

Product manual

Traversing KUA-arm on extraction rail

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PLYMOVENT[®]

Thank you for buying a PlymoVent product.
Before you unpack and begin installation please read
this product manual, and follow the instructions.

**THIS MANUAL SHOULD BE DELIVERED
TO AND MAINTAINED IN THE SERVICE
DEPARTMENT AFTER THE INSTALLATION!**

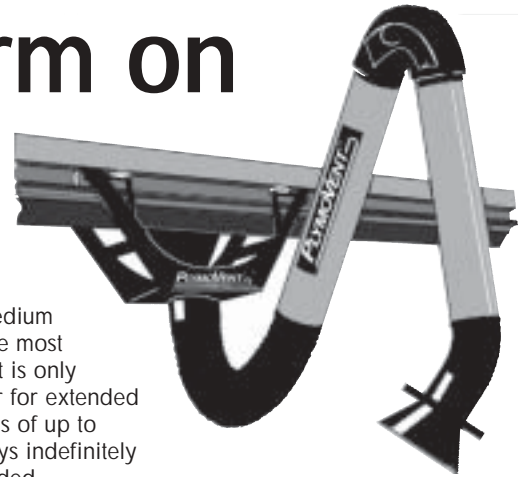
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Traversing KUA-arm on extraction rail

PlymoVent's new KUA on the extraction rail is a unique product combination, where the most flexible extractor arm on the market has been mounted on a carriage, that allows it to run along on an extraction rail. The KUA-arm itself is ergonomical, technically and aesthetically the perfect solution for small and medium sized work places. Together with the extraction rail, the KUA-arm is not only the most flexible extractor on the market for fume and gases, but it also has a reach that is only limited by the length of the rail. Ideal where no permanent work places exist or for extended length work areas. The KUA can rotate through 360° and has a reach in radius of up to 13.1 ft, either side of the extraction rail length and now it can traverse sideways indefinitely thanks to a carriage and an extraction rail. The extraction rail consists of extruded aluminium profile in lengths of 19.0 ft, which can be combined in multiple lengths. The rail is for ceiling or wall mounting. The length can be modified to suit individual requirements as well as the rail can be fitted with required number of KUA-arms. The KUA-arm is mounted on a carriage running on the aluminium profile. When the carriage is moving a suction cone slides between sealing rubber mouldings in a slot on the underside of the profile. Through the KUA-arm via the suction cone, fume and gases are sucked away into the extraction rail.



Delivery

Complete with 19.0 ft extraction profile, 2 suspensions, 2 end stops, 2 end sockets (one of them with a hose socket) and a carriage for the KUA-arm. The KUA-arm can be ordered separately in lengths of 6.6, 9.8 or 13.1 ft.

Advantages

- Indefinite reach sideways.
- Many work places can be served by one KUA-arm.
- Permits extraction at places where a fixed extractor is undesired.
- One suction rail can serve several KUA-arms.
- The KUA-arm can be moved away from the work place when necessary.

Technical Data

Extraction arm on extraction rail

Prod. no:	Equipment
10326	Complete 15 ft traversing extraction system with 19.0 ft exhaust rail, carriage, 2 end stops, 2 supports and 2 end sockets (of which one is for hose connection). Order arm separately.

Ball-bearing extraction arms KUA

Prod. no:	Description
KUA 2	Ball-bearing extraction arm, length 6.6 ft
KUA 3	Ball-bearing extraction arm, length 9.8 ft
KUA 4	Ball-bearing extraction arm, length 13.1 ft

Supplementary equipment (see drawing page 6) (for extension of the extraction rail)

Prod. no:	Ref. no:	Description
40213	A	Extraction rail (module 3) incl. rubber mouldings, L = 19.0 ft
40214		Extraction rail (module 3) incl. rubber mouldings, L = 1.5 m (Indicate requested length).
11066	H	Splicing sleeve for joining of extraction rails.
11068	C	Suspension for suction rail.
11051	E	End connection adapter 6.30" diam.
11065	D	End socket with stop.
11069	F	End stop.
11070	G	Connection socket for connection other than at the end of extraction rail, 6.30" diam.
30015	I	Rubber moulding for extraction rail.
10325	B	Mobile carriage for mounting of KUA-arm.

For further information see separate folder, KUA (Technical Description).

Components and operation

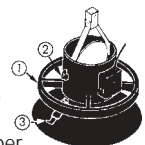


- A** Extraction rail with self-sealing rubber mouldings.
B Mobile carriage with cone and swivel joint.
C Wall mounting bracket with ball-bearings.

