

MARTIN® Roll Gen™ Power Supply



The [Martin® Roll Gen™ Power Supply](#) is a compact and self-contained power station that uses energy from a moving conveyor belt to provide 24-volt DC electricity that can be used to operate a wide variety of electronic systems, sensors, and safety mechanisms.

The Martin® Roll Generator attaches to a standard customer idler to produce electricity. While it is not a net producer of energy, the Martin® Roll Generator creates an electric current that can be used at locations that are remote or otherwise challenging to provide power to operate a PLC or other systems.

BENEFITS

- Allows increased use of monitors and sensors to improve automation and control.
- Utilizes the proven reliability of existing roller designs, while drawing power from the belt for a wide variety of electronic devices.
- Eliminates cost & difficulty of installing wiring/conduit/control systems in remote locations in order to operate sensors and other powered systems.
- The generator system can be self-contained. It does not require an input from the plant control system to note that the belt is running, which reduces cost and complexity.
- Safe electrical current
- Common in industrial applications
- Eliminates any need to purchase (and inventory) special rollers.
- Places the generator outside the material path to avoid the heavy loads and fugitive material that tends to damage existing design attempts. The roll generator is held in a fixed position by the roll support system, but is not required to bear any of the material load, protecting its service life. The coupling allows the roller to rotate even if there is a problem with the Roll Generator system. There is no modification (i.e., welding) required for installation with a standard steel roll.
- Ease of installation and maintenance
- Can be mounted in center of the belt or on a wing roll. This eliminates concerns with mounting on narrow catwalks.
- No moving parts (except the actual shell of the generator. No sparks as seen in brushed designs. Virtually infinite electrical life.
- Bearings are larger than used on attached idler roll, making Roll Gen more reliable. No danger of bearing failure should the belt wander onto the generator shell.
- Stores electric power for applications with higher but less frequent power requirements.
- Roll Gen is a self-contained solution that does not require plant control outputs to a smart system in order to know belt direction.
- Zero Maintenance
- Long Service Life
- Performance proven in challenging applications.
- Matches requirements for safety and performance.
- Guaranteed performance in challenging applications; Low risk for customers.

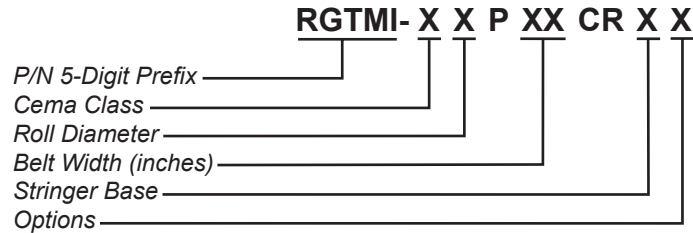
FEATURES

- 3 Year Warranty
- Certified by Underwriters Laboratory (UL); CE Certification pending
- Uses the conveyor belt as a method to transport energy (as well as the bulk material cargo.)
- Enables improved monitoring of process and equipment conditions.
- Generates 24 VDC power at any point along conveyor.
- Generates power only when the belt is running
- Brushless DC generator
- Oversize bearings
- Rugged Construction
- Tested in challenging applications
- Supplied with either CEMA D or E idlers in 5, 6, or 7 inch diameters.
- Coupling attaches to the outer end of supplied idlers
- Mounts on Trac-Mount™ Idler slide
- Battery Storage and Charger (Optional)
- Provides knowledge of direction of belt movement (with optional direction sensor)

