

PSR EXC/EXD

Extraction arm in polished acid-resistant stainless steel for ATEX work environments

ATEX COMPATIBLE

FUMEX
PURE ADVANTAGE



Stainless steel extraction arm for demanding work environments

FUMEX PSR – stylish design in stainless steel developed for industries with explosion-class work environments. A design based on the fundamental Fumex principle of using external support arms, which produce the lowest possible pressure drop and pose little risk of blockage. All surfaces are finished in polished stainless steel, and the hose is fitted with quick connectors, making FUMEX PSR the most easily cleaned extraction arm in the industry. FUMEX PSR is available in the lengths 2000, 3000 and 4000 mm and the dimensions Ø100, 125, 160 and 200 mm.

PSR **EXC**



PSR EXC is designed for workplaces with explosive atmospheres from which solvents and corrosive gases need to be extracted. The polyethylene (PE) hose is conductive and resistant to corrosive substances.

PSR **EXD**



PSR EXD is an extraction arm for workplaces with explosive atmospheres in which dust is a major risk factor. The polyurethane (PU) hose is permanently antistatic, highly durable and yet easy to clean.

Product properties

- Designed for the safe extraction of gas and dust in explosive atmospheres.
- Complies with the requirements of the ATEX directive for category 2 equipment for gas and dust, and it is suitable for use in zones 1 and 21 as well as 2 and 22.
- Made of stainless steel
- **FUMEX Q-MaiD™** quick hose connection
- Component-free airflow
- Hood and detachable protective grille in high-gloss polished acid-resistant steel
- Few components for easy cleaning
- Corrosion-resistant hose (EXC)
- Hose for dust (EXD)
- Stainless steel gas spring
- Dual grounding for maximum safety



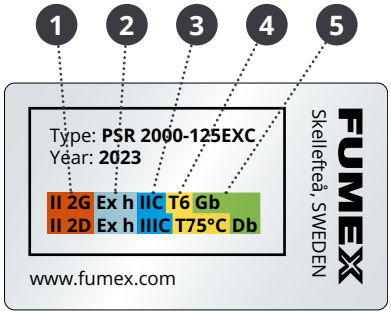
What is FUMEX Q-MaiD™?

FUMEX Q-MaiD™ is a quick connection system that simplifies maintenance, assembly, installation and disassembly.

ATEX labelling

Fumex ATEX-compliant extraction arms are labelled with a name-plate providing information on the explosive atmospheres for which the product is suitable. The nameplate is structured as follows:

1 ATEX code
2 Type of protection (non-electrical)
3 Gas/Dust group
4 Temperature class
5 Equipment protection level



1 Equipment group

Group	Area
I	Below ground
II	Above ground

Equipment category

Group	Zone
M1	Energised
M2	Non-energised
1	Very high protection
2	High protection
3	Normal protection

Gas	Dust
G	D

2 Type of protection (non-electrical)

Symbol	Type of protection
h	Protection through design safety non-electrical equipment

3 Gas groups

Group	Example
I	Methane
IIA	Propane
IIB	Ethylene
IIC	Hydrogen

Dust groups

Group	Example
IIIA	Combustible
IIIB	Non-conductive
IIIC	Conductive

4 Temperature class gas

Class	Max. surface temp.
T1	450 °C
T2	300 °C
T3	200 °C
T4	135 °C
T5	100 °C
T6	85 °C

Temperature class dust

Max. external surface temp.

5 Equipment protection level

Level	Zone
Ga	0
Gb	1
Gc	2
Da	20
Db	21
Dc	22
Ma	Energised
Mb	Non-energised

ATEX

Zone classification

Potentially explosive areas or premises must be classified in zones according to the frequency of occurrence and duration of explosive atmospheres. The person responsible for the operations is responsible for ensuring the classification of such risk areas.

Classification shall be conducted by persons knowledgeable about the properties of any flammable goods, the process and the equipment. Classification can be conducted in consultation with protection and electrical engineers as well as process technicians.

Zone 0 and Zone 20

An area in which explosive atmospheres are present continuously, for long periods or frequently.

