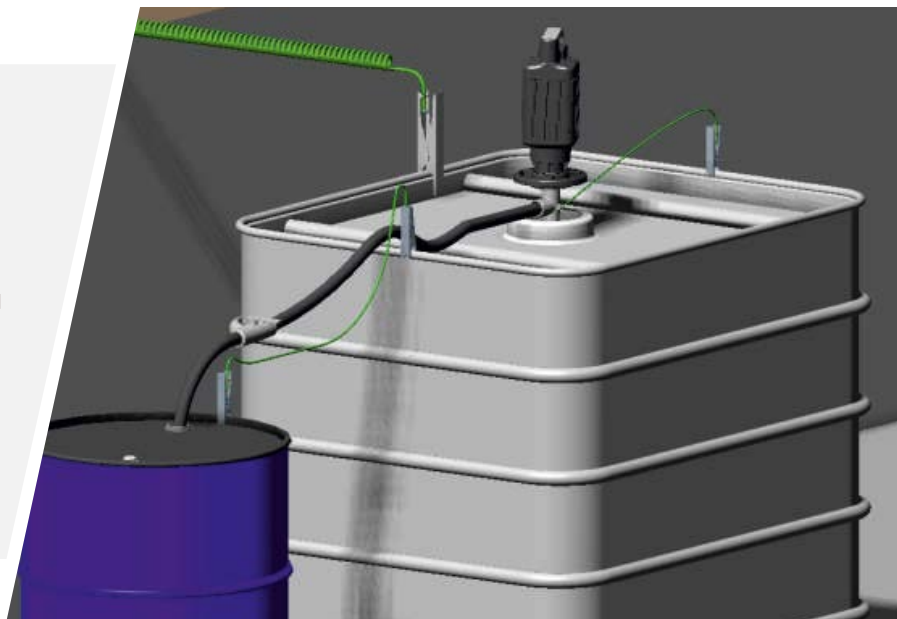


# Cen-Stat™

## 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. wall-mounted earth bar). 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\*.



Tungsten carbide teeth are designed to penetrate rust, coatings and product deposits to provide a low electrical resistance connection.



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?

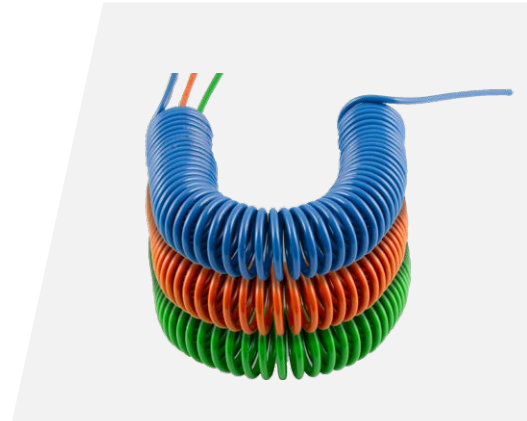
Cen-Stat is a range of brightly coloured cables specially designed for applications in industrial hazardous areas.

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

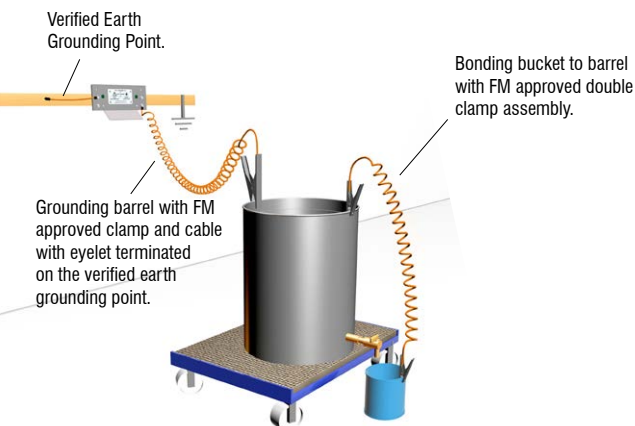
Cables made from Hytrel are mechanically resilient, have a wide working temperature and are resistant to a wide range of chemicals, as well as being strong and durable.

