

FUME-A-VENTSM

EXHAUST REMOVAL SYSTEMS

A product of Air Cleaning Specialists, Inc.

Maintain A Healthy
Work Environment At
A Fraction Of The Cost!

AS EASY AS 1 - 2 - 3

**MOST COST EFFECTIVE
SYSTEM AVAILABLE**

**EASY INSTALLATION
BY US OR YOU**

**MEETS OR EXCEEDS
CODES**

1



Install our Quick-Fit
clamp-together
ducting and fan.

2



Install our state-
of-the art Control
Panel

3



Drop our heat-resistant
hose and source-capture
nozzle from the ducting
to the vehicle exhaust

NORDFAB[®]
QUICK-FIT[™]

**The World's
Fastest Ducting!**

100% SOURCE CAPTURE!



Made In The USA

**EASY CONNECT
NOZZLE HAS A
POSITIVE SEAL
WITH A SOFT BOOT**



**AUTOMATIC
START AND
RELEASE**

ACS

AIR CLEANING SPECIALISTS, Inc.
826 Horan Drive Fenton, MO 63026
636-349-4400 Fax: 636-349-0556
Toll Free: 866-455-2132

fumeavent.com



AIR CLEANING SPECIALISTS, INC. 826 Horan Drive Fenton, MO 63026

Phone: 800.878.5030 Fax: 636.349.0556 Email: info@aircleaningspecialists.com Web: www.aircleaningspecialists.com

Ron Bonney
City of Somerville
, 02145

Re: Fume-A-Vent Source Capture Fume Extraction Systems

Dear Ron Bonney,

We would like to thank City of Somerville for the opportunity to offer our proposal for Fume-A-Vent Vehicle Exhaust Systems. Per your request, I've attached a proposal and descriptive literature for your review.

Since 1979, Air Cleaning Specialists, Inc. has specialized in source capture vehicle exhaust systems for the Fire Industry, Mechanic Shops, Schools or anyplace vehicles are run indoors. Our packaged systems include everything from the source capture nozzles to the exhaust fan. Our laser welded, clamp-together, adjustable duct system makes any installation easy and affordable. Regardless of where these hazardous exhaust fumes are generated, Fume-A-Vent has an economical proven solution.

If you have any questions regarding the attached quote, please don't hesitate to contact me.

Sincerely,

Dan Schroeder
Air Cleaning Specialists, Inc.
826 Horan Drive
Fenton, MO 63026
866 455-2132 Ext. 111
636 349-0556 Fax
dan@aircleaningspecialists.com
<http://www.fumeavent.com/>



PROPOSAL

Page #: 1

AIR CLEANING SPECIALISTS, INC.
826 HORAN DRIVE
FENTON, MO 63026
Phone: (636) 349-4400 Fax: (636) 349-0556
info@aircleaningspecialists.com

QUOTE NUMBER: Q001523
ORDER DATE: 08/18/2016
SALESPERSON: Dan Schroeder
CUSTOMER NO: CIT0214

SOLD TO: City of Somerville , 02145			SHIP TO: City of Somerville , 02145		
#	QTY	PART NUMBER	DESCRIPTION	PRICE	AMOUNT
1	5	HRS-2MIL-0624	Fume-A-Vent Spring Operated Hose Reel with 6" x 24' Type 2 600 Degrees Fahrenheit Silicone/Nomex Hose	\$1,783.93	\$8,919.65
2	3	HRS-2MIL-0824-W	Fume-A-Vent Spring Operated Hose Reel with 8" x 24' Type 2 600 Degrees Fahrenheit Silicone/Nomex Hose on Widened Hose Reel	\$2,467.03	\$7,401.09
3	5	TPA-04-06	Fume-A-Vent Tailpipe Adapter, Stainless Steel, Tapered Cone, Fits 6" Hose	\$135.00	\$675.00
4	8	LHD	Locking Hand Damper option for Type 4 nozzle	\$38.95	\$311.60
5	8	LS	Lifting Sleeve option for Type 4 nozzle	\$19.19	\$153.52
6	8	VG	Vice Grip option for Type 4 nozzle	\$38.43	\$307.44
7	3	TPA-04-08	Fume-A-Vent Tailpipe Adapter, Stainless Steel, Tapered Cone, Fits 8" Hose	\$139.00	\$417.00
8	2	HDBI-120	HDBI-120 Steel Centrifugal Fan, Arr. 4 for direct drive with Up blast discharge, CW rotation, 5 HP, TEFC, 3600 RPM electric motor for 3/60/230-460 volts, Rated for 3000 CFM, 4.0" SP,	\$2,040.00	\$4,080.00
9	2	CBS-5-230-3	Fume-A-Vent Control Box Starter with line voltage landing terminals. Features a mild-steel NEMA 4 enclosure with 3-way (HAND-OFF-AUTO) switch and reset button. For use with a 230V, 5HP, 3PH Fan and compatible 230V, 3PH source.	\$538.00	\$1,076.00
10	1	SIS-FAV	Galvanized Spiral Duct System	\$2,312.60	\$2,312.60
11	1	SIS-FAV	Galvanized Spiral Duct System	\$1,691.75	\$1,691.75
12	1	LEAD TIME	Lead Time: 1 - 2 Weeks plus transit. Freight Costs: SEE BELOW	\$0.00	
CUSTOMER P.O.:			NET ORDER:		\$27,345.65
SHIP DATE:			SALES TAX:		\$0.00
SHIP VIA: BEST WAY			FREIGHT:		\$3,060.98
TERMS: Credit Card			ORDER TOTAL:		<u>\$30,406.63</u>
F.O.B.: FENTON MO			CONFIRM TO: Ron Bonney		
			FAX TO:		

Fume-A-Vent Spring Operated Hose Reel

Date 4/12

Part No. HRS-X-XXXX

Hose Reels

TAB 3-B-2



Shown above: **Fume-A-Vent** Model HRS-3-0420 Spring Hose Reel with 4" x 20' Series 3 400° Rubber Impregnated Polyester Hose. Plus the optional TPA0303-SC Tailpipe Adapter, Oval Mouth Neoprene for 3" & 4" Neoprene Hose with Spring Clamp

The Reels are offered in standard 4", 5", 6" and 8" inch hose diameters. The Reels are supplied completely assembled and ready for installation. The Reels may be connected with ductwork to a central exhaust system or each reel may be supplied with a direct mount Fan.

Fume-A-Vent Hose Reels may be mounted in three positions: from an overhead support structure, from a side support structure or on the floor. Ceiling mounts are most common, however wall mounts and floor mounts are options when space is at a premium.

Fume-A-Vent Spring Hose Reels

Date 7/12

Part No. HRS-X-XXXX

Hose Reels

TAB 3-B-1

SPRING RETRACTABLE HOSE REEL SPECIFICATION HRS SERIES

The vehicle exhaust extraction system shall consist of an Automatic Spring Hose Reel, designed for manual extension and spring return of high temperature flexible exhaust hose.

The Hose Reel shall consist of the following features: The hose reel side plate mounting support frame shall be constructed of 11 gauge cold rolled steel. The side plates shall be drawn securely together and retained by heavy gauge "J" channel steel support braces. These support braces keep the side plates square and solid.

The hose reel drum shall be constructed of 16 gauge cold rolled steel. The drum shall be formed and rolled to an 18" diameter and strengthened by four inner support bars. These bars are secured to the drum end flanges and pull the drum tightly against the end flange.

The drum end flanges shall be constructed of 16 gauge cold rolled steel. The end flange outer edge shall be rolled to provide strength and rigidity. Each end flange shall have a center pressed 18" diameter groove. This groove allows the reel drum and end flange to mate so the drum's inner support bars draw the end flange securely to the drum. This unique design feature offers added strength, quality and reliability.

Powder Coating: All steel parts are painted with a 2 to 4 mil thick P&L virtualon polyester red powder coating for longevity and to resist corrosion.

The hose reel shall have a hose to drum connection fitting allowing for use of either 4", 5", 6" , or 8" hose. The connection fitting supports an inner 6" or 8" diameter tube that completes the connection from the connection of 6" or 8" diameter discharge duct. The hose reel drum shall also be supplied with a hose tracking bar to guide the hose during the recoiling function.

The hose reel function shall consist of a spring cassette housing containing a high carbon drive spring. The activation of the manual extension and spring return is by a Lock and Latch feature.

The necessary length of hose desired can be locked in place and the hose is automatically retracted after use. The hose reel functions of uncoiling and recoiling of the hose shall be by direct pulling on the extraction hose. The reel shall have an adjustable hose stop to set the hose at the desired recoiling height. This stop shall be mounted to the extraction hose.

