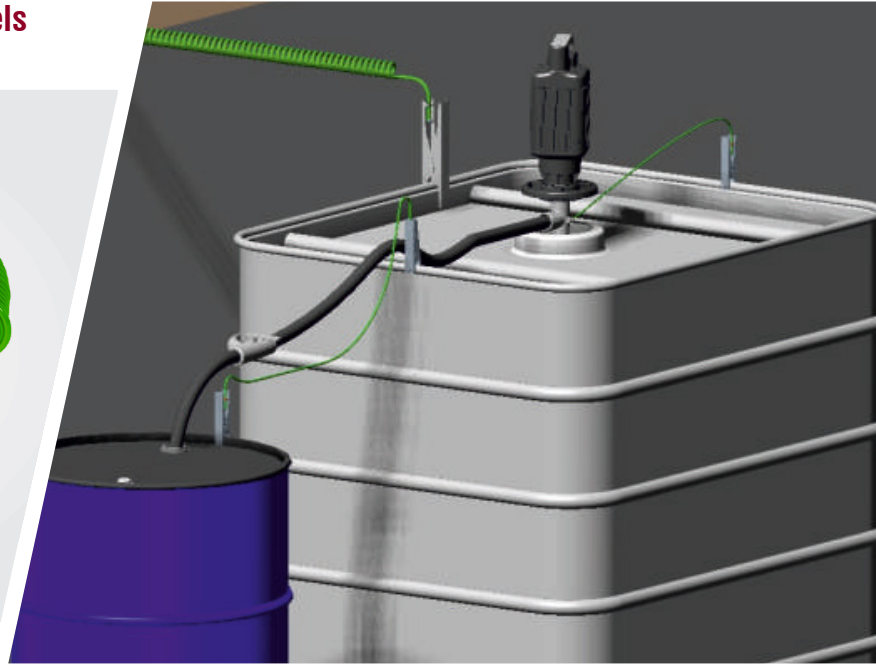


Cen-Stat™

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 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?

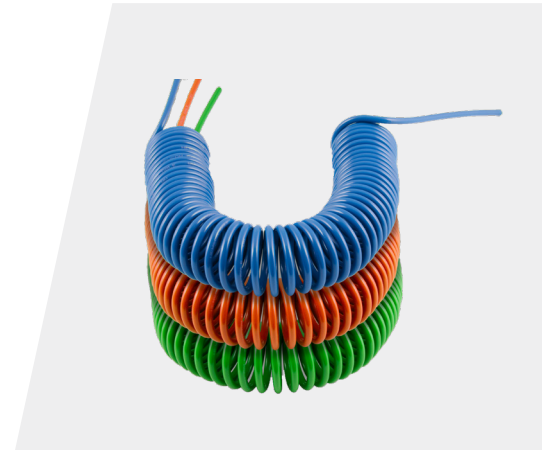
Cen-Stat is a range of brightly coloured cables specially designed for applications in industrial and hazardous areas.

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

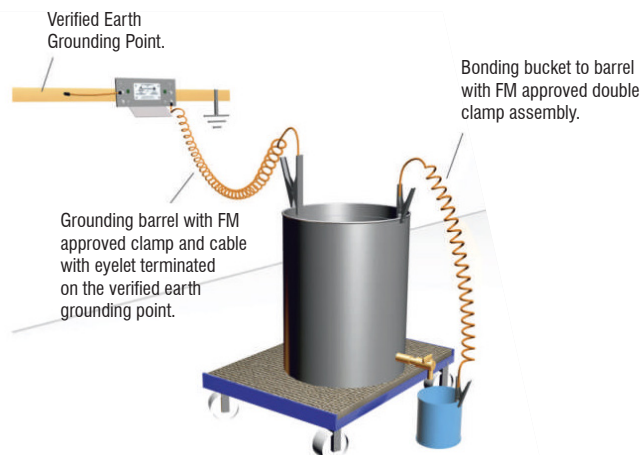
Cables made from Hytrel are mechanically resilient, have a wide working temperature and are resistant to a wide range of chemicals, as well as strong and durable.