- D** Inner arm mounting bracket with friction pads for tension adjustment of arm.
E Flame-proof double skin flexible hose, PVC-coated with woven polyamide and internal steel spiral.
F Aluminium inner arm ducting.
G External adjustable elbow joint.
H Aluminium outer arm ducting.
I Universal joint with hood collar and shut-off damper.
J Hood with safety mesh and quick-fit coupling.

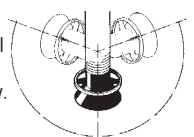
Handling

- 1 Ring handle for adjustment of the extraction hood. It can be reached from any position.
- 2 Adjustment knob for the damper.
- 3 Quick-fit coupling for changing of the hood extension hose.

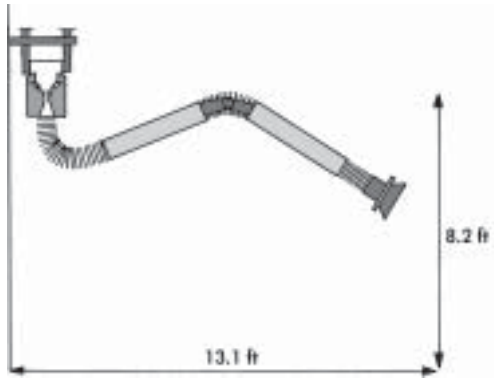


Hood operation

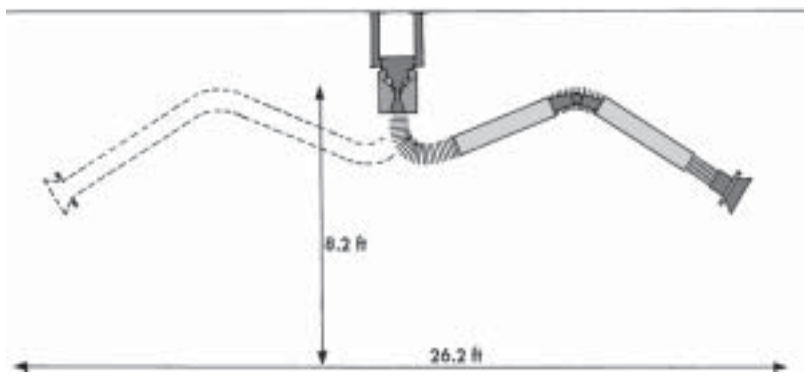
The black, powder coated metal hood can be angled 110° forwards, back-wards and laterally. Large ring handle, Ø 11.81".



Exemples of mounting

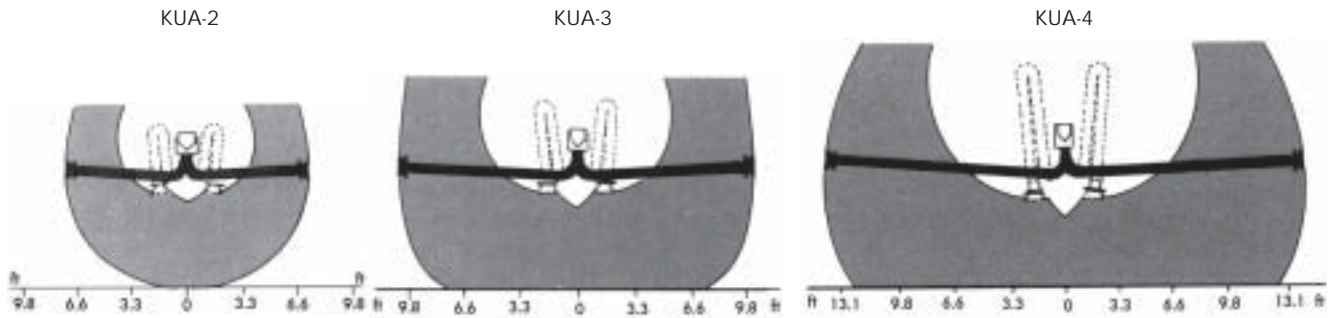


KUA mounted on a wall.



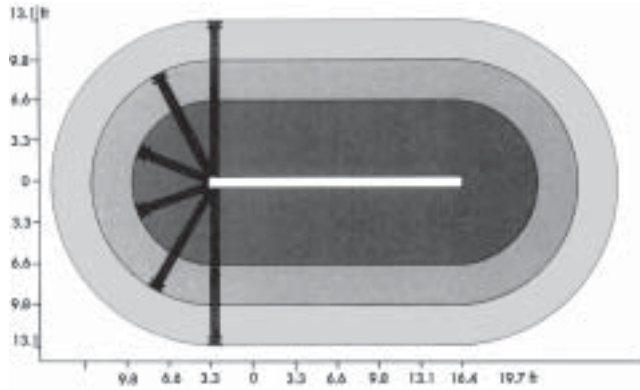
KUA mounted to ceiling.

