



**CITY OF NOVI CITY COUNCIL
OCTOBER 12, 2020**

SUBJECT: Approval to purchase equipment from Hasting Air Energy Control, Inc., sole source provider, in the amount of \$62,025.32 to upgrade the Plymovent exhaust extraction connections at the Fire Stations.

SUBMITTING DEPARTMENT: Public Safety, Fire Department

EXPENDITURE REQUIRED	\$66,025.32
AMOUNT BUDGETED	\$67,460.00
APPROPRIATION REQUIRED	N/A
LINE ITEM NUMBER	101-337.00-976.070

BACKGROUND INFORMATION: Included in the 2020-21 budget is the upgrade for fifteen Plymovent vehicle exhaust extraction connections. Each upgrade includes the new magnetic "Grabber" system. This upgrade retrofits to the current pneumatic system that exists at all four of the City of Novi fire stations. This magnetic system offers a click and seal attachment that creates a better seal to achieve virtually 100% source capture of vehicle exhaust. The system minimizes the amount of air that needs to be removed, thereby reducing the total investment in air handling equipment and also reducing the total energy consumption. The metal design of the magnetic Grabber system works better at dissipating the heat from the high exhaust temperatures that are present on our new and future fire apparatus. This upgrade is designed to improve the air quality in the fire station by effectively removing diesel exhaust fumes and soot.

Hastings Air Energy Control, Inc. is the Sole Source provider and repair service of the Plymovent vehicle exhaust removal system in Michigan. Hastings has the exclusive rights to sell, install, provide parts and service the Plymovent vehicle exhaust extraction system. The Novi Fire Department first purchased the original vehicle exhaust system from Hastings back in January of 2004.

RECOMMENDED ACTION: Approval to purchase equipment from Hasting Air Energy Control, Inc., sole source provider, in the amount of \$62,025.32 to upgrade the Plymovent exhaust extraction vehicle connections at the Fire Stations.

MEMORANDUM



TO: JEFFERY R. JOHNSON, FIRE CHIEF
FROM: JOHN B. MARTIN, ASSISTANT FIRE CHIEF
SUBJECT: BUDGETED UPGRADE FOR VEHICLE EXHAUST
DATE: OCTOBER 5, 2020

Included in the 2020-21 budget is the upgrade for fifteen Plymovent vehicle exhaust extraction connections. Each upgrade includes the new magnetic "Grabber" system. This upgrade retrofits to the current pneumatic system that exists at all of the four City of Novi fire stations. This magnetic system offers a click and seal attachment that creates a better seal to achieve virtually 100% source capture of vehicle exhaust. The system minimizes the amount of air that needs to be removed, thereby reducing the total investment in air handling equipment and also reducing the total energy consumption. The metal design of the magnetic Grabber system works better at dissipating the heat from the high exhaust temperatures that are present on our new and future fire apparatus.

This upgrade is designed to improve the air quality in the fire station by effectively removing diesel exhaust fumes and soot. The current rubber boot exhaust attachments are not able to handle the high exhaust temperatures and break down preventing a proper seal to the exhaust pipe. This increases the cost of maintaining the current system due to frequent replacement of the rubber exhaust boot.

The new Grabber system eliminates the need for a pneumatic air compressor to pressurize a rubber boot that attaches to the exhaust pipe in order to achieve a proper seal. At source capture of airborne particles, prior to their spreading into the local environment, is the most efficient method to achieving a safe and healthy work environment. A reduction to the maintenance and operation on the compressor will be an overall cost savings to the fire department.

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This upgrade is a cost saving that will allow us to utilize the existing system and retrofit it rather than remove and replace the entire system. Having the existing system in place allows us to take advantage of retrofitting the most current technology to continue to keep our personnel safe and forgo the higher cost of total replacement.

The Hastings quote to upgrade our current system is \$66,025.32 for all four fire stations. The total budget for this project was \$67,470.00. The quotes are as follows: Station No. 1 \$18,817.20, Station No. 2 \$19,975.92, Station No. 3 \$13,672.40 and Station No. 4 \$13,559.80.



January 3, 2020

To Whom It May Concern,

The purpose of this letter is to confirm that Hastings Air Energy Control Inc. is the exclusive dealer of Plymovent vehicle exhaust extraction systems in the state of Michigan. As the only Plymovent dealer in this territory, Hastings Air Energy Control Inc. is in good standing and has the exclusive rights to sell, install, provide parts and service our vehicle exhaust extraction systems.

