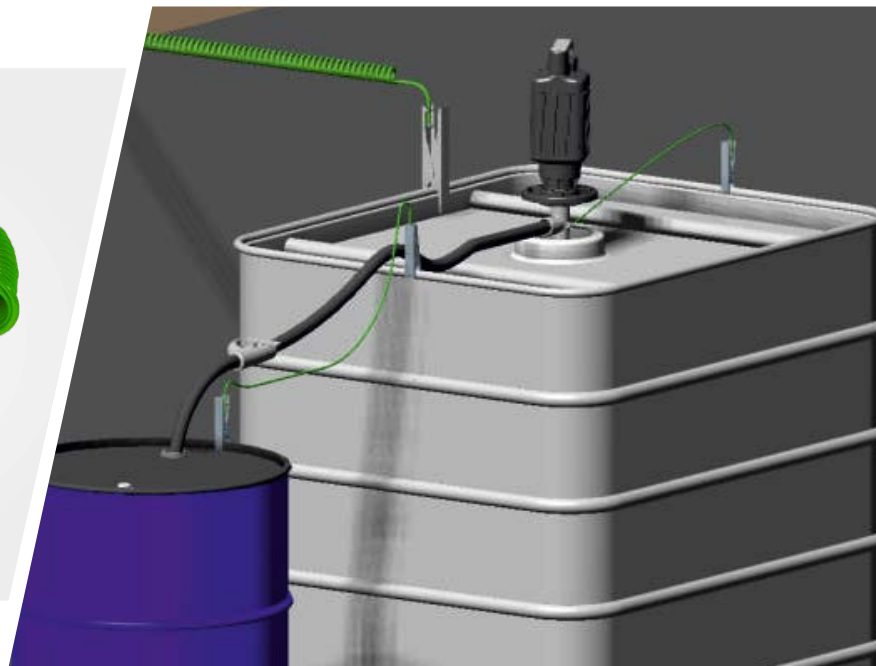




Cen-Stat Static Grounding Clamps and Cables



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?

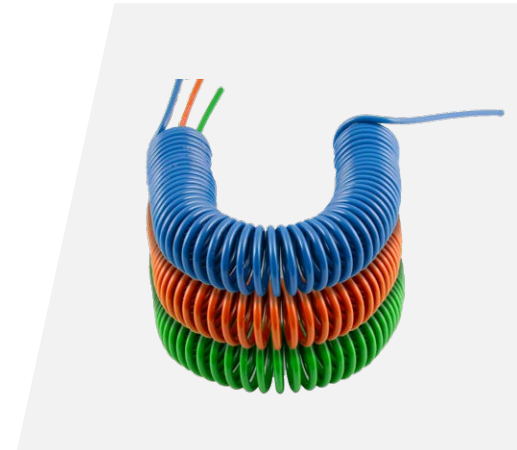
Cen-Stat is a range of brightly coloured cables specially designed for applications in industrial hazardous areas.

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

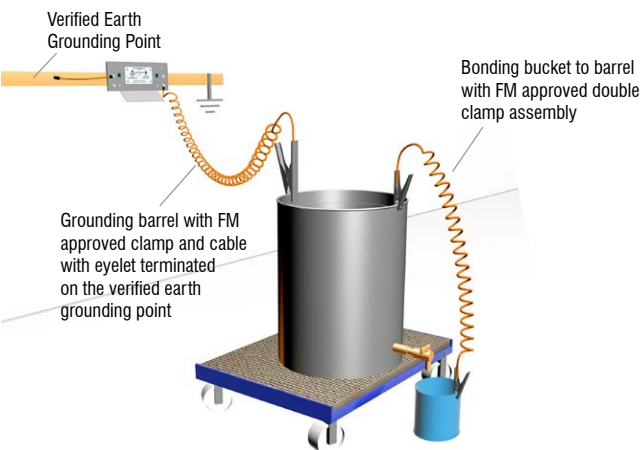
Cables made from Hytrel are mechanically resilient, have a wide working temperature and are resistant to a wide range of chemicals, as well as being strong and durable.