Working range KUA -2 -3 -4

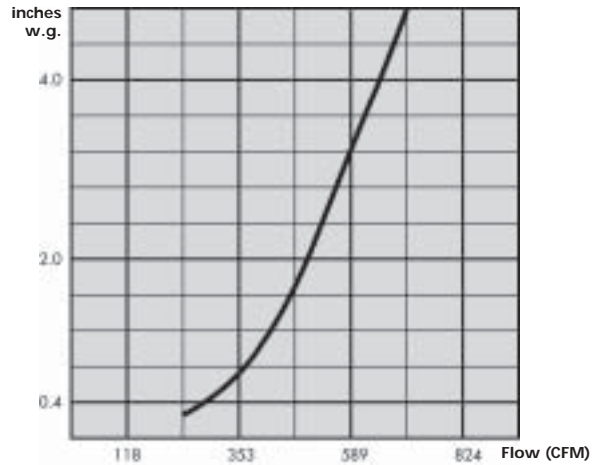


Maximum reach

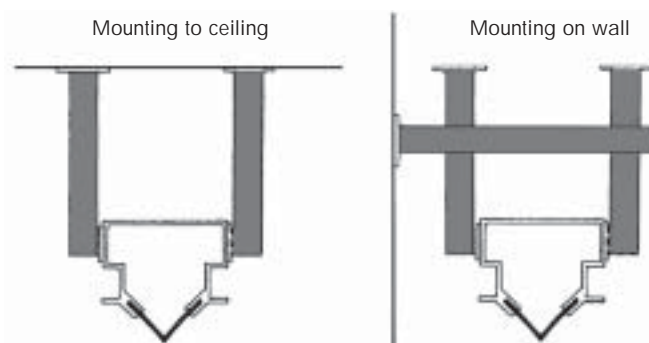
KUA -2 -3 -4 with 19.0 ft of rail



Pressure loss

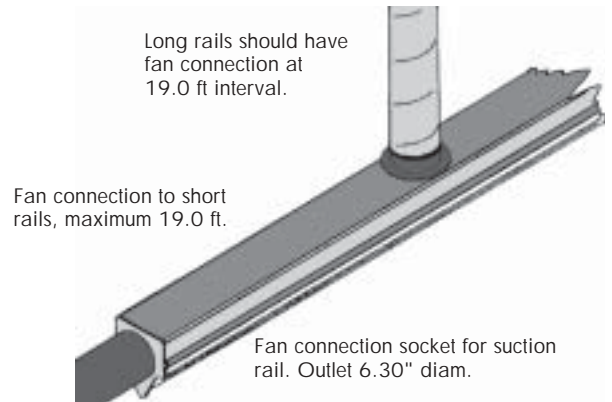


Suspension of suction profile



Recommendation: 4 suspensions per 19.0 ft of rail.

