

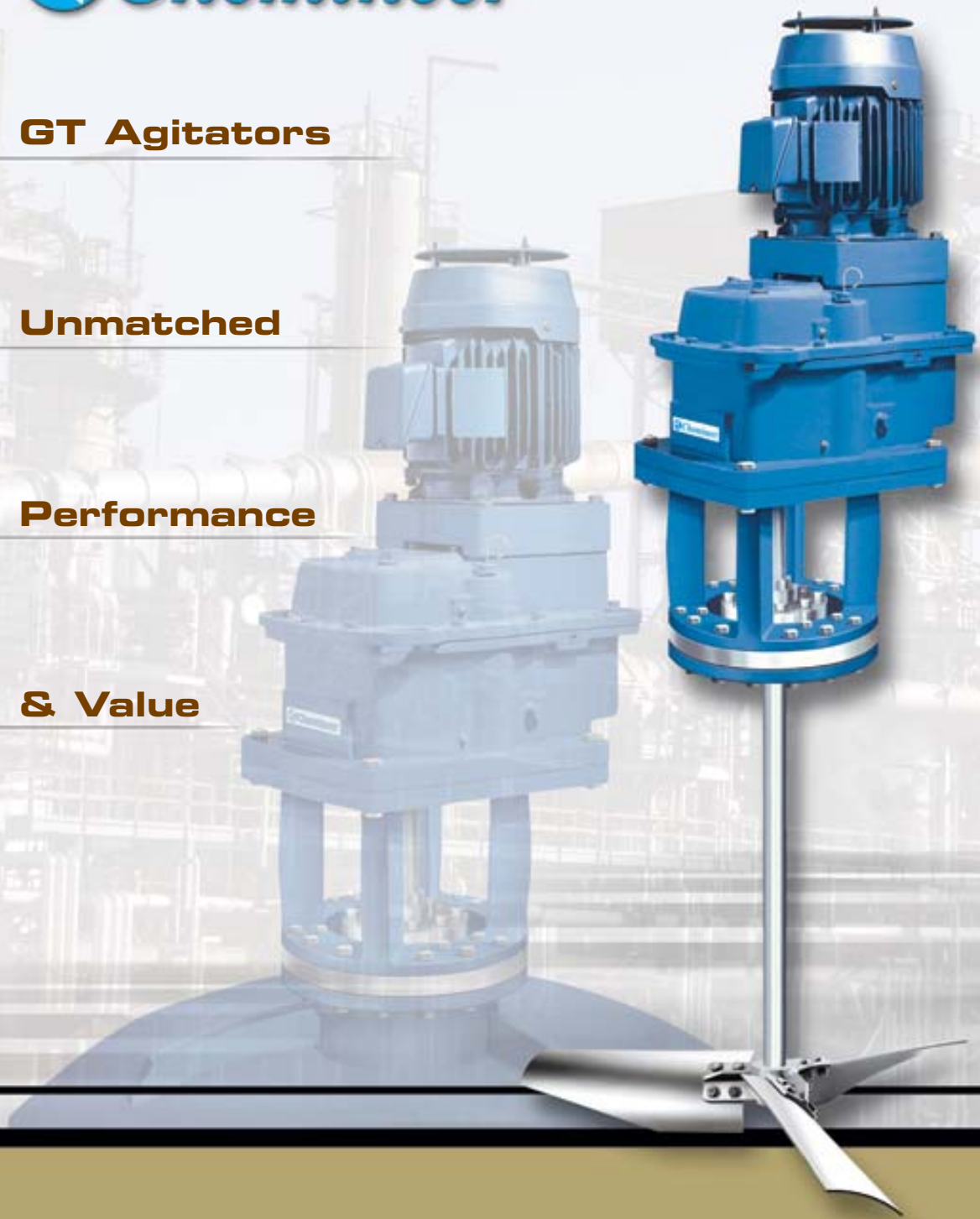


GT Agitators

Unmatched

Performance

& Value



GT: Premium Performance

The Chemineer GT agitators provide enhanced cost-efficiency and performance embodied in an advanced parallel shaft design specifically engineered for turbine agitator service. The GT combines Chemineer technology and reliability to offer field-proven dependable operation.

