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#### **Welcome to Clayton**

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#### **Protecting Workers for over 30 Years**

Clayton Associates was established in 1984, and has become an industry leader in hazardous dust control solutions. Starting with Jim Clayton's first vacuum for asbestos removal, the company began a legacy of innovation, constantly improving and enhancing the product line to best meet the needs of workers in automotive, aerospace, and industrial applications.

Today, Clayton engineers employ rapid prototyping and on-site testing to produce customized solutions for some of the most technologically advanced aircraft the world has ever seen. Clayton is best known for the ability to design solutions to solve specific dust control problems for our aerospace customers. From sanders designed for trouble areas of the F-22 Raptor, to custom piped systems that help commercial airlines move more planes through their paint hangars, Clayton solutions are engineered to solve our customers' problems and increase productivity.

We strive to provide new and innovative solutions by listening to our customers needs and employing rapid concept to market practices.

#### **How We Work**

The Clayton Team manages a fleet of demonstration vehicles across the country. We meet with our customers at their facilities, to fully understand the needs of the workers. The procedures employed to fabricate or maintain an F-22 Raptor or a C-17 GlobeMaster will likely differ greatly from those used on a Boeing 737 or Apache Longbow. We need to understand those differences if we're going to be able to provide the right solution. We put the tools and equipment into the hands of the workers, to ensure that they are in support of the solution. We need to capture the dust, but we also need to satisfy the user. As an Air Force customer once remarked: "If the workers don't like using the tools, they just won't use them."

#### **Arrange a Demonstration**

Call or email Clayton today to arrange a demonstration of our equipment, and to learn more about how we can help your organization to reduce worker and environmental exposure to hazardous dust.

Sales@JClayton.com 800-248-8650

Jams Elly L Boff Janie Clayton

Jan Clayton

Jan Clayton

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Corporate Headquarters • 1650 Oak St, Lakewood, NJ 08701

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#### This catalog is dedicated to the US Armed Forces



## A Family Owned and Operated American Manufacturer

Starting with the production of Jim Clayton's first vacuum cleaner design in the early 1980's, Clayton Associates has been family owned and family operated. Through the years, Jim and Jan Clayton's children have been involved in the business and helped it to grow. We have a tremendous team to support our customers, but you can always call our offices and ask to speak with one of the Clayton management team directly to resolve issues or provide feedback. As the business has grown, we have always kept our focus on protecting our customers, and promoting American manufacturing. Clayton currently has its primary manufacturing facility in Lakewood, New Jersey, and keeps almost 100% of our raw materials and fabricated parts sourced locally to promote domestic job growth and to ensure that the next generation of our family and yours has the opportunity to work in the great United States of America.



The next generation of Claytons

#### National/NATO Stock Numbers (NSN)

Many Clayton products have a National/NATO Stock Number as noted through out the catalog by this symbol \(^{\text{A}}\), and can be purchased through the Federal Supply System. If you need an NSN for a product NOT listed in the table below, please let us know.

#### **Clayton Stock Listed Items**

Clayton Part #	NSN
250-CW32D04	4130-01-517-1038
250-CW48D04	4130-01-481-6292
250-CW64D06	4130-01-501-8633
500-415-1216	4130-01-478-3108
600-114DM	8105-01-521-2119
600-115	4310-01-519-5205
600-116	4310-01-519-5796
600-118-13	6105-01-519-5222
600-313A	7910-01-520-6435
627-12H	4310-01-520-6794
627-16B	7910-01-459-0352
627-516H	4460-01-519-5158
642-24D54101	4130-01-483-1891
642-24N09101	4130-01-492-6050
642-24T11001	4130-01-478-3104
650-183	4130-01-485-6537
650-201	5140-01-520-8551
660-DM-1000-4	5130-01-413-9122
661-H32T	4730-01-519-7010
670-10371J	5130-01-520-5672
670-12601J	5130-01-520-5669
670-DM-1535-0	5130-01-551-2270
671-150Y	4730-01-519-5907
671-AVHW2416-20	4720-01-519-7025
671-AVHW2416-40	4720-01-519-7365
672-511J	4130-01-531-6807
672-511S	4130-01-531-6799
672-511SG	4130-01-501-7031
672-611J	4130-01-531-6803
672-611S	4130-01-531-6803
672-611SG	4130-01-458-8704
673-A0022	5120-01-520-8552
673-A0146	5120-01-520-8553
675-10341J	5130-01-520-5670
675-12301J	5130-01-520-5673
678-20451	4130-01-502-0850
690-43212KIT-TR	4130-01-458-8326
690-44812KIT-TR	4130-01-459-1793
690-53212KIT-TR	4130-01-458-8661

Clayton Part #	NSN
690-54812KIT-TR	4130-01-458-8663
690-616	4130-01-458-8673
690-A0031	4460-01-519-5125
800-32M003V	5130-01-620-6573
800-32M006V	5130-01-620-6415
800-32M009V	5130-01-620-7664
830-DMS080HV	5345-01-521-5652
830-DMS120HV	5345-01-528-9897
830-DMS180HV	5345-01-521-4927
830-DMS240HV	5345-01-521-4926
830-DMS320HV	5345-01-521-6602
834-DMS120HV	5345-01-521-5653
834-DMS180HV	5345-01-521-4186
834-DMS240HV	5345-01-521-4536
834-DMS320HV	5345-01-521-4537
835-G080S	4130-01-460-3184
835-G100S	4130-01-460-3185
835-G120S	4130-01-460-3186
835-G150S	4130-01-460-3187
835-G180S	4130-01-460-3189
835-G220S	4130-01-460-3191
835-G240S	4130-01-460-3192
835-G320S	4130-01-460-3194
835-G400S	4130-01-460-3197
837-DMS120HV	5345-01-521-4933
837-DMS180HV	5345-01-521-4540
837-DMS240HV	5345-01-533-0175
837-DMS320HV	5345-01-521-4929
850-G080SV	4130-01-459-9180
850-G100SV	4130-01-459-9183
850-G120SV	4130-01-459-9184
850-G150SV	4130-01-459-9186
850-G180SV	4130-01-459-9188
850-G220SV	4130-01-459-9189
850-G240SV	4130-01-459-9190
850-G320SV	4130-01-459-9195
850-G400SV	4130-01-459-9196
850-G500SV	4130-01-459-3199
850-P080-100	4130-01-487-0776

Clayton Part #	NSN
850-P120-100	4130-01-487-0779
850-P180-100	4130-01-487-0781
850-P240-100	4130-01-487-0782
850-P320-100	4130-01-487-0787
860-DMS080HV	5345-01-521-4185
860-DMS120HV	5345-01-521-4542
860-DMS180HV	5345-01-521-7251
860-DMS240HV	5345-01-521-4548
860-DMS320HV	5345-01-521-4541
860-G080SV	4130-01-459-9601
860-G100SV	4130-01-459-9604
860-G120SV	4130-01-459-9606
860-G150SV	4130-01-459-9607
860-G180SV	4130-01-459-9609
860-G220SV	4130-01-459-9610
860-G240SV	4130-01-459-9613
860-G320SV	4130-01-459-9617
860-G400SV	4130-01-459-9619
860-G500SV	4130-01-459-9622
921-1616HTSC	4130-01-460-1454
921-2424HTSC	4130-01-460-1457
922-A08H20	4130-01-460-1337
922-A08H50	4130-01-460-6082
924-1002	4820-01-520-3609
926-50R	4820-01-307-5130
926-75R	4820-01-520-7106
930-A005	5340-01-519-3071
940-011	4730-01-520-5799
940-016	4730-01-519-7442
940-08CF-PS	4130-01-460-2502
940-08PF	4130-01-460-2504
940-202	4730-01-520-6072
955-TB007	4130-01-531-6862
955-TB012	4130-01-482-5062
955-TB012NW	4130-01-460-6615
ACE-1000	7910-01-390-5761
DM-100	7910-01-520-6439
DM-104	7910-01-520-6436



Vacuum Systems 6

# VACUUM SYSTEMS

Hornet Portable Vacuum • Wart Hog HEPA Vacuum • Electric & Pneumatic Vacuums and Accessories



#### Hornet ultra-portable pneumatic HEPA vacuum designed specifically for dustless sanding and composites fabrication.



This unit is small enough to carry out to the flightline, but packs more than enough power for corrosion control, surface prep, or general cleanup.

The Hornet is incredibly efficient and powerful enough to use with sanders, grinders, and cutting tools.

The Hornet has been designed for the removal of coatings containing Hexavalent Chromium (Cr VI), lead, cadmium and other heavy metals, aluminum dust, carbon fiber, ceramic dust, fiberglass and mold. These units are extremely portable, lightweight and feature extra heavy duty components that ensure long life and extreme durability for industrial and military environments.

#### The Hornet pneumatic HEPA Vacuum incorporates Safe Filter Change unique to Clayton.

This means technicians can open the filter compartment and change the primary vacuum filter without protective gear or exposing other workers and environment to hazardous dust.

All this in a package so small, only 6" in diameter, and so portable that it can be used for deployment or mobile maintenance operations. Shops with central vacuum systems or larger mobile vacuums will find new freedom to perform spot repairs in the hangar or on the flight line, without exposing workers or the environment to hazardous dust.



- · Vacuum and accessories are electrically bonded to ensure conductivity during use
- HEPA filter: Efficiency of 99.97% @ 0.3 µm
- Consumes 30-75 CFM @ 90 PSI (user adjustable)
- Includes ½" compressed airline with ½" industrial interchange fittings
- Quiet at only 77dBA
- · Innovative cooling wand, keeps users cool and comfortable while working with the vacuum
- Static conductive air/vacuum hose with sheathing
- Ergonomic backpack harness (not shown) with chest clasp allows vacuum to be securely worn on back
- Tool Control Shadow-boxed two-color foam for FOD control / prevention
- Rugged Construction Packaged in an indestructible, lockable, wheeled Pelican Case
- Turn-key Operation upon receipt





#### **Hornet Accessories**

Model	NSN	Description	Price
627-516H		HEPA filter	
690-A0031		Bag Filter 10 pack	
922-A08H30-EXP		Airline 1/2" x 30' Conductive	
67X-AVHW1616-08		Air/Vac Work Hose 8' Conductive	
900-A001-30		Aircraft grounding wire 30'	
500-420		Cooling wand	
500-415-1216		FOD Wand 3/4" x 1" x 18"	
600-114DM		Black poly bag 25 pack	
500-4017		Wall Mount Bracket	

- \* Available on GSA Advantage website @ www.GSAadvantage.gov
- This item has an NSN See Model / NSN table on page 4.





Air/Vac Work Hose Conductive / All Brass Fittings

Compressed Air Line Conductive / All Stainless Steel Fittings



Grounding Cable

Wall Mount Bracket

#### The Hornet vacuum is available alone or in 4 package configurations.

Hornet Packages	ACE-1000	ACE-500	ACE-400	ACE-300	500-400
NSN					
Hornet Vacuum	✓	✓	✓	✓	✓
Pelican Case	✓	✓	✓	✓	
Cleanup Wand	✓	✓	✓	✓	
30' x ½" Air Supply Line	✓	✓	✓	✓	
Vacuum Hose				✓	
Air / Vacuum Hose	✓	✓	✓		
Personal Cooling Wand	✓	✓	✓	✓	
Bag Filters 10 pak	✓	✓	✓	✓	
Backpack Harness	✓	✓	✓	✓	
Aircraft Grounding Cable	✓	✓	✓	✓	
3" Random Orbital Sander	✓				
5" Random Orbital Sander		✓			
6" Random Orbital Sander	✓				
Backup Pads 2 each	✓				
Pad Protectors 100 discs	✓				
180 grit abrasive 250 discs	✓				
240 grit abrasive 250 discs	✓				
320 grit abrasive 250 discs	✓				

#### **ACE-1000**

Turn-key Dustless Sanding System includes Clayton random orbital sanders with abrasives, backup pads, and protector pads for each.

#### **ACE-500**

Complete Dustless Sanding System includes 5" Clayton random orbital sander.

#### **ACE-400**

Basic Dustless Sanding System. Customer supplies sander or purchases a Clayton sander separately.

#### **ACE-300**

Cleanup Vacuum, great for FOD pickup.

#### 500-400

Hornet vacuum only. All hoses and accessories sold separately.

#### Hornet Ultra Portable HEPA Vac

Model	NSN	Price
500-400		
ACE-300		
ACE-400		
ACE-500		
ACE-1000		

- ★ Available on GSA Advantage website @ www.GSAadvantage.gov
- This item has an NSN See Model / NSN table on page 4.

Use our Hornet Wall Bracket to mount hornets in decontamination or transition areas for personal cleanup. Vacuum slides in and out from the top and gravity holds it in place.





Wall Mount Bracket





# Air Powered For Combustible Dust Atmospheres

**Designed for use in potentially explosive dust atmospheres**, and for the removal of Hexavalent Chromium (Cr VI), paints containing lead or chromates, aluminum dust, carbon fiber, ceramic dust, fiberglass and mold. These units feature extra heavy duty components that ensure long life and extreme durability for industrial and military environments.



The Stingray HazLoc HEPA Vacuum incorporates Safe Filter for the containment of hazardous dust when changing filters.

#### Features:

- ATEX Certified for Use in Explosive Dust Atmospheres
- All Stainless Steel Non-Sparking Construction
- Machined Aluminum, Adjustable, Peripheral Injection, Annular Venturi
- · Grounding Jack and Cable
- Conductive Compressed Air Line
- Self Closing Vacuum Port
- 5 & 15 Gal Capacities
- All components are electrically bonded to ensure conductivity during use
- HEPA filter Efficiency of 99.97% @ 0.3 micron



# HazLoc HEPA Vac



#### **Air Powered** For Combustible Dust **Atmospheres**

Stingray Exp Vacs

	Tank Capacity			Vacuum		Weight	
Model	gal (liters)	Consumption	CFM (lpm)	"H2O (mbar)	dBA	lbs (kg)	Price
SR-205-4	5 ()	60 CFM @ 90 PSI (1699 lpm @ 413kPa)	105 (2973)	180 (447)	79		
SR-215-4	15 (57)	60 CFM @ 90 PSI (1699 lpm @ 413kPa)	105 (2973)	180 (447)	79		



Stingrav EXP Accessories

Carry Litt			
Model	NSN	Description	Price
627-12H-EXP		HEPA filter (static conductive)	
627-12P-EXP		PreFilter (static conductive) 3 pak	
600-313-EXP		Bag Filter (static conductive) 5 pak	
922-A08H30-EXP		Airline 1/2" x 30' SS EXP	
900-A001-30		Aircraft grounding cable 30'	













1-1/2" Cleanup Vac Hoses (Conductive)

		`			
Model	NSN	Vac Hose	Air Hose	Length	Price
67X-VHX24-10		1-1/2"	N/A	10'	
67X-VHX24-15		1-1/2"	N/A	15'	
67X-VHX24-20		1-1/2"	N/A	20'	
67X-VHX24-30		1-1/2"	N/A	30'	
67X-VHX24-40		1-1/2"	N/A	40'	
67X-VHX24-50		1-1/2"	N/A	50'	

Compressed Airline



1-1/2" Air / Vac Work Hoses (Conductive)

,_ , , , ,						
Model	NSN	Vac Hose	Air Line	Length	Price	
67X-AVHW2416-10		1-1/2"	3/8"	10'		
67X-AVHW2416-20		1-1/2"	3/8"	20'		
67X-AVHW2416-30		1-1/2"	3/8"	30'		
67X-AVHW2416-40		1-1/2"	3/8"	40'		
67X-AVHW2416-50		1-1/2"	3/8"	50'		
67X-AVHW2416-75		1-1/2"	3/8"	75'		





#### Cleanup

- Industrial HEPA Vac
- Electric or Pneumatic
- · Poly or Steel Tank

#### Aero

- Aerospace HEPA Vac
- Electric or Pneumatic
- Poly or Steel Tank
- Safe Filter Change
- Grounded / Bonded
- Filter Health Gauge
- · Pass Thru Compressed Air

#### Wet-Dry

- Industrial HEPA Vac
- Electric or Pneumatic
- Poly Tank
- Wet fill auto shutoff

#### Auto

- Industrial HEPA Vac
- Electric or Pneumatic
- Poly or Steel Tank
- Pass Thru Compressed Air
- Auto On/Off

 Designed for general cleanup and house keeping where absolute HEPA filtration is required.

· Designed for use in environments where toxic dust and static buildup are an issue.

• Designed for general cleanup, house keeping and wet pickup with HEPA filtration.

· Designed for dustless sanding and grinding. Pneumatic tools activate vacuum.



## Electric Poly & Steel Tanks

• WartHog HEPA Cleanup Vacs are an ideal solution for dust extraction and general cleanup. They provide the airflow, filtration, and durability expected from an industrial vacuum, and are designed for the removal of coatings containing Hexavalent Chromium (Cr VI), lead, cadmium and other heavy metals, carbon fiber, ceramic dust, fiberglass, mold, and asbestos. These units feature extra heavy duty components that ensure long life and extreme durability for industrial and military environments. Components are modular and field serviceable for easy replacement after years of service.



• Electric Power Heads feature a heavy duty 2hp 2 stage peripheral bypass 11A motor.

#### **Features**

- Self closing vacuum port
- · Screw on HEPA filter
- 5, 15, or 30 Gal Capacities

#### **Includes**

- HEPA filter / Pre-filter
- Cord & Hose Straps
- · Bag filter 5 pak



# WartHog

### **Electric**



# 30G Steel

# **Poly & Steel Tanks**

• Poly Tanks are light weight and won't dent, crack, or rust, providing years of worry free performance in harsh or wet environments.

Vacuums al la carte - Choose your own hose and tools.

WartHog Cleanup Electric Poly

Model	NSN	Tank Capacity gal (liters)	Consumption	CFM (lpm)	Vacuum "H2O (mbar)	Weight lbs (kg)	Price
WC-105-0		5 (19)	120V	112	106	25	
WC-115-0		15 (57)	11.4A	(3171)	(263)	47	
WC-105-1		5 (19)	220-240V	108	100	25	
WC-115-1		15 (57)	11.4A	(3058)	(248)	47	

• Steel Tanks and dollies are heavy weight powder coated steel and wont burn or melt.

WartHog Cleanup Electric Steel

(83 dBA - 2hp)

(83 dBA - 2hp)

Model	NSN	Tank Capacity gal (liters)	Consumption	CFM (lpm)	Vacuum "H2O (mbar)	Weight lbs (kg)	Price
WC-205-0		5 (19)	120VAC	112		25	
WC-215-0		15 (57)			106 (263)	47	
WC-230-0		30 (115)	11.4A (3171)				
WC-205-1		5 (19)	220-240V	108		25	
WC-215-1		15 (57)	11.4A		100 (248)	47	
WC-230-1		30 (115)		(3058)			









#### **Vacuum Kits**

- Order your WartHog with a hose below and save!
- Additional Kits Available at the end of this section!

WartHog Cleanup Electric Kits

Model	NSN	Description	Price
WC-105-0-A000		WartHog Cleanup HEPA Vac 5G 120V Poly & Hose	
WC-115-0-A000		WartHog Cleanup HEPA Vac 15G 120V Poly & Hose	
WC-205-0-A000		WartHog Cleanup HEPA Vac 5G 120V Steel & Hose	
WC-215-0-A000		WartHog Cleanup HEPA Vac 15G 120V Steel & Hose	
WC-230-0-A000		WartHog Cleanup HEPA Vac 30G 120V Steel & Hose	





# Air Powered Poly & Steel Tanks

• WartHog HEPA Cleanup Vacs are an ideal solution for dust extraction and general cleanup. They provide the airflow, filtration, and durability expected from an industrial vacuum, and are designed for the removal of coatings containing Hexavalent Chromium (Cr VI), lead, cadmium and other heavy metals, carbon fiber, ceramic dust, fiberglass, mold, and asbestos. These units feature extra heavy duty components that ensure long life and extreme durability for industrial and military environments. Components are modular and field serviceable for easy replacement after years of service.



• Pneumatic (Air) Power Heads feature a machined aluminum, adjustable, peripheral injection, annular venturi.

#### **Features**

- Self closing vacuum port
- Screw on HEPA filter
- 5 or 15 Gal Capacities

#### Includes

- HEPA filter / Pre-filter
- Cord & Hose Straps
- · Bag filter 5 pak





#### **Air Powered Poly & Steel Tanks**

#### Vacuums al la carte - Choose your own hose and tools.

• Poly Tanks are light weight and won't dent, crack, or rust, providing years of worry free performance in harsh or wet environments.

WartHog Cleanup Air Poly

(79 dBA)

		Tank Capacity		CFM	Vacuum	Weight	
Model	NSN	gal (liters)	Consumption	(lpm)	"H2O (mbar)	lbs (kg)	Price
WC-105-4		5 (19)	60 CFM @ 90 PSI	105	180	23	
VVC-103-4		5 (19)	(1699 lpm @ 413kPa)	(2973)	(447)	25	
WC-115-4		15 (57)	60 CFM @ 90 PSI	105	180	44	
WC-115-4		15 (57)	(1699 lpm @ 413kPa)	(2973)	(447)	44	

• Steel Tanks and dollies are heavy weight powder coated steel and wont burn or melt.

WartHog Cleanup Air Steel

(79 dBA)

		Tank Capacity		CFM	Vacuum	Weight	
Model	NSN	gal (liters)	Consumption	(lpm)	"H2O (mbar)	lbs (kg)	Price
WC-205-4		5 (19)	60 CFM @ 90 PSI	105	180	23	
VVC-203-4		3 (19)	(1699 lpm @ 413kPa)	(2973)	(447)	23	
WC-215-4		15 (57)	60 CFM @ 90 PSI	105	180	44	
VVC-215-4		15 (57)	(1699 lpm @ 413kPa)	(2973)	(447)	44	
WC-230-4		20 (115)	60 CFM @ 90 PSI	105	180		
VVC-23U-4		30 (115)	(1699 lpm @ 413kPa)	(2973)	(447)		J











#### **Vacuum Kits**

- Order your WartHog with a hose below and save!
- Additional Kits Available at the end of this section!

WartHog Cleanup Pneumatic Kits

Model	NSN	Description	Price
WC-105-4-A000		WartHog Cleanup HEPA Vac 5G Air Poly & Hose	
WC-115-4-A000		WartHog Cleanup HEPA Vac 15G Air Poly & Hose	
WC-205-4-A000		WartHog Cleanup HEPA Vac 5G Air Steel & Hose	
WC-215-4-A000		WartHog Cleanup HEPA Vac 15G Air Steel & Hose	
WC-230-4-A000		WartHog Cleanup HEPA Vac 30G Air Steel & Hose	







## Electric Poly & Steel Tanks

• WartHog HEPA Aero Vacs are an ideal solution for dustless sanding, dust extraction, and general cleanup. They provide the airflow, filtration, and durability expected from an industrial vacuum, and are designed for the removal of coatings containing Hexavalent Chromium (Cr VI), lead, cadmium and other heavy metals, carbon fiber, ceramic dust, fiberglass, mold, and asbestos. These units feature extra heavy duty components that ensure long life and extreme durability for industrial and military environments. Components are modular and field serviceable for easy replacement after years of service. Aerospace features include a grounding jack to eliminate static buildup and a Safe Filter Change port for containment of hazardous dust when changing filters.



• **Electric Power Heads** feature a heavy duty 2hp 2 stage peripheral bypass 11A motor. Aerospace features include a pressure differential gauge for monitoring filter condition.

#### **Features**

- Self closing vacuum port
- Screw on HEPA filter captures 99.97% of particles  $0.3\mu\mathrm{m}$  and larger
- 5 or 15 Gal Capacities

#### Includes

- · HEPA filter / Pre-filter
- Cord & Hose Straps
- · Bag filter 5 pak



#### WartHog Aero Electric NSN Kits

Model	NSN	Description	Price
WH-105-0-A001	4130-01-459-0656	WartHog Aero HEPA Vac 5G 120V Poly Cleanup Kit	
WH-105-0-A011	4130-01-459-0563	WartHog Aero HEPA Vac 5G 120V Poly & FOD Kit	
WH-115-0-A002	7910-01-544-9446	WartHog Aero HEPA Vac 15G 120V Poly HD Cleanup Kit	





#### Vacuums al la carte - Choose your own hose and tools.

• Poly Tanks are light weight and won't dent, crack, or rust, providing years of worry free performance in harsh or wet environments.

#### WartHog Aero Electric Poly

(83 dBA - 2hp)

		Tank Capacity			Vacuum	Weight	
Model	NSN	gal (liters)	Consumption	CFM (lpm)	"H2O (mbar)	lbs (kg)	Price
WH-105-0		5 (19)	120V @ 11.4A	112 (3171)	106 (263)	25	
WH-115-0		15 (57)	120V @ 11.4A	112 (3171)	100 (203)	47	
WH-105-1		5 (19)	220 240\/ @ 41 44	100 (2050)	100 (249)	25	
WH-115-1		15 (57)	220-240V @ 11.4A	108 (3058)	100 (248)	47	

• Steel Tanks and dollies are heavy weight powder coated steel and wont burn or melt.

#### WartHog Aero Electric Steel

(83 dBA - 2hp)

						_ `	
		Tank Capacity			Vacuum	Weight	
Model	NSN	gal (liters)	Consumption	CFM (lpm)	"H2O (mbar)	lbs (kg)	Price
WH-205-0		5 (19)	120\/AC @ 11 4A	110 (2171)	106 (262)	25	
WH-215-0		15 (57)	120VAC @ 11.4A	112 (3171)	106 (263)	47	
WH-205-1		5 (19)	220 240\/ @ 11 44	100 (2050)	100 (248)	25	
WH-215-1		15 (57)	220-240V @ 11.4A	108 (3058)	100 (248)	47	





#### **Electric Poly & Steel Tanks**







#### **Vacuum Kits**

- Order your WartHog with a hose below and save!
- Additional Kits Available at the end of this section!

WartHog Aero Electric Kits

Model	NSN	Description	Price
WH-105-0-A000	4130-01-458-8679	WartHog Aero HEPA Vac 5G 120V Poly & Hose	
WH-115-0-A000			
WH-205-0-A000			
WH-215-0-A000	4130-01-459-0584	WartHog Aero HEPA Vac 15G 120V Steel & Hose	





# Air Powered Poly & Steel Tanks

• WartHog HEPA Aero Vacs are an ideal solution for dustless sanding, dust extraction, and general cleanup. They provide the airflow, filtration, and durability expected from an industrial vacuum, and are designed for the removal of coatings containing Hexavalent Chromium (Cr VI), lead, cadmium and other heavy metals, carbon fiber, ceramic dust, fiberglass, mold, and asbestos. These units feature extra heavy duty components that ensure long life and extreme durability for industrial and military environments. Components are modular and field serviceable for easy replacement after years of service. Aerospace features include a grounding jack to eliminate static buildup and a Safe Filter Change port for containment of hazardous dust when changing filters.



• Pneumatic (Air) Power Heads feature a machined aluminum, adjustable, peripheral injection, annular venturi.

#### **Features**

- · Self closing vacuum port
- Screw on HEPA filter
- 5 or 15 Gal Capacities

#### Includes

- HEPA filter / Pre-filter
- Cord & Hose Straps
- Bag filter 5 pak



#### WartHog Aero Pneumatic NSN Kits

Model	NSN	Description	Price
WH-105-4-A011	4130-01-503-9359	WartHog Aero HEPA Vac 5G Air Poly & FOD Kit	





## Air Powered Poly & Steel Tanks

#### Vacuums al la carte - Choose your own hose and tools.

• **Poly Tanks** are light weight and won't dent, crack, or rust, providing years of worry free performance in harsh or wet environments.



WartHog Aero Air Poly

Model	NSN	Tank Capacity gal (liters)	Consumption	CFM (lpm)	Vacuum "H2O (mbar)	Weight lbs (kg)	Price
WH-105-4		5 (19)	60 CFM @ 90 PSI (1699 lpm @ 413kPa)	105 (2973)	180 (447)	23	
WH-115-4		15 (57)	60 CFM @ 90 PSI (1699 lpm @ 413kPa)	105 (2973)	180 (447)	44	

• Steel Tanks and dollies are heavy weight powder coated steel and wont burn or melt.

#### WartHog Aero Air Steel

(79 dBA)

Model	NSN	Tank Capacity gal (liters)	Consumption	CFM (lpm)	Vacuum "H2O (mbar)	Weight lbs (kg)	Price
WH-205-4		5 (19)	60 CFM @ 90 PSI (1699 lpm @ 413kPa)	105 (2973)	180 (447)	23	
WH-215-4		15 (57)	60 CFM @ 90 PSI (1699 lpm @ 413kPa)	105 (2973)	180 (447)	44	









#### **Vacuum Kits**

- Order your WartHog with a hose below and save!
- Additional Kits Available at the end of this section!

WartHog Aero Pneumatic Kits

Model	NSN	Description	Price		
WH-105-4-A000	4130-01-459-0556	WartHog Aero HEPA Vac 5G Air Poly & Hose			
WH-115-4-A000					
WH-205-4-A000					
WH-215-4-A000	4130-01-459-0559	WartHog Aero HEPA Vac 15G Air Steel & Hose			





# Warthog Warthog



#### Electric Poly Tank

• WartHog HEPA Wet/Dry Vacs are an ideal solution for dust extraction and general cleanup. They provide the airflow, filtration, and durability expected from an industrial vacuum, and are designed for the removal of coatings containing Hexavalent Chromium (Cr VI), lead, cadmium and other heavy metals, carbon fiber, ceramic dust, fiberglass, mold, and asbestos. These units feature extra heavy duty components that ensure long life and extreme durability for industrial and military environments. Components are modular and field serviceable for easy replacement after years of service. Includes and water level automatic shutoff for picking up bulk liquids or wet debris without HEPA filter.



- **Poly Tanks** are light weight and won't dent, crack, or rust, providing years of worry free performance in harsh or wet environments.
- Electric Power Heads feature a heavy duty 2hp 2 stage peripheral bypass 11A motor.



WartHog Wet/Dry Electric Poly

(83 dBA - 2hp)

	,					(	
		Tank Capacity		CFM	Vacuum	Weight	
Model	NSN	gal (liters)	Consumption	(lpm)	"H2O (mbar)	lbs (kg)	Price
WW-105-0		5 (19)	120\/ @ 11 44	112	106 (262)	25	
WW-115-0		15 (57)	120V @ 11.4A	(3171)	106 (263)	47	
WW-105-1		5 (19)	220-240V @ 11.4A	108	100 (248)	25	
WW-115-1		15 (57)	220-240V @ 11.4A	(3058)	100 (246)	47	

WartHog Wet/Dry Electric Kits

	Model	NSN	Description	Price
	WW-105-0-A010		WartHog Wet-Dry HEPA Vac 5G 120V Poly & Cleanup Kit	
ļ	WW-115-0-A010			





# WartHog



2" Casters

#### Air Powered **Poly Tank**

· WartHog HEPA Wet/Dry Vacs are an ideal solution for dust extraction and general cleanup. They provide the airflow, filtration, and durability expected from an industrial vacuum, and are designed for the removal of coatings containing Hexavalent Chromium (Cr VI), lead, cadmium and other heavy metals, carbon fiber, ceramic dust, fiberglass, mold, and asbestos. These units feature extra heavy duty components that ensure long life and extreme durability for industrial and military environments. Components are modular and field serviceable for easy replacement after years of service. Includes and water level automatic shutoff for picking up bulk liquids or wet debris without HEPA filter.



- Poly Tanks are light weight and won't dent, crack, or rust, providing years of worry free performance in harsh or wet environments.
- · Air Pneumatic Power Heads feature a machined aluminum, adjustable, peripheral injection, annular venturi.





WartHog Wet/Dry Air Poly

Warthog WetDry Air Poly (79 de							
		Tank Capacity		CFM	Vacuum	Weight	
Model	NSN	gal (liters)	Consumption	(lpm)	"H2O (mbar)	lbs (kg)	Price
WW-105-4		5 (19)	60 CFM @ 90 PSI	105	180	23	
VV VV-103-4		5 (19)	(1699 lpm @ 413kPa)	(2973)	(447)	23	
\A(\A) 44E 4		45 (57)	60 CFM @ 90 PSI	105	180	4.4	
WW-115-4		15 (57)	(1699 lpm @ 413kPa)	(2973)	(447)	44	

WartHog Wet/Dry Pneumatic Kits

i		NIONI	B 1.0	5 :
	Model	NSN	Description	Price
WW-105-4-A010			WartHog Wet-Dry HEPA Vac 5G Air Poly & Cleanup Kit	
[	WW-115-4-A010		WartHog Wet-Dry HEPA Vac 15G Air Poly & Cleanup Kit	







#### **WartHog Kits**

WartHog Cleanup Kits include vacuum, hose, one set of cleaning tools, tool control belt, and compressed airline

(pneumatic vacs only)

WartHog Cleanup Kits Add this suffix to any Warthog	-A000	-A001	-A002	-A003	-A011
Cleanup Hose	✓	✓	✓	✓	✓
Compressed Air Line 30' x ½"	x	×	×	×	×
Tool Control Kit		✓	✓	✓	✓
Cleanup Tools Light Duty		✓			
Cleanup Tools Heavy Duty			✓		
Cleanup Tools HD Wheeled				<b>✓</b>	
Cleanup Tools FOD Kit					<b>✓</b>













WartHog Sanding Kits include vacuum, hose, sander, abrasives, plus a host of other items. See table below for a complete list.

WartHog Sanding Kits Add this suffix to any Warthog	-1000	009-	-500
Cleanup Hose		✓	
Combination Hose 1½" x 20'	✓		✓
Compressed Air Line 30' x 1/2"	×	×	×
3" DA Sander	✓		
5" DA Sander			✓
6" DA Sander	✓	✓	
3" Backup Pads 3 pak	✓		
6" Backup Pads 3 pak	✓		
3" Pad Protectors 50 pak	✓		
6" Pad Protectors 50 pak	✓		
3" 80 grit abrasive 250 pak	✓		
3" 120 grit abrasive 250 pak	✓		
3" 180 grit abrasive 250 pak	✓		
6" 80 grit abrasive 250 pak	✓		
6" 120 grit abrasive 250 pak	✓		
6" 180 grit abrasive 250 pak	✓		





#### **WartHog Accessories**

#### WartHog Consumables

			$\overline{}$
Model	NSN	Description	Price
627-12H	2H 4310-01-520-6794 HEPA filter		
627-12P		PreFilter 3 pack	
600-313A	4130-01-459-1257	Bag Filter 5 pack (5 gal)	
627-16B	7910-01-459-0352	Bag Filter 5 pack (15 gal)	
627-30B		Bag Filter 5 pack (30 gal)	





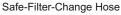


WartHog Accessories

Model	NSN	Description	Price
630-A004-05		Tool Control Belt (WartHog 5 gal)	
630-A004-15		Tool Control Belt (WartHog 15 gal)	
630-A004-30		Tool Control Belt (WartHog 30 gal)	
922-A08H30	4130-01-460-1337	Airline 1/2" x 30'	
671-VHX24-20		Vacuum Hose 1-1/2" x 20' (Static conductive)	
671-VHA24-003		Safe Filter Change Hose	
926-A08F40-01		Compressed Air Filter Integrated	
926-A08F40-02		Compressed Air Filter Quick Disconnect	









Compressed Airline Additional Lengths Available



Tool Control Belt



Quick Disconnect

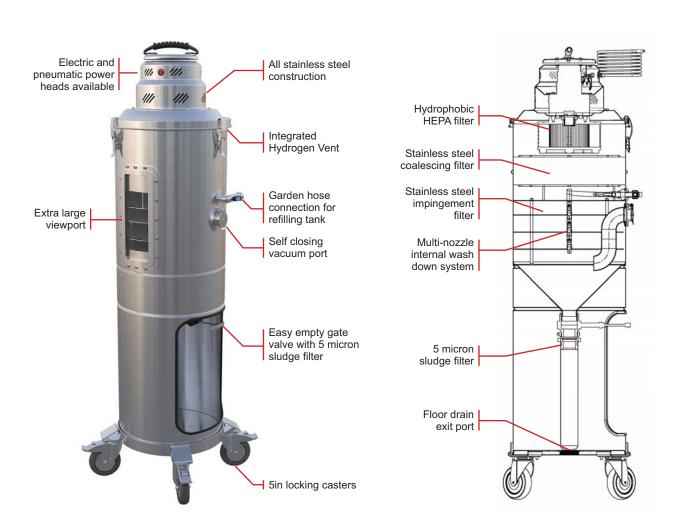
#### Barracuda Two User Immersion Vac / Separator

Designed specifically for the capture of live sparks, embers, and combustible dust, like aluminum and titanium, the Barracuda's powerful vacuum motor draws air and collected particulate into the immersion tank, and forces it through a roiling water bath, instantly quenching sparks, and thoroughly wetting dust out of the airstream. Three stages of additional filtration ensure that the air exhausted from the system is dust and moisture free.

When its time to empty the tank, simply pull the valve lever to dump the water and debris out through a filter sock and into any floor drain. Once the tank is empty, connect the system to a normal garden hose, and a series of spray heads inside the unit continue to flush the tank, ensuring that no sediment builds up on the internal components. The large window makes it simple to confirm the water level in the tank, and allows spectators to view the carnage as dust and debris gets consumed by the Barracuda.

#### Features:

- 2 User
- · All stainless steel construction will never rust
- Multi nozzle internal wash down system keeps the unit clean
- Large window to monitor water level and vacuum activity
- 4 stage filtration system ensures dust containment
- · Drain filter for easy collection and disposal of sludge



Whether you're installing a Barracuda system in your automotive bay or your aircraft hangar, you'll be extremely satisfied with the low maintenance and ease of use. And with a lifetime warranty against manufacturer's defects, you'll have peace of mind knowing that this equipment solution is a one-time purchase.

#### **Barracuda Comparison**

Barracuda Volt Immersion Vac	Barracuda Air Immersion Vac	Barracuda Immersion Pre-Separator
CU-215-0/1/2	CU-215-4	CU-215-X
Includes an Electric Power Head 120V, 220V, or 240V	Includes a Pneumatic Power Head Requires 60 CFM of compressed air	No Power Head Requires an External Vacuum Source

#### Barracuda

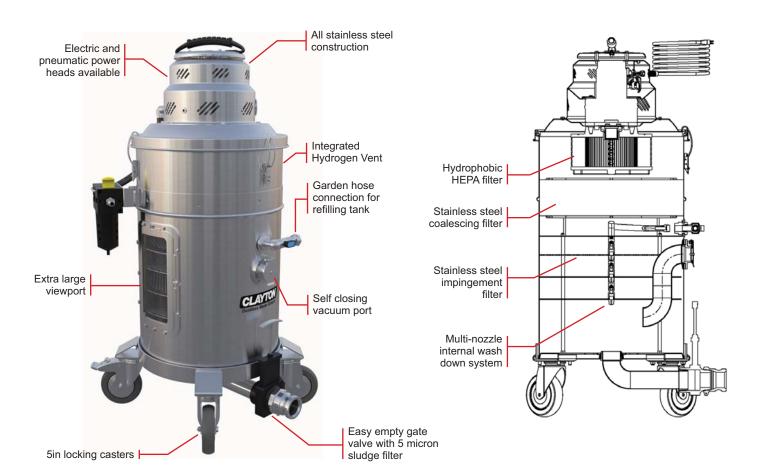
Model	NSN	Tank Capacity gal (liters)	Consumption	CFM (lpm)	Vacuum "H2O (mbar)	dBA	HP	Weight lbs (kg)	Price
CU-215-0			120VAC @ 11.4A	112 (3171)	106 (263)	83	2		
CU-215-1			220VAC @ 6.4A	108 (3058)	100 (248)	83	2		
CU-215-2		4 (15)	240VAC @ 6.4A	128 (3624)	100 (248)	83	2		
CU-215-4			60 CFM @ 90 PSI (1699 lpm @ 413kPa)	105 (2973)	180 (447)	79	-		
CU-215-X			-	-	-	-	-		

#### Mini-Cuda Single User Immersion Vac / Separator

Designed specifically for the capture of live sparks, embers, and combustible dust, like aluminum and titanium. The Mini-Cuda is a single user version of our Barracuda Immersion Vac.