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



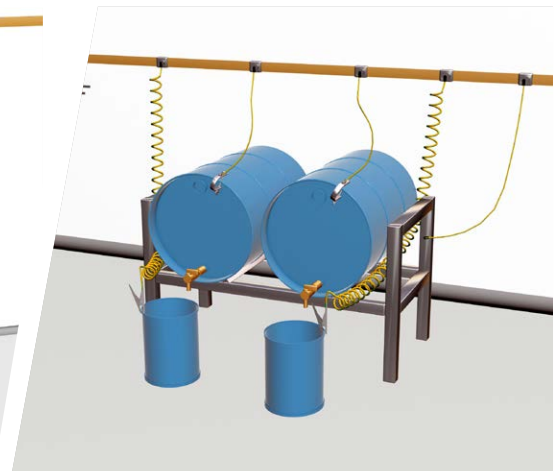
Cen-Stat cable



#### 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 mitigate electrostatic charge accumulation in EX/HAZLOC areas, 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°F to +140°F (-40°C to +60°C)
<b>Dimensions:</b>	9.33" x 4.13" x 1.38" (237 mm x 105 mm x 35 mm)
<b>Maximum Jaw Opening:</b>	1.18" (30 mm) 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 Stainless Steel (SS Grade: 302)
<b>Cable Options:</b>	10 ft (3 m), 16 ft (5 m) or 32 ft (10 m) Cen-Stat spiral multi-stranded galvanized steel with orange anti-UV / static dissipative Hytrel coating
<b>Cable Size:</b>	Conductor cross sectional area - 11 AWG (4 mm <sup>2</sup> ) approx. with Cen-Stat coating - 0.25" (6.5 mm) diameter
<b>Ring Terminal:</b>	0.4" (10 mm) hole diameter (standard) Other sizes available on request

#### ATEX / FM / IECEx / UKEX Clamp Certification:

##### ATEX


 II 1 GD T6 (Assessed to EN 13463-1 : 2009)  
 Sira 02ATEX9381  
 ATEX Notified Body: SIRA

**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  
 IECEx Certified Body: ExVeritas

##### UKCA Ex

 II 1 G  
 II 1 D  
 Ex h IIC T6 Ga  
 Ex h IIIC T85°C Da  
 Ta = -40°C to +60°C  
 ExVeritas 21UKEX0842  
 UKCA Ex Approved Body: ExVeritas



**VESX90** - Large size heavy duty static grounding clamp




**VESX90** - Large size double ended clamp

#### 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°F to +140°F (-40°C to +60°C)
<b>Dimensions:</b>	4.72" x 2.36" x 0.98" (120 mm x 60mm x 25mm)
<b>Maximum Jaw Opening:</b>	0.51" (13 mm) 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 Stainless Steel (SS Grade: 302)
<b>Cable Options:</b>	10 ft (3 m), 16 ft (5 m) or 32 ft (10 m) Cen-Stat spiral multistranded galvanized steel with orange anti-UV / static dissipative Hytel coating
<b>Cable Size:</b>	Conductor cross sectional area - 11 AWG (4 mm²) approx. with Cen-Stat coating - 0.25" (6.5 mm) diameter
<b>Ring Terminal:</b>	0.4" (10 mm) hole diameter (standard) Other sizes available on request

#### ATEX / FM / IECEx / UKEX Clamp Certification:

#### ATEX


 II 1 GD T6 (Assessed to EN 13463-1 : 2009)  
Sira 02ATEX9381  
ATEX Notified Body: SIRA

**FM** Certificate of Compliance number: 3031650

#### IECEx

Ex h IIC T6 Ga  
Ex h IIIC T85°C Da  
Ta = -40°C to +60°C  
IECEx EXV 20.0033  
IECEx Certified Body: ExVeritas

#### UKCA Ex

 II 1 G  
II 1 D  
Ex h IIC T6 Ga  
Ex h IIIC T85°C Da  
Ta = -40°C to +60°C  
ExVeritas 21UKEX0842  
UKCA Ex Approved Body: ExVeritas