TECHNICAL DATA SHEET

MARTIN® ROLL GENERATOR CENTER ROLL ASSEMBLY

NOMENCLATURE



CEMA CLASS

D: Class D
E: Class E

STRINGER BASE

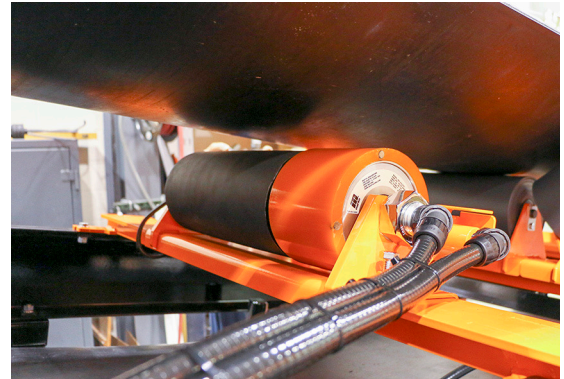
S: Standard Base
W: Wide Base

ROLL DIAMETER

5: 5 inch
6: 6 inch
7: 7 inch

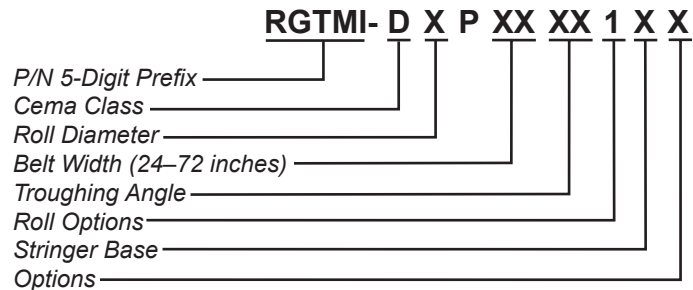
OPTIONS

D: Rotation Direction Sensor Kit



MARTIN® ROLL GENERATOR WING ROLL ASSEMBLY - CEMA D

NOMENCLATURE



ROLL DIAMETER

5: 5 inch
6: 6 inch

STRINGER BASE

S: Standard Base
W: Wide Base

TROUGHING ANGLE

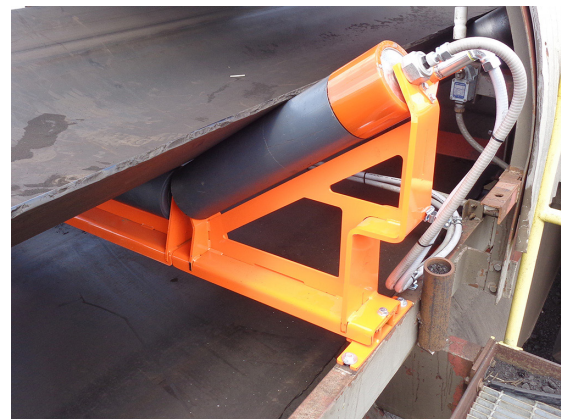
20: 20 Degrees
35: 35 Degrees

OPTIONS

D: Rotation Direction Sensor Kit
 (6 inch rolls only)