#### Features:

- Single User
- · All stainless steel construction will never rust
- Multi nozzle internal wash down system keeps the unit clean
- · Large window to monitor water level and vacuum activity
- 4 stage filtration system ensures dust containment
- · Drain filter for easy collection and disposal of sludge



#### Mini-Cuda Comparison

Mini-Cuda Volt Immersion Vac	Mini-Cuda Air Immersion Vac	Mini-Cuda Immersion Pre-Separator
CU-205-0/1/2	CU-205-4	CU-205-X
	CATE	CATE
Includes an	Includes a	No Dower Hood

Includes an Electric Power Head 120V, 220V, or 240V Pneumatic Power Head Requires 60 CFM of compressed air

No Power Head Requires an External Vacuum Source

#### Mini-Cuda

Model	NSN	Tank Capacity gal (liters)	Consumption	CFM (lpm)	Vacuum "H2O (mbar)	dBA	HP	Weight lbs (kg)	Price
CU-205-0			120VAC @ 11.4A	112 (3171)	106 (263)	83	2		
CU-205-1			220VAC @ 6.4A	108 (3058)	100 (248)	83	2		
CU-205-2		4 (15)	240VAC @ 6.4A	128 (3624)	100 (248)	83	2		
CU-205-4			60 CFM @ 90 PSI (1699 lpm @ 413kPa)	105 (2973)	180 (447)	79	-		
CU-205-X			-	-	-	-	-		

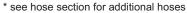
#### Barracuda Consumables

Model	NSN	Description	Price
627-12C		Coalescing Hydrophobic HEPA filter	
		Sludge Filter Sock	
627-16C Coa		Coalescing Stainless Steel Filter	



#### Barracuda Accessories

Model	NSN	Description	Price
671-VHX24-20	_	Cleanup Hose 1-1/2" x 20'	
671-AVHW2416-20		Air Vac Work Hose 20'	
630-A005		Heavy Duty Cleanup Toolkit	
922-A08H30		Compressed Airline 30'	

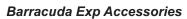












Model	NSN	Description	Price
67X-VHX24-20			
67X-AVHW2416-20 Air Vac Work Hose 20' Conductive			
922-A08H30-EXP		Compressed Airline 30' Conductive	
630-A008		Heavy Duty Cleanup Toolkit Conductive	
900-A001-30		Aircraft Grounding Cable	











#### **DustMaster Electric & Pneumatic HEPA Vacs**

Available in both **electric** and **pneumatic**, the DustMaster Series HEPA vacs are our most powerful solution for portable dustless sanding, dust extraction, and general cleanup. They are designed for the removal of coatings containing Hexavalent Chromium (Cr VI), lead, cadmium and other heavy metals, carbon fiber, ceramic dust, fiberglass and mold. These units are portable, and include features for the most demanding applications. All components are extra heavy duty to ensure long life and extreme durability for industrial and military environments.

#### Three Stage Filtration -

Stage 1: Filter Bag. Change as needed.

Stage 2: Pre-filter is 95% efficient @ 0.3 µm. Change once a year or when Minihelic reads above 5.

Stage 3: HEPA Filter is 99.97% efficient @ 0.3 µm

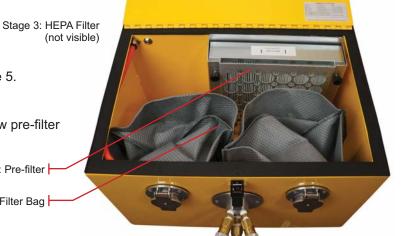
Change when magnahelic reads above 5 with a new pre-filter

installed. With proper maintenance and use. this filter will last several years.



Stage 2: Pre-filter

Stage 1: Filter Bag



#### **Patented Safe-Filter-Change**

This unique Clayton design allows workers to change disposable filters in complete safety.

- Leave vacuum running while changing filter bag; downdraft into pre-filter contains any dust trying to escape, preventing worker exposure.
- Leave vacuum running while changing pre-filter, downdraft into HEPA filter contains any dust trying to escape, preventing worker exposure.







Pre-filter change

#### **Twin Vacuum Motors**

Our Electric and Pneumatic DustMaster Vacuum systems both employ dual vacuum motors for unmatched performance and support for up to 3 simultaneous users.

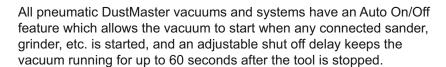




#### Auto On / Off -

Compressed air is an expensive part of running any operation. Facility managers and engineers know the real cost of compressed air is significant. The electricity required to operate large screw compressors is a huge part of the daily operating expense for a shop or hangar.

We've observed in many facilities air powered vacuums left running continuously, reducing available pressure to the facility, and putting a heavy and continuous strain on the compressor. Our engineers have put years of research and development into the design of the industry's first automatic tool sensing all pneumatic vacuum - available only from Clayton.



- Vacuum can be set to ON for continuous run
- AUTO for tool actuated mode
- Shut off delay adjustable from 5 to 60 seconds



#### Gauge Panel



Our gauge panel helps you monitor the health and performance of your DustMaster system.

Our Auto On/Off System Pressure acts as a countdown monitor. When a connected tool is actuated the Auto System is pressurized. When the tool is stopped the shut off delay bleeds air from the Auto System and the pressure counts down to zero at which time the vacuum shuts off.

To help monitor the HEPA filter, our Minihelic compares the pressure on either side of the filter. As particles build up in the HEPA filter, the pressure difference increases. When the gauge is in the red, it's time to change the HEPA filter. With proper maintenance of the pre-filter and bag filters, the HEPA filter should last several years.

Since the DustMaster has a built in manifold for providing compressed air to your tools, it's helpful to see the Air Supply Line Pressure. This lets you know if your compressor is keeping up with demand. In a properly operating system with an adequate air supply, this gauge should remain between 80 and 100 psi.

#### **Configurations**

#### The DustMaster System is available in 4 configurations

These configurations build on one another by adding components of the DustMaster system. These components interlock to form a single standalone unit.



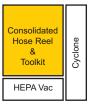


The DustMaster HEPA Vacuum is available as a standalone unit. This is the Heart of the DustMaster System.

#### DustMaster Vacuums

Model	NSN	Power	Weight lbs (kg)	Price
DM-100		Electric	84 (38)	
DM-104		Pneumatic	77 (35)	

2



The Consolidated Hose Reel & Toolkit (CTK) provides storage for vacuum hoses, compressed air lines, sanders, tools, and abrasives. It's available with or without casters, and can ride atop the vacuum.

CTK Only

	Model	NSN	Description	Weight lbs (kg)	Price
ĺ	650-201		CTK without casters	100 (45)	
	650-301		CTK with casters	108 (49)	

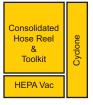
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In this configuration the Consolidated Hose Reel & Toolkit (CTK) rides atop the vacuum creating a single unit for easy deployment and storage.

DustMaster Systems (CTK)

Model	NSN	Power	Weight lbs (kg)	Price
DM-100CTK		Electric	184 (83)	
DM-104CTK		Pneumatic	177 (80)	



Our Cyclonic pre-separator is an add-on unit that captures 99% of debris before it gets to the primary filter bag. This means fewer filter changes and less loss of suction. The cyclone is only available with the CTK.

DustMaster Systems (CTK & Cyclone)

Model	NSN	Power	Weight lbs (kg)	Price
DM-300		Electric	207 (93)	
DM-304		Pneumatic	200 (90)	

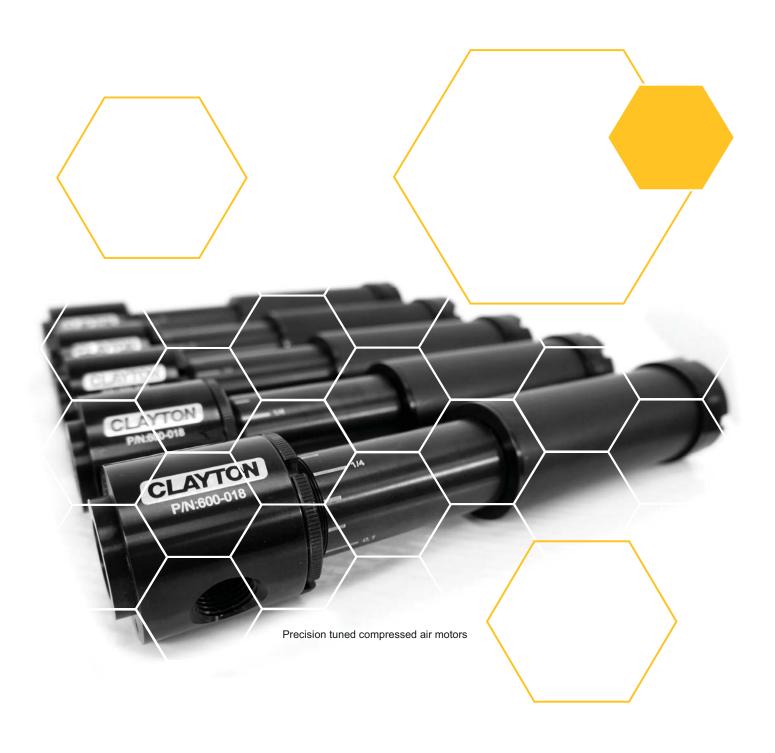
- Available on GSA Advantage website @ www.GSAadvantage.gov
- This item has an NSN See Model / NSN table on page 4.











# **DustMaster Electric Vacuums**



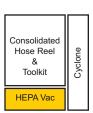
# **Features**

- Supports up to 3 users with optional Y adapter
- Uses a single compressed air line and an internal manifold to supply 3 users with compressed air
- Safe-Filter-Change protects users from exposure to hazardous dust when changing filters
- · Self closing vacuum port prevents hazardous dust from escaping when not in use
- · Low profile design won't tip
- · Heavy duty dual electric motors
- HEPA filter captures 99.97% of particles 0.3 μm and larger
- · Each vacuum certified leak free
- Pre-filter protects HEPA filter for longer life
- · Includes all filters and bags

# DustMaster Electric Vacuum

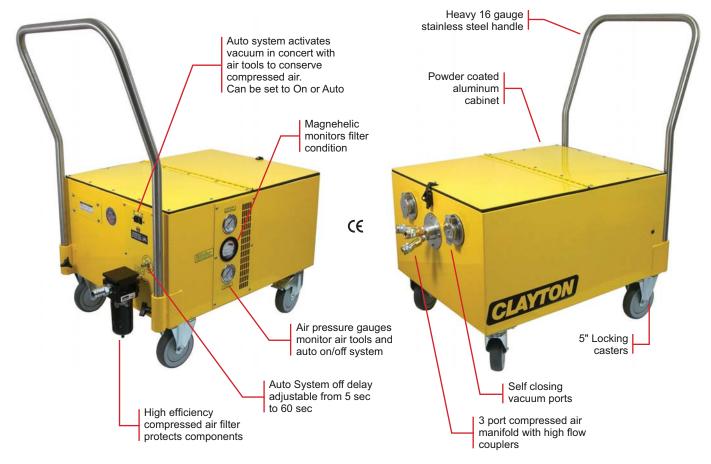
Model	NSN	Power	Weight Ibs (kg)	Dimensions Inches (cm)	Consumption	CFM (lpm)	Vacuum "H2O (mbar)	dBA	HP	Price
DM-100	_	Electric	84	28w x 22d x 20h (71w x 55d x 50h)	120VAC @ 20A	182 (5153)	85 (212)	77	2	

- Available on GSA Advantage website @ www.GSAadvantage.gov
- This item has an NSN See Model / NSN table on page 4.
- Hoses sold separately





# **DustMaster Pneumatic Vacuums**



# **Features**

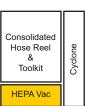
- Supports up to 3 users
- Auto On/Off System turns vacuum on when pneumatic tool is actuated (user adjustable)
- Uses a single compressed air line and an internal manifold to supply 3 users with compressed air
- · Safe-Filter-Change protects users from exposure to hazardous dust when changing filters
- Self closing vacuum port prevents hazardous dust from escaping when not in use
- · Low profile design won't tip
- · Heavy duty dual pneumatic motors
- HEPA filter captures 99.97% of particles 0.3 μm and larger
- Pre-filter protects HEPA filter for longer life
- · Includes all filters and bags

### DustMaster Pneumatic Vacuum

Model	NSN	Power	Weight lbs (kg)	Dimensions Inches (cm)	Consumption	CFM (lpm)	Vacuum "H2O (mbar)	dBA	HP	Price
DM-104		Pneumatic	77	28w x 22d x 20h (71w x 55d x 50h)	75 CFM @ 90 PSI (2123 lpm @ 413kPa)	212 (6003)	125 (310)	75	-	

<sup>\*</sup> CFM with cyclone pre separator

- \* Available on GSA Advantage website @ www.GSAadvantage.gov
- This item has an NSN See Model / NSN table on page 4.
- Hoses sold separately



# **DustMaster Consolidated Tool Kit & Hose Reel**

The Consolidated Tool Kit & Hose Reel provides storage for three vacuum hoses. The top of the CTK is a shadowboxed tool tray which holds sanders and tools. Every item is tethered or shadowed, so tool control can be easily maintained. Each compartment is lockable for tool security.

Consolidated Hose Reel Toolkit HEPA Vac

The CTK is available with wheels as a standalone unit or without wheels for mounting on a Clayton DustMaster Vacuum.

### Includes:

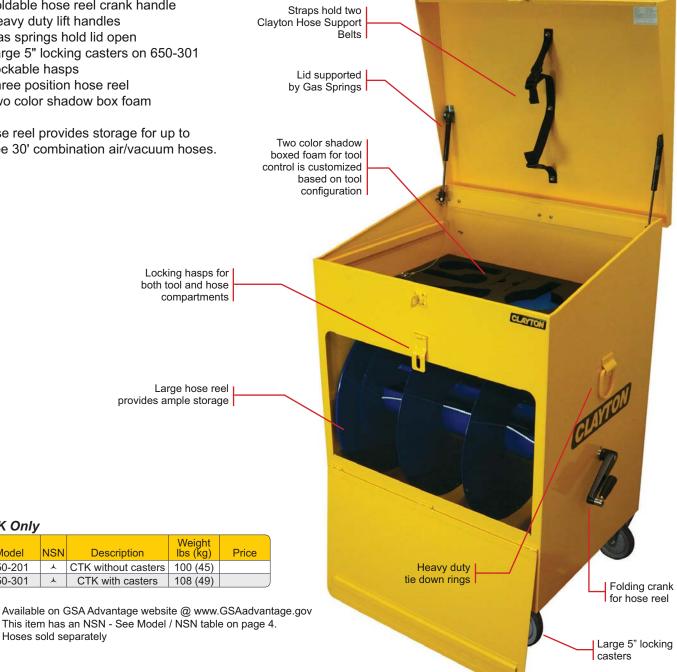
- All steel powder coated construction
- Heavy duty tie down rings
- Foldable hose reel crank handle
- · Heavy duty lift handles
- · Gas springs hold lid open
- Large 5" locking casters on 650-301
- · Lockable hasps
- · Three position hose reel
- Two color shadow box foam

Hose reel provides storage for up to three 30' combination air/vacuum hoses.

Description

CTK without casters

CTK with casters





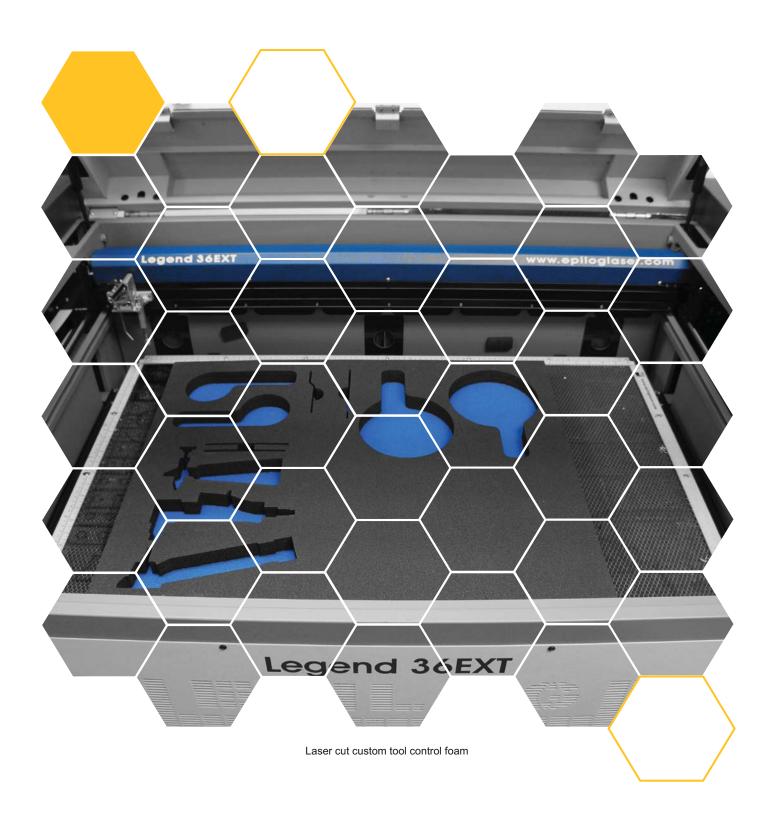
Hoses sold separately

CTK Only

Model

650-201

650-301



# **DustMaster CTK Systems**

The DustMaster CTK Systems combine a DustMaster Electric or Pneumatic vacuum with a CTK to form a single self contained portable unit with space for hoses tools and abrasives in a single place. This makes deployment and storage a one man job.

# Consolidated Hose Reel & Toolkit HEPA Vac

#### **Features**

- · Supports up to 3 users
- Use a single compressed air line and an internal manifold to supply 3 users with compressed air
- · Self closing vacuum port prevents hazardous dust from escaping when not in use
- Heavy duty dual motors
- HEPA filter captures 99.97% of particles 0.3 µm and larger
- Pre-filter protects HEPA filter for longer life
- · Includes all filters and bags for turnkey operation

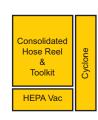
# DustMaster Systems (CTK)

Model	NSN	Power	Weight lbs (kg)	Price
DM-100CTK		Electric	184 (83)	
DM-104CTK		Pneumatic	177 (80)	



# **DustMaster CTK / Cyclone Systems**

The DustMaster CTK Cyclone systems, in either Electric or Air Powered, include the addition of our Cyclonic separator that captures 99% of debris before it gets to the primary filter bag. This means fewer filter changes and less loss of suction. The cyclone is only available with the CTK.



### **Features**

- Use a single compressed air line and the internal manifold to supply 3 users with compressed air
- Supports up to 3 users
- · Self closing vacuum port prevents hazardous dust from escaping when not in use
- · Heavy duty dual motors
- HEPA filter captures 99.97% of particles 0.3 µm and larger
- Pre-filter protects HEPA filter for longer life
- Includes all filters and bags for turnkey operation

### DustMaster Systems (CTK & Cyclone)

Model	NSN	Power	Weight lbs (kg)	Price
DM-300		Electric	207 (93)	
DM-304		Pneumatic	200 (90)	

- ★ Available on GSA Advantage website @ www.GSAadvantage.gov
- → This item has an NSN See Model / NSN table on page 4.



# The DustMaster Turn-Key Kits

This turn-key kit includes tools, hose, and abrasives.

# 660-DM-1000-4 (pneumatic) / 660-DM-1000-0 (electric)

This DustMaster System is ideal for maintenance on both airframes and ground support equipment. A core set of tools provides flexibility to tackle larger surfaces like the wing or fuselage, or tighter areas and curves, like rotor blades or munitions. Multiple hoses and tools allow up to three artisans to work simultaneously

- DustMaster HEPA Vacuum with patented Safe-Filter-Change.
- Consolidated Tool Kit (CTK) with shadow-boxed two-color foam
- One 2" Grinder kit with abrasives and accessories
- Two 3" Random Orbital Sanders, backup pads, protector pads, & 750 sheets of 3" abrasive
- Two 6" Random Orbital Sanders, backup pads, protector pads, and 750 sheets of 6" abrasive
- Two 20' Air/Vac work hoses, One 30' Air/Vac work hose
- One Compressed air supply line, and a complement of fittings

# **DustMaster Turn-Key Kits**

Model	NSN	Power	Price
660-DM-1000-4		Pneumatic	
660-DM-1000-0		Electric	

# 670-DM-1535-4 (pneumatic) / 670-DM-1535-0 (electric)

This DustMaster System contains a robust set of tools selected by NAVAIR maintainers to support all types of aviation assets during long deployments. Multiple hoses and tools allow up to three artisans to work simultaneously.

- DustMaster HEPA Vacuum with patented Safe-Filter-Change.
- Consolidated Tool Kit (CTK) with shadow-boxed two-color foam
- Two 3" Random Orbital Sanders, backup pads, protector pads, and 1000 sheets of 3" abrasive
- One 3x4" Orbital Sander, backup pads, and 500 sheets of 3x4" abrasive
- One 3-2/3 x 7" Orbital Sander, backup pads, and 500 sheets of 3-2/3 x 7" abrasive
- Two 6" Random Orbital Sanders, backup pads, protector pads, and 1000 sheets of 6" abrasive
- Two 20' Air/Vac work hoses, One 30' Air/Vac work hose, Two Hose support belts
- One Compressed air supply line, and a complement of fittings
- Complement of Filter bags, Pre-filters, and Waste disposal bags

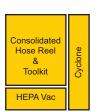
### **DustMaster Turn-Key Kits**

Model	NSN	Power	Price
670-DM-1535-4		Pneumatic	
670-DM-1535-0		Electric	

Please call for other turn-key or custom kits that

may be available

- Available on GSA Advantage website @ www.GSAadvantage.gov
- This item has an NSN See Model / NSN table on page 4.







# **DustMaster Accessories**

#### Covers

This black nylon cover will keep your DustMaster looking like new.

- Dual ply 420 Denier Nylon with water proof urethane backing
- Cover is sized so that it will not drag on the ground
- Handle slots expose handle for easy movement
- Waterproof



Model	NSN	Description	Price
954-006		System cover for CTK system	
954-005		System cover for CTK Cyclone system	

# Cyclone Add On

Our Cyclonic pre-separator is an add-on unit that captures 99% of debris before it gets to the primary filter bag. This means fewer filter changes and less loss of suction.

· Kit includes all mounting hardware

# Cyclone Add-On

	Model	NSN	Power	Weight lbs (kg)	Price
(	682-A102		Cyclone Add on Kit	40 (19)	

# CAMPU

#### **DustMaster Filters**

Clayton HEPA are engineered to provide maximum protection from hazardous dust. HEPA filters capture 99.97% of particles  $0.3~\mu m$  or larger. These filters are the ideal solution when working with chromated primers, lead paints, or composites.

Clayton Pre-filters have been designed to prolong the life of the HEPA filter. Pre-filters provide protection from larger particles which might escape when a bag filter is installed incorrectly or has sustained damage.

Disposable bag filters are the first stage of filtration on most Clayton vacuums. These vacuum bags are designed to capture larger particles and debris. Most are manufactured with a lining to resist 'caking' of dust on the inside of the bag. Bag filters are intended for single use.

#### DustMaster Bags & Filters

Model	NSN	Description	Price
	IVOIV	<u> </u>	1 1100
600-313A		Bag Filter 5 pack (DM Vac)	
610-313A		Collection Bag Cloth 10 pack (Cyclone)	
600-115		Pre-filter 3 pack	
600-116		HEPA Filter 1 pack	
600-114DM	人	Black 6 mil poly bag 25 pack	
926-75F		Compressed Air Filter 40µm	
926-75F-01		Replacement Filter Element 40µm	







926-75F











Hippo Vacuum 44

# **Hippo Reversible Liquid Drum Vac**

The heart of the system is our stainless steel air powered reversible drum pump. Pair it with any 5, 30, 55, or 110 gallon closed head drum to create a high powered drum vac for picking up floor spills or transferring liquids.



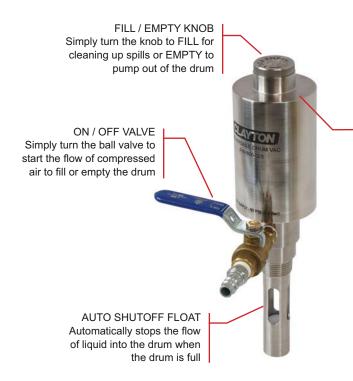
Our flow thru pump has no moving parts and can fill or empty a 55 gallon drum in less than 2 minutes. It's great for recovery of hydraulic oils, coolants, and other non combustible fluids.

# **Hippo Drum Vac Includes:**

- Stainless Steel Drum Pump
- Riser Assembly
- 1-1/2" x 90° quick disconnect coupler

# **Hippo Drum Vac Kits Include:**

- · Hippo Drum Vac
- 1-1/2" Vacuum Hose
- 2 Piece Wand, Squeegee Floor Tool, and Crevice Tool





Hippo Reversible Drum Pump

Model	NSN	Description	Price
HV-1000-4		Hippo Drum Vac (No Drum)	
HV-1000-4-250		Hippo Drum Vac Kit (No Drum)	
HV-1055-4		Hippo Drum Vac 55 Gallon	
HV-1055-4-250		Hippo Drum Vac Kit 55 Gallon	

Hippo Accessories

nippo Accessorio	95		
Model	NSN	Description	Price
601-CD182830-C		30 Gallon Closed Head Drum	
601-CD223455-C		55 Gallon Closed Head Drum	
610-8030		Drum Dolly 30 Gallon	
610-8055		Drum Dolly 55 Gallon	
671-VHL24-10		Vacuum Hose 10 ft	
671-VHL24-20		Vacuum Hose 20 ft	
630-A010		Cleanup Toolkit for Wet Pickup	

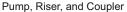


1-1/2" x 20' hose

Cleanup Toolkit for Wet Pickup includes a tool control belt (not shown)







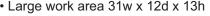
**LEXAN SHIELD** 

# **HEPA Grinding Station**

Stand at this HEPA filtered grinding station to work on small parts without source capture vacuum tools. 1350 CFM and a face velocity of 450 ft/min entrain dust and a three stage filtration system captures it. Safe Filter Change allows users to change stage 1 & 2 panel filters without exposure to hazardous dust.

#### Features:

- Three Stage Filtration
- Stage 1 MERV 8 Primary Panel Filter
- Stage 2 MERV 13 Secondary Panel Filter
- Stage 3 HEPA Cartridges filter 99.97% of particles down to 0.3 μm
- · Differential pressure gauges monitor filters





# **Grinding Station**

Model	NSN	Description	Price
GS-1350-01		Grinding Station 1350 CFM	
627-1350PM08		Panel Filter 30in x 13in MERV 8	
627-1350PM13		Panel Filter 30in x 13in MERV 13	
627-1350H		HEPA Filter 14in x 30in (2 required)	
610-202G		Replacement Lexan Shield	

Tent N Vent 46

# Clayton Tent N Vent Overspray Filtration System Paint Anywhere, Any Shift! - NESHAP 98 - 3 Stage Method 319 Compliant

The Clayton Tent-N-Vent is designed to allow aircraft painting on the hangar floor without exposing workers to overspray and VOCs. The TV-1400 enables a better paint application with less rework, as it removes and filters overspray paint particulate which can often dry in the air and contaminate the fresh paint job.

Systems designed for the removal of airborne paint particulate, especially those containing chromates, must adhere to NESHAP 98 Test Method 319 for Aerospace painting and de-painting operations. The TV-1400 meets all standards for the safe evacuation and filtration of chromated primers and other coatings.

After the work area is masked with a poly tent, the TV-1400 is connected to compressed air. It maintains the tented area under negative pressure, rapidly turning over the air within, while three wet particulate filters collect overspray and a 24" charcoal filter absorbs VOCs and returns clean odor free exhaust air back into the hangar. The TV-1400 exhaust can be connected to optional flex ducting to route the clean air to another area of the hangar or to the outside.



47 Maintenance

# **Service Offerings**

Clayton systems are designed with a core focus on safety and health, and it is important to keep the vacuums, tools, and accessories in proper condition to ensure that the system can continue to protect workers and the environment. Clayton offers a variety of service contracts and maintenance plans to meet the requirements of most organizations. These services are intended to make it simple for customers to keep their tools and equipment running in accordance with factory performance specifications.

# **Return-to-Factory Service**

Clayton maintains a repair and refurb center in our NJ factory. Technicians are trained in the remanufacture of vacuums, tools, and accessories. Customers can ship in products that are damaged, worn, or underperforming, and our team will rebuild them and return them to factory performance specifications. Customers can opt to have older equipment upgraded at the same time. Products that cannot be repaired may be returned to the customer or held at Clayton in exchange for a credit towards new tools or equipment.

### **On-Site Service**

Clayton factory trained technicians can provide on-site service for our products. On-site service can take many forms, depending on your organization's needs. Clayton can provide a full time technician to maintain vacuums, performing all maintenance tasks from filter bag changes to major repairs. We can also provide monthly, quarterly, or yearly service visits to change HEPA filters, run performance tests on vacuums, and handle on-site repairs of wear items. On-Site service plans are custom designed around the specific customer, and take into account the number of vacuums, the level of service required, and other customer-centric variables.

# **Training**

Clayton systems are very effective at reducing exposure and safely containing hazardous dust. Proper use and care of the tools and vacuums is essential to getting maximum performance. Clayton representatives are available for on-site training sessions with individuals or groups. We can provide training on equipment, tool usage, tool repair, or vacuum maintenance. Many customers find it beneficial to have annual or bi-annual re-training of employees.





Sanders 50

# SANDERS

Random Orbital • Orbital • Specialty • Hand Sanders



51 Sanders

# CHOOSE YOUR WEAPON



**Pneumatic Sanders** 

Composite Housing

· Light weight Design

Self Generated Vac

Central Vac

Non-Vac

Available in DA & Orbital



# **Pneumatic Sanders**

- Advanced Composite Housing
- Ergonomic Design
- Available in DA
- Central Vac
- Self Generated Vac
- Non-Vac



# **DuraLite**

# **Pneumatic Sanders**

- Aluminum Housing
- Lower Vibration
- Available in DA & Orbital
- Central Vac
- Self Generated Vac
- Non-Vac



# **AeroLite Two Hand**

# **High Torque Sanders**

- Available in DA Only
- Central Vac
- Self Generated Vac
- Non-Vac

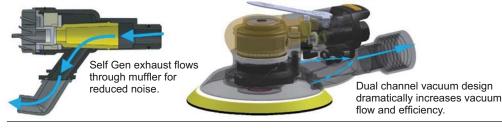




ErgoLite Sanders 52



# **Next Generation Palm Sanders**





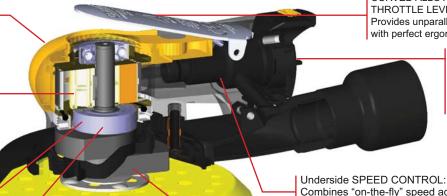
Fan Blade cooling system lowers bearing temperature for increased life.

COMFORT GRIP: Vibration absorbing Comfort Grip improves feel and reduces hand fatigue.

FULL FLOATING ROTOR:
Designed to reduce internal friction
for a higher power transfer ratio,
simplified maintenance, and longer
tool life. Polymer rotor provides
faster acceleration and lower
overall tool weight.

BEARING PROTECTION SYSTEM: Allows one way filtered airflow to pass into spindle bearing chamber. Cooler running, dust free bearings mean longer bearing life.

RUGGED BEARING: Provides for longer tool life.



CURVED ALLOY STEEL THROTTLE LEVEL: Provides unparalleled durability with perfect ergonomics.

> DIRECTIONAL EXHAUST: 360° user Rotation on compressed air exhaust vent.

Combines "on-the-fly" speed adjustment while helping to preventing inadvertent switching.

ONE-PIECE MOTOR SHAFT and PAD BALANCER: Features heat-treated steel and precision machined construction for smooth and durable operation.

# Ergo Lite

# Central Vac DA (Dual Action / Random Orbital

• **Central Vac** sanders require a portable or central vacuum for dust extraction. They come standard with a 1in threaded vacuum port for attachment to any Clayton vacuum system.

• Random Orbital (RO) or Dual Action (DA) sanders simultaneously spin the sanding disk and move in an ellipse. This unique random sanding action eliminates swirl marks in your work. They are available in 2 sizes and 3 orbits.

### **Sander Features**

- J-Hook backup pad for hook & loop abrasives
- Vacuum hose swivel adapter 1in
- Ergonomic Wrist support
- 1/4" (6.4mm) Air inlet
- Consumes 17 cfm (481 lpm)
- Produces 12,000 rpm & .28 hp (209 w)



5/16 (8mm) Orbit Aggressive Sanding



3/16 (5mm) Orbit Normal Sanding



3/32 (2.5mm) Orbit Finish Sanding

Don't forget our interface and protector pads to extend the life of your backup pad!

#### DA Sanders - CV

Model	Pad Size	Orbit inch (mm)	Sound dBA	Weight lbs (kg)	Price
770-12511J	5" (125mm)	3/32 (2)	74	1.7 (0.77)	
770-12501J	5" (125mm)	3/16 (5)	74	1.8 (0.79)	
770-12521J	5" (125mm)	5/16 (8)	74	1.8 (0.82)	
770-12611J	6" (150mm)	3/32 (2)	74	1.8 (0.82)	
770-12601J	6" (150mm)	3/16 (5)	74	1.9 (0.85)	
770-12621J	6" (150mm)	5/16 (8)	74	1.9 (0.88)	

<sup>\*</sup> Replace J with S for Vinyl Pad on all models









Large 1in Central Vac Port

- All tool performance ratings measured @ 90 PSI (620 kPa) compressed air pressure.
- ★ Available on GSA Advantage website @ www.GSAadvantage.gov



ErgoLite Sanders 54

# Ergo Lite

# Self Generated Vac

**DA (Dual Action / Random Orbital** 

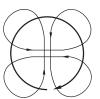
• Self Generated Vac sanders use the sanders compressed air exhaust to generate their own vacuum for dust extraction. They come standard with a 1in threaded vacuum port. HEPA Bag & 1in Bag Adapter Sold Separately.



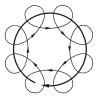
- Random Orbital (RO) or Dual Action (DA) sanders simultaneously spin the sanding disk and move in an ellipse. This unique random sanding action eliminates swirl marks in your work. They are available in 2 sizes and 3 orbits.
- Lubricant Contamination on sensitive parts can be eliminated by using a Central Vac with any SGV Sander instead of a HEPA Bag, since all compressed air is diverted into the Vac Hose.

# **Sander Features**

- J-Hook backup pad for hook & loop abrasives
- HEPA Bag swivel adapter 1in
- Ergonomic Wrist support
- 1/4" (6.4mm) Air inlet
- Consumes 17 cfm (481 lpm)
- Produces 12,000 rpm & .28 hp (209 w)



5/16 (8mm) Orbit Aggressive Sanding



<sup>3</sup>/<sub>16</sub> (5mm) Orbit Normal Sanding



3/32 (2.5mm) Orbit Finish Sanding

Don't forget our interface and protector pads to extend the life of your backup pad!

### DA Sanders - Self Gen

Model	Pad Size	Orbit inch (mm)	Sound dBA	Weight lbs (kg)	Price
770-12513J	5" (125mm)	3/32 (2)	87	1.7 (0.77)	
770-12503J	5" (125mm)	3/16 (5)	87	1.8 (0.79)	
770-12523J	5" (125mm)	5/16 (8)	87	1.8 (0.82)	
770-12613J	6" (150mm)	3/32 (2)	87	1.8 (0.82)	
770-12603J	6" (150mm)	3/16 (5)	87	1.9 (0.85)	
770-12623J	6" (150mm)	5/16 (8)	87	1.9 (0.88)	

<sup>\*</sup> Replace J with S for Vinyl Pad on all models



Model	NSN	Description	Price
678-20453		3M HEPA Bag Adapter	
678-20452		3M Clean Sanding HEPA Bag 10 pk	
130123	4130-01-460-8514	3M Clean Sanding HEPA Bag 100 pk	



- ① All tool performance ratings measured @ 90 PSI (620 kPa) compressed air pressure.
- Available on GSA Advantage website @ www.GSAadvantage.gov







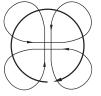
# Ergo Lite

# Non Vac DA (Dual Action / Random Orbital

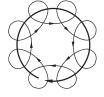
• Random Orbital (RO) or Dual Action (DA) sanders simultaneously spin the sanding disk and move in an ellipse. This unique random sanding action eliminates swirl marks in your work. They are available in 2 sizes and 3 orbits.

#### **Sander Features**

- J-Hook backup pad for hook & loop abrasives
- Ergonomic Wrist support
- 1/4" (6.4mm) Air inlet
- Consumes 17 cfm (481 lpm)
- Produces 12,000 rpm & .28 hp (209 w)



5/16 (8mm) Orbit Aggressive Sanding



<sup>3</sup>/<sub>16</sub> (5mm) Orbit Normal Sanding



3/32 (2.5mm) Orbit Finish Sanding

Don't forget our interface and protector pads to extend the life of your backup pad!

# DA Sanders - Non Vac

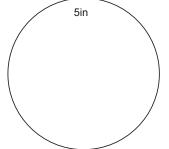
B/1 Garragio 110	n vao				
Model	Pad Size	Orbit inch (mm)	Sound dBA	Weight lbs (kg)	Price
770-12510J	5" (125mm)	3/32 (2)	74	1.7 (0.77)	
770-12500J	5" (125mm)	3/16 (5)	74	1.8 (0.79)	
770-12520J	5" (125mm)	5/16 (8)	74	1.8 (0.82)	
770-12610J	6" (150mm)	3/32 (2)	74	1.8 (0.82)	
770-12600J	6" (150mm)	3/16 (5)	74	1.9 (0.85)	
770-12620J	6" (150mm)	5/16 (8)	74	1.9 (0.88)	



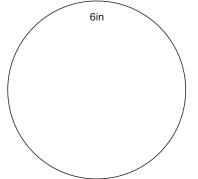


Air Tool Oil 678-20451 NSN: 4130-01-502-0850





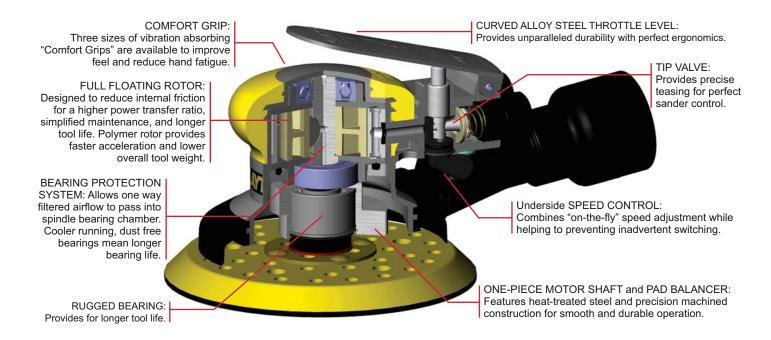




- ① All tool performance ratings measured @ 90 PSI (620 kPa) compressed air pressure.
- ★ Available on GSA Advantage website @ www.GSAadvantage.gov



# **Composite Housing Palm Sanders**



# **Composite Housing**

# **Central Vac** DA (Dual Action / Random Orbital

• Central Vac sanders require a portable or central vacuum for dust extraction. They come standard with a 1in threaded vacuum port for attachment to any Clayton vacuum system.

• Random Orbital (RO) or Dual Action (DA) sanders simultaneously spin the sanding disk and move in an ellipse. This unique random sanding action eliminates swirl marks in your work. They are available in 3 sizes and 3 orbits.

#### Sander Features

- J-Hook backup pad for hook & loop abrasives
- · Vacuum hose swivel adapter 1in
- Ergonomic Wrist support
- 1/4" (6.4mm) Air inlet
- Consumes 17 cfm (481 lpm)
- Produces 12,000 rpm & .28 hp (209 w)



5/16 (8mm) Orbit Aggressive Sanding



3/16 (5mm) Orbit Normal Sanding



CE

3/32 (2.5mm) Orbit Finish Sanding

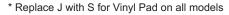
# Don't forget our interface and protector pads to extend the life of your backup pad!

### DA Sanders - CV

Model	Pad Size	NSN	Orbit inch (mm)	Sound dBA	Weight Ibs (kg)	Price
675-12311J	3" (75mm)		3/32 (2)	72	1.5 (0.68)	
675-12301J	3" (75mm)	5130-01-520-5673	3/16 (5)	72	1.6 (0.7)	
670-12511J	5" (125mm)		3/32 (2)	74	1.7 (0.77)	
670-12501J	5" (125mm)		3/16 (5)	74	1.8 (0.79)	
670-12521J	5" (125mm)		5/16 (8)	74	1.8 (0.82)	
670-12611J	6" (150mm)		3/32 (2)	74	1.8 (0.82)	
670-12601J	6" (150mm)	5130-01-520-5669	3/16 (5)	74	1.9 (0.85)	
670-12621J	6" (150mm)		5/16 (8)	74	1.9 (0.88)	



Large 1in Central Vac Port















- All tool performance ratings measured @ 90 PSI (620 kPa) compressed air pressure. (i)
- Available on GSA Advantage website @ www.GSAadvantage.gov

# Composite Housing

# **Central Vac**

**Orbital** 

- Central Vac sanders require a portable or central vacuum for dust extraction. They come standard with a 1in threaded vacuum port for attachment to any Clayton vacuum system.
- Orbital or Jitter sanders move front to back and side to side simultaneously. They are typically used for fine finish sanding or getting into square corners. They are available in 7 sizes, all 1/8in orbit.