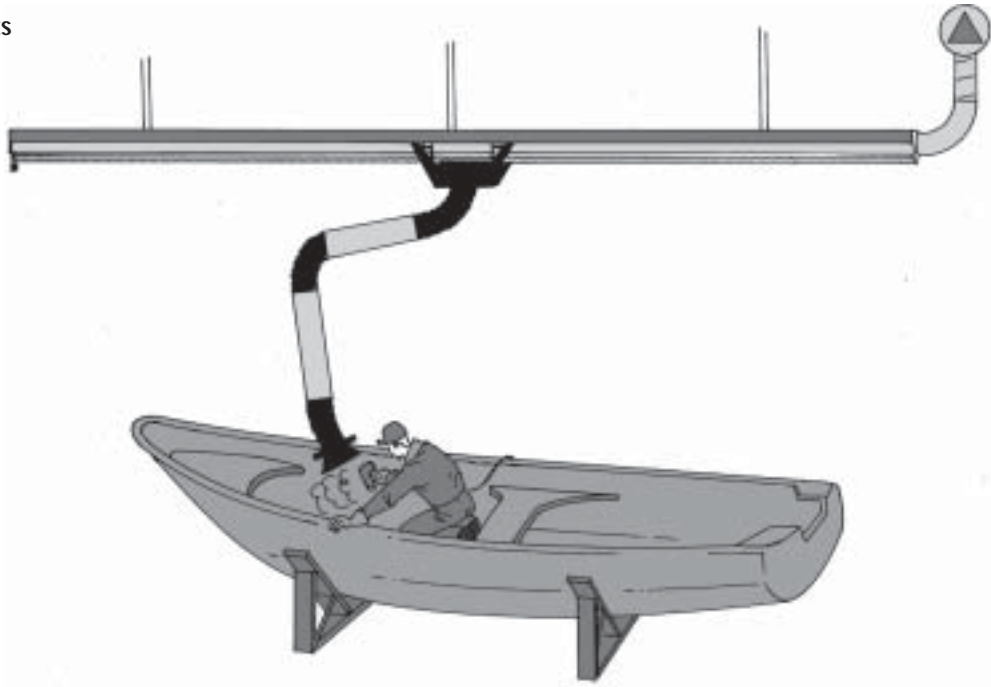
Connections of fan



System solutions and mounting alternatives

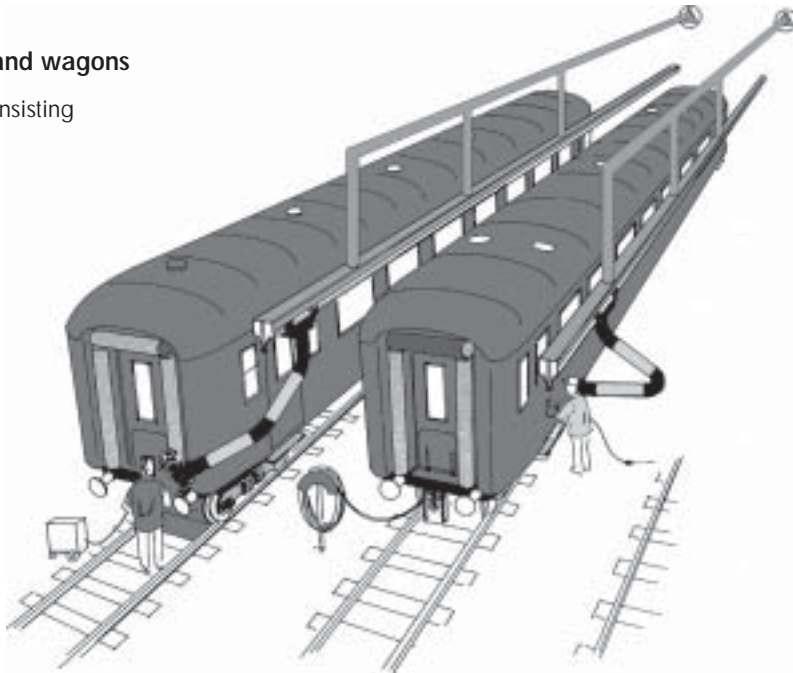
Repair of plastic boats

19.0 ft of suction rail
1 pc KUA-4
1 pc FS-2100



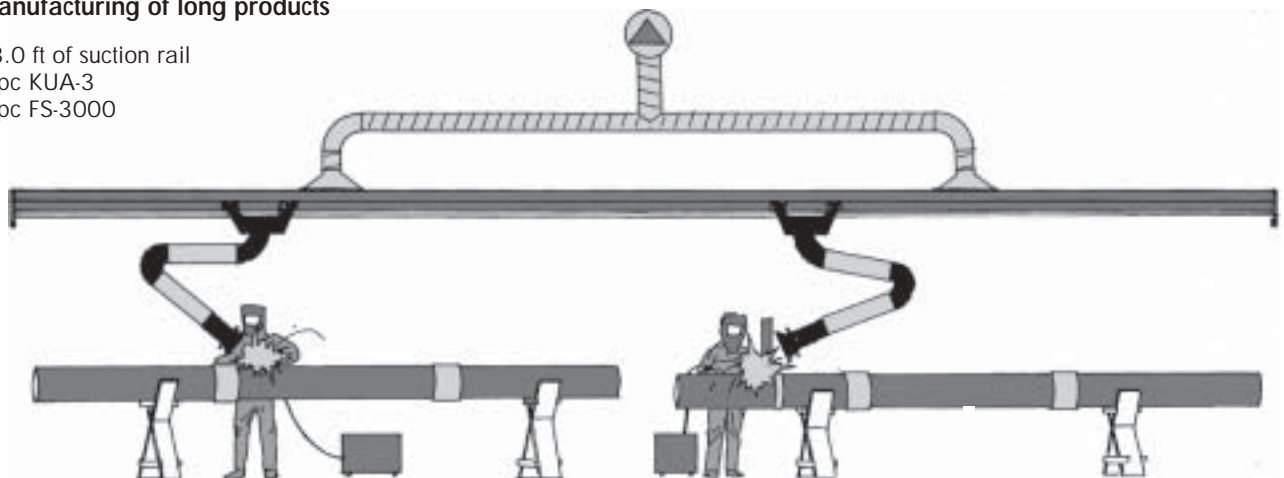
Repair of locomotives and wagons

Two systems each one consisting of 65.6 ft suction rail
1 pc KUA-4
1 pc FS-2100



Manufacturing of long products

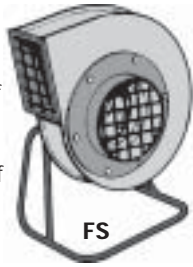
38.0 ft of suction rail
2 pc KUA-3
1 pc FS-3000



Complementary products and accessories

Fans FS/FA

When designing the system KUA on extraction rail the fans FS-2100, -3000, -4700 and FA-6000 are recommended. The choice of fan depends on the number of extraction arms, the length of the extraction rail, the number of sockets and their positions as well as the design and length of the ductwork. All of the fans are equipped with a spark-safe impeller of aluminium thus ensuring highest security.