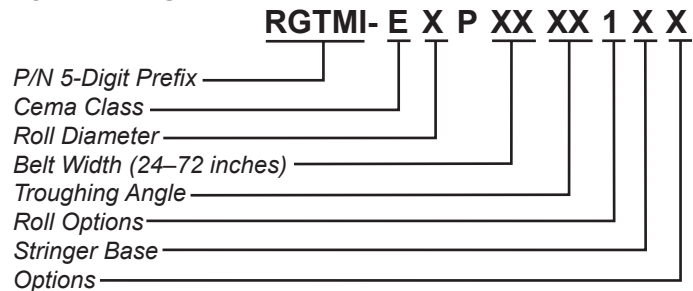
ROLL OPTIONS

1: Single Wing Roll



MARTIN® ROLL GENERATOR WING ROLL ASSEMBLY - CEMA E

NOMENCLATURE



ROLL DIAMETER

6: 6 inch
7: 7 inch

STRINGER BASE

S: Standard Base
W: Wide Base

TROUGHING ANGLE

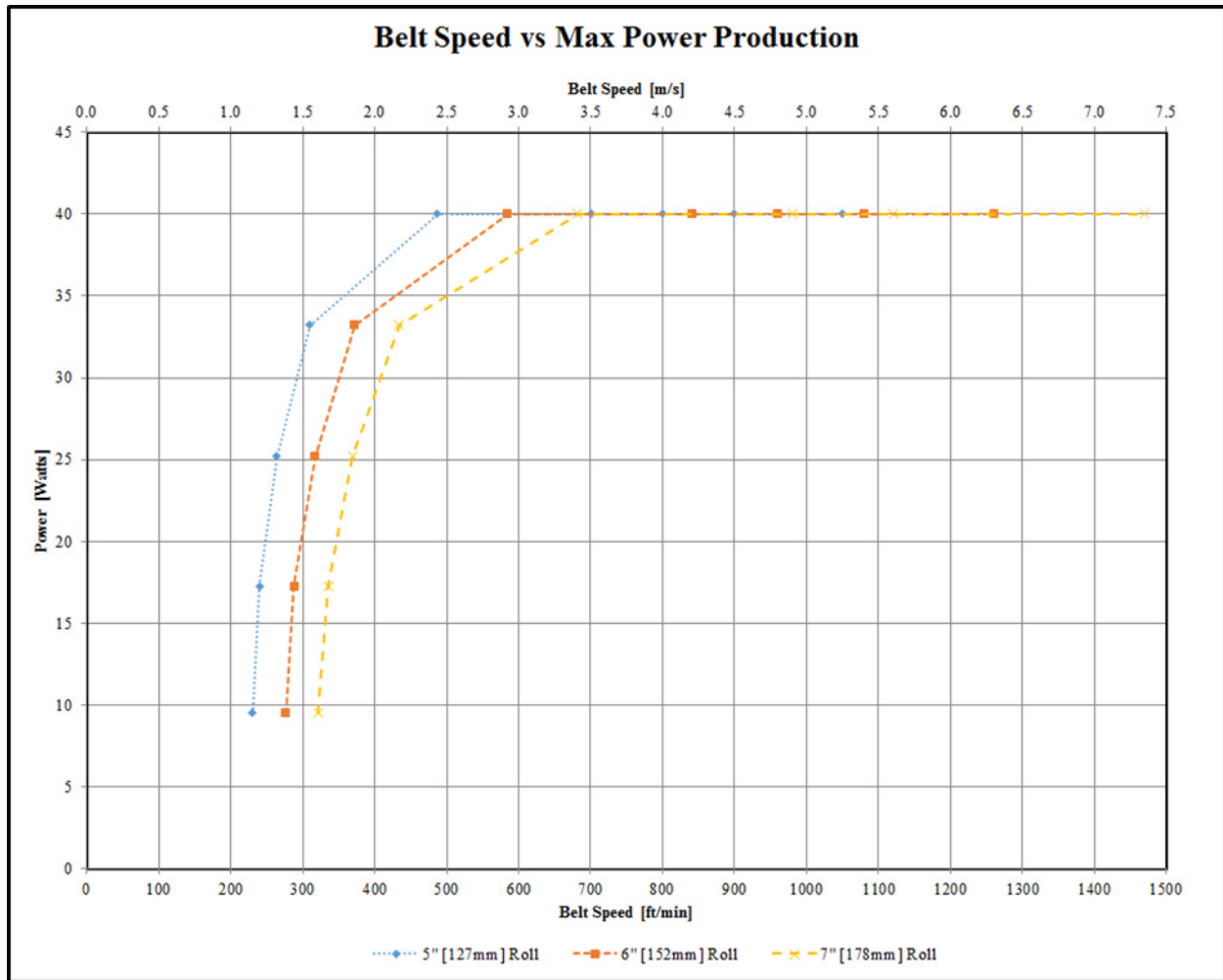
20: 20 Degrees
35: 35 Degrees

OPTIONS

D: Rotation Direction Sensor Kit

ROLL OPTIONS

1: Single Wing Roll



APPLICATIONS

- Conveyor monitoring components
- LED Lighting
- Activation of Water Supply to Wash Box
- Initiation of Spray Bars
- Firing of an Air Cannon



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**COMPANY WITH
 QUALITY SYSTEM
 CERTIFIED BY DNV
 = ISO 9001:2008 =**