#### **Sander Features**

- J-Hook backup pad for hook & loop abrasives
- · Vacuum hose swivel adapter 1in
- Ergonomic Wrist support
- 1/4" (6.4mm) Air inlet
- · Consumes 17 cfm (481 lpm)
- Produces 12,000 rpm & .28 hp (209 w)



1/8 (3.2mm) Orbit Finish Sanding

# Orbital Sanders - CV

Model	Pad Size	NSN	Sound dBA	Weight lbs (kg)	Price
675-10341J*	3 x 4" (75 x 100mm)	5130-01-520-5670	71	1.6 (0.73)	
675-10341J-80D	Corner 3 x 4" (75 x 100mm)		71	1.6 (0.73)	
675-10351J*	3 x 5" (75 x 125mm)		77	2.4 (1.07)	
675-10281J*	2-3/4 x 8" (70 x 200mm)		77	2.4 (1.07)	
670-10371J*	3-2/3 x 7" (90 x 175mm)	5130-01-520-5672	77	2.4 (1.07)	
675-10341J-56R	Radius 3 x 4" (75 x 100mm)		77	1.6 (0.73)	
675-10341J-66R	Radius 3 x 4" (75 x 100mm)		77	1.6 (0.73)	



Large 1in Central Vac Port

<sup>\*</sup> Replace J with S for Vinyl Pad on select models



- All tool performance ratings measured @ 90 PSI (620 kPa) compressed air pressure.
- Available on GSA Advantage website @ www.GSAadvantage.gov

# Aero Lite

# Self Generated Vac

**DA (Dual Action / Random Orbital** 

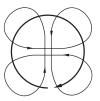
• Self Generated Vac sanders use the sanders compressed air exhaust to generate their own vacuum for dust extraction. They come standard with a 1in threaded vacuum port. HEPA Bag & 1in Bag Adapter Sold Separately.



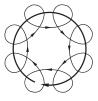
- Random Orbital (RO) or Dual Action (DA) sanders simultaneously spin the sanding disk and move in an ellipse. This unique random sanding action eliminates swirl marks in your work. They are available in 3 sizes and 3 orbits.
- Lubricant Contamination on sensitive parts can be eliminated by using a Central Vac with any SGV Sander instead of a HEPA Bag, since all compressed air is diverted into the Vac Hose.

# **Sander Features**

- J-Hook backup pad for hook & loop abrasives
- · HEPA Bag swivel adapter 1in
- Ergonomic Wrist support
- 1/4" (6.4mm) Air inlet
- Consumes 17 cfm (481 lpm)
- Produces 12,000 rpm & .28 hp (209 w)



5/16 (8mm) Orbit Aggressive Sanding



3/16 (5mm) Orbit Normal Sanding



3/32 (2.5mm) Orbit Finish Sanding

Don't forget our interface and protector pads to extend the life of your backup pad!

### DA Sanders - Self Gen

Model	Pad Size	NSN	Orbit inch (mm)	Sound dBA	Weight lbs (kg)	Price
675-12313J	3" (75mm)		3/32 (2)	87	1.5 (0.68)	
675-12303J	3" (75mm)		3/16 (5)	87	1.6 (0.7)	
670-12513J	5" (125mm)		3/32 (2)	87	1.7 (0.77)	
670-12503J	5" (125mm)	5130-01-645-3399	3/16 (5)	87	1.8 (0.79)	
670-12523J	5" (125mm)		5/16 (8)	87	1.8 (0.82)	
670-12613J	6" (150mm)		3/32 (2)	87	1.8 (0.82)	
670-12603J	6" (150mm)		3/16 (5)	87	1.9 (0.85)	
670-12623J	6" (150mm)		5/16 (8)	87	1.9 (0.88)	

<sup>\*</sup> Replace J with S for Vinyl Pad on all models

# Self Gen Sander Bags

			$\overline{}$
Model	NSN	Description	Price
678-20453		3M HEPA Bag Adapter	
678-20452		3M Clean Sanding HEPA Bag 10 pk	
130123	4130-01-460-8514	3M Clean Sanding HEPA Bag 100 pk	
130043	4130-01-460-8507	5in SGV Sander & HEPA Bag 50 pk	
130063	4130-01-460-8508	6in SGV Sander & HEPA Bag 50 pk	



- All tool performance ratings measured @ 90 PSI (620 kPa) compressed air pressure.
- Available on GSA Advantage website @ www.GSAadvantage.gov









# **Composite Housing**

# **Self Generated Vac**

**Orbital** 

• Self Generated Vac sanders use the sanders compressed air exhaust to generate their own vacuum for dust extraction. They come standard with a 1in threaded vacuum port. HEPA Bag & 1in Adapter Sold Separately.



- · Orbital or Jitter sanders move front to back and side to side simultaneously. They are typically used for fine finish sanding or getting into square corners. They are available in 7 sizes, all 1/8in orbit.
- Lubricant Contamination on sensitive parts can be eliminated by using a Central Vac with any SGV Sander instead of a HEPA Bag, since all compressed air is diverted into the Vac Hose.

### **Sander Features**

- J-Hook backup pad for hook & loop abrasives
- HEPA Bag swivel adapter 1in
- Ergonomic Wrist support
- 1/4" (6.4mm) Air inlet
- · Consumes 17 cfm (481 lpm)
- Produces 10,000 rpm & .28 hp (209 w)



1/8 (3.2mm) Orbit Finish Sanding

#### Orbital Sanders - Self Gen

Model	Pad Size	NSN	Sound dBA	Weight lbs (kg)	Price
675-10343J*	3 x 4" (75 x 100mm)		83	1.6 (0.73)	
675-10343J-80D	Corner 3 x 4" (75 x 100mm)		83	1.6 (0.73)	
675-10353J*	3 x 5" (75 x 125mm)		91	2.4 (1.07)	
675-10283J*	2-3/4 x 8" (70 x 200mm)		91	2.4 (1.07)	
670-10373J*	3-2/3 x 7" (90 x 175mm)		91	2.4 (1.07)	
675-10343J-56R	Radius 3 x 4" (75 x 100mm)		83	1.6 (0.73)	
675-10343J-66R	Radius 3 x 4" (75 x 100mm)		83	1.6 (0.73)	



Large 1in SGV Bag Port



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- All tool performance ratings measured @ 90 PSI (620 kPa) compressed air pressure.
- Available on GSA Advantage website @ www.GSAadvantage.gov

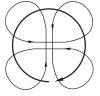
# Accomposite Housing Life

# Non Vac DA (Dual Action / Random Orbital

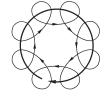
• Random Orbital (RO) or Dual Action (DA) sanders simultaneously spin the sanding disk and move in an ellipse. This unique random sanding action eliminates swirl marks in your work. They are available in 3 sizes and 3 orbits.

# **Sander Features**

- J-Hook backup pad for hook & loop abrasives
- Ergonomic Wrist support
- 1/4" (6.4mm) Air inlet
- Consumes 17 cfm (481 lpm)
- Produces 12,000 rpm & .28 hp (209 w)



5/16 (8mm) Orbit Aggressive Sanding



<sup>3</sup>/<sub>16</sub> (5mm) Orbit Normal Sanding



3/32 (2.5mm) Orbit Finish Sanding



Don't forget our interface and protector pads to extend the life of your backup pad!

# DA Sanders - Non Vac

Model	Pad Size	NSN	Orbit inch (mm)	Sound dBA	Weight lbs (kg)	Price
675-12310J	3" (75mm)		3/32 (2)	72	1.4 (0.65)	
675-12300J	3" (75mm)		3/16 (5)	72	1.5 (0.67)	
670-12510J	5" (125mm)		3/32 (2)	74	1.7 (0.77)	
670-12500J	5" (125mm)		3/16 (5)	74	1.8 (0.79)	
670-12520J	5" (125mm)		5/16 (8)	74	1.8 (0.82)	
670-12610J	6" (150mm)		3/32 (2)	74	1.8 (0.82)	
670-12600J	6" (150mm)		3/16 (5)	74	1.9 (0.85)	
670-12620J	6" (150mm)		5/16 (8)	74	1.9 (0.88)	



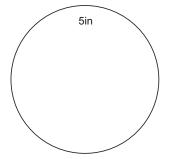
Air Tool Oil 678-20451 NSN: 4130-01-502-0850

<sup>\*</sup> Replace J with S for Vinyl Pad on all models

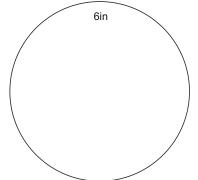












- ① All tool performance ratings measured @ 90 PSI (620 kPa) compressed air pressure.
- ★ Available on GSA Advantage website @ www.GSAadvantage.gov

# Composite Housing

# Non Vac **Orbital**

• Central Vac sanders require a portable or central vacuum for dust extraction. They come standard with a 1" threaded vacuum port for attachment to any Clayton vacuum system.

• Orbital or Jitter sanders move in an ellipse. They are typically used for fine finish sanding or getting into square corners. They are available in 3 sizes and 3 orbits.

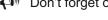
# CE

### **Sander Features**

- J-Hook backup pad for hook & loop abrasives
- Ergonomic Wrist support
- 1/4" (6.4mm) Air inlet
- Consumes 17 cfm (481 lpm)
- Produces 10,000 rpm & .28 hp (209 w)



1/8 (3.2mm) Orbit Finish Sanding



Don't forget our interface and protector pads to extend the life of your backup pad!

### Orbital Sanders - Non Vac

Model	Pad Size	NSN	Sound dBA	Weight lbs (kg)	Price
675-10340J*	3 x 4" (75 x 100mm)		71	1.6 (0.71)	
675-10340J-80D	Corner 3 x 4" (75 x 100mm)		83	1.6 (0.73)	
675-10350J*	3 x 5" (75 x 125mm)		77	2.3 (1.05)	
675-10280J*	2-3/4 x 8" (70 x 200mm)		77	2.4 (1.07)	
670-10370J*	3-2/3 x 7" (90 x 175mm)		77	2.3 (1.05)	
675-10340J-56R	Radius 3 x 4" (75 x 100mm)		83	1.6 (0.73)	
675-10340J-66R	Radius 3 x 4" (75 x 100mm)		83	1.6 (0.73)	



Air Tool Oil 678-20451 NSN: 4130-01-502-0850

<sup>\*</sup> Replace J with S for Vinyl Pad on select models

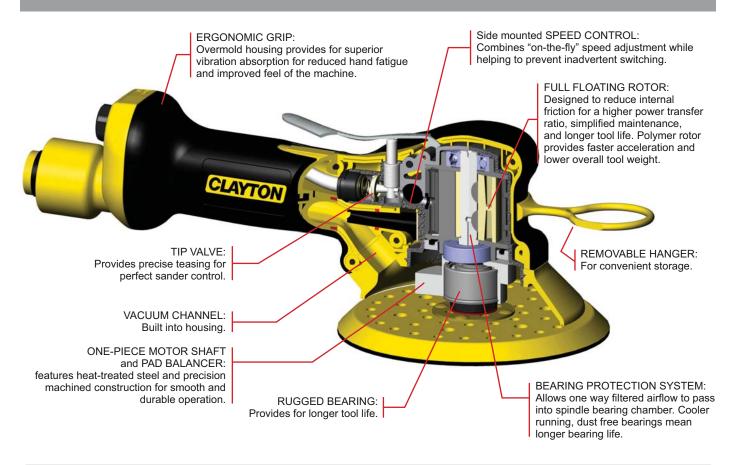


- Available on GSA Advantage website @ www.GSAadvantage.gov





# Composite Housing Two-Hand Sanders



# Aero Lite

# **Central Vac**

CE

Two-Hand DA (Dual Action / Random Orbital

• Central Vac sanders require a portable or central vacuum for dust extraction. They come standard with a 1in threaded vacuum port for attachment to any Clayton vacuum system.

• Random Orbital (RO) or Dual Action (DA) sanders simultaneously spin the sanding disk and move in an ellipse. This unique random sanding action eliminates swirl marks in your work. They are available in 3 sizes and 3 orbits.

#### **Sander Features**

- J-Hook backup pad for hook & loop abrasives
- · Vacuum hose swivel adapter 1in
- Built in Throttle Safety Lock
- 1/4" (6.4mm) Air inlet
- Consumes 22 cfm (623 lpm)
- Produces 12,000 rpm & .45 hp (336 w)



<sup>3</sup>/8 (10mm) Orbit Aggressive Sanding



<sup>3</sup>/<sub>16</sub> (5mm) Orbit Normal Sanding

### Two Hand DA Sanders - CV

Model	Pad Size	NSN	Orbit inch (mm)	Sound dBA	Weight lbs (kg)	Price
676-12501J	5" (75mm)		3/16 (5)	79	2.7 (1.22)	
676-12521J	5" (75mm)		3/8 (10)	79	2.7 (1.22)	
676-12601J	6" (125mm)		3/16 (5)	79	2.9 (1.29)	
676-12621J	6" (125mm)		3/8 (10)	79	2.9 (1.29)	
676-12801J	8" (125mm)		3/16 (5)	79	3.6 (1.61)	

<sup>\*</sup> Replace J with S for Vinyl Pad on all models



- ① All tool performance ratings measured @ 90 PSI (620 kPa) compressed air pressure.
- \* Available on GSA Advantage website @ www.GSAadvantage.gov





# Accomposite Housing Life

# **Self Generated Vac**

Two-Hand DA (Dual Action / Random Orbital

• Self Generated Vac sanders use the sanders compressed air exhaust to generate their own vacuum for dust extraction. They come standard with a 1in threaded vacuum port. HEPA Bag & 1in Adapter Sold Separately.



- Random Orbital (RO) or Dual Action (DA) sanders simultaneously spin the sanding disk and move in an ellipse. This unique random sanding action eliminates swirl marks in your work. They are available in 3 sizes and 3 orbits.
- Lubricant Contamination on sensitive parts can be eliminated by using a Central Vac with any SGV Sander instead of a HEPA Bag, since all compressed air is diverted into the Vac Hose.

# **Sander Features**

- J-Hook backup pad for hook & loop abrasives
- · Vacuum hose swivel adapter 1in
- · Built in Throttle Safety Lock
- 1/4" (6.4mm) Air inlet
- · HEPA Bag swivel adapter 1in
- Consumes 22 cfm (623 lpm)
- Produces 12,000 rpm & .45 hp (336 w)



<sup>3</sup>/<sub>8</sub> (10mm) Orbit Aggressive Sanding



3/16 (5mm) Orbit Normal Sanding

#### Two Hand DA Sanders - SGV

Model	Pad Size	NSN	Orbit inch (mm)	Sound dBA	Weight lbs (kg)	Price
676-12503J	5" (75mm)		3/16 (5)	79	2.7 (1.22)	
676-12523J	5" (75mm)		3/8 (10)	79	2.7 (1.22)	
676-12603J	6" (125mm)		3/16 (5)	79	2.9 (1.29)	
676-12623J	6" (125mm)		3/8 (10)	79	2.9 (1.29)	
676-12803J	8" (125mm)		3/16 (5)	79	3.6 (1.61)	

<sup>\*</sup> Replace J with S for Vinyl Pad on all models

# Self Gen Sander Bags

Model	NSN	Description	Price
678-20453		3M HEPA Bag Adapter	
678-20452		3M Clean Sanding HEPA Bag 10 pk	
130123	4130-01-460-8514	3M Clean Sanding HEPA Bag 100 pk	
130043	4130-01-460-8507	5in SGV Sander & HEPA Bag 50 pk	
130063 4130-01-460-8508		6in SGV Sander & HEPA Bag 50 pk	





- ① All tool performance ratings measured @ 90 PSI (620 kPa) compressed air pressure.
- \* Available on GSA Advantage website @ www.GSAadvantage.gov

# Accomposite Housing Lite

# Non Vac Two-Hand DA (Dual Action / Random Orbital

• Central Vac sanders require a portable or central vacuum for dust extraction. They come standard with a 1in threaded vacuum port for attachment to any Clayton vacuum system.

• Random Orbital (RO) or Dual Action (DA) sanders simultaneously spin the sanding disk and move in an ellipse. This unique random sanding action eliminates swirl marks in your work. They are available in 3 sizes and 3 orbits.

#### **Sander Features**

- J-Hook backup pad for hook & loop abrasives
- Vacuum hose swivel adapter 1in
- Built in Throttle Safety Lock
- 1/4" (6.4mm) Air inlet
- Consumes 22 cfm (623 lpm)
- Produces 12,000 rpm & .45 hp (336 w)



<sup>3</sup>/<sub>8</sub> (10mm) Orbit Aggressive Sanding



3/16 (5mm) Orbit Normal Sanding

### Two Hand DA Sanders - Non Vac

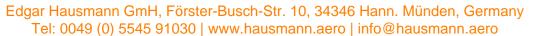
Model	Pad Size	NSN	Orbit inch (mm)	Sound dBA	Weight lbs (kg)	Price			
676-12500J	5" (75mm)		3/16 (5)	79	2.7 (1.22)				
676-12520J	5" (75mm)		3/8 (10)	79	2.7 (1.22)				
676-12600J	6" (125mm)		3/16 (5)	79	2.9 (1.29)				
676-12620J	6" (125mm)		3/8 (10)	79	2.9 (1.29)				
676-12800J	8" (125mm)		3/16 (5)	79	3.6 (1.61)				

<sup>\*</sup> Replace J with S for Vinyl Pad on all models

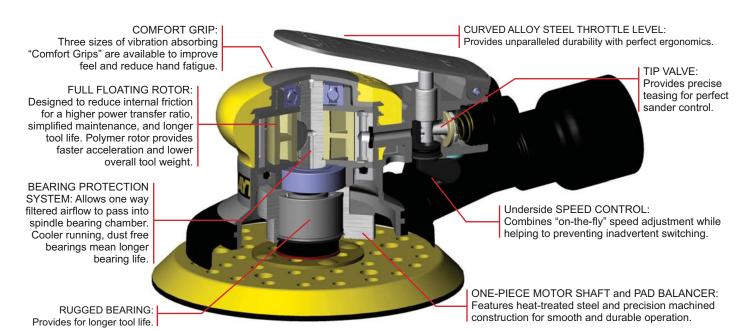


- All tool performance ratings measured @ 90 PSI (620 kPa) compressed air pressure.
- ★ Available on GSA Advantage website @ www.GSAadvantage.gov









# Dural te

# Central Vac DA (Dual Action / Random Orbital

• Central Vac sanders require a portable or central vacuum for dust extraction. They come standard with a 1in threaded vacuum port for attachment to any Clayton vacuum system.

• Random Orbital (RO) or Dual Action (DA) sanders simultaneously spin the sanding disk and move in an ellipse. This unique random sanding action eliminates swirl marks in your work. They are available in 3 sizes and 3 orbits.

#### **Sander Features**

- J-Hook backup pad for hook & loop abrasives
- Vacuum hose swivel adapter 1in
- Ergonomic Wrist support
- 1/4" (6.4mm) Air inlet
- Consumes 17 cfm (481 lpm)
- Produces 12,000 rpm & .28 hp (209 w)



5/16 (8mm) Orbit Aggressive Sanding



<sup>3</sup>/<sub>16</sub> (5mm) Orbit Normal Sanding



3/32 (2.5mm) Orbit Finish Sanding

Don't forget our interface and protector pads to extend the life of your backup pad!

#### DA Sanders - CV

Model	Pad Size	NSN	Orbit inch (mm)	Sound dBA	Weight lbs (kg)	Price
775-12311J	3" (75mm)		3/32 (2)	72	1.5 (0.68)	
775-12301J	3" (75mm)		3/16 (5)	72	1.6 (0.7)	
775-12511J	5" (125mm)		3/32 (2)	74	1.7 (0.77)	
775-12501J	5" (125mm)		3/16 (5)	74	1.8 (0.79)	
775-12521J	5" (125mm)		5/16 (8)	74	1.8 (0.82)	
775-12611J	6" (150mm)		3/32 (2)	74	1.8 (0.82)	
775-12601J	6" (150mm)		3/16 (5)	74	1.9 (0.85)	
775-12621J	6" (150mm)		5/16 (8)	74	1.9 (0.88)	



Large 1in Central Vac Port















- ① All tool performance ratings measured @ 90 PSI (620 kPa) compressed air pressure.
- \* Available on GSA Advantage website @ www.GSAadvantage.gov

# Daluminum Housing Lite

# Central Vac

• Central Vac sanders require a portable or central vacuum for dust extraction. They come standard with a 1in threaded vacuum port for attachment to any Clayton vacuum system.

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• Orbital or Jitter sanders move front to back and side to side simultaneously. They are typically used for fine finish sanding or getting into square corners. They are available in 7 sizes, all 1/8in orbit.

#### **Sander Features**

- J-Hook backup pad for hook & loop abrasives
- · Vacuum hose swivel adapter 1in
- Ergonomic Wrist support
- 1/4" (6.4mm) Air inlet
- Consumes 17 cfm (481 lpm)
- Produces 12,000 rpm & .28 hp (209 w)



1/8 (3.2mm) Orbit Finish Sanding

### Orbital Sanders - CV

Model	Pad Size	NSN	Sound dBA	Weight lbs (kg)	Price
775-10341J*	3 x 4" (75 x 100mm)	5130-01-520-5670	71	1.6 (0.73)	
775-10341J-80D	Corner 3 x 4" (75 x 100mm)		71	1.6 (0.73)	
775-10351J*	775-10351J* 3 x 5" (75 x 125mm)		77	2.4 (1.07)	
775-10281J*	2-3/4 x 8" (70 x 200mm)		77	2.4 (1.07)	
775-10371J*	75-10371J* 3-2/3 x 7" (90 x 175mm)		77	2.4 (1.07)	
775-10341J-56R Radius 3 x 4" (75 x 100mm)			77	1.6 (0.73)	
775-10341J-66R	0341J-66R Radius 3 x 4" (75 x 100mm)		77	1.6 (0.73)	



Large 1in Central Vac Port













# Dura Lite

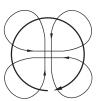
# Self Generated Vac

**DA (Dual Action / Random Orbital** 

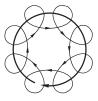
- Self Generated Vac sanders use the sanders compressed air exhaust to generate their own vacuum for dust extraction. They come standard with a 1in threaded vacuum port. HEPA Bag & 1in Bag Adapter Sold Separately.
- Random Orbital (RO) or Dual Action (DA) sanders simultaneously spin the sanding disk and move in an ellipse. This unique random sanding action eliminates swirl marks in your work. They are available in 3 sizes and 3 orbits.
- Lubricant Contamination on sensitive parts can be eliminated by using a Central Vac with any SGV Sander instead of a HEPA Bag, since all compressed air is diverted into the Vac Hose.

# **Sander Features**

- J-Hook backup pad for hook & loop abrasives
- HEPA Bag swivel adapter 1in
- Ergonomic Wrist support
- 1/4" (6.4mm) Air inlet
- Consumes 17 cfm (481 lpm)
- Produces 12,000 rpm & .28 hp (209 w)



5/16 (8mm) Orbit Aggressive Sanding



<sup>3</sup>/<sub>16</sub> (5mm) Orbit Normal Sanding



<sup>3</sup>/<sub>32</sub> (2.5mm) Orbit Finish Sanding

Don't forget our interface and protector pads to extend the life of your backup pad!

### DA Sanders - Self Gen

Model	Pad Size	NSN	Orbit inch (mm)	Sound dBA	Weight lbs (kg)	Price
775-12313J	3" (75mm)		3/32 (2)	87	1.5 (0.68)	
775-12303J	3" (75mm)		3/16 (5)	87	1.6 (0.7)	
775-12513J	5" (125mm)		3/32 (2)	87	1.7 (0.77)	
775-12503J	5" (125mm)		3/16 (5)	87	1.8 (0.79)	
775-12523J	5" (125mm)		5/16 (8)	87	1.8 (0.82)	
775-12613J	6" (150mm)		3/32 (2)	87	1.8 (0.82)	
775-12603J	6" (150mm)		3/16 (5)	87	1.9 (0.85)	
775-12623J	6" (150mm)		5/16 (8)	87	1.9 (0.88)	

<sup>\*</sup> Replace J with S for Vinyl Pad on all models

#### Self Gen Sander Bags

1	Model	NSN	Description	Price
	678-20453		3M HEPA Bag Adapter	
678-20452			3M Clean Sanding HEPA Bag 10 pk	
ļ	130123 4130-01-460-8514		3M Clean Sanding HEPA Bag 100 pk	



All tool performance ratings measured @ 90 PSI (620 kPa) compressed air pressure.

Available on GSA Advantage website @ www.GSAadvantage.gov











DuraLite Sanders 72

## Duralite Aluminum Housing Lite

## Self Generated Vac

 Self Generated Vac sanders use the sanders compressed air exhaust to generate their own vacuum for dust extraction. They come standard with a 1in threaded vacuum port. HEPA Bag & 1in Adapter Sold Separately.



- Orbital or Jitter sanders move front to back and side to side simultaneously. They are typically used for fine finish sanding or getting into square corners. They are available in 7 sizes, all 1/8in orbit.
- Lubricant Contamination on sensitive parts can be eliminated by using a Central Vac with any SGV Sander instead of a HEPA Bag, since all compressed air is diverted into the Vac Hose.

#### **Sander Features**

- J-Hook backup pad for hook & loop abrasives
- · HEPA Bag swivel adapter 1in
- Ergonomic Wrist support
- 1/4" (6.4mm) Air inlet
- Consumes 17 cfm (481 lpm)
- Produces 10,000 rpm & .28 hp (209 w)

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<sup>1</sup>/<sub>8</sub> (3.2mm) Orbit Finish Sanding

#### Orbital Sanders - Self Gen

Model	Pad Size	NSN	Sound dBA	Weight lbs (kg)	Price
775-10343J*	3 x 4" (75 x 100mm)		83	1.6 (0.73)	
775-10343J-80D	Corner 3 x 4" (75 x 100mm)		83	1.6 (0.73)	
775-10353J*	3 x 5" (75 x 125mm)		91	2.4 (1.07)	
775-10283J*	2-3/4 x 8" (70 x 200mm)		91	2.4 (1.07)	
775-10373J*	3-2/3 x 7" (90 x 175mm)		91	2.4 (1.07)	
775-10343J-56R	Radius 3 x 4" (75 x 100mm)		83	1.6 (0.73)	
775-10343J-66R	Radius 3 x 4" (75 x 100mm)		83	1.6 (0.73)	



Large 1in SGV Bag Port

<sup>\*</sup> Replace J with S for Vinyl Pad on select models



- ① All tool performance ratings measured @ 90 PSI (620 kPa) compressed air pressure.
- \* Available on GSA Advantage website @ www.GSAadvantage.gov

73 DuraLite Sanders

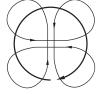
## DuraLite

## Non Vac DA (Dual Action / Random Orbital

• Random Orbital (RO) or Dual Action (DA) sanders simultaneously spin the sanding disk and move in an ellipse. This unique random sanding action eliminates swirl marks in your work. They are available in 3 sizes and 3 orbits.

#### **Sander Features**

- J-Hook backup pad for hook & loop abrasives
- Ergonomic Wrist support
- 1/4" (6.4mm) Air inlet
- Consumes 17 cfm (481 lpm)
- Produces 12,000 rpm & .28 hp (209 w)



<sup>5</sup>/<sub>16</sub> (8mm) Orbit Aggressive Sanding



<sup>3</sup>/<sub>16</sub> (5mm) Orbit Normal Sanding



3/32 (2.5mm) Orbit Finish Sanding



Don't forget our interface and protector pads to extend the life of your backup pad!

#### DA Sanders - Non Vac

Model	Pad Size	NSN	Orbit inch (mm)	Sound dBA	Weight lbs (kg)	Price
775-12310J	3" (75mm)		3/32 (2)	72	1.4 (0.65)	
775-12300J	3" (75mm)		3/16 (5)	72	1.5 (0.67)	
775-12510J	5" (125mm)		3/32 (2)	74	1.7 (0.77)	
775-12500J	5" (125mm)		3/16 (5)	74	1.8 (0.79)	
775-12520J	5" (125mm)		5/16 (8)	74	1.8 (0.82)	
775-12610J	6" (150mm)		3/32 (2)	74	1.8 (0.82)	
775-12600J	6" (150mm)		3/16 (5)	74	1.9 (0.85)	
775-12620J	6" (150mm)		5/16 (8)	74	1.9 (0.88)	



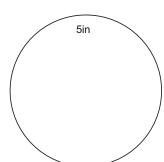
Air Tool Oil 678-20451 NSN: 4130-01-502-0850

<sup>\*</sup> Replace J with S for Vinyl Pad on all models

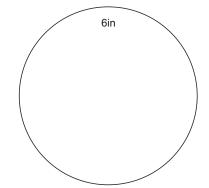












DuraLite Sanders 74

## Duralite Aluminum Housing Lite

## Non Vac

• **Central Vac** sanders require a portable or central vacuum for dust extraction. They come standard with a 1" threaded vacuum port for attachment to any Clayton vacuum system.



• Orbital or Jitter sanders move in an ellipse. They are typically used for fine finish sanding or getting into square corners. They are available in 3 sizes and 3 orbits.

#### **Sander Features**

- J-Hook backup pad for hook & loop abrasives
- Ergonomic Wrist support
- 1/4" (6.4mm) Air inlet
- Consumes 17 cfm (481 lpm)
- Produces 10,000 rpm & .28 hp (209 w)



<sup>1</sup>/8 (3.2mm) Orbi Finish Sanding

Don't forget our interface and protector pads to extend the life of your backup pad!

#### Orbital Sanders - Non Vac

Model	Pad Size	NSN	Sound dBA	Weight lbs (kg)	Price
775-10340J*	3 x 4" (75 x 100mm)		71	1.6 (0.71)	
775-10340J-80D	Corner 3 x 4" (75 x 100mm)		83	1.6 (0.73)	
775-10350J*	3 x 5" (75 x 125mm)		77	2.3 (1.05)	
775-10280J*	2-3/4 x 8" (70 x 200mm)		77	2.4 (1.07)	
775-10370J*	3-2/3 x 7" (90 x 175mm)		77	2.3 (1.05)	
775-10340J-56R	Radius 3 x 4" (75 x 100mm)		83	1.6 (0.73)	
775-10340J-66R	Radius 3 x 4" (75 x 100mm)		83	1.6 (0.73)	



Air Tool Oil 678-20451 NSN: 4130-01-502-0850

<sup>\*</sup> Replace J with S for Vinyl Pad on select models



 $\epsilon$ 

#### Radius 3" x 5" Orbital Sanders

This innovative sander was designed to help OEMs and maintainers deal with the concave surfaces of certain aircraft jet intakes. In the past, sanders would only make contact with the outer edges of the abrasive on concave surfaces. These tools follow the contour of the aircraft skin providing even contact over the entire abrasive surface. Lightweight and rugged composite housing with patented bearing design for extended motor life.

- Designed in cooperation with Lockheed Martin for F-22 intakes
- Designed in cooperation with Northrop Grumman for F-35 intakes
- Available in two sizes for narrow and wide concave areas
- Backup pad extended nose and tail allows sander to accept
   disc abrasives

#### Sanders include:

- Curved J-Hook backup pad for hook & loop abrasives
- Swivel adapter for 1" vacuum hose
- Wrist support
- Standard ¾6" orbit and 10,000 RPM
- 1/4" Air Inlet







Radius 3" x 5" Orbital Sander (75 x 100 mm)

Model	NSN	Radius	Motor HP (W)	Sound dBA	Air Consumption CFM (LPM)	Weight lbs (kg)	Price
675-10341J-56R		Short	0.28 (209)	72	17 (481)	25.8 (0.73)	
675-10341J-66R		Long	0.28 (209)	72	17 (481)	25.8 (0.73)	

#### Radius Pads

Model	NSN	Size	Holes	Radius	Abrasive Attachment	Price
672-401J-56R		3 x 5	33	Short	J-Hook	
672-401J-66R		3 x 5	33	Long	J-Hook	

- ① All tool performance ratings measured @ 90 PSI (620 kPa) compressed air pressure.
- ★ Available on GSA Advantage website @ www.GSAadvantage.gov
- ★ This item has an NSN See Model / NSN table on page 4.



Specialty Sanders 76

#### 3" Extended Reach Low Profile Random Orbital Sander

This sander was designed to help maintainers deal with small spaces like ECS ducts or between jet intakes and the aircraft fuselage. At only 3" tall, the Extended Reach Low Profile Sander fits deep into tight spaces. The actuator has been relocated from the top of sander to the airline and the sander can be held by the extended rigid air line connection.



- Designed by Clayton and tested by engineers at Lockheed Martin on the F-22
- · Bypass exhaust protects composite aircraft skin from contamination by oil & debris in the exhaust air

Lightweight and rugged composite housing with patented bearing design for extended motor life. Sander includes low profile J-Hook backup pad, 2' of combination air/vacuum hose, and swivel adapters for both ¾" and 1' vacuum hose, for easy connection to any vacuum system.



#### 3" Extended Reach Low Profile Random Orbital Sander (75mm)

Model	NSN	Exhaust	Orbit inch (mm)	Motor HP (W)	Sound dBA	Air Consumption CFM (LPM)	Weight lbs (kg)	Price
690-025		Bypass	3/16 (5)	0.28 (209)	87	17 (460)	1.6 (0.7)	

- ① Standard Exhaust requires portable or central vacuum system for dust extraction.
- (i) All tool performance ratings measured (ii) 90 PSI (620 kPa) compressed air pressure.
- ★ Available on GSA Advantage website @ www.GSAadvantage.gov
- → This item has an NSN See Model / NSN table on page 4.



Hand Sanders 78



## Vacuum Hand Sanding Blocks

Clayton hand sanding blocks provide dust free sanding without a compressed air supply. They're ideal for quick spot repairs or areas where finesse is required. The hand sanding blocks can be easily connected to either a Clayton vacuum system or a central vacuum. The ergonomic design fits comfortably in the palm and ensures fatigue-free sanding. For best results, use these sanders with DustMaster Supreme Screen Abrasives.

#### **Features**

- · Hook & Loop attachment for abrasives
- Vacuum Relief Valve
- 1in Swivel Connection
- 2ft x 1in Vacuum Hose and Cuff



Hand Sanding Blocks

Ì	Model	NSN	Description	Price
	680-A27505J	4130-01-509-0261	Hand Sander 2.75in x 5in	
	680-A27508J		Hand Sander 2.75in x 8in	
ĺ	680-A27516J		Hand Sander 2.75in x 16in	
	680-A275R16J		Hand Sander 2.75in x 16in Symmetric Rigid	
Ì	680-A275XX.I	4130-01-509-0276	Hand Sander Kit 5in, 8in, 16in	



79 Hand Sanders



## Vacuum Hand Sanding Blocks

The Symmetric Flex Hand Sanding Block can be adjusted to Concave, Flat, or Convex surfaces.

#### **Features**

- Hook & Loop attachment for abrasives
- Vacuum Relief Valve
- 1in Swivel Connection
- 2ft x 1in Vacuum Hose and Cuff



Hand Sanding Blocks Curved Shapes

Model	NSN	Description	Price
680-A27505CK		Hand Sander 2.75in x 5in Curved Shapes Kit	
680-A27508CK		Hand Sander 2.75in x 8in Curved Shapes Kit	
680-A27505DK		Hand Sander 2.75in x 5in Disc Curved Shapes Kit	
680-A275F16J		Hand Sander 2.75in x 16in Symmetric Flex	,

The **Curved Shape Kits** provide interchangeable concave and convex backup pads that snap on and off the hand sander bodies.

#### **Features**

- Hook & Loop attachment for abrasives
- Vacuum Relief Valve
- 1in Swivel Connection
- 2ft x 1in Vacuum Hose and Cuff
- Available in 3 Sizes



Hand Sanders 80



#### **Vacuum Hand Sanding Blocks**

2-3/4 x 5 Curved Shapes Kit

Accepts 2-3/4 x 5in Abrasive

#### **Features**

- 1 5in Sander Body
- 1 Flat Pad
- 1 Concave Pad
- 2 Different convex pads



2-3/4 x 8 Curved Shapes Kit

Accepts 2-3/4 x 8in Abrasive

#### **Features**

- 1 8in Sander Body
- 1 Flat Pad
- 1 Concave Pad
- 2 Different Convex Pads



#### **5in Disc Curved Shapes Kit**

Accepts 5in Disc Abrasive

#### **Features**

- 1 5in Sander Body
- 1 Flat Pad
- 1 Concave Pad
- 1 Convex Pad





## SANDER PARTS & ACCESSORIES

Backup Pads • Pad Protectors • Interface Pads • Sander Parts • Drop in Motors



83 **Backup Pads** 

#### **Backup Pads**

Clayton backup pads are designed specifically for vacuum sanding. The large number of holes provides unmatched airflow and dust capture.

#### **Disc Pads J-Hook**

These pads come standard on all Clayton sanders and feature J-Hook abrasive attachment, multi-hole pattern for better air flow, tapered edge, and a threaded stud.

#### Disc Pads J-Hook

Model	NSN	Size	Holes	Edge	Abrasive Attachment	Stud Size	Price
672-301J		3"	3	Tapered	J-Hook	1/4	
672-511J		5"	Multi	Tapered	J-Hook	5/16	
672-511JH*		5"	Multi	Tapered	J-Hook	5/16	
672-611J		6"	Multi	Tapered	J-Hook	5/16	
672-611JH*		6"	Multi	Tapered	J-Hook	5/16	
672-811J		8"	Multi	Tapered	J-Hook		

<sup>\*</sup> Firm Pad

301J • 511J • 611J • 811J

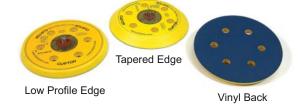


#### Disc Pads Vinyl -

Our PSA pads feature 3 to 6 holes, a Low Profile or Tapered edge, and vinyl backing for your PSA abrasive

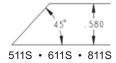
#### Disc Pads Vinyl

Model	NSN	Size	Holes	Edge	Abrasive Attachment	Stud Size	Price
672-301S		3"	3	Tapered	PSA	1/4	
672-511S		5"	5	Tapered	PSA	5/16	
672-501S		5"	5	Low Profile	PSA	5/16	
672-611S		6"	6	Tapered	PSA	5/16	
672-601S		6"	6	Low Profile	PSA	5/16	
672-811S		8"	8	Tapered	PSA	5/16	









#### **Disc Pads Vinyl Groove**

If you need to use PSA abrasive but are looking for better air flow try our grooved PSA pads. The grooves provide airflow across and to the edge of the entire pad, eliminating the need to align the holes in the abrasive and the pad.

#### Disc Pads Vinyl Groove

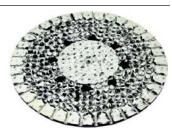
Model	NSN	Size	Holes	Edge	Abrasive Attachment	Stud Size	Price
672-511SG		5"	5	Low Profile	PSA	5/16	
672-611SG		6"	8	Low Profile	PSA	5/16	











Grooved PSA



Low Profile Edge



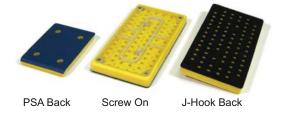
**Backup Pads** 84

#### **Rectangular Screw-on Pads**

These pads use a four point screw attachment method, J-Hook or PSA abrasive attachment and multi-hole pattern for excellent air flow.

#### Rectangular Screw-on Pads

Model	NSN	Size	Holes	Edge	Abrasive Attachment	Price
675-702J		3-2/3 x 7	Multi	Low Profile	J-Hook	
675-402J		3 x 4	Multi	Low Profile	J-Hook	
675-402S		3 x 4	4	Low Profile	PSA	



#### Rectangular Stick-on Pads -

If your sander requires a Stick-on pad then we have them in both J-Hook and vinyl.

#### Rectangular Stick-on Pads

Model	NSN	Size	Holes	Edge	Abrasive Attachment	Price
672-701J		3-2/3 x 7	10	Low Profile	J-Hook	
672-701S		3-2/3 x 7	10	Low Profile	PSA	
672-402J		3 x 4	5	Low Profile	J-Hook	
672-402S		3 x 4	5	Low Profile	PSA	

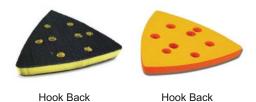


#### Triangle Pads

For triangle detail sanders these pads attach with two screws and feature a hook & loop abrasive attachment method.

