# X-TRACTOR<sup>®</sup> 2 FUME GUN FUMES DON'T STAND A CHANCE



Shown: X-Tractor 2 Fume Gun K5271-1

## Portable Welding Fume Extractor

The Lincoln Electric X-Tractor<sup>®</sup> 2 Fume Gun is a high vacuum extraction system designed for the removal and filtration of welding fume when connected to a welding nozzle, fume gun or robotic on torch application. This unit is a great choice for fume removal in medium to heavy duty welding applications typically used in heavy fabrication, ship building and maintenance shops due to the mobility and self cleaning filters. The X tractor 2 Fume Gun is designed for Industrial high production applications due to the high 180 SCFM with high static pressure and large 160 sq. ft. of self cleaning filter media.

- » High SCFM controlled at the unit (180 SCFM)
- » Large Filter versus the competition
- » 160 sq. ft. of filter media
- » Long lasting, easy to change filter
- » Automatic Self Cleaning

Note: customer supplied compressed air.





#### Product Number »

K5271-1 X-Tractor 2 Fume Gun 460/3/60 K5271-2 X-Tractor 2 Fume Gun 208-230/3/60 K5271-3 X-Tractor 2 Fume Gun 575/3/60





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## **KEY FEATURES**

- » Automatic Self Cleaning
- » VFD Controlled 4 HP
- » SCFM Control at the unit 180 max. SCFM or 150 SCFM when connected to two fume guns.
- Infinitely variable fan speed control knob

   Conveniently located on the front panel allowing control of SCFM to ensure shielding gas is not disturbed.

## Unit

- » Particulate Tray Large, self-contained particulate tray for easy emptying
- » Mobile With two large rear wheels, the X-Tractor 2 Fume Gun is easy to move around
- » Minihelic Filter Gauge Differential pressure gauge measures the pressure drop across the filter to monitor filter life and order replacement filters.
- » Easy to Change Filters Easily change filters with a 3/8 in. hex driver in less than two minutes

## WHAT'S INCLUDED

## BASE UNIT INCLUDES

- » (2) Inlet Spark Arrestors
- » Inlet Plug
- » MERV 16 (HE), NANO FILTER
- » (2) Cable Management Brackets
- » 20 ft. (6 m) Power Cable

## **RECOMMENDED ACCESSORIES**

**Extraction Hoses, 1-3/4 in. Diameter** Flexible high temperature hoses with spring steel reinforcement. Standard hose to connect the various extraction devices to the X-Tractor base units.

Order K2389-8 16 ft. (4.8 m) K2389-9 8 ft. (2.4 m) K3492-4 1-3/4 in. to 2 in. adapter\*

\*Required for use with hose kits, 2 per hose.

## **KEY CONTROLS**

- 1. Power On (Light)
- 2. Alarm (Light)
- 3. Fan Running (Light)
- 4. Reset Drive Alarm & Manual Clean
- 5. Start/Stop fan
- 6. Fan Speed Adjustment dial
- 7. Remote start inputs A
- 8. Remote start inputs B
- 9. Main Switch Input Power
- 10. Filter differential pressure gauge



## High Vacuum Product Application

High vacuum welding fume extraction systems utilize high pressure of 70-90 inches of water column and low volume of 50-100 cu. ft./min with an air speed of 4000-5000 ft/min. The air handling configuration of high vacuum equipment allows the use of small diameter rigid duct and small diameter flexhose to easily reach extraction points. It is ideal for applications such as short welds when using fume suction nozzles or larger fixture welding using integrated fume extracting guns. This process is designed for close proximity source extraction from 2-4 in. to the welding source. The smaller size of hoses and suction nozzles than those of low vacuum systems, makes it easier to carry the fume gun, extraction nozzle and/ or flex hose into confined spaces – depending on the type of welding, base material, consumable used and arc time. The mobility of the suction devices allows the main filter unit to be kept at a central location.

### **IDEAL APPLICATIONS**

The X-tractor 2 Fume Gun is a versatile source capture fume extractor that can be used in several applications in conjunction with our other products to create a low cost fume system. The X-Tractor 2 Fume Gun can be used with the following:

#### **Fume Guns**







**Fume Extraction Nozzles** 

#### FUME EXTRACTION GUNS

The X-tractor 2 Fume Gun is designed to be used with up to two fume guns. With an integrated automatic self-cleaning filter system, it is ideal for welding large parts at a high duty cycle. This can also be used for welding smaller parts on a table in an education environment. The Magnum PRO Fume guns provide a premium fume welding gun experience by placing focus on not only welding performance but also operator comfort. The Infinite SCFM control allows for maximum air flow control to extract the fume without disruption to the shielding gas. K3492-4 adaptor for 1-3/4 in. hose to 2 in. OD tube (two per hose) •• Fume gun For K2389-9 and K4113-8 hose kits, X-Tractor 2 Fume Gun -----remove the 1-3/4 in. hose to 1-34 in. Inlets – 2.0 in.