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 4 mm² (11 AWG), 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 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

Blue Cen-Stat

Active grounding cable colour carrying intrinsically safe circuits

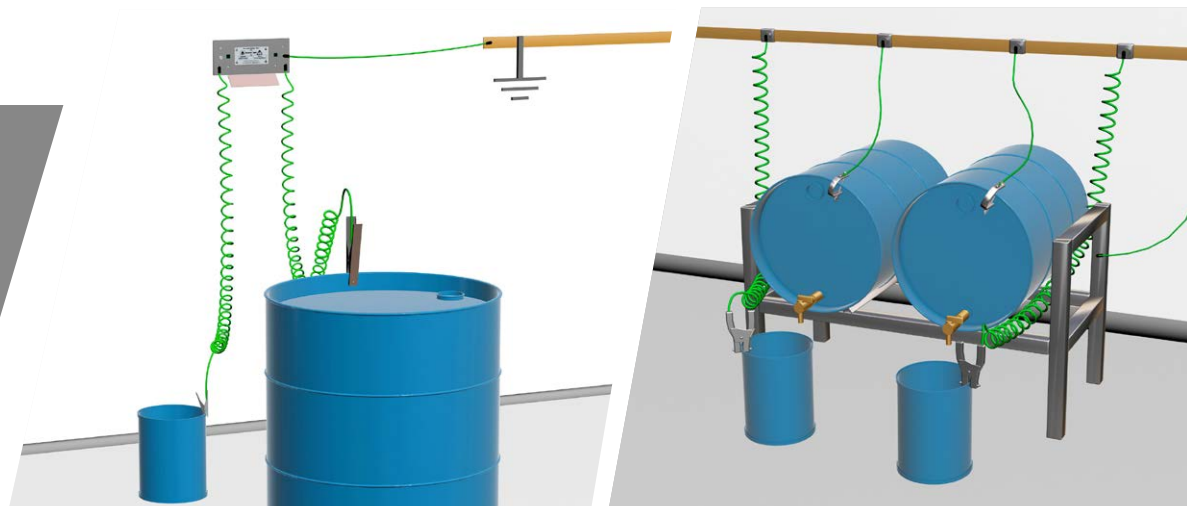
Green Cen-Stat

Passive grounding cable colour coded for Europe and the rest of the world

Orange Cen-Stat

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.




Cen-Stat™

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

Applications:	Grounding and bonding metal objects ranging from 55 gallon drums to large metal totes and IBCs
Clamp Material:	Stainless Steel (SS grade: 304)
Operating Temperature:	-40°C to +60°C
Dimensions:	237 mm x 105 mm x 35 mm (9.33" x 4.13" x 1.38")
Maximum Jaw Opening:	30 mm (1.18") approx.
Clamp Teeth:	2 tungsten carbide teeth - set side by side in a stainless steel mounting block for extra stability
Spring:	Torsion spring Stainless Steel (SS Grade: 302)
Cable Options:	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
Cable Size:	Conductor cross sectional area - 4 mm ² (11 AWG) approx. with Cen-Stat coating - 6.5 mm (0.25") diameter
Ring Terminal:	10 mm (0.4") hole diameter (standard) Other sizes available on request

ATEX / FM / IECEx / UKEX Clamp Certification:

ATEX


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Sira 02ATEX9381
ATEX Notified Body: SIRA

FM Certificate of Compliance number: 3046346

IECEX

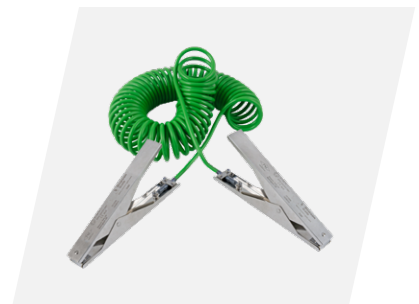
Ex h IIC T6 Ga
Ex h IIIC T85°C Da
Ta = -40°C to +60°C
IECEX EXV 20.0033
IECEX Certified Body: ExVeritas

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


Cen-Stat™

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

Applications:	Grounding and bonding metal objects ranging from small cans to 55 gallon drums
Clamp Material:	Stainless Steel (SS grade: 304)
Operating Temperature:	-40°C to +60°C
Dimensions:	120 mm x 60 mm x 25 mm (4.72" x 2.36" x 0.98")
Maximum Jaw Opening:	13 mm (0.51") approx.
Clamp Teeth:	2 tungsten carbide teeth - set side by side in a stainless steel mounting block for extra stability
Spring:	Torsion spring Stainless Steel (SS Grade: 302)
Cable Options:	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
Cable Size:	Conductor cross sectional area - 4 mm ² (11 AWG) approx. with Cen-Stat coating - 6.5 mm (0.25") diameter
Ring Terminal:	10 mm (0.4") 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

