

# ELECTRIC MOTOR & GENERATOR MANUFACTURING & REPAIR

Our customers rely on us for innovative engineering, quality products & consistent service.





www.gulfelectroquip.com | sales@gulfelectroquip.com















LLOYD'S

# CONTENTS

### **GULF ELECTROQUIP**

Overview Certification Quality Assurance

### PRODUCTS

DRILLMAX400 Top Drive Motor DRILLMAX600 Top Drive Motor DRILLMAX2000 Drilling Motor QUIET CLEAN Motor Blower whisperclean Motor Blower MONSOON Industrial Ventilator Junction Boxes QUICKCONNECT1000 Safety Products Parts Emergency Motor Inventory

### SERVICES

Repair & Remanufacturing Stator Upgrade Technology Testing Machine Shop Winding Inspection & Assembly

©2021 Gulf Electroquip, LTD. All rights reserved. Product specifications and availability are subject to change without notice. Statements contained herein are not intended to create any warranty - expressed or implied. Product trade names, marks or logos are the property of their respective owners. All photography and illustrations are copyrighted by Gulf Electroquip, LTD. The information contained in this document is for general information purposes only. The information is provided by Gulf Electroquip Ltd. and while we endeavor to keep the information up to date and correct, we make no representations or warranties of any kind, express or implied, about the completeness, accuracy, reliability, suitability or availability with respect to the document for any purpose. Any reliance you place on such information is therefore strictly at your own risk. In no event will we be liable for any loss or damage including without limitation, indirect or consequential loss or damage, or any loss or damage whatsoever arising from loss of data or profits arising out of, or in connection with, the use of this document.







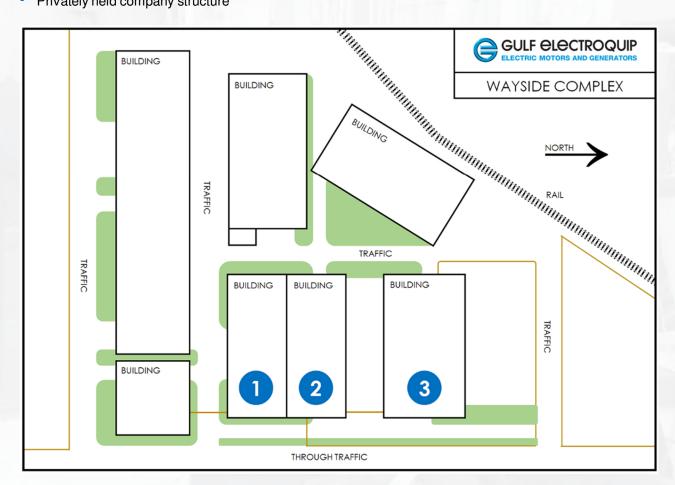




# **GEQ OVERVIEW 1**

# **GENERAL STATISTICS**

- Established in 1956
- Main Plant: Over 50,000 m^2
- Crane capacity up to >25,000 kg
- **Production Facilities:** 
  - Center front three buildings (1,2 & 3) are main production facility of 20,000 m<sup>2</sup>
  - Remaining buildings are for storage and available for expansion
- Factory authorized repair facility for major global OEMs ٠
- Privately held company structure







# **GEQ OVERVIEW 2**

# PRODUCTS

### New, Repair & Remanufactured

#### Motors & Generators:

- AC Induction Motors
- AC VFD Motors
- AC Wound Rotor Motors
- AC Induction Generator
- AC Synchronous Motor
- AC Synchronous Generator
- DC Motors
- DC Generators

#### Power:

- AC: to 30,000+ HP/ 25,000+ kw
- DC: to 10,000+ HP/ 7,000+ kw

#### Voltages:

- AC: 100 13,800 V
- DC: 100 1,000 VDC

#### Speed:

- AC: to 7000 RPM
- DC: to 3000 RPM

#### Frequency:

• 50, 60 Hz and Variable

#### Enclosure:

• Open to XP classification

#### Orientation:

• Horizontal, Vertical & Tilt

#### Bearings:

- Sleeve
- Ball & Roller
- Insulated Through High Capacity Vertical Thrust

#### Shaft:

- Single, Double & Auxiliaries
- High Alloy & Standard Steels

### Cooling:

- Air and Water Cooled
- Self, Forced and Non-ventilated

#### Seals:

Standard Through High Spec

#### Excitation:

• Brush and Brushless

## Patented Cleaning Motor Blowers

- Filter-less Cleaning
- Double Cycle
- Quiet to OSHA
- For Motors and Generators
- Custom and OEM Designs

### Ventilation Blowers

- UL Certified
- XP Classified Area

### Junction Boxes

### **Quick Connects**

Custom Engineered Products

Parts In Stock













# TECHNOLOGY

#### Staff of Degreed Engineers:

• EE & ME

#### **Engineering Design**

- Complete New Machines
- Upgraded HP Voltage Enclosure
- Specification
- Certification
- Troubleshooting
- Vibration Analysis
- Thermal Analysis
- Training
- Maintenance
- Disaster Relief Planning
- 3<sup>rd</sup> Party / Failure Analysis

### CAD/CAM

- 3D Design
- FEA Finite Element Analysis
- AutoCAD to CNC Machine

#### **Customer Inventory Storage**

- Emergency Spares
- Climate Controlled
- Maintained
- Periodic Proof Testing
- Complete Machines
- Specialty Parts
- On-site 300,000 Square Feet
- 24 / 7 Access

#### Vendor Managed Inventory

Manuals

Testing

Consultation

Safety



# **GEQ OVERVIEW 3**

# **TEST LAB**

### AC and DC Equipment:

- Motors
- Generators
- Drives
- Transformers
- Drive Lines (String Testing)

### Static and No Load

- AC to 30,000HP/25,000kw
- DC to 20,000HP/15,000kw

#### Full Load Testing

- AC to 6000 HP
- DC to 6500 HP

### Dynamometer Load

- to 25,000 ft./lbs.
- to 5,000 RPM

### Orientation

- Horizontal
- Vertical

#### Computer Recording

- Voltages
- Currents
- HP/KW
- Efficiency
- Speed
- Vibration
- Spectrum
- RTDs
- Thermal Imaging

### Sinusoidal and VFD

#### Witness

- Worldwide Remote Via Internet
- Client
- 3rd Party Certification

#### Static Testing

- Surge
- High Potential
- Polarization Index
- DLRO
- Bar to Bar
- Dimensional

#### Regulatory | Certification

## IN HOUSE EQUIPMENT

### CNC Machining

- Shafts
- Endbells
- Seals
- Parts

### CNC Milling

- Endells
- Rotor Bars
- Frames

### CNC Cutting

- Laser
- Plasma

### **CNC** Balancing

- Hard Bearing to 10,000 lbs.
- Soft Bearing to 50,000 lbs.