#### Triangle Pads

Model	NSN	Size	Holes	Edge	Abrasive Attachment	Price
692-282J		3 x 3 x 3	6	Low Profile	Hook	
692-284J		3 x 3 x 3	6	Low Profile	Hook	



#### Radius Pads -

This innovative backup pad was designed to help OEMs and maintainers deal with the concave surfaces of certain aircraft jet intakes. In the past, sanders would only make contact with the outer edges of the abrasive on concave surfaces. These pads follow the contour of the aircraft skin providing even contact over the entire abrasive surface.

- Designed in cooperation with Lockheed Martin for F-22 intakes
- Designed in cooperation with Northrop Grumman for F-35 intakes
- Available in two sizes for narrow and wide concave areas
- Extended nose and tail allows sander to accept 5" disc abrasives

#### Radius Pads

Model	NSN	Size	Holes	Radius	Abrasive Attachment	Price
672-401J-56R		3 x 5	33	Short	J-Hook	
672-401J-66R		3 x 5	33	Long	J-Hook	

- Available on GSA Advantage website @ www.GSAadvantage.gov
- This item has an NSN See Model / NSN table on page 4.



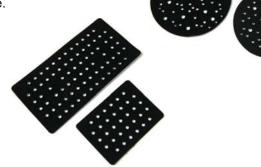
85 Pad Protectors

#### **Pad Protectors**

Extend the life of J-hook backup pads with pad protectors. Wear down these inexpensive disposable pads instead of valuable backup pads. Loop on one side, J-Hook on the other, these pads sit between your J-Hook backup pad and your abrasive.

#### **Pad Protectors**

Model	NSN	Size in (mm)	Thickness in (mm)	Pack Qty	Price
672-30JP		3 (75)	0.125 (3)	50	
672-34JP		3x4 (75x100)	0.125 (3)	50	
672-37JP		3-2/3x7 (93x178)	0.125 (3)	50	
672-50JP		5 (125)	0.125 (3)	50	
672-60JP		6 (150)	0.125 (3)	50	



#### **Interface Pads**

Ideal for contour sanding, Interface Pads work just like Pad Protectors but are much thicker, allowing the abrasive to conform to uneven surfaces, like the leading edge of wings. Loop on one side, J-Hook on the other, these pads sit between your J-Hook backup pad and your abrasive.

#### Interface Pads

Model	NSN	Size in (mm)	Thickness in (mm)	Pack Qty	Price
672-31JP		3 (76)	0.25 (6)	25	
672-52JP		5 (127)	0.5 (13)	25	
672-62JP		6 (152)	0.5 (13)	25	
692-205JP		2.75x5 (70x127)	0.25 (6)	5	
692-208JP		2.75x8 (70x203)	0.25 (6)	5	

- ★ Available on GSA Advantage website @ www.GSAadvantage.gov
- This item has an NSN See Model / NSN table on page 4.



#### **Sander Parts & Accessories**

#### **Ergonomic Wrist Support**

- · Included on all Clayton palm sanders
- Provides additional wrist support
- · Shields against cold exhaust
- · Facilitates two-handed sanding
- · Easily Removed
- · Fits on all Clayton palm sanders

#### **Sander Swivel Exhaust**

- · Use on Clayton ROS & OS palm sanders
- Available for 1" or 3/4" hose

#### **Comfort Grips**

Available in 3 sizes, reduce fatigue and increase user comfort. All Clayton sanders come standard with medium grip. Small and Large grips are optional.

#### Muffler

- · Use on Clayton ROS & OS palm sanders
- One piece sintered bronze muffler
- · Easy and quick to replace

#### Rotor, Vane, Key Set

- Use on Clayton ROS & OS palm sanders
- Supports both 10,000 & 12,000 RPM
- Five floating composite blades
- Produces .28hp @ 90 psi 17 cfm







#### Sander Rebuild Kits

Available for all sanders, includes: rotors, vanes & key, valve, valve seat, valve spring, muffler, o-rings, retaining rings, valve stem, bearings, shims, pad support assemblies as required for each model sander.



#### **Sander Rebuild Tools**

Contains the tools needed to service all Clayton Orbital and Random Orbital sanders.



#### **Air Tool Lubricant**

Keep your pneumatic air tools running efficiently with air tool lubricant. Use 2-3 drops at the end of each day, or as needed, to maintain tool performance.



#### Palm Sander Accessories

Model	NSN	Description	Weight lbs (kg)	Price
673-M0201		Ergonomic Wrist Support		
673-A0288		Comfort Grip Small 2-1/2"		
673-A0289		Comfort Grip Medium 2-3/4"		
673-A0290		Comfort Grip Large 3"		
673-A0099		Swivel Exhaust 1" for ROS		
673-A0092		Swivel Exhaust 1" for OS		
673-A0205		Swivel Exhaust 3/4" for ROS		
673-A0298		Swivel Exhaust 3/4" for OS		
673-C0047		Shroud 3" 3/32 Orbit		
673-C0243		Shroud 3" 3/16 Orbit		
673-C0012		Shroud 5"		
673-C0073		Shroud 6"		
673-A0095		10,000 RPM Muffler for ROS		
673-A0096		12,000 RPM Muffler for ROS		
678-20451		Air Tool Lubricant		

- ROS = Random Orbital Sander, OS = Orbital Sander
- ★ Available on GSA Advantage website @ www.GSAadvantage.gov
- → This item has an NSN See Model / NSN table on page 4.

#### Palm Sander Parts

Model	NSN	Description	Weight lbs (kg)	Price
673-A0612		ROS Spindle Bearing Kit		
673-A0610		1/4-18 NPT Air Inlet Kit		
673-A0614		Endplate Bearing Kit		
673-A0063		Rotor, Vanes, Key Set		
673-A0398		3" Sander Rebuild Kit		
673-A0381		5" & 6" Sander Rebuild Kit		
673-A0311		3" x 4" Sander Rebuild Kit		
673-A0303		3-2/3" x 7" Sander Rebuild Kit		
673-A0497		Minor Rebuild Tools		
673-A0910		Major Rebuild Tools		
673-A0711		Speed Valve Kit		

#### Two-Hand Sander Parts

Model	NSN	Description	Weight lbs (kg)	Price
673-A2524		12,000 RPM Muffler for ROS		
673-A2528		Rotor, Vanes, Key Set		



#### **Drop-In Motors**

Quickly bring your sander back to top performance with this easy to install single piece drop-in motor.

- Requires Sander Rebuild Tools
- · Installs in minutes
- Replaces all major wear items (bearing, rotors, vanes, etc.)



#### **Drop-In Motors (Aluminum Sanders)**

Model	NSN	Description	Weight lbs (kg)	Price
673-B0288		Drop-In Motor 3" x 3/32 orbit		
673-B0500		Drop-In Motor 3" x 3/16 orbit		
673-B0135		Drop-In Motor 5" x 3/16 orbit		
673-B0501		Drop-In Motor 5" x 5/16 orbit		
673-B0136		Drop-In Motor 6" x 3/16 orbit		
673-B0502		Drop-In Motor 6" x 5/16 orbit		

#### **Drop-In Motors (Composite Sanders)**

		, ,		
Model	NSN	Description	Weight lbs (kg)	Price
673-B0289		Drop-In Motor 3" x 3/32 orbit		
673-B0482		Drop-In Motor 3" x 3/16 orbit		
673-B0283		Drop-In Motor 5" x 3/16 orbit		
673-B0483		Drop-In Motor 5" x 5/16 orbit		
673-B0284		Drop-In Motor 6" x 3/16 orbit		
673-B0484		Drop-In Motor 6" x 5/16 orbit		

(i) Drop-In motors for our aluminum and composite sanders are NOT interchangeable. Installing the wrong drop-in motor will damage the sander and void your warranty.



#### **Drop-In Motors (Two-Hand Sanders)**

Model	NSN	Description	Weight lbs (kg)	Price
673-B0495		Drop-In Motor 5" x 3/16 orbit		
673-B0496		Drop-In Motor 5" x 3/8 orbit		
673-B0498		Drop-In Motor 6" x 3/16 orbit		
673-B0499		Drop-In Motor 6" x 3/8 orbit		

- ★ Available on GSA Advantage website @ www.GSAadvantage.gov
- This item has an NSN See Model / NSN table on page 4.





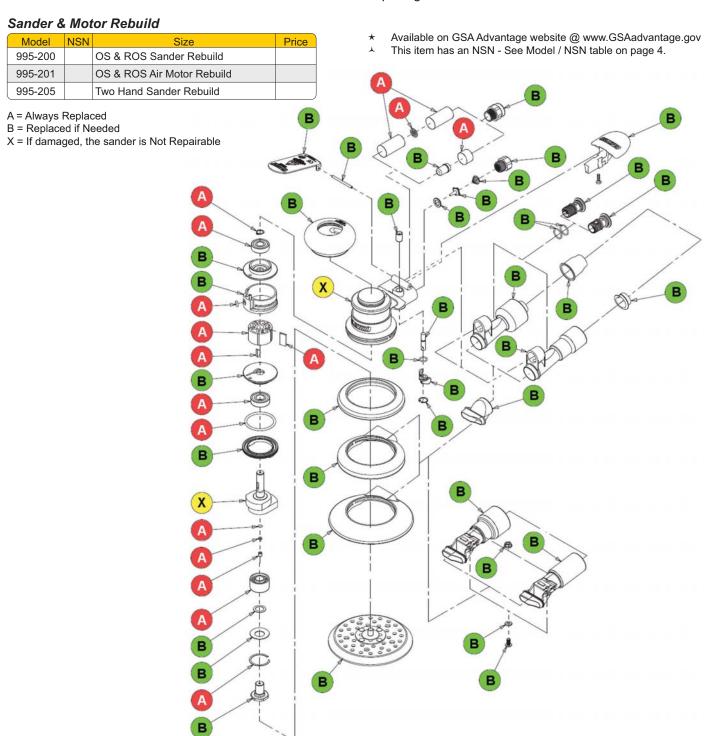
#### Sander Rebuild & Repair

#### Sander & Drop-in Motor Rebuild & Repair

Clayton provides flat rate rebuild & repair of our sanders and sander air motors. Flat rate rebuild & repair services include:

- Rebuild entire sander Replace any broken or worn parts including backup pad, rebuild air motor, test and certify
- Rebuild air motor only Replace all major wear items, test, and certify

Please download the Sander Rebuild form from our website for pricing and additional details.





## UNIVERSAL SHROUDS & Universal Shroud SHROUDED TOOLS

**Grinding • Cutting • Drilling • Routing** 



#### **Announcing Tool Independence!**

The Clayton Universal Shroud is a paradigm shift in shroud design. Historically, a dust control shroud was attached to the tool body and designed to fit a single make or model tool.

Our Universal Shrouds float on a bearing mounted to a 1/4" mandrel. This means that a single Clayton Universal Shroud will fit ANY make or model tool with a ½" collet. Use an existing tool you already have in your crib, or choose from any of the grinders that Clayton has to offer.

The Universal Shrouds dramatically decrease your Total Cost of Ownership (TCO) because they can be easily moved from one tool to another. Straight or right angle, Dotco or Dynabrade, etc. As your preferred tool manufacturer changes, Clayton Universal Shrouds can continue to provide the same outstanding performance year after year.

#### Clear Revolution 1", 2" & 3" Right Angle Sander Shrouds (sold with or without grinder)

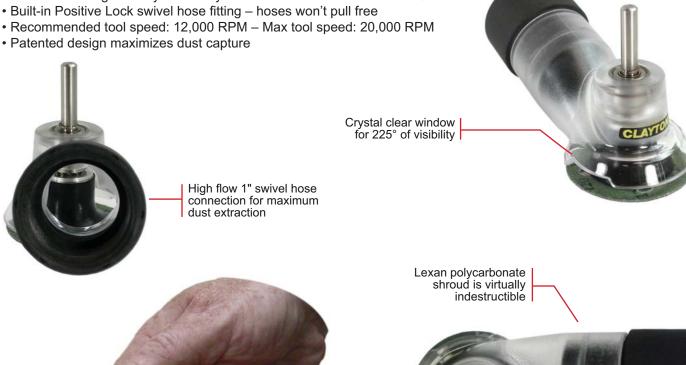
Universal Shroud

Made of crystal clear Lexan, this is the future of shroud design. Built from the same material as aerospace cockpits, NASCAR windshields, and space helmets, it's virtually indestructible and guaranteed for life. This shroud does not obscure the working edges of the abrasive discs, so users can easily see the work surface.

Every shroud includes: mandrel, disc pad, 2' x 1" hose whip, and swivel adapter for connection to 1" vacuum hoses. Refer to hose and fitting section for other hose adapters.

#### **Features**

- Fits ANY tool with a 1/4" collet Straight or right angle sanders, grinders, routers, etc.
- Virtually indestructible Lexan is guaranteed for life
- Shroud does not obscure visibility
- · Shroud swivels freely around mandrel, so the hose can be repositioned with ease
- Works with the grinders you already own NO MODIFICATIONS REQUIRED









### Clear Revolution 1", 2" & 3" Right Angle Sander Shrouds (sold with or without grinder)

Universal Shroud

1" shroud swivel points horizontal or vertical

for getting into deep or narrow locations







#### Clear Revolution 1" Right Angle Sander & Shroud (25mm)

Model	NSN	Grinder	Mandrel	Abrasive Style	Orientation	Motor RPM	Motor HP (W)	Air Inlet ID inch (mm)	Weight lbs (kg)	Price
674-A1216TR		Not Included	TR	200	-	-	-	-	-	
674-A1216TR-02R		Dotco 12LF280-36	TR		Right Angle	12000	0.4 (298)	1/4"	1.1 (0.5)	
674-A1216TS		Not Included	TS	1	-	-	-	-	-	
674-A1216TS-02R		Dotco 12LF280-36	TS		Right Angle	12,000	0.4 (298)	1/4"	1.1 (0.5)	

#### Clear Revolution 2" Right Angle Sander & Shroud (50mm)

Model	NSN	Grinder	Pad	Abrasive Style	Orientation	Motor RPM	Motor HP (W)	Air Inlet ID inch (mm)	Weight lbs (kg)	Price
674-A1232TR		Not Included	TR	2	-	-	-	-	-	
674-A1232TR-02R		Dotco 12LF280-36	TR		Right Angle	12000	0.4 (298)	1/4"	1.1 (0.5)	
674-A1232TS		Not Included	TS	10	-	-	-	-	-	
674-A1232TS-02R		Dotco 12LF280-36	TS		Right Angle	12,000	0.4 (298)	1/4"	1.1 (0.5)	

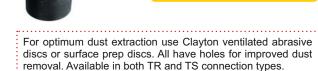
#### Clear Revolution 3" Right Angle Sander & Shroud (75mm)

Model	NSN	Grinder	Pad	Abrasive Style	Orientation	Motor RPM	Motor HP (W)	Air Inlet ID inch (mm)	Weight lbs (kg)	Price
674-A1248TR		Not Included	TR	2	-	-	-	-	-	
674-A1248TR-02R		Dotco 12LF280-36	TR		Right Angle	12000	0.4 (298)	1/4"	1.1 (0.5)	
674-A1248TS		Not Included	TS	10	-	-	-	-	-	
674-A1248TS-02R		Dotco 12LF280-36	TS		Right Angle	12,000	0.4 (298)	1/4"	1.1 (0.5)	

#### Clear Revolution Shroud Parts

Model	NSN	Description	Price
672-004S		Mandrel	
672-1016TR		1" Pad TR Style	
672-1016TS		1" Pad TS Style	
672-1032TR-9		2" Pad TR Style	
672-1032TS-9		2" Pad TS Style	
672-1048TR-12		3" Pad TR Style	
672-1048TS-12		3" Pad TS Style	
674-A1216B		Bearing Replacement 1"	
674-A1232B		Bearing Replacement 2"	
674-A1248B		Bearing Replacement 3"	

<sup>\*</sup>Bearing Replacement requires return to factory



Please call for other Tool & Shroud combinations that may be available.

<sup>⚠</sup> Never exceed the maximum operating speed of your abrasive.

<sup>★</sup> Available on GSA Advantage website @ www.GSAadvantage.gov

This item has an NSN - See Model / NSN table on page 4.

#### Clear Revolution Cartridge Roll Shroud (sold with or without grinder)



Cartridge rolls are ideal for getting into small, hard to reach areas. As they wear, the wrapped layers of the cartridge roll continuously expose fresh abrasive layers for continual cutting action.

Every shroud includes: mandrel, 2' x 1" hose whip, and swivel adapter for connection to 1" vacuum hoses. Refer to hose and fitting section for other hose adapters.

#### **Features**

- Mandrel Pilot 1" x 1/8" Tapers from 1/8" to 1/4" over 3/4"
- Supports cartridge rolls < 1" D x 1½" L x ½" ID
- Fits ANY tool with a ¼" collet Straight or right angle sanders, grinders, routers, etc.
- Virtually indestructible Lexan is guaranteed for life
- Shroud does not obscure visibility
- · Shroud swivels freely around mandrel, so the hose can be repositioned with ease
- Works with the grinders you already own NO MODIFICATIONS REQUIRED
- Built-in Positive Lock swivel hose fitting hoses won't pull free



#### Cartridge Roll Shroud

Model	NSN	Grinder	Orientation	Motor RPM	Motor HP (W)	Air Inlet ID inch (mm)	Weight lbs (kg)	Price
674-A1416CR		Not Included	-	-	-	-	-	
674-A1416CR-02R		Dotco 12L1280-36	Right Angle	12,000	0.3 (220)	1/4"	1.1 (0.5)	
672-A015		Replacer	nent Cartridge F	Roll Mandre	el with Clips			



- Available on GSA Advantage website @ www.GSAadvantage.gov
- This item has an NSN See Model / NSN table on page 4.





#### **Clear Revolution Seat Track Cleaning Shroud**



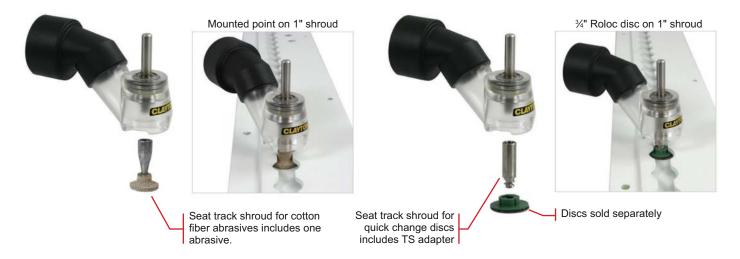
Aircraft seat tracks are notoriously difficult to clean and typically consume large numbers of small abrasive discs.

The Clayton Clear Revolution shroud for seat track cleaning and corrosion removal allows users to quickly change abrasives without wrenches or other tools. Replace or switch between cotton fiber and TS discs on the fly.

Every shroud includes: mandrel, 2' x 1" hose whip, and swivel adapter for connection to 1" vacuum hoses. Refer to hose and fitting section for other hose adapters.

#### **Features**

- Works with either Clayton ¾" cotton fiber abrasives or ¾" TS quick change discs.
- Fits ANY tool with a 1/4" collet Straight or right angle sanders, grinders, routers, etc.
- · Virtually indestructible Lexan is guaranteed for life
- · Shroud does not obscure visibility
- · Shroud swivels freely around mandrel, so the hose can be repositioned with ease
- Works with the grinders you already own NO MODIFICATIONS REQUIRED
- Built-in Positive Lock swivel hose fitting hoses won't pull free



#### Clear Revolution Seat Track Shrouds

Model	NSN	Description	Weight lbs (kg)	Price
674-A1416CF		1" Seat Track Shroud for Cotton Fiber Abrasives		
674-A1416TS		1" Seat Track Shroud for 3/4" Roloc Disc		
672-013		TS Adapter for 1" Shroud to 3/4" Roloc Disc		
800-12054C-50		Cotton Fiber Seat Track Disc 50 Pack		



#### Clear Revolution Seat Track Shrouds with Grinder

Model	NSN	Grinder	Mandrel	Orientation	Motor RPM		Air Inlet ID inch (mm)		Price
674-A1416CF-02R		Dotco 12LF280-36	Cotton Fiber	Right Angle	12000	0.4 (298)	1/4"	1.1 (0.5)	
674-A1416TS-02R		Dotco 12LF280-36	3/4" TS Roloc	Right Angle	12,000	0.4 (298)	1/4"	1.1 (0.5)	

- \* Available on GSA Advantage website @ www.GSAadvantage.gov
- This item has an NSN See Model / NSN table on page 4.



#### **Clear Revolution Piloted Burnishing Shroud**



The right tool for removing corrosion, dirt, or sealant from around rivets and bolt holes, this tool is also ideal for removing paint or primer when a positive electrical contact is required. The piloted point ensures that the cleaning and abrasive action is contained to a tight diameter around the rivet hole. The quick change abrasive discs allow users to move quickly through the job, and the clear shroud provides maximum visibility while capturing potentially hazardous airborne dust.

Every shroud includes: mandrel, pilot tip pad, 2' x 1" hose whip, and swivel adapter for connection to 1" vacuum hoses. Refer to hose and fitting section for other hose adapters.

#### **Features**

- Works with ½" TS piloted quick change discs.
- Fits ANY tool with a 1/4" collet Straight or right angle sanders, grinders, routers, etc.
- · Virtually indestructible Lexan is guaranteed for life
- Shroud does not obscure visibility
- · Shroud swivels freely around mandrel, so the hose can be repositioned with ease
- Works with the grinders you already own NO MODIFICATIONS REQUIRED
- Built-in Positive Lock swivel hose fitting hoses won't pull free



#### Clear Revolution Piloted Burnishing Shrouds

Model	NSN	Description	Weight lbs (kg)	Price
674-A1416PT-010		Clear Revolution Pilot Tip #10 (3/16)		
674-A1416PT-021		Clear Revolution Pilot Tip #21 (5/32)		
674-A1416PT-030		Clear Revolution Pilot Tip #30 (1/8)		
672-1008TS-010		Pilot Tip Pad TS #10 (3/16)		
672-1008TS-021		Pilot Tip Pad TS #21 (5/32)		
672-1008TS-030		Pilot Tip Pad TS #30 (1/8)		



- ★ Available on GSA Advantage website @ www.GSAadvantage.gov
- This item has an NSN See Model / NSN table on page 4.



#### Universal Cutoff Saw Shrouds (sold with or without grinder)

A grip on the top of the shroud aids in precise cuts. This puts your control above and in line with the cutting edge, making the tool much easier to control and more ergonomic. In addition, the grinder and shroud pivot independently, keeping the shroud flat on the work surface while the grinder pivots with your hand.

Every shroud includes: mandrel, 2' x 1" hose whip, and swivel adapter for connection to 1" vacuum hose. Refer to hose and fitting section for other hose adapters.

#### **Features**

- Fits ANY tool with a 1/4" collet straight or right angle sanders, grinders, etc.
- Accepts discs with ¼" arbor hole
- Precision finished anodized aluminum housing
- Positive Lock hose fitting hoses won't pull free
- Built in depth control with graduation marks, provides precise adjustment
- · Ergonomic comfort grip molded into shroud
- Works with the grinders you already own NO MODIFICATIONS REQUIRED

Recommended tool speed: 20,000 - 23,000 RPM – Max tool speed: 25,000 RPM







#### 2" Universal Cutoff Saw Shroud (50mm)

Model	NSN	Grinder	Orientation	Motor RPM	Motor HP (W)	Air Inlet ID inch (mm)	Weight lbs (kg)	Price
674-A2032		Not Included	-	-	-	-	-	
690-72032-01R		Dotco 12L1281-36	Right Angle	20,000	0.3	1/4"		
690-72032-01S		Dotco 12L2580-01	Straight	23,000	0.9	1/4"		

#### 3" Universal Cutoff Saw Shroud (75mm)

Model	NSN	Grinder	Orientation	Motor RPM	Motor HP (W)	Air Inlet ID inch (mm)	Weight lbs (kg)	Price
674-A2048		Not Included	-	-	-	-	-	
690-72048-01R		Dotco 12L1281-36	Right Angle	20,000	0.3	1/4"		
690-72048-01S		Dotco 12L2580-01	Straight	23,000	0.9	1/4"		

- Available on GSA Advantage website @ www.GSAadvantage.gov
- This item has an NSN See Model / NSN table on page 4.









#### Universal Radial Shrouds (sold with or without grinder)



Designed for 3M Bristle Discs or cut off wheels, this shroud does not obscure the working edge of the abrasive, so users can easily see the work surface.

Every shroud includes: mandrel, 2' x 1" hose whip and swivel adapter for connection to 1" vacuum hoses. Refer to hose and fitting section for other hose adapters.

#### **Features**

- Fits ANY tool with a ¼" collet straight or right angle sanders, grinders, routers, etc.
- · Shroud does not obscure visibility
- · Shroud swivels freely around shaft, so the hose can be repositioned with ease
- Works with the grinders you already own, up to 25,000 rpm NO MODIFICATIONS REQUIRED
- Positive Lock hose fitting hoses won't pull free
- Accepts up to 4 bristle discs with %" center hole



#### 3" Radial Shroud Narrow (1-2 bristle discs or 1 cutoff wheel 75mm)

Model	NSN	Grinder	Orientation	Motor RPM	Motor HP (W)	Air Inlet ID inch (mm)		Price
674-A1648		Not Included	-	-	-	-	-	
674-A1648-02R		Dotco 12L1280-36	Right Angle	12,000	0.3 (220)	1/4"	1.1 (0.5)	
674-A1648-03S		Dotco 12L2082-01	Straight	18,000	0.6 (448)	1/4"	1.4 (0.6)	

#### 3" Radial Shroud Wide (2-4 bristle discs 75mm)

Model	NSN	Grinder	Orientation	Motor RPM	Motor HP (W)	Air Inlet ID inch (mm)		Price
674-A2148		Not Included	-	-	-	-	-	
674-A2148-02R		Dotco 12L1280-36	Right Angle	12,000	0.3 (220)	1/4"	1.1 (0.5)	
674-A2148-03S		Dotco 12L2082-01	Straight	18,000	0.6 (448)	1/4"	1.4 (0.6)	

#### 4" Radial Shroud Wide (1 cutoff wheel 100mm)

Model	NSN	Grinder	Orientation	Motor RPM	Motor HP (W)	Air Inlet ID inch (mm)		Price
674-A1664		Not Included	-	-	-	-	-	
674-A1664-02R		Dotco 12L1280-36	Right Angle	12,000	0.3 (220)	1/4"	1.1 (0.5)	
674-A1664-03S		Dotco 12L2082-01	Straight	18,000	0.6 (448)	1/4"	1.4 (0.6)	

- ★ Available on GSA Advantage website @ www.GSAadvantage.gov
- This item has an NSN See Model / NSN table on page 4.





#### Clear Revolution Drum Sander Shroud (sold with or without grinder)



Designed for 1" diameter and smaller sanding drums. This shroud does not obscure the working edges of the abrasive, so users can easily see the work surface and avoid damaging the substrate.

Every shroud includes: mandrel, drum for 1" x 1" abrasive, 2' x 1" hose whip, and swivel adapter for connection to 1" vacuum hoses. Refer to hose and fitting section for other hose adapters.

#### **Features**

- Fits ANY tool with a 1/4" collet straight or right angle sanders, grinders, routers, etc.
- · Virtually indestructible Lexan is guaranteed for life
- Shroud does not obscure visibility
- · Shroud swivels freely around shaft, so the hose can be repositioned with ease
- Works with the grinders you already own NO MODIFICATIONS REQUIRED
- Positive Lock hose fitting hoses won't pull free
- Recommended tool speed: 12,000 20,000 RPM Max tool speed: 25,000 RPM



#### 1" Universal Drum Sander Shroud (25mm)

Model	NSN	Grinder	Orientation	Motor RPM	Motor HP (W)	Air Inlet ID inch (mm)		Price
674-A1216		Not Included	-	-	-	-	-	
690-71216-02R		Dotco 12L1280-36	Right Angle	12,000	0.3 (224)	1/4"	1.1 (0.5)	
690-71216-03S		Dotco 12L2082-01	Straight	18,000	0.6 (448)	1/4"	1.4 (0.6)	



- \* Available on GSA Advantage website @ www.GSAadvantage.gov
- This item has an NSN See Model / NSN table on page 4.



#### Universal Drill Shroud (sold with or without drill)



This Universal Shroud design attaches between the drill and chuck and provides exceptional dust collection when used on composites or sheet metal. The shroud works with drill bits, reamers, and countersinks.

Every shroud includes: 1" x 2' vacuum hose whip, 2 interchangeable lexan tips, and swivel adapter for connection to 1" vacuum hoses. Refer to hose and fitting section for other hose adapters.

#### **Features**

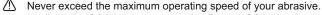
- Fits non-reversing drills with a %-24 threaded chuck
- Precision finished anodized aluminum housing
- Crystal Clear Lexan shroud does not obscure visibility (includes 2 sizes)
- Works with the drills you already own, up to 25,000 rpm
- Works with microstop countersinks up to 1.70" OD
- Removable/Replaceable Lexan shroud
- Positive Lock hose fitting hoses won't pull free
- Shroud swivels freely around chuck, so the hose can be repositioned
- Shroud self centers on drill bit without the need for any expensive bushings
- · Built-in depth control





#### Universal Drill Shroud

Model	NSN	Chuck Size	Drill	Orientation	Motor RPM		Air Inlet ID inch (mm)		Price
674-A3005		-	Not Included	-	-	-	-	1	
690-73004-01		3/8"	Dotco 14CNL92-51	Pistol Grip	3,200	0.5 (373)	1/4"	2.5 (1.1)	
690-73004-02		3/8"	Dotco 14CSL95-51	Pistol Grip	1,300		1/4"		
690-73004-03		1/4"	Dotco 14CFS93-38	Pistol Grip	3,200		1/4"		
690-73004-04		3/8"	Dotco 14CSL92-51	Pistol Grip	3,200	0.6	1/4"		
690-73004-20		3/8"	Ingersoll Rand 728LA2	Pistol Grip	2,850	0.9 (670)	1/4"	2.4 (1.0)	



- ★ Available on GSA Advantage website @ www.GSAadvantage.gov
- → This item has an NSN See Model / NSN table on page 4.





#### **Drill Guides**

Designed to replace your existing drill blocks and egg cups, our vacuum Drill Guides accept a variety of bushings to hold your drill bit perfectly perpendicular to your work surface. They contain and extract drilling debris including dust, chips and swarf with a high flow 1in vacuum hose connection.

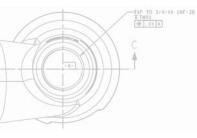
#### **Features**

- Made of virtually indestructible crystal clear Lexan
- Includes 2ft of 1in vacuum hose and threaded 1in swivel cuff
- Slip Fixed Drill Guides accept any 1/2in OD Slip Fixed Bushings
- Threaded Drill Guides accept either 1/2-13 or 3/4-16 bushings depending on model
- Open Drill Shrouds provide a 3/4in opening for drilling without bushings.
- 2in Drill Guides will hold themselves on smooth vertical surfaces while vacuum source is active
- · Requires a vacuum source sold separately
- · Bushings sold separately



#### **Drill Guides**

Model	NSN	Bushing Type	Accepts Bushings	Shroud Diameter	Weight lbs (kg)	Price
674-A1316-08SF		Slip Fixed	1/2" OD	1"		
674-A1332-08SF		Slip Fixed	1/2" OD	2"		
674-A13XX-08SF	4130-01-502-1336	Slip Fixed	1/2" OD	1" & 2"		
674-A1316-08T		Threaded	1/2-13	1"		
674-A1332-08T		Threaded	1/2-13	2"		
674-A1316-12T		Threaded	3/4-16	1"		
674-A1332-12T		Threaded	3/4-16	2"		
674-A1316-12X		Open	None	1"		
674-A1332-12X		Open	None	2"		



SECTION C - C

- \* Available on GSA Advantage website @ www.GSAadvantage.gov
- This item has an NSN See Model / NSN table on page 4.

#### 787 Dreamer Kit

The 787 Dreamer Kit is a collection of Boeing specified drill bits, reamers, and counter sinks for stringer and skin repair on the Boeing 787 Dreamliner. These are the same bits used at the Boeing training center for 787 repairs in Miami Florida. The kit also includes three drills with Boeing specified RPMs for the repair.



#### **Clayton Shrouded Drills Included**

Requires an external vacuum source for dust collection (not included)



#### Replacement Shrouded Drills

Qty	Model	Description
1	690-73004-40	Atlas Copco pistol drill LBB16 EPX 005 - 500 RPM
1	690-73004-41	Atlas Copco pistol drill LBB16 EPX 010 - 1000 RPM
1	690-73004-42	Atlas Copco pistol drill LBB16 EPX 060 - 6000 RPM





#### Replacement Cutting Tools

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Qty	Model	Boeing Tool #	Description
24	BA-ST10-907	ST 10-907-H-1285-1-44-24	#30 Solid Carbide Jobber Length Drill 135° Split Point (Per Boeing ST10-907A)
6	BA-ST1257B-1285	ST1257B-1285-600-1	0.1285X6" SS carbide dreamer Pilot drill Carbon (Dash 6)
6	BA-ST1257B-1900	ST1257B-1900-600-1	0.1900x6" SS carbide dreamer for -6 Hiloc, loc bolt or OSI
6	BA-ST1257B-1990	ST1257B-1990-600-1	0.1990x6" SS carbide dreamer for BACBVK or BACBVL -6 blind bolt
6	BA-ST1257B-2610	ST1257B-2610-600-1	0.2610X6" SS carbide dreamer Pilot drill Carbon (Dash 8)
6	BA-ST1864R-1900	ST1864R-1900-1580-8-126-4-96-1-7	0.190x0.158x0.126" SS carbide step-reamer Step Ti and Carbon (Dash 6)
6	BA-ST1864R-2500	ST1864R-2500-2200-8-190-4-96-1-7	0.250x0.220x0.190" SS carbide step-reamer Step Ti and Carbon (Dash 8)
6	BA-ST1864R-3125	ST1864R-3125-2800-8-250-4-96-1-7	0.3125x0.280x0.190" SS carbide step-reamer Step Ti and Carbon (Dash 10)
3	BA-ST1223CD100	ST1223C-D-630-100-3	5/8" dia. Polycrystalline diamond coated 100° countersink use .125 shank pilots
3	BA-ST1223CD130	ST1223C-D-630-130-2	5/8" dia. Polycrystalline diamond coated 130° countersink use .125 shank pilots
10	BA-ST1223CDP190	ST1223C-DP-190-82-125	0.125 shank 0.190 diameter pilot for ST1223C cutter (Dash 6)
10	BA-ST1223CDP198	ST1223C-DP-198-82-125	0.125 shank 0.198 diameter pilot for ST1223C cutter (Dash 6)
10	BA-ST1223CDP248	ST1223C-DP-248-82-125	0.125 shank 0.248 diameter pilot for ST1223C cutter (Dash 8)
10	BA-ST1223CDP260	ST1223C-DP-260-82-125	0.125 shank 0.260 diameter pilot for ST1223C cutter (Dash 8)
10	BA-ST1223CDP312	ST1223C-DP-312-82-125	0.125 shank 0.312 diameter pilot for ST1223C cutter (Dash 10)
			-

#### Rivet Shaver Shroud (sold with or without Dotco rivet shaver)

Our Tool Specific Rivet Shaver Shroud complements a 20K RPM 1½" Dotco Rivet Shaver.

The shroud can be used with or without stabilizer.

Every shroud includes: 2' x ¾" hose whip, and swivel adapter for connection to 1" vacuum hose. Refer to hose and fitting section for other hose adapters.

#### **Features**

- Precision finished anodized aluminum housing
- · Shroud does not obscure visibility
- Shroud swivels on tool with stabilizer
- · Positive Lock hose fitting hoses won't pull free

# CLAYTON

#### 1-1/4" Rivet Shaver Shroud

Model	NSN	Cutter Capacity	Rivet Shaver	Orientation	Motor RPM	Motor HP (W)	Air Inlet ID inch (mm)	Weight lbs (kg)	Price
674-A3520		1-1/4"	Not Included	-	-	-	-	-	
690-73000-01		1-1/4"	Dotco 14CNL60-95	Pistol Grip	20,000	1	1/4"	4.5 (2.0)	
690-73000-02		1-1/4"	Dotco 14CFS60-95	Pistol Grip	29,000	0.4	1/4"	-	

- Never exceed the maximum operating speed of your abrasive.
- ★ Available on GSA Advantage website @ www.GSAadvantage.gov
- This item has an NSN See Model / NSN table on page 4.







#### Belt Sander Shroud (sold with or without Dotco sander)

Our Tool Specific Belt Sander Shroud complements a 12K RPM 6" x ½" Dotco belt sander.

The shroud does not obscure the working edges of the abrasive belt, so users can easily see the work surface and get into tight areas.

Every shroud includes: 2' x 1" hose whip and swivel adapter for connection to 1" vacuum hoses. Refer to hose and fitting section for other hose adapters.

#### **Features**

- Compact 6" arm accepts 1/2" x 12" belts
- · Precision finished anodized aluminum housing
- · Shroud does not obscure visibility
- · Shroud swivels on tool with sander belt
- Positive Lock hose fitting hoses won't pull free
- · Abrasive belts available in standard grits and non-woven

#### 1/2" Belt Sander Shroud for Dotco (13mm)

Model	NSN	Belt Size	Sander	Orientation	Motor RPM		Air Inlet ID inch (mm)		Price
674-A4008		-	Not Included	-	-	-	-	-	
690-74008		1/2" (12)	Dotco 12L1280-36B2		12,000	0.3 (220)	1/4"	1.4 (0.6)	

#### 1/2" Belt Sander Shroud for Ingersoll Rand (model CA120RS812 or G1A120RS812)

Model	NSN	Belt Size	Sander	Orientation	Motor RPM		Air Inlet ID inch (mm)		Price
674-A4108		1/2" (12)	Not Included	-	-	-	-	-	

- ★ Available on GSA Advantage website @ www.GSAadvantage.gov
- This item has an NSN See Model / NSN table on page 4.



#### Router Shroud (sold with or without Dotco Router)

Our Tool Specific Router Shroud complements a 23K RPM 11/4" Dotco Router.

Every shroud kit includes: Standard Shroud, Spanner Shroud, Router Adapter Ring, 2' x 1" vacuum hose whip, and swivel adapter for connection to 1" vacuum hose. Refer to hose and fitting section for other hose adapters.

#### **Features**

- · Precision finished anodized aluminum housing
- Shroud does not obscure visibility
- Positive Lock hose fitting hoses won't pull free
- Router adapter for depth control
- · Designed in cooperation with NAVAIR







#### Router Shroud

Model	NSN	Description	Grinder	Orientation	Motor RPM	Motor HP (W)	Air Inlet ID inch (mm)		Price
674-A3201		Shroud & Spanner Kit	Not Included	-	-	-	-	-	
674-A3202		Shroud Kit	Not Included	-	-	-	-	-	
690-73201-01S		Router Shroud & Spanner Kit	Dotco 12L2580-01	Straight	23,000	0.9	1/4"		
690-73202		Router Shroud Kit	Dotco 12L2580-01	Straight	23,000	0.9	1/4"		

Router Shroud Replacement Parts

Model	NSN	Description	Weight lbs (kg)	Price
683-0022		Router Adapter Ring		
602-0024		Polyethylene Standard Sole Plate		
602-0021		Polyethylene Spanner Sole Plate		

- Available on GSA Advantage website @ www.GSAadvantage.gov
- This item has an NSN See Model / NSN table on page 4.





#### Clear Revolution Edge Finishing & Deburring Shroud (sold with or without grinder)



When finishing and deburring panel edges, the abrasive and shroud are typically perpendicular to the panel surface. This makes it difficult to collect the debris.

Our Edge Finishing Shroud has a skirt that surrounds the abrasive to physically contains the debris and effectively capture it.

Every shroud includes: mandrel, disc pad, 2' x 1" hose whip and swivel adapter for connection to 1" vacuum hoses. Refer to hose and fitting section for other hose adapters.

#### **Features**

• Fits ANY tool with a 1/4" collet – straight or right angle sanders, grinders, routers, etc.