NOTE. ALL FANS NEED A RELEVANT MOTOR OVERLOAD (NOT INCLUDED)!

Prod. no:	Airflow freeblowing CFM	Airflow at the KUA-hood CFM	Motor HP/Phase
FS-2100	1300	1 KUA = 580	1 HP, 1 or 3 phase
FS-3000	2000	2 KUA = 470	1.5 HP, 3 phase
FS-4700	2840	2 KUA = 765 3 KUA = 560	3 HP, 3 phase
FA-6000	3540	4 KUA = 765 5 KUA = 620	7.5 HP, 3 phase

Hose extension

Extension hose 6.30" with quick-fit coupling for connection to the extractor hood collar.

PVC coated woven polyamide with steel spiral. Hood with hinged double magnetic foot and handle for simple positioning.

Prod. no: SLE-20, length 6.6 ft

Prod. no: SLE-30, length 9.8 ft



Energy Saver

Provides automatic start/stop of the fan. 7 sec. - 6 min. adjustable delay after stop. Incl. inductive sensor clamp with 16.4 ft of cable. Built-in contactor for up to 5 HP fan must be fitted with relevant motor overload (not included). Line supply: 115 thru 460 VAC.

Prod. no: ES-90-005 incl. transformer 75 VA/24 V for halogen lamp cartridge for 1 work place.

Prod. no: ES-90-006 incl. transformer 75 VA/24 V and 2 sensor clamps for 2 work places.



Control Unit

Control unit for central fan when connected to several extractors. Automatically starts and stops the central fan when an extractor is in use. To be connected to Energy Saver or Automatic Damper.

Line supply: 115 thru 460 VAC.

Prod. no: M-1000



Automatic damper

Fully automatic motor driven damper Ø 6.30", with built-in energy saver.

Adjustable overrun period 7 sec. - 6 min. Delivered with clamp with 16.4 ft of cable.

Line supply: 115 thru 460 VAC.

Prod. no: ASE-12



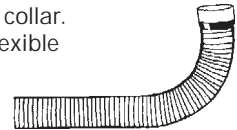
Hose Extension Trunk

For all extractors with Ø 6.30" hood collar.

Connection with quick-fit coupling. Flexible and adjustable; Ø 4.92".

Length 3.3 ft.

Prod. no: FSL-1



Electrostatic filters

For effective removing of dust and smoke from the air. Available in three sizes; up to 2950 CFM.

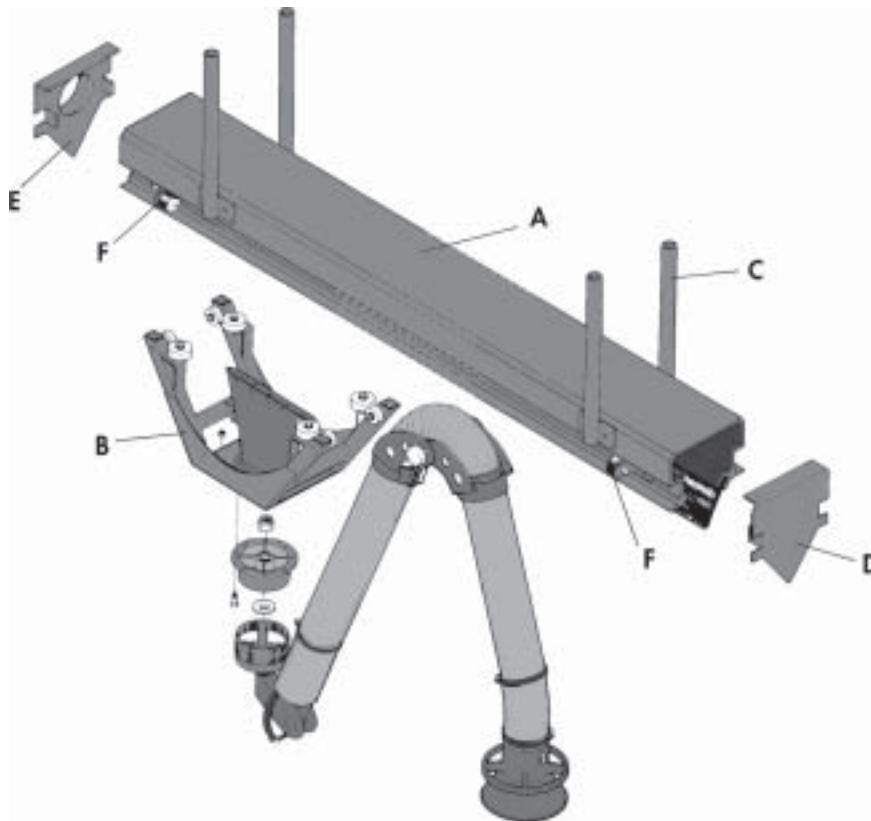
For more information please ask for Technical Description of Oilmist filters and Electrostatic Filters respectively.