### **CNC** Cleaning

- Cleaning Machine
- Burn Out Oven

## CNC Turn & Undercut DC Arm

### **CNC Electrical Testing**

- Core Loss
- Resistance, Inductance
- High Potential/Surge Testing

### CNC Test Lab (see test)

### Manual Machining

- 10 Lathes (s, m, l)
- 3 Vertical mills (m, l)
- 3 Horizontal mills (m, l)

### 2 Baking Ovens

#### Water Stripping of Windings

### Vacuum Pressure Impregnation

#### Metal Fabrication

- Heavy Steel
- Sheet Metal
- Rolling
- Tig, Mig & Stick Welding
- Custom Junction Boxes
- Custom Components

## REPAIR AND REMANFACTURING

#### Cleaning

Baking

Mechanical Inspection

**Electrical Inspection** 

Failure Analysis

**Mechanical Repair** 

#### Replacement

- Shafts CNC Alloy
- Bearings
- Rotors
- Stators

### Balancing

### Winding

- Form Coils
- Random Coils

DC Rotor

Coil Supply

Encapsulation:

VPI Class H

Enclosures

Fans

Covers

Junction Boxes

•

Dip Class H

Repair/Replace

Testing (see Test Lab)

GULF ELECTROQUIP

**Exciter Rotors** 

**Exciter Stators** 

DC Fields

- Medium Voltage
- AC Rotor BarringAC Wound Rotor

AC Generator Rotor

# CERTIFICATION

GULF ELECTROQUIP IS ISO 9001:2015 CERTIFIED.



We are also factory authorized by GE and Reliance, the only shop that is in the USA. These manufacturer's appreciate and depend on our drilling and electric motor engineering experience.



Gulf Electroquip is also recognized for testing by the following standards organizations.



LLOYD'S









# QUALITY ASSURANCE



## Corporate Quality Policy Statement

At Red Claw LLC & Gulf Electroquip LTD,

DRILLING MOTORS	we are commited to continuously
GENERATORS	improving our products & processes to
BLOWERS	provide the highest quality, maximum value
PARTS	and outstanding service to our customers.

# Declaración de política de calidad corporativa

En Red Claw LLC y Gulf Electroquip LTD,

estamos comprometidos con la mejora

MOTORES DE LA	continua de nuestros productos y procesos
PERFORACION	
GENERADORES	para proporcionar la más alta calidad, valor
SOPLADORES	máximo y un servicio excepcional a nuestros
PIEZAS	clientes.





# PRODUCTS

DRILLMAX400 Top Drive Motor DRILLMAX600 Top Drive Motor DRILLMAX2000 Drilling Motor QUIET CLEAN Motor Blower whisperclean Motor Blower MONSOON Industrial Ventilators Junction Boxes QUICKCONNECT1000 Safety Products Parts Emergency Motor Inventory















# **GEQ DRILLMAX400** TOP DRIVE MOTOR

A TOP DRIVE MOTOR WITH THE HEART OF A LARGER SEVERE SERVICE DRILLING MOTOR. NOW YOU CAN GET A BETTER MOTOR AT A FRACTION OF THE COST OF YET ANOTHER TOP DRIVE MOTOR FAILURE



Unit shown is a representation of the general motor construction. Actual unit may differ from the unit shown above.



Engineered and manufactured for

performance, productivity and durability.

Ideal for oil and gas rig top drives.

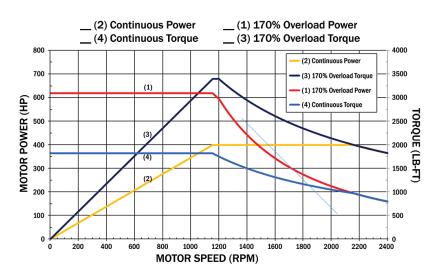
# **FEATURES**

- New higher strength bearings and seals
  - double the systems
- Upgraded power circuit
- Cast aluminum rotor
- Safer and faster connection
  - Eliminating terminal block
  - Copper buss tabs 'Bolt, Tape and Go'
- Patented QUIETCLEAN blower (optional)
- Form wound Kapton windings
- Interchangeable with existing motors



# 1000+ HP DESIGN DEPENDABILITY IN A 400 HP MOTOR

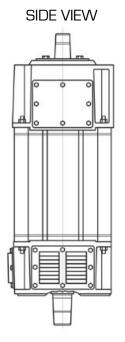
## DRILLMAX400 MOTOR PERFORMANCE CURVES

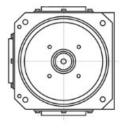


## DRILLMAX400 MOTOR SPECIFICATIONS

•

•

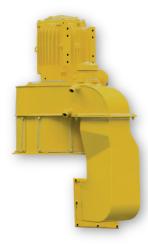




DRIVE END

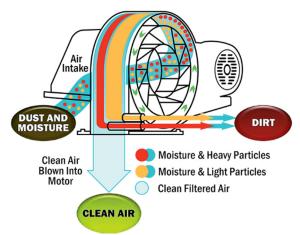
- Horsepower:298 KW (400 HP)
   Rated Voltage: 575 V
- Rated Frequency: 39.5 Hz
- Base Speed: 1155 RPM
- Max Speed: 3750 RPM
- Duty: (IEC): S1, Continuous
  - Current at Rated Load: 368 AMPS
  - Efficiency: 96%
- Number of Poles: 4
- Full Load Torque: 1818 FT|LBS
- Intermittent Duty Torque: 3250 FT|LBS
- Intermittent Duty Cycle: (IEC) S9, 1155 RPM at 480 HP for 120 seconds; 80 RPM at no load for 90 seconds
- Ambient Conditions: -20°C to +50°C at 400 HP with 1100 SCFM cooling air
- Max. Altitude: 1 Km (3300 FT)
- Bearings Upper Bearing: Thrust Ball Bearing, Lower Bearing: Roller Bearing
- Cooling: Separate Force Ventilation 1100 SCFM at 40°C
- Weight: Approximately 2500 LBS
- Connections: Buss Tab, Terminal Board, Flying Lead
- Enclosure: IP44
- Color: Safety Yellow

## DRILLMAX400 OPTIONS



# PATENTED AIR CLEANING MOTOR

BLOWER filters 90%+ of the dirt, dust, and moisture out of the air before the air flows into the motor. This highly efficient blower lowers contamination inside the drilling motor, yielding greater reliability, longer time between rebuilds and less downtime for the rig.



**NO PAPER OR CLOTH ELEMENT FILTRATION** ALL MECHANICAL, 2 STAGE CLEANING TECHNOLOGY



## MORE DRILLMAX400 OPTIONS

- Thermal Block
- RTDs
- Brake Hub
- Junction Box
- Pinion
- Cable Connections Splice Kit
- Special Options



Purchase your GEQ DRILLMAX400 from the GEQ factory and receive a full factory warranty, GEQ Factory Service, and quality GEQ Factory Parts. Gulf Electroquip has equipment in stock – ready to order and install.

©2020 GEQ DRILLMAX400 is a registered trademark of Gulf Electroquip, LTD.. DISCLAIMER: Product specifications and availability are subject to change without notice. Statements contained herein are not intended to create any warranty - expressed or implied. Product trade names, marks or logos are the property of their respective owners. All photography and illustrations are copyrighted by Gulf Electroquip, 2020.



# **GEQ DRILLMAX600** TOP DRIVE MOTOR

A TOP DRIVE MOTOR WITH THE HEART OF A LARGER SEVERE SERVICE DRILLING MOTOR. NOW YOU CAN GET A BETTER MOTOR AT A FRACTION OF THE COST OF YET ANOTHER TOP DRIVE MOTOR FAILURE



Unit shown is a representation of the general motor construction. Actual unit may differ from the unit shown above.

