

Static Generation

APPLICATIONS

- In-mold labeling
- Paper/plastic converting
- Roll-to-roll changeover
- Edge pinning on winder or cast film line



BENEFITS

- Increase production speeds
- Increase profits
- Reduce rejects
- Reduce downtime
- Enhance product quality
- Enhance operator safety

A Low Cost Method of Temporary Adhesion—Effective, Simple, Clean

A positively charged material will repel another positively charged material and attract a negatively charged material. Similarly, a negatively charged material will repel another negatively charged material and attract a positively charged material.

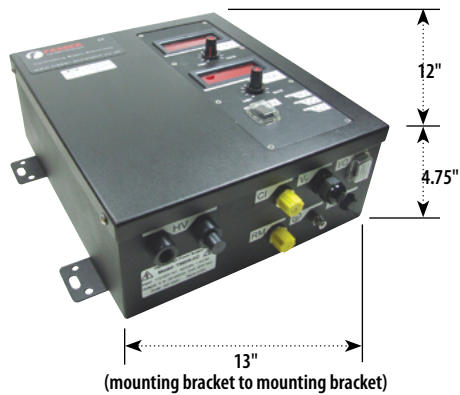
A static generation system allows you to use this bonding force to temporarily adhere two materials together in an effective, clean and simple way. A system consists of a Static Generator to create the positive or negative charge and one or more charging devices, such as a charging bar, pinner or edger to emit the static charge to the material.

- Low cost means of temporary adhesion and pinning through the bonding force of static
- Effective, simple, non-marking, clean
- Bond similar or dissimilar materials and hold materials in place and eliminate air pockets and wrinkles
- Prevent plastic films from wandering on rewinders or shrinking on cooling cylinders

TAKK

TAKK INDUSTRIES INCORPORATED

Static Generators



7360 Static Generators

The latest technology in safe, controllable high voltage up to 30kV, 2mA for temporary adhesion applications. Suitable for local operation or full integration with the machine. Available in AC or DC models.

7360 AC is supplied with a 5 meter (16.4 ft.) integral power lead and a 5 meter (16.4 ft.) earth lead as standard

7360 DC is supplied with a 5 meter (16.4 ft.) 24V DC power cable and a 5 meter (16.4 ft.) earth lead as standard

Construction: 1.5mm steel with mounting brackets; Rugged mechanical enclosure for wall or bench mounting

Electrical: Input current: max 4.0A under all operating conditions

Part #	Output	Input
GN-7360P-DC	30kV Positive	24V DC
GN-7360N-DC	30kV Negative	24V DC
GN-7360P-AC	30kV Positive	90-264V AC
GN-7360N-AC	30kV Negative	90-264V AC

Load: Up to 50' (15m) of bar and cable depending on installation; Two HV output connections; Optional external junction box is available for more than two bars

Installation: Dry, oil-free location required with ambient temperature of 40°C (104°F) or less; Enclosure is IP54 but the atmosphere should not be wet, 70%RH max., or condensing for high voltage applications

Performance: Ripple – better than 2% peak to peak at full load; Regulation – better than 0.1%

Reliability: Short-circuit and arc proof output; Over voltage, under voltage and reverse polarity protected input

Safety: 4 levels of current limiting protection for market-leading safety in operation

CE Compliant: Low Voltage Directive – 2006/95/EC
EMC Directive – 2004/104/EC

Optional Accessories:

Part #	Description
GN-80777	Control Interface Cable – 5m (16.4 ft.); 5m CI M12 x 8
GN-80778	Remote Monitoring Cable – 5m (16.4 ft.); 5m RM M12 x 5
GN-80973	Control Interface Cable – 10m (32.8 ft.); 10m CI M12 x 8
GN-80974	Remote Monitoring Cable – 10m (32.8 ft.); 10m RM M12 x 5
GN-E70-2	2-Way Generator Connector Box w/2m (6.5 ft.) cable
GN-E70-4	4-Way Generator Connector Box w/2m (6.5 ft.) cable
GN-E70-6	6-Way Generator Connector Box w/2m (6.5 ft.) cable



7333 Static Generators

Offers the latest technology in providing safe, controllable power up to 30kV, 1mA for temporary adhesion applications. Designed for full integration with a machine or production process. Available in AC or DC models.

