

# Electric Submersible Pumps for the Mining, Municipality, Industrial and Geothermal Markets



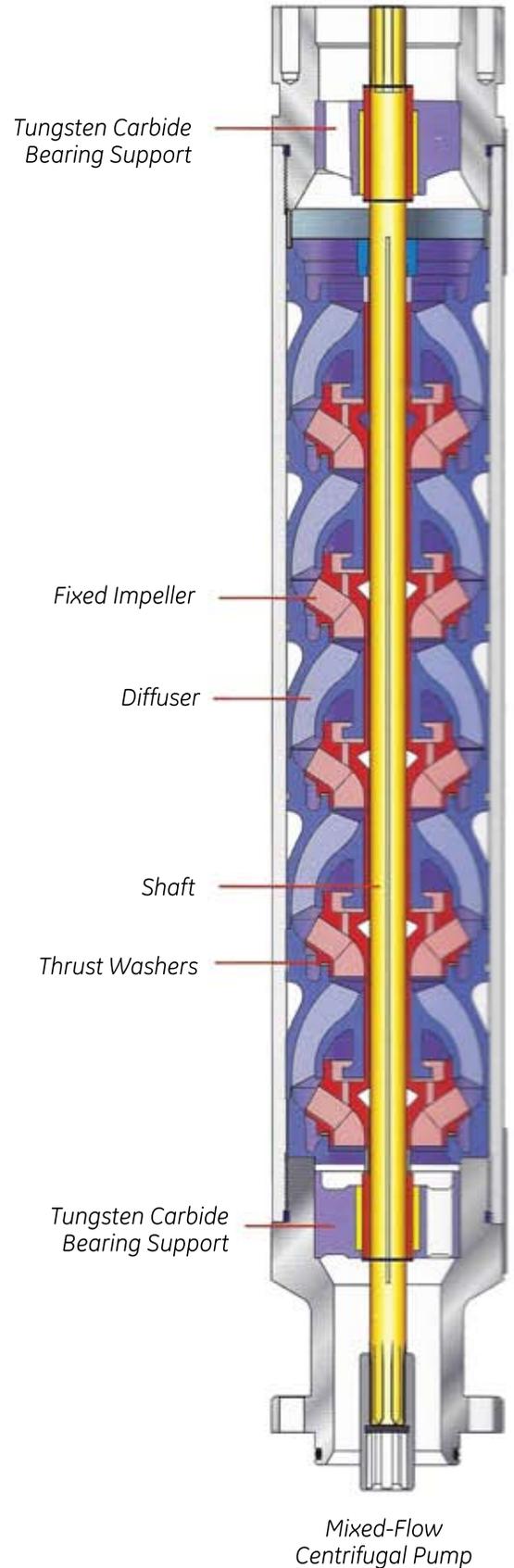
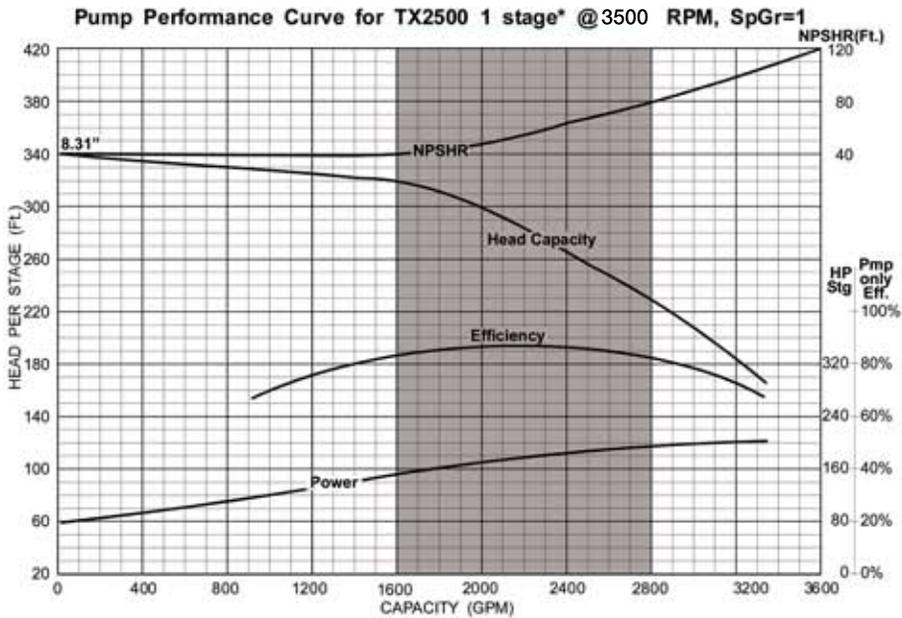
imagination at work