# TOP DRIVE MOTOR FAILURES CAN COST OVER \$100,000 AND DAYS OF DOWNTIME

Engineered and manufactured for

performance, productivity and durability. Ideal

for oil and gas rig top drives.

# **FEATURES**

- True & certified 600 HP continuous
  - DRILLMAX600
  - DRILLMAX600 XL high performance,

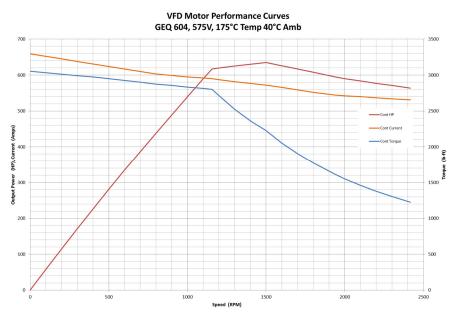
certified arrangement

- New higher strength bearings and seals
- Double the bearings system
- Safer and faster connection
- Eliminating terminal block
- Copper buss tabs 'Bolt, Tape and Go'
- Patented Double Clean Blower (optional)
- Form wound Kapton windings
- Interchangeable with existing motors



# 1000+ HP DESIGN DEPENDABILITY IN A 600 HP MOTOR

## DRILLMAX600 MOTOR PERFORMANCE CURVES



## DRILLMAX600 MOTOR SPECIFICATIONS

### SIDE VIEW



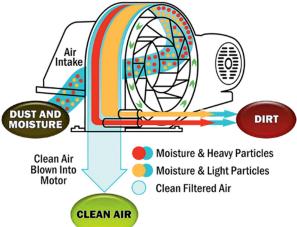
- Horsepower: 600
- Rated Voltage: 575 V
- Rated Frequency: 39.4 Hz
- Base Speed: 1156 RPM
- Max Speed: 2417 RPM
- Duty: (IEC) S1, Continuous
- Maximum Current at Full Load: 590 Amps (Not to Exceed)
- Efficiency: 93.9%
- Number of Poles: 4
- Full Load Torque: 2726 ft. lbs. (3696 Nm)
- Ambient Conditions: -40°C to +55°C with SCFM Cooling Air
- Maximum Altitude: 1 Km (3300 ft.)
- Upper Bearing: Four Point Contact Ball
   Bearing
- Lower Bearing: Cylindrical Roller Bearing
- Cooling: Separate Force Ventilation: -SCFM at 40°C
  - Enclosure: IP44

## DRILLMAX600 SERIES OPTIONS



### PATENTED AIR CLEANING MOTOR

**BLOWER** filters 90%+ of the dirt, dust, and moisture out of the air before the air flows into the motor. This highly efficient blower lowers contamination inside the drilling motor, yielding greater reliability, longer time between rebuilds and less downtime for the rig.



### **NO PAPER OR CLOTH ELEMENT FILTRATION** ALL MECHANICAL, 2 STAGE CLEANING TECHNOLOGY



## MORE DRILLMAX600 SERIES OPTIONS

- Thermal Block
- RTDs
- Brake Hub
- Junction Box
- Pinion
- Cable Connections Splice Kit
- Special Options



Purchase your GEQ DRILLMAX600 from the GEQ factory and receive a full factory warranty, GEQ Factory Service, and quality GEQ Factory Parts. Gulf Electroquip has equipment in stock – ready to order and install.



# GEQ DRILLMAX2000 DRILLING MOTOR

AN AC DRILLING MOTOR DESIGNED AND BUILT TO WITHSTAND CONTINUOUS SEVERE SERVICE IN EXTREME ENVIRONMENTS.



Shown with optional Whisperclean Motor Blower.

# MAXIMIZE PRODUCTIVITY AND AVOID UNECESSARY DOWNTIME WITH ONE OF THESE DURABLE DRILLING MOTORS

Engineered and manufactured for

performance, productivity and durability.

Ideal for oil and gas rig drawworks.

# **SPECIAL FEATURES**

- Drawworks increased torque for faster tripping speeds at top speed
- Anti-cogging design for smooth creep speed operation
- Junction box with universal access
- Mounting dimensions
- 1750 2000 HP: Increased stability of additional 2 rear feet
- Optional Whisperclean Motor Blower with double cleaning technology
- Custom designs supplied for your needs

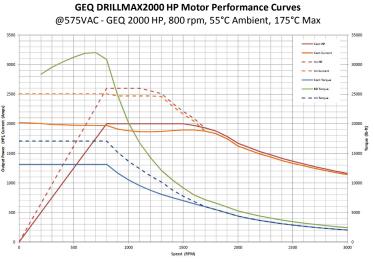


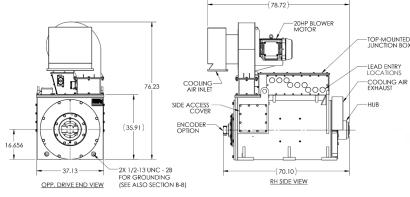
# **CUSTOMER TESTED TOUGH**

Designed and Manufactured in the USA by Gulf Electroquip

# **GEQ DRILLMAX2000 MOTOR** PERFORMANCE AND SPECS

### DRILLMAX2000 MOTOR PERFORMANCE CURVE





## **DRILLMAX2000 STANDARD FEATURES**

- VFD ready design
- Intermittent to higher capacity
- Max speed 3000 RPM (on DW config)
- Insulated non-drive end bearing
- Form wound Class H Kapton-Mica VPI windings
- Rotor windings are copper bar alloy
- Grease lubricated anti-friction bearings
- Stator RTD's (6) 100 Ohm Plat.
- Shaft material high tensile strength in 4140 or 4340 steel
- ISO precision balance
- Space heaters
- Junction box

## DRILLMAX2000 OPTIONAL FEATURES

- Exhaust configuration options
- IP 44 motor enclosure
- IP 56 junction box enclosure
- Encoder
- Air pressure switch
- Double shaft extension
- Full HP Dyno Testing
- Custom design changes to ANY

part to fit your

needs





NO PAPER OR CLOTH ELEMENT FILTRATION ALL MECHANICAL, 2-STAGE CLEANING TECHNOLOGY

Purchase your GEQ DRILLMAX2000 from the GEQ factory and receive a full factory warranty, GEQ Factory Service, and quality GEQ Factory Parts. Gulf Electroquip has equipment in stock – ready to order and install.





©2020 GEQ DRILLMAX2000 is a registered trademark of Gulf Electroquip, LTD DISCLAIMER: Product specifications and availability are subject to change without notice. Statements contained herein are not intended to create any warranty - expressed or implied. Product trade names, marks or logos are the property of their respective owners. All photography and illustrations are copyrighted by Gulf Electroauip, 2020.

## DRILLMAX2000 MOTOR GA DIAGRAM



# GEQ QUIET CLEAN<sup>™</sup> MOTOR BLOWER

CENTRIFUGALLY CLEANING DRILLING MOTOR COOLING BLOWER ASSEMBLY. EXHAUST FLANGE MOUNTS TO A 400 HP TOP DRIVE MOTOR. BLOWER ASSEMBLY IS SAFETY YELLOW PAINTED CARBON STEEL.

