

An innovative, water based
eco-friendly solution with
**Molygraph Smoothform
Aqua FS 7000.**



Industry: Automotive | Application: Forming of Aluminum Wheel disks
Client: Automotive Wheel Manufacturer | Location: North India

Overview

A major wheels forming manufacturer was using an oil based forming lubricant for aluminum wheel forming. Oil based lubricants have inherent problems of cleaning as well as hand and skin irritation due to the additives used in them.

The manufacturer wanted to use an environment friendly product with a similar performance to the current oil based lubricant in use as well as improved cleaning properties.

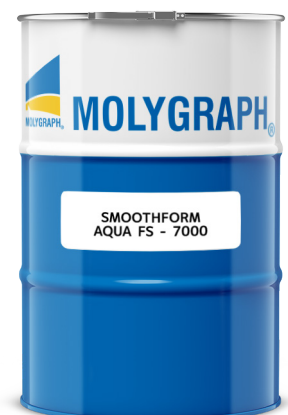
Challenge

- ⚙ Replacing oil based lubricant by a water based fluid.
- ⚙ Improved cleaning properties to make painting on surface easier.

Solution

MOLYGRAPH SMOOTHFORM AQUA FS 7000

- ⚙ Water based forming fluids specifically designed for ferrous and non-ferrous surfaces.
- ⚙ Fortified with extreme pressure and anti-wear additives.
- ⚙ Superb boundary lubrication performance during metal forming operations.
- ⚙ Resists corrosion to steel and aluminum surfaces.



Benefits of Molygraph Smoothform Aqua FS 7000

Technical Specifications	Competitor Product	Smoothform Aqua FS 7000	Molygraph Advantage
Chemistry	Oil Based	Water based	Superior film forming ability
Dilution	Neat	1:2	Better performance under heavy loads

Results

Trials were taken on a 300 ton press with aluminum sheet thickness of 3.3 mm. The drawing depth was 50 mm and dilution ratio was kept at 1:3 of concentrate with water. Following was observed during the trials:

- ⚙ Smooth formation of the parts without any surface defects.
- ⚙ No serrations or chip off of corners.
- ⚙ Oil easily removed for painting and does not hamper the final painting process.
- ⚙ Consumption per component the same as existing product.
- ⚙ No corrosion found on parts in short term process storage.

Eco-Friendly solution

Does not hamper subsequent painting process



We accelerate industrial productivity by providing the most efficient lubrication solution.

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