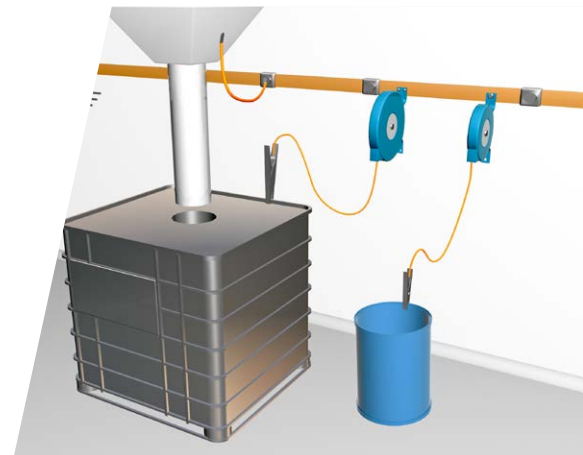
Cen-Stat™

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 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 Hytrel yellow coated stainless steel cable.



Blue powder coated retractable cables reels

Applications:	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)
Reel Dimensions:	See Page 6
Cable Lengths:	6.1 m (20 ft), 9.1 m (30 ft), 15.2 m (50 ft) with Hytrel coating
Cable Supplied:	Multi-stranded galvanized steel with Hytrel yellow coating
Cable Size:	Conductor diameter 2.3 mm (3/32") galvanized cable conductor (4 mm ² (11 AWG) cross sectional area) 3.2 mm (1/8") with Hytrel coating
Reel Construction:	Latchable spring mounted cable drum mounted in powder coated steel housing
ATEX / FM Reel Certification:	ATEX  II 2 G T6 (Assessed to EN 13463-1 : 2001)  II 2 D Ex h IIC T6 Gb, Ex h IIIC T85°C Db FM approved (R20 & R30)
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 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



Cen-Stat™

Technical Information

NG Reels 20

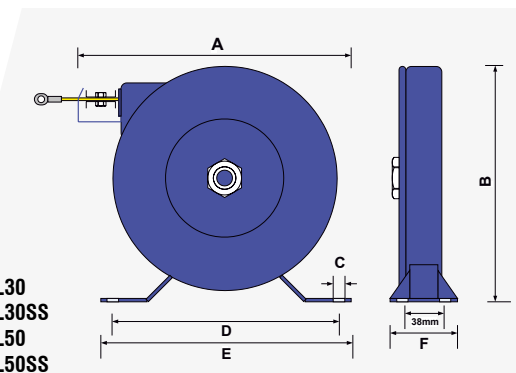
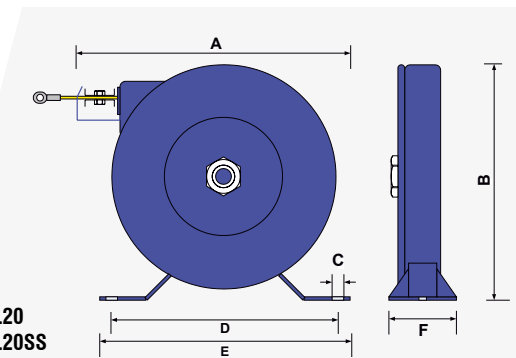
	mm	inch	Mounting
A	190.00	7.48	
B	155.00	6.10	
C	6.750 x 9.53	0.27 x 0.38	2 slots
D	149.00	5.87	
E	170.00	6.69	
F	50.80	2.00	
kgs	1.25		
lbs	2.75		

NG Reels 30

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




NG Reels 50

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








Cen-Stat™

R-Series stainless steel retractable cables reels

Applications:	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)	
Reel Dimensions:	See Page 6	
Cable Lengths:	6.1 m (20 ft), 9.1 m (30 ft), 15.2 m (50 ft) with Hytrel coating	
Cable Supplied:	Multi-stranded stainless steel with Hytrel yellow coating	
Cable Size:	Conductor diameter 2.3 mm (3/32") stainless steel cable conductor (4 mm ² (11 AWG) cross sectional area) 3.2 mm (1/8") with Hytrel coating	
Reel Construction:	Latchable spring mounted cable drum mounted in Stainless steel (SS grade: 304) housing	
ATEX Reel Certification:	ATEX  II 2 G T6 (Assessed to EN 13463-1 : 2001) II 2 D Ex h IIC T6 Gb, Ex h IIIC T85°C Db	
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
	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



30 m (100 ft) retractable cable reels

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



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Leading the way in hazardous area static control



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