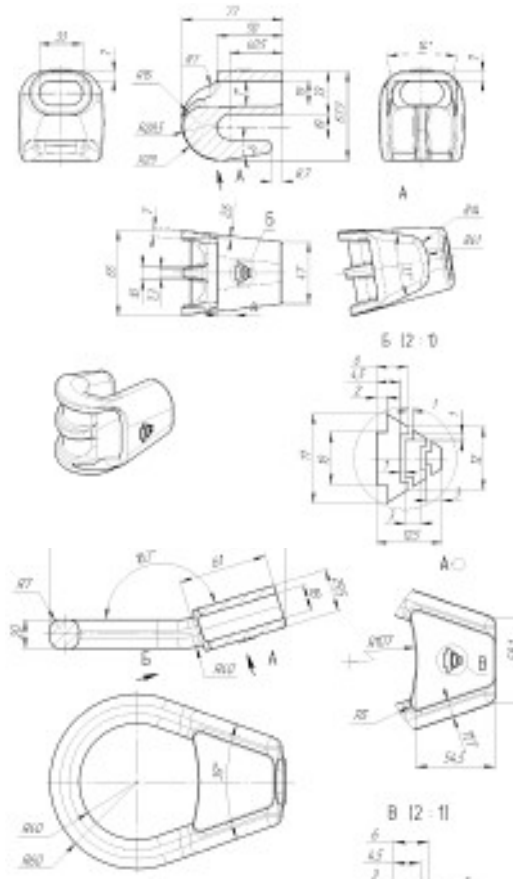
Video presentation of test sample



MISCELLANEOUS



DISTILLATION COLUMN



SKIDDER CHOKER SET



CRUDE OIL PUMP CONTROLLER

AND MORE ...