1-3/4 in. hose 8 ft. long (K2389-9 or K4113-8) requires two K3492-4 adapters

Note: K2389-9 Hose Kit, 8 ft. K2389-8 Hose Kit, 16 ft. tube adapters and replace with K3492-4 1-3/4 in. hose to 2 in. adapters

### HIGH VACUUM SOURCE CAPTURE FOR COBOT APPLICATIONS



- X Tractor 2 Fume Gun Extractor connected to Fume Torch Kit
- Captures up to 90% of fumes at the source
- Torch kits available for both air-cooled and water-cooled applications.
- Does not interfere with Cobot functionality

## **KEY FEATURES**

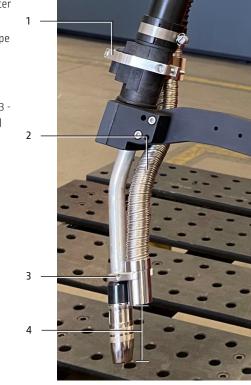
The X-Tractor 2 Fume Gun is an integral part of the On-Torch fume extraction system for robotic applications. Simply attach the on-torch fume extractor to your robotic torch to capture fume at the source. Easily control the SCFM on the front of the unit based on your needs to optimize fume extraction without disturbing the shielding gas. This product pairing creates a cost effective, easy-to-use fume system.

- **High Vacuum** high local pressure where low volumes of air are being extracted.
- Source Capture capture fume at the source without interrupting the shielding gases
- Energy Efficient uses a lower SCFM compared to robotic hoods
- Simple to Install kit includes the tools and parts you need for simple set up
- Versatile use with both air and water cooled torches

#### **Recommended Applications**

- Low cost alternative that collects the majority of welding fume
- Some exotic materials may require redundant fume extraction where On-Torch can be paired with fume hood
- For robots that require crane access to load the parts and would interfere with a fume hood

- 1. Torch body diameter
- Suction nozzle set formed to the shape of the torch
- Torch goose neck diameter
- 4. Target distance is 3 -3.5 in. (75 - 90 mm)





Note: Attention needs to be paid to the mechanical envelope around the torch. In some cases, the torch tool path needs to be modified to allow for On-Torch part clearances.

### **ON-TORCH ROBOTIC KIT INCLUDES**

- Suction Nozzle set
- Torch Body Clamp
- Torch Neck Clamp
- Hose Clamp
- Cinch Clamp

- Reducer, 1 1.75 in. (25 45 mm)
- Adapter, 1.75 x 2 in. (44.5 x 50.8 mm)
- 30 ft. (9.1 m) 1.75 in. (45 mm) Hose for Robot Applications
- 10 ft. (3 m) 1 in (25 mm) Hose for Cobot Applications

### FUME EXTRACTION NOZZLES

Nozzle applications work well with small production parts or educational welding plates that require a small fixed fume extraction area. There are several types of nozzles that can be pared with different part geometry.



#### GENERAL OPTIONS

EN 20 Extraction Nozzle The EN 20 nozzle is designed for a wide array of welding applications. With its funnel extraction opening and magnetic mounting stand, the EN 20 gives the welder a greater amount of versatility. Order K2389-5



SHFA Flat Suction Nozzle 150 mm (6 in.) aluminum suction nozzle with 20 in. (500 mm) flexible steel hose and magnetic mounting. Includes S20591-7 adapter for 1-3/4 in. (45 mm) hose. Best capture distance: < 4 in. (100 mm). Order K639-5

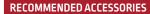


SHM Aluminum Suction Nozzle Includes S20591-7 adapter for 1 3/4 in. (45 mm) hose. Best capture distance:~ 1-1/2 in. (38 mm). SHM-300 Nozzle - 12 in. (300 mm) Order K639-1



#### **UNM Suction Nozzle for**

Heavy Smoke 8 in. (200 mm) aluminum suction nozzle with magnetic mounting. Includes S20591-7 adapter for 1-3/4 in. (45 mm) hose. Best capture distance: < 4 in. (100 mm) Order K639-6





sold separately

#### GENERAL OPTIONS

NKT Nozzle Kit for MIG Guns The NKT Nozzle Kit provides extraction capacity to a standard MIG welding gun. Nickel plated brass nozzle slips over the gun's gas nozzle and secures with screw. Kit includes: 1 – Nozzle

- 1 Adapter, Hose to Tube, 1 to 1 in.
- 1 Hose, 1 in. (ID), 8 ft. (2.4 m)
- 1 Connector, Hose-to-Hose, 1 to 1-3/4 in. (25.4 45 mm)

Order K2389-3



Current activated start/stop sensor Order K2752-4



Extraction hose 1-3/4 in. (45mm) I.D. Order K2389-8 16 ft. (5 m) Long K2389-9 8 ft. (2.5 m) Long



Tapered Plug For single fume gun use. Order K5412-1



Spark Arrestor Kit for Fume Gun Application Mounts to exhaust tube prevent captured sparks from entering . the unit. Order K1898-1