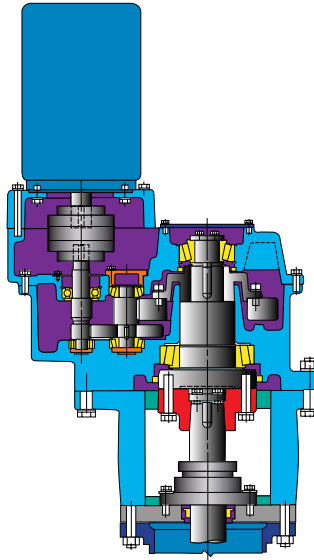
Compact and Rugged

Thanks to a patented low profile design and compact internal components, the GT features a small mounting footprint making it ideal for applications where clearances may be tight.

The Chemineer GT Agitator features a housing completely manufactured from cast iron. Couple that with an abrasion-resistant, catalyzed polyurethane finish and you have a turbine agitator well-suited for use in both indoor and outdoor operating environments.

Oversized Shafting

All Chemineer shafting is sized and tested to resist torsional loads and bending moments resulting from hydraulic forces acting on the impeller during mixing. Chemineer will work with you to determine optimum sizing for your application.



The GT drive is designed for high performance and long life.

GT shafts are available in a variety of diameters and afford maximum resistance to shock loads. All shafts are straightened to within a total indicated runout of 0.003" per foot (0.25 mm per meter) of shaft length to minimize vibration and maximize gearbox and seal life. A variety of materials of construction ensure process compatibility. Options include most metals, such as carbon steel, 304/316 stainless steel, duplex stainless steel, Hastelloy, Inconel, Monel, and titanium. Shafts can also be coated with a variety of coverings and coatings, including rubber, neoprene, Hypalon, Teflon and FRP.

Standard Components & Easy Maintenance

Lifting lugs cast directly into the housing make for safe, easy handling of the entire unit. Routine maintenance is simplified due to the GT's minimal parts, superior accessibility, and ample use of standard components. The GT is available with either NEMA or IEC C-flange motors from 1 – 30 HP and shaft speeds of 11 – 155 rpm.



The GT adapts easily for beam mounting above open tanks.

Key Features of the Chemineer GT Agitator

- Integral gearbox dry well
- Compact mounting footprint
- Durable cast iron housing
- Broad speed range to cover all applications
- Easy seal change
- Synthetic lubricants not required
- Chemineer quality and reliability

