

PREMIUM INDUSTRIAL ABRASIVE POWER TOOLS

FOR THE AEROSPACE INDUSTRY



MANUFACTURING AND MAINTENANCE

SURFACE CONDITIONING AND MATERIAL REMOVAL SOLUTIONS

Since 1969, Dynabrade has earned a reputation for excellence and a position of leadership in the innovative design and manufacturing of unique portable pneumatic abrasive power tools, related accessories, and clean air solutions.

Dynabrade products are used in a variety of industrial applications on nearly any material that requires surface preparation and finishing.

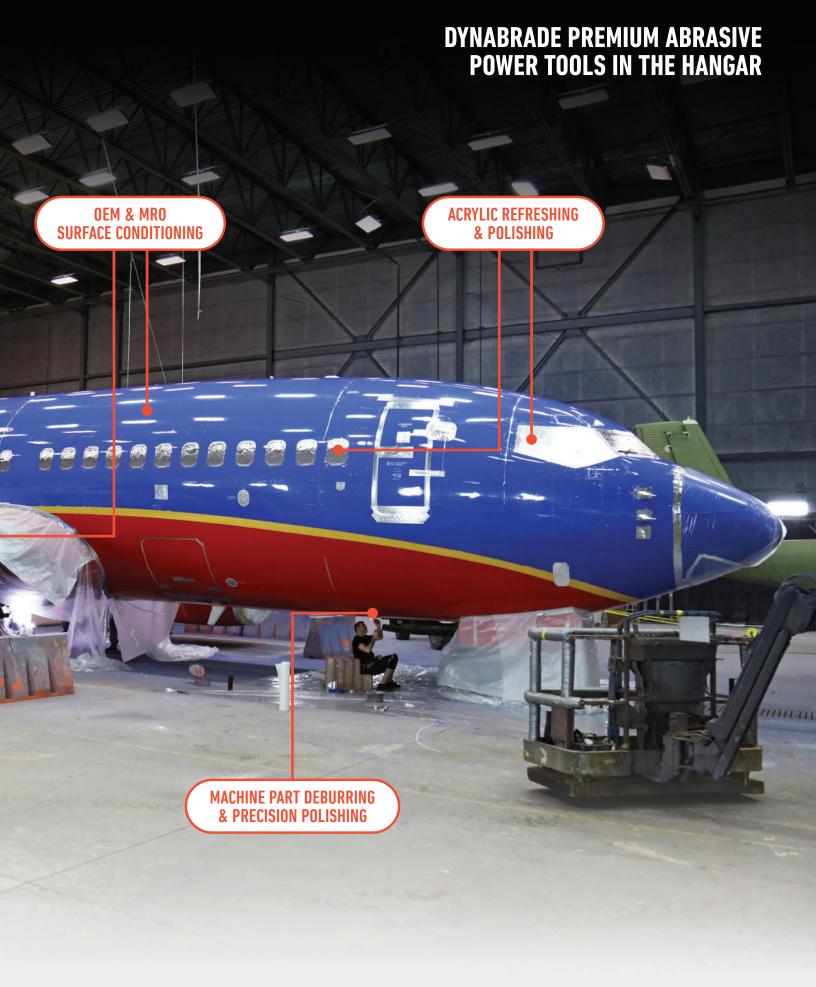
Dynabrade offers an incredible variety of tools for use in the aerospace industry that reduces production time as they improve your final product.

INDUSTRIAL HAND TOOLS

Abrasive Belt Tools
Finishing Tools
ESD Sanding Solutions
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INDUCTRIAL FOURMENT
INDUSTRIAL EQUIPMENT
Versatility Grinders
CLEAN AIR SOLUTIONS
Downdraft Sanding Tables
Industrial Vacuum Systems1







- Finishing of turbine blades
- Turbine radius work
- Blending and finishing of small blades and parts
- Blending of inner curves
- Deburring of aerotubes
- Removal of weld residue
- Large burr removal
- Cast finishing
- Inlet hole deburring

MAINTENANCE & REPAIR

- Blade repair
- Impeller repair and blending
- Vane repair
- Refurbishing of brake rotors
- Grinding and leveling welds
- Engine repair
- Surface conditioning under lap joints
- Repair of landing gear
- Corrosion removal in hydraulic pipe joints
- Cutting down hard-to-reach rivet backs or heads

CONTACT ARMS

- Over 100 unique Contact Arms available for a multitude of applications
- Visit Dynabrade.com for additional information, accessories and abrasives





ABRASIVE BELT TOOLS

Dynabrade offers the most complete range of Abrasive Belt Tools in the world. As the inventor of "The Original" Dynafile®, Dynabrade is the market leader in the designing, engineering and manufacturing of abrasive belt tool technology.