For over 40 years, Plymovent has created products that provide a safe and healthy work environment. Together with our nationwide dealer network, Plymovent continuously strives to design and engineer products that meet or exceed our customers' expectations and needs.

If you have any questions, please do not hesitate to contact me.

Kindest regards,
PLYMOVENT CORP.

Brad Pitzl
President/General Manager

Novi Fire Department Vehicle Exhaust Upgrades	
	Quote
Fire Station #1	18,817.20
Fire Station #2	19,975.92
Fire Station #3	13,672.40
Fire Station #4	13,559.80
Total	66,025.32



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Ship To:

Novi Fire Department #1
42975 Grand River Avenue

42975 Grand River Avenue

Date: 10/2/2020

Sales Person: Matthew Johnson

Quote: QUO-16484-F9Z1N8

Expires: 12/31/2020

Novi, MI 48375

Novi, MI 48375

Part #	Description	Qty
LB-MGH	Magnetic Changeout/per Drops	5.0
LIFT	Lift Usage Charges	1.0
FRT	Freight	1.0
PD	Per Diem	1.0
INST-TPM	Tailpipe Modifications	1.0
INST-M	Installation of 20ft SBT and complete drop	1.0
VE-WRK-T09	Transmitter, Remote, 2.4 GHZ w/spade lugs	5.0
VE-WRK-R08	Wireless Receiver w/3 relays, 2400 MHZ with enclosure.	1.0
VE-LEG-MKF	Vertical Leg Mount Kit	2.0
VE-LEG-LP1	Sq Alumn Leg Tube, 1.2" Sq. X 16' Long, Extruded Alumn, Field Cut To Req'D Length	1.0
SEN-002	Engine Pressure Sensor Assembly w/ear clips	5.0
ADAP-110	Tailpipe Adaptor, 5", Conical, Kit	2.0
ADAP-134	TAILPIPE ADAPTER 3.5" FOR MG 3"	1.0
ADAP-128	TAILPIPE ADAPTER 3" FOR MG 3"	1.0
DAMP-068	Damper, Backdraft, 4" BDD/One per drop	5.0
VE-SBTA-MG-LH54HTBA	SBT LOWER HOSE PACK - MAGNETIC GRABBER (MG) BLACKARMOUR (BA) 5", HIGH TEMP (HT) HOSE 4", SAFETY DISCONNECT HANDLE (SDCH) LOWER ASSEMBLY, SBTA	2.0
VE-SBTA-MG-LH34HTBA	SBT LOWER HOSE PACK - MAGNETIC GRABBER (MG) BLACKARMOUR (BA) 3", HIGH TEMP (HT) HOSE 4", SAFETY DISCONNECT HANDLE (SDCH) LOWER ASSEMBLY, SBTA	2.0
VE-XX-MH410	SBTA. STRA. VSRX MID HOSE PACK 4" ST HOSE X 10' INCLUDES HOSE & CLAMPS	4.0
VE-SBTA-MG-UH204-2	SBTA UPPER HOSE PACK - MAGNETIC GRABBER. 4" ST HOSEPACK FOR 20' TRACK/FRONT 2 DROP TRACK INCLUDES: UPPER HOSE, RISER BRACKET, HOSE CLAMPS, METAL SADDLE, TROLLEY & BALANCER.	1.0
VE-SBTA-20TP	SBTA-20 Track pack. Includes: Track, endstops, splices, Joiner Plates, Security Bolts, Tape, Labels	1.0

\$18,817.20



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Ship To:

