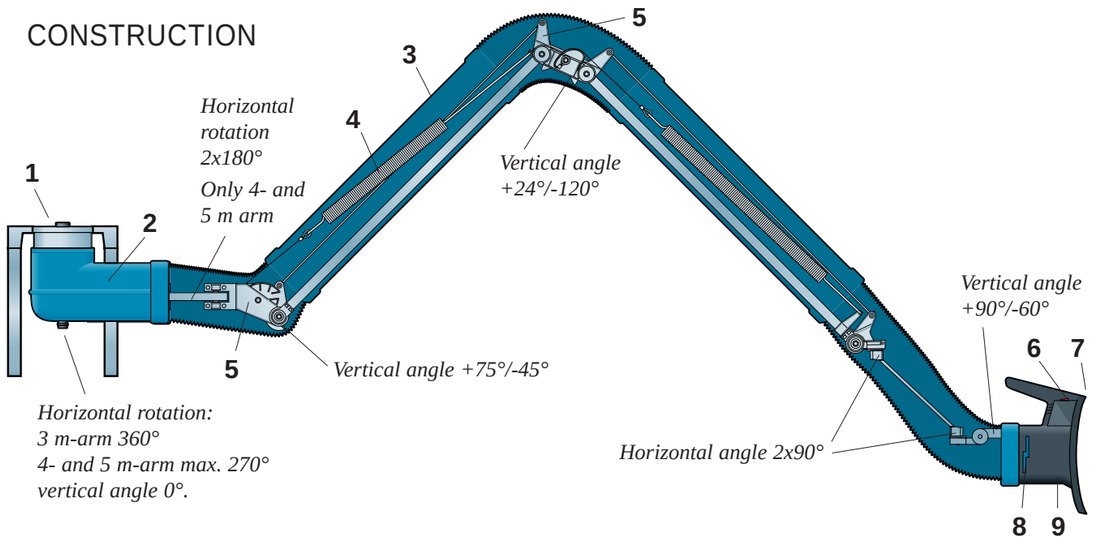
CONSTRUCTION



1. The fan connects easily to the swivel joint. We recommend NEDERMAN fan type N16 or N24 (accessory).

2. The swivel joint connects to an arm concealed within the ducting. The cantilever arm can rotate 360° (4- and 5 m-arm, max. 270°).

3. Durable polycarbonate/polyester box sections consist of upper and lower halves, which snap together. Cross-sectional dimensions are 180 x 160 mm. Temperature tolerance 70°C.

4. Articulated arm with balanced, springtensioned supporting mechanism.

5. The joints articulate both vertically and horizontally. Reinforced PVC bellows fit snugly on the box sections, secured with spring clamps for easy installation.

6. Control switch for fume extractor and work light.

7. 12 V, 20 W halogen work light with integral reflector and lens (accessory).

8. Extractor damper control.

9. The hood mounts easily on the arm, and positions both vertically and horizontally. Made of durable polypropylene. Snap-on rectangular flange, dimensions 355 x 300 mm.

TECHNICAL DATA

NEDERMAN 5000	3 m	4 m	5 m
Capacity, with N24 fan	1200 m³/h	1100 m³/h	1100 m³/h
Dimensions:			
Ducting cross section	180x160 mm	180x160 mm	180x160 mm
Connection diameter	200 mm	200 mm	200 mm
Flange, outer dimensions	355x300 mm	355x300 mm	355x300 mm
Weight	14 kg	20.5 kg	26 kg
Temperature tolerance	70°C	70°C	70°C
Auto start/stop, (available as an accessory)	Yes	Yes	Yes
Noise level at hood (N24-fan)*	71 dB(A)	69 dB(A)	67 dB(A)
Noise level at hood (N16-fan)*	67 dB(A)	66 dB(A)	65 dB(A)
Material specifications:			
Swivel joint	Durable Polycarbonate/Polyester		
Box sections	Durable Polycarbonate/Polyester with smooth interior surfaces		
Bellows	Wire-reinforced PVC		
Hood	Polypropylene		
Flange	Polypropylene		
Damper	Polypropylene		
Spring-tensioned supporting mechanism	Aluminium/Steel		

* Measured in accordance with ISO 6081

SYSTEM SPECIFICATION

DEDICATED FAN

Ideally, a dedicated fan should serve each extractor unit, with a capacity matched to the volume of air drawn. This guarantees optimum performance. Fan N16 with a 5 m Fume Extractor gives a flow of about 900 m³/h through the arm. Fan N24 with a 5 m Extractor gives about 1100 m³/h.