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 mm² (11 AWG), and with the coating included provides a cable diameter of 6 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

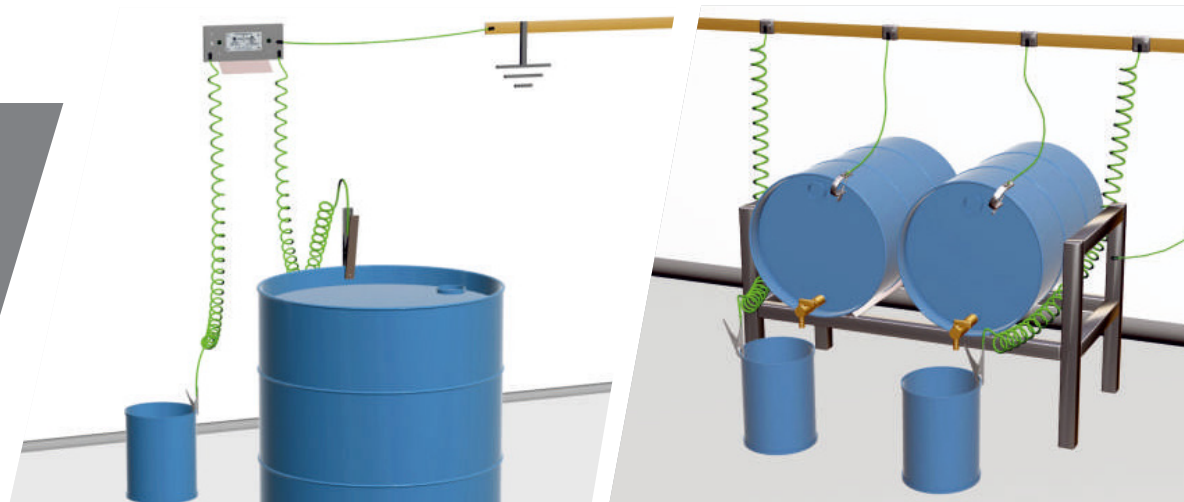
Green Cen-Stat

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 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.



Cen-Stat™
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:	240 mm x 105 mm x 33 mm (9.4" x 4.1" x 1.3")
Maximum Jaw Opening:	30 mm (1.8") approx.
Clamp Teeth:	2 tungsten carbide teeth - set side by side in a stainless steel mounting block for extra stability
Spring:	Torsion spring (3.5 turn design) Stainless steel (SS Grade: 302)
FM /ATEX certification:	Ex II 1 GD T6 (Assessed to EN 13463-1 : 2009) FM Certificate of Compliance number: 3046346 ATEX certificate number: Sira 02ATEX9381
Cable Supplied:	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
Wire diameter:	Conductor cross sectional area - 4 mm ² (11 AWG) approx. With Cen-Stat coating - 6 mm (0.25") diameter
Ring terminal:	10 mm (0.4") hole diameter (standard) Other sizes available on request


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 65 mm x 25 mm (4.7" x 2.6" x 1.0")
Maximum Jaw Opening:	15 mm (0.6") approx.
Clamp Teeth:	2 tungsten carbide teeth - set side by side in a stainless steel mounting block for extra stability
Spring:	Torsion spring (4 turn design) Stainless steel (SS Grade: 302)
FM /ATEX certification:	Ex II 1 GD T6 (Assessed to EN 13463-1 : 2009) FM Certificate of Compliance number: 3046346 ATEX certificate number: Sira 02ATEX9381
Cable Supplied:	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
Wire diameter:	Conductor cross sectional area - 4 mm ² (11 AWG) approx. With Cen-Stat coating - 6 mm (0.25") diameter
Ring terminal:	10 mm (0.4") hole diameter (standard) Other sizes available on request



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 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

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:	190 mm x 155 mm x 51 mm (7.5" x 6.1" x 2.0") approx.
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 hi-viz Hytrel yellow coating
Cable Diameter:	2.3 mm (3/32") galvanized braided cable conductor 3.2 mm (1/8") with Hytrel coating
Reel Construction:	Latchable spring mounted cable drum mounted in powder coated steel housing
Reel FM / ATEX Certification:	FM approved (R20 & R30) ATEX Ex II 2 GD T6 (Assessed to EN 13463-1 : 2001)
Clamp FM / ATEX Certification:	FM approved ATEX Ex II 1 GD T6 (Assessed to EN 13463-1 : 2009)