7333 AC is supplied with a 5 meter (16.4 ft.) integral power lead and a 5 meter (16.4 ft.) earth lead as standard

7333 DC is supplied with a 5 meter (16.4 ft.) 24V DC power cable and a 5 meter (16.4 ft.) earth lead as standard

Construction: 1.5mm steel with mounting brackets

Electrical: Input current: max 3.0A under all operating conditions

Part #	Output	Input
GN-7333P-DC	30kV Positive	20-28V DC
GN-7333N-DC	30kV Negative	20-28V DC
GN-7333P-AC	30kV Positive	90-264V AC
GN-7333N-AC	30kV Negative	90-264V AC

Load: Up to 50' (15m) of bar and cable depending on installation; Two HV output connections; Optional external junction box is available for additional HV outputs

Installation: Dry, oil-free location required with ambient temperature of 40°C (104°F) or less; Enclosure is IP54 but the atmosphere should not be wet, 70%RH max., or condensing for high voltage applications

Reliability: Short-circuit and arc proof output; Rugged mechanical enclosure for wall or bench mounting

Safety: Multiple levels of protection for market-leading safety in operation

CE Compliant: Low Voltage Directive – 2006/95/EC
EMC Directive – 2004/104/EC

Optional Accessories:

Part #	Description
GN-80777	Control Interface Cable – 5m (16.4 ft.); 5m CI M12 x 8
GN-80778	Remote Monitoring Cable – 5m (16.4 ft.); 5m RM M12 x 5
GN-80973	Control Interface Cable – 10m (32.8 ft.); 10m CI M12 x 8
GN-80974	Remote Monitoring Cable – 10m (32.8 ft.); 10m RM M12 x 5

Static Charging Bars



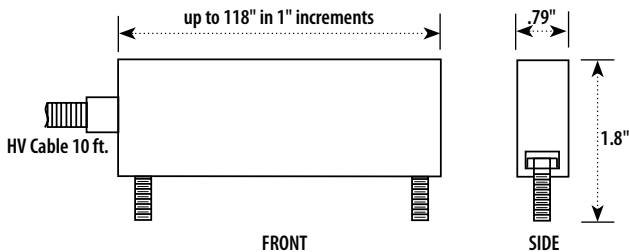
7081 Charging Bars

A safe, controllable, reliable and cost-effective method of applying static charge for temporary adhesion in applications including interleaving steel sheets, pinning plastic sheets and webs, bag making, wrapping machines.

Standard lengths available: 6", 12", 18", 24" and 36". Can be ordered up to 118" lengths in one inch increments.

Order as follows: GN-7081-###(10)

designates the length required; Ex: 12" bar is GN-7081-012(10)



Dimensions: H = 1.80" (46mm), W = 0.79" (20mm)

Dimensions, Length: up to 118" in 1" increments

Effective Length: 2" (50mm) less than overall length

Cable: 10' (3m) of in-line protected HV cable with screw-in connector

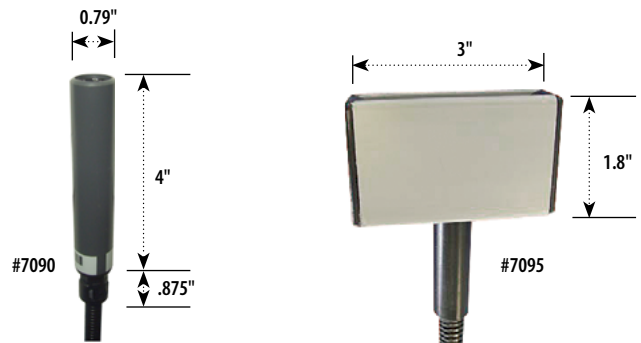
Emitters: "stay sharp" alloy

Mounting Studs: M8 x 60 MB Nylon

Operating Range:

- Effective operating distance depends on the application and material being processed. Plastic sheets and webs are much easier to charge than paper or other semi-conductive materials.
- Typical mounting distance from bar-to-object to be charged is 1.5" for 30,000 volts and 1.25" for 15,000-20,000 volts. Start at 2.25" from the object to be charged and reduce distance if required for better effectiveness.
- Mount bar straight and parallel with the object to be charged and the earth ground to ensure an even current coverage.

