

# FRV Series Industrial Vacuums

*Certified*  
**EXPLOSION  
PROOF**

**Hazardous Location Equipment  
for Combustible Dust**



**ETL Certified to UL Standards for  
Combustible Dust Collection**  
(Class I, Division 1 & 2, Group D and  
Class II, Div 1 & 2, Group F & G)

- » **Coal Dust**
- » **Talc, Flour, Grain, Graphite**
- » **Plastic Dust and Pellets**
- » **Wood Dust or Fine Powder**
- » **Textile, Rubber, Paint**
- » **Pharmaceuticals**
- » **Food Preparation Facilities**



**Intrinsically Safe  
Pneumatic Power**

**Explosion Proof  
Electric Power**



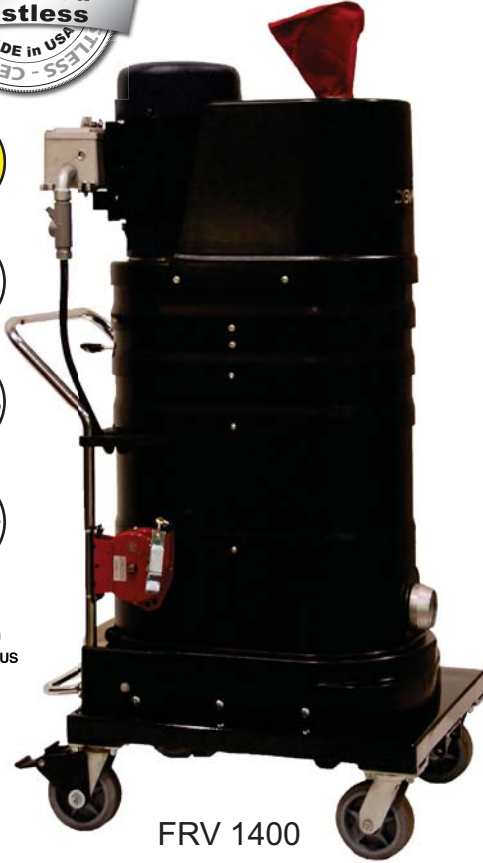
# Ruwac

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[www.ExplosionProofVacuums.com](http://www.ExplosionProofVacuums.com)



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# FRV Series Electric Vacuums



FRV 1400

## Features and Benefits:

**Air Diffuser/Silencer:** The exhausted air from the turbine is diffused to prevent the re-entrainment of laden dust. The motor deck silencer provides a quiet working environment, even in continuous use.

**Vacuum Producer:** Single or Three Phase: Multi-stage centrifugal turbine produces more suction using less horsepower than any other in its class. Explosion proof TEFC motor is maintenance free, rated for continuous duty and is completely serviceable nationwide.

**Durable Housing:** Constructed with 900 tons of pressure, compression cast composite housing will not dent, break or rust. The carbon impregnated housing is chemically neutral and static dissipating (<10<sup>-6</sup> Ohms) to eliminate static discharge. Housing is modular to accommodate filter upgrades and is backed by our lifetime warranty.

**Superior Filtration:** Our state-of-the-art, MicroClean filter is 99.9% efficient at 0.5 microns. This primary oversized filter is fully grounded and low loading to prevent air flow constriction. It features a self-cleaning filter system and an external shaker.

**Easy to Empty Dustpan:** Foot lever drops large dustpan down for easy emptying without lifting of heavy motor deck or disassembly of filter. There are no messy pre-filters or bags to change. Dustless emptying leaves the filter untouched to prevent recontamination of area.

**Sturdy Base:** Heavy-duty conductive casters and base are fully grounded and provide easy portability. Aluminum inlet features a bronze deflector to drop material out of the air stream. Vacuum has low center of gravity and base is counterbalanced to prevent tipping.

**Accessories:** Each vacuum ships with an accessory package that includes grounded and static conductive hoses and tools.