Undercarriage Kit Undercarriage kit allows X-Tractor 2 Fume Gun System to be easily moved by hand. Order K5540-1

### FILTER REPLACEMENTS



KP5178-1 FILTER, MERV 11, POLYESTER Recommended for Steel Welding Applications



KP5178-4 FILTER MERV 11 Oil Resistant Recommended for Oil Resistant / Welding on Stamped Parts



KP5178-2 FILTER, MERV 16, Cellulose/Nano Recommended for Steel, Stainless Steel, and Galvanized Welding Applications



KP5178-3 FILTER, MERV 16, PTFE Recommended primarily for cutting applications, and for some heavy fume welding



KP5178-5 FILTER MERV 16 Oil Resistant recommended for oil resistance, for welding on steel, stainless steel and galvanized stamped parts

## ON-TORCH KIT FOR COBOT APPLICATIONS

IU	π.	Hose	

Product Number	Torch Body Diameter mm (in)	Torch Goose Neck Diameter mm (in)
AD1389-30	50-70 (1.97-2.76)	18-19 (0.71-0.75)
AD1389-31		20-21 (0.79-0.83)
AD1389-32		22-23 (0.87-0.91)
AD1389-33	68-100 (2.67-3.94)	18-19 (0.71-0.75)
AD1389-34		20-21 (0.79-0.83)
AD1389-35		22-23 (0.87-0.91)

## **ON TORCH KIT FOR ROBOT APPLICATIONS**

## 25 ft. Hose

Product Number	Torch Body Diameter mm (in)	Torch Goose Neck Diameter mm (in)	
AD1389-36		18-19 (0.71-0.75)	
AD1389-37	50-70 (1.97-2.76)	20-21 (0.79-0.83)	
AD1389-38		22-23 (0.87-0.91)	
AD1389-39	68-100 (2.67-3.94)	18-19 (0.71-0.75)	
AD1389-40		20-21 (0.79-0.83)	
AD1389-41		22-23 (0.87-0.91)	

## **FUME EXTRACTION GUNS**

Product Number	Input Current	
K4463-2	250A	
K4464-2	350A	

### **HOSES AND CONNECTORS**

Product Number	Length ft. (m)	Diameter in. (mm)
K2389-8	16 (4.8)	1-3/4 (44.5)
K2389-9	8 (2.4)	1-3/4 (44.5)
K3492-4	_	1-3/4 - 2 in. (44.5 - 50.8) Adapter

## **PRODUCT SPECIFICATIONS**

Product Name	Product Number	Input Power Voltage / Phase / Hertz	Input Current	H x W x D inches (mm)	Net Wt. Ibs. (kg)
X-Tractor 2 Fume Gun	K5271-1	460/3/60	5.2 A	44.8 x 26.1 x 32.3 [1138 x 663 x 820]	335 (152)
Base Model	K5271-2	208-230/3/60	105 - 10.3 A		335 (152)
	K5271-3	575/3/60	3.8 A		

The operation of welding fume control equipment is affected by various factors including proper use and positioning of the equipment, maintenance of the equipment and the specific welding procedure and application involved. Worker exposure level should be checked upon installation and periodically thereafter to be certain it is within applicable OSHA PEL and ACGIH TLV limits.

Lincoln Electric Product Claim - Weld fume control products manufactured by The Lincoln Electric Company are designed to be utilized as an engineering safety control to aide in achieving adequate ventilation while conducting welding or it's allied processes. The operation of welding fume control equipment is affected by various factors including proper use and positioning of the equipment, and the specific welding procedure and application involved. When the equipment is used as designed - and when properly installed, operated and maintained - it can be a valuable and effective tool to help employers maintain adequate ventilation in the workplace. Lincoln Electric defines adequate ventilation as that which is required to maintain occupational exposure levels below the applicable exposure limits when sound work practices are utilized. Worker exposure level should be checked upon installation and periodically thereafter to be certain it is within applicable OSHA PEL and ACGIH TLV limits.

Lincoln Electric, weld fume control, products are highly effective at decreasing the occurrence level of thermal events, however thermal events can still happen even if the system is operating as designed.

#### CUSTOMER ASSISTANCE POLICY

The business of Lincoln Electric is manufacturing and selling high quality welding equipment, automated welding systems, consumables, and cutting equipment. Our challenge is to meet the needs of our customers, who are experts in their fields, and to exceed their expectations. On occasion, purchasers may ask Lincoln Electric for information or technical information about their use of our products. Our employees respond to inquiries to the best of their ability based on information and specifications provided to them by the customers and the knowledge they may have concerning the application. Our employees, however, are not in a position to verify the information provided or to evaluate the engineering requirements for the particular weldment, or to provide engineering advice in relation to a specific situation. Accordingly, Lincoln Electric does not warrant or guarantee or assume any liability with respect to such information or communications. Moreover, the provision of such information or technical information finders for any customers' particular purpose or any other equivalent or similar warranty is specifically disclaimed.

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