

Represented By:

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Aspen® Pumps

Nokink®

PairCoil™

Mighty Bracket™

Flaretite[®]

Safe-T-Switch®

ArmorPad™

Fortress®

Fortress+™

Slimduct[®]

PRO-Fit™

Big Foot®

Mounting Brackets

Novent[®]

RSH Series





for mini-split systems.











SELECTING THE CORRECT ASPEN MINI-PUMP

Six pump models

- · Aqua · Orange · Lime · White
- Peristaltic Mini Tank

Four considerations

- Appearance A concealed (Aqua) or remote condensate pump (Orange, Peristaltic, mini tank) will preserve the attractive nature of any mini-split installation. Surface mounted pumps (Lime or White) are neatly covered. All pumps are hidden from view and provide a clean finished appearance.
- · Quiet Operation Choose a remote pump (Orange or Peristaltic) installation for the quietest operation in noise sensitive areas. Silent + models are also available. They run quieter and are designated by SP suffix.
- Ease of Installation Aspen® pump models can accommodate any installation. See the guide and chart (page 12) for options.
- Maintenance Pump models with filters must be cleaned regularly. Choose a surface type pump (Lime or White) for easy filter access or a pump which requires no filter (Peristaltic).

Two mini-pump types:

• Split - (Orange or Aqua series) are designed with separate pump and reservoir. The pump includes an electronic PCB and the pump motor.

The reservoir contains the filter and the switching mechanism to activate the pump, and must always be kept level and clean for proper operation of the float switch. The filter must be cleaned regularly. The 2 elements are connected together with a length of 1/4" ID vinyl tube and a communication cable, both of which are usually around 6 feet long. On our orange series pumps, this may be extended if required.

• Monobloc - (Lime, White series, mini tank) are designed with both the pump and reservoir as one integral unit, sharing a common body. No connecting tubes or wires are needed. All mini pumps are cooled and lubricated by the water flowing through them. They require a float switch to detect the presence of water in the drain pan and activate the pump only when water is present.

Aspen® pump features:

- · Quick and easy to install
- · Fit any mini-split, up to 157,000 BTU/hr
- Self priming
- · Hall effect sensors operate on water rise
- · Dry contact for overflow protection
- · Cleanable filters
- Quiet 21dB (A) to 47dB (A)
- Thermally protected
- · Maximum water temperature 104 degree F
- Discharge hose 1/4" ID
- · Kits include all components required
- · Anti-siphoning device included (must be installed to validate the warranty)
- 24 month limited warranty

NOTE: Sound level and pump performance varies with voltage and frequency.



MINI-SPLIT PUMP KITS

Aqua Series

Ultra-slim profile, fits inside evaporator or lineset cover



		Power Supply	Power Consumption	Ctn. Wt.	Qty.
Code	Universal Voltage Kits				
83809	(ASP-MA-UNI)	100-250 VAC	.2A 16W	2lbs	1
	Silent Plus Kits				
83812	(ASP-MA-230-SP)	230 VAC	.1A 16W	2lbs	1



FEATURES

- · Ultra-slim profile
- Self Priming
- Integral hanging loop and separate reservoir facilitates attachment in vertical applications
- 3A NC dry contacts rated @ 5A inductive at 230V AC
- · Modular terminals for fast connection
- Inline fuse

Fully potted electronics*

Specifications:

Duty Cycle:

50% duty cycle 5 mins on / 5 mins off

Capacity:

Up to 49,500 BTU/hr. @ 230v Up to 54,600 BTU/hr. @ 115v 3.2 GPH @ zero head, 1.6 GPH @ 33ft head

Maximum head: 33ft

Suction lift: 5ft

Sound level:

Univolt - 21dB(A) Silent Plus - 19dB(A)

Pump Dimensions:

L-6¹/₂" x H-1¹/₈" x W-1¹/₈"

Class II Appliance





^{*}Potting is the process of epoxy filling a complete assembly for resistance to shock, vibration, moisture, chemical and promotes sound dampening.

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Orange Series



Installation flexibility, proven reliability

		Power Supply	Power Consumption	Ctn. Wt.	Qty.
Code	Universal Voltage Mini Kits				
83909	(ASP-MO-UNI)	100-250 VAC	.17A 16W	2lbs	1
	Silent Plus Mini Kits				
83912	(ASP-MO-230-SP)	230 VAC	.11A 16W	2lbs	1
	Maxi Kits				
83919	(ASP-MAXO-UNI)	100-250 VAC	.18A 21W	2lbs	1
	15' Extension Cable For Mini Kits				
83891	(ASP-MOFXT)				1



FEATURES

- Self Priming
- Pump installs remotely above ceiling or inside lineset cover
- Pan mount and inline style reservoir included
- Modular terminals for fast connection
- Gravity Inlet
- Fully potted electronics*
- 3A NC dry contacts rated @ 5A inductive at 230V AC

Duty Cycle: Mini - non-continuous

Specifications:

Maxi - 50% 5 mins on / 5 mins off

Capacity:

Mini - Up to 54,600 BTU/hr. @ 115v Up to 49,500 BTU/hr. @ 230v 3.2 GPH @ zero head, 1.6 GPH @ 33ft head

Maxi - Up to 157,000 BTU/hr. 8.9 GPH @ zero head, 1.5 GPH @ 49ft head

Maximum head:

Mini - 33ft Maxi - 49ft

Suction lift: 5ft

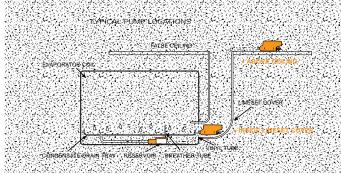
Sound level:

Mini - 21dB(A) Maxi - 35dB(A) Silent Plus - 19dB(A)

Pump Dimensions:

Mini: L-4¹/₄" x W-1¹/₂" x H-2" Maxi: L-4⁷/8" x W-1³/4" x H-2⁵/8"

Class II Appliance





Continued

Lime Series

Elbow design, completely reversible, duct included

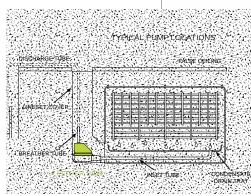




Pump Dimensions:

Mini: H-31/8" x W-33/4" x D-15/8" Maxi: H-33/8" x W-33/4" x D-15/8"

Lineset Casing Dimensions: Mini/Maxi Elbow Casing: $H-5^{1}/4$ " x $W-5^{1}/4$ " x $D-2^{3}/4$ " Mini/Maxi Duct Casing: H-31" x W-51/4" x D-23/4"



		Power Supply	Power Consumption	Ctn. Wt.	Qty.
Code	Universal Voltage Mini Kits				
83849	(ASP-ML-UNI) Slimline Ivory	100-250 VAC	.16A 16W	4lbs	1
83859	(ASP-MLF-UNI) Fortress White	100-250 VAC	.16A 16W	4lbs	1
	Maxi Kits				
83831	(ASP-MAXLF-230) Fortress White	230 VAC	.10A 15W	4lbs	1
	OEM Maxi Kits				
83835	(ASP-MAXOEM-230) No Duct	230 VAC	.10A 15W	2lbs	1
Code	OEM Mini Kits				
83869	(ASP-MLOEM-UNI) No Duct	100-250 VAC	.16A 16W	2lbs	1

FEATURES

• Left or right install

Specifications:

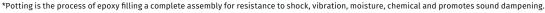
Duty Cycle:

- · Easily accessed for filter cleaning
- Two lineset cover styles available Slimline or Fortress
- 3A NC dry contacts rated @ 5A inductive at 230V AC
- Fully potted electronics*

Mini – non-continuous Maxi - 66% 10 mins on / 5 mins off **Capacity:** Mini - Up to 54,600 BTU/hr. 2.9-3.2 GPH @ zero head, 1.3-1.5 GPH @ 33ft head Maxi - Up to 157,000 BTU/hr. 9.0 GPH @ zero head, 2.9 GPH @ 49 head Maximum head: Mini - 33ft Maxi - 49ft Sound level: Mini - 25.5dB(A) Maxi - 35dB(A)

Silent Plus - 21dB(A)

Class II Appliance



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US Patent #6,817,194





Continued

White Series



Mounts directly below evaporator, quick installation

		Power Supply	Power Consumption	Ctn. Wt.	Qty.
Code	Universal Voltage				
83939	(ASP-MW-UNI)	100-250 VAC	.17A 16W	2lbs	1



FEATURES

- · Surface mounts below evaporator, at either end
- · Crisp white color and slim profile complement any evaporator. Additional colors available (contact RectorSeal®)
- Resilient mounting minimizes vibration & noise
- Cleanable replaceable plastic filter cartridge accepts water treatment tablet (Actab DMSS tablets)
- Accepts standard 5/8" drain hose from any mini-split
- Extra large reservoir capacity minimize pump operation
- All components clip apart for easy disassembly without tools
- Fully potted electronics*
- No need to disturb evaporator to clean filter, reservoir clips out from front for easy removal and replacement
- 3A N/C dry contacts rated @ 5A inductive @ 230V AC

Specifications:

Duty Cycle:

Non-continuous

Capacity:

Up to 54,000 BTU/hr. 2.9 GPH @ zero head 1.2 GPH @ 33ft head

Maximum head: 39ft

Maximum Water Temp: 104° F

Suction Lift: NA Sound level: 21dB(A)

Pump Dimensions:

L-7¹/8" x H-4¹/₂" x W-2"

Class II Appliance



*Potting is the process of epoxy filling a complete assembly for resistance to shock, vibration, moisture, chemical and promotes sound dampening.

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Continued

Peristaltic

ASPEN° PUMPS

Ideal for remote location applications

		Power Supply	Power Consumption	Ctn. Wt.	Qty.
Code	Universal Sensor				
83966	(ASP-PERI-UNI-230)	230 VAC	.20A 46W	6lbs	1

Replacement Pump Head

83892 (ASP-PERITUBE)

FEATURES

- Reliability low maintenance
- Filterless operation. Pump evacuates wash from the evaporator coil during condensate production.
- Quick replacement pump head
- Self priming. Can run both wet and dry.
- 3 minute timer overrun protection
- Siphon proof
- · Thermally protected pump
- · Eliminates corrosion & clogging
- High level of lift allows remote placement up to 10ft vertical or 40ft horizontal from condensate source
- Manual test switch
- · Fire retardant housing
- Internal fuse
- Push in plug facilitates service without disconnecting wiring
- Wall bracket includes storage or spare pump head

Specifications:

Duty Cycle:

100% Continuous

Capacity:

Up to 30,000 BTU/hr. 1.65 GPH @ 39ft head

Maximum head: 39ft

Maximum Water Temp: 104° F

Suction Lift: 10ft
Sound level: 47dB(A)

Pump Dimensions:

L-5¹/₄" x H-4¹/₂" x W-3"

Class II Appliance



Mini Tank

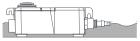
Versatile and powerful multi-functional condensate pump



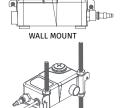


Mounting Options:

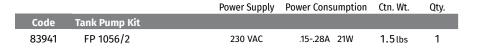




IN DRAIN PAN



SUSPENDED ROD MOUNT



FEATURES

- Ideal for ducted units, floor standing and chassis units, ceiling cassette units
- · High performance piston technology
- Includes anti-siphon device.
- Great alternative to large and noisy traditional condensate pumps
- 4-installation options can be wall mounted, floor mounted, in-pan or suspended on 1/4" or 3/8" rod.
- Accepts standard 5/8" drain hose from any mini-split
- Extra large reservoir capacity minimize pump operation
- Components clip apart for easy access to reservoir and filter
- Fully potted electronics*
- No need to disturb evaporator to clean filter
- 3A N/C dry contacts rated @ 5A inductive @ 230V AC
- Thermal protection

Specifications:

Duty Cycle:

50% duty cycle 5 mins on / 5 mins off

Capacity:

Up to 157,000 BTU/hr. 8.0 GPH @ zero head, 1.6 GPH @ 49ft head

Maximum head: 49ft

Maximum Water Temp: 104° F

Sound level: 35dB(A)

Pump Dimensions:

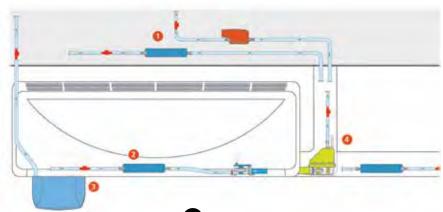
L-81/2" x H-25/8" x W-31/2"



Pump Selector Guide	83809 (ASP-MA-UNI)	83812 (ASP-MA-230-SP)	83909 (ASP-MO-UNI)	83912 (ASP-MO-230-SP)	83919 (ASP-MAXO-UNI)	83849 (ASP-ML-UNI)	83859 (ASP-MLF-UNI)	83831 (ASP-MAXLF-230)	83835 (ASP-MAXOEM-230)	83869 (ASP-MLOEM-UNI)	83939 (ASP-MW-UNI)	83966 (ASP-PERI-UNI-230)	83941 MINI TANK PUMP
230V Model		•		•				•	•			•	•
Univolt Model	•		•			•					٠		
Overflow Switch	•	•	•								۰		
Mounting													
Surface Mount											•		•
Concealed in Evaporator	•												
Concealed in Lineset Cover			•										
Remote Pump Install (ideal for noise sensitive areas)	•	•	•									•	•
Easy Filter Access						•	•	•	•	•	٠		•
Lineset Duct Kit included						•	•	•					
General													
Inline Reservoir Included (5/8 inlet)	•	•	•	•	•								
Drain Pan Mounted Reservoir Included (optional for ducted systems)			•	•	•								
Integral Reservoir on Pump													•

For more detailed selection information see our Technical Bulletin "Selecting the Right Model Aspen® Pump for Your Mini-split Installation" on our web site.

Prior to installation, calculate condensate production of indoor evaporating coil to confirm suitability of condensate pump in application.



Type 1 Installation

For optimum quietness, the solution is a remote mounted pump.

PERISTALTIC, AQUA, ORANGE, MINI TANK

Type 2 Installation – rear entry lineset

Lineset enters the evaporator from directly behind.

WHITE - Pump assembly mounts on wall surface below the evaporator (easy filter access). AQUA - Both pump and reservoir mount inside of evaporator, below the drain pan.

Type 4 Installation – exposed straight lineset

Lineset enters the evaporator from either side, extending horizontally to outside wall.

AQUA or **ORANGE** - Pump mounts outside the evaporator hidden inside horizontal lineset cover. Reservoir mounts inside of evaporator, below the drain pan.

Type 4 Installation – side entry lineset

Lineset enters the evaporator from either side, turns 90 degrees up into the ceiling and is completely concealed by lineset cover (included in kit).

LIME – Pump assembly mounts outside the evaporator, behind easy to remove elbow cover. Transparent reservoir clips off pump for easy filter access.

Contact: RectorSeal®

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MINI-SPLIT CONDENSATE DRAIN HOSE

Condensate Drain Hose

Non-Insulated

Code	ID	Length	Ctn Qty	Ctn Wt
83001 (DH-14) STANDARD	1/2 in	164 ft	1	6 lbs.
83002 (DH-16) STANDARD	5/8 in	164 ft	1	7 lbs.
83003 (DH-16S) STANDARD	5/8 in	20 ft	5	6 lbs.
83004 (DHQ-16) UV RESISTANT	5/8 in	164 ft	1	6 lbs.
83005 (DSB-16) SMOOTH BORE	5/8 in	65 ft	1	2 lbs.









Non-Insulated

UV Resist

Smooth Bore



Smooth Bore (DSB-16) Reduces resistance and maximizes condensate flow. Resists clogging.