Fume-A-Vent Spring Hose Reel Dimensions

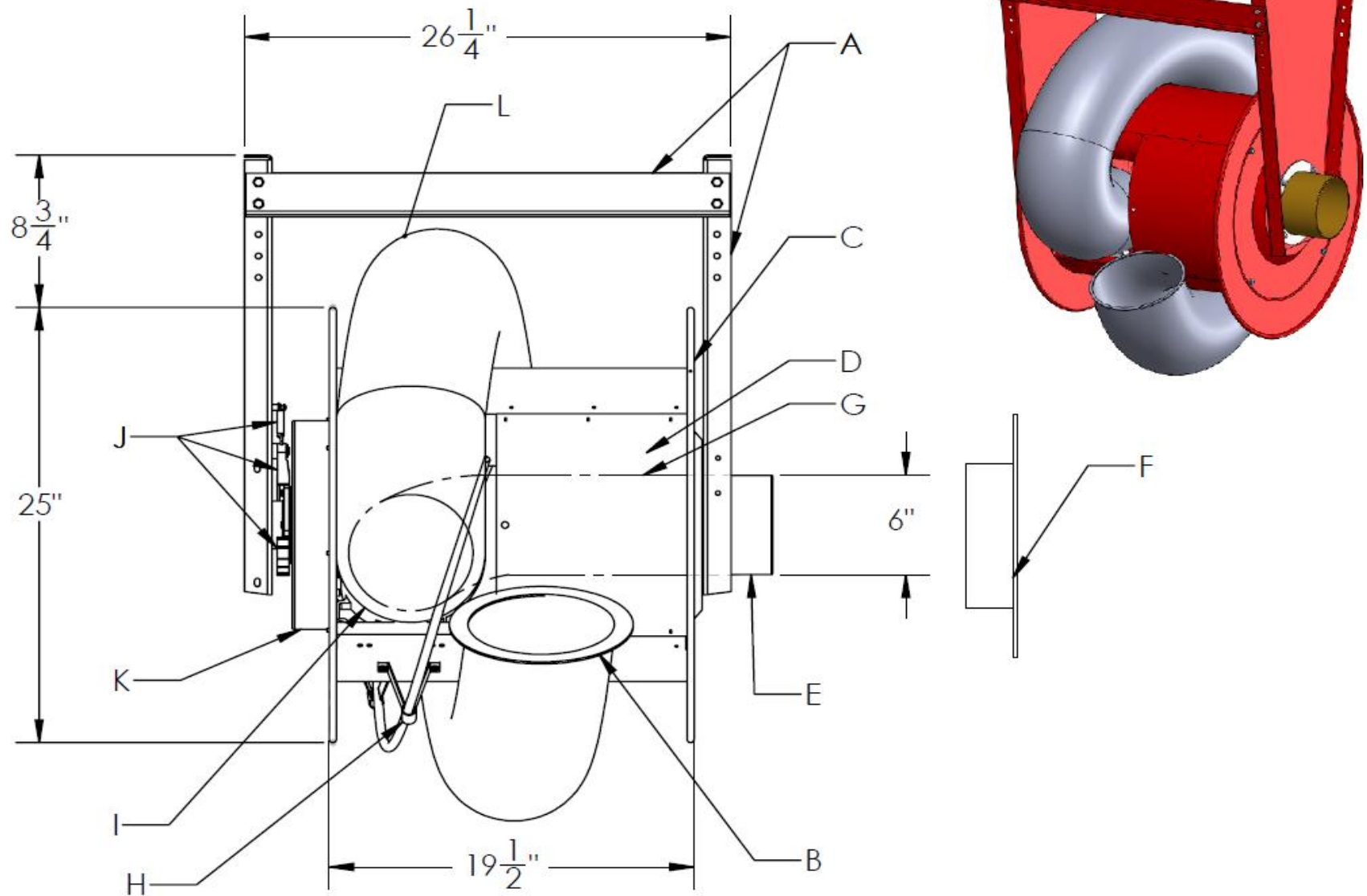
Date 7/12

Part No. HRS-X-XXX

Hose Reels

TAB 3-B-3

Fume-A-Vent general dimensions for Spring Operated Hose Reels. Please note that depending on the diameter and length of the desired hose, the spring reels may be equipped with either 19, 28, or 32 inch drum width, with overall width of 26, 35, or 39 inches. We have reel specific dimensions pages and drawings available upon request.



- | | |
|---------------------------------------------------|--------------------------------------------------|
| A - Heavy Gauge Steel Support Mounting Frame | G - Internal Hose Tube - 6" Diameter |
| B - Adjustable Hose Stop | H - Hose Tracking Bar |
| C - End Flanges | I - Hose to Drum Connector - 4", 5", 6" Diameter |
| D - Drum Assembly - 18" Diameter | J - Lock and Latch Mechanism |
| E - Duct Connection Fitting & Bearing Assembly | K - Spring Cassette Unit |
| F - Optional Mounting Flange for Direct Mount Fan | L - Extraction Hose - 4", 5", 6" Diameter |

<u>Model</u>	<u>Hose Dia.</u>	<u>Max. Hose Capacity on Drum</u>	<u>Drum Diameter</u>	<u>Drum Width</u>
HRS	4"	25'	18"	19"
HRS	5"	20'	18"	19"
HRS	6"	20'	18"	19"

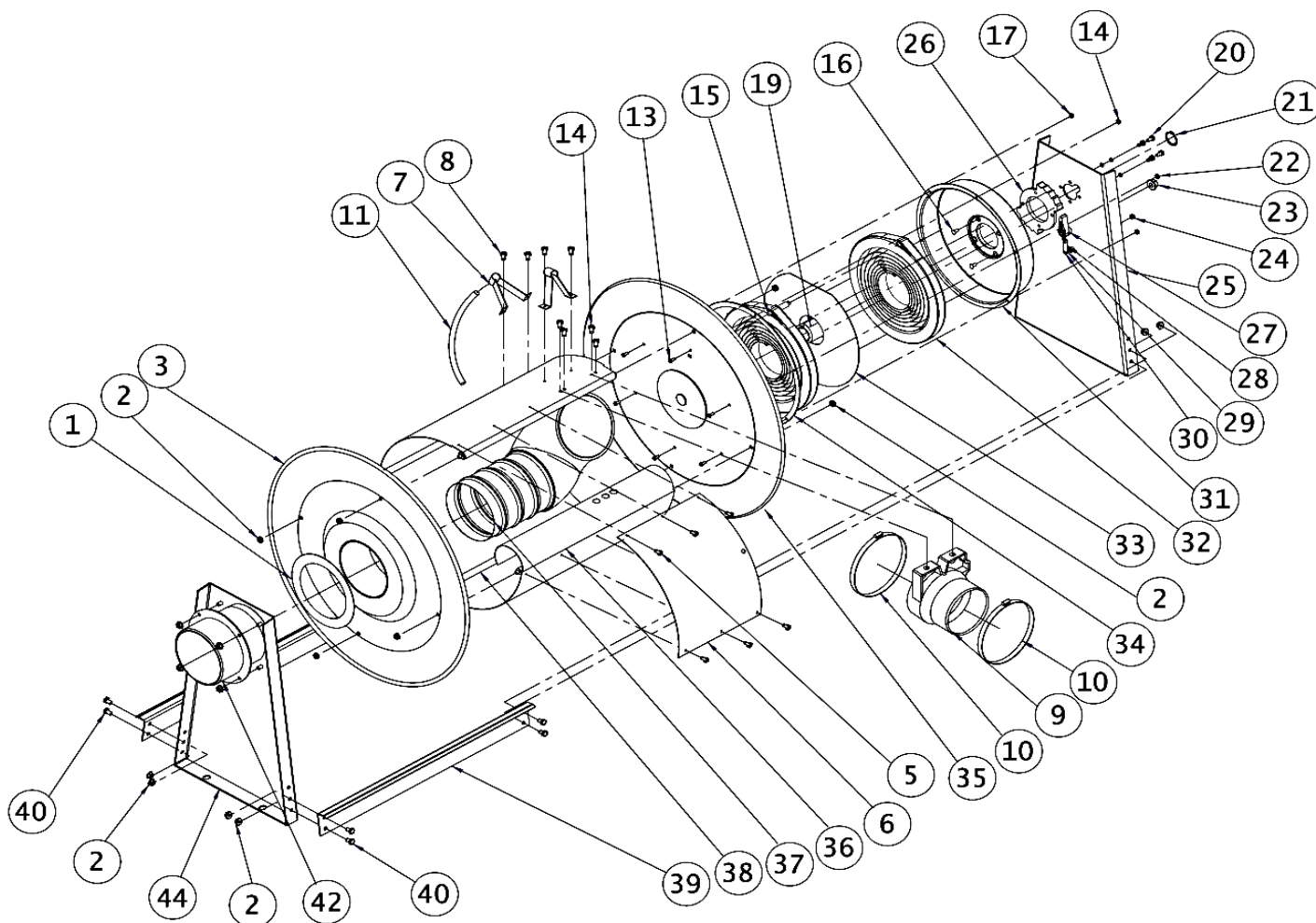
Fume-A-Vent Spring Hose Reel Exploded

Date 7/12

Part No. HRS-X-XXXX

Hose Reels

TAB 3-B-4



ITEM	Part #	QTY	Description	ITEM	Part #	QTY	Description
1	260166	1	Washer, Plastic	22	902016	4	Washer, Split Lock
2	300107	12	Nut, Lock (Whiz) 5/16-18 Zinc	23	S280-8	1	Nut, Hex Flange 1/2-20
5	S285-24	6	Screw, Self Tapping 10-3/8"	24	S82-15	1	Nut, Nyloc 10-32 x 3/8"
7	260178	2	Support, Guide	26	260164	1	Ratchet, Latch
8	S282-88	4	Screw, Self Drilling #10 x 1/2"	27	S600018	1	Latch Pawl Assembly
10	260186	4	Clamp Hose	28	S260067	1	Spring, Latch
11	260177-54	1	Tube, Guide	29	S400012	1	Bushing, Latch
13	300001	6	Screw, Machine 10-32 x 3/8"	30	S20-110	1	Screw, Machine 10-32 x 7/8"
14	S294-27	7	Screw, Self Tapping #10 x 1/2"	31	260169	1	Spring Case
15	260174	1	Stud, Spring Case	32	S260069	2	Drive Spring Assembly
16	S239-97	4	Rivet	33	S600045	1	Spacer, Spring
17	300011	6	Nut, Hex Lock 10-32	34	260165	1	Gasket
19	S600984	1	Arbor, Spring	40	S2-51	8	Screw, Hex Cap 5/16-18 x 1/2"
20	S56-41	4	Screw, Hex 1/4-20 x 1/2" GR.5	42	600312	1	Adapter Assembly
21	300007	1	Ring, Snap				

ITEM	Description	# Req.	V316	V419	V519	V619	V428	V528	V628	V432	V532	V632
3	Flange Assembly (left)	1	602292	600317	600317	600317	600317	600317	600317	600317	600317	600317
6	Support, Hose	1	262283	260344	260344	260344	260748	260748	260748	261669	261669	261669
9	Reducer	1	None	260803	260804	260805	260803	260804	260805	260803	260804	260805
25	Base (right)	1	262281	260746	260746	260746	260746	260746	260746	260746	260746	260746
35	Flange Assembly	1	602291	600986	600986	600986	600986	600986	600986	600986	600986	600986
36	Spacer, Sheave	1	262282	260173	260173	260173	260739	260739	260739	260772	260772	260772
37	Tube, Connecting	1	260759-1	260759-1	260759-1	260759-1	260759-1	260759-1	260759-1	260759-2	260759-2	260759-2
38	Rod, Tie	4	326468-16-1	260402-600	260402-600	260402-600	260402-700	260402-700	260402-700	260402-800	260402-800	260402-800
39	Brace, Cross	2	262387-2	262387-3	262387-3	262387-3	262387-4	262387-4	262387-4	262387-5	262387-5	262387-5
44	Base Assembly	1	602290	600314	600314	600314	600314	600314	600314	600314	600314	600314

FUME-A-VENT
EXHAUST REMOVAL SYSTEMS
A Product of Air Cleaning Specialists, Inc.

