EXTREME DUTY SERIES
DRUM MOTORS

Mining & Aggregate Industries requiring High Power Conveyor Drives
Van der Graaf is a leading designer and manufacturer of specially engineered drum motors built to endure the demands of the bulk handling industry – from ship loading, to power generation, to surface and underground mining. Van der Graaf products are manufactured and marketed worldwide through a respected international network of distributors.

As the leading global supplier of conveyor-belt drives, Van der Graaf has proven to be highly intuitive in projecting and reacting to changing market demands.

The Extreme Duty Mining Series offers a conveyor drive in which all components are housed internally. This advanced design eliminates the need for external features including the motor, gearbox, sprockets, chain, chain guard, and pillow block bearings, making it ideal for the harshest of environments.

The Van der Graaf Extreme Duty Mining Series incorporates the benefits of a tried and tested drum motor with an increase in power and capacity. This durable design is entirely sealed from the most challenging work environments, thereby ensuring extended seal life.

One of the key contributors to long life for an electric motor is the motor manufacturing technique called Vacuum Pressure Impregnation (VPI) and has been proven to reduce electric motor failures substantially. This method is only used in less demanding applications. As the leading global supplier of conveyor belt drives, Van der Graaf has proven to be highly intuitive in projecting and reacting to changing market demands.

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No Maintenance System
This entirely sealed approach, with no external moving components, eliminates the need for continual adjustment and nearly all maintenance. Van der Graaf motors only require an oil change after 50,000 hours of operation. This can be easily performed without removing the drum motor from the conveyor, reducing downtime and increasing productivity.

Lower Energy Costs
Van der Graaf drum motors operate at 96% mechanical efficiency resulting in lower operating cost and energy savings of up to 30% compared to conventional exposed-drive conveyors.

Operator Safety
The advanced design eliminates safety hazards found with a conventional drive while offering a significantly less complex solution to powering your conveyor and improving safety conditions. As the motor is sealed and isolated from its surroundings, and all moving parts are kept within the conveyor frame, operator safety is increased while optimizing floor space utilization.

Space Utilization
The low-profile drive results in a streamlined appearance and enables more belt conveyor to fit into less floor or overhead space, this promotes higher density and numerous applications. This efficient design allows for a more productive use of space and safe passage among the conveyor frame.

Extreme Duty Construction
The drum motor utilizes heavy duty bolt-on cast iron end caps and cast iron gear housing. This provides a strong, durable construction and the ability to withstand greater levels of belt tension over typical motorized drives. Gears are precision designed and manufactured by the most stringent industry standard to provide years of continuous service.

Vacuum Pressure Impregnation (VPI)
One of the key contributors to long life for an electric motor is the method of encapsulation. This state of the art technique is achieved through a process called Vacuum Pressure Impregnation (VPI) and has been proven to reduce electric motor failures substantially. This method is only used in less than 10% of world’s standard electric motor production and is mainly applied to extreme heavy duty applications.

Extreme Duty Combi Seals
By incorporating a labyrinth seal with an advanced wiper system allows for operation in even the most severe conditions without corrosion or contamination. Our unique harsh environment design avoids the need for greasing and thereby ensures extended seal life.

Hot Bond Lagging
Standard lagging involves a hot vulcanized rubber process which cures up to 1” thick rubber around the entire shell. This results in a seamless, durable, and tear resistant finish. For highly abrasive applications, ceramic lagging options are also available.

Drum motors are a key component of the equipment used in any industry that transports bulk materials. They provide the power to move these materials from one place to another with efficiency and reliability. Van der Graaf drum motors are designed and manufactured to meet the specific needs of each industry, ensuring optimal performance and long-lasting durability.

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**TM630A100 & TM800A100 Dimensions**

*NOTE: Minimum Face Width (L) = 37.4"*  
All dimensions in inches.

**TM800A130 SERIES**

*NOTE: Minimum Face Width (L) = 55.12"*  
All dimensions in inches.

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**TM800A100 SERIES**

- **TM800A100 - 475** (50.0 HP 1740 RPM)
  - V (ft/min): 1181
  - BP (lbs): 1954
  - T' lbs: 2564

- **TM800A100 - 460** (50.0 HP 1740 RPM)
  - V (ft/min): 1181
  - BP (lbs): 1599
  - T' lbs: 2098

- **TM800A100 - 450** (50.0 HP 1740 RPM)
  - V (ft/min): 1181
  - BP (lbs): 1314
  - T' lbs: 1725

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**TM800A130 SERIES**

- **TM800A130 - 6120** (120.0 HP 1150 RPM)
  - V (ft/min): 1091
  - BP (lbs): 2116
  - T' lbs: 2776

- **TM800A130 - 6110** (100.0 HP 1150 RPM)
  - V (ft/min): 1091
  - BP (lbs): 2116
  - T' lbs: 2776

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**TM630A100 SERIES**

- **TM630A100 - 475** (75.0 HP 1740 RPM)
  - V (ft/min): 915
  - BP (lbs): 2521
  - T' lbs: 2564

- **TM630A100 - 460** (60.0 HP 1740 RPM)
  - V (ft/min): 915
  - BP (lbs): 2063
  - T' lbs: 2098

- **TM630A100 - 450** (50.0 HP 1740 RPM)
  - V (ft/min): 915
  - BP (lbs): 1696
  - T' lbs: 1725

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**TM800A100 Dimensions**

- **TM630A100 - 475** (75.0 HP 1740 RPM)
  - V (ft/min): 915
  - BP (lbs): 2521
  - T' lbs: 2564

- **TM630A100 - 460** (60.0 HP 1740 RPM)
  - V (ft/min): 915
  - BP (lbs): 2063
  - T' lbs: 2098

- **TM630A100 - 450** (50.0 HP 1740 RPM)
  - V (ft/min): 915
  - BP (lbs): 1696
  - T' lbs: 1725

**TM800A100 Dimensions**

- **TM630A100 - 475** (75.0 HP 1740 RPM)
  - V (ft/min): 915
  - BP (lbs): 2521
  - T' lbs: 2564

- **TM630A100 - 460** (60.0 HP 1740 RPM)
  - V (ft/min): 915
  - BP (lbs): 2063
  - T' lbs: 2098

- **TM630A100 - 450** (50.0 HP 1740 RPM)
  - V (ft/min): 915
  - BP (lbs): 1696
  - T' lbs: 1725

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**TM800A130 SERIES**

- **TM800A130 - 4200** (200.0 HP 1740 RPM)
  - V (ft/min): 1077
  - BP (lbs): 5715
  - T' lbs: 7501

- **TM800A130 - 4180** (180.0 HP 1740 RPM)
  - V (ft/min): 1077
  - BP (lbs): 5144
  - T' lbs: 6751

- **TM800A130 - 4110** (150.0 HP 1740 RPM)
  - V (ft/min): 1077
  - BP (lbs): 4287
  - T' lbs: 5626

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