Virtually indestructible Lexan is guaranteed for life

· Shroud does not obscure visibility

· Shroud swivels freely around shaft, so the hose can be repositioned with ease

• Works with the grinders you already own - NO MODIFICATIONS REQUIRED

• Positive Lock hose fitting - hoses won't pull free

• Recommended tool speed: 12,000 - 20,000 RPM - Max tool speed: 25,000 RPM



#### Clear Revolution Edge Finishing Shroud (Center Slot)

Model	NSN	Grinder	Pad	Abrasive Style	Orientation	Motor RPM	Motor HP (W)	Air Inlet ID inch (mm)	Weight lbs (kg)	Price
674-A1748TR		Not Included	TR	2	-	-	-	-	-	
674-A1748TR-02R		Dotco 12LF280-36	TR		Right Angle	12000	0.4 (298)	1/4"	1.1 (0.5)	
674-A1748TS		Not Included	TS	19	-	-	-	-	-	
674-A1748TS-02R		Dotco 12LF280-36	TS		Right Angle	12,000	0.4 (298)	1/4"	1.1 (0.5)	

#### Clear Revolution Edge Finishing Shroud (Side Slot)

Model	NSN	Grinder	Pad	Abrasive Style	Orientation	Motor RPM	Motor HP (W)	Air Inlet ID inch (mm)	Weight lbs (kg)	Price
674-A1848TR		Not Included	TR		-	-	-	-	-	
674-A1848TR-02R		Dotco 12LF280-36	TR		Right Angle	12000	0.4 (298)	1/4"	1.1 (0.5)	
674-A1848TS		Not Included	TS	19	-	-	-	-	-	
674-A1848TS-02R		Dotco 12LF280-36	TS		Right Angle	12,000	0.4 (298)	1/4"	1.1 (0.5)	

- \* Available on GSA Advantage website @ www.GSAadvantage.gov
- This item has an NSN See Model / NSN table on page 4.

#### **Custom Shrouds and Tools**

Are you having trouble collecting the debris from a particular operation? Do you need a dust collection shroud or custom tool attachment that you don't see in our catalog?

#### Clayton has the resources to make your concept a reality.

- · Custom dust collection shrouds
- · Custom tool attachments
- · Custom abrasive shapes and hole patterns
- Custom Vacuums or vacuum attachments

#### Requirements

You must have management approval and budget to design and build the tool or shroud.

#### **Process**

The process for designing and producing any product is typically iterative. At any point in the process we may need to return to a prior step to make changes or stop the process altogether if we encounter an insurmountable problem.

#### · Idea

Present your idea with or without a drawing. We'll schedule a conference call to discuss the concept and what you're trying to accomplish.

#### · Feasibility Review

Our engineers will conduct a feasibility review to determine if we can design and build a product to meet your requirements. We'll assess the manufacturability, usability, and potential time and costs involved.

#### Deliverable Schedule

We will present our findings and a phased implementation schedule.

#### • Engineering Model

Once you approve the schedule we will begin with a 3D software model of the concept for your approval. Typically this will be presented as a PDF.

#### Pricing

Once an engineering model is approved we can determine preliminary pricing.

#### Rapid Prototype

After the 3D model is approved we can grow physical prototypes in our Dimension 3D Printer. Prototypes are made from ABS plastic and can include off the shelf components such as screws.

#### Testing

Typically ABS prototypes are strong enough for limited real world ergonomic and functional testing.

#### Drawings

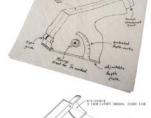
Once Testing is complete final engineering drawings are created.

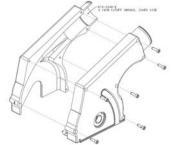
#### Production Prototype

Depending on the number of final products be produced we may recommend a production prototype to prove out the manufacturing process and ensure we don't produce and excess of parts with an unforeseen manufacturing defect.

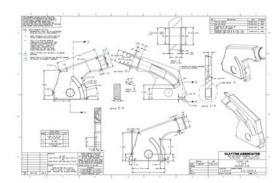
#### Production Run

Initial and subsequent production runs.

















Pneumatic Tools 110

# PNEUMATIC TOOLS & GRINDERS

Cooper Dotco Grinders & Drills • Ingersoll Rand Drills • Heavy Duty Grinders



111 Pneumatic Tools

# **Cooper Dotco Grinders**



When it comes to fine finishing applications such as die grinding or de-burring, no tools are better suited for the job than Dotco® grinders. Dotco's reputation for durability, dependability and versatility is among the highest for fine finishing applications. This is the result of years of continuous improvements in engineering design and manufacturing processes. Dotco grinders are designed with the operator in mind. They are small, lightweight and comfortable to use, without sacrificing durability. This optimal combination of tool characteristics allows the operator to focus doing the best job possible, in the least amount of time.

#### **Features**

- Elastomer coatings, and perfectly balanced moving parts to keep vibration to a minimum
- Suitable for a wide range of finishing applications
- Rugged composite housing
- 12,000 to 25,000 RPM

#### **Dotco Straight**

Clayton Part No	NSN	Dotco Part No	Motor RPM		Air Inlet ID inch (mm)		Price
690-602		12L2082-01	18,000	0.6	1/4	1.4	
690-603		12L2580-01	23,000	0.9	1/4	2	
690-612		12L2542-01	12,000	0.9	1/4	1.8	
690-614		12L2080-01	25,000	0.6	1/4	1	
690-615		12L2082-01	18,000	0.6	1/4	1.4	

#### **Dotco Right Angle**

Clayton Part No	NSN	Dotco Part No	Motor RPM		Air Inlet ID inch (mm)		Price
690-611		12L1281-36	20,000	0.3	1/4	1	
690-616		12LF280-36	12,000	0.4	1/4	1.1	



# **Cooper Dotco Drills -**

Dotco drills are used daily in applications ranging from aerospace to transportation. Three styles are available - pistol grip, straight handle, and right angle models. Drills range from 0.3 – 1.5HP.

#### **Features**

- · Machined to the highest tolerances
- 1/4" to 1/2" chucks available

#### **Dotco Drills**

Clayton Part No	NSN	Dotco Part No	Chuck			Air Inlet ID inch (mm)		Price
690-605		14CFS93-38	1/4	3,200	0.4	1/4	1.5	
690-606		14CSL95-51	3/8	1,300	0.6	1/4	3	
690-609		14CNL92-51	3/8	3,200	0.9	1/4	2.4	
690-617		14CSL92-51	3/8	3,200	0.6	1/4		

- Never exceed the maximum operating speed of your abrasive.
- ★ Available on GSA Advantage website @ www.GSAadvantage.gov
- This item has an NSN See Model / NSN table on page 4.





Pneumatic Tools 112

# **Ingersoll Rand Drills**



Ingersoll Rand air drills are built with your professional applications in mind. Industrial quality chucks, powerful air motors, durable gearing and quiet operation provide a tool you can count on to get the job done right.

Ingersoll-Rand's platform of handheld production drills are engineered for highly accurate and efficient production work in materials from aluminum and advanced composites to wood. In pistol grip and inline configurations, speeds from 250 to 18,000 rpm, and output options that include chucks and threaded spindles, Ingersoll Rand drills provide the flexibility to tackle nearly any production drilling task.

Ingersoll Rand %" Chuck drills feature a quiet design, speed ranges from 1,200 to 2,500 and reversible and non reversible models. So, whether you are honing, reaming or drilling holes, we have a drill that is right for the application.

- · Great for aluminum, advanced composites, and wood
- 3/8" Chuck
- · Quiet design

#### Ingersoll Drills

Clayton Part No	NSN	Ingersoll Part No	Chuck	Motor RPM	Motor HP (W)	Air Inlet ID inch (mm)	Weight lbs (kg)	Price
690-830		728LA2	3/8	2,550	0.5	1/4	2.5	

⚠ Never exceed the maximum operating speed of your abrasive.

\* Available on GSA Advantage website @ www.GSAadvantage.gov



# **Heavy Duty Tools**

Our 5" & 7" Shrouded Right Angle Grinders are ready to tackle your toughest grinding surface preparation needs. Whether you're grinding coatings for spot cleaning or feathering for recoating, our grinders can handle the challenge with dust free ease.

These Shrouded Right Angle Grinders come standard with a 3M brand Coating Removal Disc. The advantage of this non-woven, open web disc is that it will remove residual coatings and corrosion impacted into the substrate by Needle Scalers, but will not destroy the surface profile.



#### **Features**

- · Heavy Duty 1.2 hp Pneumatic and 120V, 8.0A Electric Motors
- Maintains speed under heavy loads to maximize coating removal
- Flexible shroud with a 360° radial vacuum take-off insures even air flow and maximum capture of dust & debris

#### Right Angle Grinder

Model	NSN	Size in (mm)	Power	Power	RPM	Consumption	Weight lbs (kg)	Price
650-189		5 (125)	Pneumatic	1.2 hp	5500	30 cfm @ 90 psi	7.5 (3.4)	
650-190		7 (175)	Pneumatic	1.2 hp	5500	30 cfm @ 90 psi	11.5 (5.2)	
690-045		5 (125)	Electric	1200 w	0-3000	8A @ 120V	10 (6.4)	
690-046		7 (175)	Electric	1200 w	0-3000	8A @ 120V	14 (6.4)	

- ★ Available on GSA Advantage website @ www.GSAadvantage.gov
- → This item has an NSN See Model / NSN table on page 4.



What tough grinding jobs do you have today?

# ABRASIVES DustMaster Abrasives • Quick Change Discs & Surface Prep Kits

#### **All About Abrasives**

Grit Size refers to the size of the particles of abrading materials embedded in the sandpaper. A number of different standards have been established for grit size. These standards establish not only the average grit size, but also the allowable variation from the average. The two most common are the United States CAMI (Coated Abrasive Manufacturers Institute, now part of the Unified Abrasives Manufacturers' Association) and the European FEPA (Federation of European Producers of Abrasives) "P" grade. The FEPA system is the same as the ISO 6344 standard. Clayton abrasives follow the ISO/FEPA "P" grade system.

#### **Grit Size Table**

	ISO/FEPA Grit	CAMI Grit	Average Particle Diameter (µm)
MACROGRIT	S		
Extra Coarse	P12		1815
	P16		1324
	P20		1000
	P24		764
		24	708
	P30		642
		30	632
		36	530
	P36		538
Coarse	P40	40	425
		50	348
	P50		336
Medium		60	265
	P60		269
	P80		201
		80	190
Fine	P100		162
		100	140
	P120		125
		120	115
Very Fine	P150		100
		150	92
	P180	180	82
	P220	220	68
<b>MICROGRITS</b>			
Very Fine	P240		58.5
		240	53
	P280		52.2
	P320		46.2
	P360		40.5
Extra fine		320	36
	P400		35
	P500		30.2
		360	28
	P600		25.8
Super fine		400	23
	P800		21.8
		500	20
	P1000		18.3
		600	16
	P1200		15.3
Ultra fine	P1500	800	12.6
	P2000	1000	10.3
	P2500		8.4

#### **Abrasive Materials**

**Aluminum Oxide** exhibits a high degree of friability. This means that when heat and pressure are applied it fragments. This is highly desirable because when the abrasive fragments it creates new sharp edges. This self-renewing property allows Aluminum Oxide to last longer.

**Silicon Carbide** is harder than Aluminum Oxide. This makes it suitable for cutting harder materials such as metal, paint, plastic, and fiberglass. Silicon carbide is also a friable abrasive and creates new sharp edges as it fractures.

Stearated Abrasives have a dry lubricant loaded to the abrasive. Stearated abrasives are useful in sanding coats of finish and paint since the stearate "soap" prevents clogging and increases the useful life of the sandpaper. Aluminum Oxide with stearate is also known as PS33. While difference chemical stearates are available such as zinc, calcium, and magnesium, zinc stearate is the most common.

#### **Abrasive Attachment Methods**

There are two components involved in abrasive attachment, the abrasive pad itself and the sander backup pad to which it is attached.

**J-Hook** uses tiny hooks and loops to hold the abrasive pad securely to the sander. The J-Hooks are longer than the hooks in the Hook & Loop attachment method and create a small space



between the abrasive and sander. This channel provides more air flow and better transport for the dust across and thru the disc.

Requires J-Hook backup pad and Hook & Loop abrasive. J-Hook is the attachment method of choice for Clayton sanders and abrasives.

**Hook & Loop** also uses tiny hooks and loops to hold the abrasive pad securely to the sander. The hooks are shorter than the hooks in the J-Hook attachment method and do not create a space between the abrasive and sander. Requires Hook & Loop backup pad and Hook & Loop abrasive

**PSA** (pressure sensitive adhesive) uses an adhesive to adhere the abrasive to the sander backup pad. The adhesive on PSA abrasives dries out over time and therefore has a limited shelf life. PSA backup pads typically have a smooth vinyl surface and a small number of large holes for dust collection.

# **DustMaster Supreme Screen Abrasive**

(Aluminum Oxide, Zinc Stearated, Hook & Loop)



DustMaster Supreme Screen Abrasive									
Model	NSN	Size	Grit	Pieces	Price				
830-DMS080HV			80	250					
830-DMS100HV			100	250					
830-DMS120HV			120	250					
830-DMS150HV			150	250					
830-DMS180HV		3"	180	250					
830-DMS220HV			220	250					
830-DMS240HV			240	250					
830-DMS320HV			320	250					
830-DMS400HV			400	250					
850-DMS080HV			80	250					
850-DMS100HV			100	250					
850-DMS120HV			120	250					
850-DMS150HV			150	250					
850-DMS180HV		5"	180	250					
850-DMS220HV			220	250					
850-DMS240HV			240	250					
850-DMS320HV			320	250					
850-DMS400HV			400	250					
850-P080-100			80	100					
850-P120-100			120	100					
850-P180-100		5"	180	100					
850-P240-100			240	100					
850-P320-100			320	100					
860-DMS080HV			80	250					
860-DMS100HV			100	250					
860-DMS120HV			120	250					
860-DMS150HV			150	250					
860-DMS180HV		6"	180	250					
860-DMS220HV			220	250					
860-DMS240HV			240	250					
860-DMS320HV			320	250					
860-DMS400HV			400	250					
880-DMS080HV			80	150					
880-DMS120HV			120	150					
880-DMS180HV		8"	180	150					
880-DMS240HV			240	150					
880-DMS320HV			320	150					

- Available on GSA Advantage website @ www.GSAadvantage.gov This item has an NSN - See Model / NSN table on page 4.

- Revolutionary abrasive specifically designed for dustless sanding
- Screen-like composition dramatically improves dust extraction
- · Won't clog and pill like conventional abrasives
- Lasts 3-7 times longer than 5 or 6 hole paper abrasives
- A 6" disc contains approximately 24,000 holes







DustMaster Supreme Screen Abrasive

Model	NSN	Size	Grit	Pieces	Price
834-DMS080HV			80	250	
834-DMS120HV			120	250	
834-DMS180HV		3x4	180	250	
834-DMS240HV			240	250	
834-DMS320HV			320	250	
837-DMS080HV			80	250	
837-DMS120HV			120	250	
837-DMS180HV		3 2/3 x 7	180	250	
837-DMS240HV			240	250	
837-DMS320HV			320	250	
805-DMS080HV			80	250	
805-DMS120HV		2 3/4 x 5	120	250	
805-DMS180HV			180	250	
805-DMS240HV		2 3/4 X 3	240	250	
805-DMS320HV			320	250	
805-DMS400HV			400	250	
808-DMS080HV			80	250	
808-DMS120HV			120	250	
808-DMS180HV		2 3/4 x 8	180	250	
808-DMS240HV		2 3/4 X 0	240	250	
808-DMS320HV			320	250	
808-DMS400HV			400	250	
816-DMS080HV			80	250	
816-DMS120HV			120	250	
816-DMS180HV		2 3/4 x 16	180	250	
816-DMS240HV		2 3/4 1 10	240	250	
816-DMS320HV			320	250	
816-DMS400HV			400	250	

# **DustMaster Coarse**

(Aluminum Oxide, Zinc Stearated, Hook & Loop)

DM Coarse uses a nylon mesh backing material to create a more flexible, durable and consistent abrasive surface. As a result, DM Coarse produces a more consistent surface finish quicker, and because it also has excellent resistance to edge wear and clogging, it lasts longer too.

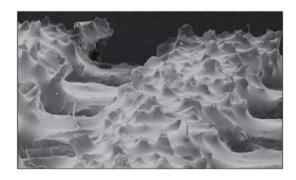


Dustwaster Supreme Coarse										
Model	NSN	Size	Grit	Pieces	Price					
850-DMC040HV			40	50						
850-DMC060HV		5"	60	50						
850-DMC080HV		5	80	50						
850-DMC120HV			120	50						
860-DMC040HV			40	50						
860-DMC060HV		6"	60	50						
860-DMC080HV		O	80	50						
860-DMC120HV			120	50						
834-DMC040HV			40	50						
834-DMC060HV		3 x 4"	60	50						
834-DMC080HV		3 7 4	80	50						
834-DMC120HV			120	50						
837-DMC040HV			40	50						
837-DMC060HV		3-2/3 x 7"	60	50						
837-DMC080HV		0-2/0 X I	80	50						
837-DMC120HV			120	50						









# **DustMaster Silicon Carbide Abrasive**

(Silicon Carbide, Non-Stearated, Hook & Loop)

This abrasive's patented texture build-up and multi-hole design allows continuous dust extraction over the entire surface and thus a nearly dust free sanding process. The increased air flow reduces heat and clogging during the entire sanding process. A 6" disc contains approximately 225 holes.



Model	NSN	Size	Grit	Pieces	Price
834-SC080HV			80	50	
834-SC120HV			120	50	
834-SC180HV		3 x 4"	180	50	
834-SC240HV			240	50	
834-SC320HV			320	50	
837-SC080HV			80	50	
837-SC120HV			120	50	
837-SC180HV		3 2/3 x 7"	180	50	
837-SC240HV			240	50	
837-SC320HV			320	50	

- \* Available on GSA Advantage website @ www.GSAadvantage.gov
- This item has an NSN See Model / NSN table on page 4.





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Model	NSN	Size	Grit	Pieces	Price
830-SC080HV			80	50	
830-SC120HV			120	50	
830-SC180HV		3"	180	50	
830-SC240HV			240	50	
830-SC320HV			320	50	
850-SC080HV			80	50	
850-SC120HV			120	50	
850-SC180HV		5"	180	50	
850-SC240HV			240	50	
850-SC320HV			320	50	
860-SC080HV			80	50	
860-SC120HV			120	50	
860-SC180HV		6"	180	50	
860-SC240HV			240	50	
860-SC320HV			320	50	

# **DustMaster High Performance Abrasive**

(Aluminum Oxide, Zinc Stearated, Hook & Loop)

High Performance Abrasive

Model Model	NSN	Size	Grit	Pieces	Price
830-HP040HV			40	50	
830-HP060HV			60	50	
830-HP080HV			80	50	
830-HP120HV		3"	120	50	
830-HP180HV			180	50	
830-HP240HV			240	50	
830-HP320HV			320	50	
850-HP040HV			40	50	
850-HP060HV			60	50	
850-HP080HV			80	50	
850-HP120HV		5"	120	50	
850-HP180HV			180	50	
850-HP240HV			240	50	
850-HP320HV			320	50	
860-HP040HV			40	50	
860-HP060HV			60	50	
860-HP080HV			80	50	
860-HP120HV		6"	120	50	
860-HP180HV			180	50	
860-HP240HV			240	50	
860-HP320HV			320	50	
880-HP080HV			80	50	
880-HP120HV			120	50	
880-HP180HV		8"	180	50	
880-HP240HV			240	50	
880-HP320HV			320	50	
8160-HP080HV			80	50	
8160-HP120HV			120	50	
8160-HP180HV		16"	180	50	
8160-HP240HV			240	50	
8160-HP320HV			320	50	

This abrasive's patented texture build-up and multihole design allows continuous dust extraction over the entire surface and thus a nearly dust free sanding process. The increased air flow reduces heat and clogging during the entire sanding process. A 6" disc contains approximately 225 holes.



High Performance Abrasive

Model	NSN	Size	Grit	Pieces	Price
834-HP040HV			40	50	
834-HP060HV			60	50	
834-HP080HV			80	50	
834-HP120HV		3 x 4"	120	50	
834-HP180HV			180	50	
834-HP240HV			240	50	
834-HP320HV			320	50	
837-HP040HV			40	50	
837-HP060HV			60	50	
837-HP080HV			80	50	
837-HP120HV		3 2/3 x 7	120	50	
837-HP180HV			180	50	
837-HP240HV			240	50	
837-HP320HV			320	50	

<sup>★</sup> Available on GSA Advantage website @ www.GSAadvantage.gov

<sup>→</sup> This item has an NSN - See Model / NSN table on page 4.

#### **DustMaster Gold Abrasive**

(Aluminum Oxide, Stearated, PSA)

• A durable product very well suited for sanding at high speeds, Gold is designed for both finishing and heavy stock removal.

- The durable aluminum oxide grain delivers a fast, exceptionally long lasting cut.
- Proprietary backing is stronger than other brands using traditional backing.
- High strength resin bonding for superior grain support.
- A special stearate coating resists clogging and loading.
- A uniform, semi open coat design produces an even, consistent scratch pattern.
- 5, 6 or 8 hole discs depending on size
- · Pull tabs make it easy to remove backing

#### Gold Abrasive

Model	NSN	Size	Grit	Pieces	Price
830-G080SV			80	100	
830-G100SV			100	100	
830-G120SV			120	100	
830-G150SV			150	100	
830-G180SV			180	100	
830-G220SV		3"	220	100	
830-G240SV			240	100	
830-G280SV			280	100	
830-G320SV			320	100	
830-G360SV			360	100	
835-G080S			80	100	
835-G100S			100	100	
835-G120S			120	100	
835-G150S			150	100	
835-G180S		3.5"	180	100	
835-G220S			220	100	
835-G240S			240	100	
835-G320S			320	100	
835-G400S			400	100	
850-G080SV			80	100	
850-G100SV			100	100	
850-G120SV			120	100	
850-G150SV			150	100	
850-G180SV			180	100	
850-G220SV		5"	220	100	
850-G240SV			240	100	
850-G280SV			280	100	
850-G320SV			320	100	
850-G400SV			400	100	
850-G500SV			500	100	
860-G080SV			80	100	
860-G100SV			100	100	
860-G120SV			120	100	
860-G150SV			150	100	
860-G180SV			180	100	
860-G220SV		6"	220	100	
860-G240SV			240	100	
860-G280SV			280	100	
860-G320SV			320	100	
860-G400SV			400	100	
860-G500SV			500	100	



- \* Available on GSA Advantage website @ www.GSAadvantage.gov
- → This item has an NSN See Model / NSN table on page 4.

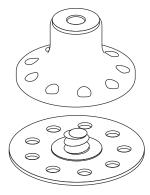


# Understanding Quick Change disc abrasives and backup pads

Clayton quick change disc abrasives and backup pads support both TR and TS attachment methods.

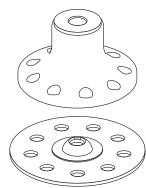
#### TR

Threaded stud is on the abrasive Threaded socket is in the backup pad



#### TS

Threaded socket is on the abrasive Threaded stud is in the backup pad



#### 1" Quick Change

Abrasive Attachment	Abrasive Holes	Pad Holes	NSN	Pad Item No	Price
TR	0	0		672-1016TR	
TS	0	0		672-1016TS	

<sup>1&</sup>quot; quick change disc abrasives and backup pads are not ventilated due to size restrictions.

#### 2" Quick Change

Abrasive Attachment	Abrasive Holes	Pad Holes	Resulting Holes	Incidence	NSN	Pad Item No	Price
TR	0 0	000	0	60° / 6x		672-1032TR-09	
TS	6	9	3 0 0	60 / 6X		672-1032TS-09	

<sup>2&</sup>quot; quick change disc abrasives have 6 holes and should be used with 9 hole backup pads

#### 3" Quick Change

Abrasive Attachment	Abrasive Holes	Pad Holes	Resulting Holes	Incidence	NSN	Pad Item No	Price
TR	0 0	0000	0 0	30° / 12x		672-1048TR-12	
TS	6 0 0	12	6 0	30 / IZX		672-1048TS-12	

<sup>3&</sup>quot; quick change disc abrasives have 6 holes and should be used with 12 hole backup pads

- \* Available on GSA Advantage website @ www.GSAadvantage.gov
- This item has an NSN See Model / NSN table on page 4.

# **Quick Change Resin Bond Discs**

- Resin Bond Aluminum Oxide
- · Convenient sizes for difficult to reach sanding operations
- Tough poly-cotton and polyester backings with resin bonding

#### Quick Change Disc - Resin Bond - Ventilated with Holes

4	ia - ventilatea with flores																
Model	NSN	Size	Mount	Pattern	Grit	Pieces	Price										
800-16M036					36	250											
800-16M060		1"	1"	2	None	60	250										
800-16M080		-		NOHE	80	250											
800-16M120					120	250											
800-16F036					36	250											
800-16F060		1"	(P)	None	60	250											
800-16F080		1		NOHE	80	250											
800-16F120					120	250											
800-32M036V		2"			36	250											
800-32M060V			2	600	60	250											
800-32M080V		2		(0,0)	80	250											
800-32M120V				•	120	250											
800-32F036V		2"			36	250											
800-32F060V			2"	2"	2"					19	19	19	2"	2"	6 0	60	250
800-32F080V		_								(0,0)	80	250					
800-32F120V					120	250											
800-48M036V					36	250											
800-48M060V		3"	8	(0 0)	60	250											
800-48M080V		3			80	250											
800-48M120V					120	250											
800-48F036V					36	250											
800-48F060V		3"											(0 0)	60	250		
800-48F080V		3															
800-48F120V					120	250											



# **Quick Change Non Woven Discs**

- Superior non-woven product for longer lasting disc life
- Consistent distribution of grit throughout the material
- · A fresh cutting surface is exposed as the fiber wears
- Grades Blue/Fine, Red/Medium, and Brown/Coarse

#### Quick Change Disc - Non Woven - Ventilated with Holes

Model	NSN	Size		Pattern	Grit	Pieces	Price													
800-16M003			0		Crs	250														
800-16M006		1"	(2)	(2)	(2)	(2)	(2)	None	Med	250										
800-16M009					Fin	250														
800-16F003					Crs	250														
800-16F006		1"		None	Med	250														
800-16F009							Fin	250												
800-32M003V			2"												0	Crs	250			
800-32M006V		2"			Med	250														
800-32M009V					Fin	250														
800-32F003V					Crs	250														
800-32F006V		2"																Med	250	
800-32F009V					Fin	250														
800-48M003V				00	Crs	250														
800-48M006V		3"	(2)	(0 0)	Med	250														
800-48M009V				00/	Fin	250														
800-48F003V				00	Crs	250														
800-48F006V		3"										(0 0)	Med	250						
800-48F009V				00/	Fin	250														



# **Quick Change Surface Prep Kits**

#### **Surface Prep Grinder Kits**

Available in 1", 2" or 3" versions, each kit includes one Dotco right angle grinder, 1 Clear Revolution Shroud, 2 feet of 1" vacuum hose, swivel fittings to connect to your vacuum system, and an assortment of abrasives listed below. All this convenient packed in a deep bin professional organizer.

#### Surface Prep Grinder Kits TR Style

Model	NSN	Description	Price
690-51612KIT-TR		1" Surface Prep Kit	
690-53212KIT-TR		2" Surface Prep Kit	
690-54812KIT-TR		3" Surface Prep Kit	

#### Surface Prep Grinder Kits TS Style

Model	NSN	Description	Price
690-51612KIT-TS		1" Surface Prep Kit	
690-53212KIT-TS		2" Surface Prep Kit	
690-54812KIT-TS		3" Surface Prep Kit	

#### **Surface Prep Shroud Kits**

If you already have a grinder, then try our Surface Prep Shroud Kits. They include everything our Grinder Kits include except the grinder.

Surface Prep Shroud Kits TR Style

Model	NSN	Description	Price
690-41612KIT-TR		1" Surface Prep Kit	
690-43212KIT-TR		2" Surface Prep Kit	
690-44812KIT-TR		3" Surface Prep Kit	

#### Surface Prep Shroud Kits TS Style

Model	NSN	Description	Price
690-41612KIT-TS		1" Surface Prep Kit	
690-43212KIT-TS		2" Surface Prep Kit	
690-44812KIT-TS		3" Surface Prep Kit	



Includes one Clayton Universal Shroud. Choose 1", 2", or 3" shown above.

Deep repositionable bins hold all your abrasives, grinder, shroud, and hose. Case measures 19" x 15" x 4 1/2"







#### Abrasives included

, 101 aoi	ibi doir oo iii oiddod								
Qty	Grit	Туре							
25	36	Quick Change - Resin Bond							
25	60	Quick Change - Resin Bond							
25	80	Quick Change - Resin Bond							
25	120	Quick Change - Resin Bond							
25	Course	Quick Change - Non Woven							
25	Medium	Quick Change - Non Woven							
25	Fine	Quick Change - Non Woven							



Includes 12,000 RPM right angle grinder.

# **Quick Change Assortment Packs**

Get the same assortment of discs sold in our grinder kits is either the TR or TS attachment method.

#### Quick Change TR Disc Sample Packs

Model	NSN	Description	Price
800-16TR000V		1" TR Sample Pack	
800-32TR000V		2" TR Sample Pack	
800-48TR000V		3" TR Sample Pack	

#### **Quick Change TS Disc Sample Packs**

Model	NSN	Description	Price
800-16TS000V		1" TS Sample Pack	
800-32TS000V		2" TS Sample Pack	
800-48TS000V		3" TS Sample Pack	

#### Abrasives included

Qty	Grit	Туре
25	36	Quick Change - Resin Bond
25	60	Quick Change - Resin Bond
25	80	Quick Change - Resin Bond
25	120	Quick Change - Resin Bond
25	Course	Quick Change - Non Woven
25	Medium	Quick Change - Non Woven
25	Fine	Quick Change - Non Woven





#### Scotch-Brite Bristle Discs

Long life with consistent performance - Scotch-Brite Bristle Discs & Brushes last longer than most abrasives and provide the same finish and cut throughout their life. For productivity in automated procedures, there are fewer changeovers.

Conformability - Unlike most abrasives, Scotch-Brite Bristle products are flexible and conform to irregular surfaces. You can expect a consistent finish even on the most complex parts.

Safety - To help you meet increasingly tough safety standards, Scotch-Brite bristle discs contain no wire filaments. When replacing chemicals or compounds, they have the added benefit of not emitting harmful chemical vapors. Stackable – Bristle Discs are approximately 0.157" thick and can be stacked to increase the width of abrasive surface.

#### 3M Radial Bristle Discs T-A -

The high concentration of Aluminum Oxide and Cubitron Abrasive Grain in T-A (Type Angled) Bristle Discs combined with their small 3" size aggressively cleans and deburrs, in tighter areas and can be used on most die grinders.

- · Recommended tool speed: 12,000 RPM
- Requires 3/8" mandrel

#### 3M Radial Bristle Discs T-A

Model	NSN	Size	Grade	Color	Max Speed	Pieces	Price
678-24279		3"	50	Green	25,000	10	
678-24280		3"	80	Yellow	25,000	10	
678-24281		3"	120	White	25,000	10	



#### Scotch-Brite Radial Bristle Disc 360 & SPA

Radial Bristle Discs are much less likely to damage or gouge the work surface than traditional abrasive. Scotch-Brite 360 Grit (Aluminum Oxide) and SPA (Special Plastic Abrasive) are so easy to control; the operator can remove paint one layer at a time. Other benefits include a lower surface temperature than competitive products, and a minimized work area. The flexible bristles conform to the part allowing for a uniform finish.

- Recommended tool speed: 12,000 RPM
- Requires ¾" mandrel
- Endorsed by NAVAIR NAVAAIR



#### 3M Radial Bristle Discs 360 & SPA

Model	NSN	Size	Grade	Color	Max Speed	Pieces	Price
678-33227		3"	360	Lime	25,000	10	
678-33228		3"	SPA	Salmon	25,000	10	



#### Scotch-Brite SR Radial Bristle Discs

Fast sealant removal without affecting underlying paint. These plastic abrasive particle-filled products remove ½6 inch or less of sealants, silicones, RTVs, and adhesives from most surfaces. The unique construction removes the sealant but not the underlying paint or other coating. That means less time for rework.

- Recommended tool speed: 12,000 RPM.
- Requires 3/8" mandrel

#### 3M Radial Bristle Discs SR

Model	NSN	Size	Grade	Color	Max Speed	Pieces	Price
678-30098		3"	-	Cream	20,000	10	

- ★ Available on GSA Advantage website @ www.GSAadvantage.gov
- → This item has an NSN See Model / NSN table on page 4.





# **Coating Removal Discs**

(Silicon Carbide, Hook & Loop)

- · Heavy duty, semi-open web used to clean rust and paint
- · Contains a backing that mounts to hook & loop pads
- Extra Coarse Grade Silicon Carbide
- Recommended for use with Clayton 5" & 7" Grinders

#### Coating Removal Disc

•				
Model	NSN	Diameter	RPM	Price
850-CR02		5"	10,000	
870-CR02		7"	6,000	





# Cut Off Wheels - Resin Bonded Aluminum Oxide

- Type 1 / Type 41 fiberglass reinforced resin bonded
- · General purpose cutting on aluminum, iron, steel, carbon steel and stainless steel
- Recommended for use with Clayton Cutoff Saws & Radial Shrouds

#### Resin Cut Off Wheels

Model	NSN	Material	RPM	Diameter	Kerf	Arbor	Pieces	Price
250-CW32R04-10		Aluminum Oxide	30K	2"	1/16"	1/4"	10	
250-CW48R04-10		Aluminum Oxide	25K	3"	1/16"	1/4"	10	
250-CW48R06-10		Aluminum Oxide	25K	3"	1/16"	3/8"	10	
250-CW64R06-10		Aluminum Oxide	19K	4"	1/16"	3/8"	10	





Radial Shroud 3/8" Arbor

**Cutoff Saw** 1/4" Arbor

# **Cut Off Wheels - Steel Diamond Coat**

- · Hardened steel alloy disc
- · Diamond coat metal bond 40 grit
- Continuous rim
- Recommended for use with Clayton Cutoff Saws & Radial Shrouds

#### Diamond Cut Off Wheels

1	Model	NSN	Material	RPM	Diameter	Kerf	Arbor	Pieces	Price
	250-CW32D04		Diamond	30K	2"	0.08	1/4"	1	
	250-CW48D04		Diamond	30K	3"	0.08	1/4"	1	
	250-CW48D06		Diamond	30K	3"	0.08	3/8"	1	
J	250-CW64D06		Diamond	30K	4"	0.08	3/8"	1	



Radial Shroud 3/8" Arbor

- Available on GSA Advantage website @ www.GSAadvantage.gov
- This item has an NSN See Model / NSN table on page 4.



## **Cut Off Wheels - Zirconia**

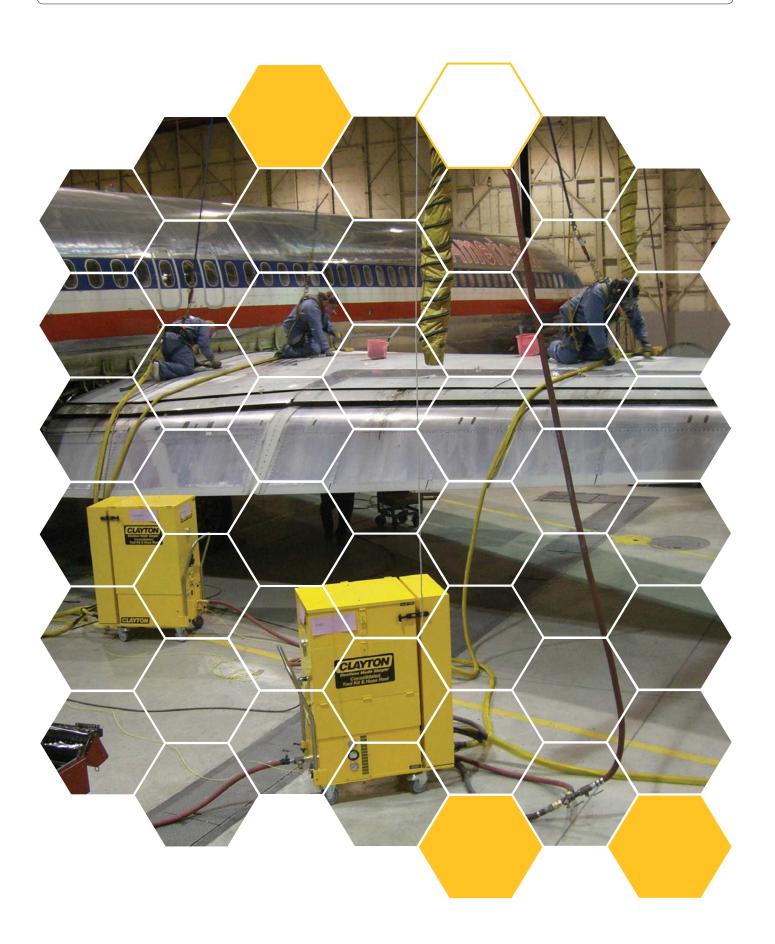
- Zirconia grain provides a fast cut with an extremely long life
- Ideal for hard to grind materials such as stainless steel and high tensile alloys
- Recommended for use with Clayton Radial Shrouds

#### Zirconia Cut Off Wheels

Model	NSN	Material	RPM	Diameter	Kerf	Arbor	Pieces	Price
250-CW48Z06-10		Zirconia	25K	3"	1/16"	3/8"	10	









# HOSES & FITTINGS

Combination Hoses • Hose Adapters & Fittings • Compressed Air Lines • Tool Kits Support Belts Distribution Module & Rover



# Clayton Stock & Custom Compressed Air & Vacuum Hoses

Available in a variety of lengths and configurations, all Clayton dustless sanding hoses incorporate features specifically designed for dustless sanding. Combination hoses supply compressed air to tools, and allow unrestricted flow of dust & debris back to the vacuum.

#### **Eliminate Static**

- · Carbon Black conductive vacuum hoses and cuffs eliminate static buildup
- Resistivity < 10<sup>6</sup> ohms/sq

#### **High Flow Couplers**

• Large-bore high flow air fittings provide maximum cfm to tools

#### **Sheathing**

- Durable Sheathing slides easily over edges and rough surfaces without snagging and catching
- No exposed fasteners to catch or damage surfaces
- · Sheathing extends hose life
- Crush-proof construction ensures long life



Custom hoses and assemblies are available upon request. Sizes include  $\frac{3}{4}$ ", 1",  $\frac{11}{2}$ ", and 2" with a variety of cuff and connector options.

NOTE: ALL hoses in your system must be static dissipating, and must be properly bonded and grounded during operation

# **Work Hoses - Combination Air / Vacuum**

Primarily used between a vacuum and tool such as a Clayton sander with 1" exhaust, the work hose supplies compressed air to tools and carries debris away in a single hose assembly.

- 11/2" diameter vacuum hose provides virtually unrestricted air flow
- Hose reduces to 1" five feet before sander for maximum flexibility
- 11/2" metal sleeve connects to vacuum system, bare 1" hose connects to tool
- · Carbon Black conductive hose and cuffs eliminate static buildup
- Resistivity < 10<sup>6</sup> ohms/sq
- 3/8" compressed air line and 1/4" high flow plug & coupler supply air to tool

#### 1-1/2" Combination Air / Vac Work Hoses

Model	NSN	Vac Hose	Air Line	Length	Price
671-AVHW2416-10		1-1/2"	3/8"	10'	
671-AVHW2416-20		1-1/2"	3/8"	20'	
671-AVHW2416-30		1-1/2"	3/8"	30'	
671-AVHW2416-40		1-1/2"	3/8"	40'	
671-AVHW2416-50		1-1/2"	3/8"	50'	
671-AVHW2416-75		1-1/2"	3/8"	75'	

For tools with a ¾" swivel request our ¾" hose adapter



Work hose isn't long enough? Increase your reach with an extension hose. Made to fit between your vacuum and a work hose.

- 11/2" diameter vacuum hose provides virtually unrestricted air flow
- 1½" metal sleeve connects to vacuum, 1½" cuff connects to work hose
- Carbon Black conductive hose and cuffs eliminate static buildup
- Resistivity < 10<sup>6</sup> ohms/sq
- ½" compressed air line and ½" high flow plug & coupler supply air to tool

#### 1-1/2" Combination Air / Vac Extension Hoses

NSN	Vac Hose	Air Line	Length	Price
	1-1/2"	1/2"	10'	
	1-1/2"	1/2"	15'	
	1-1/2"	1/2"	20'	
	1-1/2"	1/2"	30'	
	1-1/2"	1/2"	40'	
	1-1/2"	1/2"	50'	
		1-1/2" 1-1/2" 1-1/2" 1-1/2"	1-1/2" 1/2" 1-1/2" 1/2" 1-1/2" 1/2" 1-1/2" 1/2"	1-1/2" 1/2" 15' 1-1/2" 1/2" 20' 1-1/2" 1/2" 30' 1-1/2" 1/2" 40'

# **Cleanup Hoses – Vacuum Only**

Don't need a compressed air line?