"THE ORIGINAL" DYNAFILE®

- .5 hp, 20,000 RPM, for 24" long belts.
- World-famous Dynafile® replaces tedious hand filing and sanding.
- Grind, deburr, blend, polish, finish and more!
- Grind from contact wheel or platen pad; finish and polish using slack of belt.
- Accepts a variety of additional Contact Arms.



DYNAFILE® II & MINI-DYNAFILE® II

- 40320 Dynafile® II .5 hp, 20,000 RPM, for 18" long belts.
- 15002 Vacuum Mini-Dynafile® II .4 hp, 25,000 RPM, for 12" long belts.
- Lightweight, ergonomic 7° offset design. Grinding head pivots 360° for securing in most efficient position.
- Belt guard easily detaches for quick abrasive change; simple belt tracking adjustment knob.



- .7 hp, 20,000 RPM, for 18" long belts.
- Offers all the versatility of the Dynafile[®] II, while serving up more power for faster material removal.

FINISHING TOOLS

Dynabrade offers the most complete range of finishing tools for grinding, sanding and polishing.



DYNABUG® & DYNABUG® II

- 57814 Dynabug® .28 hp, 10,000 RPM, 3/32" (2,5 mm) dia. orbit.
- 58500 Dynabug® II .11 hp, 10,000 RPM, 3/32" (2,5 mm) dia. orbit.
- Non-Vacuum, Self-Generated Vacuum and Central Vacuum configurations.
- Dynabug® models accept traditional 3-2/3" x 9" abrasive sheets.
- Dynabug® II models accept a variety of smaller abrasive sheets, for sanding in tight areas, 90° corners and odd angles.



- 58017 Central Vacuum, .12 hp, 7° Offset, 15,000 RPM, 1/32" (0.8 mm) Diameter Orbit. Rear Exhaust.
- 57900 Non-Vacuum, .12 hp, 7° Offset, 13,000 RPM, 1/32" (0.8 mm) Diameter Orbit, Rear Exhaust.
- Includes backup pads in tear-drop and triangular shapes, and accepts optional round backup pads.



- 13502 1 hp, 3,400 RPM, includes 13016 Arbor for up to 2" wide x 1/2" I.D. wheels.
- 13521 1 hp, 1,800 RPM, includes 13015 Threaded Arbor (5/8"-11).

MANUFACTURING APPLICATIONS

- Removal of oxide
- Scuffing before coating of urethane, epoxy or paint
- Removal of milling marks after machining
- Provide uniform matte finish of machined surfaces
- Sanding on struts, spars and ribs
- Featheredging, sanding and blending

MAINTENANCE & REPAIR – DYNASTRAIGHT®

- Finishing of turbine blades
- Cleaning of landing gear
- Removal of defects, scratches and handling marks
- General corrosion removal







- Sanding airplane skins
- Polishing windows and windshields
- Finishing on titanium, aluminum, stainless steel, composite materials
- Paint preparation and finishing of fuselage
- Sanding and finishing various parts
- Various applications in paint shop
- Enhance coating adhesion on surfaces
- Scuffing before coating of urethane, epoxy or paint

MAINTENANCE & REPAIR

- Window glass repair and polishing
- Stripping and painting operations
- Curved sidewalls of windows
- Ring refurbishing
- Removal of oxide
- Removing scratches and handling marks
- Removing paint on engine cowling, stabilizers and nose

DYNABRADE SANDING PADS

- Manufactured by Dynabrade in the USA, utilizing state-of-the-art technology.
- Perfectly balanced and weight-mated for smooth performance and swirl-free finishes.
- Features Dynabrade's exclusive single-piece hub design for reduced pad vibration.