AIR CLEANING SPECIALISTS, INC.
826 Horan Drive Fenton, MO 63026
866 455-2132 Fax 636 349-0556
www.fumeavent.com info@fumeavent.com

This drawing has been copyrighted
and is the property of
Air Cleaning Specialists, Inc.

Fume-A-Vent Hose Reel Mounting

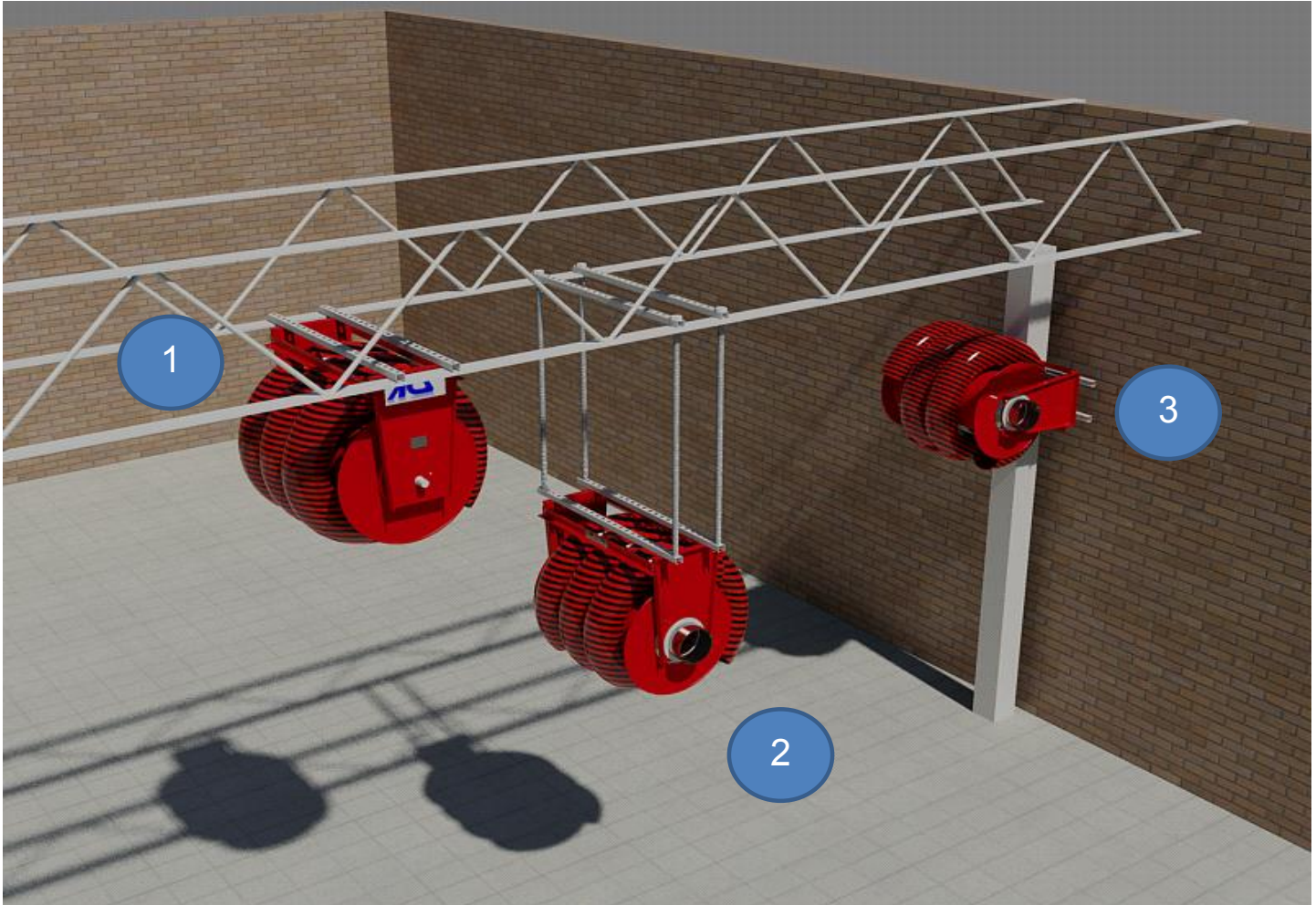
Date 7/12

Part No. HRX-X-XXXX

Hose Reels

TAB 3-B-5

This is a drawing of the typical mounting positions that our Fume-A-Vent Hose Reels are placed. They are easily installed with the four mounting holes that are 9/16" by 3/4" deep. Unistrut can be utilized effectively with the mounting holes or by other methods. Please consult one of our experts to decide the best mounting type for your application. Both Spring and Motorized Hose Reels have the same mounting options and



1. Ceiling mounting utilizing the Unistrut Steel Hangers.
2. Dropped down ceiling mount with Unistrut and 1/2" threaded rod for drop.
3. Wall mounted hose reel with Unistrut supports.

Installation Guides available upon request for most ceiling types including joist and concrete.

Hose Reels are a heavy item that has pull/push force from the spring retention. Please make sure the hose reel is mounted in a secure, strong location. Methods other than Unistrut and threaded rod are available.

Fume-A-Vent Spring Hose Reels Operating Instruction

Date 7/12

Part No. HRS

Hose Reels

TAB 3-B-6

Operating and Installation Instructions Series HRS Exhaust Reels

SAFETY:

Personal Injury and/or equipment damage may result if proper safety precautions are not observed.

- Ensure that reel is properly installed before connecting input and output hoses.
- Ensure that working pressure and temperature do not exceed rating of reel.
- Be aware of machinery and personnel in work area.
- If a leak occurs in the hose or reel, remove from service immediately.
- A high tension spring assembly is contained within the reel. Exercise extreme caution.
- If reel ceases to unwind or rewind, remove from service immediately
- Other than replacing the hoses, refer all other repairs only to an authorized service person or directly to Fume-A-Vent. Failure to do so may void the warranty.

MOUNTING:

- See Tab 3-I for Mounting Guide

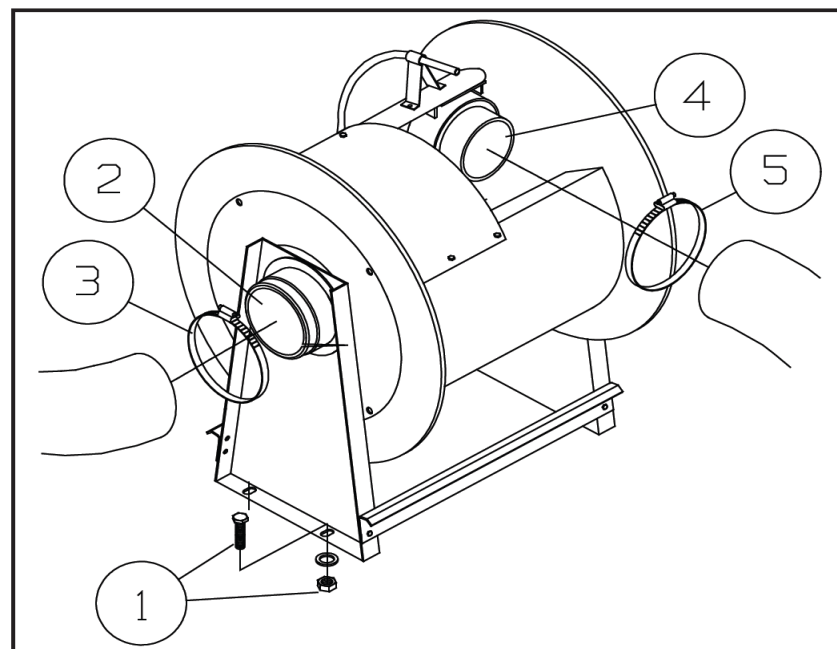
CONNECTING HOSES

- Mount Hose Reel using mounting holes of 9/16" (1)
- Position input hose to input adaptor (2). Secure into place with hose clamp (3).
- Position output hose to output adaptor (4). Secure into place with hose clamp (5).
- Release latch and wind hose onto reel.

WARNING: Use extreme caution; reel under tension. Avoid releasing latch mechanism.

If necessary, adjust spring tension on reel by adding or removing wraps of hose from spool, add wraps to increase tension. Remove wraps to decrease tension.

CAUTION: When adding wraps of hose, be careful not to exceed the winding mechanism's spring capacity. Add just enough wraps of hose to achieve the desired tension. Damage to the winding mechanism will result if spring is over-tensioned.



Fume-A-Vent Type 2 600°F Nomex and Silicone Coated Hose

Date 7/12

Part No. H-02-XXXX

Type 2 600°F Hose

TAB 1-B

The Fume-A-Vent Type 2 hose easily withstands temperatures at 600°F and is ideal for use with hose reels or overhead exhaust systems. The hose has exceeded 1000°F during certified testing and is rated up to 1250°F with intermittent use.