# High-Efficiency Pumps

GE Oil & Gas multistage centrifugal submersible pumps are designed to have the highest efficiency and head per stage ratings of any pump in their pumps class range.

- Wide vane high-efficiency stage design
- Abrasion resistant materials
- ISO 9001 quality standards
- NSF approved epoxy coating - optional
- High- and ultra-high-strength shafts
- Duplex Metallurgy - optional

Pump Series (O.D. - In.)	Normal Operating Range (GPM)
TE (5.38)	22 to 569
TH (5.62)	20 to 963
TJ (6.75)	117 to 1079
TM (8.62)	365 to 1313
TN (9.50)	800-1300
TP (11.50)	900-2200
TX (12.00)	1600-2800



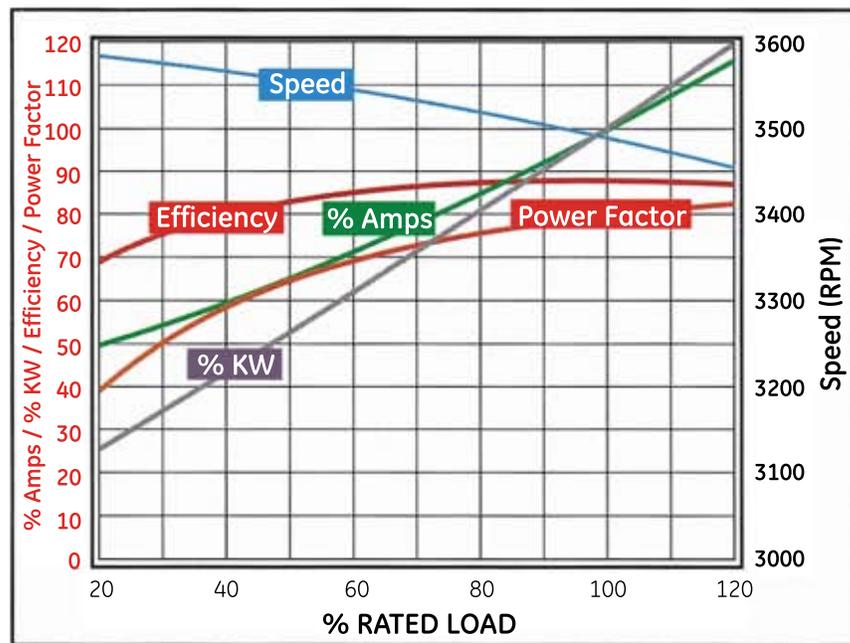
# High-Efficiency Submersible Motors

GE Oil & Gas submersible two-pole, squirrel-cage, induction electric motors are manufactured in a variety of horsepower ratings, operating voltages and currents to meet the demands of extreme environments. The newly designed system delivers up to 75% more horsepower, while extending run life.

