

certificate  
no. **IFA 1801382**  
dated 2019-01-16



**IFA**

Institut für Arbeitsschutz der  
Deutschen Gesetzlichen Unfallversicherung  
Prüf- und Zertifizierungsstelle im DGUV Test

Translation In any case, the German original shall prevail.

European notified body  
Identification number: 0121

## EU Type-Examination Certificate

Name and address of the manufacturer: Venus Safety & Health Europe BV  
Veldm, Montgomerylaan, 203  
5612 BD Eindhoven  
NETHERLANDS

Product designation: **VENUS V-430-SLV FFP3 NR D EN 149:2001+A1:2009**

Type: Particle filtering half mask with exhalation valve

Testing based on: DIN EN 149:2009

Corresponding report: 201826330/2120 of 2019-01-14 - IFA, Sankt Augustin

Further details: For protection against non highly volatile liquid and solid particles.

Class of device: FFP3 NR D

Maximum application time or maximum particle exposure one single shift.

This document is valid in connection with the technical file and the instructions for use in English language, both provided with IFA endorsement 1801382 of 2019-01-08.

The product mentioned above is a personal protective equipment of category III in accordance with the regulation (EU) 2016/425. This EU type-examination certificate may only be used in conjunction with corresponding control measures according to Module C2 (Annex VII) or Module D (Annex VIII). The product tested complies with the essential requirements of Annex II.

The present certificate is valid until and including: **2024-01-15**

Further provisions concerning the validity, the extension of the validity and other conditions are laid down in the Rules of Procedure for Testing and Certification.

Dr. rer. nat. Peter Paszkiewicz  
Head of testing and certification body

B. Sc. Maria Schwan  
Certification officer



**DAKkS**

Deutsche  
Akkreditierungsstelle  
D-ZE-17009-33-00

**Datum/Date:** 2019-01-14 Krs/MS

**Translation**

In any case, the German original shall prevail.

# PRÜFBERICHT TEST REPORT

**Nr./No.:** 201826330/2120

- |   |   |
|---|---|
| <b>1 Auftraggeber/<br/>Customer</b>                           | Venus Safety & Health Pvt. Ltd.<br>Plot No. W 284, MIDC Rabale<br>400 701 Navi Mumbai<br>India  |
| <b>2 Prüfmuster/<br/>Test specimen</b>                        | Respiratory protective device   |
| 2.1 <b>Hersteller/<br/>Manufacturer</b>                       | Venus Safety & Health Europe BV<br>Veldm, Montgoverylaan, 203<br>5612 BD Eindhoven<br>Netherlands   |
| 2.2 <b>Bauart, Bezeichnung/<br/>Type, designation</b>         | Particle filtering half mask with exhalation valve /<br>VENUS V-430-SLV FFP3 NR D   |
| <b>Kennzeichnung/<br/>Marking</b>                             | VENUS V-430-SLV FFP3 NR D EN 149:2001+A1:2009   |
| 2.3 <b>Bestimmungsgemäße<br/>Verwendung/<br/>Intended use</b> | For protection against non highly volatile liquid and solid particles.<br>Class of device: FFP3 NR D<br>Maximum application time or maximum particle exposure one single shift. |
| 2.4 <b>Datum der Herstellung/<br/>Date of fabrication</b>     | 2018  |
| 2.5 <b>Weitere Angaben/<br/>Further details</b>               | .-  |

### 3 Prüfung/ Testing

- 3.1 Art der Prüfung/  
Type of test EU Type-Test
- 3.2 Datum der Prüfung/  
Date of testing January 2019
- 3.3 Prüfverfahren, -grundlagen/  
Test method, requirements DIN EN 149:2009

### 4 Beurteilung, Eignung/ Assessment, suitability (Besondere Hinweise/ Special remarks)

The particle filtering half mask VENUS V-430-SLV FFP3 NR D fulfills the requirements of DIN EN 149:2009 for particle filtering half masks of the device class FFP3 NR D.

