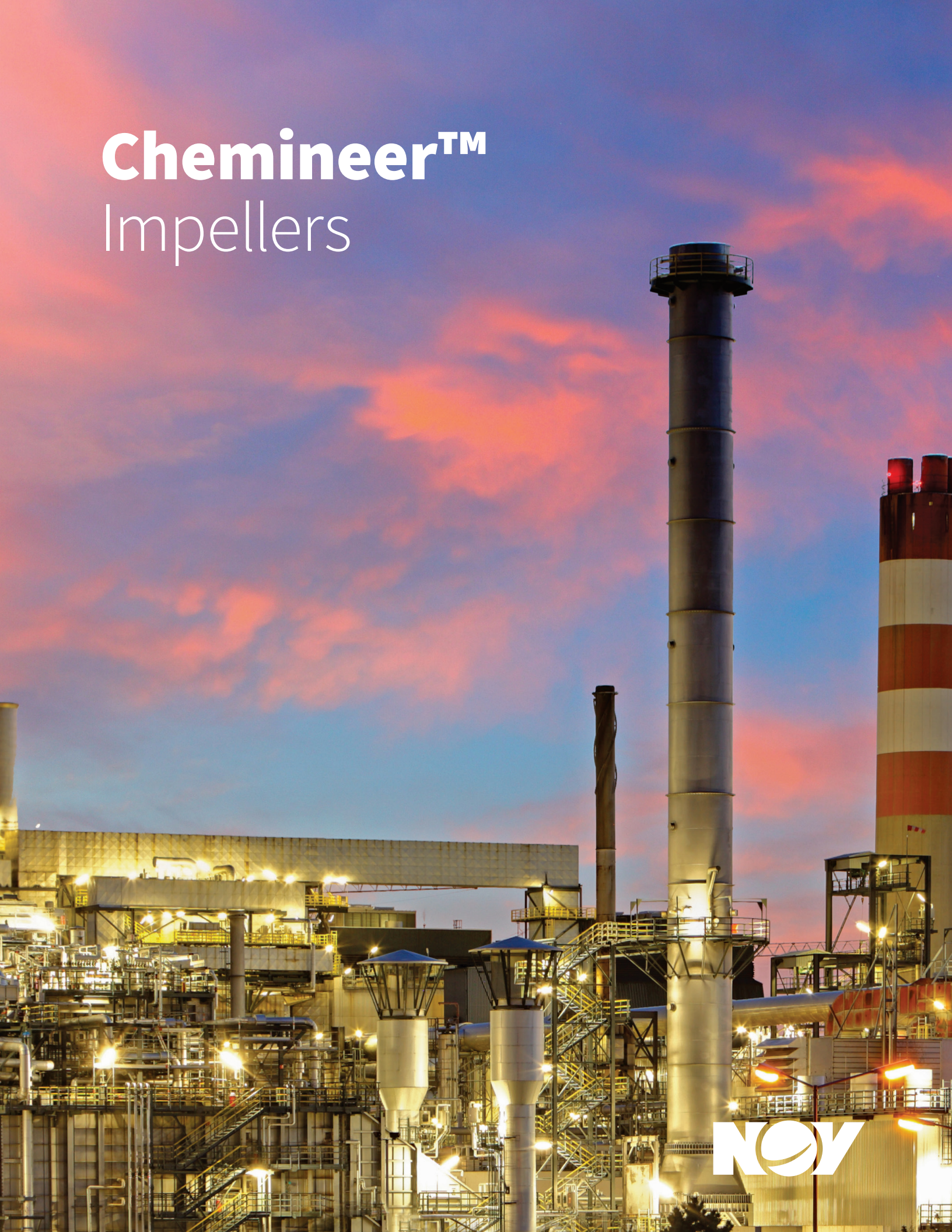


Chemineer™

Impellers



Advanced Technology for Superior Performance

RL-3



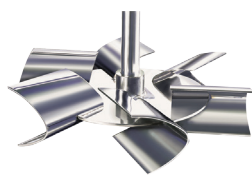
- Engineered to prevent fibrous material build up by eliminating edges and protrusions that would allow fibrous material to agglomerate
- High axial flow impeller for superior mixing performance in blending and solids suspension applications
- Strong central hub and sturdy blades designed to handle the loads related to material and flow impingement to ensure reliable operation and long service life

JT-2



- Transitional flow impeller for superior blending
- The design promotes blending by efficiently moving material in one direction in the center of the tank and the opposite direction on the outside of the tank