**VESX45 - Medium size heavy duty static grounding clamp**



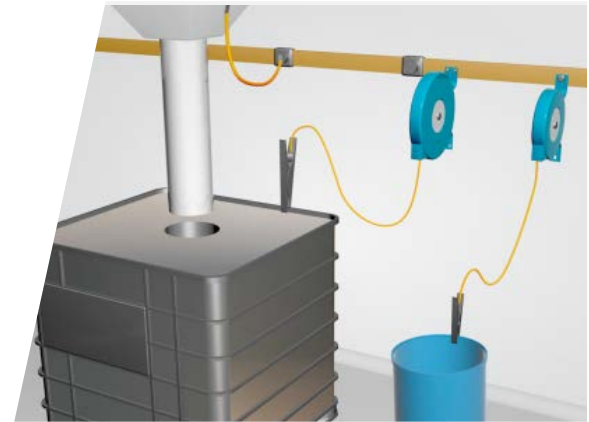
**VESX45 - Medium size double ended clamp**

## 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 in self-retracting cable reels.

The R-series of retractable cable reels are supplied in 20 ft (6.1 m), 30 ft (9.1 m) and 50 ft (15.2 m) lengths. The blue powder coated reel is supplied with Hytrel cable which has a yellow coating. The stainless steel reels are supplied with Hytrel yellow 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>	See Page 6
<b>Cable Lengths:</b>	20 ft (6.1 m), 30 ft (9.1 m), 50 ft (15.2 m) with Hytrel coating
<b>Cable Supplied:</b>	Multi-stranded galvanized steel Hytrel yellow coating
<b>Cable Size:</b>	Conductor diameter 3/32" (2.3 mm) galvanized steel cable conductor (11 AWG (4 mm <sup>2</sup> ) cross sectional area) 1/8" (3.2 mm) with Hytrel coating
<b>Reel Construction:</b>	Latchable spring mounted cable drum mounted in powder coated steel housing
<b>ATEX / FM Reel Certification:</b>	<b>ATEX</b> <div> <div> <div>Ex</div> <div>II 2 G T6 (Assessed to EN 13463-1 : 2001)</div> </div> <div>II 2 D</div> </div> Ex h IIC T6 Gb, Ex h IIIC T85°C Db <b>FM</b> approved (R20 & R30)



<b>ATEX / FM / IECEx / UKEX Clamp Certification:</b>	<b>ATEX</b> <div> <div> <div>Ex</div> <div>II 1 GD T6 (Assessed to EN 13463-1 : 2009)</div> </div> <div>Sira 02ATEX9381</div> </div> ATEX Notified Body: SIRA
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**FM** Certificate of Compliance

**IECEx**  
Ex h IIC T6 Ga  
Ex h IIIC T85°C Da  
Ta = -40°C to +60°C  
IECEx EXV 20.0033  
IECEx Certified Body: ExVeritas

**UKCA Ex**  

Ex

II 1 G

II 1 D

Ex h IIC T6 Ga  
Ex h IIIC T85°C Da  
Ta = -40°C to +60°C  
ExVeritas 21UKEX0842  
UKCA Ex Approved Body: ExVeritas

## Technical Information

### NG Reels 20

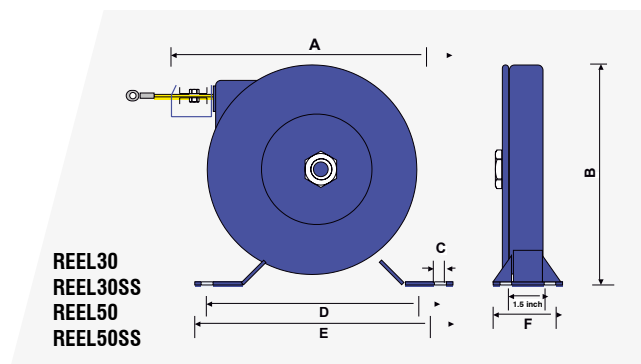
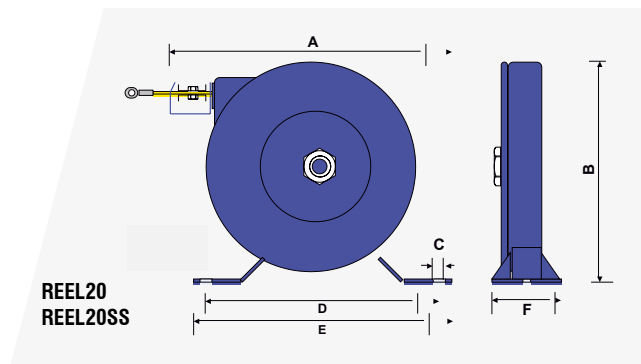
	<i>inch</i>	<i>mm</i>	<i>Mounting</i>
<i>A</i>	7.48	190.00	
<i>B</i>	6.10	155.00	
<i>C</i>	0.27 x 0.38	6.750 x 9.53	2 slots
<i>D</i>	5.87	149.00	
<i>E</i>	6.69	170.00	
<i>F</i>	2.00	50.80	
<i>kgs</i>		1.25	
<i>lbs</i>		2.75	