KUA-arm on extraction rail KUA-R

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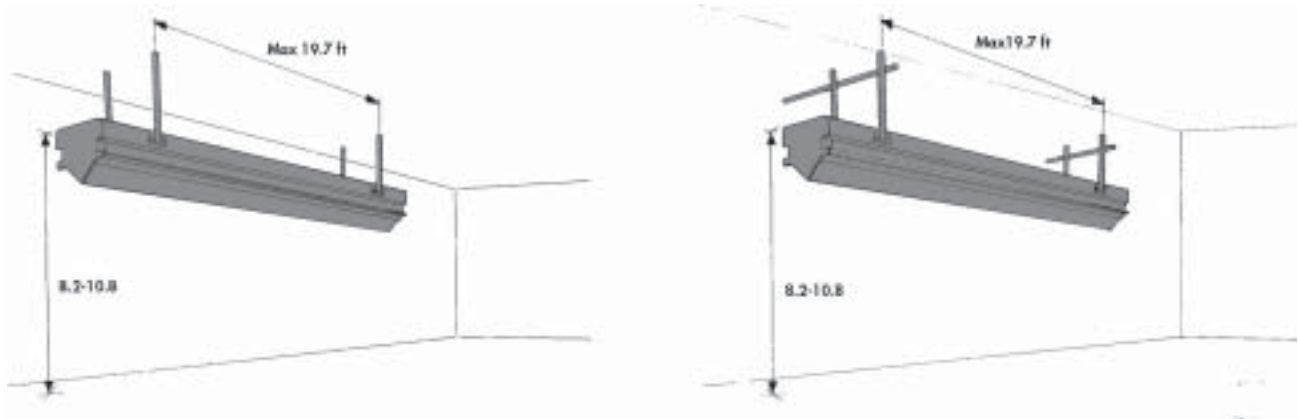
With the KUA-arm mounted to a crab travelling along an extraction rail, a very flexible and economical unit is created. The longitudinal reach is only limited by the length of the rail.



Pos no	DESCRIPTION
A	Suction rail - 19 ft pieces
B	KUA-crab
C	Vertical suspension
D	End socket
E	End socket adapter with 6.3" port
F	Crab stopper

Technical specifications

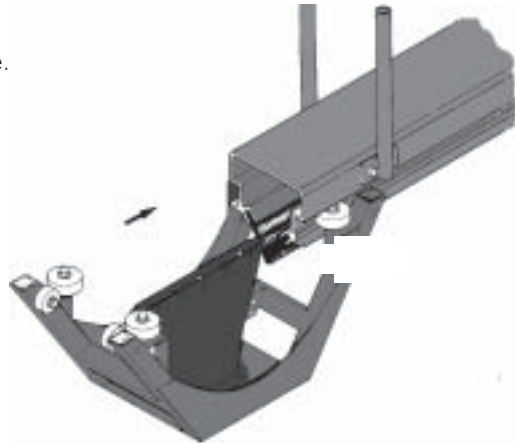
Suction rail. Weight: 8.05 LBS/ft
Crab + KUA-2 77.0 LB
Crab + KUA-3 85.8 LB
Crab + KUA-4 90.2 LB



The rail can be suspended either from the ceiling or from the wall. Recommended mounting height: 8.2 ft - 10.8 ft.
Minimum distance to pillar/wall: 0.7 ft.

