

# DIESEL ISOTHERMING FACT SHEET

Process Dynamics Technologies

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## Process Dynamics' IsoTherming Technology

### Meeting 2006 ULSD Requirements



Process Dynamics IsoTherming technology provides the solution for meeting 2006 ultra low sulfur diesel requirements. IsoTherming is a commercially proven, cost-effective solution that delivers high quality products at costs dramatically lower than the competition. In developing IsoTherming, Process Dynamics simply re-examined the chemical and process fundamentals and found that it was possible to remove the mass transfer limitation and operate in a kinetically limited mode.

IsoTherming has been successfully proven at Giant Industries Ciniza, NM Refinery. The IsoTherming unit was operational in April 2003 and in June 2003, from a feed consisting of 40% cracked stocks, was producing diesel containing 4 ppm sulfur and less than 1 ppm nitrogen.

The benefits of IsoTherming do not end with desulfurization and denitrification. In addition, IsoTherming can provide the following benefits:

- Lower total investments.
- Essentially no change in existing hydrotreater operations when installed in the pretreat configuration.
- Higher reaction rates which result in smaller reactors and less catalyst volume.
- More isothermal reactor operation, resulting in better yields, less light ends made and greater catalyst life.
- Improved diesel cetane.
- Improved aromatic saturation.
- Operating cost advantage.
- High pressure unit performance out of existing low pressure units.
- Increased nitrogen removal.
- Longer catalyst life in existing reactor.

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For more information on Process Dynamics IsoTherming technology and how we can help you meet 2006 ULSD requirements, please contact us at:

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