Zone 1 and Zone 21

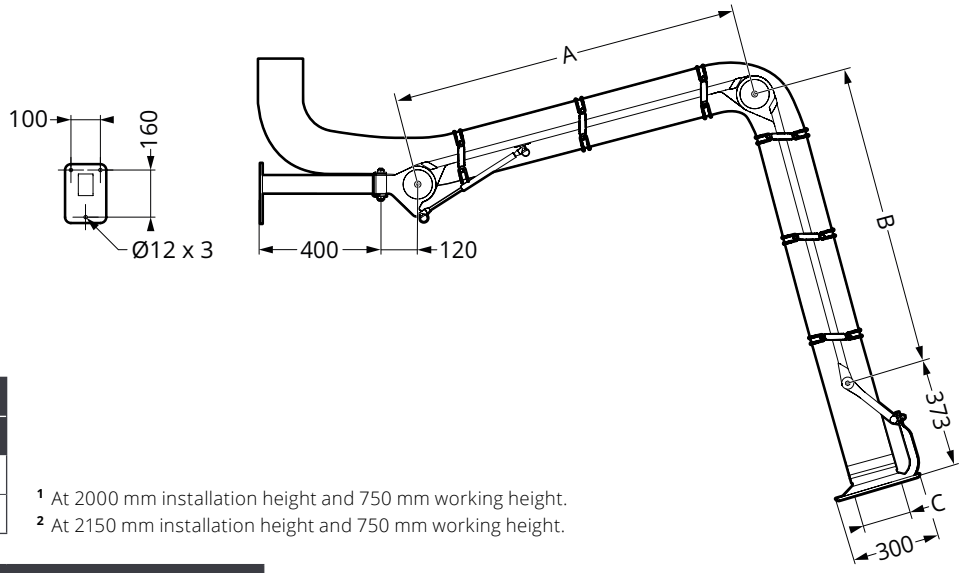
An area in which explosive atmospheres are expected to occur during normal operations.

Zone 2 and Zone 22

An area in which explosive atmospheres are not expected to occur during normal operations but, if they do occur, only last for a short time.

Dimensional drawing (mm)