Novi Fire Department #2
1919 Paramount

1919 Paramount

Date: 10/2/2020

Sales Person: Matthew Johnson

Quote: QUO-16411-K1J3V2

Expires: 12/31/2020

Novi, MI 48375

Novi, MI 48375

Part #	Description	Qty
LIFT	Lift Usage Charges	1.0
VE-LEG-MKF	Vertical Leg Mount Kit	4.0
VE-LEG-LP1	Sq Alumn Leg Tube, 1.2" Sq. X 16' Long, Extruded Alumn, Field Cut To Req'D Length	2.0
INST-M	Add 2 Complete 20ft SBT Tracks and Drops with complete 3 pcs hose with lower	1.0
ADAP-128	TAILPIPE ADAPTER 3" FOR MG 3"	2.0
VE-SBTA-MG-UH204-2	SBTA UPPER HOSE PACK - MAGNETIC GRABBER. 4" ST HOSEPACK FOR 20' TRACK/FRONT 2 DROP TRACK INCLUDES: UPPER HOSE, RISER BRACKET, HOSE CLAMPS, METAL SADDLE, TROLLEY & BALANCER.	2.0
VE-SBTA-20TP	SBTA-20 Track pack. Includes: Track, endstops, splices, Joiner Plates, Security Bolts, Tape, Labels	2.0
DAMP-068	Damper, Backdraft, 4" BDD/One per drop	4.0
FRT	Freight	1.0
PD	Per Diem	1.0
LB-MGH	Magnetic Changeout/per Drops	3.0
INST-TPM	TAILPIPE MODIFICATIONS	1.0
VE-WRK-T09	Transmitter, Remote, 2.4 GHZ w/spade lugs	4.0
VE-WRK-R08	Wireless Receiver w/3 relays, 2400 MHZ with enclosure.	1.0
SEN-002	Engine Pressure Sensor Assembly w/ear clips	4.0
SADL-018	4" 90 deg Elbow Metal Saddle	4.0
CLAM-034	4-1/4" Diameter Hose Clamp SS Used For PV,EH & Silicone Hose	12.0
ADAP-110	Tailpipe Adaptor, 5", Conical, Kit	1.0
ADAP-134	TAILPIPE ADAPTER 3.5" FOR MG 3"	1.0
VE-SBTA-MG-LH54HTBA	SBT LOWER HOSE PACK - MAGNETIC GRABBER (MG) BLACKARMOUR (BA) 5 ", HIGH TEMP (HT) HOSE 4 ", SAFETY DISCONNECT HANDLE (SDCH) LOWER ASSEMBLY, SBTA	1.0
VE-SBTA-MG-LH34HTBA	SBT LOWER HOSE PACK - MAGNETIC GRABBER (MG) BLACKARMOUR (BA) 3 ", HIGH TEMP (HT) HOSE 4 ", SAFETY DISCONNECT HANDLE (SDCH) LOWER ASSEMBLY, SBTA	3.0
VE-XX-MH410	SBTA. STRA. VSRX MID HOSE PACK 4" ST HOSE X 10' INCLUDES HOSE & CLAMPS	4.0

\$19,975.92



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Ship To:

Novi Fire Department #3
42785 Nine Mile Road

42785 Nine Mile Road

Date: 10/2/2020

Sales Person: Matthew Johnson

Quote: QUO-16582-V5Y1G6

Expires: 12/31/2020

Novi, MI 48375

Novi, MI 48375

Part #	Description	Qty
LIFT	Lift Usage Charges	1.0
INST-M	Add 1 additional 20ft - SBT Complete with dose drops - Upgrade of 2 Plymovent - 3 drops total - Magnetic Grabber with lower and mid hose , safety disconnect and tailpipe conical	1.0
VE-WRK-T09	Transmitter, Remote, 2.4 GHZ w/spade lugs	3.0
ADAP-128	TAILPIPE ADAPTER 3" FOR MG 3"	1.0
VE-SBTA-MG-UH204-2	SBTA UPPER HOSE PACK - MAGNETIC GRABBER. 4" ST HOSEPACK FOR 20' TRACK/Front 2 DROP TRACK INCLUDES: UPPER HOSE, RISER BRACKET, HOSE CLAMPS, METAL SADDLE, TROLLEY & BALANCER.	1.0
VE-SBTA-20TP	SBTA-20 Track pack. Includes: Track, endstops, splices, Joiner Plates, Security Bolts, Tape, Labels	1.0
DAMP-068	Damper, Backdraft, 4" BDD/One per drop	3.0
SADL-018	4" 90 deg Elbow Metal Saddle	3.0
CLAM-034	4-1/4" Diameter Hose Clamp SS Used For PV,EH & Silicone Hose	6.0
FRT	Freight	1.0
PD	Per Diem	1.0
LB-MGH	Magnetic Changeout/per Drops	2.0
INST-TPM	TAILPIPE MODIFICATIONS	1.0
VE-WRK-R08	Wireless Receiver w/3 relays, 2400 MHZ with enclosure.	1.0
SEN-002	Engine Pressure Sensor Assembly w/ear clips	3.0
ADAP-110	Tailpipe Adaptor, 5", Conical, Kit	1.0
ADAP-134	TAILPIPE ADAPTER 3.5" FOR MG 3"	1.0
VE-SBTA-MG-LH54HTBA	SBT LOWER HOSE PACK - MAGNETIC GRABBER (MG) BLACKARMOUR (BA) 5 ", HIGH TEMP (HT) HOSE 4 ", SAFETY DISCONNECT HANDLE (SDCH) LOWER ASSEMBLY, SBTA	1.0
VE-SBTA-MG-LH34HTBA	SBT LOWER HOSE PACK - MAGNETIC GRABBER (MG) BLACKARMOUR (BA) 3 ", HIGH TEMP (HT) HOSE 4 ", SAFETY DISCONNECT HANDLE (SDCH) LOWER ASSEMBLY, SBTA	2.0
VE-XX-MH410	SBTA. STRA. VSRX MID HOSE PACK 4" ST HOSE X 10' INCLUDES HOSE & CLAMPS	3.0

