



3D prints of end-use parts used in a belt oil skimmer

Company

Brzeska Fabryka Pomp i Armatury MEPROZET is a manufacturer of pumps; tank pumping stations; mixers; power and control equipment for pumps.

3D printing in a company

The technologists at the company decided to apply 3D printed elements in a belt oil skimmer. The device is used to remove oil build-up in the coolant. The separating belt immersed in the liquid collects oil thanks to electrostatic adhesion. Further, a skimmer detaches the oil from the belt and directs it to a separate tank.

Project

The use of two different 3D printing materials (PEKK and ASA) to produce end-use parts for belt oil skimmer.

Data project

3D printer	3DGence INDUSTRY F340
------------	-----------------------

Material	3D prints	Features
PEKK	Oil skimmer	Low friction in contact with oil
ASA	Motor housing	Increased chemical resistance to oils and greases



3D printed components were used in belt oil skimmer.

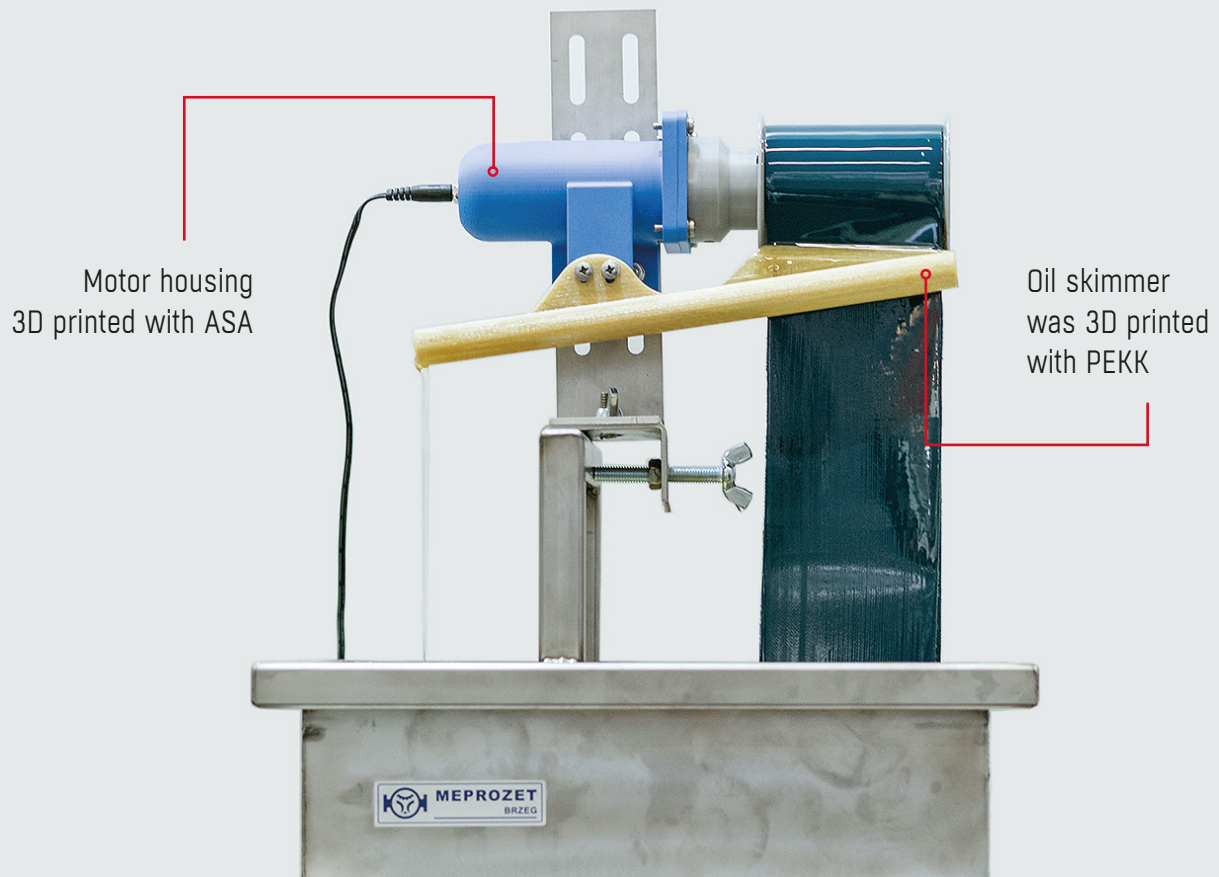
Goals:

1 Reduction of maintenance costs

PEKK material is characterized by high resistance to wear, so in some applications it is able to replace elements usually made of steel or other metal alloys. The use of this filament for printing oil skimmer made it possible to obtain a replacement of grade 316 steel component. Its use enables the company to reduce the wear and tear of the transport belt. The 3D printed part reflects low abrasion in contact with oil when skimming and is resistant to most types of coolants and oils.

2 Low production costs

Meprozet 3D printed motor's housing with ASA material. This filament is characterized by increased chemical resistance to oils and greases used in the engineering industry, so it has proven itself very well in this project. 3D printing allowed the company to produce only a few housings at very low cost. Moreover, the company had the opportunity to test further iterations and adjust the product to its client.



” *3D printing has been used at industrial companies all over the world for a long time. The very application of the technology in production processes is, therefore, nothing new. New are the areas where 3D printing may be implemented.*

More and more often we have been watching situations in which 3D printouts become the elements of ready products and not only of their prototypes.

What is interesting, they appear in structures which are exposed to really high loads. And this means only one: 3D printing answers the current high requirements of the industry.

Mateusz Sidorowicz, Marketing Director at 3DGence.

”

The SKMR-80 skimmer is made of non-corroding materials.

One of its parts has been printed from PEKK on a 3DGence INDUSTRY F340 printer as replacement of grade 316 steel components.

Its use enables us to reduce the wear and tear of the transport belt, because the printed part reflects low abrasion in contact with oil when skimming and is resistant to most of the cooling liquids and oils.

Radosław Dawidowicz, Production Manager at Brzeska Fabryka Pomp i Armatury MEPROZET.



3DGence is a Polish manufacturer of 3D printers specializing in the development of new technological solutions and the implementation of 3D printing in industrial enterprises.

3DGence Sp. z o.o.
Przyszwice Office
ul. Graniczna 66
44-178 Przyszwice

Sales department: +48 32 438 98 91
Support: +48 32 438 98 64
E-mail: cs@3dgence.com
Services: 3dservices@3dgence.com