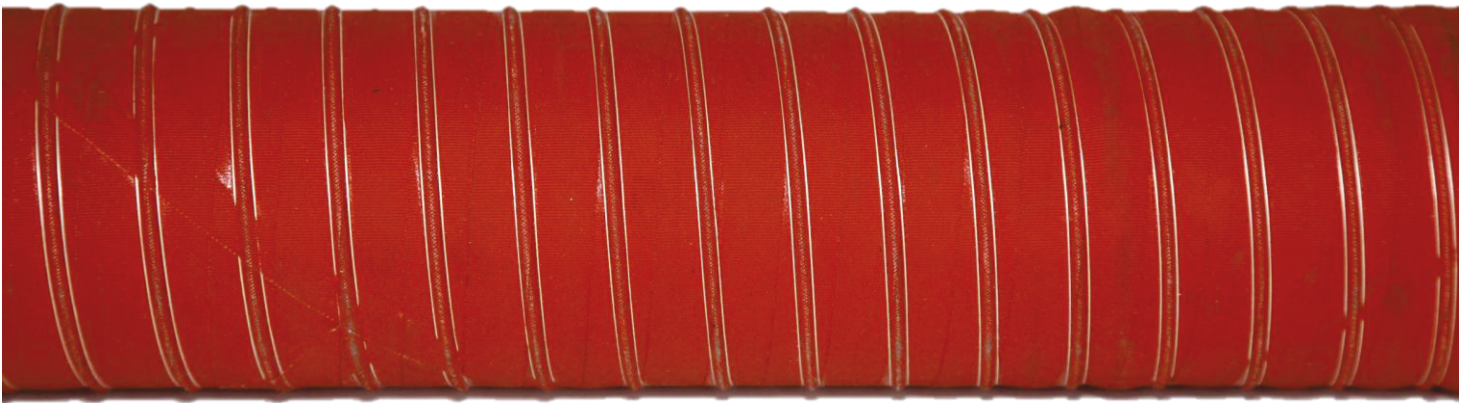
Temperature Range: - 80°F to 600°F (Baking Test)

This product meets Military Spec: MIL PFR 62028 - Paragraph 4.7.8, 72 Hours at 1000°F.

This product has a temperature rating at 1250°F for intermittent use, 600° constant use.

The Fume-A-Vent Type 2 hose is a double ply hose with an inner liner ply of woven fiberglass coated silicone rubber. A helically wound spring steel wire is imbedded between the inner liner ply and an exterior ply of woven Nomex coated with silicone rubber. The wire insures maximum flexibility and minimum diameter restrictions in sharp bend areas. The assembly is double wound with a treated Nomex cord and heat vulcanized to provide a greater strength.

Other information including wall thickness and helix pitch are available upon request. In some cases, a Fan and a Tailpipe Adaptor will be required. Common lengths and diamaters shown in chart below.



Part No	Description	Wt
H-02-0416	Fume-A-Vent 4" x 16' Type 2 600°F Silicone/Nomex High Temperature Hose	15
H-02-0420	Fume-A-Vent 4" x 20' Type 2 600°F Silicone/Nomex High Temperature Hose	15
H-02-0424	Fume-A-Vent 4" x 24' Type 2 600°F Silicone/Nomex High Temperature Hose	18
H-02-0516	Fume-A-Vent 5" x 16' Type 2 600°F Silicone/Nomex High Temperature Hose	15
H-02-0520	Fume-A-Vent 5" x 20' Type 2 600°F Silicone/Nomex High Temperature Hose	16
H-02-0524	Fume-A-Vent 5" x 24' Type 2 600°F Silicone/Nomex High Temperature Hose	22
H-02-0616	Fume-A-Vent 6" x 16' Type 2 600°F Silicone/Nomex High Temperature Hose	15
H-02-0620	Fume-A-Vent 6" x 20' Type 2 600°F Silicone/Nomex High Temperature Hose	16
H-02-0624	Fume-A-Vent 6" x 24' Type 2 600°F Silicone/Nomex High Temperature Hose	18
H-02-0816	Fume-A-Vent 8" x 16' Type 2 600°F Silicone/Nomex High Temperature Hose	20
H-02-0820	Fume-A-Vent 8" x 20' Type 2 600°F Silicone/Nomex High Temperature Hose	24
H-02-0824	Fume-A-Vent 8" x 24' Type 2 600°F Silicone/Nomex High Temperature Hose	29



Air Cleaning
Specialists Inc.
826 Horan Drive
Fenton, MO 63026
636-349-4400
636-349-0556 Fax

REVISIONS

0	

SHEET NAME
DETAIL

FUME-A-VENT
EXHAUST REMOVAL SYSTEMS
A division of Air Cleaning Specialists, Inc.

DRAWING TITLE
HRS-2-0416

DRAWN: CODY BINGAMAN

CHECKED: JIM GRAYEM

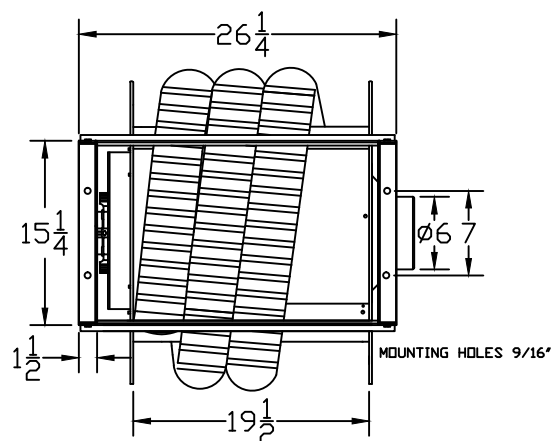
PROJECT NAME
HOSE REEL

DATE 7/12/12	VIEW ORTHO
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SIZE A	DWG NO. 1	REV. 0
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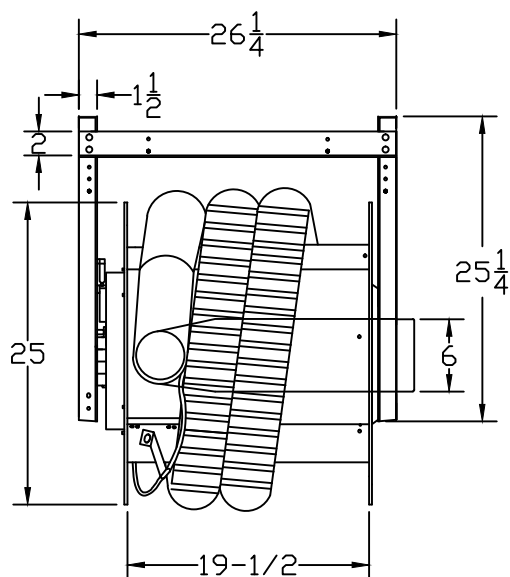
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TOP VIEW

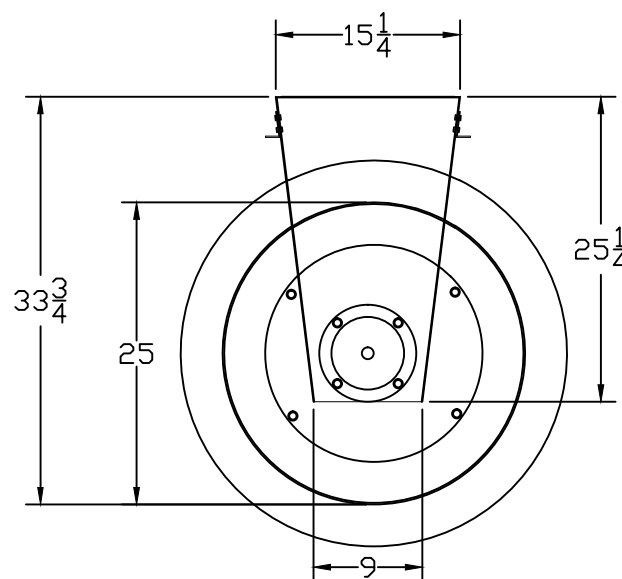


HOSE REEL
HRS-2-0416
4" 600° HOSE / 16' LENGTH

FRONT VIEW



SIDE VIEW



Fume-A-Vent Spring Operated Hose Reel

Date 4/12

Part No. HRS-X-XXXX

Hose Reels

TAB 3-B-2



Shown above: **Fume-A-Vent** Model HRS-3-0420 Spring Hose Reel with 4" x 20' Series 3 400° Rubber Impregnated Polyester Hose. Plus the optional TPA0303-SC Tailpipe Adapter, Oval Mouth Neoprene for 3" & 4" Neoprene Hose with Spring Clamp

The Reels are offered in standard 4", 5", 6" and 8" inch hose diameters. The Reels are supplied completely assembled and ready for installation. The Reels may be connected with ductwork to a central exhaust system or each reel may be supplied with a direct mount Fan.

Fume-A-Vent Hose Reels may be mounted in three positions: from an overhead support structure, from a side support structure or on the floor. Ceiling mounts are most common, however wall mounts and floor mounts are options when space is at a premium.

Fume-A-Vent Spring Hose Reels

Date 7/12

Part No. HRS-X-XXXX

Hose Reels

TAB 3-B-1

SPRING RETRACTABLE HOSE REEL SPECIFICATION HRS SERIES

The vehicle exhaust extraction system shall consist of an Automatic Spring Hose Reel, designed for manual extension and spring return of high temperature flexible exhaust hose.

The Hose Reel shall consist of the following features: The hose reel side plate mounting support frame shall be constructed of 11 gauge cold rolled steel. The side plates shall be drawn securely together and retained by heavy gauge "J" channel steel support braces. These support braces keep the side plates square and solid.

The hose reel drum shall be constructed of 16 gauge cold rolled steel. The drum shall be formed and rolled to an 18" diameter and strengthened by four inner support bars. These bars are secured to the drum end flanges and pull the drum tightly against the end flange.

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The hose reel shall have a hose to drum connection fitting allowing for use of either 4", 5", 6" , or 8" hose. The connection fitting supports an inner 6" or 8" diameter tube that completes the connection from the connection of 6" or 8" diameter discharge duct. The hose reel drum shall also be supplied with a hose tracking bar to guide the hose during the recoiling function.

The hose reel function shall consist of a spring cassette housing containing a high carbon drive spring. The activation of the manual extension and spring return is by a Lock and Latch feature.

The necessary length of hose desired can be locked in place and the hose is automatically retracted after use. The hose reel functions of uncoiling and recoiling of the hose shall be by direct pulling on the extraction hose. The reel shall have an adjustable hose stop to set the hose at the desired recoiling height. This stop shall be mounted to the extraction hose.