CENTRALIZED DUCTING SYSTEMS

A centralized ducting system is defined as an installation where several fume extractors are served by the same fan. Be aware that the greater the number of extractors connected to the same fan, the greater the risk of temporary deviations in suction capacity and pressure drop. Strive to limit the number of extractors attached to one fan. When installing in a new locale, the NEDERMAN 5000's extraction capacity should be calculated in the overall ventilation volume, and its dampers always left open.

Guidelines for system specification follow. **Please note:** base all calculations on the number of extractors to be in use simultaneously. The following example is only a rough calculation.

Always be sure that air intake to the locale is sufficient.

1. Make a rough sketch of the planned system, including placement of the fume extractors.

2. Determine which extractor models will be used. The example below supposes one 5 metre plus two 3 metre models.

3. Calculate air volume.
Approximately 1100 m³/h for each extractor. Total the air volume for all extractors intended to be in use simultaneously (in this example 2 extractors).

4. Calculate the required vacuum as follows: Note the pressure drop for the various extractor models in the graph opposite. Read off at a volume level of 1100 m³/h. To this value should be added 5 Pa per metre, calculated on ducting length from the furthest extractor to the fan. An additional 15 Pa should be added for each 90° bend in the ducting.

5. Select fan according to items 3 and 4.

6. Size the duct according to the following values:

Draw m³/h	Ducting diameter Ø mm
700 – 1400	200
1400 – 2500	250
2500 – 4000	315
4000 – 6000	400
6000 – 10000	500

Sum up air volume from individual extractors and read off this total on the above table to determine the appropriate ducting diameter.

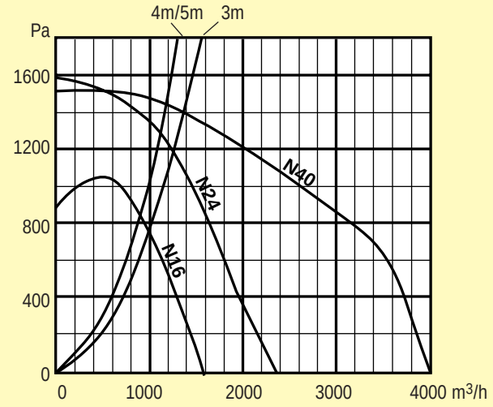
7. Specification
The duct connecting fume extractor to primary ducting should be at least Ø 200 mm.

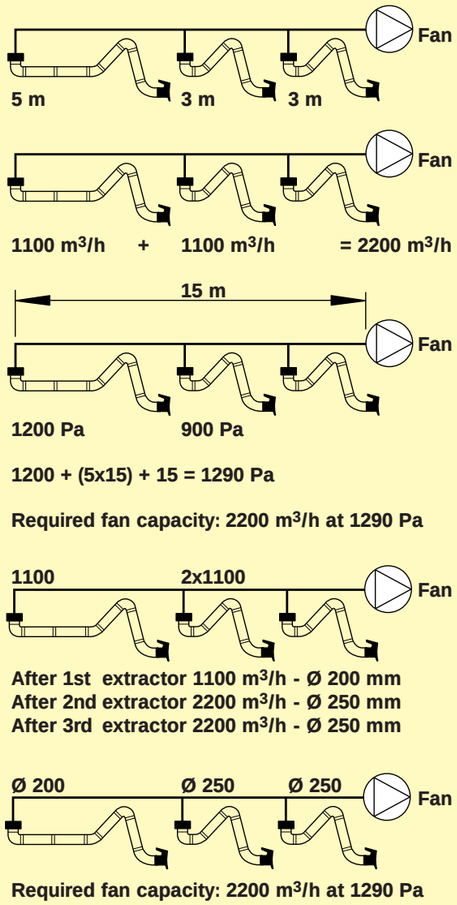
PRESSURE DROP DIAGRAM

The diagram below shows pressure drop in relation to air flow volume on the fume extractor, with cantilever arm in its normal working position.