**Warranty:** Three year limited warranty includes machine and filter.

Model:	FRV 110	FRV 1150	FRV 1220	FRV 1400
<b>Description:</b>	DS1000-EX & Accessory Package 151510DEX	DS1150-EX & Accessory Package 151510DEX	DS1220-EX & Accessory Package 151510DEX	DS1400-EX & Accessory Package 202025DEX
<b>Legally Certified for:</b>	Class I, Division 1 and 2, Group D; and Class II, Division 1 and 2, Group F & G			
<b>Voltage:</b>	110Volts	208, 230/460 Volts	208, 230/460 Volts	208, 230/460 Volts
<b>Horsepower:</b>	1.5 HP	2 HP	3 HP	5 HP
<b>Motor Type:</b>	Single Phase*	Three Phase	Three Phase	Three Phase
<b>Amp:</b>	16 Amp	6/3 Amp	14/4 Amp	17/7 Amp
<b>Noise Emission:</b>	68 dB	68 dB	68 dB	72 dB
<b>Vacuum Pressure:</b>	5 Hg	5 Hg	5.7 Hg	6.2 Hg
<b>Air Flow:</b>	150 CFM	180 CFM	180 CFM	300 CFM
<b>Filter:</b>	13 ft <sup>2</sup> MicroClean	13 ft <sup>2</sup> MicroClean	13 ft <sup>2</sup> MicroClean	13 ft <sup>2</sup> MicroClean
<b>Filter Efficiency:</b>	99.9% @ 0.5 micron	99.9% @ 0.5 micron	99.9% @ 0.5 micron	99.9% @ 0.5 micron
<b>Collection Capacity:</b>	9 gallons	9 gallons	9 gallons	9 gallons
<b>Inlet:</b>	2" w/bronze cast deflector	2" w/bronze cast deflector	2" w/bronze cast deflector	2.75" w/bronze cast deflector
<b>Casters:</b>	3" heavy duty conductive	3" heavy duty conductive	3" heavy duty conductive	6" heavy duty conductive
<b>Dimensions:</b>	35.25" x 24.5" x 35"	35.25" x 24.5" x 35"	35.25" x 24.5" x 35"	35.25" x 24.5" x 55"
<b>Weight:</b>	150 lbs	155 lbs	155 lbs	200 lbs

Learn About Combustible Dust at [www.ExplosionProofVacuums.com](http://www.ExplosionProofVacuums.com)

# FRV Series Air Vacuums



FRV 100



The pneumatically powered, intrinsically safe FRV vacuums include the same great features as the electrically powered models. While there are no certification standards for air powered explosion proof vacuums, Ruwac's are self-certified to the same UL, CSA and ATEX standards that apply for electric machines - with the only difference in construction being the replacement of the electric explosion proof vacuum motor and switch, with our stainless steel venturi. Our air-powered explosion proof vacuums are the safest alternative power explosion proof vacuum cleaner for use in Class I and Class II environments.

Model:	FRV 100	FRV 200
<b>Description:</b>	Accessory Package 151510DEX	Accessory Package 202025DEX
<b>Vacuum Producer:</b>	Single Stainless Steel Venturi	Dual Stainless Steel Venturi
<b>Noise Emission:</b>	72 dB	72 dB
<b>Vacuum Pressure:</b>	13 Hg	16 Hg
<b>Air Flow:</b>	150 CFM	275 CFM
<b>Filter:</b>	13 ft <sup>2</sup> MicroClean	28 ft <sup>2</sup> MicroClean
<b>Filter Efficiency:</b>	99.9% @ 0.5 micron	99.9% @ 0.5 micron
<b>Collection Capacity:</b>	9 gallons	9 gallons
<b>Inlet:</b>	2" w/bronze cast deflector	2" w/bronze cast deflector
<b>Casters:</b>	3" heavy duty conductive	3" heavy duty conductive
<b>Dimensions:</b>	32" x 20" x 41"	32" x 20" x 54"
<b>Weight:</b>	100 lbs	133 lbs

## How Much Do You Know About Combustible Dust?

Combustible dust is a light build-up of particular types of dust in a closed area that can be instantly ignited by an accidental spark and lead to loss of life and property. There are many different types of dust that can be considered combustible.



If you have combustible dust in your facility OSHA requires that you have specific housekeeping practices in place.

Are you prepared for your next OSHA visit? Are you keeping your employees safe? Are you doing what you need to prevent the loss of property?