Exclusive Single-Piece Hub



RANDOM ORBITAL SANDERS

Dynabrade is the premier random orbital solution provider with the largest variety in the industry. Achieve superior finishes in less time on a variety of materials. Two-Hand Dynorbital® random orbital sanders are also available.



DYNORBITAL® EXTREME SANDER

- 3" (75 mm), 5" (125 mm) and 6" (150 mm) diameters, 3/16" (5 mm) and 3/32" (2,5 mm) dia. orbits, 12,000 RPM.
- Non-Vacuum and Vacuum configurations.
- Highest power-to-weight ratio in the industry.
- Most consistent speed under-load in the industry.



DYNORBITAL® SUPREME SANDER

- 3-1/2" (90 mm), 5" (125 mm) and 6" (150 mm) diameters, 3/8" (10 mm), 3/16" (5 mm) and 3/32" (2,5 mm) dia. orbits, 12,000 RPM.
- Non-Vacuum, Self-Generated Vacuum and Vacuum configurations.
- Superior-quality components for increased durability under extended use.



DYNORBITAL SPIRIT® SANDER

- 3" (75 mm), 3-1/2" (90 mm), 5" (125 mm) and 6" (150 mm) diameters, 3/8" (10 mm), 3/16" (5 mm) and 3/32" (2,5 mm) dia. orbits, 12,000 RPM.
- Non-Vacuum, Self-Generated Vacuum and Vacuum configurations.
- Lightest palm-syle sander in the world.
- Ideal for vertical applications and operators with smaller hands.

ESD SANDING SOLUTIONS

Dynabrade electrostatic discharge (E.S.D.) tools are equipped with a copper ground wire to dissipate electrostatic discharge away from the operator, directly to an earth ground.



VACUUM ESD DYNORBITAL® EXTREME SANDER

- 5" (125 mm) and 6" (150 mm) diameters, 3/16" (5 mm) and 3/32" (2,5 mm) dia. orbits, 12,000 RPM.
- Increased vacuum size for enhanced vacuum performance.
- Includes (2) 1 Megaohm resistors to prevent high-current shock.



TWO-HAND ESD DYNORBITAL® SANDER

- 6" (150 mm) diameter, 3/16" (5 mm) and 3/8" (10 mm) dia. orbits, 12,000 RPM.
- Dual-grip locking throttle lever for better control and safety.
- Includes (2) 1 Megaohm resistors to prevent high-current shock.



- 8" (200 mm) diameter, 3/16" (5 mm) dia. orbit, 900 RPM.
- Includes 31927 ESD hose assembly.

ELECTROSTATIC DISCHARGE (ESD)



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 manufacturers 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 ESD.

ESD AWARENESS

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 dust.
- Can lead to surface imperfections.
- Damage electronics and mechanical equipment.
- Health hazard if static shock is great enough.

PREVENTING ESD

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.



- Blending on turbine blades, honeycomb rings and impellors
- Blending and finishing of small parts
- Deburring welds on aero tubes
- Quick removal of weld residue with carbide burrs
- Deburring welds on inconel welds and on titanium

MAINTENANCE & REPAIR

- Work on metallic fluid hoses and cold plates
- Work on cooling systems and leading mesh edge of ice protection systems
- Refurbishing of inner fan case and removal of residue







PENCIL GRINDERS

Dynabrade offers a variety of Pencil Grinders for precision deburring, finishing, and engraving to suit each application. A true time-saver for high production workplaces in the aerospace industry.



TURBINE-DRIVEN & QUICK-CHANGE MODELS

- 51700 Straight-Line, .1 hp, 60,000 RPM, 1/8" collet.
- 60052 Straight-Line, Quick-Change, .1 hp, 35,000 RPM, 3/32" (2,5 mm) collet.
- Accepts optional carbide burrs and mounted points.



VARIABLE SPEED MODELS

- .1 hp, 35-60,000 RPM, 1/8" and 3/32" (2,5 mm) collets.
- Desired speed stays set as tool is turned off and on.
- Accepts optional carbide burrs and mounted points.
- Precision bearings ensure longer tool life.



STRAIGHT-LINE PENCIL GRINDER

- .1 hp, 100,000 RPM, 1/8" collet.
- Front exhaust and twin turbine air motor.
- Oil-free tool is low maintenance and poses no contamination to the work piece.
- High durability nickel-plated aluminum housing.

