

METALCASTING

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DESIGN & PURCHASING

MAGNESIUM LIFTGATE WINS CASTING of the YEAR



PLUS:
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Oil Field Casting Matches Up to the Stress



Cast Component: Rotational and lift control post in high flow flare.

Material: Steel.

Process: Nobake sand.

Application: Stabilizer in an engineered flare assembly used to process oil well gasses.

Casting Supplier: Midwest Metal Products Inc., Winona, Minnesota.

Dimensions: 1 in. diameter at barrel, 2.5 in. diameter at lobe, 7 in. long. (20.3 x 10.7 x 16.5 cm).

Customer: Steffes Corp., Grand Forks, North Dakota.

- The original part experienced distortion and stress during the fabrication process, which led to problems with its application in the assembly and eventually its service life. Steffes' continuous improvement philosophy led its engineers to design a replacement casting.
- The distortion and stress problems were eliminated with the cast version. When the cast part was cycle tested, it demonstrated more than five times longer life.
- The redesign reduced cost by more than 38%.