You can obtain your FREE Combustible Dust Housekeeping Guide by visiting:

[www.ExplosionProofVacuums.com](http://www.ExplosionProofVacuums.com)

## Included Accessory Kit



**Accessory Package, 151510DEX**, (as shown above) Includes: Vacuum Hose: 1.5" x 10', Urethane, Static Conductive,, Molded Carbon Impregnated Cuffs; Wand: 54", Aluminum Shaft, 2 Bends; Crevice Tool: 11", Aluminum Body; Round Brush: 3", Nylon Bristles, Static Conductive, Carbon Impregnated; Floor Brush: 14", Metal Body, Anti-Static Bristles; Reducer: 2" x 1.5".

**Accessory Package, 202025DEX**, Includes: Vacuum Hose: 2" x 25', Urethane, Static Conductive, Smooth Bore Hose; Wand: 45", Stainless Steel, Single Bend; Crevice Tool: 15", Stainless Steel; Floor Tool: 20", "Ruwac Signature Tool" Aluminum Cast with Rollers, Rubber Strips; Hose Connector: 2" Male End.

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The **FRV Series Explosion Proof Vacuum Cleaners** are designed for collecting and containing very fine explosive dusts. Whether doing light general housekeeping in your plant or heavy pickup in and around production equipment and storage areas, the exceptional cleaning power, durability and safety of our explosion-proof vacuums have made the FRV Series the vacuum of choice for combustible dust everywhere.

Manufactured under strict quality control in our ISO 9001 registered plant, our explosion-proof vacuums are made in the U.S.A. and are intrinsically safe, with all parts and components fully grounded, static dissipating and guaranteed to be spark-free. Every one of our explosion-proof vacuums conforms to Class I, Division 1 & 2, Group D and Class II, Division 1 & 2, Groups F & G requirements for use in hazardous locations. Electric models are ETL third party certified to UL and CSA and our air models are built to these same high standards.

For over 30 years, Ruwac has been manufacturing explosion proof vacuums for a wide array of hazardous applications world-wide. We are very familiar with the cleaning issues involved with fine combustible dusts. Please be assured that our FRV Series explosion-proof vacuums will provide years of maximum safety, high performance cleaning, low maintenance costs, and easy operation. We guarantee it. Call us for a personal consultation by a certified Ruwac explosion proof application engineer.



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# Explosion Proof Options & Accessories

## Explosion Proof HEPA

OPTIONAL: Modular housing allows for upgrades to HEPA filtration at any time, to collect and contain debris down to and including 0.3 microns.



## Overhead Cleaning Kit

OPTIONAL: Accessory package 1560ODEX includes: 9" aluminum wall brush; 4-6" aluminum pipe cleaning tool; two 60" aluminum wands w/tool coupling.



## Disposable Dustpan Liner

OPTIONAL: Static conductive and disposable the dustpan liner comes with lid for quick removal and disposable of explosive dust.



## Retractable Grounding Reel

OPTIONAL: Retractable grounding reel provides third source of grounding for electric vacuums. Real is standard on the air powered vacuums.



## Pre-Separator

OPTIONAL: Collect 97% of debris before reaching the vacuum with Ruwac's HEC - High Efficiency Cyclone. Increases filter life. 30 & 55 gallon drum. Tipping drum and forklift pockets makes emptying easy. Very portable.



## Extended Caster Assembly

OPTIONAL: The heavy duty frame sits on 6" casters and is counterbalanced for increased movability.



## Grounded and Sealed Vacuums

You may not be required to use Explosion Proof Vacuums.  
Find out more from Ruwac - 800.736.6288.

## Collecting Conductive Metal Dusts?

Designed for the collection of combustible metal dusts and materials that contain an ignition source, are impact sensitive, unstable or explosive, (Class II, Group E) the NA35 series completely immerses vacuumed particles in liquid. Particulates entering the vacuum are immediately mixed in a turbulent liquid bath. The force of this rapidly moving air and liquid completely submerges all collected particles. This stops the already contained materials from finding any possible ignition source that could be introduced to the vacuum, guaranteeing a safe working environment and eliminating risk of an explosion.



Ask us if this is the right vacuum for you.

**800.736.6288**