Cen-Stat™
Technical Information
NG Reels 20

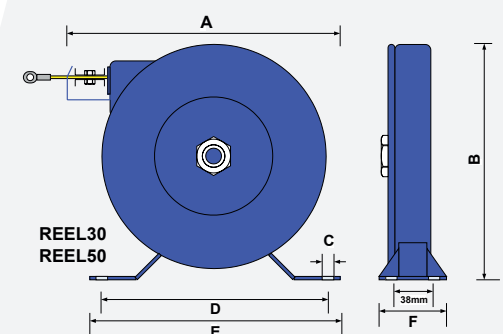
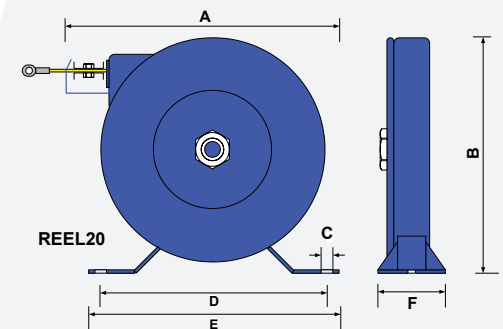
	mm	inch	Mounting
A	190.00	7.48	
B	155.00	6.10	
C	6.750 x 9.53	0.27 x 0.38	2 slots
D	145.00	5.71	
E	170.00	6.69	
F	50.80	2.00	
kgs	1.25		
lbs	2.75		

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:	190 mm x 155 mm x 51 mm (7.5" x 6.1" x 2.0") approx.
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 hi-viz Hytrel yellow coating
Cable Diameter:	2.3 mm (3/32") stainless steel braided cable conductor 3.9 mm (5/32") with Hytrel coating
Reel Construction:	Latchable spring mounted cable drum mounted in stainless steel (SS 304) housing
Reel ATEX Certification:	ATEX Ex II 2 GD T6 (Assessed to EN 13463-1 : 2001)
Clamp FM / ATEX Certification:	FM approved ATEX Ex II 1 GD T6 (Assessed to EN 13463-1 : 2009)


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:	190 mm x 155 mm x 51 mm (7.5" x 6.1" x 2.0") approx.
Cable Lengths:	30 m only (100 ft)
Cable Supplied:	Multi-stranded galvanized steel with hi-viz Hytrel yellow coating
Cable Diameter:	2.3 mm (3/32") galvanized braided cable conductor 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
Reel ATEX Certification:	ATEX Ex II 2 GD T6 (Assessed to EN 13463-1 : 2001)
Clamp FM / ATEX Certification:	FM approved ATEX Ex II 1 GD T6 (Assessed to EN 13463-1 : 2009)



Cen-Stat™

Additional static grounding devices in the Cen-Stat™ range

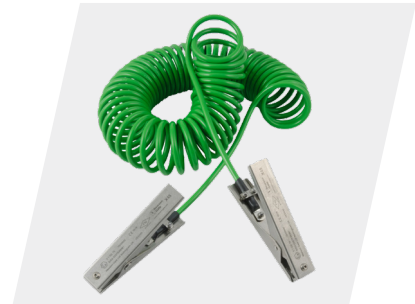
Large size double ended clamp

Applications:	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:	240 mm x 105 mm x 33 mm (9.3" x 4.1" x 1.3")
Maximum Jaw Opening:	30 mm (1.8") approx.
Clamp Teeth:	2 tungsten carbide teeth - set side by side in a stainless steel mounting block for extra stability
Spring:	Torsion spring (3.5 turn design) Stainless steel (SS Grade: 302)
FM /ATEX Certification	Ex II 1 GD T6 (Assessed to EN 13463-1 : 2009) FM Certificate of Compliance number: 3046346 ATEX certificate number: Sira 02ATEX9381
Cable Supplied:	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
Wire Diameter:	Conductor cross sectional area - 4 mm ² (11 AWG) approx. With Cen-Stat coating - 6 mm (0.25") diameter



Medium size double ended clamp

Applications:	Bonding metal objects ranging from small cans to 205 litre (55 gallon) drums
Clamp Material:	Stainless Steel (SS grade: 304)
Operating Temperature:	-40°C to +60°C
Dimensions:	120 mm x 65 mm x 25 mm (4.7" x 2.6" x 1.0")
Maximum Jaw Opening:	15 mm (0.6") approx.
Clamp Teeth:	2 tungsten carbide teeth - set side by side in a stainless steel mounting block for extra stability
Spring:	Torsion spring (4 turn design) Stainless steel (SS Grade: 302)
FM /ATEX Certification	Ex II 1 GD T6 (Assessed to EN 13463-1 : 2009) FM Certificate of Compliance number: 3046346 ATEX certificate number: Sira 02ATEX9381
Cable Supplied:	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
Wire Diameter:	Conductor cross sectional area - 4 mm ² (11 AWG) approx. With Cen-Stat coating - 6 mm (0.25") diameter



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