Fume-A-Vent Spring Hose Reel Dimensions

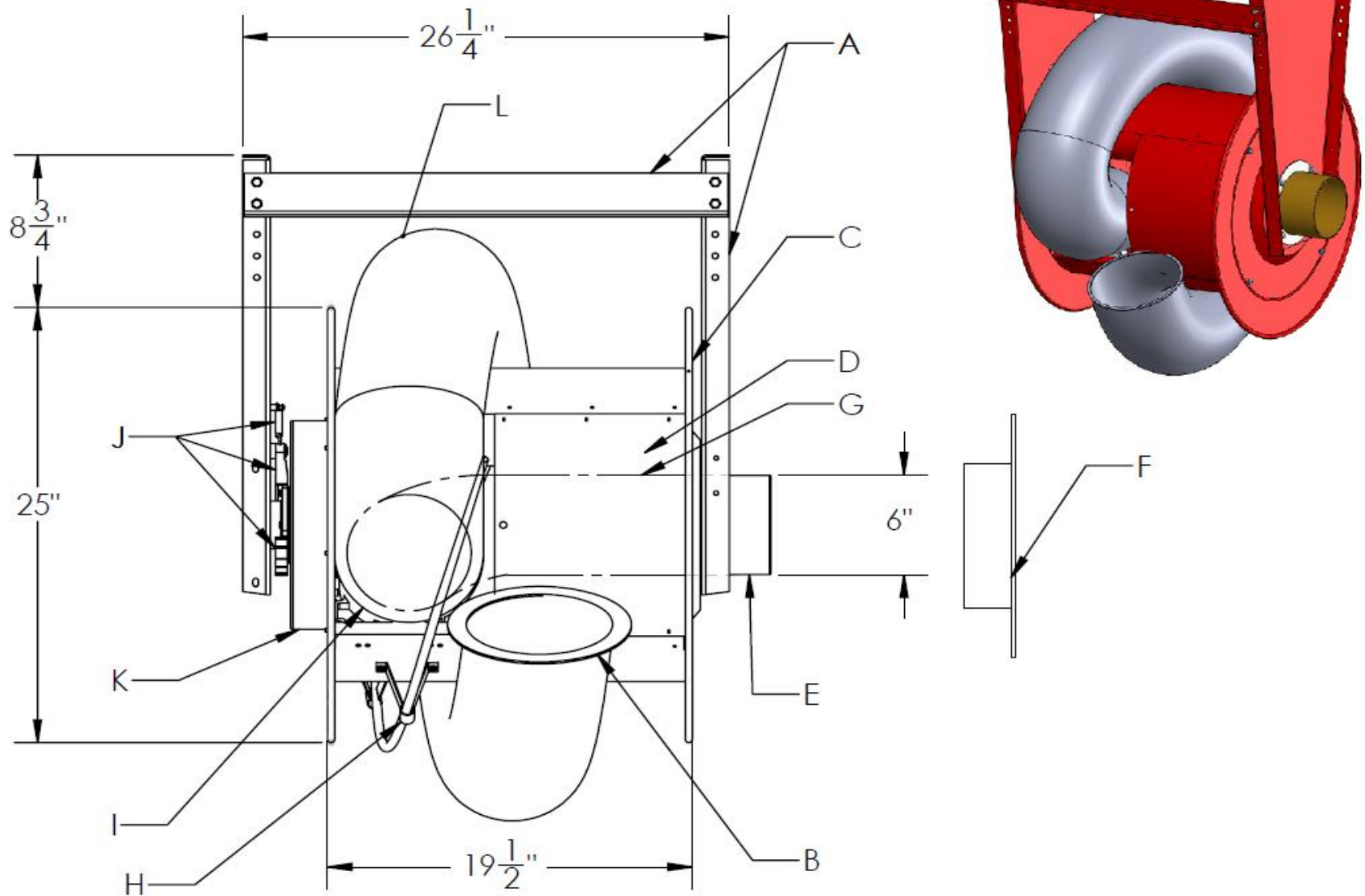
Date 7/12

Part No. HRS-X-XXX

Hose Reels

TAB 3-B-3

Fume-A-Vent general dimensions for Spring Operated Hose Reels. Please note that depending on the diameter and length of the desired hose, the spring reels may be equipped with either 19, 28, or 32 inch drum width, with overall width of 26, 35, or 39 inches. We have reel specific dimensions pages and drawings available upon request.



- | | |
|---------------------------------------------------|--------------------------------------------------|
| A - Heavy Gauge Steel Support Mounting Frame | G - Internal Hose Tube - 6" Diameter |
| B - Adjustable Hose Stop | H - Hose Tracking Bar |
| C - End Flanges | I - Hose to Drum Connector - 4", 5", 6" Diameter |
| D - Drum Assembly - 18" Diameter | J - Lock and Latch Mechanism |
| E - Duct Connection Fitting & Bearing Assembly | K - Spring Cassette Unit |
| F - Optional Mounting Flange for Direct Mount Fan | L - Extraction Hose - 4", 5", 6" Diameter |

<u>Model</u>	<u>Hose Dia.</u>	<u>Max. Hose Capacity on Drum</u>	<u>Drum Diameter</u>	<u>Drum Width</u>
HRS	4"	25'	18"	19"
HRS	5"	20'	18"	19"
HRS	6"	20'	18"	19"

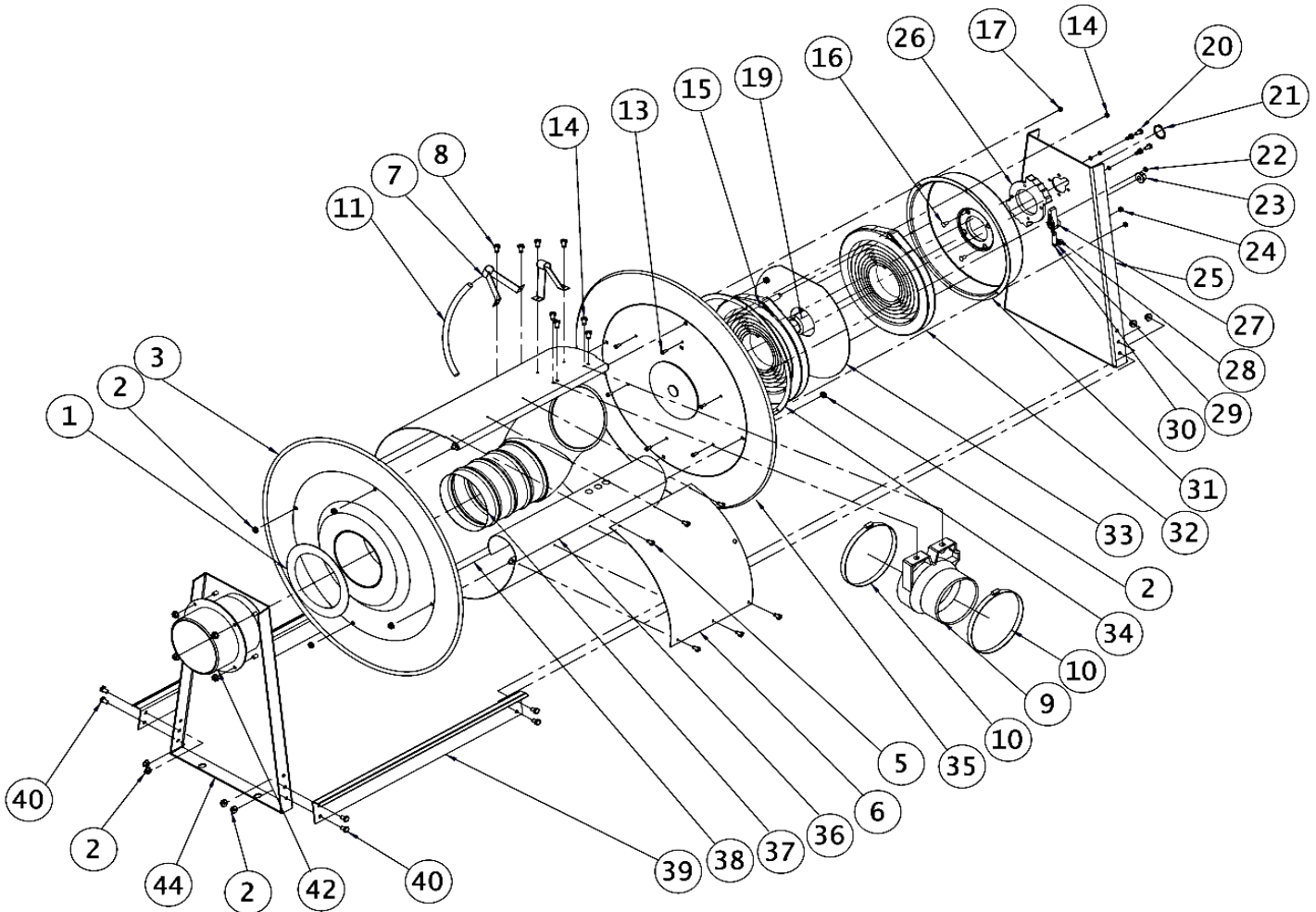
Fume-A-Vent Spring Hose Reel Exploded

Date 7/12

Part No. HRS-X-XXXX

Hose Reels

TAB 3-B-4



ITEM	Part #	QTY	Description	ITEM	Part #	QTY	Description
1	260166	1	Washer, Plastic	22	902016	4	Washer, Split Lock
2	300107	12	Nut, Lock (Whiz) 5/16-18 Zinc	23	S280-8	1	Nut, Hex Flange 1/2-20
5	S285-24	6	Screw, Self Tapping 10-3/8"	24	S82-15	1	Nut, Nyloc 10-32 x 3/8"
7	260178	2	Support, Guide	26	260164	1	Ratchet, Latch
8	S282-88	4	Screw, Self Drilling #10 x 1/2"	27	S600018	1	Latch Pawl Assembly
10	260186	4	Clamp Hose	28	S260067	1	Spring, Latch
11	260177-54	1	Tube, Guide	29	S400012	1	Bushing, Latch
13	300001	6	Screw, Machine 10-32 x 3/8"	30	S20-110	1	Screw, Machine 10-32 x 7/8"
14	S294-27	7	Screw, Self Tapping #10 x 1/2"	31	260169	1	Spring Case
15	260174	1	Stud, Spring Case	32	S260069	2	Drive Spring Assembly
16	S239-97	4	Rivet	33	S600045	1	Spacer, Spring
17	300011	6	Nut, Hex Lock 10-32	34	260165	1	Gasket
19	S600984	1	Arbor, Spring	40	S2-51	8	Screw, Hex Cap 5/16-18 x 1/2"
20	S56-41	4	Screw, Hex 1/4-20 x 1/2" GR.5	42	600312	1	Adapter Assembly
21	300007	1	Ring, Snap				