UV Resistance (DHQ-16) Resists deterioration from sunlight.

Condensate Drain Hose

Insulated

Code	ID	Length	Ctn Qty	Ctn Wt
83011 (DSH-14)	1/2 in	65 ft	1	7 lbs.
83012 (DSH-20N)	3/4 in	65 ft	1	10 lbs.
83013 (DSH-25N)	1 in	65 ft	1	13 lbs.







Insulated



Insulated

Protects hose from sweating that can occur from cooler condensate and warmer ambient air.

Condensate Drain Hose

Code	Description	Qty.
84306	DSH-UP20E20E-07 Elbow to Elbow 27.5"	10
84307	DSH-UP20E20E-10 Elbow to Elbow 40"	10
84308	DSH-UP20E20S-07 Elbow to Straight Coupler 27.5"	10
84309	DSH-UP20E20S-10 Elbow to Straight Coupler 40"	10

FEATURES

- · Exclusive hose for drain-up piping
- · Easy to adjust position
- · Pre-connected hose with fittings

Insulated Drain-up Hose Kit

APPLICATION • Drain-up hose kit for indoor A/C unit. These insulated drain hoses will greatly reduce install time, since there is no need to cut and cement plastic pipes for the drain assembly.

RECOMMENDED FOR

- Exclusive for indoor use Commercial HVAC units
- · Ceiling cassette · Ducted concealed



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Fittings and Cable

For mini-split installation















Code	ID	Length	Ctn Qty	Ctn Wt
83028 (DHJ-14) Joins DH-14 hose to DH-14 hose	1/2 in	-	10	1 lb.
83029 (DHJ-16) Joins DH-16 hose to DH-16 hose	5/8 in	-	10	1 lb.

PIPE ADAPTER

Code	ID	Length	Ctn Qty	Ctn Wt
83031 (DSH-14C) INSULATED	-	-	10	2 lbs.
Joins DSH-14 insulated drain hose to A/C drain	pipe			

CONNECTOR FOR INSULATED DRAIN HOSE

Code	ID	Length	Ctn Qty	Ctn Wt
83021 (DSH-14J) DSH-14 Joins DSH-14 hose to DSH-14 hose	1/2 in	-	10	2 lbs.
83023 (DSH-20-NJ) DSH-20 Joins DSH-20 hose to DSH-20 hose	3/4 in	-	10	2 lbs.

PIPE ADAPTER

Code	ID	Length	Ctn Qty	Ctn Wt
83020 (DSH-14-16V) DSH-14 Hose to 3/4 PVC	3/4 in	_	10	2 lbs.
83024 (DSH-20-NV) DSH-20 Hose to 3/4 PVC	3/4 in	-	10	2 lbs.

CONDENSATE DRAIN ADAPTER

Code	ID	Length	Ctn Qty	Ctn Wt
89712 16mm rigid pipe to flexible drain hose 10 pk	-	-	20	7 lbs.
89714 18mm rigid pipe to flexible drain hose 10 pk	-	-	20	7 lbs.
89711 16mm rigid pipe to flexible drain hose 2 pk	-	-	20	2 lbs.
89713 18mm rigid pipe to flexible drain hose 2 pk	-	-	20	2 lbs.

VENTED DRAIN WYE*

Code	ID	Length	Ctn Qty	Ctn Wt
83022 (DY-16)	5/8 in	-	10	1 lb.

WALL SLEEVE

Code	Size	Ctn Qty	Ctn Wt
83017 (NFP-75) WALL SLEEVE	3"x 5" - 7"	10	1 lb.

NON-ADHESIVE WRAP

Code	Size	Ctn Qty	Ctn Wt
83016 (HN-75-I) UV RESISTANT NON-ADHESIVE WRAP	3" x 70'	4	1 lb.

INTERCONNECT CABLE

Code	Length	Ctn Qty	Ctn Wt
87795 (CAB-14450) 4/C 14 GAUGE SHIELDED	50'	1	5 lbs.
87790 (CAB-144100) 4/C 14 GAUGE SHIELDED	100'	1	10 lbs.



P 713-263-8001 800-231-3345

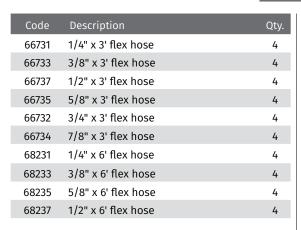




DUCTLESS A/C INSTALLATION ACCESSORIES

RectorSeal® NoKink™

Flexible mini-split refrigerant line connector



APPLICATION • Corrugated 300 series stainless steel flexible piping, protected with woven stainless steel jacketing, connects evaporator units to linesets quickly and easily • Eliminate kinks and refrigerant leaks • Allows for ease of future maintenance

• UL Recognized for R410A



36" and 72" overall length 3" copper stub length 10 sizes available







FEATURES

- Eliminates kinking of refrigerant line
- Stainless steel internal piping and jacketing
- 3" copper stubs allow for easy flaring and quick connections



NoKink[™] PVC Tubing

Reinforced PVC tubing



FEATURES

- Stronger hold strength at the pump discharge connection
- Reduces kinks during installation
- · Reinforced braided tubing
- No sagging or reduced (ID) during hot summer months
- · Condensate drain lines

APPLICATION • Flexible PVC for use with Aspen condensate pumps for ductless and VRF applications





REFRIGERANT FITTINGS

Quick connect fittings.





- Easy push-in connection
- · No flaring or brazing needed
- · Quick-release removal
- Airtight double O-ring seal.
- Compatible with major refrigerants

Push-to-connect refrigerant lines in seconds!

PRO-Fit[™] Quick Connect Push-to-Connect Refrigerant Fittings

NOTE: The units are individually sealed to allow for resale by a distributor

attow for	result by a distributor	
Code	Description	Qty
87018	1/4" Union	10
87019	3/8" Union	10
87020	1/2" Union	10
87021	5/8" Union	10
87022	3/4" Union	10
87023	7/8" Union	10
87024	1/4" Elbow	10
87025	3/8" Elbow	10
87026	1/2" Elbow	10
87027	5/8" Elbow	10
87028	3/4" Elbow	10
87029	7/8" Elbow	10
87030	1/4" to 3/8" Reducer	10
87031	3/8" to 1/2" Reducer	10
87032	1/2" to 5/8" Reducer	10
87033	1/4" to 3/8" Elbow Reducer	10
87034	3/8" to 1/2" Elbow Reducer	10
87035	1/2" to 5/8" Elbow Reducer	10
87036	1/4" Socket	10
87037	3/8" Socket	10
87038	1/2" Socket	10
87039	5/8" Socket	10
87042	1/4" Valve	5
87043	3/8" Valve	5
87044	1/2" Valve	5
87045	5/8" Valve	5
87048	1/4" – 5/8" Support Kit Line Marking Tool & Discon- nect Clips	10
87049	3/4" – 7/8" Support Kit Line Marking & Disconnect Tools	10

APPLICATION • Flame-free fittings for connecting refrigerant lines • For HVAC/R up to 700 psi (45 bar) • Prevent refrigerant lineset

RECOMMENDED FOR • Residential use • Copper & aluminum linesets • Mini-split HVAC units • Unitary indoor coils • All major refrigerants







FEATURES

- · Quick and easy push-in
- · Flame-free: no flaring or brazing
- Single use with quick release removal
- Robust brass body, durable &
- Leak-proof double o-rings sealing
- · Complete system with all sizes and configurations
- · High tensile strength
- · Vibration and impact resistant
- UV resistant
- Corrosion resistant
- · Sight window for connection verification



RectorSeal® Paircoil™

Pre-insulated, paired linesets

1/4" (6.35mm) x 3/8" (9.52mm) x 1/2" (12.7mm) 87783 25 ft 1 1/4" (6.35mm) x 3/8" (9.52mm) x 1/2" (12.7mm) 35 ft 87781 1/4" (6.35mm) x 3/8" (9.52mm) x 1/2" (12.7mm) 1 87777 1/4" (6.35mm) x 1/2" (12.7mm) x 1/2" (12.7mm) 25 ft 87778 1/4" (6.35mm) x 1/2" (12.7mm) x 1/2" (12.7mm) 35 ft 87782 1/4" (6.35mm) x 1/2" (12.7mm) x 1/2" (12.7mm) 50 ft 1/4" (6.35mm) x 5/8" (15.9mm) x 1/2" (12.7mm) 87787 25 ft 87788 1/4" (6.35mm) x 5/8" (15.9mm) x 1/2" (12.7mm) 35 ft 87789 1/4" (6.35mm) x 5/8" (15.9mm) x 1/2" (12.7mm) 50 ft 1 87791 3/8" (9.52mm) x 5/8" (15.9mm) x 1/2" (12.7mm) 25 ft 3/8" (9.52mm) x 5/8" (15.9mm) x 1/2" (12.7mm) 35 ft 87792 87793 3/8" (9.52mm) x 5/8" (15.9mm) x 1/2" (12.7mm) 50 ft

APPLICATION • For air conditioning & refrigeration installations using R410A, R22, and other refrigeratns • Saves time and labor on mini-split installs & retrofits





FEATURES

- Rolls can be freely cut
- · Tough, coated insulation will not tear
- Length markings for fast, accurate measuring & cutting
- Meets ASTM B280 standard
- Meets IMC & IRC code



Mighty Bracket[™]

Code Description

97705 Mini-split support tool

FEATURES

· Allows single-person installation

4

- Simple clip-on support
- Does not damage walls
- · Use on most brands of minisplits
- · Folds for easy storage
- · Includes tote bag

US Patent No 9,772,113

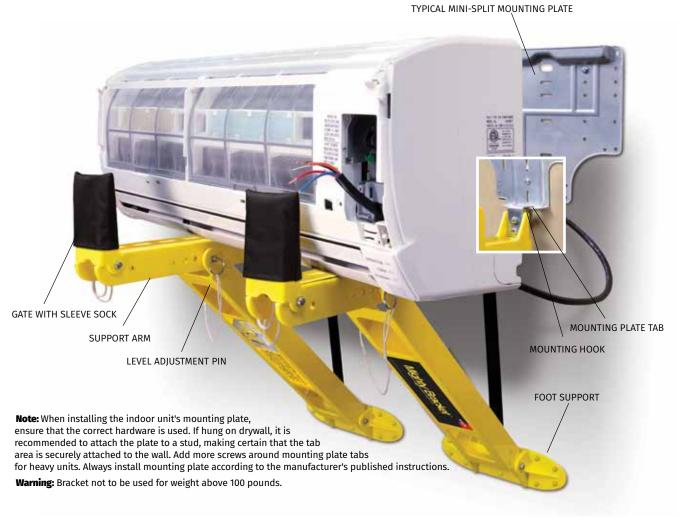


Mini-split installation support tool

APPLICATION • Hook onto mini-split mounting plate to hold mini-split unit securely in place while installing refrigerant lines, condensate line and electrical hookup.

USER INSTRUCTIONS 1. Attach Mounting Hooks of Mighty Bracket to the mini-split mounting plate tabs. (If no tabs are present on the mounting plate, Mighty Bracket hooks can be attached by screws threaded into the wall stud.) 2. Place Foot Supports flat against the wall. (If necessary to avoid potential wall scratching, place clean towel or cardboard between support foot and wall surface) 3. Position Level Adjustment Pins to make Support Arm of the brackets horizontal. 4. Position Lift Gates at the end of the Support Arms to make sure the unit cannot slide off. 5. Place protective Sleeve Socks over Gates to avoid scratching the unit. 6. Set unit securely onto the top of the Support Arms. 7. Connect refrigerant lines using RectorSeal® NoKink™.* 8. Connect condensate drain piping and electrical wiring. 9. Carefully lift and place the indoor unit onto top tabs of mounting plate. 10. While ensuring unit does not fall, carefully remove Mighty Bracket and installation is complete.

When paired with RectorSeal® NoKink™, Mighty Bracket™ allows simple installation without damaging or kinking copper refrigerant lines.



Aspen® Xtra

Ductless A/C installation accessory tool box

		ACCESSORY TOOL BOX	
Code	Model	Description	Qty.
83999	AX00051/R	12 section fitting and accessory box (18"x14"x3")	1

Code	Model	Description	Qty.
83999	AX00051/R	12 section fitting and accessory box (18"x14"x3")	1
	AC	CESSORY TOOL BOX CONTENTS LISTING	
Code	Model	Description	Qty.
Mini Pum	Rubber Adap	ter/Connector	
83970	FP2001	5/8" mini pump to 3/4" ducted drain (16mm-20mm)	2
83971	FP2002	5/8" mini pump to 1" ducted drain (16mm-25mm)	2
83972	FP2003	5/8" mini pump to 1-1/4" ducted drain (16mm-32mm)	2
Mini Pum	90° Long Arm	Bend Connector	
83973	FP2006	1/2" to 5/8" (12mm-16mm) long arm	2
Pipe to Pi	pe Rubber Con	nector/Adapter	
83977	FP2042	3/4" PVC to 5/8" (20mm-16mm)	2
83978	FP2044	3/4" PVC to 1" (20mm-25mm)	2
83979	FP2046	3/4" PVC to 1-1/4" (20mm-32mm)	2
Hose to H	ose Connector	s	
83984	FP2024	1/4" "T" connectors (6mm)	3
83985	FP2028	1/4" elbow connectors (6mm)	4
83986	FP2622	1/4" straight connectors (6mm)	3
83987	FP2030	3/8" "T" connectors (10mm)	3
83988	FP2032	3/8" elbow connectors (10mm)	3
83989	FP2624	3/8" straight connectors (10mm)	3
Tube Ada	pter/Fitting		
83990	FP2038	3/8" or 1/4" (10mm/6mm) self sealing soil pipe connector	2
Check Val	/es		
83982	FP2628	1/4" Non Return Valves (6mm)	2

FEATURES

Keep a ready stock of accessories on-hand with our Xtra Tool Box

- Connectors
- Adapters
- Check valves





FP2630

83983

3/8" Non Return Valves (10mm)



All accessories are multi-packed in transparent Point-of-Purchase ready poly bags.



			the same of the sa	
Code	Model	Description	Units/Bag	Bags/Carton
		Rubber adapter Connects a ducted unit to a Mini Pump Reservoir.		
83970	FP2001	5/8" mini pump to 3/4" ducted drain (16mm-19mm)	Qty 3	Qty 10
83971	FP2002	5/8" mini pump to 1" ducted drain (16mm-25mm)	Qty 3	Qty 10
83972	FP2003	5/8" mini pump to 1-1/4" ducted drain (16mm-32mm)	Qty 3	Qty 10
	*	90° Long Arm Bend Connects a Wall Mount to Mini Pump Reservoir.		
83973	FP2006	1/2" to 5/8" (12mm-16mm) long arm	Qty 3	Qty 10
		Rubber Adapter Connects a Cassette Unit Condensate Drain Pipe to		·
83974	FP2011	5/8" cassette unit outlet to 3/4" hose (16mm-19mm)	Qty 3	Qty 10
83975	FP2012	1" cassette unit outlet to 3/4" hose (25mm-19mm)	Qty 3	Qty 10
83976	FP2013	1-1/4" cassette unit outlet to 3/4" hose (32mm-19mm)	Qty 3	Qty 10
	* 4	Pipe to Pipe Rubber Connector/Adapter Connect 3/4" PVC Overflow Pipe to Waste Pipe.		
83977	FP2042	3/4" PVC to 5/8" (19mm-16mm)	Qty 3	Qty 10
83978	FP2044	3/4" PVC to 1" (19mm-25mm)	Qty 3	Qty 10
83979	FP2046	3/4" PVC to 1-1/4" (19mm-32mm) Tube Connector Fitting and Straight Reducer In-line junction for mismatched tubing.	Qty 3	Qty 10
83980	FP2020	3/8" to 1/4" straight reducer (10mm to 6mm)	Qty 5	Qty 10
83981	FP2632	5/8" to 1/4" reducing connector (16mm-6mm)	Qty 5	Qty 10
		Hose to Hose Connector In-line junction for matched size tubing.		
83985	FP2028	1/4" elbow connectors (6mm)	Qty 5	Qty 10
83986	FP2622	1/4" straight connectors (6mm)	Qty 5	Qty 10
83989	FP2624	3/8" straight connectors (10mm)	Qty 5	Qty 10
)	Mini Pump Pre-Filter Protects mini pump from condensate debris.		
83893	FP2040	5/8" Pre-filter for Aspen Mini Pumps	Qty 3	Qty 10



Description Units/Bag Bags/Carton **Check Valve Connector/Fitting -**Prevents back-flow of condensate. 83982 FP2628 1/4" Non Return Valves (6mm) Qty 5 Qty 10 **Tube Adapter -**Connects discharge condensate to waste/soil pipe 83991 3/4" to 3/8" or 1/4" (20mm-10mm or 6mm) FP2040 Qty 3 Qty 10 3/8" or 1/4" self sealing soil pipe connector 83990 FP2038 Qty 3 Qty 10 (10mm/6mm)



All pipe supports are multi-packed in transparent Point-of-Purchase ready poly bags.



