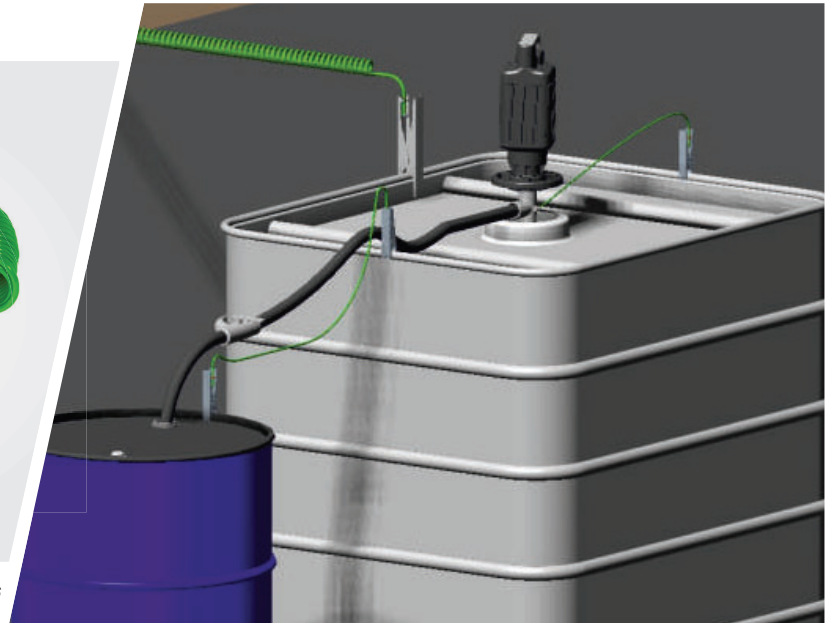


# Cen-Stat™

## Static Grounding Clamps, Cables and Reels



*Cen-Stat Static Grounding Clamps and Cables*



Equipment can only be grounded by ensuring a low resistance connection to verified true earth grounding points (e.g. copper bus-bars). Other equipment used in the process can be bonded to the equipment that is grounded.

Static grounding systems like the Earth-Rite® range combine interlock control and visual indication to verified ground connection points and offer the highest levels of protection over electrostatic ignition risks. However, equipment specifiers may select passive grounding devices, like single pole clamps, to ground and bond plant equipment.

### ATEX, FM and IECEx approved clamps tested for:

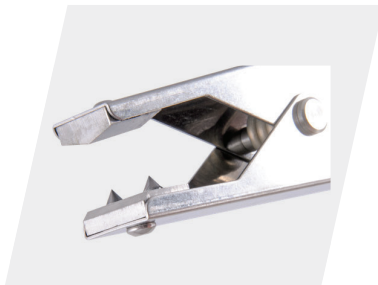
- > Clamp Pressure
- > Electrical Continuity
- > High Frequency Vibration
- > Mechanical Pull

### IEC TS 60079-32-1,13.4.1 states:

Where wire conductors are used, the minimum size of the bonding or earthing wire is dictated by mechanical strength, not by its current-carrying capacity. Stranded or braided wires should be used for bonding wires that will be connected and disconnected frequently.

Temporary connections can be made using bolts, pressure-type earth (ground) clamps, or other special clamps. Pressure-type clamps should have sufficient pressure to penetrate any protective coating, rust, or spilled material to ensure contact with the base metal with an interface resistance of less than 10 Ω\*.

\*the underlined wording is additional wording present in IEC TS 60079-32-1.



Tungsten carbide teeth are designed to penetrate electrical impedances caused by rust, coatings and product deposits.



Static grounding clamps must be capable of breaking through coatings, product deposits and rust to ensure a good electrical connection to process equipment. Operators should be trained to toggle the clamp back and forth to bite through the coating and establish a visual connection to the base metal.