ITEM	Description	# Req.	V316	V419	V519	V619	V428	V528	V628	V432	V532	V632
3	Flange Assembly (left)	1	602292	600317	600317	600317	600317	600317	600317	600317	600317	600317
6	Support, Hose	1	262283	260344	260344	260344	260748	260748	260748	261669	261669	261669
9	Reducer	1	None	260803	260804	260805	260803	260804	260805	260803	260804	260805
25	Base (right)	1	262281	260746	260746	260746	260746	260746	260746	260746	260746	260746
35	Flange Assembly	1	602291	600986	600986	600986	600986	600986	600986	600986	600986	600986
36	Spacer, Sheave	1	262282	260173	260173	260173	260739	260739	260739	260772	260772	260772
37	Tube, Connecting	1	260759-1	260759-1	260759-1	260759-1	260759-1	260759-1	260759-1	260759-2	260759-2	260759-2
38	Rod, Tie	4	326468-16-1	260402-600	260402-600	260402-600	260402-700	260402-700	260402-700	260402-800	260402-800	260402-800
39	Brace, Cross	2	262387-2	262387-3	262387-3	262387-3	262387-4	262387-4	262387-4	262387-5	262387-5	262387-5
44	Base Assembly	1	602290	600314	600314	600314	600314	600314	600314	600314	600314	600314

FUME-A-VENT
EXHAUST REMOVAL SYSTEMS
A Product of Air Cleaning Specialists, Inc.

AIR CLEANING SPECIALISTS, INC.
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Fume-A-Vent Hose Reel Mounting

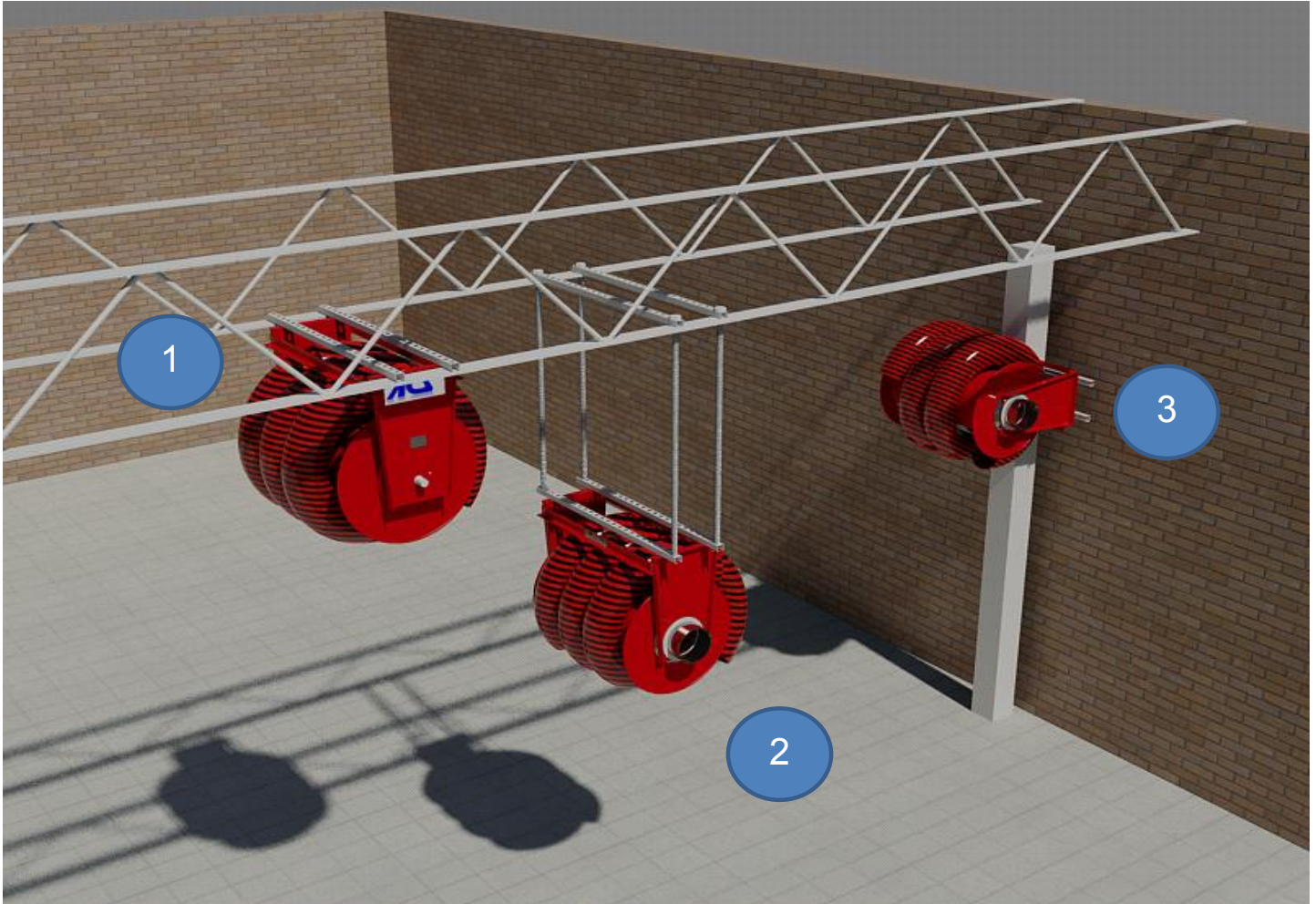
Date 7/12

Part No. HRX-X-XXXX

Hose Reels

TAB 3-B-5

This is a drawing of the typical mounting positions that our Fume-A-Vent Hose Reels are placed. They are easily installed with the four mounting holes that are 9/16" by 3/4" deep. Unistrut can be utilized effectively with the mounting holes or by other methods. Please consult one of our experts to decide the best mounting type for your application. Both Spring and Motorized Hose Reels have the same mounting options and



1. Ceiling mounting utilizing the Unistrut Steel Hangers.
2. Dropped down ceiling mount with Unistrut and 1/2" threaded rod for drop.
3. Wall mounted hose reel with Unistrut supports.

Installation Guides available upon request for most ceiling types including joist and concrete.

Hose Reels are a heavy item that has pull/push force from the spring retention. Please make sure the hose reel is mounted in a secure, strong location. Methods other than Unistrut and threaded rod are available.

Fume-A-Vent Spring Hose Reels Operating Instruction

Date 7/12

Part No. HRS

Hose Reels

TAB 3-B-6

Operating and Installation Instructions Series HRS Exhaust Reels

SAFETY:

Personal Injury and/or equipment damage may result if proper safety precautions are not observed.

- Ensure that reel is properly installed before connecting input and output hoses.
- Ensure that working pressure and temperature do not exceed rating of reel.
- Be aware of machinery and personnel in work area.
- If a leak occurs in the hose or reel, remove from service immediately.
- A high tension spring assembly is contained within the reel. Exercise extreme caution.
- If reel ceases to unwind or rewind, remove from service immediately
- Other than replacing the hoses, refer all other repairs only to an authorized service person or directly to Fume-A-Vent. Failure to do so may void the warranty.

MOUNTING:

- See Tab 3-I for Mounting Guide

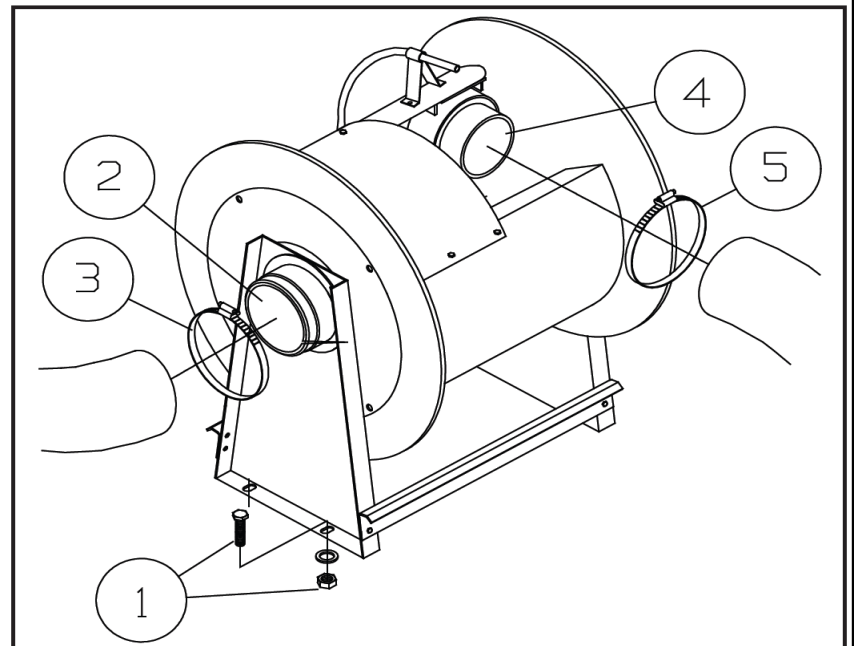
CONNECTING HOSES

- Mount Hose Reel using mounting holes of 9/16" (1)
- Position input hose to input adaptor (2). Secure into place with hose clamp (3).
- Position output hose to output adaptor (4). Secure into place with hose clamp (5).
- Release latch and wind hose onto reel.

WARNING: Use extreme caution; reel under tension. Avoid releasing latch mechanism.

If necessary, adjust spring tension on reel by adding or removing wraps of hose from spool, add wraps to increase tension. Remove wraps to decrease tension.