- 1½" diameter vacuum hose provides virtually unrestricted air flow
- 1½" metal sleeve connects to vacuum system
- 1½" female cuff receives cleanup wand and tools
- · Carbon Black conductive hose and cuffs eliminate static buildup
- Resistivity < 10<sup>6</sup> ohms/sq

#### 1-1/2" Cleanup Vac Hoses

Model	NSN	Vac Hose	Air Hose	Length	Price
671-VHX24-10		1-1/2"	N/A	10'	
671-VHX24-15		1-1/2"	N/A	15'	
671-VHX24-20		1-1/2"	N/A	20'	
671-VHX24-30		1-1/2"	N/A	30'	
671-VHX24-40		1-1/2"	N/A	40'	
671-VHX24-50		1-1/2"	N/A	50'	

- ★ Available on GSA Advantage website @ www.GSAadvantage.gov
- → This item has an NSN See Model / NSN table on page 4.









# **Adapter Hoses**

Convert between hose sizes with our standard Adapter Hoses. Available in various lengths with swivel or non-swivel cuffs.

#### Adapter Hoses

Adapter 11030						
Model	NSN	Α	Hose Dia	В	Len	Price
671-VHA12-002		3/4" FHT Swivel Cuff	3/4"	3/4" Hose	2'	
671-VHA12-001		1" FHT Cuff	3/4"	3/4" Hose	2'	
671-VHA12-003		1" FHT Swivel Cuff	3/4"	3/4" Hose	2'	
671-VHA16-001		3/4" FHT Cuff	1"	1" Hose	2'	
671-VHA16-006		1" FHT Swivel Cuff	1"	1" Hose	2'	
671-VHA16-002		1.5" FHT Cuff	1"	1" Hose	2'	
671-VHA16-003		1.5" Smooth Cuff	1"	1" Hose	2'	
671-VHA16-004		1.5" Smooth Cuff	1"	1" Hose	5'	
671-VHA16-005		1.5" Sleeve	1"	1" Hose	5'	
671-VHA16-007		1.5" FHT Cuff	1"	1" Hose	5'	
671-VHA16-012		1.5" Sleeve w/Cap	1"	1" Hose	12'	
671-VHA24-001		1.5" Sleeve	1.5"	1.5" Smooth Swivel Cuff	2'	
671-VHA24-002		1.5" Sleeve	1.5"	1.25" Smooth Cuff	2'	



FHT - Female Hose Thread

# Hose Upgrade Kits

Clayton legacy work hoses terminated in 3/4" hose. These kits allow you to replace that 3/4" hose section with 1" hose for maximum air flow.

#### Hose Upgrade Kits

Model	NSN	Description			
671-VHU16-001		Upgrade Clayton 1x3/4" work hose to 1x1" Work hose Includes: 2' x 1" hose, 1" coupler, and 1" cold shrink			
671-VHU16-002		Upgrade Clayton 1x3/4" work hose to 1x1" Work hose Includes: 1" hose, 1" coupler, 1" cold shrink, and Cap Assembly			



FHT - Female Hose Thread

- ★ Available on GSA Advantage website @ www.GSAadvantage.gov
- This item has an NSN See Model / NSN table on page 4.



# **Hose Cap Assemblies**

Use these replacement cuff sleeve and cap assemblies at the end of your 1", 1-1/2", and 2" hoses. All cuffs are conductive.

#### Hose Can Assemblies

nose Cap Assemblies								
Model	NSN	Description	Price					
921-HS1624		Cuff-Sleeve assembly 1" FHT to 1.5" Galv Sleeve						
921-HS1624-C		Cuff-Sleeve-Cap assembly 1" FHT to 1.5" Galv Sleeve						
921-HS2424		Cuff-Sleeve assembly 1.5" FHT to 1.5" Galv Sleeve						
921-HS2424-C		Cuff-Sleeve-Cap assembly 1.5" FHT to 1.5" Galv Sleeve						
921-HS2432		Cuff-Sleeve assembly 1.5" FHT to 2" Galv Sleeve						
921-HS3224		Cuff-Sleeve assembly 2" FHT to 1.5" Galv Sleeve						
921-HS3224-C		Cuff-Sleeve-Cap assembly 2" FHT to 1.5" Galv Sleeve						
921-HS3232		Cuff-Sleeve assembly 2" FHT to 2" Galv Sleeve						
671-20CAP		Rubber Hose Cap for 1" Hose						
671-24CAP		Rubber Hose Cap for 1.5" sleeve						



FHT - Female Hose Thread

- Available on GSA Advantage website @ www.GSAadvantage.gov
- This item has an NSN See Model / NSN table on page 4.

## Hose Holders

Keep your hoses off the floor and organized with our large stainless steel wall mount hose holders.

#### Hose Holders

Model	NSN	Description	Price
650-008		Hose Holder Medium	
650-012		Hose Holder Large	



# **Torque Reducing Right Angle Sander Extension**

Decrease torque and reduce hand fatigue with our 1' combination Air/Vac hose whip.

Torque or Moment is the tendency of a force to rotate an object around an axis or center. In this case the center of the sander. Torque = force x distance (from the axis of rotation)

For this example we'll use 5' of hose weighing 2 lbs

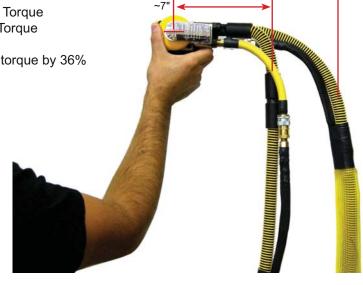
Standard Hose Connection: T = 2 lbs x 11in = 22 in-lbs of Torque With Right Angle Extension: T = 2 lbs x 7in = 14 in-lbs of Torque

By using the Right Angle Extension we have reduced the torque by 36%

#### Right Angle Extension

Model	NSN	Length	Hose	Price
671-AVHA1212-01		1'	3/4"	
671-AVHA1616-01		1'	1"	





# Sleeves & Y's

Sleeves and Ys are tapered to fit into our standard vacuum inlet.

#### Sleeves

Model	NSN	Description	Price
631-001		Metal Sleeve 1.5" Tapered Stainless Steel	
631-003		Metal Sleeve 1.5" Tapered Galvanized	
631-002		Metal Sleeve 2" Tapered Galvanized	
661-H32T		Metal Sleeve 2" to 1.5" Chromed Steel	
671-150Y		Y Adapter 1.5" Galvanized	



- \* Available on GSA Advantage website @ www.GSAadvantage.gov
- This item has an NSN See Model / NSN table on page 4.



# **Hose Cuffs**

Static conductive hose cuffs are impregnated with carbon black to make them conductive. They are usually used to connect a hose to a tool or vacuum. These cuffs have a female thread to accept vacuum hose on one side and a smooth bore to fit a tool or metal sleeve on the other.

#### Hose Cuffs Static Conductive

Model	NSN	Threaded	Smooth	Swivel	Price		
921-1616HTSC		1	1				
921-1620HTSC		1	1-1/4				
921-1624HTSC		1	1-1/2				
921-2020HTSC		1-1/4	1-1/4				
921-2024HTSC		1-1/4	1-1/2				
921-2416HTSC		1-1/2	1				
921-2420HTSC		1-1/2	1-1/4				
921-2424HTSC		1-1/2	1-1/2				
921-2424SHTSC		1-1/2	1-1/2	✓			
921-2432HTSC		1-1/2	2				
921-3224HTSC		2	1-1/2				
921-3232HTSC		2	2				





### **Hose Connectors**

PVC or plastic Hose Connectors are used to connect two bare hose ends. These cuffs have a female thread to accept vacuum hose on each side.

#### **Hose Connectors**

Model	NSN	А	В	Swivel	Price
673-M12C12		3/4	3/4	✓	
673-M12C16		3/4	1	✓	
673-B0088		3/4	1		

Static conductive hose connectors are impregnated with carbon black to make them conductive. These connectors are used to connect two bare hose ends. They have a female thread to accept vacuum hose on each side.

#### Hose Connectors Static Conductive

		ı			
Model	NSN	Α	В	Swivel	Price
673-M16C16		1	1	✓	
921-1624HHSC		1	1-1/2		
921-2424SHHSC		1-1/2	1-1/2	✓	





- \* Available on GSA Advantage website @ www.GSAadvantage.gov
- This item has an NSN See Model / NSN table on page 4.

# 3/8" Compressed Air Line

- Hose terminates in ¼" female threaded brass fittings
- Includes 1/4" high flow coupler and plug
- 300 psi max pressure

#### 3/8" Compressed Air Line

Model	NSN	Length	Price
922-A06H10		10	
922-A06H20		20	
922-A06H30		30	
922-A06H40		40	
922-A06H50		50	



# 1/2" Compressed Air Line -

- Hose terminates in ½" male threaded brass fittings
- Includes ½" safety coupler and plug
- · Safety coupler relieves line pressure before disconnecting
- 200 psi max pressure

#### 1/2" Compressed Air Line

Model	NSN	Length	Price
922-A08H10		10	
922-A08H20		20	
922-A08H30		30	
922-A08H40		40	
922-A08H50		50	
922-A08H60		60	
922-A08H80		80	



# 3/4" Compressed Air Line

- Hose terminates in ¾" male threaded brass fittings
- Includes 3/4" safety coupler and plug
- Safety coupler relieves line pressure before disconnecting
- 200 psi max pressure

#### 3/4" Compressed Air Line

Model	NSN	Length	Price
922-A12H10		10	
922-A12H20		20	
922-A12H30		30	
922-A12H40		40	
922-A12H60		60	
922-A12H80		80	

- \* Available on GSA Advantage website @ www.GSAadvantage.gov
- This item has an NSN See Model / NSN table on page 4.



# **Conductive Compressed Air Line**

For use in explosive dust and gas atmospheres, these air lines feature conductive hose and all non-sparking brass and stainless steel fittings.

# **%" Conductive Compressed Air Line**

- Hose terminates in 1/4" male threaded brass fittings
- Includes 1/4" all brass high flow coupler and plug
- 300 psi max pressure

3/8" Compressed Air Line Conductive

Model	NSN	Length	Price
922-A06H10-EXP		10	
922-A06H20-EXP		20	
922-A06H30-EXP		30	
922-A06H40-EXP		40	
922-A06H50-EXP		50	



# 1/2" Conductive Compressed Air Line

- Hose terminates in ½" male threaded brass fittings
- Includes ½" all stainless steel coupler and plug
- 300 psi max pressure

1/2" Compressed Air Line Conductive

Model	NSN	Length	Price
922-A08H10-EXP		10	
922-A08H20-EXP		20	
922-A08H30-EXP		30	
922-A08H40-EXP		40	
922-A08H50-EXP		50	



# **Compressed Air Line by the Foot**

Get the same compressed airline we use, a la carte.

#### Compressed Air Line by the Foot

Compressed Air Line by the root								
Model	NSN	Diameter	Rating	Price				
922-H04PV-YL		1/4"	300 psi					
922-H06PV-YL		3/8"	300 psi					
922-H08PV-BL		1/2"	200 psi					
922-H12PV-RD		3/4"	200 psi					
922-H16PV-RD		1"	200 psi					
922-H06CD-RD*		3/8"	300 psi					
922-H08CD-RD*		1/2"	200 psi					

<sup>\* =</sup> Conductive



This item has an NSN - See Model / NSN table on page 4.



# **Fittings**

Clayton standardizes on the finest in pneumatic connectors. High Flow (HF) Series  $\frac{1}{2}$ " couplers are engineered to allow twice the flow of comparably-sized standard Industrial Interchange (II) design couplers and connectors. One handed push-to-connect design allows easy operation. Fittings  $\frac{1}{2}$ " and higher are designed with safety first. These large couplers are designed to depressurize the compressed air line before disconnecting. This eliminates the dangers associated with the quick release of high pressure lines.

# Couplers

Fittings ½" and higher are designed with safety first. These large couplers are designed to depressurize the compressed air line before disconnecting. This eliminates the dangers associated with the quick release of high pressure lines.

#### **Compressed Air Line Couplers**

NSN	Plug Side	Thread Size	Type	Price
	3/4"	3/4" MNPT	II	
	3/4"	3/4" FNPT	Ш	
	1/2"	1/2" MNPT	II	
	1/2"	1/2" FNPT	II	
	1/2"	1/2" FNPT	II SS	
	1/4"	1/4" MNPT	II & HF	
	1/4"	1/4" FNPT	II & HF	
		3/4" 3/4" 1/2" 1/2" 1/2" 1/4"	3/4" 3/4" MNPT 3/4" 3/4" FNPT 1/2" 1/2" MNPT 1/2" 1/2" FNPT 1/2" 1/2" FNPT 1/2" 1/4" MNPT	3/4" 3/4" MNPT II  3/4" 3/4" FNPT II  1/2" 1/2" MNPT II  1/2" 1/2" FNPT II  1/2" 1/2" FNPT II  1/2" 1/2" FNPT II SS  1/4" 1/4" MNPT II & HF

II = Industrial Interchange

HF=High Flow

SS=Stainless Steel



# Plugs

Plugs are available in ¼" high flow series, or in all sizes of Industrial Interchange.

#### Compressed Air Line Pluas

compressed in Emeringe									
Model	NSN	Plug Side	Thread Size	Type	Price				
940-12PM		3/4"	3/4" MNPT	II					
940-12PF		3/4"	3/4" FNPT	II					
940-08PM		1/2"	1/2" MNPT	II					
940-08PF		1/2"	1/2" FNPT	II					
940-08PM-SS		1/2"	1/2" MNPT	II SS					
940-08PF-SS		1/2"	1/2" FNPT	II SS					
940-016		1/4"	1/4" MNPT	HF					
940-04PM-II		1/4"	1/4" MNPT	II					
940-04PM-HFB		1/4"	1/4" MNPT	II					
940-04PM-IIB		1/4"	1/4" MNPT	II					

II = Industrial Interchange

HF=High Flow

SS=Stainless Steel



#### Ball Valves

Nickel plated ball valves incorporate a zero-resistance full bore design to maximize air flow. Oversize handles provide the leverage needed to shut down larger valves.

#### **Ball Valves**

1	Model	NSN	In	Out	Type	Price
	924-1002		1" FNPT	1" FNPT	II	
ļ	924-0752		3/4" FNPT	3/4" FNPT	II	

- Available on GSA Advantage website @ www.GSAadvantage.gov
- This item has an NSN See Model / NSN table on page 4.







# **Brass Nipples**

Nipples are designed with a central hex to make installation and removal a breeze.

#### **Nipples**

Model	NSN	Α	В	Price
918-8HN		1/2" NPT	1/2" NPT	
918-12HN		3/4" NPT	3/4" NPT	
918-16HN		1" NPT	1" NPT	



# **Brass Bulkhead Fittings** -

These fittings provide a means to bridge an air supply cleanly across a wall or partition. Galvanized lock washers ensures a secure installation.

#### **Bulkhead Fittings**

Model	NSN	Α	В	Price		
918-04BH		1/4" NPT	1"			
918-06BH		3/8" NPT	3/4"			
918-08BH		1/2" NPT	1"			
918-12BH		3/4" NPT	1"			



# **Brass Reducing Bushings**

Adapt easily from one size pipe thread to another with these durable NPT bushings.

#### **Bushings**

Model	NSN	Α	В	Price
918-06B04		1/4" NPT	3/8" NPT	
918-08B04		1/4" NPT	1/2" NPT	
918-08B06		3/8" NPT	1/2" NPT	
918-12B04		1/4" NPT	3/4" NPT	
918-12B06		3/8" NPT	3/4" NPT	
918-12B08		1/2" NPT	3/4" NPT	
918-16B08		1/2" NPT	1" NPT	
918-16B12		3/4" NPT	1" NPT	,



#### **Brass Tees**

Split a compressed air line easily with these Tees and Reducing Tees.

#### Tees

	Model	NSN	А	В	С	Price
Г	918-04T		1/4" NPT	1/4" NPT	1/4" NPT	
	918-08T		1/2" NPT	1/2" NPT	1/2" NPT	
	918-12T		3/4" NPT	3/4" NPT	3/4" NPT	
	918-16T		1" NPT	1" NPT	1" NPT	
Г	918-16RT1212		3/4" NPT	3/4" NPT	1" NPT	



- \* Available on GSA Advantage website @ www.GSAadvantage.gov
- This item has an NSN See Model / NSN table on page 4.

# **Clayton 3 Port Distribution Module**

#### This Distribution module is based upon the needs expressed to us by the maintainers of the C-17.

The need was for 2-3 maintainers to perform dustless sanding operations at a great distance from the vacuum - up to 80 feet away. The distribution module allows 3 simultaneous users to work from one vacuum with a negligible loss of suction. The module is paired with any one of our 2" Air / Vac Cam Lock hoses. Maintainers can simply plug their lightweight Clayton Work Hoses and airlines directly into the distribution module, and work up to a 30 foot radius around the module. The module distributes the vacuum suction and the compressed air. This module is often used on JLG lifts or scissor-style lifts, and its integral bracket and safety cable allows it to be hung from the railing of the lifts. It works equally well on maintenance stands or scaffolding. Some customers find that the module allows maintainers to work inside an aircraft comfortably, without having to maneuver the vacuum into the fuselage. This module can be fitted to any Clayton HEPA Vacuum.

- Allows 3 maintainers to work simultaneously from one vacuum
- Extends vacuum range up to 80' (total length 110')
- Can be used with any brand vacuum (depending on vacuum strength)
- Lightweight aluminum construction 12 lbs. total
- · Attached dust cap prevents dust from escaping module when not in use
- · Safety cable secures module to railings or structural components
- · Integrated carry handle

#### Distribution Module

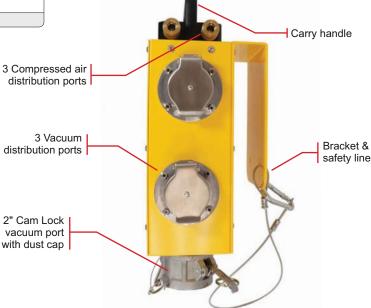
Model	NSN	Vac Ports	Air Ports	Price
923-A20315		3	3	
923-A20315-0*		3	3	
923-A20315-4**		3	3	

<sup>\*</sup> includes hose whip for electric DustMaster Vac

#### 2" Combination Air / Vac Cam Lock Hoses

Model	NSN	Vac Hose	Air Hose	Length	Price
671-AVH2020X		2"	1/2"	20'	
671-AVH2040X		2"	1/2"	40'	
671-AVH2060X		2"	1/2"	60'	
671-AVH2080X		2"	1/2"	80'	





NOTE: This module works in conjunction with a vacuum and requires a 2" Clayton cam lock hose and provides passive distribution only.

- \* Available on GSA Advantage website @ www.GSAadvantage.gov
- This item has an NSN See Model / NSN table on page 4.

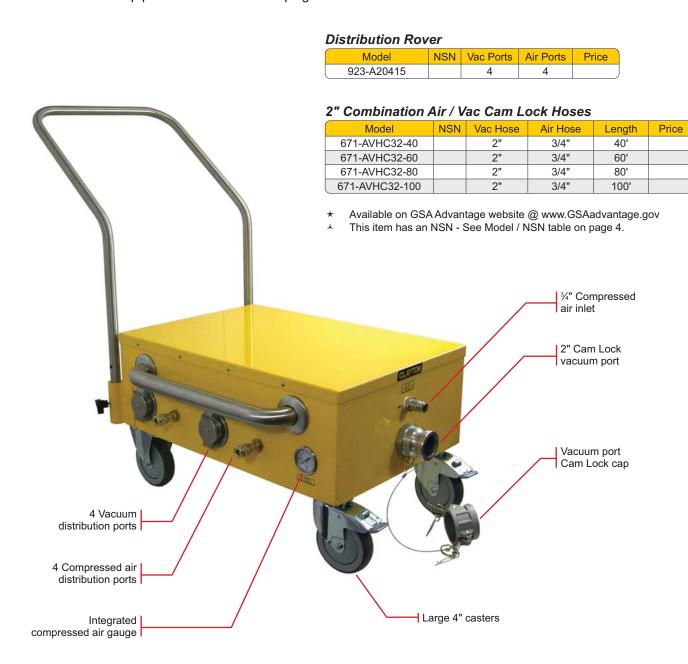


<sup>\*\*</sup> includes hose whip for pneumatic DustMaster Vac

# **Clayton 4 Port Distribution Rover**

The module is paired with any one of our 2" Air / Vac Cam Lock hoses. Maintainers can simply plug their lightweight Clayton Work Hoses and airlines directly into the Rover, and work up to a 30 foot radius around it. The Rover distributes the vacuum suction and compressed air to 4 users. This module can be fitted to any Clayton Central Vacuum.

- Allows 4 maintainers to work simultaneously from one vacuum
- Extends vacuum range up to 100' (total length 130')
- Can be used with any brand vacuum (depending on vacuum strength)
- · Attached dust cap prevents dust from escaping module when not in use



#### **AutoGate Air Tool Activated Gate Valve**

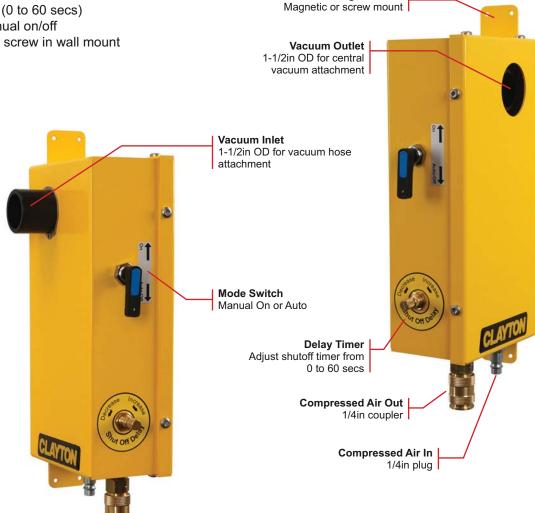
Central vacuum hoses left connected and open when not in use are an unnecessary drain on central vacuum resources. They reduce the amount of vacuum available for other users and prevent VFDs from cycling down your vacuum producer to provide the savings you expected from them.

Our Automatic Gate Valve for central vacuums is designed for operations like vacuum sanding where an air tool requires vacuum for dust collection. It fits between each vacuum port and the tool hose. When the air tool is activated the gate valve opens. When the air tool is deactivated the gate valve closes with a time delay up to 60 secs.

**Mounting Brackets** 

#### **Features**

- 1-1/2in vacuum inlet/outlet
- 1/4in compressed air inlet/outlet
- Delay timer (0 to 60 secs)
- · Auto or Manual on/off
- · Magnetic or screw in wall mount



#### **AutoGate**

Model	NSN	Description	Price
924-AG24		Auto Gate Valve, 1-1/2in x 1/4 in air	

- Available on GSA Advantage website @ www.GSAadvantage.gov
- This item has an NSN See Model / NSN table on page 4.



Eidos industrial seating provides workers with comfort and greater physical control over their work. Less frustration - less aches & pain - improved morale.

# **Shopmaster with Toolbox**

Seat Height Range - 16" to 21" Seat Diameter - 14" Ground Clearance - 4" Foot Print - 16" Weight - 35 lbs

- Extended Durability & Efficiency
- · Molded polyurethane seat
- 14 gauge steel powder coated tool tray with hardware dividers
- (5) H.D. 3" ball bearing casters ( 2 locking)



#### **Chairmaster with Backrest**

Seat Height Range - 16" to 27" Seat Diameter - 14" Ground Clearance - 4" Foot Print - 16" Weight - 35 lbs

- · Wide backrest and profile seat
- Extended Durability & Efficiency
- 14 gauge steel powder coated tool tray with hardware dividers
- (5) H.D. 3" ball bearing casters ( 2 locking)





#### **Taskmaster**

The Taskmaster operates in the most demanding environments while providing full musculoskeletal worker support.

Seat Height Range - 37 1/2" Seat Diameter - 16 1/2" Ground Clearance - 8" Width - 29 1/4" Length - 27 1/2"

- Heavy-duty tubular steel construction
- · Tough, large gas spring
- · Baked on epoxy powder coating
- Three available wheel configurations to fit specific height and surface applications
- · Optional tool trays



# Ranger

A fully adjustable work station constructed of steel for years of tough industrial service. With a foot-print approximating that of an office chair, Ranger is well suited for the types of demanding manufacturing and maintenance environments that often destroy a lesser product in short order.

Not just a better idea - Ranger was designed at the requested of several Fortune 100manufacturers who desired a safe work work station., with adjustable range of work height, comfortand durability, all in a cost effective package.

Seat Back Tilt Range - 85 degrees Seat Dimensions - 19.75" x 15.50" Base Length - 31" Base Width - 26" Seat Height Range - 18" to 30"

- · Heavy-duty steel construction
- Tough, large gas spring assisted back
- · Baked on epoxy powder coating
- Three available wheel configurations to fit specific height and surface applications
- Optional tool trays



# **Hose Support Belt**

Support the weight of long vacuum hoses from the waist.... Not from the arm.

Eliminates having a long, heavy hose hanging from the sander, the principal objection to using vacuum sanders voiced by workers.

Ideal for workers sanding aircraft, ships or structures from elevated positions.

Two sizes available 671-HSB1000W - Fits most waists 29" to 46" 671-HSB2000W - Fits most waists 46" to 56"



#### **Performance**

- Light weight, 1" vacuum hose & %" compressed air line extend from the belt to the sander
- · Quick disconnect fittings at each end make changing tools hassle-free and fast

#### Comfort

- 5" wide padded belt is firm yet flexible enough to be comfortable
- · Made of heavy duty, double weight nylon, it will not rot, crack, harden or mildew
- 2" double tongue, metal roller buckle makes it easy to put on and off
- · Cloth strap holds hose to the arm for ease of movement

#### Safety

- · Allows workers to release their grip on the sander and use both hands to grip railings when climbing stairs or ladders
- Minimizes worker fatigue, a major contributor of work-related accidents

Velcro Belts have no metal buckles and will not scratch work surfaces.

Hose Support Belts

Model	NSN	Description	Vac Hose	Air Hose	Length	Price
671-HSB1000W		Hose Support Belt 29-46 Waist	1"	3/8"	5'	
671-HSB2000W		Hose Support Belt 46-56 Waist	1"	3/8"	5'	
671-HSB1001W		Hose Support Belt SML Waist - Velcro	1"	3/8"	5'	
671-HSB2001W		Hose Support Belt XL Waist - Velcro	1"	3/8"	5'	

- ★ Available on GSA Advantage website @ www.GSAadvantage.gov
- This item has an NSN See Model / NSN table on page 4.





Workers on the job with Clayton Hose Support Belts



# **Clean Up Tool Kits**

We provide a variety of attachments for general clean up, sold as kits or individually. Each kit includes an aluminum two piece wand for tool attachment. Heavy duty tools are all metal while some light duty tools are ABS or poly.

5 piece light duty toolkit (pull pin) 5 piece heavy duty toolkit (pull pin) 5 piece wheeled toolkit (pull pin)



#### 4 piece wet pickup toolkit (pull pin)

#### 5 piece light duty toolkit (collar ring)

#### 2 piece FOD toolkit (friction fit)



#### Clean Up Tool Kits

Model	NSN	Description	Price
630-A000		Wall Mount Tool Control Rack	
630-A001		Clean Up Toolkit - 5 Piece Light Duty	
630-A002		Clean Up Toolkit - 5 Piece Heavy Duty	
630-A003		Clean Up Toolkit - 5 Piece Heavy Duty Wheeled	
630-A006		Clean Up Toolkit - FOD Floor Tool & Wand	
630-A010		Clean Up Toolkit - Wet Pickup	
630-A011		Clean Up Toolkit - 5 Piece Light Duty	



# **Hand Held Cuff Clean Up Tools**

Our light duty tools are made from impact resistant nylon or polyethylene. Brushes are typically not replaceable. Pin Lock Wand has no loose parts that can become a FOD hazard.

#### **Cuff Tools**

Model	NSN	Descrip	ation	Price			
642-20T11001	INSIN	Turbine Brush - 11in Cuff S		FIICE			
642-24G04001		Gulper Tool Duckbill - Poly	·			N2	22101
642-24G05001		Gulper Tool - Poly 1.5in x 5					
642-24G05001		Personnel Cleanup Brush					
642-24G05003		,	tlog 1 Fin y Fin				
		Gulper Tool - Poly with Bris			N09101	10	
642-24G05003-1		Gulper Tool - Poly No Bristl					•
642-24G05003-2		Replacement Bristles for G	·				
642-24G06101		Gulper Tool - Alum 1.5in x 6					
642-24G18101		Bulk Pickup Tool 1.5 x 18 A					
642-24N09101	4130-01-492-6050	Rubber Nozzle - 1.5in x 9in			G05003		
642-24N22101		Rubber Nozzle - 1.5in x 22i	n			G05003	3-1
642-24R03001		Dust Brush - Poly 1.5in x 3i	n Horsehair				
642-24R03002	4130-01-459-1321	3in Round Vacu-Dus Brush	(1in Hose Connection)				
642-24R03101		Dust Brush - Alum 1.5in x 3	in Horsehair				
642-24R03101-1		Bristles for 3in Alum Dust B	rush Horsehair		1200		
642-24R03102		Dust Brush - Alum 1.5in x 3	in Conductive Bristles			1	
642-24R03102-1		Bristles, Conductive, for 3 in	n Dust Brush		G06101		
642-24R05101		Dust Brush - Alum 1.5in x 5			1 39		
642-24R05101-1		Bristles for 5in Dust Brush I	Horsehair			(	G05001
642-24V11001		Crevice Tool - Poly 1.5in x					
642-24V11002		Crevice Tool - Poly 2-1/4in					
642-24V11101		Crevice Tool - Alum 1.5in x					
642-24V11101		Crevice Tool - Conductive A			The same of the sa		
642-24V17001					G04001		
		Crevice Tool - Poly 2-1/4in					
642-24V24101		Crevice Tool - Alum 1.5in x					
642-24V24102		Crevice Tool - Conductive A	1.5in x 24in				
T11	001	G05002	O Comment	5101	R03001	R	R0310 R0310
	V11001	V11002	V17001		V11001 V11002	V24101 V24102	G18101

# Wand & Tools (Pull Pin Style)

Pull pin style wands have no loose parts to become FOD.

#### Wand Tools - Pull Pin

Model	NSN	Description	Price
642-24D56101		Wand - Aluminum 2 PC 2-Bend Pull Pin 1.5in x 56in	
642-24F14001	642-24F14001 Floor Tool - Poly 1.5in x 14in Nylon Bristles		
642-24F14101	642-24F14101 Floor Tool - Alum 1.5in x 14in Nylon Bristles		
642-24F14101-1		Bristles for 14in Alum Floor Tool	
642-24F18101 Floor Tool - Alum 1.5in x 18in Wheeled			



These tools are specifically designed with no loose parts that can inadvertently come off and become FOD.



# Wand & Tools (Collar Ring Style)

#### Wand Tools - Collar Ring

Model	NSN	Description	Price	
642-24C14001	Floor Tool Carpet Scallop Edge 14in			
642-24D56102	42-24D56102 Wand - Aluminum 2-Bend Telescoping Collar Ring			
642-24D56103	642-24D56103 Wand - Conductive Alum 2 PC 2-Bend Collar Ring 1.5in x 56in			
642-24D56104	642-24D56104 Wand - Aluminum 2 PC 2-Bend COLLAR RING 1.5in x 56in			
642-24F14102	642-24F14102 Floor Tool - Conductive Alum 1.5in x 14in Nylon Bristles			
642-24F20001 Floor Tool - Poly 1.5in x 20in (collar ring)				
642-24F14103	42-24F14103 Floor Tool - Alum 1.5in x 14in Nylon Bristles			



# **Wand & Tools (Friction Fit)**

#### Wand Tools - Friction Fit

Model	NSN	Description	
642-24D54101	4130-01-483-1891	Wand - Aluminum 2 PC 1-Bend Friction Fit 1.5in x 54in	
642-24F12001	642-24F12001 Floor Tool - FOD Aluminum 1.5in x 12in Nylon Bristles Friction		
642-24F12001-1		Bristles - Horse Hair for FOD Floor Tool	
642-24F14002	Floor Tool - Poly 1.5in x 14in Nylon Bristles (friction fit)		
642-24T11001	4130-01-478-3104	Turbine Brush - 11in Wand Style	









# **Overhead Cleaning Wand & Tools**

Overhead Cleaning - Collar Ring

	Model	NSN	Description	Price
	642-24D60101		Wand - Aluminum 1 Piece Collar Ring Ext 1.5in x 60in	
	642-24P04001 Overhead Pipe Brush - Poly 1in to 4in Diameter (collar ring		Overhead Pipe Brush - Poly 1in to 4in Diameter (collar ring)	
	642-24P08001		Overhead Pipe Brush - Poly 4in to 8in Diameter (collar ring)	
642-24W10101 Wall Brush - Alum 1.5in x 10in (collar ring)		Wall Brush - Alum 1.5in x 10in (collar ring)		







# **High Capacity Wand & Tools**

#### 2in Tools

	Model	NSN	Description	Price			
	642-32D50101		Wand - Steel 1pc 2in x 50in				
	642-32F20101		Floor Tool - Alum 2in x 20in Wheeled				
	642-32V15101		Crevice Tool - Alum 2in x 15in				



D50101



#### **Flexible Crevice Tools**

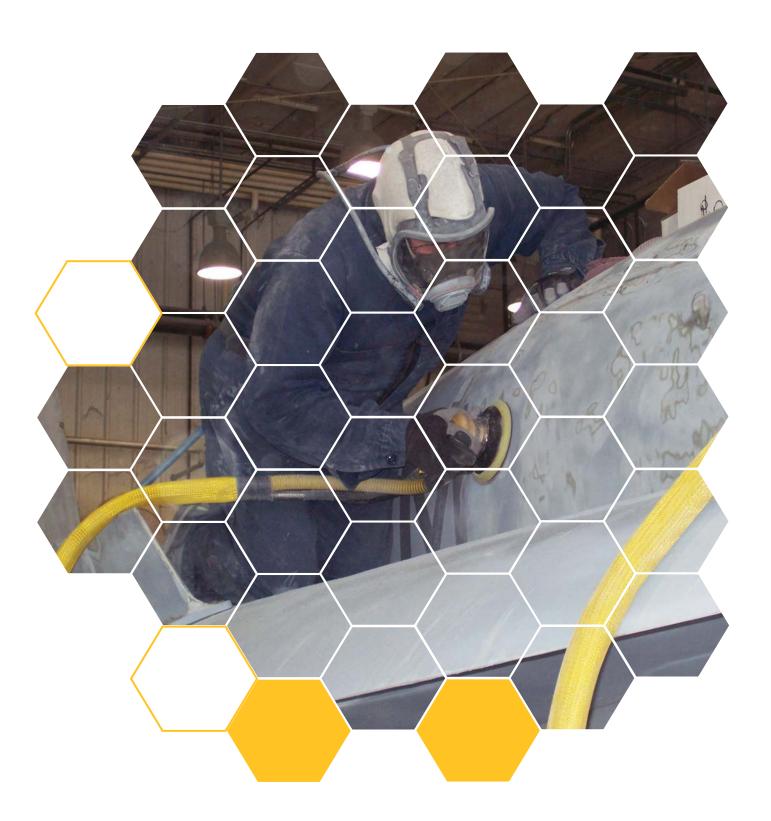
Our Flex-Loc crevice tools can be bent into any position and stay there. They come standard with a 1" female hose thread for connection to our 1" vacuum hose. Great for FOD cleanup!

#### **FOD Wands**

1 OD Wands							
NSN	Description	Price					
FOD Wand 1/2in x 1in x 18in (18 element)							
	FOD Wand 1/2in x 1in x 18in (18 element) with Brushes						
	FOD Wand 1/2in x 1in x 24in (28 element)						
	FOD Wand 1/2in x 1in x 36in (38 element)						
	FOD Wand 1/4in x 1in x 18in (24 element)						
	FOD Wand 1/4in x 1in x 36in (64 element)						
4130-01-478-3108	FOD Wand 3/4in x 1in x 18in (15 element)						
	FOD Wand 3/4in x 1in x 24in (24 element)						
	FOD Wand 3/4in x 1in x 36in (39 element)						
	Snorkel 2-1/2in x 3ft x 2in Cuff						
		FOD Wand 1/2in x 1in x 18in (18 element)  FOD Wand 1/2in x 1in x 18in (18 element) with Brushes  FOD Wand 1/2in x 1in x 24in (28 element)  FOD Wand 1/2in x 1in x 36in (38 element)  FOD Wand 1/4in x 1in x 18in (24 element)  FOD Wand 1/4in x 1in x 36in (64 element)  FOD Wand 3/4in x 1in x 18in (15 element)  FOD Wand 3/4in x 1in x 24in (24 element)  FOD Wand 3/4in x 1in x 24in (39 element)					







# FILTERS

Bag Filters • Prefilters • HEPA Filters • Air Filters



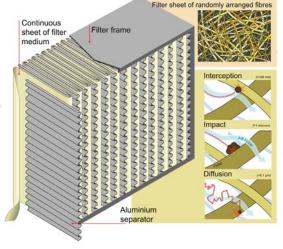
#### Filters 101

It is important to note that just because a filter uses HEPA media, it may not provide HEPA filtration. This is because High Efficiency filters are rated at specific maximum flow rates. A given HEPA filter may be rated HEPA at a maximum of 150 CFM but would not be rated HEPA at 200 CFM. It is important to make sure the filter being used is designed and rated for the flow rate it needs to handle.

All Clayton HEPA, ULPA, and MERV rated filters are designed to work in specific vacuums and are not interchangeable.

#### **HEPA**

HEPA filters are composed of a mat of randomly arranged fibers. The fibers are typically composed of fiberglass and possess diameters between 0.5 and 2.0 micrometers. Key factors affecting function are fiber diameter, filter thickness, and face velocity. The air space between HEPA filter fibers is much greater than 0.3 µm. The common assumption that a HEPA filter acts like a sieve where particles smaller than the largest opening can pass through is incorrect. Unlike membrane filters at this pore size, where particles as wide as the largest opening or distance between fibers cannot pass in between them at all, HEPA filters are designed to target much smaller pollutants and particles. These particles are trapped (they stick to a fiber) through a combination of the following three mechanisms:



- 1. Interception, where particles following a line of flow in the air stream come within one radius of a fiber and adhere to it.
- 2. Impaction, where larger particles are unable to avoid fibers by following the curving contours of the air stream and are forced to embed in one of them directly; this effect increases with diminishing fiber separation and higher air flow velocity.
- 3. Diffusion, an enhancing mechanism that is a result of the collision with gas molecules by the smallest particles, especially those below 0.1 µm in diameter, which are thereby impeded and delayed in their path through the filter; this behavior is similar to Brownian motion and raises the probability that a particle will be stopped by either of the two mechanisms above; it becomes dominant at lower air flow velocities.

Diffusion predominates below the 0.1  $\mu$ m diameter particle size. Impaction and interception predominate above 0.4  $\mu$ m. In between, near the most penetrating particle size (MPPS) 0.3  $\mu$ m, both diffusion and interception are comparatively inefficient. Because this is the weakest point in the filter's performance, the HEPA specifications use the retention of these particles to classify the filter.

Lastly, it is important to note that HEPA filters are designed to arrest very fine particles effectively, but they do not filter out gases and odor molecules. Circumstances requiring filtration of volatile organic compounds, chemical vapors, cigarette, pet, and/or flatulence odors call for the use of an activated carbon (charcoal) filter instead of or in addition to a HEPA filter.

	Class	retention (total)	retention (local)
	E10	> 85%	
	E11	> 95%	
	E12	> 99.5%	
HEPA	H13	> 99.95%	> 99.75%
ПЕРА	H14	> 99.995%	> 99.975%
	U15	> 99.9995%	> 99.9975%
ULPA	U16	> 99.99995%	> 99.99975%
	U17	> 99.999995%	> 99.9999%

HEPA filters, as defined by the DOE standard adopted by most American industries, remove at least 99.97% of airborne particles 0.3 micrometers ( $\mu m$ ) in diameter. The filter's minimal resistance to airflow, or pressure drop, is usually specified around 300 Pa at its nominal flow rate.