DIE GRINDERS

Dynabrade offers a wide range of general-purpose Die Grinders from .4 hp to 1 hp, 950 to 35,000 RPM, in straight-line, right-angle and 7° offset configurations.



STRAIGHT-LINE DIE GRINDERS

- 48360 .4 hp, straight-line, 20,000 RPM, rear exhaust, 1/4" (6 mm) collet.
- 43515 .4 hp, 6" (150 mm) extension straight-line, 25,000 RPM, rear exhaust, 1/4" (6 mm) collet.
- 52666 1 hp, straight-line, 12,000 RPM, rear exhaust, 1/4" (6 mm) collet.



RIGHT ANGLE DIE GRINDERS

- 48315 .4 hp, right angle, 12,000 RPM, rear exhaust, 1/4" and 6 mm collet.
- 46002 .4 hp, right angle, 20,000 RPM, extended rear exhaust, 1/4" collet.
- 55560 .7 hp, extended right angle, 12,000 RPM, rear exhaust, 1/4" collet.
- 55561 .7 hp, extended right angle, 18,000 RPM, rear exhaust, 1/4" collet.



7° OFFSET DIE GRINDERS

- 52293 .7 hp, 18,000 RPM, extended rear exhaust, 1/4" collet.
- 48335 .4 hp, 25,000 RPM, rear exhaust, 1/4" collet.



MINI ANGLE-HEAD DIE GRINDER

- .4 hp, 3,200 RPM, Planetary-Geared, Rear Exhaust, 1/4" collet.
- 50055 Collet Assembly included.
- Safety-lock lever included.

MANUFACTURING APPLICATIONS

- Blending and flattening on wide blades; grinding and blending on wide blades after welding
- Grinding on titanium parts
- Removing residue on dice block surface
- Grinding and finishing of turbine blades

MAINTENANCE & REPAIR

- Deburring on honeycomb ring
- Refurbishing of inner fan case
- Blending parting lines on cast turbine blades
- Removal of machine blemishes, mill marks on airframe parts
- Maintenance on stainless steel, inconel, nickel alloys, titanium
- Removal of handling marks, light and heavy scratches
- Maintenance on wing ribs, thrust reverse fan compressors
- Landing gear assembly, heat exchangers, cooling systems
- General work in metal shop and composite materials shop
- Corrosion removal in rivet areas, fuel tank, landing gear
- Aluminum castings, high-temperature alloys
- Exfoliation removal





- Sanding of fan and compressor structures and case
- Sanding of turbine, combustors and sandwich structures
- Sanding of rings, ducts and low-pressure turbine cases
- Finishing on doors and bulkheads
- General sealant removal
- Scuffing before coating of urethane, epoxy or paint
- Blending in tight pockets

MAINTENANCE & REPAIR

- Various applications in Composite Material Shop
- General use in Engine Repair
- Sanding of landing gear
- Cleaning of seat tracks
- Removal of light and heavy scratches, handling marks
- Sanding of entry and cargo doors





DISC SANDERS

Dedicated low-profile design disc sanders offer the best performance with lowest run-out.



2" (50 MM) DIA. DISC SANDERS

- 48503 7° Offset, .4 hp, 25,000 RPM.
- 47820 Right Angle, .4 hp, 12,000 RPM.
- Includes 51344 Locking-Type Pad.



3" (75 MM) DIA. RIGHT-ANGLE DISC SANDER

- .7 hp, 18,000 RPM, Composite.



3-1/2" (90 MM) DIA., 7° OFFSET DISC SANDER

- .4 hp, 3,200 RPM, high torque planetary-geared air motor.
- Standard models include 50126 Hook-Face Pad, 54486 Sanding Pad and 92096 Sample Abrasives.



4" (100 MM) DIA. RIGHT-ANGLE DISC SANDER

- 52631: 1.3 hp (970 W) governor-controlled air motor delivers powerful, efficient performance; speed of 12,000 RPM.
- 54409: Extended Right Angle Disc Sander .7 hp, 12,000 RPM, Composite.
- Convenient Spindle Lock makes changing abrasive disc quick and easy.