	•	rollit-of-ruichase ready poly bags.		
Code	Model	Description	Units/Bag	Bags/Carton
		Metal Pipe Hanger – Designed for supporting lineset pairs.		
83992	B6492	Fits 3/8" liquid & 5/8" gas pipes (incl. insulation)	Qty 10	Qty 10
83993	B6494	Fits 5/8" liquid & 1-1/8" gas pipes (incl. insulation)	Qty 10	Qty 10
		Grip Locks – Versatile. Mounts to any surface. Ideal for insulated		0. 10
83996	B6188	Fits 1/2" liquid & 7/8" gas pipe (incl. insulation)	Qty 10	Qty 10
83997	B6189	Fits 5/8" liquid & 1-1/8" gas pipe (incl. insulation)	Qty 10	Qty 10
		Three Pipe Clip – Supports VRV / VRF systems insulated linesets.		
83994	B6362	For pipe groups 1/2", 3/4", 1-1/8", to 5/8", 1", 1-1/8"	Qty 5	Qty 10
83995	B6364	For pipe groups 7/8", 1-1/8", 1-3/8" to 3/4", 1-3/8",	Otv 5	Otv 10

B6364

83995

1-5/8"

Qty 5

Qty 10

PRO-Fit™

Code	Description	Qty.
87001	PRO-Fit Flare kit	4
87011	PRO-Fit Swage kit	4

FEATURES

- Stopper ensures a consistent length of the flare/swage
- · Tip guides the bit into the tube & forms a standard flare or consistent swage
- Standard 1/4" Hex Shank fits directly into most power tools without adapter
- · Color coded hex bits for easy ID
- Available in flare or swage bits
- · Comes in a durable seethrough case for better tool visibility

Precision Flaring & Swaging tool bit kits

APPLICATION • Creates precise and fast standard 45° flare or swage in copper and aluminum line sets for Mini-split HVAC units • The spinning hex flare bit forms a standard 45° flare, and the hex swage bit forms a consistent swage without splits, burrs, blemishes or uneven edges that typically cause fitting connection leaks

RECOMMENDED FOR

- Copper & aluminum line sets Mini-split HVAC units
- · Any application requiring a 45° flare



PRO-Fit Flare







Flaretite®

45° Refrigeration & Gas SAE Flare Fitting Seals

Code	Description	Qty.
97210	Combo Kit - 9 seals each of sizes 1/4", 3/8", 1/2", 5/8" (36 seals total)	6 kits/case
97211	Combo Kit - (2) 3/8", (2) 3/4"	10 kits/case
97212	Combo Kit - (2) 3/8", (2) 5/8"	10 kits/case
97213	Combo Kit - (2) 3/8", (2) 1/2"	10 kits/case
97214	Combo Kit - (2) 1/4", (2) 5/8"	10 kits/case
97215	Combo Kit - (2) 1/4", (2) 1/2"	10 kits/case
97216	Combo Kit - (2) 1/4", (2) 3/8"	10 kits/case
97217	(10) 3/4" Seal Kit	10 kits/case
97218	(10) 5/8" Seal Kit	10 kits/case
97219	(10) 1/2" Seal Kit	10 kits/case
97220	(10) 3/8" Seal Kit	10 kits/case
97221	(10) 1/4" Seal Kit	10 kits/case
97222	(200) 5/8" Seal Kit	4 kits/case
97223	(200) 1/2" Seal Kit	4 kits/case
97224	(200) 3/8" Seal Kit	4 kits/case
97225	(200) 1/4" Seal Kit	4 kits/case
97226	(100) 3/4" Seal Kit	4 kits/case
97227	(100) 5/8" Seal Kit	4 kits/case
97228	(100) 1/2" Seal Kit	4 kits/case
97229	(100) 3/8" Seal Kit	4 kits/case
97230	(100) 1/4" Seal Kit	4 kits/case



APPLICATION • Used to prevent leaks that are caused by galling, vibration, pulsation & extreme temp changes • A perfect solution for a leak free connection in today's harshest environments • Use with all common refrigeratns

RECOMMENDED FOR

- · Service & repair
- Mini-Split & VRF installations
- Commercial chillers & coolers
- Marine & aviation refrigeration

FEATURES

- 45° Copper Stamping with Loctite coating
- Locking tabs clip seal securely on fitting
- Conical rings for multiple points of contact
- Made for all common 45° fittings
- Rated for -40°F to 300°F
- Pressure rated up to 10,000 psi



OVERFLOW SWITCHES & EQUIPMENT PAD

Safe-T-Switch® SS610F

Code 97622 Model SS610E 12



FEATURES

- · Sensor connects to indoor units
- Attaches to pan or coils with unique bracket
- · Onboard LED indicator can be mounted to side of unit
- · No batteries required
- · Complies with IMC & IRC code

Mini-split systems

APPLICATION • Designed for mini-split systems · For installation directly on primary drain pan or clipped to coils above primary drain pan · Multivoltage • Can be wired in both normally open & normally closed systems

US Patent No. 8,887,392



EZT180

Code	Description	Qty.
83180	EZT180 5/8"	10

FEATURES

- Ultratrap
- · Captive twist-off locking ring
- · Transparent trap for easy cleaning
- · Stainless steel spring

Mini Waterless In-Line Trap

APPLICATION · Sized for use in ductless minisplit applications • Use on any mini-split condensate drain line • Permits free condensate flow while blocking odors, noise and insects • Freeze resistant · Only 2-3/4" long

Includes: 5/8" MiniTrap, 9/16" adapter.

* Per 2015 IMC 307.2.4.1 Commentary: All mini--splits shall require an inline check valve in the drain line or trap to prevent airflow from interfering with condensate flow and prevent the escape of air through the drain.



ArmorPad™

Code	Description	Qty.
84418	35"x 18"x 2" Mini-split	12
	Equipment Pad	

FEATURES

- · Light-weight
- Extreme durability with load capacity of 220 lbs
- · High anchoring strength for securing equipment
- · Textured surface to prevent equipment sliding
- · Long-term exterior weather resistance including UV resistance, and freeze and thaw resistance
- · Vibration absorbing
- · Chemical resistance against R-407c and R-410A, compressor oil, coil cleaners, and salt solution

Equipment pad

APPLICATION • Provides support and lift for the HVAC outdoor minisplit condenser unit • Provides a strong and stable equipment platform for uneven surfaces

RECOMMENDED FOR • Residential and commercial mini-split HVAC units · Outdoors



Contact: RectorSeal®

P 713-263-8001 | 800-231-3345

F 713-263-7577 | 800-441-0051





lineset ducting. Simple, rugged protection.



CHOOSE FORTRESS OR SLIMDUCT QUALITY



Fortress® SATIN FINISH

Moderate price point. For mini-splits, high velocity and conventional split air conditioning systems.

Protects lineset, wiring and drain hose from weather, vandalism, pet and pest damage.

Snap together ducting easily accessed for repairs or replacement of the lineset.

UV and weather resistant Will remain attractive and provide protection for many years.

Stylish. Complements any residential or commercial building. Paintable. Brush, spray or roller to match or complement custom colors.*

2 sizes. Duct & fittings are available in both LD92 (3½"), LD122 (4½")

4 color options white, ivory, brown, gray

8' duct lengths. 6 lengths per box

17 fittings. Assures complete flexibility of installation

1 year warranty.

*Follow paint manufacturers recommendations for vinyl products.

Slimduct® GLOSS FINISH

Heavy duty grade. For mini-splits, high velocity and conventional ducted air conditioning systems.

Protects lineset, wiring and drain hose from weather, vandalism, pet and pest damage.

Snap together ducting easily accessed for repairs or replacement of the lineset.

UV, weather and fire resistant with a temperature range from – 4°F to 140°F. Will remain attractive and provide protection for many years.

Stylish. Complements any residential or commercial building.

3 sizes. Duct & fittings are available in SD77 (2¾"), SD100 (3¾"), SD140 (5½")

3 color options. white, ivory, brown

78" duct lengths. 5 lengths per box

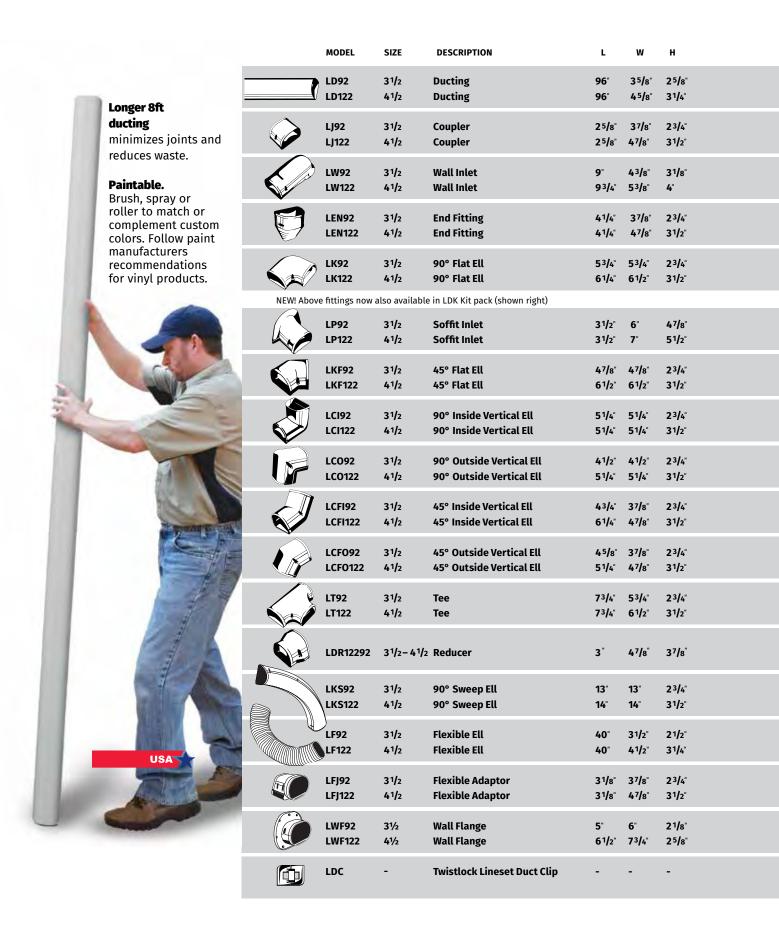
15 fittings. Assures complete flexibility of installation

1 year warranty.

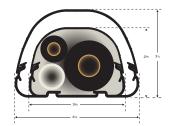
NOTE: Dark colors fade in sunlight sooner than lighter colors.

F 713-263-7577 800-441-0051

FORTRESS® LINESET COVER ORDERING INFORMATION



WHITE Order code / Ref No C	Qty	IVORY Order code / Ref No	Qty	BROWN Order code / Ref No Qty	GRAY Order code / Ref No	Qty
84004 (LD92W) 84104 (LD122W)	6 6	84024 (LD92I) 8412 (LD122I)	246 6	84064 (LD92B) 6 84164 (LD122B) 6	84044 (LD92G) 84144 (LD122G)	6
84010 (LJ92W) 84110 (LJ122W)	6 6	84030 (LJ92I) 84130 (LJ122I)	6	84270 (LJ92B) 1 84370 (LJ122B) 1	84250 (LJ92G) 84350 (LJ122G)	1
84016 (LW92W) 84116 (LW122W)	6	84036 (LW92I) 84136 (LW122I)	6	84276 (LW92B) 1 84376 (LW122B) 1	84256 (LW92G) 84356 (LW122G)	1
84007 (LEN92W) 84107 (LEN122W)	6	84027 (LEN92I) 84127 (LEN122I)	6	84267 (LEN92B) 1 84367 (LEN122B) 1	84247 (LEN92G) 84347 (LEN122G)	1
84011 (LK92W) 84111 (LK122W))	6	84031 (LK92I) 84131 (LK122I)	6	84271 (LK92B) 1 84371 (LK122B) 1	84251 (LK92G) 84351 (LK122G)	1
84014 (LP92W) 84114 (LP122W)	6	84034 (LP92I) 84134 (LP122I)	6	84274 (LP92B) 1 84374 (LP122B) 1	84254 (LP92G) 84354 (LP122G)	1
84012 (LKF92W) 84112 (LKF122W)	6 6	84032 (LKF92I) 84132 (LKF122I)	6	84272 (LKF92B) 1 84372 (LKF122B) 1	84252 (LKF92G) 84352 (LKF122G)	1
84002 (LCI92W) 84102 (LCI122W)	6	84022 (LCI92I) 84122 (LCI122I)	6	84262 (LCI92B) 1 84362 (LCI122B) 1	84242 (LCI92G) 84342 (LCI122G)	1
84003 (LCO92W) 84103 (LCO122W)	6 6	84023 (LCO92I) 84123 (LCO122I)	6	84263 (LCO92B) 1 84363 (LCO122B) 1	84243 (LCO92G) 84343 (LCO122G)	1
84000 (LCFI92W) 84100 (LCFI122W)	6	84020 (LCFI92I) 84120 (LCFI122I)	6	84260 (LCFI92B) 1 84360 (LCFI122B) 1	84240 (LCFI92G) 84340 (LCFI122G)	1
84001 (LCFO92W) 84101 (LCFO122W)	6	84021 (LCF092I) 84121 (LCF0122I)	6	84261 (LCFO92B) 1 84361 (LCFO122B) 1	84241 (LCF092G) 84341 (LCF0122G)	1
84015 (LT92W) 84115 (LT122W)	6	84035 (LT92I) 84135 (LT122I)	6	84275 (LT92B) 1 84375 (LT122B) 1	84255 (LT92G) 84355 (LT122G)	1
84106 (LDR12292W)	6	84126 (LDR12292I)	6	84366 (LDR12292B) 1	84346 (LDR12292G))1
84013 (LKS92W) 84113 (LKS122W)	6	84033 (LKS92I) 84133 (LKS122I)	6	84273 (LKS92B) 1 84373 (LKS122B) 1	84253 (LKS92G) 84353 (LKS122G)	1
84008 (LF92W) 84108 (LF122W)	6 6	84028 (LF92I) 84128 (LF122I)	6	84268 (LF92B) 1 84368 (LF122B) 1	84248 (LF92G) 84348 (LF122G)	1
84009 (LFJ92W) 84109 (LFJ122W)	6 6	84029 (LFJ92I) 84129 (LFJ122I)	6 6	84269 (LFJ92B) 1 84369 (LFJ122B) 1	84249 (LFJ92G) 84349 (LFJ122G)	1
	6 6	84037 (LWF92I) 84137 (LWF122I)	6 6	84277 (LWF92B) 1 84377 (LWF122B) 1	84257 (LWF92G) 84357 (LWF122G)	1
84099 (LDC) (12 pk 50	ba	gs)				



Technical Information

Weather resistant PVC, UV stabilized & fire resistant. Tested to over 2,000 hours.