BT-6



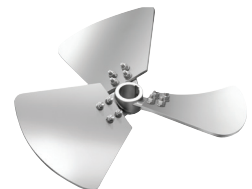
- Parabolic blade design engineered for maximum performance
- Highest gas dispersing capability at nearly six times the D-6 (Rushton) turbine
- Lower power drop in the gassed state improves mass transfer
- Relatively insensitive to viscosity

CD-6



- CD-6: Curved blade design similar to the BT-6
- CD-6 has gas dispersing capability over two times that of the D-6 (Rushton) turbine

WSE-3



- Advanced side entering hydrofoil design with high efficiency for maximum pumping action
- More cavitation resistant than other designs through effective hydrodynamic design
- Reduced wear through lower tip speeds

Impeller Selection Guide

Application	Impeller Type(s)
Miscible Fluids Blending	High Efficiency (XE-3, HE-3, SC-3, RL-3)
Solids Suspension	High Efficiency (XE-3, HE-3, SC-3, RL-3, Maxflo W)
Three Phase Process	Gas Dispersion (BT-6, CD-6, Maxflo W)
Immiscible Fluids Blending	ChemShear, P-4
High Viscosity	Helix, Anchor, Screw
Transitional Flow	JT-2

Solids Suspension

Intensity	Definition
Solids Motion	Solids are allowed to settle on the vessel bottom, but remain in motion.
Complete Suspension	None of the solids remain on the vessel base for a significant length of time.
Uniform Suspension	Homogeneous distribution of solids throughout the liquid volume.

ChemScale™

The industry standard method for effective mixer selection

ChemScale	Blending Description
1-2	Mild blending and motion. Produces a flat, but moving fluid surface.
3-5	Intermediate/moderate blending of miscible liquids when specific gravity differences are less than 0.6. Produces surface rippling at water-like viscosities.
6-8	Moderate to vigorous agitation for uniform blending of miscible liquids when specific gravity differences are less than 0.6. Produces surface rippling at lower viscosities.
9-10	Very vigorous agitation for uniform blending of miscible liquids when specific gravity differences are less than 1.0. Produces violent surface motion at lower viscosities.

XE-3



- Most efficient axial flow impeller for heat transfer, blending and solids suspension applications
- Mechanical design reduces weight allowing longer shafts without the need for additional support
- Can replace less efficient impellers and reduce energy costs

HE-3



- An established industry standard for axial flow impellers
- Extremely efficient: creates greater fluid motion with less energy
- Ideal for blending, heat transfer and solids suspension

SC-3



- Engineered for deep tank applications utilizing rolled blade design
- Produces flow of larger impellers without added weight or loss of efficiency

Maxflo W



- Excellent performance in abrasive solids suspension, liquid-solid-gas and boiling or near boiling applications
- High solidity blade design translates into improved mass transfer over other high

P-4



- Axial flow design suitable for wide changes in process viscosity
- Efficient for immiscible blending applications where shear and pumping is required
- Excellent for solids incorporation from the liquid surface

JP-3



- Marine style energy efficient design
- Ideal for small batches
- Handles higher viscosities than hydrofoil designs

S-4



- Close clearance design for operation near the tank bottom
- Excellent for low liquid level solids suspension applications
- Designed for use in laminar regime applications

ChemShear



- Customize levels of shear to suit your process
- Proper fluid turnover minimizes the need for auxiliary pumping impellers
- Small particles possible: 2 microns achieved in processes such as micro-encapsulation
- Traditional dispersion blades—such as the BT-6, CD-6, and D-6—can also be used in high shear applications

Double Helical Ribbon



- Proven the best high viscosity, laminar flow impeller
- Highly effective in heat transfer
- Efficiently incorporates surface liquids and solids
- For viscosities over 30,000 cP

Anchor



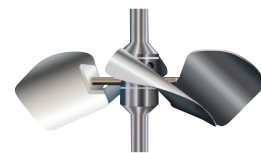
- Most economical laminar flow impeller available
- Horizontal flow well suited for low liquid level geometries
- Solve heat transfer fouling problems with optional wall scrapers

Screw (Auger)



- Ideal for shear sensitive, uniform blending applications (polymers)
- Excellent top to bottom turnover flow characteristics
- Use in mildly pseudoplastic applications with power law indexes as low as 0.5

Smoothline



- Innovative patented design
- Liquid-shedding surfaces and concealed hardware for enhanced CIP performance
- FDA/USP CL VI materials
- Removable components allow ease of installation through small openings
- Axial or radial flow, single or multiple impellers

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