

# 10,000<sub>PSI+</sub>

**YOUR DAYS OF FETCHING FRAC  
BALLS ARE OVER WITH FASTBALL™**

You'll save time, money and find a new way  
to work smarter in your completions.

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**NO WELL INTERVENTIONS**

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**NO DELAYS IN SCHEDULE**

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**ACHIEVE GREATER EFFICIENCY**

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## DISSOLVABLE ALLOY FASTBALL™

This product may be covered by one or more patents or pending patent applications.

### INNOVATION REVEALED

Your days of fetching frac balls are over. The Dissolvable Alloy Fastball™ is made of a dissolvable metal and disappears on its own in a matter of days. The Dissolvable Alloy Fastball™ has incredible compressive strength properties and dissolves at predictable rates. No well interventions. No delays in schedule. It's just one more way Nine Energy Service enables operators to achieve greater efficiency. Which means you'll save time, money and find a new way to work smarter in your completions.

### CORROSION RATE

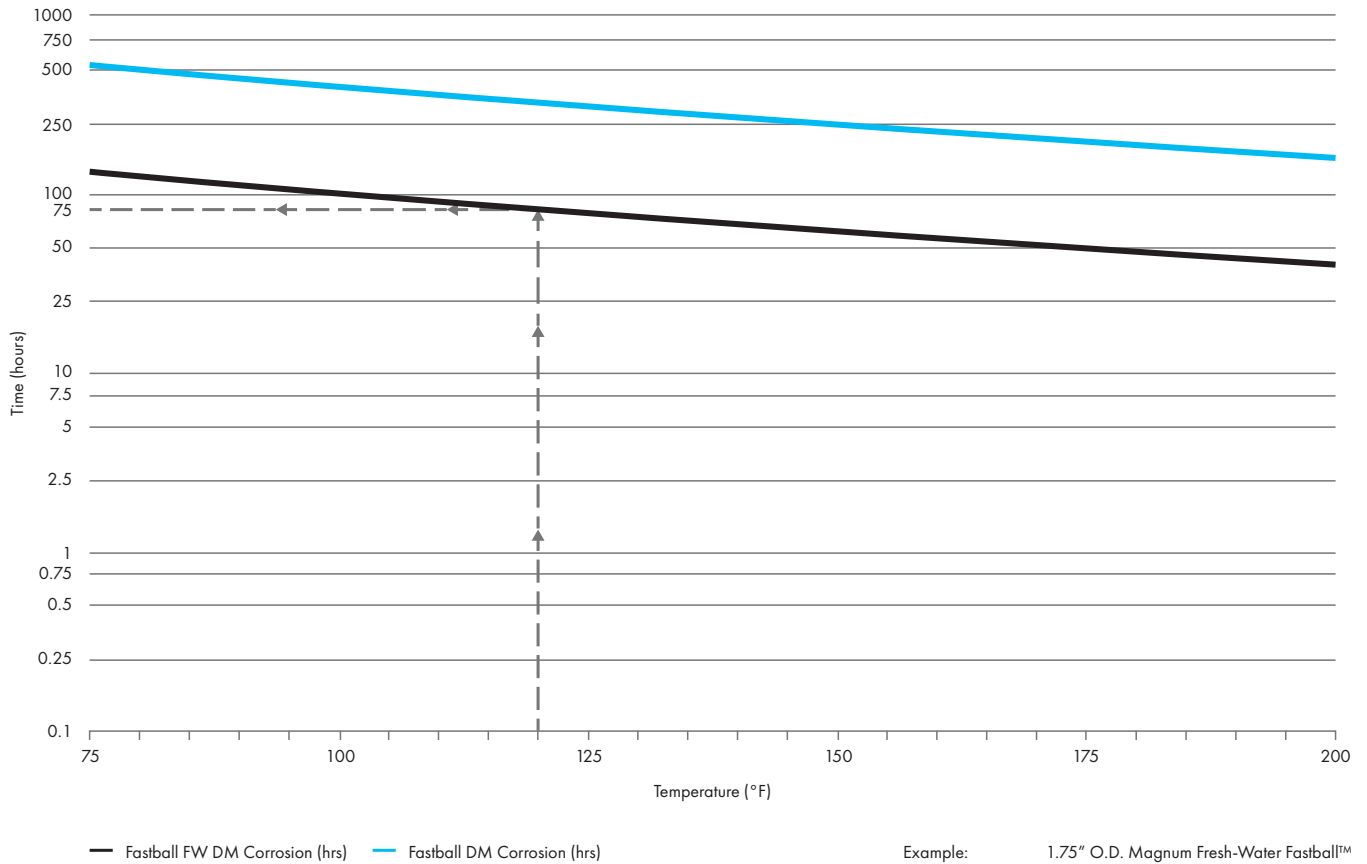
**Corrosion rate in low chloride solutions:** The Dissolvable Alloy Fastball™ is designed to quickly corrode in chloride solutions. The chart on page 2 shows the corrosion rate at chloride levels from pure water to 3% and above. We see that in above 1% solutions, the corrosion rate is nominally the same as 3 to 15% solutions. The corrosion rate is certainly active at 0.5% and at 0.25% it is stilling running at a 200 mg/sqcm/day rate. This test was done at 100F and would apply as long as there was any chloride present (sodium chloride, calcium chloride, etc).

**Comparison against other alloys:** In testing other metals for corrosion rate in chloride containing solutions, we have found that the Dissolvable Alloy Fastball™ has a corrosion rate that is between 100 and 10,000 times higher than balls made of other conventional metals.

### Features

- Ball sizes from 1.60" to 4.50" available
- 1.83 specific gravity
- Field tested at a pump rate of 20 bbls/min
- Environmentally safe
- Sizes readily available
- Custom sizes available upon request
- Tight tolerances held + 0.000/ - 0.005"
- High compressive strength capabilities 10,000 psi+
- Magnum Fastball™ DM won't stick on seat
- Patent Pending Technology

Dissolvable Alloy Fastball™ 1.75" O.D. Ball vs Time at 120°F



Example: 1.75" O.D. Magnum Fresh-Water Fastball™  
 Temperature = 120°F  
 Fastball™ Degredation = 82.1 Hours

For more information, and to find a representative near you, visit [nineenergyservice.com](https://nineenergyservice.com)