### Cen-Stat™

#### What is Cen-Stat cable?

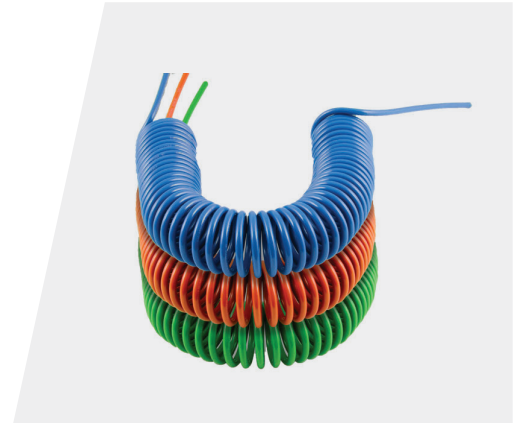
Cen-Stat is a range of brightly coloured cables specially designed for applications in industrial and hazardous areas.

Cen-Stat cables are based upon DuPont™ Hytrel® that combines the flexibility of rubber with the strength and process flexibility of thermoplastics.

Cables made from Hytrel are mechanically resilient, have a wide working temperature and are resistant to a wide range of chemicals, as well as strong and durable.

Included in our Cen-Stat formulation is static dissipative material that limits the cable from carrying an electrostatic charge and additives that provide protection against exposure to ultra-violet light.

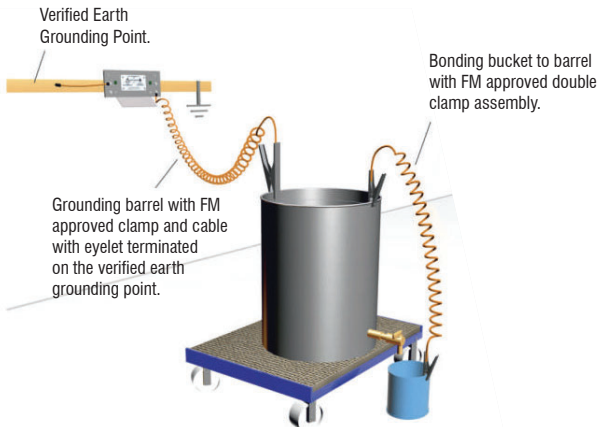
The conductor is composed of multi-stranded galvanized steel threads providing a conductor cross-sectional area of 4 mm<sup>2</sup> (11 AWG), and with the coating included provides a cable diameter of 6.5 mm (0.25"). Cen-Stat is supplied in standard retractable spiral lengths of 3 m (10 ft), 5 m (16 ft), and 10 m (32 ft). Cen-Stat is supplied with Newson Gale's heavy duty clamps. Other lengths are available on request.