Temperature Range

-4°F to 140°F



12' Wall Duct Kit

Kit includes 12' of duct and all essential fittings to hide and protect the lineset for a typical A/C installation. Available in white, ivory, gray and brown

LDK Kit includes:

LD - Ducting 4' Long (3)

LJ - Couplers (2)

LW - Wall Inlet (1)

LEN - End Fitting (1)

LK - 90º Flat Ell (1)

Fortress Kits:

84045 LDK92G - Gray 3½ 84145 LDK122G - Gray 4½ 84065 LDK92B - Brown 3½ 84165 LDK122B - Brown 4½ 84005 LDK92W - White 3½ 84105 LDK122W - White 4½ 84025 LDK92I - Ivory 3½

84125 LDK122I - Ivory 4½



FORTRESS+™ LINESET COVER

Fortress+

Lineset Cover

RS# (ref #)	QTY	Description	L	W	Н
84180 (LAD150W)	5	Ducting	48"	6"	4"
84185 (LAJ150W)	2	Coupler	5"	6"	4"
84189 (LAW150W)	2	Wall Inlet	13"	9"	13"
84184 (LAE150W)	2	End Fitting	5"	6"	9"
84186 (LAK150W)	2	90° Flat Ell	9"	6"	9"
84187 (LHJK150W)	2	Soffit Inlet	7"	9"	4"
84183 (LAC150W)	2	90° Inside Vertical Ell	7"	6"	8"
84182 (LACM150W)	2	120° Adj Vertical Ell	11"	6"	9"
84181 (LAKM150W)	2	120° Adj Flat Ell	11"	11"	4"
84188 (LATK150W)	2	Tee	8"	14"	4"

SATIN FINISH

Moderate price point. For mini-splits, high velocity and conventional split air conditioning systems.

Protects lineset, wiring and drain hose from weather, vandalism, pet and pest damage.

Snap together ducting easily accessed for repairs or replacement of the lineset.

UV and weather resistant Will remain attractive and provide protection for many years.

Stylish. Complements any residential or commercial building. Paintable. Brush, spray or roller to match or complement custom colors.

Sizes. Duct lenght 4'

Color. White

1 year warranty.



3-in-1

Code	Description	Qty.
84380	Lineset Cover Cutter	6

FEATURES

- Light-weight at 1.15 lbs
- · Easy one-touch open/close
- · Advanced corrosion resistance
- · Safety hook
- · Strong handles
- · Stays in adjustment
- · Cuts cleanly
- Equipped with quick opening mechanism and safety stopper

Lineset Cover Cutter

APPLICATION • Designed to cut HVAC lineset covers

RECOMMENDED FOR

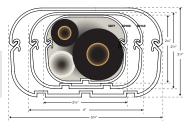
 Residential and commercial HVAC lineset covers
 SLIMDUCT SD-77 2.75" and SD-100 3.75" • FORTRESS LD-92 3.5"





SLIMDUCT® LINESET COVER ORDERING INFORMATION

	RS# (ref. #) White	RS# (ref. #) Ivory	RS# (ref. #) Brown	Description	L	W	н	
	86032 (SKS-77-W)	86012 (SKS-77-I)	85072 (SKS-77-B)	SD 2.75" 45°-90° Adj flat ELL	5 1/2"	5 1/2"	23/5"	
	85004 (SD-77-W) 85104 (SD-100-W) 85204 (SD-140-W)	85024 (SD-77-I) 85124 (SD-100-I) 85224 (SD-140-I)	85064 (SD-77-B) 85164 (SD-100-B) 85264 (SD-140-B)	SD Slimduct 78" L – 77 SD Slimduct 78" L – 100 SD Slimduct 78" L – 140	78" 78" 78"	2 ⁷ / ₈ " 4" 5 ³ / ₈	2 3/4"	
	86010 (SJ-77-W) 86110 (SJ-100-W) 86210 (SJ-140-W)	86030 (SJ-77-I) 86130 (SJ-100-I) 86230 (SJ-140-I)	85370 (SJ-77-B) 85470 (SJ-100-B) 85570 (SJ-140-B)	SJ coupler 77 SJ coupler 100 SJ coupler 140	2" 2 1/2" 31/2"	3 ³ / ₈ " 4 ¹ / ₄ " 5 ³ / ₄ "	2 ⁵ / ₈ " 3" 3 ³ / ₈ "	
	86016 (SW-77-W) 86116 (SW-100-W) 85216 (SW-140-W)	86036 (SW-77-I) 86136 (SW-100-I) 85236 (SW-140-I)	85376 (SW-77-B) 85476 (SW-100-B) 85576 (SW-140-B)	SW wall inlet 77 SW wall inlet 100 SW wall inlet 140	8" 8 ³ / ₄ " 11"	4 ³ / ₈ " 5" 6 ¹ / ₂ "	3" 3 ³ / ₈ " 3 ⁷ / ₈ "	
	85014 (SP-77-W) 86114 (SP-100-W) 85214 (SP-140-W)	85034 (SP-77-I) 86134 (SP-100-I) 85234 (SP-140-I)	85374 (SP-77-B) 85474 (SP-100-B) 85574 (SP-140-B)	SP soffit inlet 77 SP soffit inlet 100 SP soffit inlet 140	53/8"	4 ³ / ₈ " 5 ³ / ₈ " 6 ⁷ / ₈ "		
9	86007 (SE/SEN-77-W) 86107 (SEN-100-W) 86207 (SEN-140-W)	86027 (SE/SEN-77-I) 86127 (SEN-100-I) 86227 (SEN-140-I)	85367 (SE/SEN-77-B) 85467 (SEN-100-B) 85567 (SEN-140-B)	SEN end fitting 77 SEN end fitting 100 SEN end fitting 140	1 ³ / ₄ " 4 ¹ / ₂ " 6"	3 1/4" 4 1/4" 5 3/4"	3"	
	86011 (SK-77-W) 86111 (SK-100-W) 85211 (SK-140-W)	86031 (SK-77-I) 86131 (SK-100-I) 85231 (SK-140-I)	85371 (SK-77-B) 85471 (SK-100-B) 85571 (SK-140-B)	SK 90° flat ELL 77 SK 90° flat ELL 100 SK 90° flat ELL 140	5" 6" 7 1/ ₂ "	2 ⁵ / ₈ " 3" 3 ³ / ₈ "	5" 6" 7 1/ ₂ "	
(1)	85012 (SKF-77-W) 86112 (SKF-100-W) 85212 (SKF-140-W)	85032 (SKF-77-I) 86132 (SKF-100-I) 85232 (SKF-140-I)	85372 (SKF-77-B) 85472 (SKF-100-B) 85572 (SKF-140-B)	SKF 45° flat ELL 77 SKF 45° flat ELL 100 SKF 45° flat ELL 140	5 1/4"	3 1/4" 4 1/4" 5 3/4"	3"	
	86002 (SC-77-W) 86102 (SC-100-W) 85202 (SC-140-W)	86022 (SC-77-I) 86122 (SC-100-I) 85222 (SC-140-I)	85362 (SC-77-B) 85462 (SC-100-B) 85562 (SC-140-B)	SC 90° vertical ELL 77 SC 90° vertical ELL 100 SC 90° vertical ELL 140	4" 4 ⁵ / ₈ " 5"	3 ¹ / ₄ " 4 ¹ / ₄ " 5 ³ / ₄ "	4" 4 ⁵ / ₈ " 5"	
	85000 (SCF-77-W) 86100 (SCF-100-W) 85200 (SCF-140-W)	85020 (SCF-77-I) 86120 (SCF-100-I) 85220 (SCF-140-I)	85360 (SCF-77-B) 85460 (SCF-100-B) 85560 (SCF-140-B)	SCF 45° vertical ELL 77 SCF 45° vertical ELL 100 SCF 45° vertical ELL 140	43/8"		2 ⁵ / ₈ " 3" 3 ³ / ₈ "	
	86015 (ST-77-W) 86115 (ST-100-W) 85215 (ST-140-W)	86035 (ST-77-I) 86135 (ST-100-I) 85235 (ST-140-I)	85375 (ST-77-B) 85475 (ST-100-B) 85575 (ST-140-B)	ST TEE 77 ST TEE 100 ST TEE 140	6 ¹ / ₂ " 7 ⁷ / ₈ " 9 ⁷ / ₈ "	4 ⁷ / ₈ " 6" 7 ⁷ / ₈ "	2 ⁵ / ₈ " 3" 3"	
	85106 (SDR-100-77-W) 86206 (SDR-140-100-W)	85126 (SDR-100-77-I) 86226 (SDR-140-100-I)	85466 (SDR-100-77-B) 85566 (SDR-140-100-B)	SDR reducer 100-77 SDR reducer 140-100	2 ¹ / ₂ " 4"	4 1/4" 5 3/4"	3" 3³/ ₈ "	
	86018 (SIF-77-W) 86118 (SIF-100-W)	86038 (SIF-77-I) 86138 (SIF-100-I)	85378 (SIF-77-B) 85478 (SIF-100-B)	SIF 2" fixed offset 77 SIF 2" fixed offset 100		3 ¹ / ₄ " 4 ¹ / ₄ "		
	-	-	85395 (SN-77-B)	SD 2.75" Twist ELL 77	5 1/2"	5 1/2"	3 3/16"	
	85008 (SF-77-500-W) 86108 (SF-100-800-W) 85208 (SF-140-800-W)	85028 (SF-77-500-I) 86128 (SF-100-800-I) 85228 (SF-140-800-I)	85368 (SF-77-500-B) 85468 (SF-100-800-B) 85568 (SF-140-800-B)	SF flex ELL 20" L – 77-500 SF flex ELL 31" L – 100-800 SF flex ELL 31" L – 140-800	19 ¹ / ₂ " 31 ¹ / ₂ " 31 ¹ / ₂ "		2 ¹ / ₂ " 2 ³ / ₄ " 3 ³ / ₈ "	
	85009 (SFJ-77-W) 85109 (SFJ-100-W)	85029 (SFJ-77-I) 85129 (SFJ-100-I)	85369 (SFJ-77-B) 85469 (SFJ-100-B)	SFJ flex adaptor 77 SFJ flex adaptor 100		3 ¹ / ₄ " 4 ¹ / ₄ "		
(stainless steel)	86001 (SFS-77) 86101 (SFS-100) 86201 (SFS-140)	- -		SFS saddle for flex ELL 77 SFS saddle for flex ELL 100 SFS saddle for flex ELL 140	1 ³ / ₈ " 1 ¹ / ₂ " 1 ¹ / ₂ "		2 ¹ / ₂ " 3" 3"	
Ò	86299 (SL-300)	-		SL strap kit for line sets	-	-	-	



Technical Information

Weather resistant PVC, UV stabilized & fire resistant. Tested to over 2,000 hours.

Temperature Range -4°F to 140°F



13' Wall Duct Kit

Kit includes 13' of duct and all essential fittings to hide and protect the lineset for a typical A/C installation. Available in white only.

SDK Kit includes:

SD - Ducting 39' Long (4) SJ - Couplers (2) SW - Wall Inlet (1) SEN - End Fitting (1)

SK - 90º Flat Ell (1)

Slimduct Kits:

85005 SDK77W - 23/4 White kit 85105 SDK100W - 33/4 White kit

Duct is packaged 5 per box. Fittings are packed 5 or 10 per box.



BIG FOOT® FAST FIX STAND RANGE

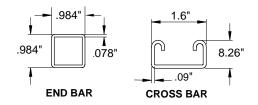
Simple, strong and sturdy ground mount support system.

Mini-split & VRF/VRV condenser stands



VRF/VRV STAND SECTION 1.57" 1.57" 1.61" 1.61" CROSS BAR

MINI SPLIT STAND SECTION



The **Fast Fix Stand Range** is a versatile ground mount support system split into two ranges, mini-splits and VRF/VRV condensing units. Available in a variety of sizes, with optional Extender Kits, the Stand Range is designed to support units both individually and in multiples.

With adjustability of cross bar positions, anti-vibration mounts for mini-splits and clamp kits for the VRF/VRV units, these frames can support a wide variety of units, are cost-effective and quick to assemble. • Rugged ASTM-A36 galvanized steel corrosion resistant support. • More corrosion resistant than competitor stands. • Pre-boxed – quick assembly.

- Base extensions allow unlimited mounting possibilities.
- Compatible with all leading mini-split condensing units Available in a variety of sizes with extender kits.

Contact: RectorSeal®

P 713-263-8001 | 800-231-3345

F 713-263-7577 | 800-441-0051

Fast Fix Stands

Code	Description	Load	Wt.lbs.	Otre
Code	Description	lbs.	WL. UDS.	Qty.
87686	B5550 12" Mini-split stand kit	385	44	1
87630	B5551 18" Mini-split stand kit	385	49	1
87632	B5555 Riser – 4 pk.	-	3	1
Code	Description	Load lbs.	Wt.lbs.	Qty.
87631	B5554 Extender	385	42	1
87633	B5562 Riser – 2 pk.	-	2	1

Mini-split Stand Range - 3 skus cover all mini-splits

B5550 and B5551 SYSTEM COMPONENTS

- (4) 8 in (200mm) Footings. (2) End Bar. (2) Cross Bar.
- (4) Unit Clamp/Fixing Kit.



STAND RISER

STAND EXTENDER



Fast Fix Stands

Code	Description	Load lbs.	Wt.lbs.	Qty.
87634	B5556 VRF 990 stand kit	1,323	77	1
87636	B5557 VRF 1290 stand kit	1,102	84	1
87638	B5558 VRF 1450 stand kit	882	90	1
Code	Description	Load lbs.	Wt.lbs.	Qty.
Code 87635	Description B5559 VRF 990E Extender	Load lbs. 1,323	Wt.lbs.	Qty.
	•			

VRF/VRV STAND EXTENDER



VRF/VRV Stand Range - 6 skus cover all VRF/VRV units

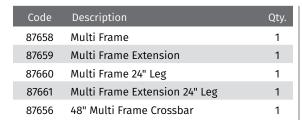
990/1290/450 SYSTEM COMPONENTS

- (4) 8 in.(200mm) Footings. (2) End Bar. (2) Cross Bar
- (4) Unit Clamp/Fixing Kit.