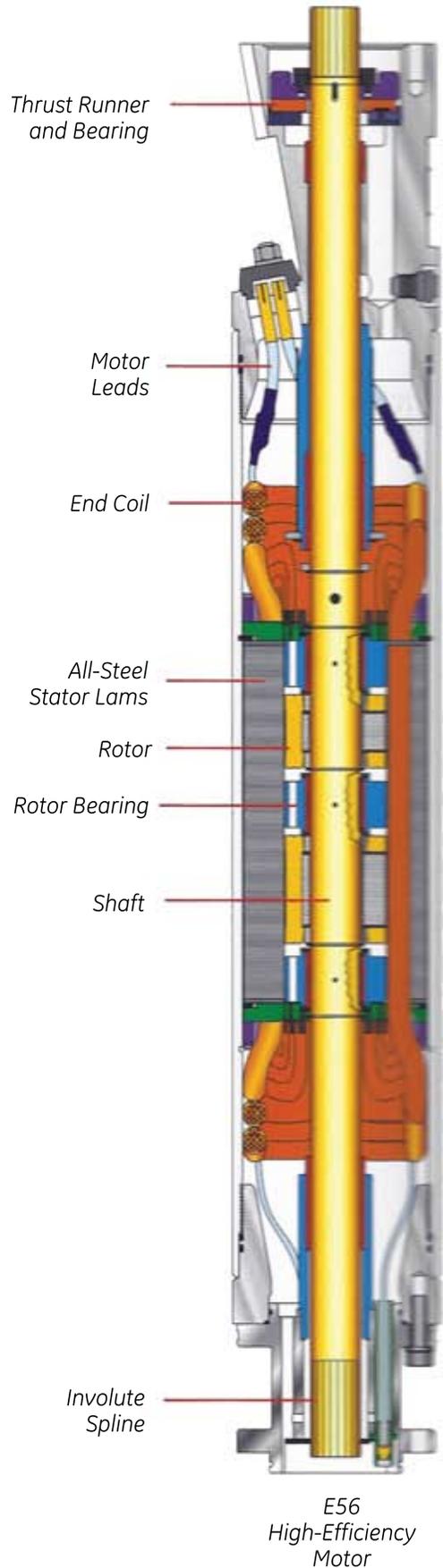
- All steel stators and involute splines
- Connection design decreases installation rig time
- Advance filter system maintains clean oil
- Locked rotor bearings reduce friction and wear
- E-series motors offer the highest efficiency performance in their class
- Duplex Metallurgy - optional

Horsepowers Available	
Motor Size	60 Hz HP
375	7.5 to 240
456	10 to 480
544	20 to 800
562	200 to 1500*

\*Larger horsepower available on request



Typical E56 motor performance



# Seal Sections

The seal section located between the motor and the intake, carries the axial thrust developed by the pump, isolates and protects the motor from well fluids, equalizes the pressure in the wellbore with the pressure inside the motor, and compensates for the expansion and contraction of motor oil due to temperature changes in the motor.

- Tandem configurations for all sizes and applications
- Labyrinth and bag chamber combinations are available in most series
- Abrasion-resistant models available with tungsten carbide bearings
- High-load thrust bearing and high-temperature elastomers available in all models
- Abrasion-resistant seals maintain the largest shaft diameter and strength in the industry