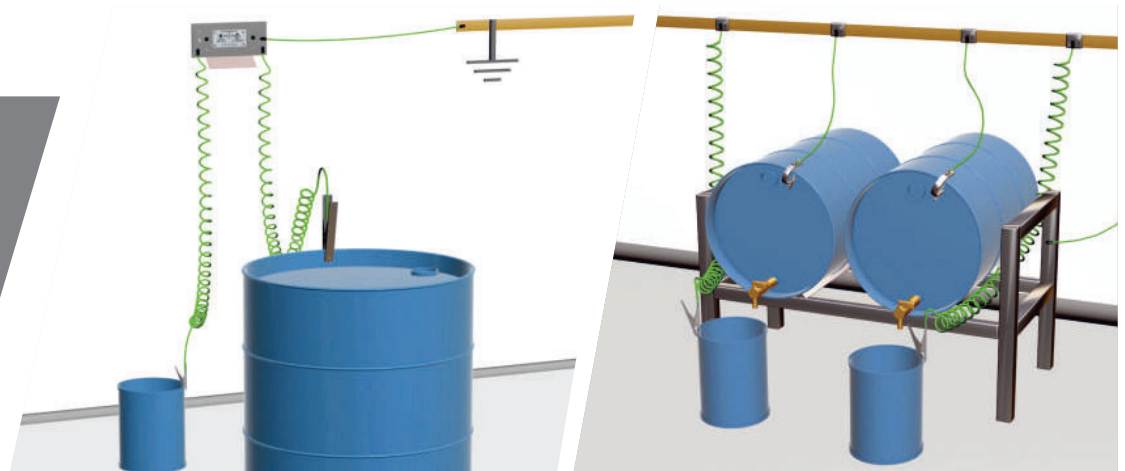
Cen-Stat cable

#### Cen-Stat cable is used across all Newson Gale product categories

<b>Blue Cen-Stat</b>	Active grounding cable colour carrying intrinsically safe circuits
<b>Green Cen-Stat</b>	Passive grounding cable colour coded for Europe and the rest of the world
<b>Orange Cen-Stat</b>	Passive grounding cable colour coded for North and South America



To remove static electricity from the EX/HAZLOC atmosphere grounding clamps should be capable of achieving connections to equipment with resistance values that do not exceed 10 Ohms.



**VESX90 - Large size heavy duty static grounding clamp with Cen-Stat cable**

<b>Applications:</b>	Grounding and bonding metal objects ranging from 55 gallon drums to large metal totes and IBCs
<b>Clamp Material:</b>	Stainless Steel (SS grade: 304)
<b>Operating Temperature:</b>	-40°C to +60°C
<b>Dimensions:</b>	240 mm x 105 mm x 33 mm (9.4" x 4.1" x 1.3")
<b>Maximum Jaw Opening:</b>	30 mm (1.8") approx.
<b>Clamp Teeth:</b>	2 tungsten carbide teeth - set side by side in a stainless steel mounting block for extra stability
<b>Spring:</b>	Torsion spring (3.5 turn design) Stainless steel (SS Grade: 302)
<b>ATEX / FM / IECEx certification:</b>	Ex II 1 GD T6 (Assessed to EN 13463-1 : 2009) ATEX certificate number: Sira 02ATEX9381 FM Certificate of Compliance number: 3046346 IECEx Ex h IIC T6 Ga Ex h IIIC T85°C Da Ta = -40°C to +60°C IECEx EXV 20.0033
<b>Cable Supplied:</b>	3 m (10 ft), 5 m (16 ft) or 10 m (32 ft) Cen-Stat spiral multi-stranded galvanized steel with green anti-UV / static dissipative Hytrel coating
<b>Wire diameter:</b>	Conductor cross sectional area - 4 mm <sup>2</sup> (11 AWG) approx. With Cen-Stat coating - 6.5 mm (0.25") diameter
<b>Ring terminal:</b>	10 mm (0.4") hole diameter (standard) Other sizes available on request



**VESX45 - Medium size heavy duty static grounding clamp with Cen-Stat cable**

<b>Applications:</b>	Grounding and bonding metal objects ranging from small cans to 55 gallon drums
<b>Clamp Material:</b>	Stainless Steel (SS grade: 304)
<b>Operating Temperature:</b>	-40°C to +60°C
<b>Dimensions:</b>	120 mm x 65 mm x 25 mm (4.7" x 2.6" x 1.0")
<b>Maximum Jaw Opening:</b>	15 mm (0.6") approx.
<b>Clamp Teeth:</b>	2 tungsten carbide teeth - set side by side in a stainless steel mounting block for extra stability
<b>Spring:</b>	Torsion spring (4 turn design) Stainless steel (SS Grade: 302)
<b>ATEX / FM / IECEx certification:</b>	Ex II 1 GD T6 (Assessed to EN 13463-1 : 2009) ATEX certificate number: Sira 02ATEX9381 FM Certificate of Compliance number: 3046346 IECEx Ex h IIC T6 Ga Ex h IIIC T85°C Da Ta = -40°C to +60°C IECEx EXV 20.0033
<b>Cable Supplied:</b>	3m (10 ft), 5 m (16 ft) or 10 m (32 ft) Cen-Stat spiral multi-stranded galvanized steel with green anti-UV / static dissipative Hytrel coating
<b>Wire diameter:</b>	Conductor cross sectional area - 4 mm <sup>2</sup> (11 AWG) approx. With Cen-Stat coating - 6.5 mm (0.25") diameter
<b>Ring terminal:</b>	10 mm (0.4") hole diameter (standard) Other sizes available on request