7" (180 MM) DIA. RIGHT-ANGLE DISC SANDER

- 2.8 hp, 8,500 RPM, 5/8"-11 spindle thread.
- Best rotor and vane style motor power-to-weight ratio in the industry.
- Convenient Spindle Lock makes changing abrasive disc quick and easy.
- Compatible with fiber discs.

DRILLS

Dynabrade offers a variety of air-powered industrial quality drills ideal for use in the aerospace industry.



RIGHT ANGLE DRILL

- 55581: .4 hp, 950 RPM, 2,400 RPM, 3,200 RPM and 5,000 RPM models available.
- Governor-controlled motor maintains speed under load.
- Rotating drill head adjusts to 12 positions, (360°) in relation to the safety throttle lever.
- Head rotates in both clockwise and counterclockwise directions.
- 1/4"-28 and 9/32"-40 spindle attachments available.
- B2162: .4 hp, 3,200 RPM, Mini-Angle Head, Planetary-Geared, Rear Exhaust, 9/32"-40 Female Thread.



1/4" (6 MM) DRILL

- .4 hp air motor, 500 RPM-20,000 RPM.



3/8" (10 MM) DRILL

- 52774 Reversable, .5 hp , 950 RPM, geared, rear exhaust. 450, 1,800 and 3,700 RPM models also available.
- 53060 .7 hp , 3,400 RPM, geared, rear exhaust.
- Includes 3/8" (10 mm) drill chuck and key.

1/2" (13 MM) DRILL - .7 hp, 3,400 RPM, rear exhaust. - Includes 1/2" drill chuck and key. 53080

- Removable side handle and safety-lock lever.

MANUFACTURING APPLICATIONS

- General assembly
- General use in Metal Shop
- Drilling on landing gear

MAINTENANCE & REPAIR

- Engine repair
- Drilling out rivets







- Buffing and polishing wing leading edge to mirror finish
- Buffing and polishing of window glass scratches and defects
- Buffing after repair of dust nibs and "orange peel"



POLISHING COMPOUNDS

22017: DynaRed, Coarse + Finish 22011: DynaTeal, Fine Finish 22021: DynaOrange, Very Fine Finish



NATURAL SHEEPSKIN

90080: 3" (75 mm) dia. 90081: 5" (125 mm) dia. 90082: 7" (180 mm) dia.



MANUFACTURING APPLICATIONS

- Excellent for removing two-sided adhesive molding tape and decal material
- Removes material without damaging paint or original surface



BUFFING TOOLS



- 51400 7° Offset Rotary Buffer, 3" (75 mm) diameter, .4 hp, 3,200 RPM, 3/8" (10 mm)-24 Spindle Thread.
- 49440 Angle-Head Rotary Buffer, 3" (75 mm) diameter, .4 hp, 3,200 RPM, 1/4" - 20 Spindle Thread.
- 51392 Right Angle Buffer, 1 hp, 2,800 RPM, 5/8"-11 Spindle Thread, for use with 6" (150 mm) 8" (200 mm) diameter buffing pads.

DYNABRADE NITRO SERIES™ NITROZIP SURFACE PREP TOOL



- .5 hp, Right Angle, 3,500 RPM Rear Exhaust.
- Effectively removes seam sealer, paint, two-sided adhesive molding tape and decal material with excellent power.
- Quickly remove decals and adhesives without harming paint.

CUT-OFF WHEEL TOOLS



- 52439 Right Angle, Diamond Cut-Off Wheel Tool, 3" (75 mm) diameter,
 .4 hp, 12,000 RPM.
- 54736 Extended Right Angle, Type 41 Cut-Off Tool, 4" (100 mm) diameter
 7 hp, 13,500 RPM.
- 54730 Right Angle, Type 41 Cut-Off Tool, 3" (75 mm) diameter, .7 hp, 18,000 RPM.
- 52537 Straight-Line, Vacuum, 6" (150 mm) Extension Diamond Cut-Off Wheel Tool, 3" (75 mm) diameter, 1 hp, 18,000 RPM.