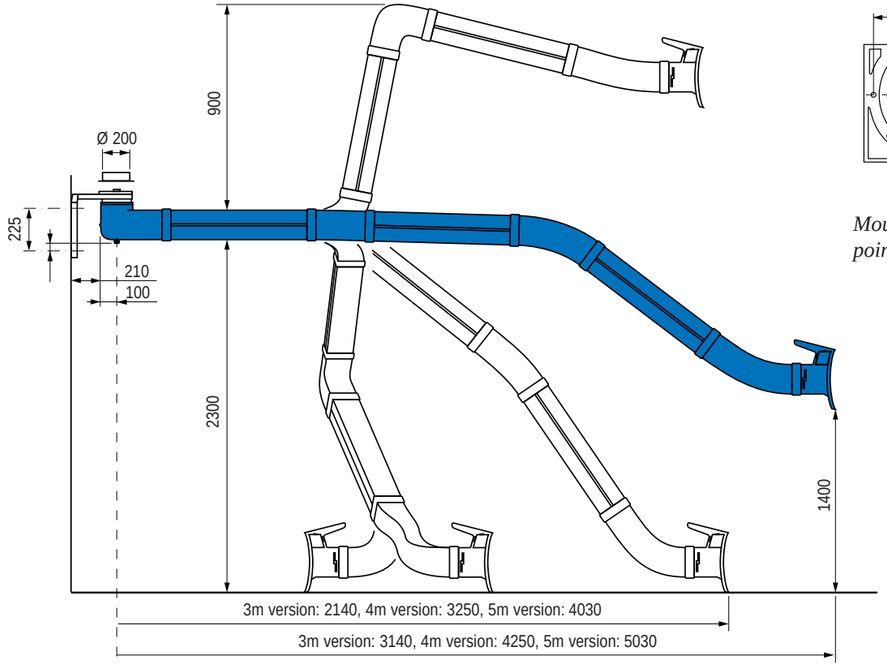
For normal welding an air flow volume of 1100 m³/h is recommended for each NEDERMAN 5000 unit.

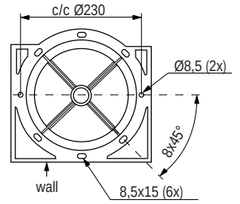
Ideally each fume extractor should be served by an individual fan.



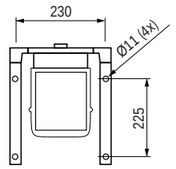


MAIN DIMENSIONS, mm





Mounting points, swivel flange



Front view, wall bracket

TO CHANGE LENGTHS OF EXISTING NEDERMAN 5000 EXTRACTORS

From \ To	3 m	4 m	5 m
3 m	–	4 m extension kit	4 and 5 m extension kit
4 m	Swivel joint	–	4 and 5 m extension kit plus swivel joint
5 m	Swivel joint	4 m extension kit plus swivel joint	–

Even after installation the extractor's arm length can be changed. This may require replacement and/or addition of certain parts. The table indicates the relevant parts.

Extension boom 4 m
Part No. 510131

Extension boom 5 m
Part No. 510231

Nederman®

Manufacturer:
AB Ph. Nederman & Co
Sydhamnsgatan 2
S-252 28 Helsingborg, Sweden
Telephone: +46 42 18 87 00
Fax: +46 42 14 79 71
E-mail: support@nederman.se
Home page: www.nederman.se

SS-EN ISO 9001

No. 3231.10/01
1997-05-01

Nederman®

TECHNICAL DESCRIPTION, NEDERMAN 5000

GENERAL DESCRIPTION

The NEDERMAN 5000 represents a new generation of extractors with improved fume capture. It is ideal for all operations that generate fumes, smoke or dust.