PSR **2000/3000**

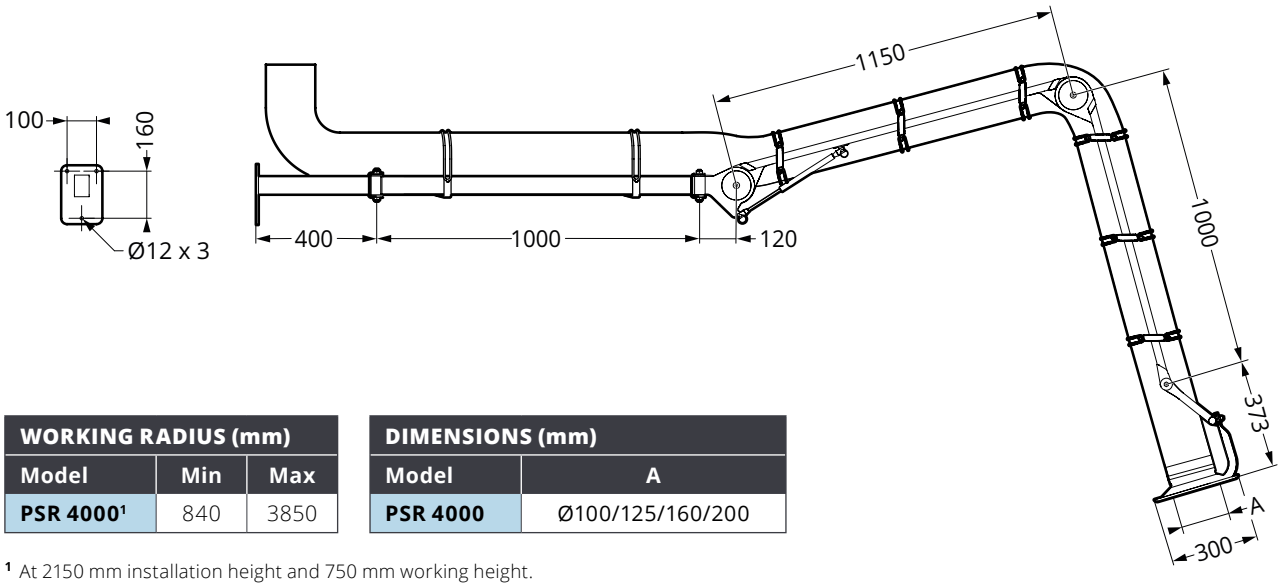


WORKING RADIUS (mm)		
Model	**Min**	**Max**
PSR 2000[1]	0	2040
PSR 3000[2]	0	2850

[1] At 2000 mm installation height and 750 mm working height.
[2] At 2150 mm installation height and 750 mm working height.

DIMENSIONS (mm)			
Model	**A**	**B**	**C**
PSR 2000	650	750	Ø100/125/160/200
PSR 3000	1150	1000	Ø100/125/160/200

PSR **4000**



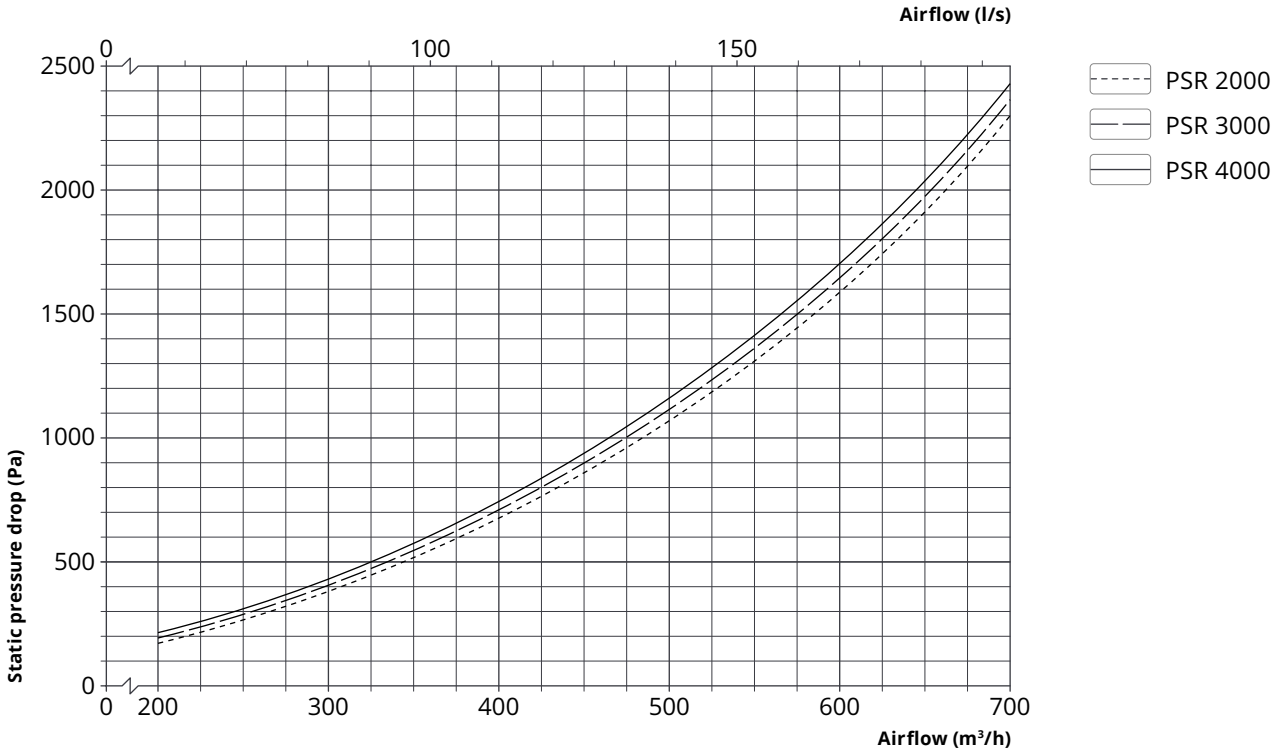
WORKING RADIUS (mm)		
Model	**Min**	**Max**
PSR 4000[1]	840	3850