Big Foot

Multi Frame



APPLICATION · Designed for VRF/VRV mounting

Extendable from any side with extension kits

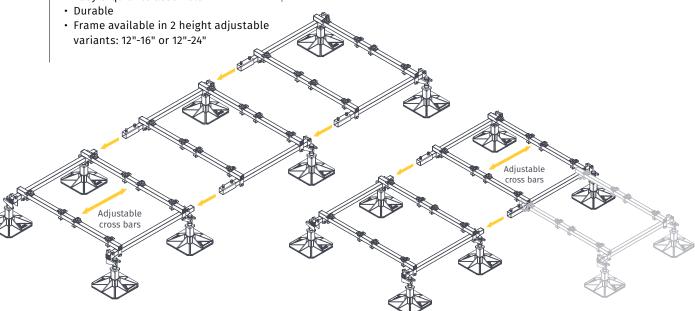
RECOMMENDED FOR

- Compressor Condensers VRV/VRFs Small AHUs
- Unitary fans Rooftops



FEATURES

- Galvanized steel frame with 12" feet
- 40" × 48" multiples
- · Adjustable leg assemblies
- Supplied boxed with clamp kits
- · Ideal rooftop support of equipment and systems
- · Weather resistance
- Easy & quick to assemble



Multi Frame + 2 Extension kits

Multi Frame + 2 Extension kits (alternative layout)



Frame Tech on-line Configuration & Engineering Tool

Frame Tech is an on-line tool to help you configure the precise Multi Frame parts you'll need for your equipment and environment. Frame Tech will ask the right questions and will automatically provide you with engineering specs for max wind load (tip and slip) along with the pounds per foot calculations. Register for access to Frame Tech at: https://frametech.bigfootsupport.com



POLYMER & RUBBER RISERS

Simple lightweight raised mounting support

Polymer Risers

Code	Description	Qty.
87761 (PR-351N-I)	14" Polymer Riser	20
87762 (PR-351N-M)	18" Polymer Riser	20
87763 (PR-351N-L)	39" Polymer Riser	4
87765 (PRC-351N)	End Caps	1 Pair

FEATURES

- · Ideal for piping, duct runs, cable trays and condensers
- · Weather resistant PVC
- · Linear track holds 3/8" hex head bolts
- Two 7/8" long bolts included

Max load capacity: PR-351N-I - 308 lbs. PR-351N-M - 397 lbs. PR-351N-L - 880 lbs



Fix-It-Foot

Code	Description	Qty.
87771 (RMB10)	Fix-It-Foot 10"	1
87773 (RMB16)	Fix-It-Foot 16"	1
87775 (RMB24)	Fix-It-Foot 24"	1
87776 (RMB40)	Fix-It-Foot 40"	1

FEATURES

- · Ideal for rooftop support of equipment & systems
- · Weather resistant
- · Recycled crumb rubber pad
- · Recessed underside permits solid stance
- · Aluminum track permits the use of standard strut hardware (not included)

Max load capacity: RRMB10-181 lbs. RMB16-282 lbs. RMB24-494 lbs. RMB40-650 lbs



Fix-It-Foot Low

Code	Description	Qty.
87772 (RMB10L)	Fix-It-Foot Low 10"	1
87774 (RMB16L)	Fix-It-Foot Low 16"	1

FEATURES

- · Ideal for rooftop support of equipment & systems
- · Weather resistant
- · Recycled crumb rubber pad
- · Recessed underside permits stability
- · Aluminum track permits the use of standard strut hardware (not included)

Max load capacity: RMB10L - 181 lbs RMB16L - 282 lbs



Contact: RectorSeal®

P 713-263-8001 | 800-231-3345

Low profile rubber riser

Additional vibration isolation and stability

F 713-263-7577 | 800-441-0051



UNIVERSAL BRACKETS

Wall Bracket

Sliding cross bar provides exceptional width range

Code	Description	Qty.
87733 (WBB300)	Wall Bracket - powdercoat	1
87734 (WBB300SS)	Wall Bracket - stainless steel	1
87735 (WBB500)	Wall Bracket - powdercoat	1

FEATURES

- Strong secure support
- · Stainless steel or powdercoat finish
- · Includes level for convenience

Min/Max mounting width: $9^3/4$ " - 31" Min/Max mounting depth: 10¹/2" - 19.5" Max load capacity: WBB300 - 300 lbs. WBB300SS - 300 lbs. WBB500 - 500 lbs.



Wall Bracket

Extra integral cross bracing provides ultimate stabilty

Code	Description	Qty.
87732 (PCK30)	Wall Bracket	1
• Extra stability • Galvanized finis Min/Max mounti Min/Max mounti Max load capacit	ng width: 15 ³ /4" – 35 ¹ /4" ng depth: 9 ³ /4" – 15"	



Wall Bracket

Hurricane rated wind resistant support

Code	Description	Qty.
87740 (WBB500HR)	Wall Bracket	1
• Ultimate stabi • Galvanized fin STATE OF FLORID	,	
	ting width: 9 ³ /4" – 31" ting depth: 10 ¹ /2" – 16"	



Miami-Dade **County, Florida** NOA No. 19-0411.04,

Mounting material included

Wall Bracket

Max load capacity: 500 lbs...

Ideal for in window mounted A/C support

Code	Description	Qty.
87731 (CBZG)	Under Window Bracket	1
• Strong secure s Min/Max mounti Min/Max mounti Max load capacit		







Contact: RectorSeal®

P 713-263-8001 | 800-231-3345

6 713-263-7577 | 800-441-0051

Slab Stand

Raises equipement up above flat surface

Code	Description	Qty.
87743 (CNG)	Slab Stand - powdercoat	1
87746 (PCNG63)	Slab Stand - galvanized	1

Individually adjustable legs for uneven surfaces



FEATURES

- · Anti-slip rubber feet
- Galvanized or powdercoat finish Min/Max mounting width: $87743 - 11^{3}/4" - 27^{1}/2"$ $87746 - 15^{3}/4" - 39^{49}/64"$ Min/Max mounting depth: 87743 - 61/4" - 131/4" 87746 - 1113/16" - 17" Max weight capacity:



Slope Stand

87743 - 176 lbs. 87746 - 440 lbs.s.

Provides level mounting surface on sloped roofs



FEATURES

- Levels slopes up to 45° or 12" pitch
- · Powdercoat finish

Min/Max mounting width: 6" - 35" Min/Max mounting depth: 10" - 19" Max load capacity: 250 lbs.





Duplex Stand

Securely mounts two condenser units

Code	Description	Qty.
87744 (CWGL)	Duplex Stand	1

FEATURES

- Sturdy support
- · Powdercoat finish
- Anti-slip rubber feet

Min/Max mounting width: $CWGL - 15^3/4" - 31^1/2"$ Min/Max mounting depth: CWGL - 7⁷/8" - 15" Max load capacity: CWGL - 176 x 2 lbs.





87744 H = 361/4"W = 17" D = 36"

RSH Series

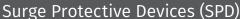
Code	Description	Qty
96415	RSH-50 Surge Protective Device	6
96416	RSH-60 Surge Protective Device	4
96426	RSH-60 VMD Surge Protective Device	2
96418	RSH-50DB with Fused disconnect box	6
96419	RSH-50DB with Non-Fused disconnect box	6





FEATURES

- Long-Lasting Gas Discharge Tube Technology
- TFMOV Technology (Thermally Fused Metal Oxide Varistor)
- Unsurpassed Industry Product Warranty
- Green LED Easily Indicates Protection
- Weather-Rated under NEMA 4
- Fits All Single-Phase Units
- UL 1449 Listed
- NEC's highest Short Circuit Current Rating (SCCR) @200kA
- · RoHS Compliant



Application • Protect HVAC equipment from electrical surges, brownouts, and other voltage disturbances · Protects up to 60,000amp single surges and up to 20,000amp repetitive surges • Type 1 Device - can be mounted any in position

Recommended for • Residential and commercial use · All single phase 120/240 V HVAC-R equipment (air conditioning, heat pumps)



with Disconnect Box for Quick and Clean Installation







MAXIMUM DISCHARGE CURRENT PER PHASE	50kA	60kA	60kA
NOMINAL DISCHARGE CURRENT	10kA	20kA	20kA
SHORT CIRCUIT CURRENT RATING (SCCR)	200kA (NEC's highest rating)	200kA (NEC's highest rating)	200kA (NEC's highest rating)
DIAGNOSTICS	1 LED	2 LED's, Audible alarm	2 LED's, Audible alarm, Voltage Monitoring Circuit
PRODUCT WARRANTY	Lifetime	Lifetime	5 Years
CONNECTED EQUIPMENT WARRANTY	5 years / \$5,000	5 years / \$7,500	5 years / \$5,000

Novent® Pink

Locking Refrigerant Cap, R410A

Code	Description	Qty.
86672 (NPE-R410)	2 cap blister 5/16"	20
86671 (NPE-R410)	10 cap blister 5/16"	5
86673 (NPE-R410)	50 cap box 5/16"	1

FEATURES

- Resists crushing & removal without key
- · Corrosion resistant anodized aluminum
- Integral neoprene O-ring resists oils & sealants
- · Torque limiter prevents overtightening

APPLICATION • Seals standard Schrader service valves on all central A/C units and mini-splits to help prevent refrigerant leakage • Protects from serious injury or death resulting from the inhalation of dangerous gases

RECOMMENDED FOR

• R410A





Patent No. 6,612,455



EZ Trap®

AquaGuard®

Goliath®/Titan®

ArmorPad™

Novent[®]

Airtec®

GulfCoat™

Big Foot®



SAFE-T-SWITCH® OVERFLOW SWITCHES

The most reliable switch.

SS1 Float Switch

For primary drains or auxiliary drain outlets

Code	Description	Qty.
97632	Model SS1	24
97630	Contractor Pack	50



FEATURES

- Condensate overflow switch
- · Magnetic reed switch
- · Install vertically or horizontally
- · Connect to either red or yellow wire
- Includes directional cleanout tool to provide cleanout access.
- Float is adjustable

APPLICATION · Detects clogged A/C condensate drains and shuts off the system to prevent water damage to floors, walls and ceilings • Can be installed horizontally or vertically, inline or on the primary pan's auxiliary drain outlet by using the included 3/4" adapter, bushing and cap

· Can be installed on a sloping line and does not need to be level or plumb

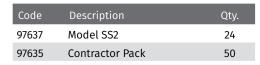
US Patent No. 6,442,955



Can be installed in a horizontal or vertical position

SS2 Float Switch

For primary drain pan auxiliary outlet





UL 508

FEATURES

- Condensate overflow switch
- · Magnetic reed switch
- Connect to either red or yellow wire
- · Float is adjustable

APPLICATION • Detects clogged A/C condensate drains and shuts off the system • Using the 3/4" adapter the SS2 can be installed on the auxiliary outlet of the primary drain pan • Easy access to the switch and the primary drain line for service

US Patent No. 6,442,955





A plenum rated model is available - SS2AP

SS3 Float Switch

For primary and auxiliary drain pans

Code	Description	Qty.
97647	Model SS3	24
97645	Contractor Pack	50



FEATURES

- Condensate overflow switch
- Magnetic reed switch
- · Connect to either red or yellow wire
- Float is adjustable

APPLICATION • Detects clogged A/C condensate drains and shuts off the system • Steel mounting bracket clips firmly over the edge of most drain pans • Slim profile can be installed on primary or auxiliary drain pans.

US Patent No. 6,698,215







F 713-263-7577 | 800-441-0051

Model SS2AP

CodeDescriptionQty.97640Model SS2AP50



UL 2043

FEATURES

- · Condensate overflow switch
- · Magnetic reed switch
- · Connect to either red or yellow wire

Plenum rated

APPLICATION Detects clogged A/C condensate drains and shuts off the system Schedule 40 CPVC, plenum rated and listed to UL-2043 Use 3/4" adapter to install on the auxiliary outlet of the primary drain pan.



US Patent No. 6,442,955

Model SS500EP

Code	Description	Qty.
97693	Model SS00EP	12
(U)	FEATURES	

LISTED IND. CONT. EQ. 25XE 111 508

- · Electronic probe sensor
- 5-wire design
- Onboard LED indicator
- · Plenum rated wire
- Connect to either red or yellow wire

Commercial rooftop downflow units

APPLICATION • Install on primary drain pan when plenum rating is needed • Small size and slim profile great for use on commercial rooftop downflow units

US Patent No. 6,698,215



Model SS700E

Code	Description	Qty.
97695	Model SS700E	24



FEATURES

- Works in any position
- Universal puck works in all secondary drain pans
- · Onboard LED indicator

Directly in the secondary drain pan

APPLICATION • Designed to sit directly in a secondary drain pan, eliminating screws and clips • Multiple position option for the sensor and provides adjustable heights • Great for use in plastic overflow pans with round edges







Patent No. 5,069,042

EZ TRAP® 100 SERIES CLEAR TRAP™ KITS

Clear cleanable trap

Condensate Traps and Overflow Switches



83113 (EZT113)

RS#

Size 3/4"

Economy trap kit no brush

(ref. #)

Thinner walled trap for light duty applications. 10 per carton. **Includes:** 3/4" trap, 3/4" cross, 3/4" tee, three 3/4" red caps, 1" drop.



with microswitch technology.

(4A NO/NC)

higher switching capacity



(ref. #) 83114 (EZT113B)

Size 3/4"

Economy trap kit w/brush

Thinner walled trap for light duty applications, 10 per carton. **Includes**: 3/4" trap. 3/4" cross. 3/4"

tee, three 3/4" red caps, cleaning brush, 1" drop.



RS# (ref. #) 83405 (EZT405)

Heavy Duty Cleaning Brush 18" flexible stainless rod. 10 per carton



RS# (ref. #)

83406 (EZT406)

Standard Cleaning Brush 18" flexible rod. 25 per carton

2 Year Warranty

to clean the trap and drain pan outlet. 600 Combo kit Clear Trap and Overflow Switch

Watertight red caps provide easy access

(ref. #) Size 83626 (EZT626) 3/4"

Quality

construction with

durable schedule

40 PVC fittings.

For coverage of the entire condensate drain system. 5 per carton.

Transparent Trap is easy to clean and easy to inspect

Compact overflow switch

with 3/4" female slip inlet
Two part design for use where obstructions prevent direct threading. **includes:** 1"x 3/4" slip female street ell, 3/4" male adaptor, float switch assembly, 72" cable.

Economy trap kit w/brush

ninner walled trap for light duty applications. **Includes:** 3/4" blow molded trap,

3/4" cross, 3/4" tee, three 3/4" red caps, cleaning brush, 1" drop.



200 SERIES SMARTTRAP™ KITS

Float switch overflow protection. Clear, cleanable trap

220 SERIES OVERFLOW SWITCHES

Float switch overflow protection. 4 Amp, 24 Volt

(ref. #) Size 83205 (EZT205) 3/4"



Deep SmartTrap kit

for fluctuating static pressure found in systems with variable speed air handlers. 10 per carton. Includes: 3/4" Deep Standard Trap, 1" cross, 1" red cap, 1"x 3/4" bushing, 3/4" tee, 3/4" black stub, 3/4" male adapter, float switch assembly, 72" cable, cleaning brush, 3" drop.

Size

3/4"

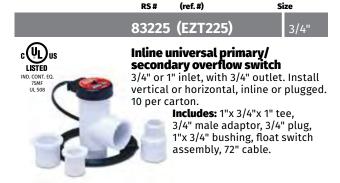
	RS#	(ref. #)	Size
	83224	• (EZT224)	3/4"
CUL US LISTED LISTED IND. CONT. EQ. 75MF UL 508	with 3, Thread pan. 10 Include	per carton. s: 1"x 3/4" mal ell, float switch	eaded inlet secondary drain e threaded

83210 (EZT210) LISTED

Standard SmartTrap kit

(ref. #)

fits most applications requiring automatic shut down. 10 per carton. Includes: 3/4" Standard Trap, 3/4" cross, 3/4" red cap, 1"x 3/4" bushing, 3/4" tee, 3/4" black stub, 3/4" male adapter, float switch assembly, 72" cable, cleaning brush, 1" drop.