## Heavy Duty grounding clamps with cable reels

Retracting cable reels are an alternative solution to using retractable Cen-Stat spiral cable. They are normally specified for locations where there is a preference for ensuring process operators stow grounding clamps correctly for good “housekeeping” purposes when the clamps are not in use.

Newson Gale’s “R-series” of static grounding reels offer Hytrel cable housed on automatically retractable cable reel.

The R-series of retractable cable reels are supplied in 6.1 m (20 ft), 9.1 m (30 ft) and 15.2 m (50 ft) lengths. The blue powder coated reel is supplied with Hytrel cable which has a yellow coating. The stainless steel reels are supplied with nylon coated stainless steel cable.



### Blue powder coated retractable cables reels

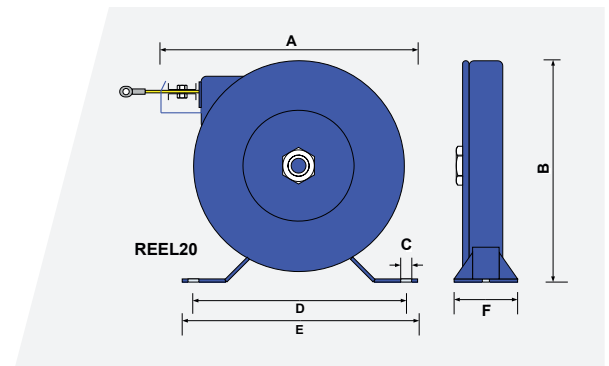
<b>Applications:</b>	Grounding and bonding metal objects ranging from small cans to 55 gallon drums (Medium size clamp) Grounding and bonding metal objects ranging from open top 55 gallon drums to large totes and IBCs (Large size clamp)
<b>Reel Dimensions:</b>	190 mm x 155 mm x 51 mm (7.5" x 6.1" x 2.0") approx.
<b>Cable Lengths:</b>	6.1 m (20 ft), 9.1 m (30 ft), 15.2 m (50 ft) with Hytrel coating
<b>Cable Supplied</b>	Multi-stranded galvanized steel with hi-viz Hytrel yellow coating
<b>Cable Diameter:</b>	2.3 mm (3/32") galvanized braided cable conductor 3.2 mm (1/8") with Hytrel coating
<b>Reel Construction:</b>	Latchable spring mounted cable drum mounted in powder coated steel housing
<b>Reel ATEX / FM Certification:</b>	ATEX Ex II 2 GD T6 (Assessed to EN 13463-1 : 2001) FM approved (R20 & R30)
<b>Clamp ATEX / FM / IECEx certification:</b>	Ex II 1 GD T6 (Assessed to EN 13463-1 : 2009) ATEX certificate number: Sira 02ATEX9381 FM Certificate of Compliance number: 3046346 IECEx Ex h IIC T6 Ga Ex h IIIC T85°C Da Ta = -40°C to +60°C IECEx EXV 20.0033



## Technical Information

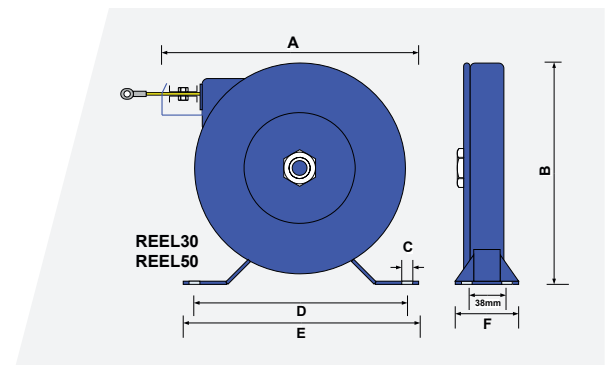
### NG Reels 20

	mm	inch	Mounting
<b>A</b>	190.00	7.48	
<b>B</b>	155.00	6.10	
<b>C</b>	6.750 x 9.53	0.27 x 0.38	2 slots
<b>D</b>	145.00	5.71	
<b>E</b>	170.00	6.69	
<b>F</b>	50.80	2.00	
<b>kgs</b>	1.25		
<b>lbs</b>	2.75		



