

CASE STUDY

AGGRESSIVE CHEMICAL PROBLEM SOLVED



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*R. A. Ross solves magnetic
drive pump shell rupture issues
for paint manufacturer pumping
butyl acrylate*

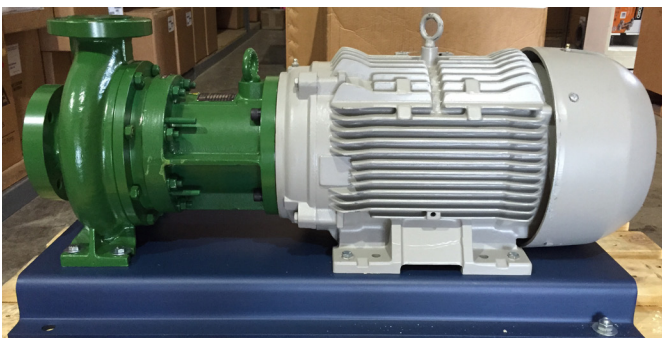


Major paint manufacturer now has significantly
less downtime and has saved valuable product

PROBLEM:

A well known aftermarket automotive paint manufacturer was having mag-drive pump failures due to containment shell rupture. The failure prone pump was a Gould's PTFE lined ductile iron magnetic drive pump with non metallic internal components pumping Butyl Acrylate. The issue was that the Butyl Acrylate would "wick" into the resin that held the containment shell together causing it to weaken enough to rupture. The solution was simply a metallic containment shell, however Gould's does not offer this. We turned to Dickow for an all metallic 316ss pump with Hastelloy containment shell from their KM close-coupled magnetic-drive series. The all wetted 316ss construction of the Dickow pump also gave the customer the advantage of the external portion of the pump being compatible with their product. On separate occasions the customer had issues with product leaking on the external components via a containment shell rupture or leaking flange gasket causing external pump damage where the pump was not compatible.

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The Dickow close-coupled seal-less all metallic 316ss pump with Hastelloy containment shell. For details, see page 2.

(Continued)

Dickow offers containment shells in a variety of materials including 316ss, Hastelloy, cast titanium, ceramic (Zirconia), and PEEK. While this selection provides near limitlessness for chemical compatibility, the shells are also designed to provide minimum eddy current loss between the drive and driven magnet, resulting in improved efficiency and reduced HP consumption.

Customer Application:

Butyl Acrylate

Ambient to 85 deg. F

200gpm @ 152' tdh

Pump Selection:

Dickow KMBh

3x2x8.5

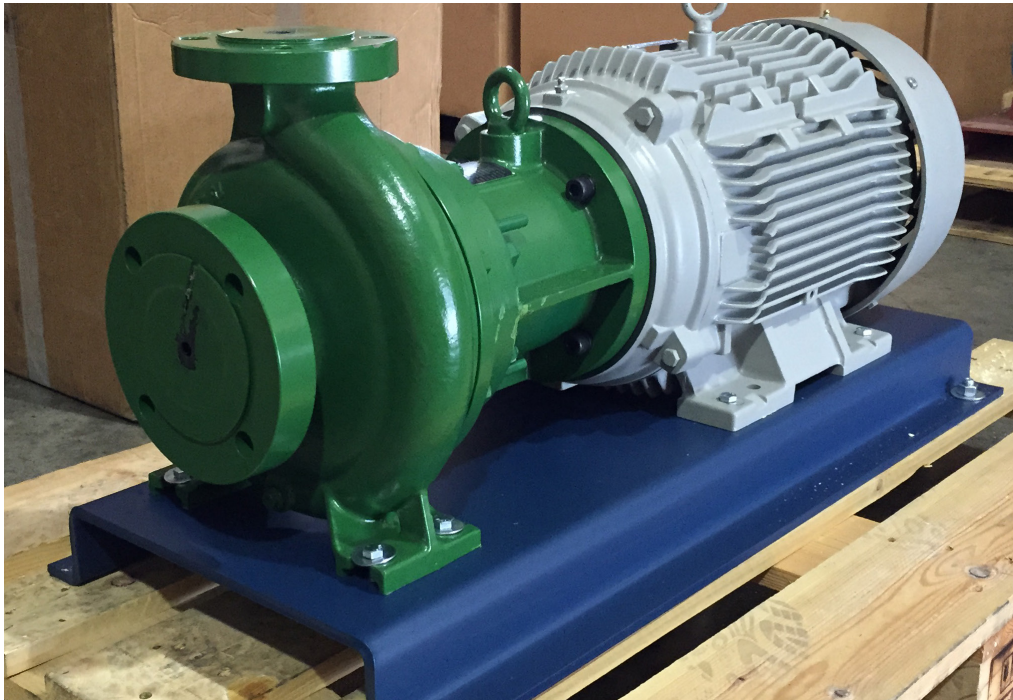
316ss - casing and impeller

316Ti ss - pump shaft, driven rotor, and containment shell flange

Hastelloy C - containment shell

Silicon Carbide - Shaft sleeve and thrust bearing

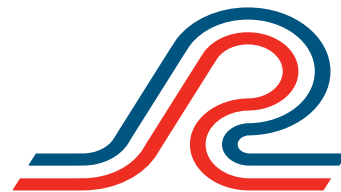
PTFE o-rings throughout pump



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R. A. ROSS & ASSOCIATES, INC.

Keeping process flowing since 1985

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