RS#



with threaded cleaning cap. Fits most applications Includes clear u-bend for inspection, and access ports for easy cleaning. 10 per carton.

Includes: 3/4" Standard Trap, 1" cross, 3/4" locking cap, 1"x 3/4" bushing, 3/4" tee, 3/4" black stub, 3/4" male adapter, float switch assembly, 72" cable, cleaning brush, 1" drop.







AQUAGUARD SENSORS



AG-1100+

Magnetic Float Switch System for Metal Pans



Code	Description	Qty.
96100	Float Switch	30



UL 508

FEATURES

- Easy, Drill-Free Installation
- Pull Up Test Knob
- · Protective Cover
- UL 508

US Patent 7.710.283

APPLICATION The AG-1100+ is incredibly easy to install. It can be mounted to the drain pan in 10 seconds or less. Installation does not require any pre-drilling for screws. The AG-1100+ incorporates a protective cover to keep out insulation and debris that could prevent the float from rising.

- Normally Open 3rd Wire for Optional External Alarm, Digital Controller, or Energy Management System • Residential and Commercial
- · High Capacity 5 Amp, 24 Volt AC Magnetic Float Switch



AG-1200+

Magnetic Float Switch System for Metal & Plastic Pans

Code	Description	Qty.
96106	Float Switch	30



FEATURES

- Easy, Drill-Free Installation
- Pull Up Test Knob
- Protective Cover
- UL 508

US Patent 7,710,283

APPLICATION • The AG-1200+ has all of the features of the 1100+ plus an innovative two-piece clamp design which allows it to be mounted to a metal secondary drain pan (without a lip) or a plastic secondary drain pan (with a lip) in 10 seconds or less, without screws or drilling. • Protective cover keeps out insulation, pests and debris.

• Normally Open 3rd Wire for Optional External Alarm, Digital Controller, or Energy Management System · Residential and Commercial · High Capacity 5 Amp, 24 Volt AC Magnetic Float Switch



AG-3175E

Primary Pan Sensor (Plenum Rated)

Code	Description	Qty.
96126	Primary Pan Sensor	10



FEATURES

- · Time delay
- Plenum-rated probe & wire
- · Install horizontal or vertical
- · Water detection LED light
- · Bonus secondary sensor
- Compact waterproof design
- UL 508 & UL 2043

US Patent 7.744.395; 8.151.580; 8.561.417; 8.578.770

APPLICATION • The AquaGuard AG-3175E's primary pan sensor is mounted directly in the auxiliary drain port of the primary drain pan. The bonus secondary sensor can be installed either vertically or horizontally and features a water detection LED.

· Redesigned probe sensor for increased reliability • Two sensors for the price of one • 6 Feet of both plenum rated probe & sensor wire • 5 Amp, 24 Volts AC solid state sensor with water detection LED light • Switch can be normally open or normally closed • Normally open 4th wire for optional external alarm, digital controller or energy management systems



Contact: RectorSeal®

P 713-263-8001 | 800-231-3345

F 713-263-7577 | 800-441-0051

AG-1250E

Multipurpose Water Sensor

Code	Description	Qty.
96108	Water Sensor	30

· Either normally open or

FEATURES



normally closed

- Solid state sensor with water detection LED
- · NEW adjustable height mount
- · 6 feet of control wire
- 5 amp capacity, 0-24 Vac/dc
- · Can be used with communicating systems
- UL 508

US Patent 8,578,770

APPLICATION • The AG-1250E multipurpose water sensor is mounted directly in a metal or plastic secondary pan, floor or wall. The AG-1250E is a highamperage, solid state sensor with no moving parts to break down or become clogged. The low profile design makes it easy to install.

• Normally Open Wire for Optional External Alarm, Digital Controller or Energy Management

· Versatile mounting options allow positioning on the unit, in a secondary pan, floor or wall

· Clip on mounting base for easy cleaning and drying of sensor



AG-3150E

Primary pan sensor

Code	Description	Qty.
96124	Primary Pan Sensor	10

IND. CONT. EQ.

FEATURES

- · Time delay
- Install horizontal or vertical
- · Water detection LED light
- · Bonus secondary sensor
- Compact waterproof design
- UL 508

US Patent 7,744,395; 8,151,580; 8,561,417; 8,578,770

APPLICATION • The AquaGuard AG-3150E's primary pan sensor is mounted directly in the auxiliary drain port of the primary drain pan. The bonus secondary sensor can be installed either vertically or horizontally and features a water detection LED.

· Redesigned probe sensor for increased reliability • Two sensors for the price of one • 6 Feet of both probe & sensor wire • 5 Amp, 24 Volts AC solid state sensor with water detection LED light • Switch can be

normally open or normally closed · Normally open 4th wire for optional external alarm, digital controller or energy management systems





AG-3180E

Micro pan sensor (Plenum Rated)

Code	Description	Qty.
96128	Micro Pan Sensor	10



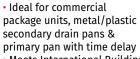
25XE UL 508 UL 2043

FEATURES

- Time Delay Up to 60 sec
- Plenum Rated Probe & Wire
- · Micro pan sensor
- · Water detection LED light
- · Bonus Secondary Sensor
- Adjustable mounting clips
- Can be mounted with double sided tape or adjustable mounting clips
- UL 508 & UL 2043

US Patent 8,578,7700

APPLICATION • The AquaGuard AG-3180E micro-electronic condensate sensor is mounted directly in the primary drain pan. The bonus secondary sensor features water detection LED and easily installs in the metal or plastic secondary drain pan. Both sensors continuously monitor any condensate overflow in the primary and secondary drain pans and automatically shut off the system and activate an alarm if any overflow is detected.



- Meets International Building Codes & Primary Pan Code Requirements • 6 Feet of Both Plenum Rated Probe and Sensor Wire • 5 Amp, 24 VAC Solid State Sensor
- Switch Can Be Normally Open or Normally Closed • Normally Open Wire for
- Normally Open Wire for Optional External Alarm, Digital Controller or Energy Management Systems





AG-9100

External Audible and Visual Remote Alarm

Code	Description	Qty.
96180	Ext. Audio/Visual Alarm	10

FEATURES

- · No battery required
- Bright white LED alarm
- 103db Audible Alert
- 12 Inches of Lead Wire
- 12-24 VAC / 6-32 VDC circuit
- · Audio silence switch

APPLICATION • The ONLY multipurpose remote alarm approved for use with AquaGuard condensate management systems. The AG-9100 Audible & Visual Remote Alarm is connected directly to AquaGuard Condensate Management System. When activated, the AG-9100 produces an audible and visual signal. Can be Conveniently Mounted to a Wall, Ceiling, or Directly to a Hot Water Tank or HVAC/R Unit with Two Screws or Included Adhesive Pad Over 250 Feet Away from a Condensate Overflow Switch

For Use With • AG-1100+ • AG-1200+ • AG-1250E • AG-2550E

• AG-3150E • AG-3175E • AG-3180E

• AG-3575E • AG-4200



AG-4200E

Electronic condensate management sensor system

Code	Description	Qty.
96143	Primary Pan Sensor	1



25XE UL 508

FEATURES

- · Switch can be normally open or normally closed
- 5 amp, 24 volts AC solid state sensor with water detection LED light
- · Adjustable height mount
- · 6 feet of control wire
- UL 508

US Patent 8,317,16970

APPLICATION • Multipurpose Condensate Overflow Sensor that combines the proven water sensing technology of the AG-1250E with our industry leading Goliath and Titan drain pan line to deliver the ultimate condensate management system. The AG-4200E is the complete condensate management system for Goliath, Goliath Furnace, Goliath Value Series and Titan Drain Pans • 24 VAC, 5 Amp • Controls Normally Open or Normally Closed • 6' of Standard Control Wire • Compact Waterproof Design • Includes **Vibration Isolators**



AG-4200M

Magnetic condensate management system

Code	Description	Qty
96142	Primary Pan Sensor	1



FEATURES

- · Easy, Drill-Free Installation
- Pull Up Test Knob
- Water detection LED light
- · Protective Cover
- UL 508

US Patent 8,578,770; 8,317,1690

APPLICATION • Multipurpose condensate overflow sensor that combines the incredibily easy to install AG-1100+ with our industry leading Goliath and Titan drain pan line to deliver the ultimate condensate management system. It can be mounted to the drain pan in 10 seconds or less. Installation does not require any pre-drilling for screws. The AG-1100+ incorporates a protective cover to keep out insulation and debris that could prevent the float from rising. The AG-4200M is the complete condensate management system for Goliath, Goliath Furnace, Goliath Value series and Titan Drain pans.

• 3/4" PVC threaded male pipe adapter • Normally Open 3rd Wire for Optional External Alarm, Digital Controller, or Energy Management System • Residential and Commercial • High Capacity 5 Amp, 24 Volt AC Magnetic Float Switch

Includes Vibration Isolators





GOLIATH CONDENSATE PANS

Goliath®

Code	Pan Size	Qty.
96200	26"x56"	10
96202	28"x57"	10
96204	28"x69"	10
96206	30"x50"	10
96208	30"x62"	10
96210	30"x66"	10

FEATURES

- Hangable
- · Extreme temperature durability
- High tensile strength
- Crack/split/leak/rust resistant
- Self extinguishing

US Patent 7.900.795



Secondary Drain Pans

APPLICATION • Goliath Series Secondary Drain Pans are the strongest, most rugged HVAC secondary drain pans on the market today • Goliath Series Secondary Drain Pans are engineered with superior one piece structural strength to produce a nearly indestructible drain pan with rolled edges and no seams • Each pan is strong enough to hang using only one pair of steel support struts, ensuring a quick-and-easy professional installation • Features a network of built-in risers, which are compatible with a wide variety of sizes of HVAC units and eliminate the need to shop around for additional risers or mounting blocks. Some Goliath pans have lower risers when space is restricted · Risers run the length of pan for better strength when hanging · Each pan has specially designed indentations for placement of hanging brackets · Goliath Series Secondary Drain Pans are compatible with our AG-4200 Condensate Management System water sensor and drain adapter as well as AG-GFR Vibration Isolators to quiet any noisy HVAC



All pans meet or exceed all international building codes and come with a 10 Year Limited Warranty.

Goliath®

Code	Pan Size	Qty.
96214	30"x50"	10
96216	30"x62"	10
96218	30"x66"	10

FEATURES

- Extreme temperature durability
- · High tensile strength
- Crack/split/leak/rust resistant
- Self extinguishing

Value Series Secondary Drain Pans

APPLICATION • Goliath Value Series Secondary Drain Pans are the affordable solution for fixed placement, solid surface applications when hanging a secondary drain pan and HVAC unit is not necessary. Feature a network of built-in risers, which are compatible with a wide variety of sizes of HVAC units . Superior strength, durability and versatility when compared to other HVAC secondary drain pans made of traditional ABS plastics. • Will not crack, split, or rust like a metal secondary drain pan • Can support 40% more weight than a traditional ABS plastic pan • Extreme temperature durability – 20°F (-28°C) to 260°F (126.7°C) with a higher melting point and self extinguishing characteristics not found in competitors' secondary drain pans • Are compatible with our AG-4200 Condensate Management System water sensor and drain adapter as well as AG-GFR Vibration Isolators to quiet any noisy HVAC unit.



Goliath Value Series Non-Hangable Secondary Drain Pans are to be used only for fixed placement HVAC installations and must be supported by a solid surface and are not to be hung in any application

All pans meet or exceed all international building codes and come with a 5 Year Limited Warranty.



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GOLIATH FURNACE CONDENSATE PANS AND RISERS

Goliath® Furnace

Code	Pan Size	Qty.
96220*	30"x36"	10
96222	34"x64"	10
96224	34"x79"	10

FEATURES

- Extreme temperature durability
- · High tensile strength
- Crack/split/leak/rust resistant
- Self extinguishing



APPLICATION • Goliath Furnace Series Secondary Drain Pans offer all the same benefits and features of our Goliath Series Secondary Drain Pans and are specifically designed for the unique clearance needs of furnace installations and piping requirements • With 7" of clearance, Goliath Furnace pans offer the necessary clearances for any piping that needs to run below a furnace unit – especially with condensing furnace installations.
• They are engineered with superior one-piece structural strength to produce a nearly indestructible furnace pan with rolled edges and no seams. Each pan provides extreme

indestructible furnace pan with rolled edges and no seams. Each pan provides extreme temperature durability (-40°F to 260°F), high tensile strength, crack/split/leak/rust resistance, and are self extinguishing. • Goliath Furnace Series Secondary Drain Pans are compatible with our AG-4200 Condensate Management System water sensor and drain adapter as well as 10 AG-GFR Vibration Isolators to quiet the operation of any noisy furnace unit.



*The Goliath Furnace 30" x 36" pan is designed exclusively for vertical, up flow applications.

All pans meet or exceed all international building codes and come with a 10 Year Limited Warranty.



Goliath® Furnace

Code	Riser Size	Qty.
96254	GFR 28"x6"	16
96250	GFR 23"x4"	16
96252	GFR 23"x7"	16

FEATURES

- Will not rust or crack and provide 10x the strength as metal risers.
- Compatible with our Titan secondary drain pans, metal pans or can be used as a standalone.
- Available vibration isolators quiet noisy furnace units



US Patent 8,220,7

Riser kits

APPLICATION • Goliath Furnace Risers (GFR) are the perfect solution for any furnace installation. GFRs raise furnaces providing the necessary clearance to accommodate piping and p-traps. • Available in three sizes, GFR 28"x6", GFR 23"x4" and GFR 23"x7" to accommodate a variety of furnace installation needs. • Installation is quick and easy, the GFRs are made to fit either lengthwise or width wise in our Titan pans or fabricated metal pans. • Material is 10X stronger than competing metal risers.



All Goliath Furnace Risers meet or exceed all international building codes and come with a 3 Year Limited Warranty.