GT Drive Features

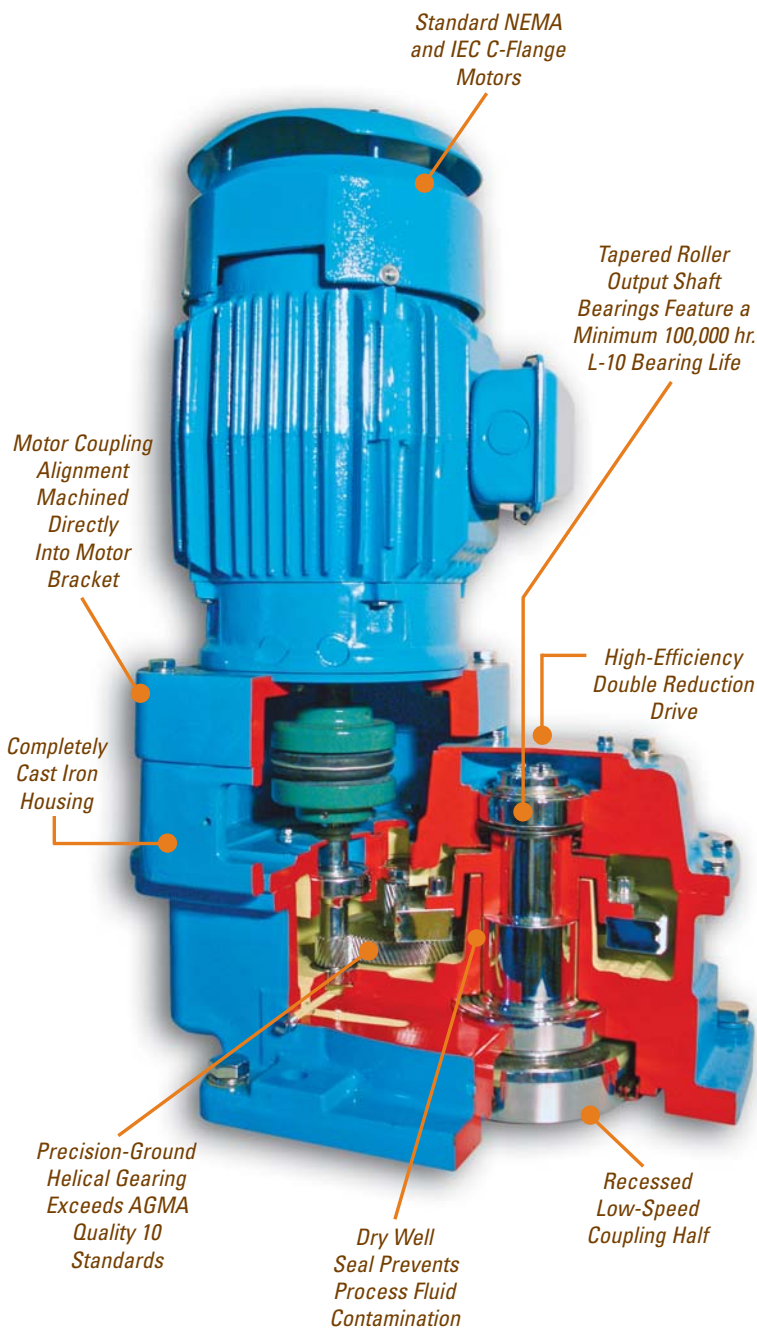
Geared for Life

Case-carburized, precision-ground, helical gear sets are manufactured to AGMA Quality 10 standards minimum for optimal performance and long service life. The GT agitator's helical gearing provides minimal wear for efficient mechanical energy transmission resulting in more power for your mixing application. CNC machining ensures exact, repeatable fits and finishes for improved parts interchangeability and gear alignment.

The GT agitator utilizes tapered roller bearings on the output shaft and a combination of ball, roller and tapered roller for the remaining bearings. All standard designs have conservatively sized bearings providing minimum L-10 bearing life of 100,000 hours. The main support bearings are mounted in the rigid support base of the gearbox for reliable performance in severe bending applications.

Standard Lubricants for a Lifetime of Smooth Operation

The GT agitator drive utilizes typical gear oil lubricants as opposed to competitive, single reduction units that require expensive synthetic lubricants due to extreme pressure loads at the high-speed pinion. The standard dry well, low speed shaft seal prevents lubricant leakage, eliminating the risk of process fluid contamination. Additionally, positive gear and bearing lubrication is provided under variable speed applications and reverse rotation.



Mounting Options

Open Tank

- **Drive Mounted to Beams**

With a heavy-duty, cast housing capable of handling maximum loads, the GTD agitator mounts readily to support beams or similar structures for common open tank applications.

- **Pedestal-Mounted to Beams**

The rugged, cast iron pedestal of the GTP agitator raises the gear drive 12 inches away from the support structure to prevent exposure of the drive to the fluid and to facilitate service.

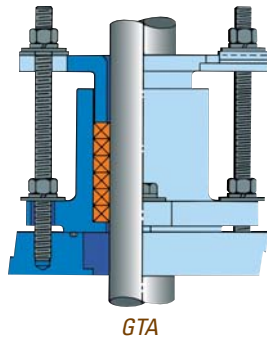
Closed Tank — Seal Options

- **Lip Seal**

The spring-loaded, nitrile rubber lip seal of the GTL model protects process fluid from contamination in low pressure, lower temperature applications.

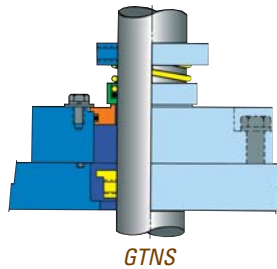
- **Stuffing Box**

The six-ring stuffing box of the GTA is composed of standard PTFE/graphite-braided packing requiring no lubrication.