CAUTION: When adding wraps of hose, be careful not to exceed the winding mechanism's spring capacity. Add just enough wraps of hose to achieve the desired tension. Damage to the winding mechanism will result if spring is over-tensioned.



Fume-A-Vent Type 2 600°F Nomex and Silicone Coated Hose

Date 7/12

Part No. H-02-XXXX

Type 2 600°F Hose

TAB 1-B

The Fume-A-Vent Type 2 hose easily withstands temperatures at 600°F and is ideal for use with hose reels or overhead exhaust systems. The hose has exceeded 1000°F during certified testing and is rated up to 1250°F with intermittent use.

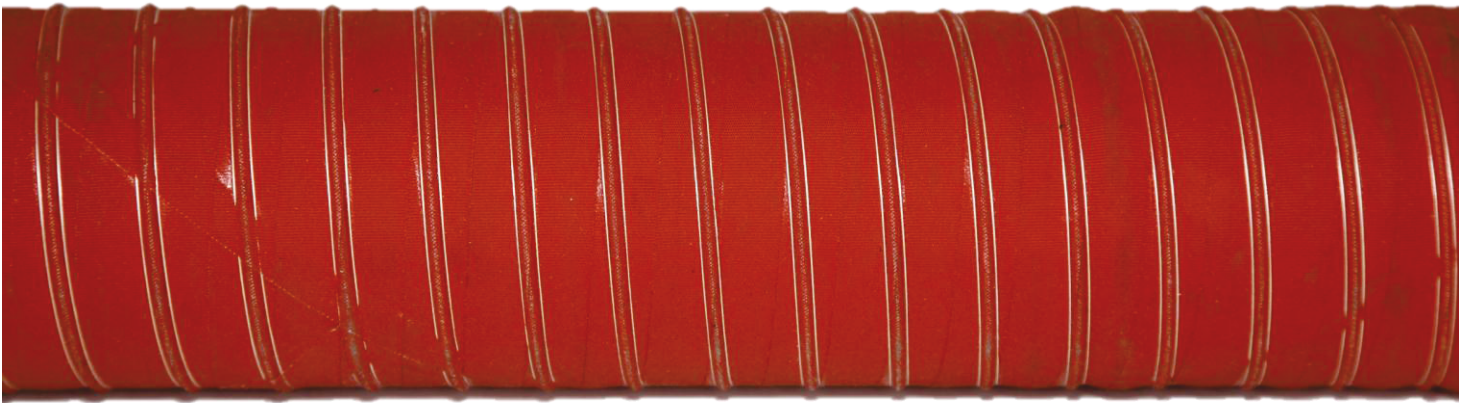
Temperature Range: - 80°F to 600°F (Baking Test)

This product meets Military Spec: MIL PFR 62028 - Paragraph 4.7.8, 72 Hours at 1000°F.

This product has a temperature rating at 1250°F for intermittent use, 600° constant use.

The Fume-A-Vent Type 2 hose is a double ply hose with an inner liner ply of woven fiberglass coated silicone rubber. A helically wound spring steel wire is imbedded between the inner liner ply and an exterior ply of woven Nomex coated with silicone rubber. The wire insures maximum flexibility and minimum diameter restrictions in sharp bend areas. The assembly is double wound with a treated Nomex cord and heat vulcanized to provide a greater strength.

Other information including wall thickness and helix pitch are available upon request. In some cases, a Fan and a Tailpipe Adaptor will be required. Common lengths and diamaters shown in chart below.



Part No	Description	Wt
H-02-0416	Fume-A-Vent 4" x 16' Type 2 600°F Silicone/Nomex High Temperature Hose	15
H-02-0420	Fume-A-Vent 4" x 20' Type 2 600°F Silicone/Nomex High Temperature Hose	15
H-02-0424	Fume-A-Vent 4" x 24' Type 2 600°F Silicone/Nomex High Temperature Hose	18
H-02-0516	Fume-A-Vent 5" x 16' Type 2 600°F Silicone/Nomex High Temperature Hose	15
H-02-0520	Fume-A-Vent 5" x 20' Type 2 600°F Silicone/Nomex High Temperature Hose	16
H-02-0524	Fume-A-Vent 5" x 24' Type 2 600°F Silicone/Nomex High Temperature Hose	22
H-02-0616	Fume-A-Vent 6" x 16' Type 2 600°F Silicone/Nomex High Temperature Hose	15
H-02-0620	Fume-A-Vent 6" x 20' Type 2 600°F Silicone/Nomex High Temperature Hose	16
H-02-0624	Fume-A-Vent 6" x 24' Type 2 600°F Silicone/Nomex High Temperature Hose	18
H-02-0816	Fume-A-Vent 8" x 16' Type 2 600°F Silicone/Nomex High Temperature Hose	20
H-02-0820	Fume-A-Vent 8" x 20' Type 2 600°F Silicone/Nomex High Temperature Hose	24
H-02-0824	Fume-A-Vent 8" x 24' Type 2 600°F Silicone/Nomex High Temperature Hose	29



Air Cleaning
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Fenton, MO 63026
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REVISIONS

0	

SHEET NAME
DETAIL

FUME-A-VENT
EXHAUST REMOVAL SYSTEMS
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DRAWING TITLE
HRS-2-0416

DRAWN: CODY BINGAMAN

CHECKED: JIM GRAYEM

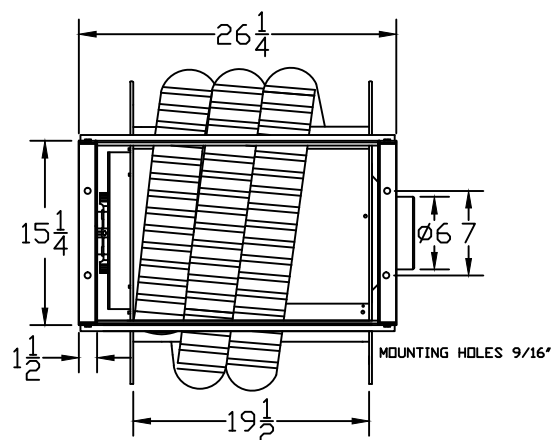
PROJECT NAME
HOSE REEL

DATE 7/12/12	VIEW ORTHO
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SIZE A	DWG NO. 1	REV. 0
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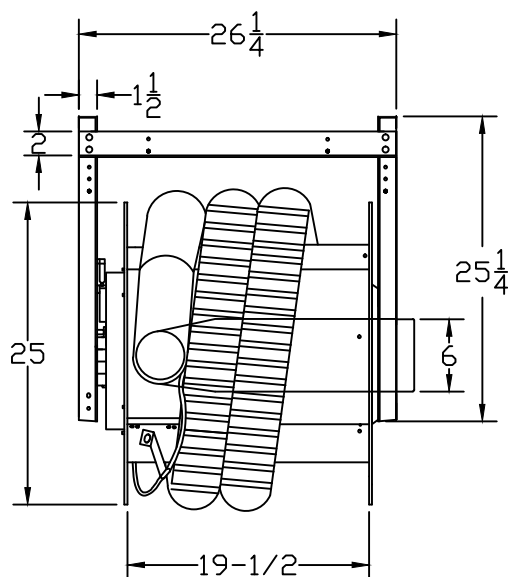
SCALE: 1:1	WEIGHT: 1	SHEET 1 OF 1
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TOP VIEW

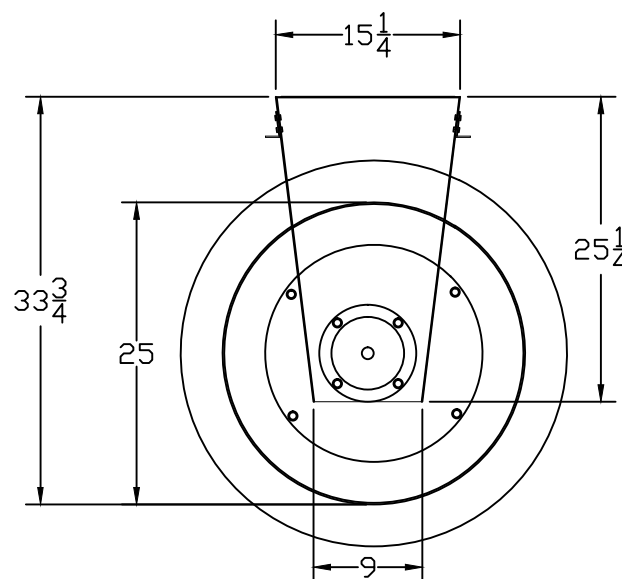


HOSE REEL
HRS-2-0416
4" 600° HOSE/ 16' LENGTH

FRONT VIEW



SIDE VIEW



Fume-A-Vent TPA 04 Stainless Steel Tapered Cone Adapter

Date 7/12

Part No. TPA-04-XXXX

Tailpipe Adapters

TAB 10-E



Pictured Above:

TPA-04-06
with LS Option

TPA-04-04
with SC Option

TPA-04-06
with SC Option

The TPA 04 Tailpipe Adapters feature a chrome covered stainless steel tapered cone. Each adapter comes with either a spring clamp or vise grip. A vast variety of accessory options are available as well for a small additional charge.

Note: To add options, specify listed part number as separate item.

Options	
Part No.	Description
H	Handle
LHD	Locking Hand Damper
LS	Lifting Sleeve
SC	Spring Clamp
SCRN	Debris Screen
VG	Vice Grip

Available Adaptor Sizes			
Part No.	Hose	Mouth	Length
TPA 04-04	4"	6"	15"
TPA 04-05	5"	7"	15"
TPA 04-06	6"	8"	15"
TPA 04-08	8"	10"	17"
TPA 04-10	10"	12"	17"
TPA 04-12	12"	14"	17"

Fume-A-Vent TPA 04 Stainless Steel Tapered Cone Adapter

Date 7/12

Part No. TPA-04-XXXX

Tailpipe Adapters

TAB 10-E



Pictured Above:

TPA-04-06
with LS Option

TPA-04-04
with SC Option

TPA-04-06
with SC Option

The TPA 04 Tailpipe Adapters feature a chrome covered stainless steel tapered cone. Each adapter comes with either a spring clamp or vise grip. A vast variety of accessory options are available as well for a small additional charge.

