

# **SANDING SOLUTIONS**

FOR ELECTROSTATIC DISCHARGE (E.S.D.)



# WHAT IS ELECTROSTATIC DISCHARGE?



The ESD protective symbol is used to identify items that are specifically designed to provide ESD protection.

ESD is the sudden discharge of an accumulated electrical charge between two objects as they separate or brush against each other. Discharges at elevated voltages can often be observed in the form of a visible spark and felt by a person. Secondary events caused by ESDs, like a fire or short circuited equipment, are responsible for billions of dollars in losses for manufactures each year.

### **WHAT CAUSES ESD?**

Static buildup generated by the rapid movement of particles over composite, fiberglass, wood and metallic surfaces, or by rubbing and sanding across different materials is a major cause of an electrostatic discharge. Environments with low humidity increase the likelihood of a charge buildup and discharge.

### WHY IS ESD AWARENESS IMPORTANT?

The importance of ESD awareness extends beyond the adverse effects to an employee experiencing a mild shock as they sand. An electrostatic discharge can also:

- Ignite flammable gases, vapors and dusts.
- Cause pinholes in coatings, leading to surface imperfections.
- Damage electronics and mechanical equipment.
- Present a health hazard if static shock is great enough.

### PREVENTING E.S.D.

The key to preventing an electrostatic discharge while working is providing an avenue for the charge to dissipate away from the operator, sensitive equipment, or combustible material. A copper ground wire, being an excellent conductor, is used to create an alternative path away from the operator for any voltage buildup.

Each Dynabrade ESD tool is equipped with a copper ground wire that must attach to the earth ground of a vacuum system or directly to the ground of the electrical outlet for the electrostatic dissipating capabilities to function properly. In addition, (2) 1 Megaohm resistors are placed in line with the copper wire to dissipate current upstream and downstream in the event of contact with an electrical current.

# NEW

### **CAUSES OF ESD**



Sanding applications have a high likelihood of generating static electricity.

### POTENTIAL ESD ENVIRONMENT



Dry, dusty areas or areas with certain vapors can compound ESD complications.

### **AFTER ESD IS HANDLED WITH CORRECT TOOLS**



Dynabrade tools and vacuums contribute to the optimization of applications and environments.

# DYNORBITAL® EXTREME RANDOM ORBITAL SANDER

### FINISHING & DETAIL SANDING



	FEATURE	BENEFIT
1	(2) 1 MEGAOHM RESISTORS	Prevents high-current shock
2	RECESSED THROTTLE LEVER	Eliminates pressure point on palm
3	INTEGRATED COMFORT PLATFORM	Provides enhanced ergonomic comfort
4	COMFORT GRIP	Tactile ambidextrous design
5	LIP SEAL SHROUD	Enhanced vacuum performance
6	WEIGHT-MATED SANDING PAD	Reduced vibration for consistent finishes
7	INTEGRATED SWIVEL CUFF	Secure maneuverable vacuum connection
8	INCREASED PORT SIZE	For improved vacuum capture rate





It is the operator's responsibility to verify proper ground connection prior to sanding.

### **IDEAL INDUSTRIES**

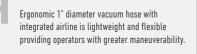












# **VACUUM HOSE ASSEMBLY**

FOR CONNECTION TO MINI-RAPTOR VAC® VACUUM

### 31978 20 Ft (6 M)

- 1" vacuum hose
- 5/16" air line
- 1" tool connection,
   1" vacuum connection for use with Dynorbital<sup>®</sup> Extreme



#### **MODELS AVAILABLE:**

Model No.	Diameter	Orbit	RPM	Ground Wire	Includes ESD Hose Assy.	Vacuum	Vac. Hose Connection	Нр	Air Consumption
X51ESD		3/16" (5 mm)	- 12,000	Yes	No	Raptor Vac <sup>®</sup>	1" Threaded Connection	0.3 (224 W)	19 SCFM (538 LPM)
X51ESD1	5" (127 mm)				59385				
X52ESD		3/32" (2.5 mm)			No				
X52ESD1					59385				
X61ESD		3/16" (5 mm)	5 mm) 12,000 3/32"	Yes -	No	Raptor Vac®	1" Threaded Connection	0.3 (224 W)	19 SCFM (538 LPM)
X61ESD1	6" (152 mm)				59385				
X62ESD		m) 3/32"			No				
X62ESD1		(2.5 mm)			59385				

# **DUAL-GRIP, RANDOM ORBITAL SANDER**

# **BLENDING & FINISHING**

Designed for large, high-volume sanding applications, Dual-Grip, Random Orbital Sanders provide an added layer of protection against static shock.



	FEATURE	BENEFIT
1	(2) 1 MEGAOHM RESISTORS	Prevents high-current shock
2	DUAL-GRIP THROTTLE LEVER	Throttle activates on housing & handle
3	EXTREME SANDING PAD	Best-in-class capture rate
4	INTEGRATED SWIVEL CUFF	Eliminates hose tangles
5	IN-LINE VACUUM PORT	Improves mobility
6	SAFETY-LOCK LEVER	Prevents accidental startup

### **IDEAL INDUSTRIES**













Vacuum hose assemblies contain a copper ground wire creating a path away from the operator to a ground so no voltage builds up within the operator.