Static Pinners & Edgers



7090 and 7095 Static Pinners

For electrostatic charging of small areas and pinning. Use in "neck-in" applications on cast film lines, edge pinning of films, in-mold labeling and other areas where temporary adhesion of two materials is required.

	#7090	#7095
Size:	0.79" (20mm) dia. 4.875" (122mm) length	3" (75mm) x 1.8" (45mm)
Emitters:	tugsten carbide	6 emitter pins in special alloy
Safety:	100Mohm resistance	100Mohm resistance
Material:	Flame retardant UL94V0 PVC and epoxy	Flame retardant UL94V0 PVC and epoxy
Temperature:	60°C (140°F) max	60°C (140°F) max
Weight:	140g + cable	160g + cable
Cable:	6.5 ft (2m) of HT cable protected by nylon conduit	6.5 ft (2m) of HT cable protected by nylon conduit
Generator:	Model 7333 or 7360	Model 7333 or 7360

7093 Edge Pinner

Designed to allow accurate, high performance edge pinning on film.

Size: 5.3" (135mm) length x 1.2" (30mm) width

Emitters: 0.12" (3mm), available in various lengths

Safety: Coupled to HV with 100MOhm

Material: PTFE Body; Titanium emitters

Temperature: Pinner and emitters 140°C (284°F);
Cable and conduit 80°C (176°F)

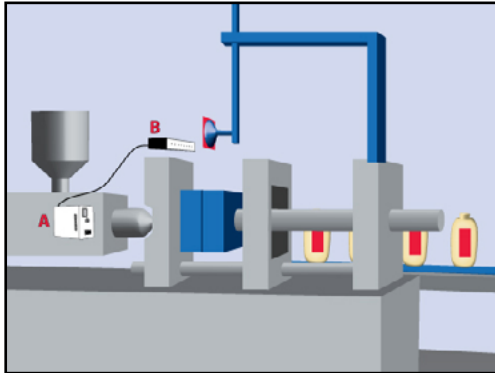
Cable: 6.5 ft (2m) of 60kV cable

Generator: Model 7333 or 7360

Installation/Mounting: Supplied with polymer mounting brackets

• In-Mold Labeling

The synthetic label is statically charged as it is carried into or when it is in the tool. Once charged it will adhere to the inside of the tool so that it can be incorporated into the molding.



The label is picked up, passed over a Charging Bar (B) and placed in the mold. The static charge holds it in position while the mold closes and the process is completed. Upon opening of the mold the label has been fused into the surface of the injection molded object.

• Edge Pinning on Winder or Cast Film Line

Static electricity can be used to “pin” the film to the last steel cylinder before the winder. This will prevent the web from moving laterally from side to side and causing a bad reel. The same technique is used on cast film lines to prevent the film shrinking (or neck-in) when it touches the chill roller. There is no need to “pin” the whole web to the cylinder - you only need to pin the edges.

• Non-Stop Rewind

Static electricity may be used to pin film to a core on turret rewinders and similar designs. Charge the film as it is being cut so that it sticks to the new core.

• General Manufacturing

• Packaging Manufacturing

• Paper/Plastic Film Converting

• Plastic Bag Manufacturing

• Increase sheeter speed

For easier handling of low weight paper)

• Binding protective covering to metal or wood

• Bindery Finishing

• Ribbon-Tacking

• Binder

• Card Inserts

• Catalog Packaging

• Dry Bonding Lamination

• Interleaving

• Roll-to-Roll Changeover

• Shrink Wrapping



TAKK INDUSTRIES INCORPORATED

www.takk.com

8665 E. Miami River Rd. Cincinnati, OH 45247 USA

Phone (800) 792-8255 or (513) 353-4306

Fax (513) 353-4315

sales@takk.com