### NG Reels 30

	mm	inch	Mounting
<b>A</b>	237.00	9.33	
<b>B</b>	200.00	7.87	
<b>C</b>	10.32	0.41	4 slots
<b>D</b>	200.00	7.87	
<b>E</b>	220.00	8.66	
<b>F</b>	60.00	2.36	
<b>kgs</b>	2.25		
<b>lbs</b>	4.95		



### NG Reels 50

	mm	inch	Mounting
<b>A</b>	237.00	9.33	
<b>B</b>	200.00	7.87	
<b>C</b>	10.32	0.41	4 slots
<b>D</b>	200.00	7.87	
<b>E</b>	220.00	8.66	
<b>F</b>	60.00	2.36	
<b>kgs</b>	2.25		
<b>lbs</b>	4.95		

**Cen-Stat™**
**R-Series stainless steel retractable cables reels**

<b>Applications:</b>	Grounding and bonding metal objects ranging from small cans to 55 gallon drums (Medium size clamp) Grounding and bonding metal objects ranging from open top 55 gallon drums to large totes and IBCs (Large size clamp)
<b>Reel Dimensions:</b>	190 mm x 155 mm x 51 mm (7.5" x 6.1" x 2.0") approx.
<b>Cable Lengths:</b>	6.1 m (20 ft), 9.1 m (30 ft), 15.2 m (50 ft) with Hytrel coating
<b>Cable Supplied:</b>	Multi-stranded stainless steel with hi-viz Hytrel yellow coating
<b>Cable Diameter:</b>	2.3 mm (3/32") stainless steel braided cable conductor 3.9 mm (5/32") with Hytrel coating
<b>Reel Construction:</b>	Latchable spring mounted cable drum mounted in stainless steel (SS 304) housing
<b>Reel ATEX Certification:</b>	ATEX Ex II 2 GD T6 (Assessed to EN 13463-1 : 2001)
<b>Clamp ATEX / FM / IECEx certification:</b>	Ex II 1 GD T6 (Assessed to EN 13463-1 : 2009) ATEX certificate number: Sira 02ATEX9381 FM Certificate of Compliance number: 3046346 IECEx Ex h IIC T6 Ga Ex h IIIC T85°C Da Ta = -40°C to +60°C IECEx EXV 20.0033


**30 m (100 ft) retractable cable reels**

<b>Applications:</b>	Grounding and bonding metal objects ranging from small cans to 55 gallon drums (Medium size clamp) Grounding and bonding metal objects ranging from open top 55 gallon drums to large totes and IBCs (Large size clamp)
<b>Reel Dimensions:</b>	190 mm x 155 mm x 51 mm (7.5" x 6.1" x 2.0") approx.
<b>Cable Lengths:</b>	30 m only (100 ft)
<b>Cable Supplied:</b>	Multi-stranded galvanized steel with hi-viz Hytrel yellow coating
<b>Cable Diameter:</b>	2.3 mm (3/32") galvanized braided cable conductor 3.2 mm (1/8") with Hytrel coating
<b>Reel Construction:</b>	Latchable spring mounted cable drum mounted in red powder coated housing Non-latchable self retracting spring mounted cable drum mounted in red powder coated housing
<b>Reel ATEX Certification:</b>	ATEX Ex II 2 GD T6 (Assessed to EN 13463-1 : 2001)
<b>Clamp ATEX / FM / IECEx certification:</b>	Ex II 1 GD T6 (Assessed to EN 13463-1 : 2009) ATEX certificate number: Sira 02ATEX9381 FM Certificate of Compliance number: 3046346 IECEx Ex h IIC T6 Ga Ex h IIIC T85°C Da Ta = -40°C to +60°C IECEx EXV 20.0033