## Double Clean<sup>™</sup> BLOWERS

mechanically filter out sand, dirt, moisture and other abrasive contaminates for longer motor life. Utilizing the Double Clean<sup>™</sup> cleaning technology these blowers lower the contamination inside the drilling motor, yielding greater reliability and longer time between rebuilds, which reduces downtime for the rig. Using a patented "element-less" filtration method, Double Clean blowers clean the air while providing the required cooling air for the drilling motor. This requires less maintenance than element filtration models, and no additional maintenance than a standard non-filtered blower.



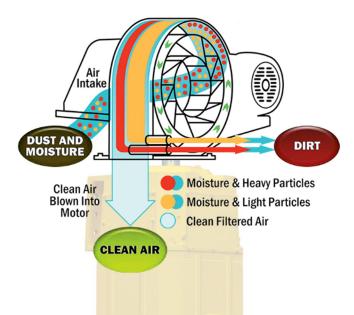
Unit shown is a representation of the general blower construction. Actual unit may differ from the unit shown above.

## ADVANTAGES

- Increased motor life
- Increased time between rebuilds
- Decreased moisture penetration
- Decreased contamination attacking insulation and windings
- Less moisture in the motor produces:
  - Higher Megger readings
  - Decreased risk of flash over
  - 90% less contamination
- Less fuse change-outs
- Yields longer VFD/SCR lifetime
- Longer life between rebuilds
- Longer insulation life for motor

## SPECIFICATIONS AND CHARACTERISTICS

- Size: 5 HP
- Filtration Method: Patented Double Clean<sup>™</sup>
- Filtration Efficiency: 90+% on sand
- Construction: carbon steel
- Speed: 3600 RPM
- Motor: TENV 5 HP 575 V
- Enclosure: TEFC/XP Cast Iron Construction
- Service Factor: 1.15



FILTERS 90+% OF DIRT, DUST & MOISTURE OUT OF THE AIR BEFORE IT FLOWS INTO THE MOTOR.

## NO PAPER OR CLOTH ELEMENT FILTRATION ALL MECHANICAL 2-STAGE CLEANING TECHNOLOGY



# **GEQ QUIET CLEAN BLOWER** PERFORMANCE AND SPECS

# CLEANER RUNS BETTER. REDUCE RIG DOWNTIME BY EXTENDING THE LIFE OF YOUR DRILLING MOTOR BY KEEPING IT CLEAN.



A typical 400 HP motor coming in from the field.

10.0 9.0 8.0

> 7.0 6.0 5.0 4.0 3.0 2.0 1.0 0.0

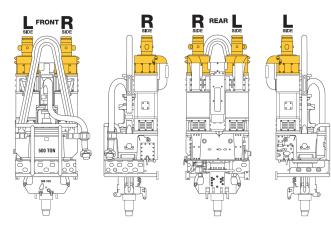
> > 0

Pressure, P (inH2O)

### ELECTRICITY & WATER DON'T MIX

Rain, dirt, etc., being forced through the motor from the blower eats the insulation and contributes to overheating. This results in a dramatic increase in downtime.

After 10 years of proven decreased downtime savings, one of our major customers - with approximately 500 rigs - just completed a program to replace EVERY drilling motor blower with our cleaning blowers. The rigs working versus motors repaired have dropped dramatically.



5 HP TDS-11 LHTM Blower

**Performance Data** 

Volumetric Flow, Q (SCFM)

Versatile mounting options on the Top Drive motor.



Utilizing PATENTED Double Clean™ Self-Clean Drilling Motor Blowers - US Patent No. 6,648,935



425 North Wayside Drive, Houston, TX 77020 USA gulfelectroquip.com | sales@gulfelectroquip.com | 713.675.2525



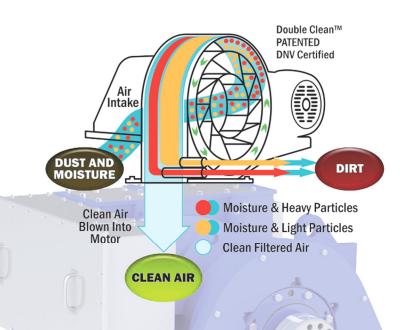
# 262282 GEQ QUIET CLEAN BLOWER

MIRROR 20HP CENTRIFUGALLY CLEANING DRILLING MOTOR COOLING BLOWER ASSEMBLY WITH STANDARD INTAKE. EXHAUST FLANGE MOUNTS TO A SIEMENS TEFC 20HP 460 VAC 60 HZ 3600 RPM. BLOWER ASSEMBLY IS CARBON STEEL PAINTED BLUE

## Quiet Clean<sup>™</sup> Blowers

mechanically filter out sand, dirt, moisture and other abrasive contaminates for longer motor life. Utilizing the Quiet Clean<sup>™</sup> cleaning technology these blowers lower the contamination inside the drilling motor, yielding greater reliability and longer time between rebuilds, which reduces downtime for the rig. Using a patented "element-less" filtration method, Quiet Clean blowers clean the air while providing the required cooling air for the drilling motor. This requires less maintenance than element filtration models, and no additional maintenance than a standard non-filtered blower.

Unit shown is a representation of the general blower construction. Actual unit may differ from the unit shown above.



FILTERS 90+% OF DIRT, DUST & MOISTURE OUT OF THE AIR BEFORE IT FLOWS INTO THE MOTOR

NO PAPER OR CLOTH ELEMENT FILTRATION ALL MECHANICAL, 2-STAGE CLEANING TECHNOLOGY

## **ADVANTAGES**

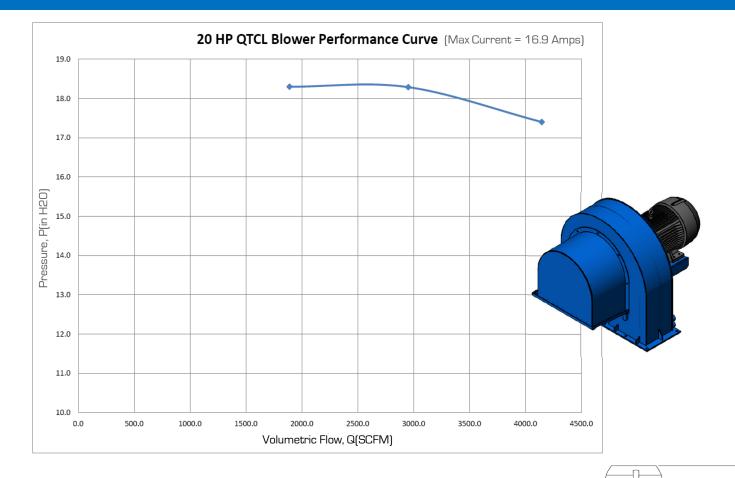
- Increased motor life
- Increased time between rebuilds
- Decreased moisture penetration
- Decreased contamination attacking insulation and windings
- Decreased commutator wear
- Less moisture in the motor produces:
  - Higher Megger readings
  - Decreased risk of flash over
  - 90% less contamination
- Less fuse change-outs
- Yields longer VFD/SCR lifetime
- Longer life between rebuilds
- Longer insulation life for motor