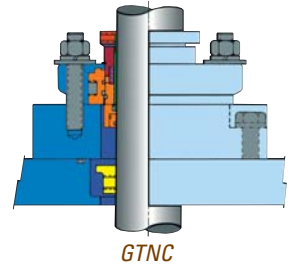
- **Single Mechanical Seal**

The single dry-running mechanical seal, standard on all GTNS agitators, is the economical choice for applications where a pressurized barrier between the tank contents and the outside environment is not necessary.



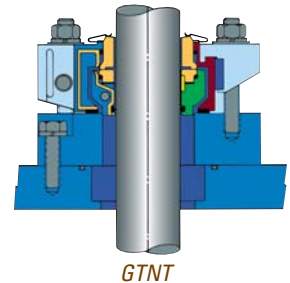
- **Single Mechanical Cartridge Seal**

The GTNC single mechanical seal offers dry-running capability with an easily replaceable cartridge.



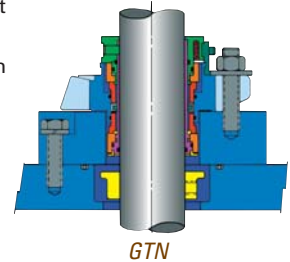
- **Split Mechanical Seal**

GTNT agitators feature a split mechanical seal. Its two-piece design simplifies installation and maintenance while providing a superior pressure containment barrier.



- **Double Mechanical Cartridge Seal**

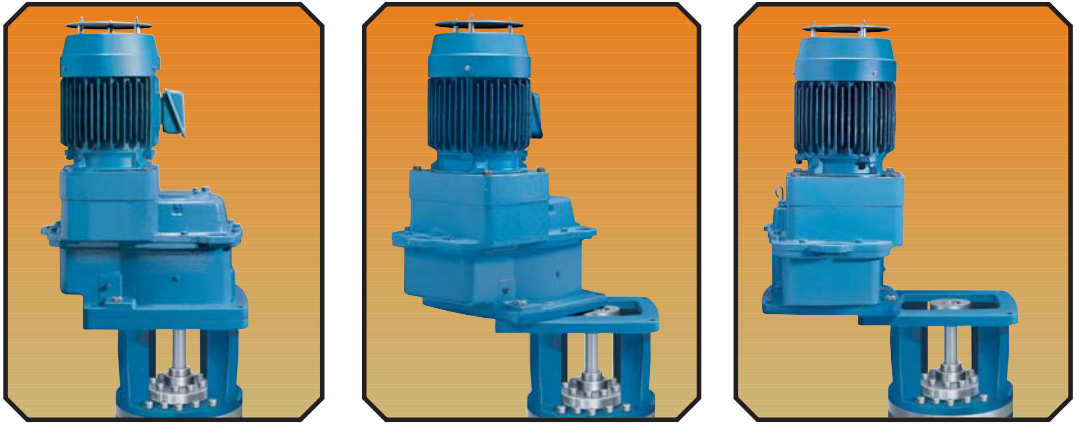
Double mechanical cartridge seals, available on GTN models, offer excellent sealing capabilities, long life and minimum maintenance. An appropriate barrier fluid keeps tank contents in the tank.



Seal Change

Easy Access for Routine Maintenance

For replacement of the mechanical seal, simply rotate the gearbox 90° around the pivot pin. The top of the seal pedestal opens for a clear, line-of-site view and ample room for easy removal of the coupling half and seal assembly.



The Chemineer GT's "swing-out" design simplifies routine seal maintenance.