DIMENSIONS (mm)	
Model	**A**
PSR 4000	Ø100/125/160/200

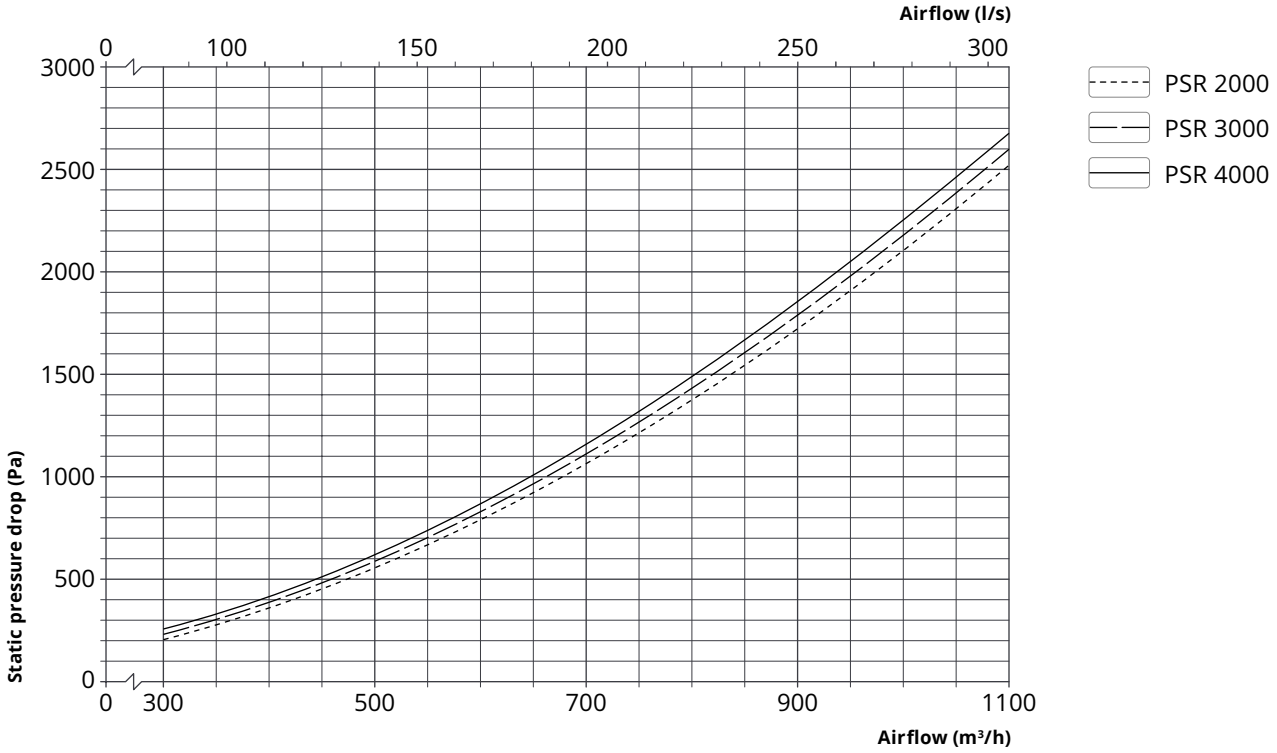
[1] At 2150 mm installation height and 750 mm working height.