TITAN CONDENSATE PANS

Titan™

Code	Pan Size	Qty.
96230	24"x24"	10
96232	26"x26"	10
96234	30"x30"	10
96236	32"x32"	10
96238	30"x50"	10
96240	30"x62"	10

FEATURES

- · Extreme temperature durability
- High tensile strength
- Crack/split/leak/rust resistant
- Self extinguishing
- Meets or exceed all internatioanl building codes
- 3 year limited warranty



Secondary Drain Pans Flexible Series

APPLICATION • Used when space requirements are tight, the Titan Flexible Series Secondary Drain Pans are more flexible and durable than fabricated metal or plastic pans · Material will not rust, crack, split or leak like a traditional fabricated metal secondary drain pan. Material provides extreme temperature durability (-40°F to 260°F), high tensile strength and is self extinguishing • Titan pans are manufactured with rolled edges and no seams for superior one-piece structural strength and flexibility • They are also specifically designed and engineered to be completely compatible with our Goliath Furnace Series Furnace Risers to create a complete and professional HVAC installation • Made with Pride, Titan Flexible Series Secondary Drain Pans are compatible with our AG-4200 Condensate Management System water sensor and drain adapter







Titan™

Metal Secondary Drain Pan

Code	Description	Qty
96241	Metal Series 24" x 36"	5
96242	Metal Series 26" x 26"	5
96243	Metal Series 30" x 66"	5
96244	Metal Series 32" x 36"	5
96245	Metal Series 32" x 48"	5
96246	Metal Series 32" x 62"	5
96247	Metal Series 30" x 60"	5
96248	Metal Series 30" x 30"	5

APPLICATION

A/C Secondary Condensate Drain Pan • Collect condensate from evaporator coils in case of overflow

RECOMMENDED FOR

Residential and commercial HVAC units



FEATURES

- Premium craftsmanship
- 24-gauge galvanized steel
- 1-piece construction
- Smooth rolled edge
- · No seams
- Fittings included, securely attached to each pan
- Nestable for easy storage
- 8 sizes to fit the needs of any contractor
- Two drain plug outlets on the short and long sides offer flexibility during installation
- Compatible with Safe-T-Switch® Condensate overflow switches and AquaGuard® condensate overflow switches



ARMORPAD EQUIPMENT PAD

ArmorPad™

Code	Description	Qty.
84401	24"x 24"x 3" Equipment Pad	14
84403	30"x 30"x 3" Equipment Pad	14
84404	32"x 32"x 3" Equipment Pad	14
84405	36"x 36"x 3" Equipment Pad	14
84406	40"x 40"x 3" Equipment Pad	14
84418	35"x 18"x 2" Mini-split Equipment Pad	12

FEATURES

- Light-weight at less than 11 lbs
- Extreme durability with load capacity of more than 1400 lbs
- High anchoring strength for securing equipment
- Textured surface to prevent equipment sliding
- Long-term exterior weather resistance including UV resistance, and freeze and thaw resistance
- · Vibration absorbing
- Chemical resistance against R-407c and R-410A, compressor oil, coil cleaners, and salt solution

Equipment pad

APPLICATION • Provides support and lift for the HVAC outdoor condenser unit outdoor • Provides a strong and stable equipment platform for uneven surfaces

RECOMMENDED FOR • Residential and commercial HVAC units





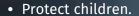
NOVENT®

LOCKING REFRIGERANT CAPS

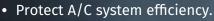
Meet IMC[®] IRC[®] code







• Protect homeowners from liability.



Inhalant Abuse.

Breathing in vapor or gases to reach a high or altered state of mind, commonly called

"Huffing, Sniffing, Bagging or Dusting". Inhalants are legal and found in everyday products like glue, paint and the refrigerant gas (Freon) in your A/C unit. Over 2.6 million children, aged 12-17 use inhalant each year to

get high. Special tools are required to apply and remove the caps, making it difficult for non-professionals to access the refrigerant.

Proven, instant protection.

Novent® protects lineset refrigerant gas against intoxication by inhalation of toxic refrigerant gas. Special tools are required to apply and remove the caps, making it difficult to access the refrigerant. They are code compliant, proven to reduce venting. energy loss, and provide protection from serious injury or homeowner liability.

Insist on code compliant caps.

Effective February 2009 the International Mechanical Code and International Residential Code require that all outdoor access ports on AC Refrigerant circuits be fitted with locking-type caps to make tamper resistant.

Novent® locking AC refrigerant caps are the proven code compliant solution







NOVENT® LOCKING REFRIGERANT CAPS

Dual protection. Simple key style installation.

Novent® Silver

Any gas, 1/4" thread, key

Code	Description	Qty.
86692 (NS-UNI)	2 cap blister	20
86691 (NS-UNI)	10 cap blister	10
86693 (NS-UNI)	50 cap box	1
86694 (NS-UNI)	100 pack	1

APPLICATION • Seals standard Schrader service valves on all central A/C units and mini-splits to help prevent refrigerant leakage • Protects from serious injury or death resulting from the inhalation of dangerous gases

RECOMMENDED FOR

Any gas



1/4" Thread Silver

Patent No. 6,612,455

FEATURES

- Resists crushing & removal without key
- Corrosion resistant anodized aluminum
- Integral neoprene O-ring resists oils & sealants
- Torque limiter prevents overtightening

Novent[®] Pink

R410A, 1/4" thread, key

Code	Description	Qty.
86682 (NP-R410)	2 cap blister 1/4"	20
86681 (NP-R410)	10 cap blister 1/4"	10
86683 (NP-R410)	50 cap box 1/4"	1
86684 (NP-R410)	100 pack 1/4"	1

FEATURES

- Resists crushing & removal without key
- Corrosion resistant anodized aluminum
- · Integral neoprene O-ring resists oils & sealants
- Torque limiter prevents overtightening

APPLICATION • Seals standard Schrader service valves on all central A/C units and mini-splits to help prevent refrigerant leakage • Protects from serious injury or death resulting from the inhalation of dangerous gases

RECOMMENDED FOR

• R410A



Patent No. 6,612,455



Continued

Novent® Starter Pack

Code	Description	Qty.
86680 (NP-STARTPACK)	(6) R410A caps (1) Multikey	10
86690 (NS-STARTPACK)	(6) UNI caps (1) Multikey	10

FEATURES

- · Resists crushing & removal without key
- · Corrosion resistant anodized aluminum
- Integral neoprene O-ring resists oils & sealants
- · Torque limiter prevents overtightening

Caps & keys

APPLICATION • Seals standard Schrader service valves on all central A/C units and mini-splits to help prevent refrigerant leakage • Protects from serious injury or death resulting from the inhalation of dangerous gases

RECOMMENDED FOR

• All types of refrigerants; Color coded caps and embossed ID prevent refrigerant gas mixing









Novent[®] Keys

Code	Description	Qty.
86698 (NVMULTIKEY)	Multikey blister	20
86688 (NP-R410SDT)	Pink screwdriver	20
86660 (NG-R22-SDT)	Uni & green screwdriver	20

FEATURES

- · Selection of installation tools available
- · Corrosion resistant



Special installer & removal key

APPLICATION • Patented Novent Caps are precision machined from high grade brass surrounded by a protective aluminum shroud and can only be installed and removed with a special

RECOMMENDED FOR

· All types of refrigerants

Patent No. 6,612,455



AIRTEC

ONE PIECE AIR DIFFUSERS

Our patented 73 second





diffuser install is the quickest in the trade.





Airtec® Classic GRILLE DAMPER BOX

Think fast Work smart.® Our one piece design is virtually air tight, eliminating the need for tedious mastic and external sealers. That cuts attic time. Diffuser installation is no longer a two man job. Labor estimates will be more competitive and you can pocket the profit. You won't want to go back to a metal diffuser ever again.

Strong, Versatile, Quiet.

Airtec Classic is molded with professional grade polymers for long lasting durability. Choose from five grille styles to deliver the optimum air flow and movement pattern for any room. Stepped collar tears off easily to enlarge duct size to maximize job site flexibility. Virtually air-tight construction ensures efficient and quiet air delivery. 2 Sizes available.



Airtec® Retro GRILLE DAMPER BOX

Retro style. Same innovation. Something unexpectedly beautiful for your discriminating customer. Retro diffusers simulate the look of traditional cast iron, to add a sense of warmth missing in contemporary diffusers.

For Premium Installations.

Distinguish yourself from your competition with Airtec Retro reproduction antique styled air diffusers. Your discerning customer can have the look and feel of a reproduction cast iron grille without the high cost and weight. Simulated cast iron texturing is scratch and rust resistant. Authentic

handle turns easily for full range of air flow adjustment. Airtec Retro offers the same advanced technology and labor saving installation time as the standard Airtec diffuser line. Available in black and white. 2 sizes available.

U. S. Patent No. 6,557,826

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AIRTEC® DIFFUSER AIR FLOW SPECIFICATIONS



RS#(ref.#) 81912 (MV2) Ak=.33

RS#(ref.#) 81902 (MV2S) (6x6") Ak=.17

CFM	PRESSURE LOSS	THROW*	FACE VELOCITY**		CFM	PRESSURE LOSS	THROW*	FACE VELOCITY
55	.006 wg	4.9 ft	164 ft/min		55	.028 wg	4.5 ft	308 ft/min
75	.009 wg	6.7 ft	229 ft/min	2-WAY	75	.054 wg	6.0 ft	421 ft/min
90	.014 wg	8.0 ft	264 ft/min	The state of the s	90	.102 wg	7.1 ft	592 ft/min
110	.021 wg	9.8 ft	330 ft/min		110	.145 wg	8.9 ft	663 ft/min
125	.027 wg	11.1 ft	375 ft/min		125	.181 wg	10.3 ft	785 ft/min
150	.039 wg	13.4 ft	451 ft/min		150	.245 wg	11.5 ft	903 ft/min
175	.053 wg.	15.6 ft	533 ft/min		175	.325 wg.	12.6 ft	1045 ft/min
200	.069 wg	17.8 ft	604 ft/min		200	.430 wg	14.0 ft	1155 ft/min
250	.108 wg	22.3 ft	757 ft/min		í			
300	.156 wg	26.7 ft	909 ft/min					
350	.212 wg	31.2 ft	1060 ft/min					

RS#(ref.#) 81913 (MV3), 81943 (GRD3) (8x8") Ak=.29

RS#(ref.#) **81903 (MV3S)** (6x6") Ak=.17

CFM	PRESSURE LOSS	THROW*	FACE VELOCITY**		CFM	PRESSURE LOSS	THROW*	FACE VELOCITY**
55	.008 wg	5.0 ft	188 ft/min		55	.056 wg	5.3 ft	344 ft/min
75	.014 wg	6.8 ft	255 ft/min	3-WAY	75	.075 wg	7.2 ft	426 ft/min
90	.020 wg	8.1 ft	310 ft/min		90	.130 wg	8.8 ft	570 ft/min
110	.030 wg	9.9 ft	370 ft/min		110	.171 wg	10.2 ft	661 ft/min
125	.038 wg	11.3 ft	445 ft/min		125	.230 wg	11.1 ft	785 ft/min
150	.054 wg	13.5 ft	517 ft/min		150	.290 wg	11.5 ft	880 ft/min
175	.073 wg.	15.8 ft	602 ft/min	1111	175	.445 wg.	12.1 ft	994 ft/min
200	.095 wg	18.0 ft	689 ft/min		200	.545 wg	12.8.ft	1182 ft/min
250	.148 wg	22.5 ft	862 ft/min					
300	.213 wg	27.0 ft	1034 ft/min					
350	.289 wg	31.5 ft	1206 ft/min					
				Throw measurements are equal in all three directions +/-5%				

RS#(ref.#) 81914 (MV4), 81944 (GRD4) & 81834 (GR4) (8x8") Ak=.30

RS# (ref.#) **81904 (MV4S)** (6x6") Ak=.20

۱ ۶	PRESSURE LOSS	THROW*	FACE VELOCITY**	CFM	PRESSURE LOSS	THROW*
55	.007 wg	3.9 ft	183 ft/min	5.	5 .050 wg	4.5 ft
75	.011 wg	5.3 ft	247 ft/min	4-WAY 7:	5 .085 wg	6.3 ft
90	.017 wg	6.4 ft	293 ft/min	90	0 .117 wg	7.1 ft
110	.024 wg	7.8 ft	359 ft/min	110	0 .160 wg	8.2 ft
125	.030 wg	8.9 ft	410 ft/min	12:	5 .200 wg	9.1 ft
150	.043 wg	10.6 ft	505 ft/min	150	0 .290 wg	10.2 ft
175	.057 wg.	12.4 ft	562 ft/min	17:	5 .395 wg.	10.9 ft
200	.073 wg	14.2 ft	640 ft/min	200	0 .490 wg	11.5 ft
250	.114 wg	17.7 ft	833 ft/min			
300	.164 wg	21.3 ft	1000 ft/min			
350	223 WG	24.8 ft	1166 ft/min			

RS#(ref.#) 81911 (MV360)(8x8") Ak=.33

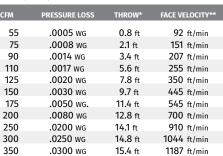
RS # (ref. #)
81901 (MV360S) S) (6x6") Ak=.17

01711(1	-14300)(OAO) A	K55			01901	(1143003) 3) (0.	70 / AK17	
CFM	PRESSURE LOSS	THROW*	FACE VELOCITY**		CFM	PRESSURE LOSS	THROW*	FACE VELOCITY**
55	.002 wg	3.0 ft	161 ft/min		55	.006 wg	0.8 ft	214 ft/min
75	.003 wg	3.6 ft	223 ft/min		75	.009 wg	1.5 ft	284 ft/min
90	.004 wg	3.8 ft	269 ft/min	11	90	.014 wg	2.2 ft	347 ft/min
110	.005 wg	4.0 ft	328 ft/min	4 111	110	.018 wg	2.3 ft	415 ft/min
125	.006 wg	5.0 ft	381 ft/min		125	.025 wg	3.2 ft	437 ft/min
150	.010 wg	5.5 ft	449 ft/min		150	.036 wg	4.4 ft	544 ft/min
175	.015 wg.	6.5 ft	527 ft/min		175	.045 wg.	5.5 ft	614 ft/min
200	.021 wg	7.0 ft	612 ft/min		200	.060 wg	6.4 ft	699 ft/min
250	.029 wg	8.0 ft	755 ft/min					
300	.038 wg	9.0 ft	904 ft/min					
350	.045 wg	10.0 ft	1055 ft/min					

^{*}All throw measurements are made from the center of the grille to a terminal velocity of 50 feet per minute. Direction determined by grille profile.

^{**}Noise level of any diffuser is directly related to face velocity. As a general rule face velocity should be under 800 FPM for residential applications. The MV diffuser with its one piece molded design, outperforms comparable diffusers causing less turbulence and noise.

RS # (ref. #) 81915 (MVE) (8x8") Ak=.37





CFM	PRESSURE LOSS	THROW*	FACE VELOCITY**
55	.0008 wg	1.2 ft	146 ft/min
75	.0018 wg	4.2 ft	230 ft/min
90	.0035 wg	6.2 ft	285 ft/min
110	.0043 wg	7.3 ft	338 ft/min
125	.0054 wg	8.7 ft	434 ft/min
150	.0085 wg	9.8 ft	545 ft/min
175	.0100 wg.	11.0 ft	645 ft/min
200	.0110 wg	12.4 ft	685 ft/min

RS # (ref. #) 81916 (MXE) (8x8") Ak=.37

55 75

90

110

125

150

175

200

250

300

350

PRESSURE LOSS

.0005 wg

.0008 wg

.0014 wg

.0017 wg

.0020 wg

.0030 wg

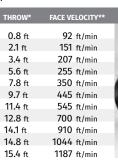
.0050 wg.