\$13,672.40



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Ship To:

Novi Fire Department #4
49375 Ten Mile Road

49375 Ten Mile Road

Date: 10/2/2020

Sales Person: Matthew Johnson

Quote: QUO-16583-M8W6K6

Expires: 12/31/2020

Novi, MI 48375

Novi, MI 48375

Part #	Description	Qty
LIFT	Lift Usage Charges	1.0
INST-M	Add 1 additional 20ft - SBT Complete with dose drops - Upgrade of 2 Plymovent - 3 drops total - Magnetic Grabber with lower and mid hose , safety disconnect and tailpipe conical	1.0
VE-WRK-T09	Transmitter, Remote, 2.4 GHZ w/spade lugs	3.0
ADAP-128	TAILPIPE ADAPTER 3" FOR MG 3"	1.0
VE-SBTA-MG-UH204-2	SBTA UPPER HOSE PACK - MAGNETIC GRABBER. 4" ST HOSEPACK FOR 20' TRACK/FRONT 2 DROP TRACK INCLUDES: UPPER HOSE, RISER BRACKET, HOSE CLAMPS, METAL SADDLE, TROLLEY & BALANCER.	1.0
VE-SBTA-20TP	SBTA-20 Track pack. Includes: Track, endstops, splices, Joiner Plates, Security Bolts, Tape, Labels	1.0
FRT	Freight	1.0
PD	Per Diem	1.0
LB-MGH	Magnetic Changeout/per Drops	2.0
INST-TPM	TAILPIPE MODIFICATIONS	1.0
VE-WRK-R08	Wireless Receiver w/3 relays, 2400 MHZ with enclosure.	1.0
SEN-002	Engine Pressure Sensor Assembly w/ear clips	3.0
SADL-018	4" 90 deg Elbow Metal Saddle	3.0
CLAM-034	4-1/4" Diameter Hose Clamp SS Used For PV,EH & Silicone Hose	4.0
ADAP-110	Tailpipe Adaptor, 5", Conical, Kit	1.0
ADAP-134	TAILPIPE ADAPTER 3.5" FOR MG 3"	1.0
DAMP-068	Damper, Backdraft, 4" BDD/One per drop	3.0
VE-SBTA-MG-LH54HTBA	SBT LOWER HOSE PACK - MAGNETIC GRABBER (MG) BLACKARMOUR (BA) 5 " , HIGH TEMP (HT) HOSE 4 " , SAFETY DISCONNECT HANDLE (SDCH) LOWER ASSEMBLY, SBTA	1.0
VE-SBTA-MG-LH34HTBA	SBT LOWER HOSE PACK - MAGNETIC GRABBER (MG) BLACKARMOUR (BA) 3 " , HIGH TEMP (HT) HOSE 4 " , SAFETY DISCONNECT HANDLE (SDCH) LOWER ASSEMBLY, SBTA	2.0
VE-XX-MH410	SBTA. STRA. VSRX MID HOSE PACK 4" ST HOSE X 10' INCLUDES HOSE & CLAMPS	3.0

\$13,559.80