Pressure drop diagram

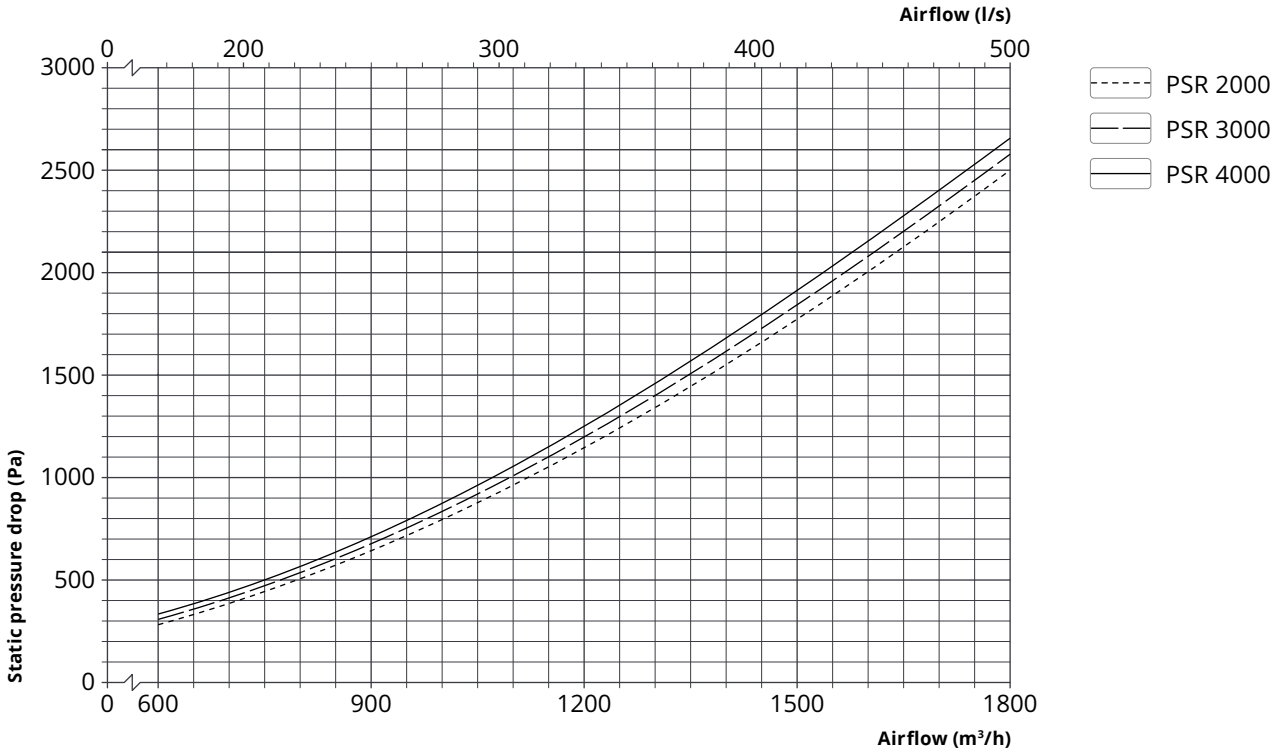
PSR **Ø100 mm**



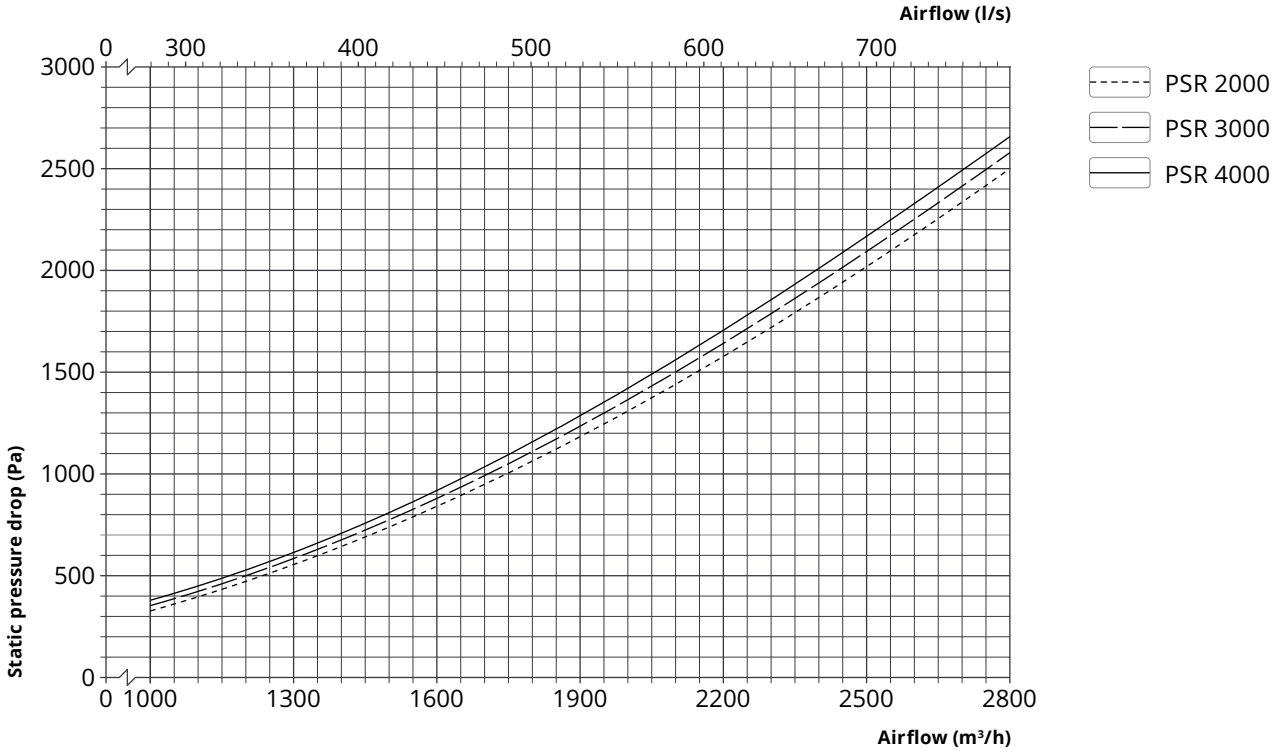
PSR **Ø125 mm**



PSR **Ø160 mm**



PSR **Ø200 mm**



Accessories



Ceiling bracket PTA2
Ceiling bracket in electro-polished stainless steel.

Lengths:
500/1000/1500 mm



Floor bracket PGA2
Floor bracket in electro-polished stainless steel.

Length:
2200 mm



Rotation link PLA2
Extension link for PSR EXD in electropolished stainless steel for 180° of additional rotation.

Length:
220 mm



Damper PSMS[1]
Damper in acid-resistant stainless steel. Easy to assemble/disassemble for quick and easy cleaning.

Dimensions:
Ø100/125/160/200 mm

[1] The damper must be factory installed to guarantee the function of the earthing.

Specifications

Form of delivery
The extraction arm is delivered partially assembled with a wall bracket for easy installation.

Production
Since the product does not have an internal ignition source, it cannot be certified under the ATEX directive 2014/34/EU.

Surface treatment
Structural components: ..... Electropolished stainless steel (A2), grade EN 1.4301/AISE 304
Hood: ..... High-gloss polished Ra ≤0,6 acid-resistant stainless steel (A4), grade EN 1.4401 / AISE 316
Plastic components: .... PP, PA6, TPU (FDA)
Rubber components: .. EPDM (FDA)

Versions

PSR EXC/EXD 2000	**3000**	**4000**
Length (mm): 2293	3043	4043
Weight[1] (kg): 11,4	12,4	18,5

[1] Excluding hose.

Hose - PSR EXC
Properties: ..... Conductive PE hose with steel coil R <10^4 Ω
Temperature range: ... -40 °C to +60 °C
Dimensions (Ø): ..... 100/125/160/200 mm

Hose - PSR EXD
Properties: ..... Permanent antistatic PU hose with stainless steel coil, R <10^9 Ω
Temperature range: ... -40 °C to +100 °C
Dimensions (Ø): ..... 100/125/160/200 mm

Resistant to hydrolysis and microbes, non-toxic, and food-grade certified in accordance with EC Regulation No. 1935/2004 and No. 10/2011, FDA standards 21 CFR 177.2600 and 178.2010.

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