TRIM ROUTERS



- 51854 .4 hp, 30,000 RPM, Rear Exhaust, 1-1/8"-18 male universal tool adaptor threads.
- 51857 .7 hp, 20,000 RPM, Rear Exhaust, 1-3/8"-18 male universal tool adaptor threads.
- 51860 1Hp, 20,000 RPM, Rear Exhaust
- 51333 .7 hp, 20,000 RPM, Rear Exhaust, Central Vacuum, 4" (100 mm) Base
- All models have 1/4" Collets, for use with 1/4" shank bits.

MANUFACTURING APPLICATIONS

- Cutting in Composite Material Shop
- Cutting of fiberglass and Aerospace alloys
- Cutting of honeycomb, sheet metal and frame rails
- Cutting of tabs, clamps and rods



MANUFACTURING APPLICATIONS

- Used with jigs and tooling fixtures to make repeatable cuts with tight tolerances on complex shapes
- Utilized on materials such as carbon fiber, composite and aluminum skins



ELECTRIC VERSATILITY GRINDERS

A bench-mounted belt tool ideal for bringing small workpieces to the sanding belt used for deburring turbine blade segments. Versatility Grinders power 72" abrasive belts in widths from 1/4" to 2", providing a wide variety of finishing solutions. Ideal for use on castings and forgings, turbine blades, medical implants, investment castings and more. Adjustable air belt tensioning provides constant control. Includes efficient through-housing 4" vacuum port for dust control with optional vacuum scoop (64932).



 64881 - 1 hp, 230 V(AC), 1 Phase, 50Hz, 600-4,000 SFPM, for 1/4"-2" wide by 72" long belts. CE certified.

DOWNDRAFT SANDING TABLES

The new Dynabrade metal construction Industrial Downdraft Table is an excellent choice for a facility's dust collection needs. Ideal for use with vacuum or non-vacuum tools, this table presents itself as the easy answer to keeping a work cell clean while allowing the operator to breathe in a healthy environment throughout their workday.



METAL CAPTURE DOWNDRAFT TABLE

- Anti-static HEPA 13 filter cartridge (filter range 0.2 micron)
- Explosion-proof and ATEX compliant Motor (category 3 – zone 22
- Possible Customization
- Ideal for Metal, Aluminum, Carbon Steel and Composite





- 64202 33" X 41" (84 cm X 104 cm)
- 64203 33" X 60" (84 cm X 152 cm)
- 64204 33" X 72" (84 cm X 183 cm)
- 22058 Working Area Included
- Two-stage filtration ensures maximum air flow for efficient capture and maximum filter life.
- Pre-filter blanket and pleated filters to extend filter life and maximize capture



22070

WITH ACCESSORY PACK 22070

- 64192 33" X 41" (84 cm X 104 cm)
- 64193 33" X 60" (84 cm X 152 cm)
- 64194 33" X 72" (84 cm X 183 cm)
- 22058 Working Area Included
- Includes: On/Off air value, 2 Vacuum Plugs MultiLink 3 Safety Coupler - 320 Profile, 1 Safety Coupler - 410 Profile, Filter-Regulator-Lubrificator (10681)



INDUSTRIAL VACUUM SYSTEMS

CLEAN AIR SOLUTIONS FOR HEALTH, SAFETY & COST SAVINGS

Dynabrade Sanding Systems tackle a variety of applications from everyday shop cleanup to demanding sanding applications. The combination of multi-stage HEPA filtration, vacuum hose conductivity and certified Category 2 and Category 3 vacuums distinguish Dynabrade from competitors. Downdraft systems further contribute to an optimal work environment by assuring the efficient and safe capture of various workplace dust when working on large or oddly shaped pieces. Beyond cleanliness and safety, manufacturers using Dynabrade clean air solutions realize significant savings in abrasive spending, process time improvements, personal protective equipment and other costs savings associated with rework.

CATEGORY 3

- Conductive vacuum assembly supports Class II, Category 3 Location - certified.
- Electric



CATEGORY 2 + CATEGORY 3

- Conductive vacuum assembly supports Class II, Category 2 + Category 3 Location
 - $\hbox{-} \ certified.$
- Pneumatic



CATEGORY 2

- Conductive vacuum assembly supports Class II, Category 2 Location - certified.
- Pneumatic
- 61471: Wall-Mount



WE LISTEN. WE OBSERVE. WE OPTIMIZE.



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