# Superb Cables

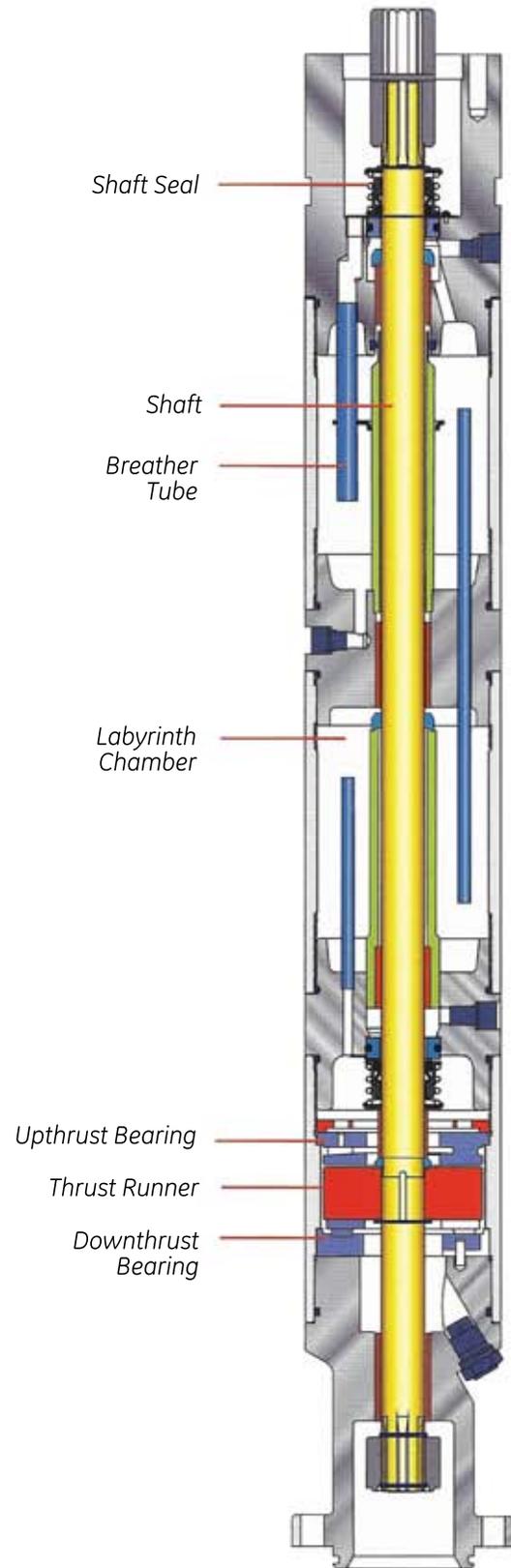
GE Oil & Gas offers a complete cost-effective range of metal armor-clad power cables, designed to perform under the most stringent well conditions.

# Downhole Monitoring

GE Oil & Gas Osiris downhole sensor and surface interface system enables reliable and accurate retrieval of critical real-time ESP and well bore parameters.

# Extraordinary Service

GE Oil & Gas products and systems are supported by experienced service personnel who assist in equipment installation, change-outs and system optimization. Our thoroughly trained service technicians provide component repair, motor dryout, plus equipment testing and evaluation to ensure maximum performance from your well.



TR-STD 98L Seal

# Innovation



## GE Global Research Centers

Global Research Headquarters	Niskayuna, NY
Manufacturing & Software	Ann Arbor, MI
Global Research	Munich, Germany
China Technology Center	Shanghai, China
John F. Welch Technology Center	Bangalore, India
Brazil Technology Center	Rio de Janeiro, Brazil
Technology and Skills Development Centre	Perth, Australia

Innovation, research and anticipating the global needs of the future are the cornerstone of GE's commitment to technology. We are the only artificial lift business with access to GE's technology, and we will be shaping the future of our industry by injecting current GE technology into our products while simultaneously meeting customers' needs through new innovations.

The future of artificial lift is superior service combined with unmatched technology.

To stay ahead of the industry you must think ahead. GE has more than 6,000 researchers around the world dedicated to inventing new technologies. GE also works with customers, universities, and governments on special research projects to connect technology with industry. Advanced technologies currently underway that can be applied in future GE Oil & Gas and artificial lift innovations include:

- Molecular Imaging & Diagnostics
- Electronic Materials Systems
- Sustainable Energy
- Nanotechnology
- Advanced Propulsion
- Energy Conversion
- Materials & Modeling
- Imaging & Analysis
- Remote Monitoring & Diagnostics

**“The only source of profit, the only reason to invest in companies in the future, is their ability to innovate and their ability to differentiate.”**  
**Jeff Immelt CEO, General Electric**



For more information, please contact your GE sales representative.

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