The specification usually used in the European Union is the European Norm EN 1822:2009. It defines several classes of HEPA filters by their retention at the given most penetrating particle size (MPPS):

#### **ULPA**

ULPA is an acronym for Ultra Low Penetration Air or Ultra Low Particulate Air. An ULPA filter can remove at least 99.99% of airborne particles  $0.12 \mu m$  or larger.





#### Filters 101

#### **MERV**

The Minimum Efficiency Reporting Value or MERV rating, is a measurement scale designed in 1987 by the American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE) to rate the effectiveness of air filters. The scale represents a quantum leap in the precision and accuracy of air-cleaner ratings and allows for improved health, reduced cost and energy efficiency in heating, ventilation and air conditioning (HVAC) design. For example, a HEPA filter is often impractical in central HVAC systems due to the large pressure drop the dense filter material causes. Experiments indicate that less obstructive, medium-efficiency filters of MERV 7 to 13 are almost as effective as true HEPA filters at removing allergens, with much lower associated system and operating costs.

The scale is designed to represent the worst case performance of a filter when dealing with particles in the range of 0.3 to 10 µm. The MERV rating is from 1 to 20. Higher MERV ratings correspond to a greater percentage of particles captured on each pass, with a MERV 16 filter capturing more than 95% of particles over the full range.

MERV	Min particle size	Typical controlled contaminant	Typical Application
17–20	< 0.3 µm	Virus, carbon dust, sea salt, smoke	Electronics & pharmaceutical manufacturing cleanroom
13–16	0.3–1.0 μm	Bacteria, droplet nuclei (sneeze), cooking oil, most smoke and insecticide dust, most face powder, most paint pigments	hospital & general surgery
9–12	1.0–3.0 µm	Legionella, Humidifier dust, Lead dust, Milled flour, Auto emission particulates, Nebulizer droplets	Superior residential, better commercial, hospital laboratories
5–8	3.0–10.0 µm	Mold, spores, dust mite debris, cat and dog dander, hair spray, fabric protector, dusting aids, pudding mix	Better residential, general commercial, industrial workspaces
1–4	> 10.0 µm	Pollen, dust mites, cockroach debris, sanding dust, spray paint dust, textile fibers, carpet fibers	Residential window AC units

While the smallest MERV value in each row has no minimum requirement for filtering that row's particle size, it does have stricter requirements for all larger particle sizes than any smaller MERV value. For example, MERV 13 the "0.3–1.0  $\mu$ m" row has no minimum requirement for removing 0.3–1.0  $\mu$ m particles (the standard specifies "<75%") but has higher minimum removal percentages of 1.0–3.0  $\mu$ m, 3.0–10.0  $\mu$ m, and > 10  $\mu$ m particles than MERV 12 and all smaller MERV values. All other MERV values on each row do have minimum removal percentages for that row's particle size.

#### **HEPA Filters**

Clayton High Efficiency Particulate Air (HEPA) are engineered to provide maximum protection from hazardous dust. HEPA filters capture 99.97% of particles 0.3 µm or larger. These filters are the ideal solution when working with chromated primers, lead paints, or composites.

#### **HEPA Filters**

Model	NSN	Description	Price
627-12H		HEPA Filter 1 pack (Wart Hog)	
500-116		HEPA Filter 1 pack (Hornet - Yellow)	
600-116		HEPA Filter 1 pack (DM Systems)	
627-516H		HEPA Filter 1 pack (Super Hornet - Silver)	







#### **Pre-filters**

Clayton Pre-filters have been designed to prolong the life of the HEPA filters. Pre-filters provide protection from larger particles which might escape when a bag filter is installed incorrectly or has sustained damage.

#### Pre-filters

1	Model	NSN	Description	Price
ĺ	627-12P		Pre-filter 3 pack (Wart Hog)	
ļ	600-115		Pre-filter 3 pack (DM Systems)	





627-12P

# Bag Filters -

Disposable bag filters are the first stage of filtration on most Clayton vacuums. These vacuum bags are designed to capture larger particles and debris. Most are manufactured with a lining to resist 'caking' of dust on the inside of the bag. Bag filters are intended for single use.

#### Bag Filters

2 ag : more					
Model	NSN	Description			
600-313A		Bag Filter 5 pack (DM Systems & WartHog 5 gal)			
610-313A		Bag Filter 10 pack (Cyclone)			
627-16B		Bag Filter 5 pack (Wart Hog 15 gal)			
500-003-5		Bag Filter 10 pack (Hornet - Yellow)			
690-A0031		Bag Filter 10 pack (Super Hornet - Silver)			







500-003-10



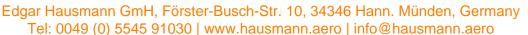


★ Available on GSA Advantage website @ www.GSAadvantage.gov

This item has an NSN - See Model / NSN table on page 4.







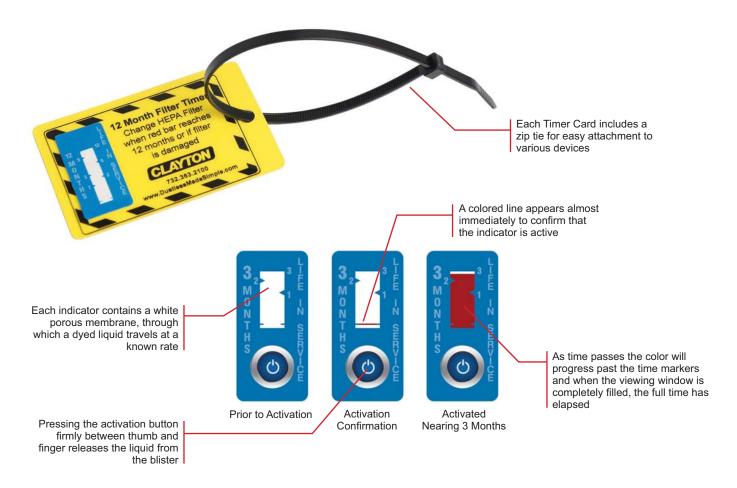
158 Timer Cards

#### **Timer Cards**

Clayton Timer Cards are credit card size, tamper-proof tags that are irreversibly activated by finger pressure. Once 'ON' a safe dye migrates along a display window, showing elapsed time in a range from 1 to 12 months.

The patented technology has no moving parts, requires no power source and is accurate to within a few hours.

They offer an accurate and reliable visual reminder of service and maintenance schedules to ensure optimum performance of equipment that needs service or consumable replacement at specific intervals.



#### **HEPA Timer Cards**

Model	NSN	Description	Price				
627-T01H		1 Month					
627-T03H		3 Month					
627-T06H		6 Month					
627-T12H		12 Month					



#### Filter Change Timer Cards

Model	NSN	Description	Price
627-T01F		1 Month	
627-T03F		3 Month	
627-T06F		6 Month	
627-T12F		12 Month	



#### Service Required Timer Cards

Model	NSN	Description	Price
627-T01S		1 Month	
627-T03S		3 Month	
627-T06S		6 Month	
627-T12S		12 Month	



#### **Calibration Timer Cards**

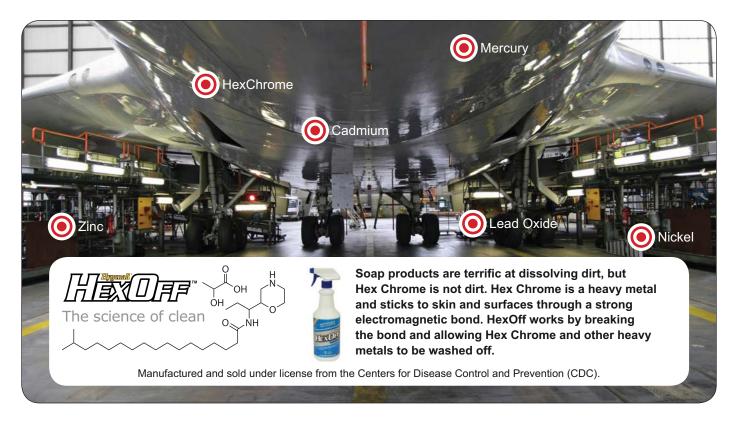
Model	NSN	Description	Price
627-T01C		1 Month	
627-T03C		3 Month	
627-T06C		6 Month	
627-T12C		12 Month	





# **Hygenall HexOff**

The ONLY product in the world, specifically designed to remove toxic heavy metals from the skin and other surfaces.



**Hexavalent Chromium CrVI** is a toxic form of the element chromium. Hexavalent chromium is rarely found in nature and is generally man-made. CrVI is used in a wide variety of industrial activities, including welding, manufacture of stainless steel, pigment and painting applications, electro plating, and Anti-Corrosion Coatings. Hexavalent chromium can be formed when performing "hot work" such as welding on stainless steel or melting chromium metal. In the US according to the OSHA there are over 558,000 workers exposed to Hexavalent Chromium each year.

Cutting, grinding, and welding may expose workers to the following toxic heavy metals:

- Calcium Chromate Corrosion inhibitor, pigments and depolarizer in batteries
- · Chromium Trioxide Chromium plating, aluminum anodizing, chemical conversion coatings, corrosion inhibitors
- Cobalt Chromium Alloys Jet Engine Turbine discs and blades, and nozzle vanes
- · Aluminum, Titanium and Copper alloys Controls microstructure
- Stainless Steel Parts Contain between 12% to 36% Chromium
- Barium Chromate Ceramics, metal primers and ignition control devices
- Zinc Chromates Used as pigment in paints & coatings. Used as corrosion-resisting primers and metal conditioners
- Cadmium Chloride

   Used in electroplating
- Chromium Cyanide Used to inhibit corrosion
- · Cadmium Hydroxide- Found in NiCad batteries
- Cadmium Oxide Used in Chrome Plating Baths, Ceramic Glazes, Electrodes, and Pigmentations
- · Cadmium Iodine- Used in electroplating
- Cadmium Sulfate Used in electronic circuits
- Cadmium Sulfide- Used as pigment in paints, and Plastics
- · Cadmium Fluoride- Used in production of metallic alloys such as bearings

The technology in Hygenall HexOff was developed, tested, and patented by the U.S. Centers for Disease Control and Prevention (patent number: 7,604,997 B2) specifically for removing CAD ++ metals like Hexavalent Chromium.

The CDC is the premier health and safety watchdog in the United States, and throughout most of the world. Additionally, testing has shown Hygenall® HexOff™ to be over 99% effective, even in the microgram range!



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# Exposure to CrVI and other toxic metals have serious health risks

- Chromium VI Respiratory distress, irritation of the nose lining, skin rashes chrome ulcers, stomach ulcers, small intestine irritation, increased cancer in lung/stomach/intestine
- Cadmium Chronic effects include anemia, rhinitis/anosmia, pulmonary emphysema, proteinuria and lung cancer. The primary target organs for chronic disease are the kidneys (non-carcinogenic) and the lungs (carcinogenic)
- **Lead** Affects nervous system, increased blood pressure, anemia, brain function, kidney function, accumulates in body and is used as calcium, lowers IQ in children



- Arsenic Increased cardiovascular disease, increased cancer risk, increased dermatitis, increased warts, and skin pigmentation
- Other toxic metals include Zinc, Mercury, Silver, Magnesium, Aluminum, Uranium, Chromium, Arsenic, Nickel, Strontium, Vanadium, Zinc, Manganese, Barium, Beryllium, Aluminum and others. These are known as CAD ++ metals

#### **Benefits of HexOff**

HexOff Skin Guard Technology leaves behind a natural layer of positively charged ions
that help repel Hexavalent Chromium after use, akin to Scotch Guard for stains. No other
soap can do this.



- While this product has been "tuned" to Hexavalent Chromium, it is effective on all CAD ++ metals including Lead, Mercury, Uranium, Selenium-72, Cadmium, Zinc, Arsenic, Silver, Beryllium and others.
- Hygenall HexOff products mimic soap, and it is an excellent degreaser, cleaning off heavy grease and grime. Hygenall HexOff No Rinse wipes and Surface Cleaner Spray contains ingredients to clean away germs, bacteria, and viruses (including H1N1).
- HexOff removes >99% of heavy metals down to 5,000 micrograms, the highest decontamination power in the world!
   Superior in effectiveness over Soap & Water, and regular cleaning wipes.
- Contains no EDTA, Phosphates, or other harmful chemicals. Low sudsing formula is safe for all wastewater systems.

# Integrating HexOff into an EHS program

- Replace washroom soap dispensers with HexOff Foaming Soap dispensers.
- Place No Rinse Wipes or Decontamination Station in key locations where workers are removing PPE or where they are working with heavy metals.



- Replace conventional spray cleaners with Surface Cleaner Spray in break rooms, cafeterias, and other areas where workers gather.
- Place No Rinse Wipes in Tool Cribs and train workers to clean sanders, shrouds, and tools before returning them to storage.
- Incorporate HexOff products into general housekeeping practices, in compliance with OSHA standards.



#### **HexOff No Rinse Wipes**

Make No Rinse Wipes available to workers where they remove PPE after exposure to Hexavalent Chromium dust.

We recommend HexOff wipes to decontaminate sanders, shrouds, and other tools before returning them to the tool crib. Remember, the worker using the tool is protected from CrVI by his or her PPE, but the worker managing the tool crib is not - the hazardous dust can come back to the tool crib on every unwashed tool.

Removes Hexavalent Chromium, Cadmium, Lead, Nickel, Zinc, and other cationic metals from the skin. Cleans off dirt and helps remove viruses, bacteria, and germs.

#### HexOff No Rinse Wipes

Model	NSN	Description	Price
415-NR045		HexOff No Rinse Wipes 45 Count Canister	
415-NR500		HexOff No Rinse Wipes 500 Count Tub	
415-NR500RF		HexOff No Rinse Wipes 500 Count Tub Refill	



#### **HexOff Decon Station** -

Place this convenient standing station wherever your workers are removing PPE. Great for personnel cleanup outside of sanding booths, paint hangars, and in lockers. The stand holds No Rinse Wipes and a container to collect used wipes for disposal. 32in high tripod design won't wobble on uneven surfaces.

#### **HexOff Decontamination Station**

Model	NSN	Description	Price
415-DS01		HexOff Decon Station with 500 No Rinse Wipes	
415-DS07		HexOff Decon Station Stand Only	
415-NR500RF		HexOff Decon Station 500 Count Refill	



#### **HexOff Foaming Hand Wash**

Replace conventional hand soap in washrooms and break rooms to provide workers with a safe and highly effective way to clean, disinfect, and remove CrVI from their hands and skin. Provides the same germ fighting strength of conventional hand soaps, but acts on a molecular level to release microscopic deposits of Hexavalent Chromium and other heavy metals from the skin.

#### HexOff Foaming Hand Wash

Model	NSN	Description	Price
415-HW01		HexOff Foaming Hand Wash 1 Gal	
415-HW55		HexOff Foaming Hand Wash 55 Gal	
415-DS02		HexOff Foaming Hand Wash Refillable Dispenser	
415-DS08		HexOff Foaming Hand Wash 1 Gal Pump Dispenser	
415-DS04		HexOff 1 Gal Wall Mount	

Everyone uses the bathroom soap, so introducing HexOff here makes an immediate health impact on the entire organization

Replace washroom soap dispensers with HexOff Foaming Soap dispensers.

Our rich foam hand wash is ecologically friendlier than other liquid hand soaps and is delivered more uniformly, reducing overuse. It does not contain EDTA, Phosphates, or other harmful chemicals and its low sudsing formula is safe for all wastewater systems.

Leaves skin hydrated and feeling great!



Refillable Dispenser



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#### **HexOff Surface Cleaner**

Use this spray cleaner to clean and remove CrVI from work surfaces, equipment, floors and walls. Use on cafeteria tables and surfaces to remove CrVI that migrates in on workers hand and clothes. Contains environmentally safe ingredients that are low sudsing and phosphate free. Apply by hand, brush, or high pressure.

Surface Guard Technology makes it difficult for CrVI and other heavy metals to stick to surfaces after use.

#### **HexOff Surface Cleaner**

Model	NSN	Description	Price
415-SC01Q		HexOff Surface Cleaner 1 Qt	
415-SC05G		HexOff Surface Cleaner 5 Gal	
415-SC55G		HexOff Surface Cleaner 55 Gal	



#### **HexOff Liquid Soap**

Powerful hand soap that removes dirt, grime, heavy grease plus heavy metals. It is low sudsing, no EDTA or Phosphates. Made from natural environmentally friendly components and is wastewater friendly. Cationic surfactant with pH balancing keeps skin moisturized and clean. Highly effective hand-soap decontamination!

#### HexOff Liquid Soap

Model	NSN	Description	Price
415-LS01G		HexOff Liquid Soap 1 Gal	
415-LS55		HexOff Liquid Soap 55 Gal Drum	
415-DS03		HexOff Liquid Soap Refillable Dispenser	
415-DS04		HexOff Liquid Soap 1 Gal Wall Mount	
415-DS05		HexOff Liquid Soap 1 Gal Pump Dispenser	
415-DS06		HexOff Liquid Soap 55 Gal Pump Dispenser	

- ★ Available on GSA Advantage website @ www.GSAadvantage.gov
- This item has an NSN See Model / NSN table on page 4.



Refillable Dispenser



# BRAKE WASHERS



# Clayton Aqueous Brake Washers & Parts Washers

The Clayton Brake Washer line is designed specifically for wetting and cleaning vehicle brakes during brake inspections and repair jobs. All Brake Washers are mobile and can be used to safely clean hazardous dust from all types of brakes, and then set aside to allow the brake work to continue.

- Aqueous brake washers are the OSHA preferred method for wetting and cleaning brakes
- · Eliminates exposure to airborne brake dust during brake removal and cleaning of brakes
- Clean all four brakes on 30 cars for less than the cost of one can of aerosol brake cleaner
- 1 micron primary micro filters keeps our TNT cleaning solution going for approximately 150 vehicles
- · Collects and recirculates TNT brake cleaning solution and keeps your shop floor clean
- · Industrial construction stands up to the daily rigors and rough handling common to vehicle repair facilities

#### **How Clayton Brake Washers Work**

All Clayton brake washers use an industrial air powered re-circulating pump to flow our TNT cleaner over and thru brake pads, calipers, rotors, and drums. This OSHA preferred method wets and removes hazardous brake dust before it becomes airborne.

As the contaminated solution flows off the brakes it's caught by the brake washer basin and flows through one or more filters where the dust and debris are collected before the solution returns to the primary reservoir for recirculation. All Clayton Brake Washers utilize 1 micron primary filters to trap and contain brake dust and other contaminates.

#### **TNT Solution**

Clayton TNT cleaning solution is a patented formula of organic, biodegradable cleaners and rust inhibitor that quickly loosens and removes brake dust, dried oil, grease and dirt from the brakes. TNT is non-toxic, non-flammable, and safe for all brakes. One liter of this concentrated cleaner makes 15 gallons of brake cleaning solution that lasts for months.

Unlike most aerosol cleaners, TNT is safe for skin contact and produces no harmful fumes.

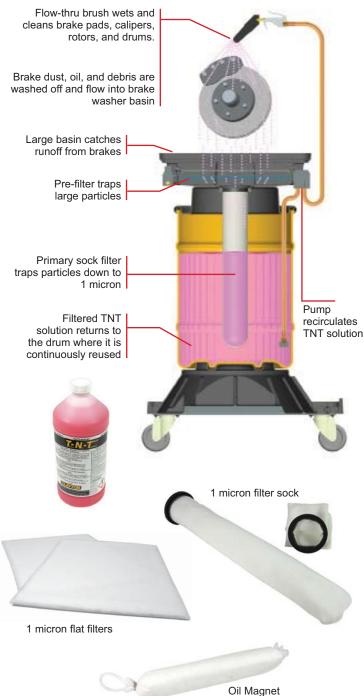
#### **CareFree Disposal System**

In most parts of the world, used TNT solution can be disposed of in the sanitary sewer. Filters can be disposed of as ordinary shop waste. Consult local authorities for information regarding disposal in your area.

#### **Filtration**

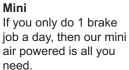
Clayton Brake Washers use a variety of filters and pre-filters to keep our TNT solution clean and effective for as long as possible. Drum style brake washers utilize a sock filter while bench top and truck styles use a flat filter of the same 1 micron media.

In addition to flow through filtration, we also use our Oil Magnet absorptive skimmer to collect and retain any oils, solvents, and coolants from the filtered TNT solution that may have been present on the brakes.



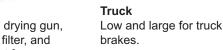
# Side by Side Comparison





# **Economy**Discover the savings with our Economy portable brake washer for high volume shops.





Part #	BCE-200	BCE-300	BCE-500	BCE-400
Dimensions	25w x 18d x 8h	28w x 20d x 32h	28w x 20d x 32h	36w x 27d x 11h
Tray Dimensions	20w x 16d x 7h	21w x 16d x 4-1/2h	26w x 20d x 7h	24w x 24d x 24h
Weight	20 lbs	52 lbs	55 lbs	73 lbs
Capacity	3.5 gal	15 gal	15 gal	6.5 gal
Flow Thru Brush	Yes	Yes	Yes	Yes
Drying Gun	No	No	Yes	Yes
Injector Gun	Yes	Yes	Yes	Yes
Faucet	No	No	No	No
Filtration	Single stage	2 stage	3 stage	2 stage
Power	32 psi	32 psi	32 psi	32 psi
Casters	N/A	4 in	4 in	4 in
Construction	Polyethylene	Polyethylene	Polyethylene	Polyethylene / Galvanized Stee
NSN	N/A	4940-01-396-0573	4940-01-396-0573	4940-01-421-8469
Cost	\$565	\$715	\$875	\$1,051

# **Return on Investment**

#### With a Clayton Brake Washer...

If you service just 10 cars/week you'll break even in less than 4 months and then save \$2400 per year.

#### Calculate the savings for YOUR shop

Your cost of aerosol brake cleaner per can
How many Axles does one can clean
How many cars (2 Axles) do you service per week
Which Brake Washer model would you like

\$2.36

1

BCE-300

Payback Period: 15 Weeks Yearly Savings: \$2,401

#### Payback period for your initial cost

Model	BCE-200	BCE-300	BCE-500	BCE-400
Cost	\$565	\$715	\$875	\$1,051
Payback	12 weeks	15 weeks	19 weeks	19 weeks

#### Cost to operate your brake washer

Period	Week	Month	Year
Aerosol Cost	\$47	\$614	\$2454
BCE-300	\$1	\$13	\$54



# **BCE-200 Mini Brake Washer**

Big Features, small package.

Perfect for low volume shops, motorcycles, golf carts, and cars serviced on safety stands or ramp style lifts. The BCE-200 Mini Brake Washer incorporates all the same components from our high volume drum style models but in a smaller package.



· Polyethylene basin and cover will not rust, chip or dent

1	Model	Description		Price
	BCE-200	Mini Brakewasher		
	200-003-3	Primary Filter 3 pak		
	400-001B	Oil Magnet		



Air regulator limits pressure reaching the pump to 32 psi and eliminates the need to adjust or otherwise regulate main shop air pressure.

Air powered industrial pump requires no electricity, only 30 psi of compressed air. Can be operated in the field using compressed air from a service trucks compressor.

# **BCE-300 Economy Brake Washer**

Outstanding performance in a no frills package, our economy drum style brake washer reduces your operating expenses at an entry level price.

- · Drum style portable
- · Compressed air powered
- · Flow-thru brush





	One Fiece Flow-tillu
	brush for cleaning
	and scrubbing
	•
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В	



Model	Description	lbs	Price
BCE-300	Economy Brake Washer		
300-003-6	Primary Filter 6 pak		
300-006EA	Oil Magnet 1 pak		
300-036B	Splash Pad		

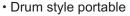
- · Polyethylene basin, drum, and dolly will not rust, chip or dent
- · Cover stores on dolly and doubles as a catch-basin when servicing vehicles on safety stands



# **BCE-500 Deluxe Brake Washer**

Outstanding performance in a no frills package, our economy drum style brake washer reduces your operating expenses at an

entry level price.



Compressed air powered

• Flow-thru brush

Injector nozzleDrying gun

• Cover

One Piece Flow-thru brush for cleaning and scrubbing



Large 10" cartridge filter

 Polyethylene basin and cover will not rust, chip or dent

 Cover stores on dolly and doubles as a catch-basin when servicing vehicles on safety stands

1	Model	Description		Price
	BCE-500	Deluxe Brake Washer		
	300-003-6	Primary Filter 6 pak		
	300-006EA	Oil Magnet 1 pak		
	300-038B	Splash Guard Pad		
	500-039B	Ultra Filter Cartridge 10in		



# **BCE-400 Truck Brake Washer**

This large heavy duty brake washer is designed for commercial trucks, buses, tactical vehicles, and off highway equipment that is serviced on safety stands. Its low profile and folding handle allow it to creep into the limited space



· Polyethylene basin and cover will not rust, chip or dent

Model	Description	lbs	Price
BCE-400	Truck Brake Washer		
400-003-3	Primary Filter 3 pak		
400-001B	Oil Magnet 1 pak		
400-004	PreFilter		







Boxes • Carts • Mobile Work Centers • Pelican



#### Mobile / Portable Lockable Tactical Box

This heavy duty bin is rustproof, lockable and impervious to most chemicals, gas & oil. It's the US military's first choice for storage and transportation of dustless sanding & grinding equipment, hoses and abrasives.

- Large 6" wheels and recessed soft-grip side handles
- · Wide telescopic steel handle with rubber grip
- Molded-in lockable metal latches and keyed center lock
- Heavy duty ribbed construction
- · Resistant to chemicals, oils & gas
- Rustproof High Density Polyethylene withstands extreme temperatures
- 37"w x 23"d x 24"h x 30"lbs
- 50 gallon capacity
- Fits one 5 gallon Wart Hog HEPA vacuum, hoses, tools and accessories.



# **Mobile Storage Cart**

Our Mobile Storage Cart is a great way to transport your dustless sanding equipment to and from work areas. Plenty of room for your vacuum system, hoses, and tools means fewer trips to the tool crib. Cart has a hanging bag with lid for contaminated abrasives, debris, or storage.

- High impact polypropylene construction
- Overall dimensions 46"L x 21"w x 38"h x 39 lbs
- Non marring 8" wheels and 4" casters
- 3 shelves 17 x 14 -1 shelf 18 x 18
- · FOD / storage bag with lid
- · Velcro strap to secure items
- · Room for vacuum, hoses, and tools

#### Mobile Tool Storage

Model	NSN	Description	Price
955-TB012			
955-TB012NW	→ Portable Lockable Tactical E		
955-TB005		Mobile Storage Cart	

- \* Available on GSA Advantage website @ www.GSAadvantage.gov
- → This item has an NSN See Model / NSN table on page 4.





# **Rhino Mobile Work Center**

Initially designed around the needs of aerospace composite repair and LO professionals, the Rhino is a robust mobile work center that can be outfitted to suit many fabrication and

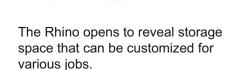
maintenance specialties.

The Rhino is available in 3 standard configurations or can be customized to meet your specific needs.

Locked and secured the Rhino is a compact mobile storage unit for tools and consumables.

• 8 large 6" casters support up to 2500 lbs

- · Heavy duty tie down rings
- · Integrated fork lift guides
- Closed dimensions 62w x 44d x 40h



The wings have divided storage along the bottom and room for up to 4 rolls of composite fabrics or films.

The body of the Rhino has 7 large drawers for tools, an optional 3 position hose reel, and shelves behind locked





Once open, the wings swing 180 degrees to support a flip top 10' x 2' self healing work surface.





3 position hose reel and storage shelf

Wings detach and form

their own self contained

locking unit for separate

consumable storage

#### Rhino Mobile Work Center (RH-500-01)

- Built in 3-position hose storage reel
- Integrated electrical distribution
- Internal charging station for battery operated tools
- Storage for 50" spools of composite fabrics and films
- Exterior wings are removable to allow separate consumables storage
- Replaceable self-healing cutting surface
- Heavy duty 6" casters
- 7 tool draws with shadowboxed two-color tool control foam
- Heavy duty tie-down rings
- · Integrated forklift guides

#### Rhino Dustless Sanding Kit (RH-500-02)

- 1 x Rhino Mobile Work Center (RH-500-01)
- 2 x Hornet pneumatic HEPA vacs
- 2 x 3" ROS sanders
- 2 x 5" ROS sanders
- 2 x Air/Vac work hoses
- 2 x Compressed air lines 30'
- 3 x Cleanup tools

#### Rhino Composite Repair Kit (RH-500-03)

- 1 x Rhino Dustless Sanding Kit (RH-500-02)
- An extensive complement of composite & structural repair tools & equipment recommended by the USAF Advanced Composites Office

#### Rhino Mobile Work Centers

Model	NSN	Description	Weight lbs (kg)	Price
RH-500-01		Rhino Mobile Work Center	700 (317)	
RH-500-02		Rhino Dustless Sanding Kit	750 (340)	
RH-500-03		Rhino Composite Repair Kit	1000 (453)	

- \* Available on GSA Advantage website @ www.GSAadvantage.gov
- This item has an NSN See Model / NSN table on page 4.



Internal charging station, power outlets, and shelves



Shadow boxed two color tool control foam



# MEASUREMENTS AND CONVERSIONS

#### Pounds to kilograms

 $kg = lb \times 2.204$  $lb = kg \div 2.204$ 

#### Weight

veignt			
Lbs	Kg	Lbs	Kg
0.1	0.05	5	2.27
0.2	0.09	5.1	2.31
0.3	0.14	5.2	2.36
0.4	0.18	5.3	2.40
0.5	0.23	5.4	2.45
0.6	0.27	5.5	2.49
0.7	0.32	5.6	2.54
0.8	0.36	5.7	2.59
0.9	0.41	5.8	2.63
1	0.45	5.9	2.68
1.1	0.50	6	2.72
1.2	0.54	6.1	2.77
1.3	0.59	6.2	2.81
1.4	0.64	6.3	2.86
1.5	0.68	6.4	2.90
1.6	0.73	6.5	2.95
1.7	0.77	6.6	2.99
1.8	0.82	6.7	3.04
1.9	0.86	6.8	3.08
2	0.91	6.9	3.13
2.1	0.95	7	3.18
2.2	1.00	7.1	3.22
2.3	1.04	7.1	3.27
2.4	1.09	7.3	3.31
2.5	1.13	7.4	3.36
2.6	1.18	7.5	3.40
2.7	1.10	7.6	3.45
2.8	1.27	7.7	3.49
	1.32		3.54
2.9		7.8	
	1.36	7.9	3.58
3.1	1.41	8	3.63
3.2	1.45	8.1	3.67
3.3	1.50	8.2	3.72
3.4	1.54	8.3	3.76
3.5	1.59	8.4	3.81
3.6	1.63	8.5	3.86
3.7	1.68	8.6	3.90
3.8	1.72	8.7	3.95
3.9	1.77	8.8	3.99
4	1.81	8.9	4.04
4.1	1.86	9	4.08
4.2	1.91	9.1	4.13
4.3	1.95	9.2	4.17
4.4	2.00	9.3	4.22
4.5	2.04	9.4	4.26
4.6	2.09	9.5	4.31
4.7	2.13	9.6	4.35
4.8	2.18	9.7	4.40
4.9	2.22	9.8	4.45

#### Inches to millimeters

 $mm = in \times 25.4$  $in = mm \div 25.4$ 

#### Length

Longin		
Inch	Inch	mm
1/8	0.125	3.18
1/4	0.250	6.35
3/8	0.375	9.53
1/2	0.500	12.70
5/8	0.625	15.88
3/4	0.750	19.05
7/8	0.875	22.23
1	1.000	25.40
1-1/8	1.125	28.58
1-1/4	1.250	31.75
1-3/8	1.375	34.93
1-1/2	1.500	38.10
1-5/8	1.625	41.28
1-3/4	1.750	44.45
1-7/8	1.875	47.63
2	2.000	50.80
2-1/8	2.125	53.98
2-1/4	2.250	57.15
2-3/8	2.375	60.33
2-1/2	2.500	63.50
2-5/8	2.625	66.68
2-3/4	2.750	69.85
2-7/8	2.875	73.03
3	3.000	76.20
3-1/8	3.125	79.38
3-1/4	3.250	82.55
3-3/8	3.375	85.73
3-1/2	3.500	88.90
3-5/8	3.625	92.08
3-3/4	3.750	95.25
3-7/8	3.875	98.43
4	4.000	101.60
4-1/8	4.125	104.78
4-1/4	4.250	107.95
4-3/8	4.375	111.13
4-1/2	4.500	114.30
4-5/8	4.625	117.48
4-3/4	4.750	120.65
4-7/8	4.875	123.83
5	5.000	127.00
5-1/8	5.125	130.18
5-1/4	5.250	133.35
5-3/8	5.375	136.53
5-1/2	5.500	139.70
5-1/2	5.625	142.88
5-3/4	5.750	146.05
5-7/8	5.875	149.23
6	6.000	152.40
0	0.000	102.40

Inch	Inch	mm
6-1/8	6.125	155.58
6-1/4	6.250	158.75
6-3/8	6.375	161.93
6-1/2	6.500	165.10
6-5/8	6.625	168.28
6-3/4	6.750	171.45
6-7/8	6.875	174.63
7	7.000	177.80
7-1/8	7.125	180.98
7-1/4	7.250	184.15
7-3/8	7.375	187.33
7-1/2	7.500	190.50
7-5/8	7.625	193.68
7-3/4	7.750	196.85
7-7/8	7.875	200.03
8	8.000	203.20
8-1/8	8.125	206.38
8-1/4	8.250	209.55
8-3/8	8.375	212.73
8-1/2	8.500	215.90
8-5/8	8.625	219.08
8-3/4	8.750	222.25
8-7/8	8.875	225.43
9	9.000	228.60
9-1/8	9.125	231.78
9-1/4	9.250	234.95
9-3/8	9.375	238.13
9-1/2	9.500	241.30
9-5/8	9.625	244.48
9-3/4	9.750	247.65
9-7/8	9.875	250.83
10	10.000	254.00
10-1/8	10.125	257.18
10-1/4	10.250	260.35
10-3/8	10.375	263.53
10-1/2	10.500	266.70
10-5/8	10.625	269.88
10-3/4	10.750	273.05
10-7/8	10.875	276.23
11	11.000	279.40
11-1/8	11.125	282.58
11-1/4	11.250	285.75
11-3/8	11.375	288.93
11-1/2	11.500	292.10
11-5/8	11.625	295.28
11-3/4	11.750	298.45
11-7/8	11.875	301.63
12	12.000	304.80

#### Vacuum

Inches of Water Column to Inches of Mercury

"H2O = "Hg x 13.57 "Hg = "H2O ÷ 13.57

#### Vacuum

"H2O	"Hg	"Hg	"H2O
10	0.74	1.00	13.6
15	1.10	1.25	17.0
20	1.47	1.50	20.4
25	1.84	1.75	23.8
30	2.21	2.00	27.2
35	2.57	2.25	30.6
40	2.94	2.50	34.0
45	3.31	2.75	37.4
50	3.68	3.00	40.8
55	4.05	3.25	44.2
60	4.41	3.50	47.6
65	4.78	3.75	51.0
70	5.15	4.00	54.4
75	5.52	4.25	57.8
80	5.88	4.50	61.2
85	6.25	4.75	64.6
90	6.62	5.00	68.0
95	6.99	5.25	71.4
100	7.36	5.50	74.8
105	7.72	5.75	78.2
110	8.09	6.00	81.6
115	8.46	6.25	85.0
120	8.83	6.50	88.4
125	9.19	6.75	91.8
130	9.56	7.00	95.2
135	9.93	7.25	98.6
140	10.30	7.50	102.0
145	10.66	7.75	105.4
150	11.03	8.00	108.8
155	11.40	8.25	112.2
160	11.77	8.50	115.6
165	12.14	8.75	119.0
170	12.50	9.00	122.4
175	12.87	9.25	125.8
180	13.24	9.50	129.2
185	13.61	9.75	132.6
190	13.97	10.00	136.0
195	14.34	10.25	139.4
200	14.71	10.50	142.8
205	15.08	10.75	146.2
210	15.45	11.00	149.6
215	15.81	11.25	153.0
220	16.18	11.50	156.4
225	16.55	11.75	159.8
230	16.92	12.00	163.2
235	17.28	12.25	166.6
240	17.65	12.50	170.0
245	18.02	12.75	173.4

#### Power **Horse Power to Watts**

 $HP = W \times 745.7$  $W = HP \div 745.7$ 

#### Power

Power					
HP	Watts				
0.10	75				
0.20	149				
0.30	224				
0.40	298				
0.50	373				
0.60	447				
0.70	522				
0.80	597				
0.90	671				
1.00	746				
1.10	820				
1.20	895				
1.30	969				
1.40	1,044				
1.50	1,119				
1.60	1,193				
1.70	1,268				
1.80	1,342				
1.90	1,417				
2.00	1,491				
2.10	1,566				
2.20	1,641				
2.30	1,715				
2.40	1,790				
2.50	1,864				
2.60	1,939				
2.70	2,013				
2.80	2,088				
2.90	2,163				
3.00	2,237				
3.10	2,312				
3.20	2,386				
3.30	2,461				
3.40	2,535				
3.50	2,610				
3.60	2,685				
3.70	2,759				
3.80	2,834				
3.90	2,908				
4.00	2,983				
4.10	3,057				
4.20	3,132				
4.30	3,207				
4.40	3,281				
4.40	3,356				
4.60	3,430				
	3,505				
4.70					
4.00	3,579				

#### Flow

**Cubic Feet / Minute to Liters / Minute** 

CFM = LPM  $\times$  28.32 LPM = CFM  $\div$  28.32

#### Flow

0514	1.514
CFM	LPM
1.00	28
6.00	170
11.00	312
16.00	453
21.00	595
26.00	736
31.00	878
36.00	1,020
41.00	1,161
46.00	1,303
51.00	1,444
56.00	1,586
61.00	1,728
66.00	1,869
71.00	2,011
76.00	2,152
81.00	2,294
86.00	2,436
91.00	2,577
96.00	2,719
101.00	2,860
106.00	3,002
111.00	3,144
116.00	3,285
121.00	3,427
126.00	3,568
131.00	3,710
136.00	3,852
141.00	3,993
146.00	4,135
151.00	4,276
156.00	4,418
161.00	4,560
166.00	4,701
171.00	4,843
176.00	4,984
181.00	5,126
186.00	5,268
191.00	5,409
196.00	5,551
201.00	5,692
206.00	5,834
211.00	5,976
216.00	6,117
	6,259
221.00	6,400
231.00	6,542
236.00	6,684