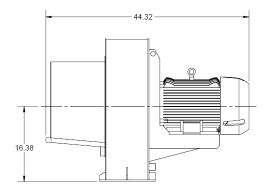
# SPECIFICATIONS AND

## CHARACTERISTICS

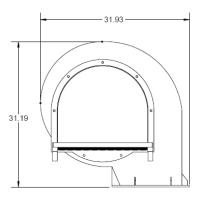
- Size: 20 HP
- Filtration Method: Patented Quiet Clean<sup>™</sup>
- Filtration Efficiency: 90+% on sand
- Construction: carbon steel
- Remote Mount version available
- Speed: 3600 RPM
- Motor: SIEMENS TEFC 20 HP 460 Vac 60 Hz
- Enclosure: TEFC/XP Cast Iron
   Construction
- Service Factor: 1.15

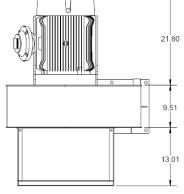
# 262282 GEQ QUIET CLEAN BLOWER PERFORMANCE AND SPECS











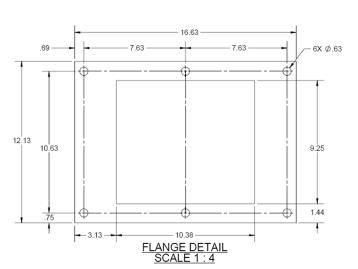
FRONT VIEW

TOP VIEW

Utilizing PATENTED Double Clean™ Self-Clean Drilling Motor Blowers - US Patent No. 6,648,935



425 North Wayside Drive, Houston, TX 77020 USA gulfelectroquip.com | sales@gulfelectroquip.com | 713.675.2525

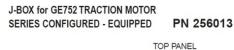




# **GEQ** MOTOR JUNCTION BOXES

# FOR VERTICAL & HORIZONTAL TRACTION MOTORS & ROTARY TABLE MOTORS FOR GE752, EMD, NOV & WARD LEONARD MOTORS

J-BOX for GE752 TRACTION MOTOR





FULLY-EQUIPPED JUNCTION BOX for SERIES CONFIGURATION

Junction Box fully-equipped for GE752 series motor; bolt-on connections; "XP" lock out; "XP" pressure switch; painted color: national blue; mild steel construction. NOTE: Stainless steel construction available for extra cost. SHUNT CONFIGURED - EQUIPPED PN 256015 TOP PANEL

> FULLY-EQUIPPED JUNCTION BOX for SHUNT CONFIGURATION

Junction Box fully-equipped for GE752 shunt motor; bolt-on connections; "XP" lock out; "XP" pressure switch; painted color: national blue; mild steel construction. NOTE: Stainless steel construction available for extra cost.



J-BOX for GE752 TRACTION MOTOR

EMPTY JUNCTION BOX for SERIES or SHUNT CONFIGURATIONS

Junction Box empty for GE752 series or shunt motor; bolt-on connections capable; no internal parts; painted color: national blue; mild steel construction. NOTE: Stainless steel construction available for extra cost.



FULLY-EQUIPPED JUNCTION BOX for SERIES CONFIGURATION

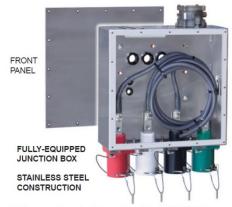
Junction Box fully-equipped for EMD-D79 series motor; bolt-on connections capable; "XP" lock out; "XP" pressure switch; terminal board; painted color: national blue; mild steel construction. NOTE: Stainless steel construction available for extra cost.

### J-BOX for EMD-D79 TRACTION MOTOR SERIES or SHUNT CONFIG. - EMPTY PN 256541



EMPTY JUNCTION BOX for SERIES or SHUNT CONFIGURATIONS

Junction Box empty for EMD-D79 series motor; bolt-on connections capable; no internal parts; painted color: national blue; mild steel construction. NOTE: Stainless steel construction available for extra cost. SS J-BOX for 400HP TDS11 ROTARY TABLE MOTOR PRESSURE SWITCH / QUICK DISCONNECTS PN 256551



Stainless steel Junction Box equipped for 400HP TDS11 horizontal rotary table motor; bolt-on connections capable; XP" pressure switch; four (4) external quick disconnects; stainless steel construction (painted for an extra cost). NOTE: Mild steel construction available for reduced cost.



425 North Wayside Drive, Houston, TX 77020 USA gulfelectroquip.com | sales@gulfelectroquip.com | 713.675.2525



# GEQ MONSOON 50" INDUSTRIAL FAN

# KEEP YOUR DRILL FLOOR CLEAR OF HAZARDOUS GASES AND UNWANTED BUGS

# AVAILABLE MODELS: 230 VOLTS | 460 VOLTS | 575 VOLTS

- 76" high x 62" wide x 33" deep
- Extra Heavy Duty Mild Steel Frame
- UL 'XP' Certified 3 Phase 5HP Motor
- 600 Volt UL 'XP' Certified Starter Included
- Cast Aluminum Impeller
- Forklift Accessible/Lifting Eye
- 40,000 CFM Air Flow/1,200 RPM
- Corrosion Resistant Finish or Stainless Steel

## SAFETY YELLOW PAINT FINISH







## STAINLESS STEEL FINISH





600 Volt UL Certified 'XP' Starter

Protective Screen

Mesh (meets OSHA

operator safety

standards)





5HP UL Certified 'XP' Motor



In Power Cable Holder (Cable Extra)







5HP UL Certified 'XP' Motor



In Power Cable Holder (Cable Extra)



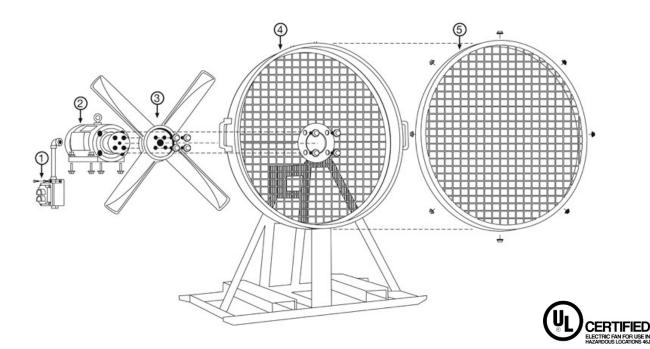
600 Volt UL Certified 'XP' Starter



Protective Screen Mesh (meets OSHA operator safety standards)

**POWER CABLING EXTRA.** Available with extra cable wired to the starter with no plug (open end cable). Cable length available up to 250 feet. Recommended cable type is SOOW/MSHA listed; 600 volts; extra hard usage and resistant to oil, water and weather; cable size 10/4; 230, 460 or 575 volts, 90° C. All cable shipped loose.