Mounting Instructions

1. Slide the crab into the profile.



2. Mount the crab end stops.

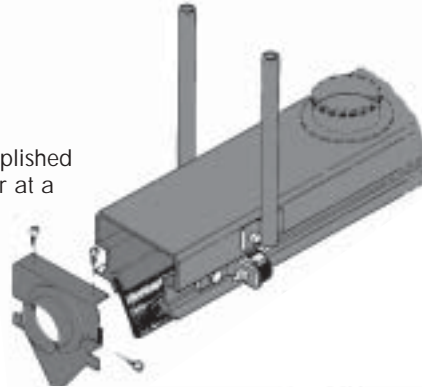


3. If the total length of the installed rail is longer than 19.0 ft, join the individual rails by use of one or more splicing sleeves, 8 pcs M10x25 and MID locking nuts. For each additional 19.0 ft rail two extra vertical suspensions are required.

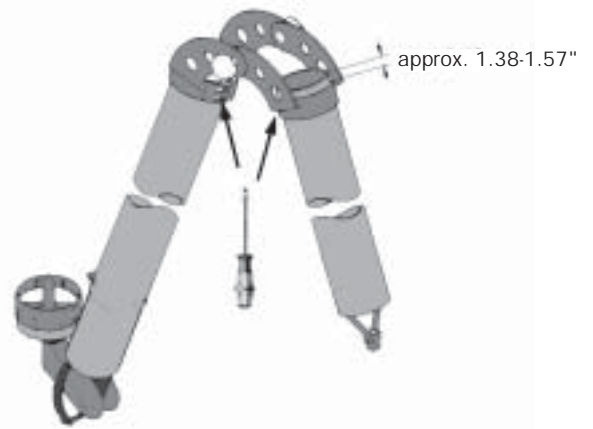


NOTE! CAREFUL ASSEMBLY IS NECESSARY TO ENSURE THE WHEELS RUN SMOOTHLY. IN THE EVENT OF LEAKAGE SEAL THEM WITH SILICON COMPOUND.

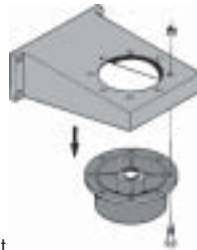
4. Mount the end sockets, exhaust fume connection can be accomplished either at the end socket adapter or at a separate socket adapter at a suitable place along the top of the rail.



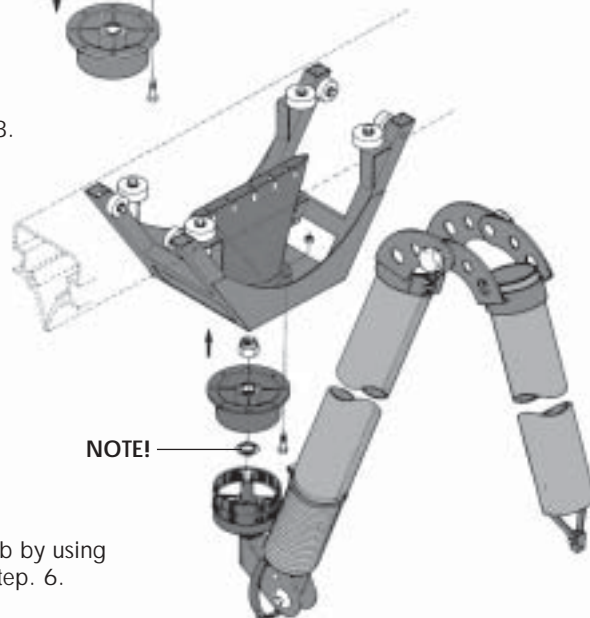
5. Attach inner arm to outer arm by means of hinged joint and fit rubber collar to inner arm.