.0080 wg

.0200 wg

.0250 wg

.0300 wg



RS # (ref. #) **81906 (MXES)** (6x6") Ak=.31

		0.000	(
		CFM	PRESSURE LOSS	THROW*	FACE VELOCITY**
- Y		55	.0008 wg	1.2 ft	146 ft/min
-	EXHAUST	75	.0018 wg	4.2 ft	230 ft/min
		90	.0035 wg	6.2 ft	285 ft/min
4 ===		110	.0043 wg	7.3 ft	338 ft/min
		125	.0054 wg	8.7 ft	434 ft/min
	4	150	.0085 wg	9.8 ft	545 ft/min
		175	.0100 wg.	11.0 ft	645 ft/min
		200	.0110 wg	12.4 ft	685 ft/min
-					

RS # (ref. #) 81909 (MVAW) (8x8") Ak=.26



RS#(ref.	#)	
81919	(MVASW)	(6x6") Ak=.20

CFM	PRESSURE LOSS	THROW*	FACE VELOCITY**		CFM	PRESSURE LOSS	THROW*	FACE VELOCITY**
55	.0007 wg	4.0 ft	175 ft/min		55	.0085 wg	2.1 ft	277 ft/min
75	.0009 wg	6.8 ft	269 ft/min	1-WAY	75	.0185 wg	5.0 ft	373 ft/min
90	.0021 wg	8.2 ft	383 ft/min	TO STATE OF	90	.0240 wg	7.9 ft	445 ft/min
110	.0055 wg	9.9 ft	436 ft/min	(NAC) (ES-	110	.0375 wg	10.9 ft	550 ft/min
125	.0064 wg	11.3 ft	472 ft/min	TOTAL BOOKS	125	.0520 wg	13.3 ft	650 ft/min
150	.0085 wg	12.9 ft	593 ft/min	THE STATE OF THE S	150	.0730 wg	14.9 ft	771 ft/min
175	.0105 wg.	14.3 ft	693 ft/min	1/20/2018/10/10/2018/1	175	.1010 wg.	16.3 ft	899 ft/min
200	.0160 wg	15.3 ft	841 ft/min	10000	200	.1200 wg	17.5 ft	988 ft/min
250	.0230 wg	16.0 ft	1031 ft/min	100				
300	.0391 wg	17.2 ft	1201 ft/min	122				
350	.0552 wg	17.9.ft	1315 ft/min					

1-WAY

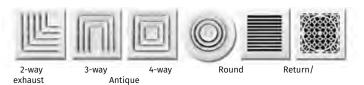
RS # (ref. #) 81918 (MVAB) (8x8") Ak=.26

RS # (ref. #)	
81908 (MVASR)	$(6x6") \Delta k = 20$

CFM	PRESSURE LOSS	THROW*	FACE VELOCITY**		CFM	PRESSURE LOSS	THROW*	FACE VELOCITY
55	.0007 wg	4.0 ft	175 ft/min		55	.0085 wg	2.1 ft	277 ft/min
75	.0009 wg	6.8 ft	269 ft/min	1-WAY	75	.0185 wg	5.0 ft	373 ft/min
90	.0021 wg	8.2 ft	383 ft/min	Te (82323)	90	.0240 wg	7.9 ft	445 ft/min
110	.0055 wg	9.9 ft	436 ft/min	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	110	.0375 wg	10.9 ft	550 ft/min
125	.0064 wg	11.3 ft	472 ft/min	CASTRAL DESCRIPTION	125	.0520 wg	13.3 ft	650 ft/min
150	.0085 wg	12.9 ft	593 ft/min		150	.0730 wg	14.9 ft	771 ft/min
175	.0105 wg.	14.3 ft	693 ft/min	(ASV 8) (AS 388)	175	.1010 wg.	16.3 ft	899 ft/min
200	.0160 wg	15.3 ft	841 ft/min		200	.1200 wg	17.5 ft	988 ft/min
250	.0230 wg	16.0 ft	1031 ft/min					
300	.0391 wg	17.2 ft	1201 ft/min					
350	.0552 wg	17.9.ft	1315 ft/min					

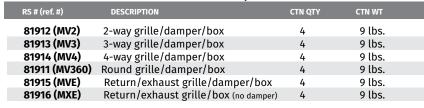
Note: Supply diameter has no appreciable effect on characteristics or airflow specifications, but should be consistent with the desired airflow of the particular outlet and application. Instruments used in testing: • Shortridge Instruments Flowhood Series 8400 • Shortridge Instruments Air data Multimeter • Davis LCA-6000 Rotating Vane Anemometer

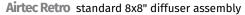
AIRTEC® CLASSIC/RETRO ORDERING INFORMATION



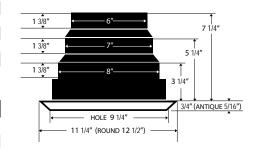
Airtec Classic standard 8x8" diffuser assembly

Note: Stepped Collar accommodates: 6", 7", 8" ducting (MV) 4", 5", 6" ducting (MVS)





RS # (ref. #)	DESCRIPTION	CTN QTY	CTN WT	
81909 (MVAW)	Retro White grille/damper/box	4	9 lbs.	
	Retro Black grille/damper/box	4	9 lbs.	

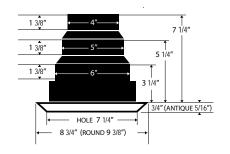


Airtec Classic small 6x6" diffuser assembly

RS # (ref. #)	DESCRIPTION	CTN QTY	CTN WT	
81902 (MV2S)	2-way grille/damper/box	8	10.5 lbs.	
81903 (MV3S)	3-way grille/damper/box	8	10.5 lbs.	
81904 (MV4S)	4-way grille/damper/box	8	10.5 lbs.	
) Round grille/damper/box	6	7.5 lbs.	
81905 (MVES)	Return/exhaust grille/damper/box	8	10.5 lbs.	
81906 (MXES)	Return/exhaust grille/box (no damper)	8	10.5 lbs.	

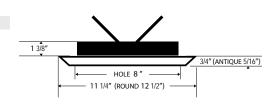
Airtec Retro small 6x6" diffuser assembly

RS # (ref. #)	DESCRIPTION	CTN QTY	CTN WT
	Retro White grille/damper/box	8	10.5 lbs.
	Retro Black grille/damper/box	8	10.5 lbs.



Limited clearance grille/damper

RS # (ref. #)	DESCRIPTION	CTN QTY	CTN WT
81943 (GRD3)	3-way grille/damper	12	15.8 lbs.
81944 (GRD4)	4-way grille/damper	12	15.8 lbs.



Standard Limited clearance grille only

RS # (ref. #)	DESCRIPTION	CTN QTY	CTN WT	
81834 (GR4)	4-way grille	25	6 lbs.	







GRD Limited Clearance Diffusers

Grille with damper

Model GRD grille/damper combination for low clearance side or top entry applications. Same construction as Airtec diffusers but with no boot. Standard 8" size only. Available in all five grille styles.

See page 58 for ordering information.



GR Classic/Retro Grilles

Grille only

Model GR grille only. All styles and sizes of both Airtec Classic and Airtec Retro grilles are available. Does not include boot or damper.

See page 58 for ordering information.



RCF Ceiling Support Flanges

Rough in flanges

RS # (ref. #)	Description	L	W	Н	CTN QTY	CTN WT
81965 (RCF16)	16"O/C – 9 ¹ /4" hole	16"	12"	3/8"	50	37 lbs.
81964 (RCF24)	24"O/C – 9 ¹ /4" hole	23 ⁵ /8"	12"	3/8"	25	38 lbs.
81955 (RCF16S)	16"O/C - 7" hole	16"	12"	3/8"	50	48 lbs.
81954 (RCF24S)	24"O/C - 7" hole	23 ⁵ /8"	12"	3/8"	25	39 lbs.

Model RCF designed for new construction. Our RCF flanges can be fastened to rough framing. It has a 3/8" lip that drops below the ceiling, requiring dry wall installers to cut the hole for you. RCF flanges are available for both 16" and 24" on center framing.



DCF Drop Ceiling Flanges

Flange only

RS # (ref. #)	Description				CTN QTY	CTN WT
81963 (DCF)	24"O/C – 9 ¹ /4" hole	23 ⁵ /8"	12"	2"	25	45 lbs.

Model DCF will increase strength and performance for lay in type ceiling applications by transferring weight onto the T-bars. This prevents tiles from sagging over time.



P 713-263-8001 | 800-231-3345



AIRTEC® TUFFBOX AIR DIFFUSERS

Airtec® TuffBox

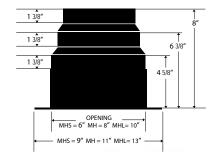
Quick rough-in polymer register box for HVAC systems

Code	Description	CNY QTY	CTN WT
81966 (MHS)	6x6" Register Box 4,5,6" collars	16	15 lbs.
81968 (MH)	8x8" Register Box 6,7,8" collars	10	12.2 lbs.
81970 (MHL)	10x10" Register Box 8,9,10" collars	8	12 lbs.









Our TuffBox is a heavy, one piece durable polymer shell. Molded design is virtually air-tight to deliver 100% of the air flow passing through it.

Each TuffBox utilizes innovative stepped design to accommodate three duct sizes. Quick breakaway collars allow on-site adjustment, and labor savings. Each collar is 1-3/8" and beaded to hold flexible duct in place while strap is secured. 5/8" standoffs provide correct depth to accommodate strapping or furring used with drywall. Secure using screw holes provided or simply screw anywhere through the inside into framing. Flange is flexible to conform to drywall backing virtually eliminating leakage between grille and box.



GulfCoat[™]

CONTRACTOR SERIES COIL COATING

MODINE

Resists Corrosion From:

- Salty Sea Air
- UV Rays
- Acid Rain
- **Air Pollutants**
- Aggressive conditions

Ultimate corrosion protection.







Protected

GulfCoat™

Code	Description	Qty.
80401	12 oz. (340 g) Aerosol Blue	6
80400	12 oz. (340 g) Aerosol Clear	6

FEATURES

- Protects HVAC coils & components
- · Superior adhesion
- · Maximum moisture resistance
- Superior UV protection
- Superior corrosion resistance
- · Extends system life & efficiency

Spray on corrosion protection

APPLICATION · Mini-splits · Packaged Rooftops · Condensing Units · Modular Air-handlers · Air-cooled Chillers · Interior & Exterior HVAC Cabinetry and Copper Piping • Heat Exchanger Coils (water, condenser, evaporator, DX)

1 can covers 0-2.5 tons unit (0-9 kw) coverage of coils only





GulfClean™

Code	Description	Qty
80406	Coil Cleaner, 1 gallon	4

FEATURES

- · Non-Acid
- Non-Caustic
- · Removes Soils
- · Powers Off Dirt
- · Deep Cleaning Foam
- · Biodegradable
- · Environmentally-Friendly

Coil Cleaner

Step 1 of 2

Coil cleaner that effectively cleans and removes soil from A/C, refrigeration and heat pump coils.

APPLICATION

- · Evaporator Coils
- Condenser Coils
- · Refrigeration Units

RECOMMENDED FOR

- Residential
- · Commercial HVAC units





GulfClean™

Code	Description	Qty
80408	Salt Reducer. 1 gallon	4

FEATURES

- · No VOC's
- · Biodegradable
- · Non-flammable
- · Aids in the removal of soluble salts
- · Does not interfere with the adhesion of protective coatings

Salt Reducer

Step 2 of 2

Dissolves soluble salts and revitalizes HVAC equipment.

APPLICATION • Evaporator Coils

Condenser Coils

RECOMMENDED FOR

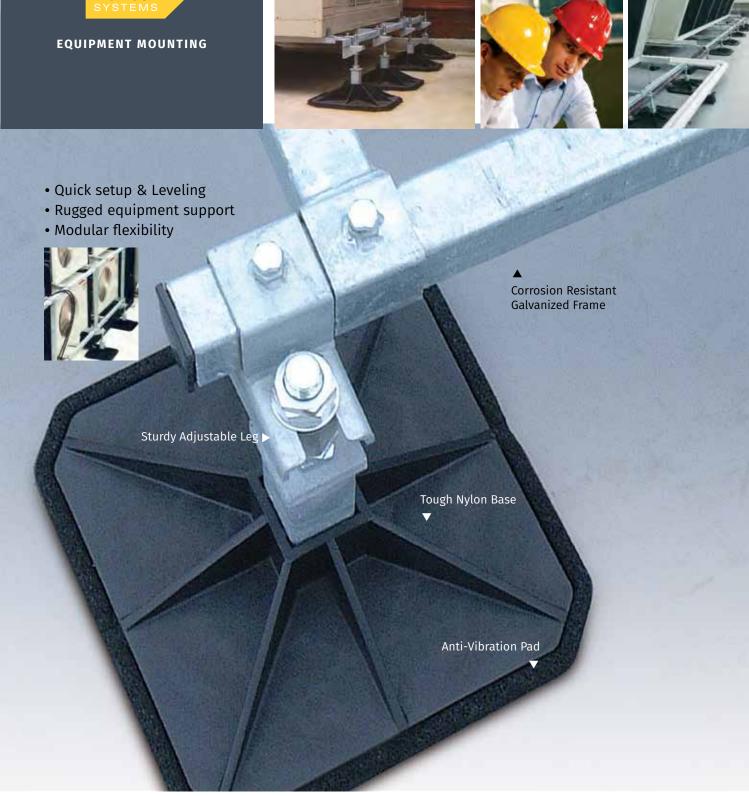
- Residential
- · Commercial HVAC units







The industry standard for



Big Foot is a registered trademark of Aspen Pumps Limited Company UK Big Foot Systems is a registered trademark of Aspen Pumps Limited Company UK

free standing flat roof equipment mounting.



THE ADVANTAGES OF BIG FOOT FRAMEWORKS

The industry standard. Big Foot Systems set the industry standard for free standing flat roof equipment mounting of air conditioning, refrigeration and other associated services.

Rugged stance. There are no limits to what can be supported with a Big Foot System. Mounting is strong, secure, flexible, vibration absorbing, and leak proof. Installation is quick, clean, practical and aesthetically pleasing.

Modular flexibilty. The system is modular and completely flexible. Custom designs offer the ability to change any part of the design of the frame at any time to increase or reduce weight loading.

Removable legs. Big Foot system legs can be removed individually. Costly removal of equipment is unnecessary when re-roofing or resurfacing.

Optimum weight distribution. The Big Foot base is designed to transfer weight beyond the center stress point.

Optimum strength and longevity.

The Big Foot base is made of glass filled Nylon with UV protection. Frameworks are hot dip galvanized for all weather protection.

Quiet durability. An independent anti-vibration mat is provided for each foot.

Quick on-site leveling. The legs allow for vertical height adjustment to permit easy leveling. An extended leg set option is available for stepped roof applications.

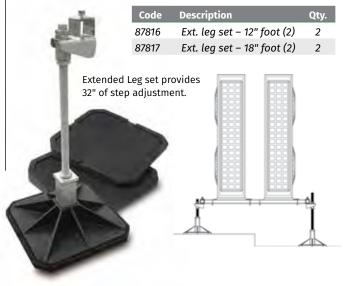
Reduced risk of roof leaks. The Big Foot System does not penetrate the waterproof membrane, eliminating difficult flashing around concrete structures. The roofing system warranty is never compromised.

Architecturally friendly. Big Foot clean contemporary framework suspends roofing equipment above the roof surface, allowing for a simpler, more flexible roof design.

Custom Frameworks

For larger, more complex projects, Big Foot offers a custom frame design service. With a plan of your roof and dimensions/weights of the equipment, we can specify standard Big Foot system framework to support up to 10 tons. Contact RectorSeal 1-800-231-3345

EXTENDED LEG SET OPTION





BIG FOOT SYSTEMS® FRAME SUPPORTS

Multi Foot

Frame support ideal for smaller systems

Code	Description	Qty.
87712 (RSP24)	24" Multi Foot	21

FEATURES

- Strong and Lightweight
- Weather resistant PVC Rubber/PVC
- Linear track holds 1/2" hex head bolts
- Two 7/8" long bolts included

Max load capacity: RSP24 - 1045 lbs.





H-Frame

Accepts standard 15/8" strut, optimum support

Code	Description	Qty.
87713 (RSPD12)	H-Frame Kit w/ 12" Square	1
87714 (RSPD18)	H-Frame Kit w/ 18" Square	1
87715 (RSPD24)	H-Frame Kit w/ 24" Square	1

each kit contains 2 feet

FEATURES

- Ideal rooftop support of equipment & systems
- Weather resistant
- · Recycled crumb rubber pad
- Accepts one 5/8" strut (not included)
- Build custom frames and supports

Max load capacity:

RSPD12 - 661 lbs.

RSPD18 - 1100 lbs.

RSPD24 - 1100 lbs

87713	87714	87715
H = 31/2"	H = 41/4"	H = 43/4"
W = 13"	W = 19"	W = 251/4"
I = 13"	I = 19"	I = 251/4"