# EXPERIENCE COOL COMFORT. SAFE, STRONG & VERSATILE

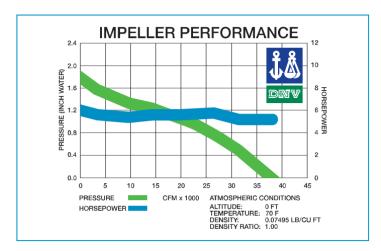


 MONSOON™ - CARBON STEEL FRAME: MODELS: 264342(190 Volts) 264341(230 Volts)

 264348(380 Volts) 264347(460 Volts) 264353(575 Volts)

 MONSOON SS™ - STAINLESS STEEL FRAME: MODELS: 264343(190 Volts) 264340(230 Volts)

 264349(380 Volts) 264346(460 Volts) 264354(575 Volts)



monsoonfans



425 North Wayside Drive, Houston, TX 77020 USA gulfelectroquip.com | sales@gulfelectroquip.com | 713.675.2525



# GEQ MONSOON 24" INDUSTRIAL FAN

# RAILING MOUNTED BUG BLOWER FOR FINGER BOARD & DRILLING FLOOR

# AVAILABLE MODELS: 230 VOLTS | 460 VOLTS | 575 VOLTS

- Railing Mount 68" H x43" W x15" D / Railing Mount Hardware Included
- Floor Mount 68" H x43" W x15" D / Fully positionable
- Extra Heavy Duty Mild Steel Frame
- UL 'XP' Certified 3 Phase 2HP Motor
- 600 Volt UL 'XP' Certified Starter Included
- Cast Aluminum Impeller
- 5,000 CFM Air Flow
- All Exposed Nuts Safety Wired
- Corrosion Resistant Finish or Stainless Steel Weight: 400 LBS. Total Kit
- Rotates 360 Degrees Horizontally & 135 Degrees Vertically



Floor Mount

STAINLESS STEEL FINISH



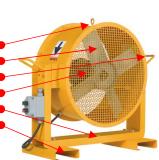
Features Various Blowing Positions

SAFETY YELLOW PAINT FINISH



Features Various Blowing Positions

Optional Lifting Eye • 24" Cast Aluminum Impellor • Hand Hold/Cable Wrap • UL 'XP' Certified 2HP Motor • Pre-drilled for Railing Mount • Removable Fork Lift Feet •



Optional Lifting Eye
 24" Cast Aluminum Impellor
 Hand Hold/Cable Wrap

- Hand Hold/Cable Wrap
- UL 'XP' Certified 2HP Motor
- Pre-drilled for Railing Mount
- Removable Fork Lift Feet

Protective Screen Mesh (meets OSHA operator safety standards)

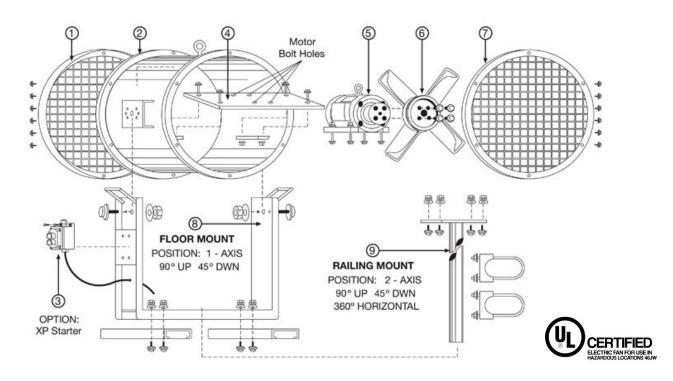




Protective Screen Mesh (meets OSHA operator safety standards)

**NOTE:** Gray railing stand shown above is for demonstration purposes only. Not included with Mini Monsoon. **POWER CABLING EXTRA**. Available with extra cable wired to the starter with no plug (open end cable). Cable length available up to 250 feet. Recommended cable type is SOOW/MSHA listed; 600 volts; extra hard usage and resistant to oil, water and weather; cable size 10/4; 230, 460 or 575 volts, 90° C. All cable shipped loose.

# EXPERIENCE COOL COMFORT. SAFE, STRONG & VERSATILE

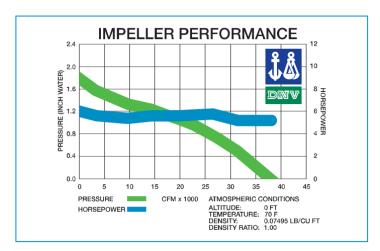


 MONSOON™ - CARBON STEEL FRAME: MODELS: 264091(190 Volts) 264101(230 Volts)

 264105(380 Volts) 264111(460 Volts) 264121(575 Volts)

 MONSOON SS™ - STAINLESS STEEL FRAME: MODELS: 264092(190 Volts) 264102(230 Volts)

 264106(380 Volts) 264112(460 Volts) 264122(575 Volts)



monsoonfans

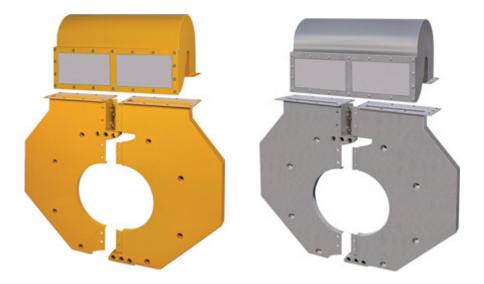


425 North Wayside Drive, Houston, TX 77020 USA gulfelectroquip.com | sales@gulfelectroquip.com | 713.675.2525



# **GEQ** SPARK ARRESTOR

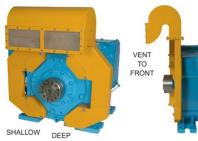
# REVERSIBLE, BOLT-ON SYSTEM FOR DRILLING MOTORS IN HAZARDOUS ENVIRONMENTS



### SPARK ARRESTOR FOR GE752 HIGH-TORQUE TRACTION MOTOR

Spark Arrestor for high torque GE752: Constructed of carbon steel. Colors: safety yellow or stainless steel. Set includes: Spark Arrestor Hood (PN257561) and two (2) 3" manifolds (PN257401). The set includes mounting hardware. Manifolds accommodate either direction of chain guard (or no chain guard at all). Chain guard bolts right over spark arrestor; manifolds have appropriate chain guard lugs aligned with motor frame. May be installed before or after motor is operational (motor must be off-line while installing). Customer responsible for providing lugs to mount chain guard. Installation time: 1 man / 1 hour. Use basic mechanic tools.





A – FRONT VENT CONFIGURATION Deep Manifold LEFT / Shallow Manifold RIGHT

B – FRONT VENT CONFIGURATION Shallow Manifold LEFT / Deep Manifold RIGHT





VENT TO REAR

A – REAR VENT CONFIGURATION Deep Manifold LEFT / Shallow Manifold RIGHT

B - REAR VENT CONFIGURATION Shallow Manifold LEFT / Deep Manifold RIGHT

PN 257518: SAFETY YELLOW FOR GE752 HIGH-TORQUE TRACTION MOTOR WITH OR WITHOUT A CHAIN GUARD PN 257517: STAINLESS STEEL FOR GE752 HIGH-TORQUE TRACTION MOTOR WITH OR WITHOUT A CHAIN GUARD PN 257516: SAFETY YELLOW FOR GE752 HIGH-TORQUE TRACTION MOTOR WITH NO CHAIN GUARD PN 257515: STAINLESS STEEL FOR GE752 HIGH-TORQUE TRACTION MOTOR WITH NO CHAIN GUARD PN 257520: 'REVERSIBLE MANIFOLDS' FOR GE752 HIGH-TORQUE TRACTION MOTOR WITH NO CHAIN GUARD



425 North Wayside Drive, Houston, TX 77020 USA gulfelectroquip.com | sales@gulfelectroquip.com | 713.675.2525



WRENCH

то

TIGHTEN NUT

Use a 1-3/4"

Open End Wrench OR an adjustable

15" Crescent®

Wrench

NOW

ANYONE CAN

HERE

# GEQ QUICK CONNECT 1000 SYSTEM

NOW ALL YOUR DRILLING OR MUD PUMP EQUIPMENT CAN BE DE-ELECTRIFIED IN MORE THAN HALF THE TIME AS STANDARD BOLT-ON CONNECTORS.