6. Remove flange from wall mounting bracket. Save 4 bolts + lock nuts for use in step no. 8.

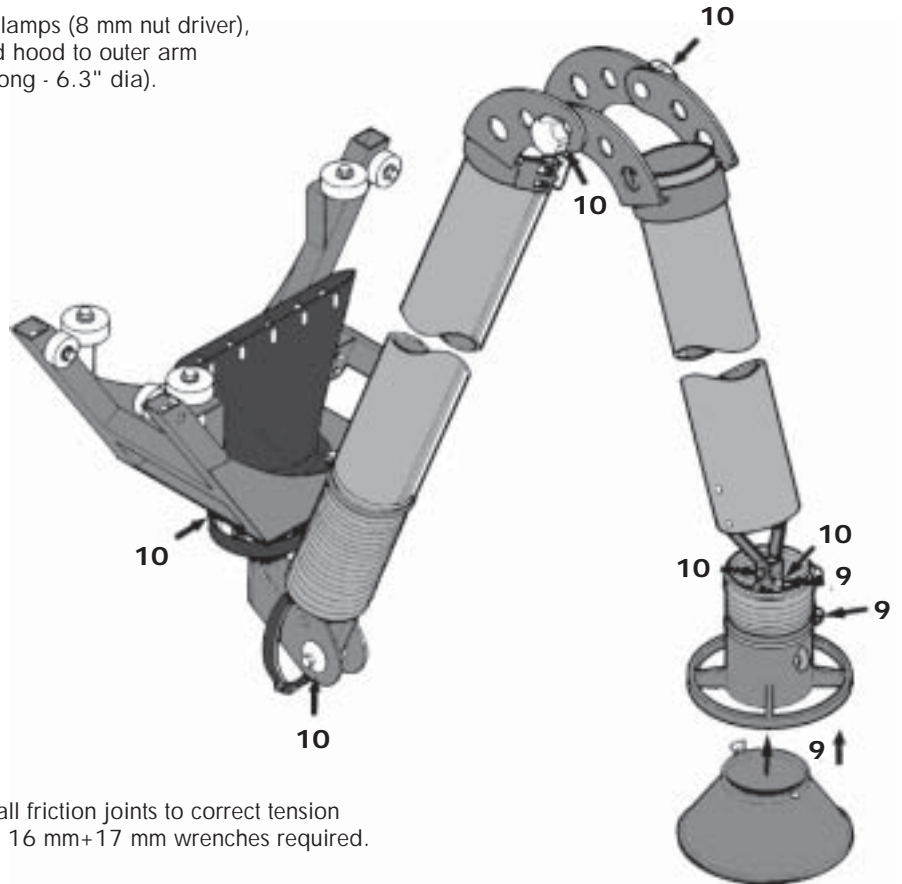


7. Mount swivel joint to the inner arm. **NOTE! ENSURE WASHER IS INSTALLED BEFORE FLANGE IS FIXED TO INNER ARM SHAFT WITH NUT. OBSERVER NOTES IN PLASTIC RING WHEN INSTALLING ON INNER ARM SHAFT.**

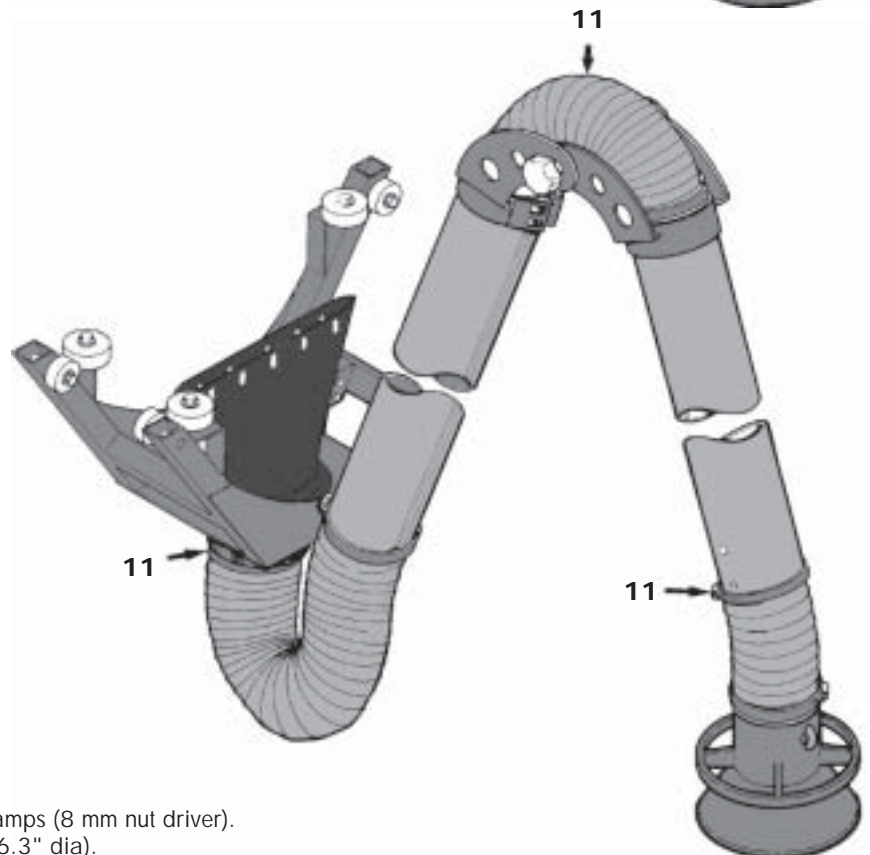


8. Attach the inner arm to the KUA-crab by using the 4 bolts + lock nuts removed in step. 6.

9. Fit hose, hose clamps (8 mm nut driver), hood collar and hood to outer arm (Hose 15.76" long - 6.3" dia).



10. Adjust all friction joints to correct tension
10 mm, 16 mm+17 mm wrenches required.



11. Fit hoses and hose clamps (8 mm nut driver).
(Hose 25.59" long - 6.3" dia).