Note: To add options, specify listed part number as separate item.

Options	
Part No.	Description
H	Handle
LHD	Locking Hand Damper
LS	Lifting Sleeve
SC	Spring Clamp
SCRN	Debris Screen
VG	Vice Grip

Available Adaptor Sizes			
Part No.	Hose	Mouth	Length
TPA 04-04	4"	6"	15"
TPA 04-05	5"	7"	15"
TPA 04-06	6"	8"	15"
TPA 04-08	8"	10"	17"
TPA 04-10	10"	12"	17"
TPA 04-12	12"	14"	17"

Fume-A-Vent Control Panel Overview

Date 2/14

Part No. CBS-X-XXX-X

Control Panels

TAB 19-A

Fume-A-Vent offers State-of-the-Art Control Panels, that are able to manage the power to our exhaust extraction systems with limited installation required. All Panels are UL/CLU Certified. They feature a mild-steel NEMA 4 enclosure with 3-way (HAND-OFF-AUTO) switch and reset button, and low voltage landing terminals. Motor starts, contractor and thermal overload standard in all Panels.

These panels are ideal for automotive shops exhaust systems, and is used to control the blowers or fans. Disconnect Switches may be required in some buildings and to meet local/national codes.

Control Panels are based on the Building Power, and Fan/Blower that is to be run. We offer 1 and 3 Phase, 120V, or 230V, with 1, 2, 3, 5, or 7.5, H.P. blower ratings. ****120V not available in 3 Phase.**

We recommend a licensed electrician install our panels.

Enclosure Dimensions: 10" H x 10"W x 6"D (Up to 5.0 H.P.)
12" H x 10" W x 8"D (7.5 H.P.)

Other Control Panel options available including multiple motor starts, multiple timers, among other custom controls. Please consult our experts if you require anything not accommodated for in our standard panels.

Part Number	HP	Voltage	Phase	Description	Timer
CBS-1-120-1	1	120	1	For use with a 120V, 1HP, 1PH Fan and compatible 120V, 1PH source.	N
CBS-2-120-1	2	120	1	For use with a 120V, 2HP, 1PH Fan and compatible 120V, 1PH source.	N
CBS-3-120-1	3	120	1	For use with a 120V, 3HP, 1PH Fan and compatible 120V, 1PH source.	N
CBS-5-120-1	5	120	1	For use with a 120V, 5HP, 1PH Fan and compatible 120V, 1PH source.	N
CBS-1-230-1	1	230	1	For use with a 230V, 1HP, 1PH Fan and compatible 230V, 1PH source.	N
CBS-2-230-1	2	230	1	For use with a 230V, 2HP, 1PH Fan and compatible 230V, 1PH source.	N
CBS-3-230-1	3	230	1	For use with a 230V, 3HP, 1PH Fan and compatible 230V, 1PH source.	N
CBS-5-230-1	5	230	1	For use with a 230V, 5HP, 1PH Fan and compatible 230V, 1PH source.	N
CBS-7.5-230-1	7.5	230	1	For use with a 230V, 7.5HP, 1PH Fan and compatible 230V, 1PH source.	N
CBS-1-230-3	1	230	3	For use with a 230V, 1HP, 3PH Fan and compatible 230V, 3PH source.	N
CBS-2-230-3	2	230	3	For use with a 230V, 2HP, 3PH Fan and compatible 230V, 3PH source.	N
CBS-3-230-3	3	230	3	For use with a 230V, 3HP, 3PH Fan and compatible 230V, 3PH source.	N
CBS-5-230-3	5	230	3	For use with a 230V, 5HP, 3PH Fan and compatible 230V, 3PH source.	N
CBS-7.5-230-3	7.5	230	3	For use with a 230V, 7.5HP, 3PH Fan and compatible 230V, 3PH source.	N

****Custom Enclosures available at request. Please consult our experts to discuss your options.**



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Fume-A-Vent Control Panel Wiring Diagram (230V 3 Phase)

Date 2/14

Part No. CBS-X-XXX-X

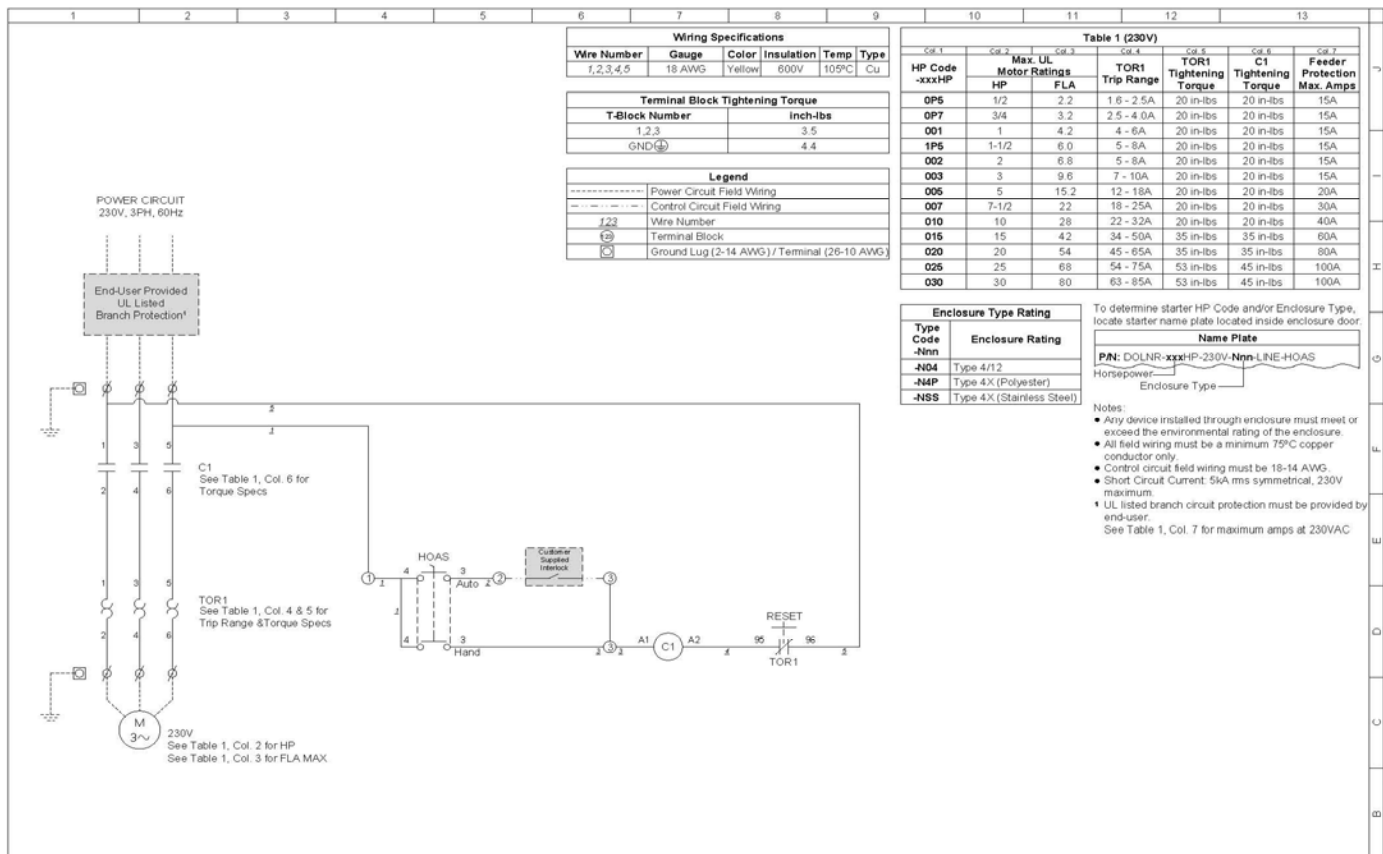
Control Panels

TAB 19-B-1

Fume-A-Vent Control Panel Enclosure Drawing, shown below. This shows our 230V, 3 Phase wiring diagram. This diagram is the same for all H.P. ratings we offer.

Additional information available upon request. Some Panels may vary if timers, additional low voltage connections, or other hardware is added. Please consult our experts for more information, and for custom Control Panels.

A disconnect switch is normally required for 3 phase Control Panels for local/national codes.



Shown: Standard 230V Control Panel with On/Off Switches.



Fume-A-Vent Engine Sensor Control Panel Diagram 5 HP

Date 2/14

Part No. CBS-X-XXX-X

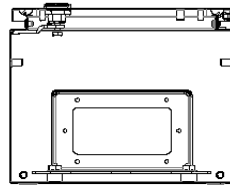
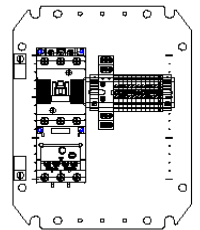
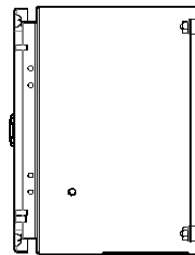
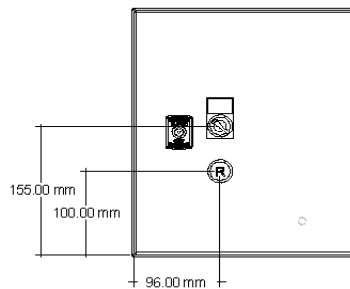
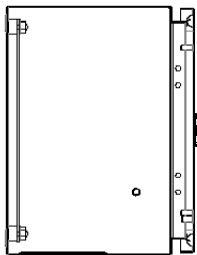
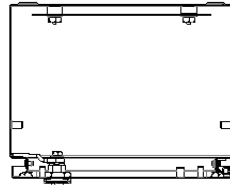
Control Panels

TAB 19-C-1

Fume-A-Vent Control Panel Enclosure Drawing. shown below. This drawing applies to all 230V Panels, with 5.0 H.P ratings.

Standard Dimensions shown below, with orthographic drawing of the entire enclosure. More information available upon request. Please contact our experts for more information.

Final wiring and appearance may change once final layout and needs are decided upon.



Standard Control Panel shown with on/off switch.