WRENCH TO

HOLD BUSBAR Hold busbar with an adjust-

able 12\* Crescent® Wrench while tightening nut to keep busbar from bending.

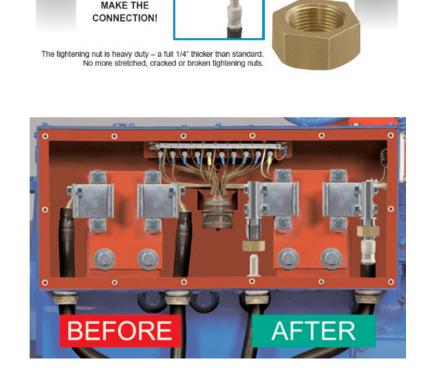
# QC-1000<sup>™</sup> THE 10 MINUTE QUICK CONNECTION SYSTEM

- NEVER CHANGE your bolt-on junction box parts again to use Pyle Power Pin connectors!
- Add to your bolt-on terminals; ready to plug into your cables
- Fits ALL standard terminals on GE 752 motors
- For 535 MCM Cable on 1000 HP Traction Motors (any brand).
- Extra heavy duty, silver plated; a space for holding wrench when tightening.
- The tightening nut is heavy duty as well a full 1/4" thicker.

No more stretched, cracked or broken tightening nuts. The nut even fits on our competitors' receptacles. The tightening nut is heavy duty - a full 1/4" thicker than standard. No more stretched, cracked or broken tightening nuts.



713.675.2525



KIT INCLUDES:

QC-1000™ Heavy-Duty Nut



# **GEQ** CUSTOM SAFETY GUARD

# **REDUCES HAND AND WRIST INJURIES** FOR ST-80 IRON ROUGHNECK TUBULAR MAKEUP / BREAKOUT PN 400002





- Single-Piece Construction
- Mounting hardware included
- Mounts within 20 minutes
- **Carbon Steel Construction**
- Painted Safety Yellow



Ergonomic, single handle offers optimum setting for pull and push comfort



425 North Wayside Drive, Houston, TX 77020 USA gulfelectroguip.com | sales@gulfelectroguip.com | 713.675.2525

# SERVICES

Motor Repair & Remanufacturing Generator Repair & Remanufacturing Stator Upgrade Technology Testing Machine Shop Winding Inspection & Assembly







# MOTOR REPAIR & REMANUFACTURING

Gulf Electroquip is a GE factory-authorized repair facility and remanufactures AC and DC drilling motors. Brands include GE, EMD and WEG.

Gulf Electroquip is a GE factory-authorized repair facility and remanufactures GE752 Traction Motors and Top Drive Motors, GE761 Top Drive Drilling Motors, and GEB20-22 Traction Motors and Top Drive Motors.



Gulf Electroquip remanufactures AC and DC top drive traction motors. Manufacturer brands include GE, GEQ, EMD and WEG.

The benefits of a remanufactured motor (vs. repaired motor) are:

- Remanufactured to the same specifications of a brand new motor
- Same performance as a brand new motor
- Same durability and reliability as a brand new motor
- Same parts (and replacement parts) as a brand new motor
- Full-load tested and certified to meet specifications (available)
- Upgraded features better than the original brand new motor
- Lower price than a brand new motor
- Ability to extend original capital investment by remanufacturing the same motor frame multiple times







Contact the GEQ Sales Engineering Team to assist you in remanufacturing and outfitting your motor for optimum performance for your unique application.



# GENERATOR REPAIR & REMANUFACTURING

Gulf Electroquip remanufactures AC and DC generators. Brands include GE, Kato, WEG, Baylor, Toshiba, CAT, ABB, Reliance, and Siemens.



BEFORE

AFTER

The benefits of a remanufactured generator (vs. repaired generator) are:

- Remanufactured to the same specifications of a brand new generator
- Same performance as a brand new generator
- Same durability and reliability as a brand new generator
- Same parts (and replacement parts) as a brand new generator
- Full-load tested and certified to meet specifications (available)
- · Upgraded features better than the original brand new generator
- Lower price than a brand new generator
- Ability to extend original capital investment by remanufacturing the same generator frame multiple times



Contact the GEQ Sales Engineering Team to assist you in remanufacturing and outfitting your generator for optimum performance for your unique application.



# STATOR UPGRADE

## 400HP form-wound motor stator upgrade for a NOV TDS11 top drive system.

This motor stator upgrade replaces the factory random-wound motor design. GEQ manufactures the 400HP Form-Wound Motor Stator Upgrade, a technology which offers greater cooling capacity and longer motor life expectancy between top drive equipment replacement cycles. Plus, with the GEQ core exchange program (GEQ stator assets are always ready to install), downtime for motor rewind is cut from a typical 3-week rewind to a 1-week switch-out.

Gulf Electroquip (GEQ) developed this upgrade of the NOV TDS11 Top Drive System to overcome a common source of failures and rig shutdown - premature top drive motor failure by inferior motor design, poor insulation, excessive heat, and premature shorting within the stator windings. The GEQ 400HP Form-Wound Motor Stator Upgrade converts the factory motor design from a random-wound motor stator design to a form-wound motor stator design, without altering the asset outer dimensions in the top drive unit. The process: OEM random-wound stator out / GEQ form-wound stator in. The increased durability and longer service life provides greater certainty of performance and durability.

ALL NEW FORM-WOUND UP GRADE FOR EXISTING RANDOM-WOUND TOP DRIVE MOTORS WILL LOAD-SHARE WITH NON-UPGRADED MOTORS



RANDOM-WOUND WEAKNESS & FAILURE

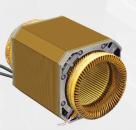


- GEQ Form-Wound Stator has more cooling and a better insulating system which results in longer motor life and decreased downtime
- Bearing upgrades available
- Resistance Temperature Detectors (RTDs) are optional
- GEQ full-load dynamometer testing available





Non-Drive End

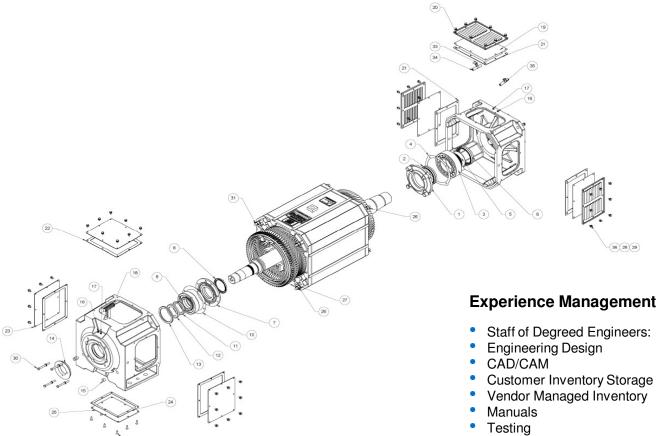


Drive End

- All New Form-Wound Stator Upgrade
- Class H Insulation w/Kapton, Mica Glass Tape
- Same Full-Load Amps, Volts and Torque
- Left-Hand, Right-Hand, or Universal
- Configuration
- Standard Thermal Protectors
- Cooler Running Motor
- Longer Life Expectancy
- Less Down Time
- Quick Core Exchange