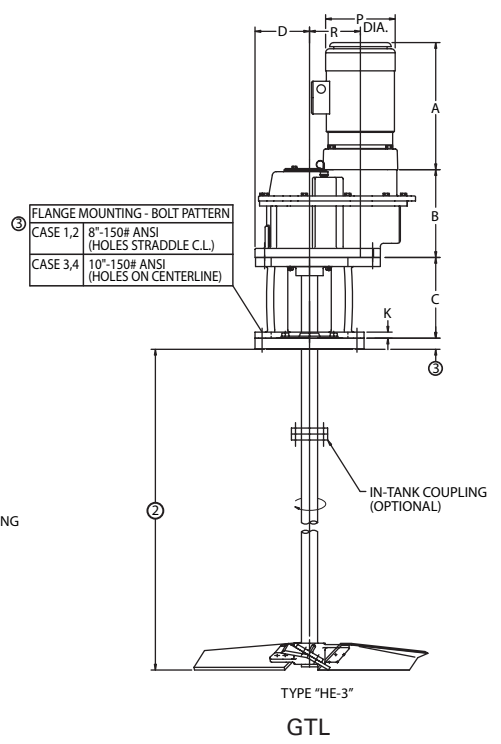
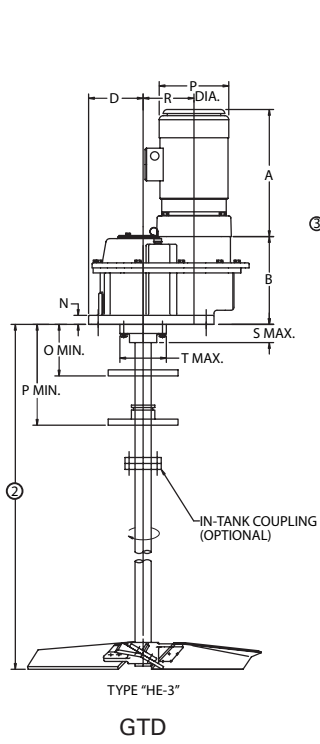
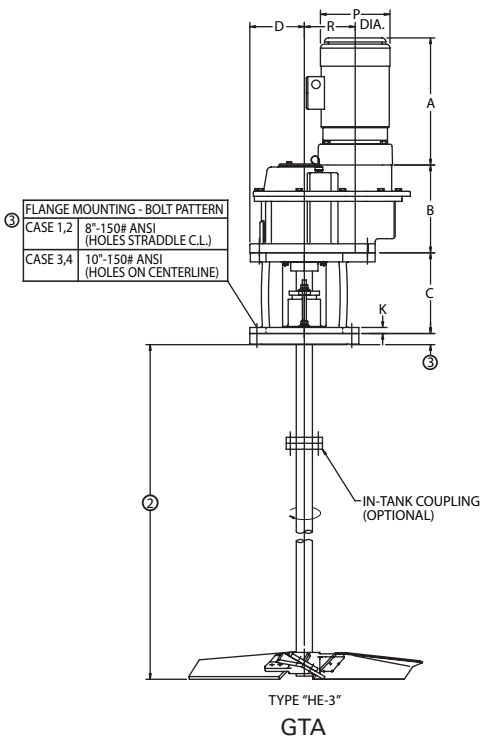
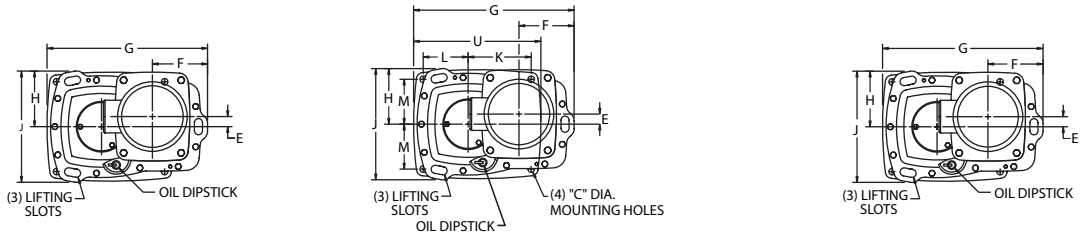
Process Technology & Innovation

Chemineer brings proven technical expertise to each mixing solution, from basic mixer and impeller design through complex process application analysis.

Combined with proprietary data evaluation methodology and extensive field experience Chemineer provides the most accurate application evaluation possible. Let Chemineer optimize your process, saving you time and money, by applying our experience and state-of-the-art tools, such as:

- Chemineer's high-tech customer test lab offers the most advanced testing techniques in industry
- Computational Fluid Dynamics (CFD)—provides visual projections of mixer performance in the mixing tank by generating a series of mathematical models of fluid flows (Bulletin 750 is available with additional information.)
- Digital Particle Image Velocimetry (DPIV)—provides instantaneous flow visualization and quantitative measurement of the fluid velocity field in the mixing tank (Bulletin 755 is available with additional information.)
- Laser Doppler Anemometry (LDA)—corroborates time averaged DPIV data, especially for velocity fields in the vicinity of the impeller
- Laser Induced Fluorescence (LIF)—enables the user to gain a fundamental understanding of mixing by tracking the path and diffusion of injectants in agitated vessels and static mixers
- CEDS® (Chemineer Expert Design System)—the industry leader in agitator design and analysis software. This proprietary program suite optimizes process performance, in addition to mechanical integrity, strength, and reliability.
- ChemScale®—the industry standard method for effective mixer selection that helps to optimize the agitator design for your specific process needs
- A library of Chemineer technical articles is available on the web site at www.chemineer.com/techarticles
- Capabilities bulletin, 712, is available with additional information