# Rotational Velocity to Tangential Velocity Feet/Minute = RPM x $\pi$ x Diameter $\div$ 12

Miles/Hour = (RPM x  $\pi$  x Diameter ÷ 12 x 60) ÷ 5280

1" Disc			2" Disc			3" Disc			5" Disc			7" Disc		
RPM	FPM	MPH	RPM	FPM	MPH	RPM	FPM	MPH	RPM	FPM	MPH	RPM	FPM	MPH
500	131	1	500	262	3	500	393	4	500	654	7	500	916	10
1,000	262	3	1,000	524	6	1,000	785	9	1,000	1,309	15	1,000	1,833	21
1,500	393	4	1,500	785	9	1,500	1,178	13	1,500	1,963	22	1,500	2,749	31
2,000	524	6	2,000	1,047	12	2,000	1,571	18	2,000	2,618	30	2,000	3,665	42
2,500	654	7	2,500	1,309	15	2,500	1,963	22	2,500	3,272	37	2,500	4,581	52
3,000	785	9	3,000	1,571	18	3,000	2,356	27	3,000	3,927	45	3,000	5,498	62
3,500	916	10	3,500	1,833	21	3,500	2,749	31	3,500	4,581	52	3,500	6,414	73
4,000	1,047	12	4,000	2,094	24	4,000	3,142	36	4,000	5,236	59	4,000	7,330	83
4,500	1,178	13	4,500	2,356	27	4,500	3,534	40	4,500	5,890	67	4,500	8,246	94
5,000	1,309	15	5,000	2,618	30	5,000	3,927	45	5,000	6,545	74	5,000	9,163	104
5,500	1,440	16	5,500	2,880	33	5,500	4,320	49	5,500	7,199	82	5,500	10,079	115
6,000	1,571	18	6,000	3,142	36	6,000	4,712	54	6,000	7,854	89	6,000	10,995	125
6,500	1,702	19	6,500	3,403	39	6,500	5,105	58	6,500	8,508	97	6,500	11,912	135
7,000	1,833	21	7,000	3,665	42	7,000	5,498	62	7,000	9,163	104	7,000	12,828	146
7,500	1,963	22	7,500	3,927	45	7,500	5,890	67	7,500	9,817	112	7,500	13,744	156
8,000	2,094	24	8,000	4,189	48	8,000	6,283	71	8,000	10,472	119	8,000	14,660	167
8,500	2,225	25	8,500	4,450	51	8,500	6,676	76	8,500	11,126	126	8,500	15,577	177
9,000	2,356	27	9,000	4,712	54	9,000	7,068	80	9,000	11,781	134	9,000	16,493	187
9,500	2,487	28	9,500	4,974	57	9,500	7,461	85	9,500	12,435	141	9,500	17,409	198
10,000	2,618	30	10,000	5,236	59	10,000	7,854	89	10,000	13,090	149	10,000	18,325	208
10,500	2,749	31	10,500	5,498	62	10,500	8,246	94	10,500	13,744	156	10,500	19,242	219
11,000	2,880	33	11,000	5,759	65	11,000	8,639	98	11,000	14,399	164	11,000	20,158	229
11,500	3,011	34	11,500	6,021	68	11,500	9,032	103	11,500	15,053	171	11,500	21,074	239
12,000	3,142	36	12,000	6,283	71	12,000	9,425	107	12,000	15,708	178	12,000	21,991	250
12,500	3,272								12,000	13,700	170	12,000	21,991	230
								1 11')						
		37	12,500	6,545	74	12,500	9,817	112	6" Disc			8" Disc		
13,000	3,403	39	13,000	6,807	77	13,000	10,210	116	6" Disc	FPM		8" Disc	FPM	MPH
13,000 13,500	3,403 3,534	39 40	13,000 13,500	6,807 7,068	77 80	13,000 13,500	10,210 10,603	116 120	RPM	FPM 785	MPH	RPM	FPM 1.047	MPH 12
13,000 13,500 14,000	3,403 3,534 3,665	39 40 42	13,000 13,500 14,000	6,807 7,068 7,330	77 80 83	13,000 13,500 14,000	10,210 10,603 10,995	116 120 125	<b>RPM</b> 500	785	MPH 9	RPM 500	1,047	12
13,000 13,500 14,000 14,500	3,403 3,534 3,665 3,796	39 40 42 43	13,000 13,500 14,000 14,500	6,807 7,068 7,330 7,592	77 80 83 86	13,000 13,500 14,000 14,500	10,210 10,603 10,995 11,388	116 120 125 129	500 1,000	785 1,571	9 18	500 1,000	1,047 2,094	12 24
13,000 13,500 14,000 14,500 15,000	3,403 3,534 3,665 3,796 3,927	39 40 42 43 45	13,000 13,500 14,000 14,500 15,000	6,807 7,068 7,330 7,592 7,854	77 80 83 86 89	13,000 13,500 14,000 14,500 15,000	10,210 10,603 10,995 11,388 11,781	116 120 125 129 134	RPM 500 1,000 1,500	785 1,571 2,356	9 18 27	500 1,000 1,500	1,047 2,094 3,142	12 24 36
13,000 13,500 14,000 14,500 15,000	3,403 3,534 3,665 3,796 3,927 4,058	39 40 42 43 45 46	13,000 13,500 14,000 14,500 15,000 15,500	6,807 7,068 7,330 7,592 7,854 8,116	77 80 83 86 89 92	13,000 13,500 14,000 14,500 15,000	10,210 10,603 10,995 11,388 11,781 12,173	116 120 125 129 134 138	RPM 500 1,000 1,500 2,000	785 1,571 2,356 3,142	9 18 27 36	RPM 500 1,000 1,500 2,000	1,047 2,094 3,142 4,189	12 24 36 48
13,000 13,500 14,000 14,500 15,000 15,500 16,000	3,403 3,534 3,665 3,796 3,927 4,058 4,189	39 40 42 43 45 46 48	13,000 13,500 14,000 14,500 15,000 15,500 16,000	6,807 7,068 7,330 7,592 7,854 8,116 8,377	77 80 83 86 89 92 95	13,000 13,500 14,000 14,500 15,000 15,500 16,000	10,210 10,603 10,995 11,388 11,781 12,173 12,566	116 120 125 129 134 138 143	RPM 500 1,000 1,500 2,000 2,500	785 1,571 2,356 3,142 3,927	MPH 9 18 27 36 45	8PM 500 1,000 1,500 2,000 2,500	1,047 2,094 3,142 4,189 5,236	12 24 36 48 59
13,000 13,500 14,000 14,500 15,000 15,500 16,000	3,403 3,534 3,665 3,796 3,927 4,058 4,189 4,320	39 40 42 43 45 46 48 49	13,000 13,500 14,000 14,500 15,000 15,500 16,000 16,500	6,807 7,068 7,330 7,592 7,854 8,116 8,377 8,639	77 80 83 86 89 92 95 98	13,000 13,500 14,000 14,500 15,000 15,500 16,000 16,500	10,210 10,603 10,995 11,388 11,781 12,173 12,566 12,959	116 120 125 129 134 138 143 147	RPM 500 1,000 1,500 2,000 2,500 3,000	785 1,571 2,356 3,142 3,927 4,712	MPH 9 18 27 36 45 54	RPM 500 1,000 1,500 2,000 2,500 3,000	1,047 2,094 3,142 4,189 5,236 6,283	12 24 36 48 59 71
13,000 13,500 14,000 14,500 15,000 15,500 16,000 16,500 17,000	3,403 3,534 3,665 3,796 3,927 4,058 4,189 4,320 4,450	39 40 42 43 45 46 48 49 51	13,000 13,500 14,000 14,500 15,000 15,500 16,000 16,500 17,000	6,807 7,068 7,330 7,592 7,854 8,116 8,377 8,639 8,901	77 80 83 86 89 92 95 98 101	13,000 13,500 14,000 14,500 15,000 15,500 16,000 16,500 17,000	10,210 10,603 10,995 11,388 11,781 12,173 12,566 12,959 13,351	116 120 125 129 134 138 143 147 152	RPM 500 1,000 1,500 2,000 2,500 3,000 3,500	785 1,571 2,356 3,142 3,927 4,712 5,498	MPH 9 18 27 36 45 54 62	RPM 500 1,000 1,500 2,000 2,500 3,000 3,500	1,047 2,094 3,142 4,189 5,236 6,283 7,330	12 24 36 48 59 71 83
13,000 13,500 14,000 14,500 15,000 15,500 16,000 16,500 17,000	3,403 3,534 3,665 3,796 3,927 4,058 4,189 4,320 4,450 4,581	39 40 42 43 45 46 48 49 51 52	13,000 13,500 14,000 14,500 15,500 16,000 16,500 17,000 17,500	6,807 7,068 7,330 7,592 7,854 8,116 8,377 8,639 8,901 9,163	77 80 83 86 89 92 95 98 101 104	13,000 13,500 14,000 14,500 15,000 15,500 16,000 16,500 17,000 17,500	10,210 10,603 10,995 11,388 11,781 12,173 12,566 12,959 13,351 13,744	116 120 125 129 134 138 143 147 152 156	RPM 500 1,000 1,500 2,000 2,500 3,000 3,500 4,000	785 1,571 2,356 3,142 3,927 4,712 5,498 6,283	MPH 9 18 27 36 45 54 62 71	RPM 500 1,000 1,500 2,000 2,500 3,000 3,500 4,000	1,047 2,094 3,142 4,189 5,236 6,283 7,330 8,377	12 24 36 48 59 71 83 95
13,000 13,500 14,000 14,500 15,000 16,000 16,500 17,000 17,500 18,000	3,403 3,534 3,665 3,796 3,927 4,058 4,189 4,320 4,450 4,581 4,712	39 40 42 43 45 46 48 49 51 52 54	13,000 13,500 14,000 14,500 15,000 15,500 16,000 16,500 17,000 17,500 18,000	6,807 7,068 7,330 7,592 7,854 8,116 8,377 8,639 8,901 9,163 9,425	77 80 83 86 89 92 95 98 101 104 107	13,000 13,500 14,000 14,500 15,500 16,000 16,500 17,000 17,500 18,000	10,210 10,603 10,995 11,388 11,781 12,173 12,566 12,959 13,351 13,744 14,137	116 120 125 129 134 138 143 147 152 156 161	RPM 500 1,000 1,500 2,000 2,500 3,500 4,000 4,500	785 1,571 2,356 3,142 3,927 4,712 5,498 6,283 7,068	MPH 9 18 27 36 45 54 62 71 80	RPM 500 1,000 1,500 2,000 2,500 3,000 3,500 4,000 4,500	1,047 2,094 3,142 4,189 5,236 6,283 7,330 8,377 9,425	12 24 36 48 59 71 83 95
13,000 13,500 14,000 14,500 15,000 16,500 16,500 17,000 17,500 18,000	3,403 3,534 3,665 3,796 3,927 4,058 4,189 4,320 4,450 4,581 4,712 4,843	39 40 42 43 45 46 48 49 51 52 54	13,000 13,500 14,000 14,500 15,500 16,000 16,500 17,000 17,500 18,000 18,500	6,807 7,068 7,330 7,592 7,854 8,116 8,377 8,639 8,901 9,163 9,425 9,686	77 80 83 86 89 92 95 98 101 104 107 110	13,000 13,500 14,000 14,500 15,500 16,000 16,500 17,000 17,500 18,000 18,500	10,210 10,603 10,995 11,388 11,781 12,173 12,566 12,959 13,351 13,744 14,137 14,529	116 120 125 129 134 138 143 147 152 156 161 165	RPM 500 1,000 1,500 2,000 2,500 3,000 3,500 4,000 4,500 5,000	785 1,571 2,356 3,142 3,927 4,712 5,498 6,283 7,068 7,854	MPH 9 18 27 36 45 54 62 71 80 89	RPM 500 1,000 1,500 2,000 2,500 3,000 4,000 4,500 5,000	1,047 2,094 3,142 4,189 5,236 6,283 7,330 8,377 9,425 10,472	12 24 36 48 59 71 83 95 107
13,000 13,500 14,000 14,500 15,500 16,000 16,500 17,000 17,500 18,000 18,500 19,000	3,403 3,534 3,665 3,796 3,927 4,058 4,189 4,320 4,450 4,581 4,712 4,843 4,974	39 40 42 43 45 46 48 49 51 52 54 55	13,000 13,500 14,000 14,500 15,000 16,500 17,000 17,500 18,000 18,500 19,000	6,807 7,068 7,330 7,592 7,854 8,116 8,377 8,639 8,901 9,163 9,425 9,686 9,948	77 80 83 86 89 92 95 98 101 104 107 110 113	13,000 13,500 14,000 14,500 15,500 16,000 16,500 17,000 17,500 18,000 18,500 19,000	10,210 10,603 10,995 11,388 11,781 12,173 12,566 12,959 13,351 13,744 14,137 14,529 14,922	116 120 125 129 134 138 143 147 152 156 161 165 170	RPM 500 1,000 1,500 2,000 2,500 3,000 3,500 4,000 4,500 5,000 5,500	785 1,571 2,356 3,142 3,927 4,712 5,498 6,283 7,068 7,854 8,639	MPH 9 18 27 36 45 54 62 71 80 89 98	RPM 500 1,000 1,500 2,000 2,500 3,000 4,500 4,500 5,500	1,047 2,094 3,142 4,189 5,236 6,283 7,330 8,377 9,425 10,472 11,519	12 24 36 48 59 71 83 95 107 119
13,000 13,500 14,000 14,500 15,000 15,500 16,500 17,000 17,500 18,000 18,500 19,000	3,403 3,534 3,665 3,796 3,927 4,058 4,189 4,320 4,450 4,581 4,712 4,843 4,974 5,105	39 40 42 43 45 46 48 49 51 52 54 55 57	13,000 13,500 14,000 14,500 15,000 15,500 16,000 17,000 17,500 18,000 18,500 19,000	6,807 7,068 7,330 7,592 7,854 8,116 8,377 8,639 8,901 9,163 9,425 9,686 9,948 10,210	77 80 83 86 89 92 95 98 101 104 107 110 113 116	13,000 13,500 14,000 14,500 15,000 15,500 16,000 17,000 17,500 18,000 18,500 19,000	10,210 10,603 10,995 11,388 11,781 12,173 12,566 12,959 13,351 13,744 14,137 14,529 14,922 15,315	116 120 125 129 134 138 143 147 152 156 161 165 170	RPM 500 1,000 1,500 2,000 2,500 3,000 3,500 4,000 4,500 5,000 6,000	785 1,571 2,356 3,142 3,927 4,712 5,498 6,283 7,068 7,854 8,639 9,425	MPH 9 18 27 36 45 54 62 71 80 89 98 107	RPM 500 1,000 1,500 2,000 2,500 3,000 4,500 5,500 6,000	1,047 2,094 3,142 4,189 5,236 6,283 7,330 8,377 9,425 10,472 11,519 12,566	12 24 36 48 59 71 83 95 107 119 131
13,000 13,500 14,000 14,500 15,000 16,500 17,000 17,500 18,000 18,500 19,000 20,000	3,403 3,534 3,665 3,796 3,927 4,058 4,189 4,320 4,450 4,581 4,712 4,843 4,974 5,105 5,236	39 40 42 43 45 46 48 49 51 52 54 55 57 58	13,000 13,500 14,000 14,500 15,000 15,500 16,000 17,000 17,500 18,000 18,500 19,000 20,000	6,807 7,068 7,330 7,592 7,854 8,116 8,377 8,639 8,901 9,163 9,425 9,686 9,948 10,210 10,472	77 80 83 86 89 92 95 98 101 104 107 110 113 116 119	13,000 13,500 14,000 14,500 15,000 15,500 16,500 17,000 17,500 18,000 18,500 19,000 20,000	10,210 10,603 10,995 11,388 11,781 12,173 12,566 12,959 13,351 13,744 14,137 14,529 14,922 15,315 15,708	116 120 125 129 134 138 143 147 152 156 161 165 170 174	RPM 500 1,000 1,500 2,000 2,500 3,000 3,500 4,000 4,500 5,500 6,000 6,500	785 1,571 2,356 3,142 3,927 4,712 5,498 6,283 7,068 7,854 8,639 9,425 10,210	MPH 9 18 27 36 45 54 62 71 80 89 98 107 116	RPM 500 1,000 1,500 2,000 2,500 3,000 3,500 4,000 4,500 5,500 6,000 6,500	1,047 2,094 3,142 4,189 5,236 6,283 7,330 8,377 9,425 10,472 11,519 12,566 13,613	12 24 36 48 59 71 83 95 107 119 131 143 155
13,000 13,500 14,000 14,500 15,000 15,500 16,500 17,000 17,500 18,500 19,000 19,500 20,000	3,403 3,534 3,665 3,796 3,927 4,058 4,189 4,320 4,450 4,581 4,712 4,843 4,974 5,105 5,236 5,367	39 40 42 43 45 46 48 49 51 52 54 55 57 58 59 61	13,000 13,500 14,000 14,500 15,000 15,500 16,000 17,000 17,500 18,000 18,500 19,000 20,000 20,500	6,807 7,068 7,330 7,592 7,854 8,116 8,377 8,639 8,901 9,163 9,425 9,686 9,948 10,210 10,472 10,733	77 80 83 86 89 92 95 98 101 104 107 110 113 116 119	13,000 13,500 14,000 14,500 15,000 15,500 16,000 17,000 17,500 18,000 18,500 19,000 20,000 20,500	10,210 10,603 10,995 11,388 11,781 12,173 12,566 12,959 13,351 13,744 14,137 14,529 14,922 15,315 15,708 16,100	116 120 125 129 134 138 143 147 152 156 161 165 170 174 178 183	RPM 500 1,000 1,500 2,000 2,500 3,000 3,500 4,000 4,500 5,500 6,000 6,500 7,000	785 1,571 2,356 3,142 3,927 4,712 5,498 6,283 7,068 7,854 8,639 9,425 10,210 10,995	MPH 9 18 27 36 45 54 62 71 80 89 98 107 116 125	RPM 500 1,000 1,500 2,000 2,500 3,000 3,500 4,000 4,500 5,500 6,000 6,500 7,000	1,047 2,094 3,142 4,189 5,236 6,283 7,330 8,377 9,425 10,472 11,519 12,566 13,613 14,660	12 24 36 48 59 71 83 95 107 119 131 143 155
13,000 13,500 14,000 14,500 15,000 16,500 17,000 17,500 18,000 18,500 19,000 20,000 20,500 21,000	3,403 3,534 3,665 3,796 3,927 4,058 4,189 4,320 4,450 4,581 4,712 4,843 4,974 5,105 5,236 5,367 5,498	39 40 42 43 45 46 48 49 51 52 54 55 57 58 59 61 62	13,000 13,500 14,000 14,500 15,000 15,500 16,000 17,000 17,500 18,000 18,500 19,000 20,000 20,500 21,000	6,807 7,068 7,330 7,592 7,854 8,116 8,377 8,639 8,901 9,163 9,425 9,686 9,948 10,210 10,472 10,733 10,995	77 80 83 86 89 92 95 98 101 104 107 110 113 116 119 122 125	13,000 13,500 14,000 14,500 15,000 15,500 16,000 17,000 17,500 18,500 19,000 19,500 20,000 21,000	10,210 10,603 10,995 11,388 11,781 12,173 12,566 12,959 13,351 13,744 14,137 14,529 14,922 15,315 15,708 16,100 16,493	116 120 125 129 134 138 143 147 152 156 161 165 170 174 178 183 187	RPM 500 1,000 1,500 2,000 2,500 3,000 3,500 4,000 4,500 5,500 6,000 6,500 7,000 7,500	785 1,571 2,356 3,142 3,927 4,712 5,498 6,283 7,068 7,854 8,639 9,425 10,210 10,995 11,781	MPH 9 18 27 36 45 54 62 71 80 89 98 107 116 125 134	RPM 500 1,000 1,500 2,000 2,500 3,000 3,500 4,000 4,500 5,500 6,000 6,500 7,000 7,500	1,047 2,094 3,142 4,189 5,236 6,283 7,330 8,377 9,425 10,472 11,519 12,566 13,613 14,660 15,708	12 24 36 48 59 71 83 95 107 119 131 143 155 167
13,000 13,500 14,000 14,500 15,000 16,500 17,000 17,500 18,000 18,500 19,000 20,000 20,500 21,500	3,403 3,534 3,665 3,796 3,927 4,058 4,189 4,320 4,450 4,581 4,712 4,843 4,974 5,105 5,236 5,367 5,498 5,629	39 40 42 43 45 46 48 49 51 52 54 55 57 58 59 61 62 64	13,000 13,500 14,000 14,500 15,000 15,500 16,000 17,000 17,500 18,000 19,000 19,500 20,000 21,000 21,500	6,807 7,068 7,330 7,592 7,854 8,116 8,377 8,639 8,901 9,163 9,425 9,686 9,948 10,210 10,472 10,733 10,995 11,257	77 80 83 86 89 92 95 98 101 104 107 110 113 116 119 122 125 128	13,000 13,500 14,000 14,500 15,000 15,500 16,000 17,000 17,500 18,500 19,000 20,000 20,500 21,500	10,210 10,603 10,995 11,388 11,781 12,173 12,566 12,959 13,351 13,744 14,137 14,529 14,922 15,315 15,708 16,100 16,493 16,886	116 120 125 129 134 138 143 147 152 156 161 165 170 174 178 183 187	RPM 500 1,000 1,500 2,000 2,500 3,000 3,500 4,000 4,500 5,500 6,000 6,500 7,000 7,500 8,000	785 1,571 2,356 3,142 3,927 4,712 5,498 6,283 7,068 7,854 8,639 9,425 10,210 10,995 11,781 12,566	MPH 9 18 27 36 45 54 62 71 80 89 98 107 116 125 134 143	RPM 500 1,000 1,500 2,000 2,500 3,000 3,500 4,000 4,500 5,500 6,000 6,500 7,000 7,500 8,000	1,047 2,094 3,142 4,189 5,236 6,283 7,330 8,377 9,425 10,472 11,519 12,566 13,613 14,660 15,708 16,755	12 24 36 48 59 71 83 95 107 119 131 143 155 167 178 190
13,000 13,500 14,000 14,500 15,000 16,500 17,000 17,500 18,000 18,500 19,000 20,000 20,500 21,000 22,000	3,403 3,534 3,665 3,796 3,927 4,058 4,189 4,320 4,450 4,581 4,712 4,843 4,974 5,105 5,236 5,367 5,498 5,629 5,759	39 40 42 43 45 46 48 49 51 52 54 55 57 58 59 61 62 64 65	13,000 13,500 14,000 14,500 15,000 15,500 16,000 17,000 17,500 18,000 19,500 20,000 20,500 21,000 22,000	6,807 7,068 7,330 7,592 7,854 8,116 8,377 8,639 8,901 9,163 9,425 9,686 9,948 10,210 10,472 10,733 10,995 11,257 11,519	77 80 83 86 89 92 95 98 101 104 107 110 113 116 119 122 125 128	13,000 13,500 14,000 14,500 15,000 15,500 16,000 17,000 17,500 18,500 19,000 20,000 20,500 21,000 22,000	10,210 10,603 10,995 11,388 11,781 12,173 12,566 12,959 13,351 13,744 14,137 14,529 14,922 15,315 15,708 16,100 16,493 16,886 17,278	116 120 125 129 134 138 143 147 152 156 161 165 170 174 178 183 187 192	RPM 500 1,000 1,500 2,000 2,500 3,000 3,500 4,000 4,500 5,500 6,000 6,500 7,000 7,500 8,000 8,500	785 1,571 2,356 3,142 3,927 4,712 5,498 6,283 7,068 7,854 8,639 9,425 10,210 10,995 11,781 12,566 13,351	MPH 9 18 27 36 45 54 62 71 80 89 98 107 116 125 134 143 152	RPM 500 1,000 1,500 2,000 2,500 3,000 3,500 4,000 4,500 5,500 6,000 6,500 7,000 7,500 8,000 8,500	1,047 2,094 3,142 4,189 5,236 6,283 7,330 8,377 9,425 10,472 11,519 12,566 13,613 14,660 15,708 16,755 17,802	12 24 36 48 59 71 83 95 107 119 131 143 155 167 178 190 202
13,000 13,500 14,000 14,500 15,000 16,500 17,000 17,500 18,000 18,500 19,000 20,000 20,500 21,000 22,500 22,500	3,403 3,534 3,665 3,796 3,927 4,058 4,189 4,320 4,450 4,581 4,712 4,843 4,974 5,105 5,236 5,367 5,498 5,629 5,759 5,890	39 40 42 43 45 46 48 49 51 52 54 55 57 58 59 61 62 64 65 67	13,000 13,500 14,000 14,500 15,000 15,500 16,000 17,000 17,500 18,500 19,000 20,000 20,500 21,000 22,500 22,500	6,807 7,068 7,330 7,592 7,854 8,116 8,377 8,639 8,901 9,163 9,425 9,686 9,948 10,210 10,472 10,733 10,995 11,257 11,519 11,781	77 80 83 86 89 92 95 98 101 104 107 110 113 116 119 122 125 128 131	13,000 13,500 14,000 14,500 15,000 15,500 16,000 17,000 17,500 18,500 19,000 20,000 20,500 21,000 22,500 22,500	10,210 10,603 10,995 11,388 11,781 12,173 12,566 12,959 13,351 13,744 14,137 14,529 14,922 15,315 15,708 16,100 16,493 16,886 17,278 17,671	116 120 125 129 134 138 143 147 152 156 161 165 170 174 178 183 187 192 196 201	RPM 500 1,000 1,500 2,000 2,500 3,000 3,500 4,000 4,500 5,500 6,000 6,500 7,000 7,500 8,000 8,500 9,000	785 1,571 2,356 3,142 3,927 4,712 5,498 6,283 7,068 7,854 8,639 9,425 10,210 10,995 11,781 12,566 13,351 14,137	MPH 9 18 27 36 45 54 62 71 80 89 98 107 116 125 134 143 152 161	RPM 500 1,000 1,500 2,000 2,500 3,000 3,500 4,000 4,500 5,500 6,000 6,500 7,000 7,500 8,000 8,500 9,000	1,047 2,094 3,142 4,189 5,236 6,283 7,330 8,377 9,425 10,472 11,519 12,566 13,613 14,660 15,708 16,755 17,802 18,849	12 24 36 48 59 71 83 95 107 119 131 143 155 167 178 190 202 214
13,000 13,500 14,000 14,500 15,000 16,500 17,000 17,500 18,000 18,500 19,000 20,500 21,000 21,500 22,500 23,000	3,403 3,534 3,665 3,796 3,927 4,058 4,189 4,320 4,450 4,581 4,712 4,843 4,974 5,105 5,236 5,367 5,498 5,629 5,759 5,890 6,021	39 40 42 43 45 46 48 49 51 52 54 55 57 58 59 61 62 64 65 67 68	13,000 13,500 14,000 14,500 15,000 15,500 16,000 17,000 17,500 18,500 19,000 20,000 20,500 21,000 21,500 22,000 22,500 23,000	6,807 7,068 7,330 7,592 7,854 8,116 8,377 8,639 8,901 9,163 9,425 9,686 9,948 10,210 10,472 10,733 10,995 11,257 11,519 11,781	77 80 83 86 89 92 95 98 101 104 107 110 113 116 119 122 125 128 131 134	13,000 13,500 14,000 14,500 15,000 15,500 16,000 17,000 17,500 18,500 19,000 20,000 20,500 21,000 21,500 22,000 22,500 23,000	10,210 10,603 10,995 11,388 11,781 12,173 12,566 12,959 13,351 13,744 14,137 14,529 14,922 15,315 15,708 16,100 16,493 16,886 17,278 17,671 18,064	116 120 125 129 134 138 143 147 152 156 161 165 170 174 178 183 187 192 196 201 205	RPM 500 1,000 1,500 2,000 2,500 3,000 3,500 4,000 4,500 5,500 6,000 6,500 7,000 7,500 8,000 8,500 9,000 9,500	785 1,571 2,356 3,142 3,927 4,712 5,498 6,283 7,068 7,854 8,639 9,425 10,210 10,995 11,781 12,566 13,351 14,137	MPH 9 18 27 36 45 54 62 71 80 89 98 107 116 125 134 143 152 161 170	RPM 500 1,000 1,500 2,000 2,500 3,000 3,500 4,000 4,500 5,500 6,000 6,500 7,000 7,500 8,000 8,500 9,000 9,500	1,047 2,094 3,142 4,189 5,236 6,283 7,330 8,377 9,425 10,472 11,519 12,566 13,613 14,660 15,708 16,755 17,802 18,849 19,896	12 24 36 48 59 71 83 95 107 119 131 143 155 167 178 190 202 214 226
13,000 13,500 14,000 14,500 15,000 16,500 17,000 17,500 18,000 18,500 19,000 20,500 21,000 21,500 22,500 23,000 23,500	3,403 3,534 3,665 3,796 3,927 4,058 4,189 4,320 4,450 4,581 4,712 4,843 4,974 5,105 5,236 5,367 5,498 5,629 5,759 5,890 6,021 6,152	39 40 42 43 45 46 48 49 51 52 54 55 57 58 59 61 62 64 65 67 68 70	13,000 13,500 14,000 14,500 15,000 15,500 16,000 17,000 17,500 18,500 19,000 20,500 21,000 21,500 22,000 22,500 23,000 23,500	6,807 7,068 7,330 7,592 7,854 8,116 8,377 8,639 8,901 9,163 9,425 9,686 9,948 10,210 10,472 10,733 10,995 11,257 11,519 11,781 12,042 12,304	77 80 83 86 89 92 95 98 101 104 107 110 113 116 119 122 125 128 131 134 137	13,000 13,500 14,000 14,500 15,000 15,500 16,000 17,000 17,500 18,500 19,000 20,500 21,000 21,500 22,000 22,500 23,000 23,500	10,210 10,603 10,995 11,388 11,781 12,173 12,566 12,959 13,351 13,744 14,137 14,529 14,922 15,315 15,708 16,100 16,493 16,886 17,278 17,671 18,064 18,456	116 120 125 129 134 138 143 147 152 156 161 165 170 174 178 183 187 192 196 201 205 210	RPM 500 1,000 1,500 2,000 2,500 3,000 3,500 4,000 4,500 5,500 6,000 6,500 7,000 7,500 8,000 8,500 9,000 9,500 10,000	785 1,571 2,356 3,142 3,927 4,712 5,498 6,283 7,068 7,854 8,639 9,425 10,210 10,995 11,781 12,566 13,351 14,137 14,922 15,708	MPH 9 18 27 36 45 54 62 71 80 89 98 107 116 125 134 143 152 161 170 178	RPM 500 1,000 1,500 2,000 2,500 3,000 3,500 4,000 4,500 5,500 6,000 6,500 7,000 7,500 8,000 8,500 9,000 9,500 10,000	1,047 2,094 3,142 4,189 5,236 6,283 7,330 8,377 9,425 10,472 11,519 12,566 13,613 14,660 15,708 16,755 17,802 18,849 19,896 20,943	12 24 36 48 59 71 83 95 107 119 131 143 155 167 178 190 202 214 226 238
13,000 13,500 14,000 14,500 15,000 16,500 17,000 17,500 18,000 18,500 19,000 20,500 21,000 21,500 22,500 23,000 23,500 24,000	3,403 3,534 3,665 3,796 3,927 4,058 4,189 4,320 4,450 4,581 4,712 4,843 4,974 5,105 5,236 5,367 5,498 5,629 5,759 5,890 6,021 6,152 6,283	39 40 42 43 45 46 48 49 51 52 54 55 57 58 59 61 62 64 65 67 68 70 71	13,000 13,500 14,000 14,500 15,000 15,500 16,000 17,000 17,500 18,500 19,000 20,500 21,000 21,500 22,000 22,500 23,500 24,000	6,807 7,068 7,330 7,592 7,854 8,116 8,377 8,639 8,901 9,163 9,425 9,686 9,948 10,210 10,472 10,733 10,995 11,257 11,519 11,781 12,042 12,304 12,566	77 80 83 86 89 92 95 98 101 104 107 110 113 116 119 122 125 128 131 134 137 140	13,000 13,500 14,000 14,500 15,000 15,500 16,000 17,000 17,500 18,500 19,000 20,500 21,000 21,500 22,000 22,500 23,500 24,000	10,210 10,603 10,995 11,388 11,781 12,173 12,566 12,959 13,351 13,744 14,137 14,529 14,922 15,315 15,708 16,100 16,493 16,886 17,278 17,671 18,064 18,456 18,849	116 120 125 129 134 138 143 147 152 156 161 165 170 174 178 183 187 192 196 201 205 210	RPM 500 1,000 1,500 2,000 2,500 3,000 3,500 4,000 4,500 5,500 6,000 6,500 7,000 7,500 8,000 8,500 9,000 9,500 10,000	785 1,571 2,356 3,142 3,927 4,712 5,498 6,283 7,068 7,854 8,639 9,425 10,210 10,995 11,781 12,566 13,351 14,137 14,922 15,708 16,493	MPH 9 18 27 36 45 54 62 71 80 89 98 107 116 125 134 143 152 161 170 178 187	RPM 500 1,000 1,500 2,000 2,500 3,000 3,500 4,000 4,500 5,500 6,000 6,500 7,000 7,500 8,000 8,500 9,000 9,500 10,000 10,500	1,047 2,094 3,142 4,189 5,236 6,283 7,330 8,377 9,425 10,472 11,519 12,566 13,613 14,660 15,708 16,755 17,802 18,849 19,896 20,943 21,991	12 24 36 48 59 71 83 95 107 119 131 143 155 167 178 190 202 214 226 238 250
13,000 13,500 14,000 14,500 15,000 16,500 17,000 17,500 18,000 19,500 20,000 21,500 21,500 22,500 23,500 24,000 24,500	3,403 3,534 3,665 3,796 3,927 4,058 4,189 4,320 4,450 4,581 4,712 4,843 4,974 5,105 5,236 5,367 5,498 5,629 5,759 5,890 6,021 6,152 6,283 6,414	39 40 42 43 45 46 48 49 51 52 54 55 57 58 59 61 62 64 65 67 68 70 71 73	13,000 13,500 14,000 14,500 15,000 15,500 16,000 17,000 17,500 18,500 19,000 20,500 21,000 21,500 22,000 22,500 23,500 24,000 24,500	6,807 7,068 7,330 7,592 7,854 8,116 8,377 8,639 8,901 9,163 9,425 9,686 9,948 10,210 10,472 10,733 10,995 11,257 11,519 11,781 12,042 12,304 12,566 12,828	77 80 83 86 89 92 95 98 101 104 107 110 113 116 119 122 125 128 131 134 137 140 143 146	13,000 13,500 14,000 14,500 15,000 15,500 16,000 17,000 17,500 18,500 19,000 20,500 21,000 21,500 22,000 22,500 23,000 24,000 24,500	10,210 10,603 10,995 11,388 11,781 12,173 12,566 12,959 13,351 13,744 14,137 14,529 14,922 15,315 15,708 16,100 16,493 16,886 17,278 17,671 18,064 18,456 18,849 19,242	116 120 125 129 134 138 143 147 152 156 161 165 170 174 178 183 187 192 196 201 205 210 214 219	RPM 500 1,000 1,500 2,000 2,500 3,000 3,500 4,000 4,500 5,500 6,000 6,500 7,000 7,500 8,000 8,500 9,000 9,500 10,000 11,000	785 1,571 2,356 3,142 3,927 4,712 5,498 6,283 7,068 7,854 8,639 9,425 10,210 10,995 11,781 12,566 13,351 14,137 14,922 15,708 16,493 17,278	MPH 9 18 27 36 45 54 62 71 80 89 98 107 116 125 134 143 152 161 170 178 187	RPM 500 1,000 1,500 2,000 2,500 3,000 3,500 4,000 4,500 5,500 6,000 6,500 7,000 7,500 8,000 8,500 9,000 9,500 10,000 11,000	1,047 2,094 3,142 4,189 5,236 6,283 7,330 8,377 9,425 10,472 11,519 12,566 13,613 14,660 15,708 16,755 17,802 18,849 19,896 20,943 21,991 23,038	12 24 36 48 59 71 83 95 107 119 131 143 155 167 178 190 202 214 226 238 250 262
13,000 13,500 14,000 14,500 15,000 16,500 17,000 17,500 18,000 18,500 19,000 20,500 21,000 21,500 22,500 23,000 23,500 24,000	3,403 3,534 3,665 3,796 3,927 4,058 4,189 4,320 4,450 4,581 4,712 4,843 4,974 5,105 5,236 5,367 5,498 5,629 5,759 5,890 6,021 6,152 6,283	39 40 42 43 45 46 48 49 51 52 54 55 57 58 59 61 62 64 65 67 68 70 71	13,000 13,500 14,000 14,500 15,000 15,500 16,000 17,000 17,500 18,500 19,000 20,500 21,000 21,500 22,000 22,500 23,500 24,000	6,807 7,068 7,330 7,592 7,854 8,116 8,377 8,639 8,901 9,163 9,425 9,686 9,948 10,210 10,472 10,733 10,995 11,257 11,519 11,781 12,042 12,304 12,566	77 80 83 86 89 92 95 98 101 104 107 110 113 116 119 122 125 128 131 134 137 140	13,000 13,500 14,000 14,500 15,000 15,500 16,000 17,000 17,500 18,500 19,000 20,500 21,000 21,500 22,000 22,500 23,500 24,000	10,210 10,603 10,995 11,388 11,781 12,173 12,566 12,959 13,351 13,744 14,137 14,529 14,922 15,315 15,708 16,100 16,493 16,886 17,278 17,671 18,064 18,456 18,849	116 120 125 129 134 138 143 147 152 156 161 165 170 174 178 183 187 192 196 201 205 210	RPM 500 1,000 1,500 2,000 2,500 3,000 3,500 4,000 4,500 5,500 6,000 6,500 7,000 7,500 8,000 8,500 9,000 9,500 10,000	785 1,571 2,356 3,142 3,927 4,712 5,498 6,283 7,068 7,854 8,639 9,425 10,210 10,995 11,781 12,566 13,351 14,137 14,922 15,708 16,493	MPH 9 18 27 36 45 54 62 71 80 89 98 107 116 125 134 143 152 161 170 178 187	RPM 500 1,000 1,500 2,000 2,500 3,000 3,500 4,000 4,500 5,500 6,000 6,500 7,000 7,500 8,000 8,500 9,000 9,500 10,000 10,500	1,047 2,094 3,142 4,189 5,236 6,283 7,330 8,377 9,425 10,472 11,519 12,566 13,613 14,660 15,708 16,755 17,802 18,849 19,896 20,943 21,991	12 24 36 48 59 71 83 95 107 119 131 143 155 167 178 190 202 214 226 238 250

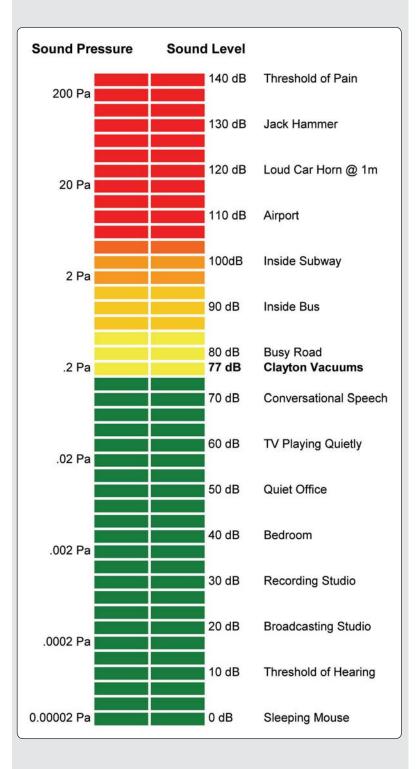
#### Pressure

Pounds/Sqln (PSI) to Kilopascals (kPa) to bar  $kPa = PSI \times 6.89 \text{ bar} = PSI \times 0.0689$ 

#### Pressure

riessuie		
PSI	kPa	bar
1	6.89	0.07
4	27.58	0.28
7	48.26	0.48
10	68.94	0.69
13	89.62	0.90
16	110.30	1.10
19	130.99	1.31
22	151.67	1.52
25	172.35	1.72
28	193.03	1.93
31	213.71	2.14
34	234.40	2.34
37	255.08	2.55
40	275.76	2.76
43	296.44	2.96
46	317.12	3.17
49	337.81	3.38
52	358.49	3.58
55	379.17	3.79
58	399.85	4.00
61	420.53	4.21
64	441.22	4.41
67	461.90	4.62
70	482.58	4.83
	503.26	
73		5.03 5.24
76	523.94	
79	544.63	5.45
82	565.31	5.65
85	585.99	5.86
88	606.67	6.07
91	627.35	6.27
94	648.04	6.48
97	668.72	6.69
100	689.40	6.89
103	710.08	7.10
106	730.76	7.31
109	751.45	7.51
112	772.13	7.72
115	792.81	7.93
118	813.49	8.13
121	834.17	8.34
124	854.86	8.55
127	875.54	8.76
130	896.22	8.96
133	916.90	9.17
136	937.58	9.38
139	958.27	9.58
142	978.95	9.79
145	999.63	10.00
148	1,020.31	10.20
	1,040.99	10.41

#### **Sound Decibels**



#### **Noise Exposure Limits**

OSHA Occupational Noise Exposure. - 1910.95

#### Permissible Noise Exposure

Hours / Day	dBA
8.00	90
6.00	92
4.00	95
3.00	97
2.00	100
1.50	102
1.00	105
0.50	110
0.25	115

#### **Occupational Exposure to Hexavalent Chromium**

Chromium hexavalent (CrVI) compounds, often called hexavalent chromium, exist in several forms. Industrial uses of hexavalent chromium compounds include chromate pigments in dyes, paints, inks, and plastics; chromates added as anticorrosive agents to paints, primers, and other surface coatings; and chromic acid electroplated onto metal parts to provide a decorative or protective coating. Hexavalent chromium can also be formed when performing "hot work" such as welding on stainless steel or melting chromium metal. In these situations the chromium is not originally hexavalent, but the high temperatures involved in the process result in oxidation that converts the chromium to a hexavalent state.

On February 28, 2006, OSHA promulgated a revised Hexavalent chromium standard for general industry that includes a permissible exposure limit ("PEL") for Hexavalent chromium of 5 micrograms per cubic meter ("µg/m3") measured as an 8-hour time weighted average ("TWA"), and a deadline of May 31, 2010, for employers to come into compliance with this PEL through the implementation of engineering controls.

The Action Level is set at one-half of the PEL, or 2.5 micrograms per cubic meter of air calculated as an 8-hour time-weighted average ("TWA")



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