### NG Reels 30

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




### NG Reels 50

	<i>inch</i>	<i>mm</i>	<i>Mounting</i>
<i>A</i>	9.33	237.00	
<i>B</i>	7.87	200.00	
<i>C</i>	0.41	10.32	4 slots
<i>D</i>	7.87	200.00	
<i>E</i>	8.66	220.00	
<i>F</i>	2.36	60.00	
<i>kgs</i>		2.25	
<i>lbs</i>		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>	See Page 6	
<b>Cable Lengths:</b>	20 ft (6.1 m), 30 ft (9.1 m), 50 ft (15.2 m) with Hytrel coating	
<b>Cable Supplied:</b>	Multi-stranded stainless steel with Hytrel yellow coating	
<b>Cable Size:</b>	Conductor diameter 3/32" (2.3 mm) stainless steel cable conductor (11 AWG (4 mm <sup>2</sup> ) cross sectional area) 1/8" (3.2 mm) with Hytrel coating	
<b>Reel Construction:</b>	Latchable spring mounted cable drum mounted in stainless steel (SS grade: 304) housing	
<b>ATEX Reel Certification:</b>	<b>ATEX</b>  II 2 G T6 (Assessed to EN 13463-1 : 2001) II 2 D Ex h IIC T6 Gb, Ex h IIIC T85°C Db	
<b>ATEX / FM / IECEx / UKEX Clamp Certification:</b>	<b>ATEX</b>  II 1 GD T6 (Assessed to EN 13463-1 : 2009) Sira 02ATEX9381 ATEX Notified Body: SIRA  <b>FM</b> Certificate of Compliance  <div> <b>IECEx</b>            Ex h IIC T6 Ga            Ex h IIIC T85°C Da            Ta = -40°C to +60°C            IECEx EXV 20.0033            IECEx Certified Body: ExVeritas         </div> <div> <b>UKCA Ex</b>   II 1 G            II 1 D            Ex h IIC T6 Ga            Ex h IIIC T85°C Da            Ta = -40°C to +60°C            ExVeritas 21UKEX0842            UKCA Ex Approved Body: ExVeritas         </div>	





### Cen-Stat™

#### 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>	9.250" x 9.764" x 4.556" (235 mm x 248 mm x 116 mm) approx.
<b>Cable Lengths:</b>	100 ft (30 m only)
<b>Cable Supplied:</b>	Multi-stranded galvanized steel with Hytrel yellow coating
<b>Cable Size:</b>	Conductor diameter 3/32" (2.3 mm) galvanized steel cable conductor (11 AWG (4 mm <sup>2</sup> ) cross sectional area)) 1/8" (3.2 mm) 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>ATEX Reel Certification:</b>	<b>ATEX</b> <div> <div> <div>Ex</div> <div>II 2 G T6 (Assessed to EN 13463-1 : 2001)</div> </div> <div> <div>II 2 D</div> </div> </div> Ex h IIC T6 Gb, Ex h IIIC T85°C Db



#### ATEX / FM / IECEx / UKEX Clamp Certification:

**ATEX**  

Ex

II 1 GD T6 (Assessed to EN 13463-1 : 2009)

Sira 02ATEX9381  
ATEX Notified Body: SIRA

#### FM Certificate of Compliance

**IECEx**  
Ex h IIC T6 Ga  
Ex h IIIC T85°C Da  
Ta = -40°C to +60°C  
IECEx EXV 20.0033  
IECEx Certified Body: ExVeritas

**UKCA Ex**  

Ex

II 1 G

II 1 D

Ex h IIC T6 Ga  
Ex h IIIC T85°C Da  
Ta = -40°C to +60°C  
ExVeritas 21UKEX0842  
UKCA Ex Approved Body: ExVeritas

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