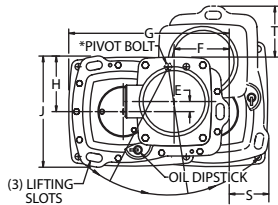
Dimensions



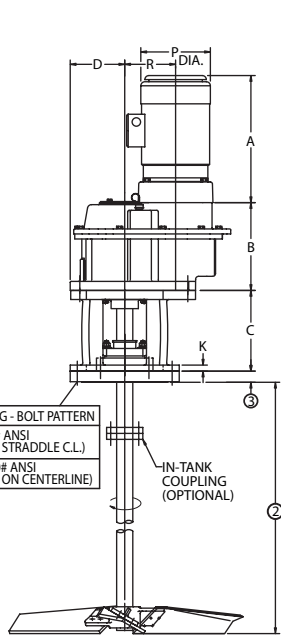
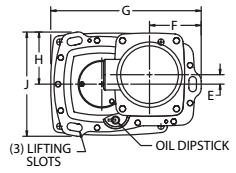
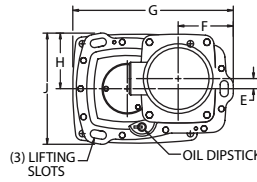
Motor Dimensions (for totally enclosed and explosion-proof motors)			
HP	FRAME	A ^①	P ^①
1, 1.5, 2	140TC	16"	8"
3 & 5	180TC	20"	10"
7.5 & 10	210TC	25"	12"
15 & 20	250TC	31"	14"
25 & 30	280TC	34"	15"

Case Size	B	C		D	E	F	G	H	J
		GTD	All Others						
1 & 2	10.875"	0.84375"	10"	6.75"	1.25"	6.8125"	19.875"	6.875"	13.75"
3 & 4	13.125"	1"	12.5"	8.5"	2.375"	8.125"	24.5"	8.375"	17"

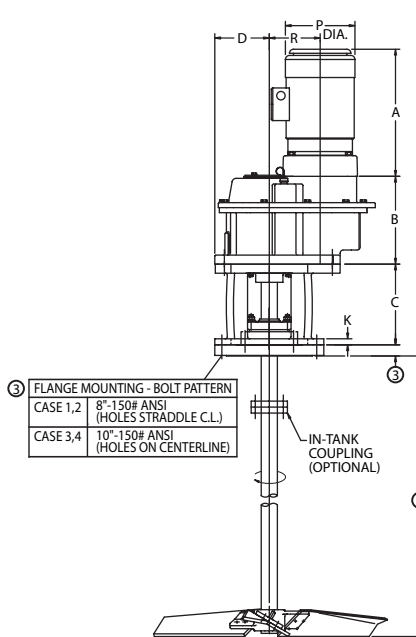
Dimensions



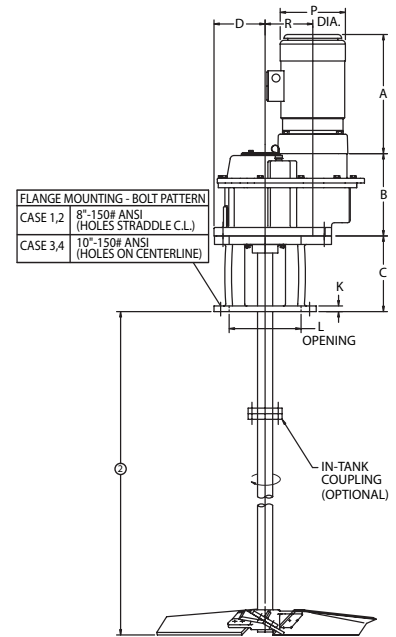
*DRIVE ASSEMBLY PIVOTS AT TOP OF PEDESTAL TO ALLOW CHANGE-OUT OF MECHANICAL SEALS.
(SEE I.O.M. FOR SPECIAL MOTOR CONDUIT INSTRUCTIONS)