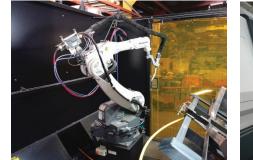


# **GEQ TECHNOLOGY**



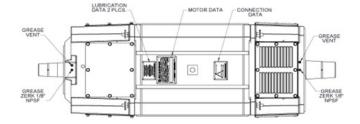
Consultation

Safety





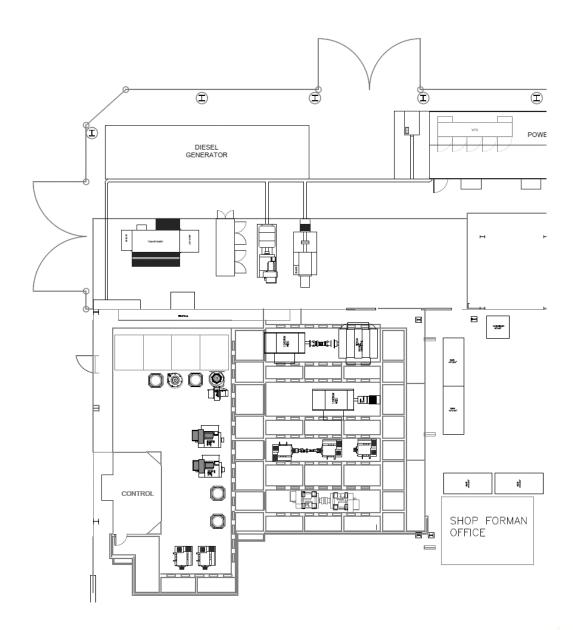




32



# GEQ LOAD TESTING



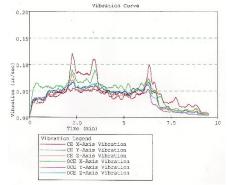






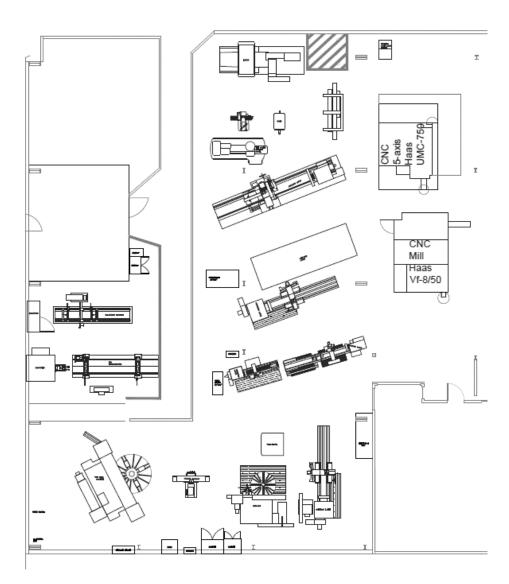
# Test Lab

- AC and DC Equipment
- Static and No Load
- Full Load Testing
- Dynamometer Load
- Orientation
- Computer Recording
- Sinusoidal and VFD
- Witness
- Static Testing
- Regulatory | Certification





# **GEQ MACHINE SHOP**









## **CNC Machine Shop**

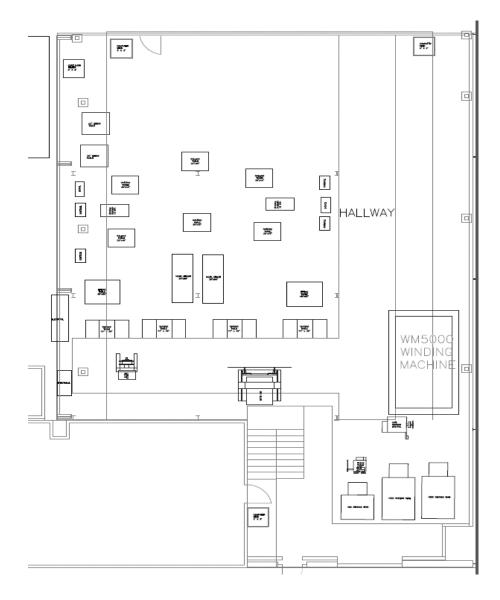
- CNC Large Lathe Turret
- CNC Medium and Small with Live Tooling Turret
- CNC Large Vertical Mill
- CNC Medium Universal Vertical Mill

## **Manual Machine Shop**

- (1) Large Vertical Lathe (2 meter table)
- (1) Medium Vertical Lathe (1 meter table) (2) Large Lathes
- (8) Medium Lathes
- (2) Vertical Machining centers
- (2) Broaches
- (1) High capacity shaft press



# **GEQ WINDING**









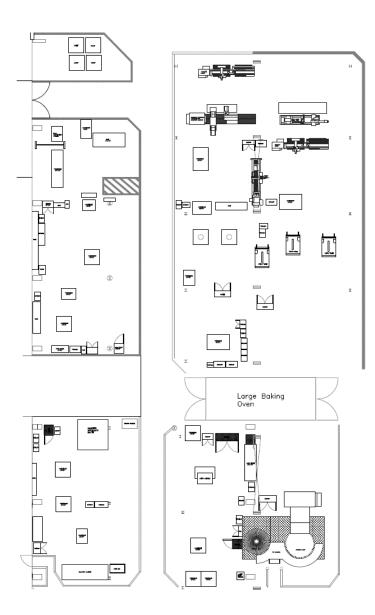


## Winding

- CNC AC and DC random coil manufacturing
- Manual AC and DC form coil manufacturing
- 6 stator winding stations (Future space for 12 more.)
- 1 rotor winding station
- Coming Jan 2016
  - Industrial level clean room
  - Climate Controlled



# **GEQ INSPECTION & ASSEMBLY**



## Inspection, Assembly & Encapsulation

- Cleaning
- Baking
- Mechanical Inspection
- Electrical Inspection
- Failure Analysis
- Mechanical Repair
- Replacement
- Balancing
- Winding
- Encapsulation
- Enclosures











# Our Commitment to you.



Gulf Electroquip was founded 60 years ago by Jim Petersen on the principle of providing you with innovative motor engineering, quality products, and unequaled service support to help keep your power equipment running efficiently and cost effectively. We have lived by this standard of excellence since the day we opened our doors."

Jim Petersen Jr, President

## INDUSTRIES SERVED

Onshore O&G

Offshore O&G

Cement

Compression

Dredging

Mining

Paper

\_\_\_\_\_

Petrochemical

Plastics

Recycling Rubber

Transportation



Mission Statement – "At Gulf Electroquip LTD, we are committed to continuously improving our products & processes to provide the highest quality, maximum value and outstanding service to our customers."

We specialize in new, remanufactured and repaired AC and DC motors and generators. All our engineering is performed at our facility making sure that your exact specifications are met

We manage one of the largest motor and generator parts inventories with distribution support in the country.

Gulf Electroquip. Count on us!