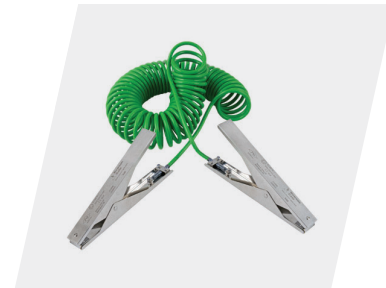




**Additional static grounding devices in the Cen-Stat™ range**

**VESX90 - Large size double ended clamp**

<b>Applications:</b>	Bonding metal objects ranging from 55 gallon drums to large metal totes and IBCs
<b>Clamp Material:</b>	Stainless Steel (SS grade: 304)
<b>Operating Temperature:</b>	-40°C to +60°C
<b>Dimensions:</b>	240 mm x 105 mm x 33 mm (9.3" x 4.1" x 1.3")
<b>Maximum Jaw Opening:</b>	30 mm (1.8") approx.
<b>Clamp Teeth:</b>	2 tungsten carbide teeth - set side by side in a stainless steel mounting block for extra stability
<b>Spring:</b>	Torsion spring (3.5 turn design) Stainless steel (SS Grade: 302)
<b>ATEX / FM / IECEx certification:</b>	Ex II 1 GD T6 (Assessed to EN 13463-1 : 2009) ATEX certificate number: Sira 02ATEX9381 FM Certificate of Compliance number: 3046346 IECEx Ex h IIC T6 Ga Ex h IIIC T85°C Da Ta = -40°C to +60°C IECEx EXV 20.0033
<b>Cable Supplied:</b>	3 m (10 ft), 5 m (16 ft) or 10 m (32 ft) Cen-Stat spiral multi-stranded galvanized steel with green anti-UV / static dissipative Hytrel coating
<b>Wire Diameter:</b>	Conductor cross sectional area - 4 mm <sup>2</sup> (11 AWG) approx. With Cen-Stat coating - 6.5 mm (0.25") diameter





## Additional static grounding devices in the Cen-Stat™ range

**VESX45 - Medium size double ended clamp**

<b>Applications:</b>	Bonding metal objects ranging from small cans to 205 litre (55 gallon) drums
<b>Clamp Material:</b>	Stainless Steel (SS grade: 304)
<b>Operating Temperature:</b>	-40°C to +60°C
<b>Dimensions:</b>	120 mm x 65 mm x 25 mm (4.7" x 2.6" x 1.0")
<b>Maximum Jaw Opening:</b>	15 mm (0.6") approx.
<b>Clamp Teeth:</b>	2 tungsten carbide teeth - set side by side in a stainless steel mounting block for extra stability
<b>Spring:</b>	Torsion spring (4 turn design) Stainless steel (SS Grade: 302)
<b>ATEX / FM / IECEx certification:</b>	Ex II 1 GD T6 (Assessed to EN 13463-1 : 2009) ATEX certificate number: Sira 02ATEX9381 FM Certificate of Compliance number: 3046346 IECEx Ex h IIC T6 Ga Ex h IIIC T85°C Da Ta = -40°C to +60°C IECEx EXV 20.0033
<b>Cable Supplied:</b>	3 m (10 ft), 5 m (16 ft) or 10 m (32 ft) Cen-Stat spiral multi-stranded galvanized steel with green anti-UV / static dissipative Hytrel coating
<b>Wire Diameter:</b>	Conductor cross sectional area - 4 mm <sup>2</sup> (11 AWG) approx. With Cen-Stat coating - 6.5 mm (0.25") diameter

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Leading the way in hazardous area static control



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