It is the operator's responsibility to verify proper ground connection prior to sanding.

# **VACUUM HOSE ASSEMBLY**

FOR CONNECTION TO RAPTOR VAC® VACUUM

### 31979 20 Ft (6 M)

- 1-1/4" vacuum hose
- 5/16" air line
- 1-1/4" tool connection,
   1" vacuum connection for use with Dual-Grip tools



#### **MODELS AVAILABLE:**

Model No.	Diameter	Orbit	RPM	Ground Wire	Includes ESD Hose Assy.	Vacuum	Shroud Style	Нр	Air Consumption
58600		3/16" (5 mm)	10,000		No	Raptor Vac <sup>®</sup> Central Vacuum	Lip	.025 (186 W)	12 SCFM (340 LPM)
58602			12,000		No			.04 (298 W)	20 SCFM (566 LPM)
58603	6"	3/8" (10 mm)	12,000	Yes	No				
58611	(152 mm)	(152 mm) 3/16" (5 mm)	12,000	162	No		Overskirt		
58651					31927				
58652		,			31727		Lip		

# **DUAL-GRIP, GEAR-DRIVEN SANDER**

### LEVELING & STOCK REMOVAL

Specifically designed for very aggressive material removal applications Dual-Grip, Gear-Driven Sanders are high-torque tools that maintain speed under significant downward pressure and are also ideal for use with coarse grit abrasives.



	FEATURE	BENEFIT
1	(2) 1 MEGAOHM RESISTORS	Prevents high-current shock
2	DUAL-GRIP THROTTLE LEVER	Throttle activates on housing & handle
3	OVERSKIRT SHROUD	Enhanced vacuum capability
4	INTEGRATED SWIVEL CUFF	Eliminates hose tangles
5	IN-LINE VACUUM PORT	Improves mobility
6	SAFETY-LOCK LEVER	Prevents accidental startup





It is the operator's responsibility to verify proper ground connection prior to sanding.

### **IDEAL INDUSTRIES**















For maximum durability be sure to apply 3 plunges of gear grease to gear housing for every 300 hours of run time when using Dual-Grip, Gear Driven Sanders.

## **VACUUM HOSE ASSEMBLY**

**RAPTOR VAC®** 

FOR CONNECTION TO RAPTOR VAC® VACUUM

### 31979 20 Ft (6 M)

- 1-1/4" vacuum hose
- 5/16" air line
- 1-1/4" tool connection,
   1" vacuum connection for use with Dual-Grip tools



### **MODELS AVAILABLE:**

Model No.	Diameter	Orbit	RPM	Ground Wire	Includes ESD Hose Assy.	Vacuum	Shroud Style	Нр	Air Consumption
58660	8"	3/16"			31927	Central Vacuum	- Overskirt	0.4 (298 W)	23 SCFM (651 LPM)
58661	(203 mm)	(5 mm)	900	Yes	No	Raptor Vac®			



# **E.S.D. SANDER ACCESSORIES**



### REPLACEMENT **VACUUM CUFF**

59339

- For use with Extreme E.S.D. Sanders
- 1" Thread



#### REPLACEMENT **VACUUM CUFF**

58628

- For use with Dual-Grip E.S.D. Sanders
- 1-1/4" Thread



## **VACUUM HOSE ASSEMBLY**

31927

- 10' (3 m) Conductive vacuum hose assembly
- For connection to 2" central vacuum system



### **VACUUM HOSE ASSEMBLY**

59385

- 10' (3 m) Conductive vacuum hose assembly
- For connection to Dynorbital® Extreme to Raptor Vac®



### **1 MEGAOHM RESISTOR**

59395

- Dissipates high current & limits current flow to operator

# **DYNABRADE MAINTENANCE PRODUCTS**



### FILTER-REGULATOR-LUBRICATOR

10690 1/2" NPT

- Max. 106 SCFM (3,000 LPM)
- 3/8" NPT reducer bushings for 3/8" air systems
- Adjustable oil drip rate
- 5 micron filter



### **GREASE & PUSH-TYPE GREASE GUN**

95544 2.5 OZ. TUBE GREASE 95541 PUSH-TYPE GREASE GUN

- Multi-purpose grease for all types of bearings, cams, gears
- High film strength, excellent resistance to water



### **DYNABRADE AIR LUBE**

95842 1 Pint

- 10W/NR, absorbs up to 10% of its weight in water
- Specifically formulated for Dynabrade air tools



#### **MOTOR TUNE-UP KIT**

96576 Dynorbital® Extreme

- Contains high and medium wear parts
- Helps maintain an efficiently running air motor

### 98220 Dual-Grip Random Orbital Sanders

- Contains high and medium wear parts
- Helps maintain an efficiently running air motor

### 98221 Dual-Grip, Gear-Driven

- Contains high and medium wear parts
- Helps maintain an efficiently running air motor

dynabrade.com





E.S.D SANDING D18-05