The rectangular hood focuses the extraction on the fume source, in front of the hood, minimizing air drawn from behind. The NEDERMAN 5000 captures fumes generated up to 40 centimetres in front of the hood if it is placed directly on the bench top.

A perfectly balanced cantilever arm facilitates movement of the extractor hood with minimal effort – anywhere within the arm's radius. Once positioned, it stays in place.

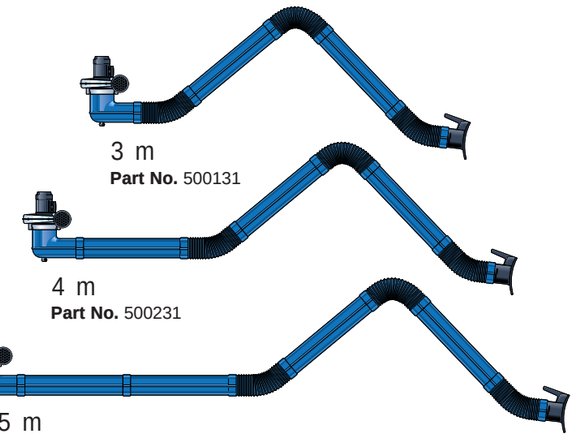
The fume extractor needs no further adjustment after installation. Except for occasional cleaning, the NEDERMAN 5000 is virtually maintenance-free.

COMBINATION POSSIBILITIES

NEDERMAN 5000 WITH OTHER NEDERMAN PRODUCTS

NEDERMAN 5000	3m	4m	5m
Fan type N16/N24/N40*	●	●	●
FILTERBOX, mobile	●	○	○
FILTERBOX, stationary	●	●**	●**
Electrostatic filter, mobile	●	○	○
Electrostatic filter, stationary	●	●**	●**
FILTERCART	○	○	○
Extraction rail	●	○	○
Extraction arm	●	○	○

* Fan type N40 serves a centralized extractor system
** Requires separate wall mounting for fume extractor
● Recommended
○ Not recommended

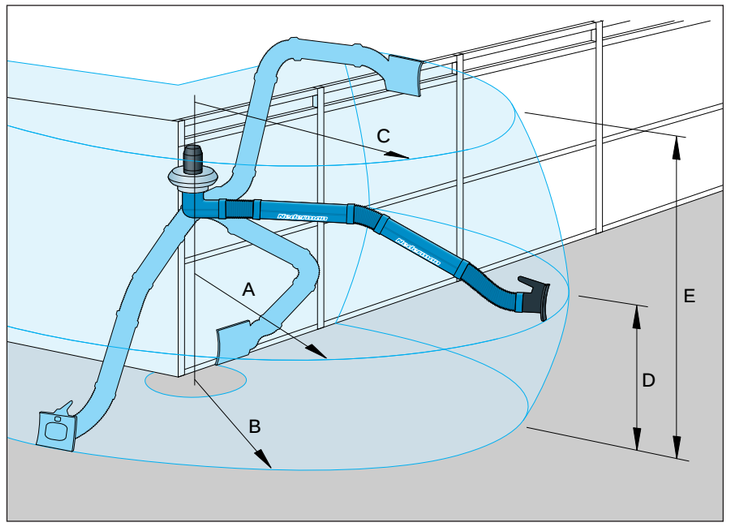


3 m
Part No. 500131

4 m
Part No. 500231

5 m
Part No. 500331

RANGE



Dimensions, mm

N 5000	3 m	4 m	5 m
A	R3140	R4250	R5030
B	R2140	R3250	R4030
C	R2340	R3340	R4340
D	1400	1400	1400
E	3200	3200	3200

The jointed cantilever arm accesses any point within its reach, and pivots 360° (4- and 5 m-arm, max. 270°). If wall-mounted, the hood can still be placed close in to the wall (see diagram).

The hood deploys anywhere within the arm's full reach (all shaded areas in the diagram).