TYPE "HE-3"
GTN, GTNC & GTNS



TYPE "HE-3"
GTNT



TYPE "HE-3"
GTP

Dimensions Chart

K		L		M	N	O	P	R	S		T		U
GTD	All Others	GTD	GTP	GTD	GTD	GTD	GTD		GTD	GTN ^④	GTD	GTN ^④	GTD
7.8125"	0.75"	5.5625"	9.5"	5.5625"	1.125"	8"	16"	6.3125"	2.8125"	5"	6.75"	7"	15.75"
10.0625"	0.875"	7.0625"	10"	7.0625"	1.5"	8"	20"	7.875"	4"	7"	8.3125"	8"	20"

- ① Dimensions are for totally enclosed and explosion-proof motors.
- ② Agitator output speed, shaft diameter and extension, impeller design and other optional features to suit application.
- ③ Optional flange sizes are available.
- ④ GTN models including GTN, GTNC and GTNS.

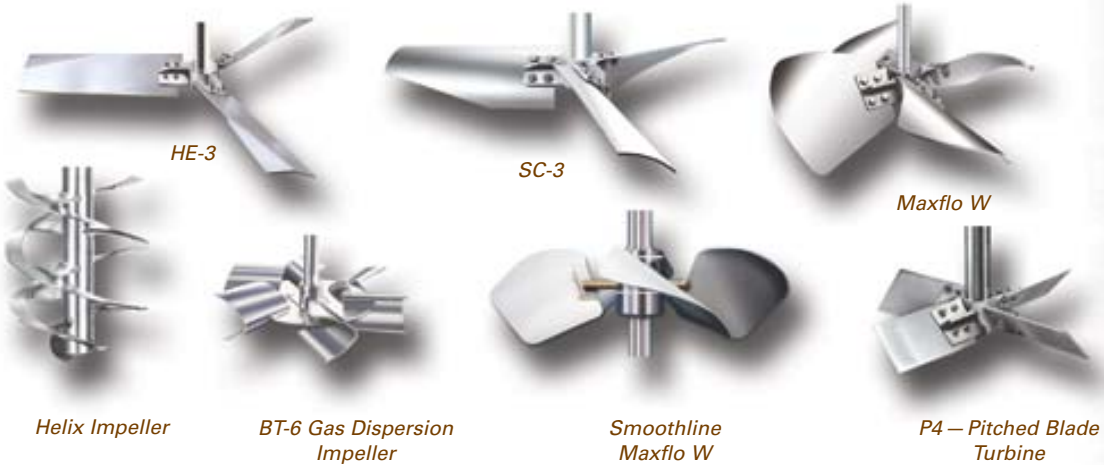
Impeller Technology

Chemineer's impeller technology is effectively applied across your spectrum of applications ensuring successful, repeatable results from lab scale to full scale operations.

Chemineer's mixing expertise includes low shear liquid-liquid/solids blending, gas dispersion, high

shear blending and viscous mixing. Whether it is R&D or production phase, we have the expertise to solve your mixing challenges.

Impeller bulletin, 710, is available with additional information.



Chemineer, Inc.
P.O. Box 1123
Dayton, Ohio 45401
Telephone: (937) 454-3200
Fax: (937) 454-3379

Chemineer, Ltd.
7 Cranmer Road
West Meadows
Derby DE21 6XT
England
Telephone: 44-1332-363175
Fax: 44-1332-290323

Chemineer Sales Offices:
Mexico
Singapore
China



Chemineer, Inc.
125 Flagship Drive
North Andover, MA 01845
Telephone: (978) 687-0101
Fax: (978) 687-8500
www.kenics.com
www.greercomixers.com



Prochem, Inc.
994 Westport Crescent Unit #A3
Mississauga, Ontario L5T 1G1
Canada
Telephone: (905) 670-9486
Fax: (905) 670-9120

Your Local Contact:

Bulletin 706

For the nearest sales office call 1-800-643-0641 or go to www.chemineer.com