#### Special Remarks:

According to a manufacturer's statement the particle filtering half mask VENUS V-430-SLV FFP3 NR D is identical in design and material, apart from the color of the exhalation valve and the marking, with the particle filtering half masks VENUS V-430-SLV FFP3 NR and VENUS V-430-SLV FFP3 NR D (Test reports 201021240/2120 of 2010-05-17 and 201421739/2120 of 2014-09-15).

In the test-protocol are listed test-results from the test reports 201021240/2120 and 201421739/2120 under the items 6-22.

Item 24 of the enclosed test protocol has to be regarded.

### 5 Gültigkeit des Prüfberichtes/ Validity of Test Report

Die ermittelten Ergebnisse gelten nur für die geprüften Objekte.  
*The test results apply to the tested objects only.*

Einschränkungen der Gültigkeit oder Verwendung dieses Prüfberichtes:  
*Limitation of validity or use of this Test Report:*

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### 6 Allgemeine Hinweise/ General remarks

Dieser Prüfbericht besteht aus  
*The present Test Report consists of*

12

Seiten.  
*Pages.*

Die Seiten 1 bis 3 enthalten das Gesamtergebnis der Prüfung. Zum vollständigen Prüfbericht gehört das Prüfprotokoll, aus dem die Einzelangaben ersichtlich sind.  
*Pages 1 to 3 indicate the overall test result. The complete Test Report also includes the test protocol containing all pertinent details.*

**Dieser Prüfbericht berechtigt nicht zur Verwendung des GS-Zeichens, BG-Zeichens oder CE-Zeichens.**  
*The present Test Report does not warrant the use of the GS-label, BG-label or CE-mark.*

Im Übrigen gilt die Prüf- und Zertifizierungsordnung der Prüf- und Zertifizierungsstellen im DGUV Test in Verbindung mit den Allgemeinen Geschäftsbedingungen der Deutschen Gesetzlichen Unfallversicherung e.V.

*In all other respects the Rules of Procedure for Testing and Certification carried out by the Test and Certification Bodies in DGUV Test shall apply in conjunction with the General Business Conditions of the Deutsche Gesetzliche Unfallversicherung e.V.*

Für die Prüfung:  
For the testing:



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Dipl.-Ing. Judith Krisinger

Leiter(in) des Prüflabors  
Head of Testlaboratory

# Prüfprotokoll

## Test protocol

1. **Test Method:** DIN EN 149:2009
2. **Type of test:** EU Type-Test
3. **Customer:** Venus Safety & Health Pvt. Ltd.
4. **Test specimen**
  - 4.1 Type: Particle filtering half mask with exhalation valve
  - 4.2 Designation: VENUS V-430-SLV FFP3 NR D
  - 4.3 Marking: VENUS V-430-SLV FFP3 NR D EN 149:2001+A1:2009
  - 4.4 Class of device: FFP3 NR D

### 5. Visual inspection

The particle filtering half masks VENUS V-430-SLV FFP3 NR D, which are submitted for EU-type-test, are, except marking and color of the exhalation valve, visually identical with the under EC-Type test certificate No. IFA 1401068 as of 2014-09-18 tested particle filtering half masks VENUS V-430-SLV FFP3 NR D.

### 6. Conditioning

#### 6.1 Simulated wearing

The in table 4 of DIN EN 149:2009 given number of particle filtering half masks has been subjected to simulated wearing treatment according to DIN EN 149:2009 clause 8.3.1 before carrying out the further in table 4 given tests.

After simulated wearing treatment none of the conditioned particle filtering half masks shall have suffered mechanical failure of the facepiece and the particle filtering half masks shall not collapse.

The requirements are fulfilled.

#### 6.2 Temperature conditioning

The in table 4 of DIN EN 149:2009 given number of particle filtering half masks has been subjected to temperature conditioning according to DIN EN 149:2009 clause 8.3.2 before carrying out the further in table 4 given tests.

After temperature conditioning none of the conditioned particle filtering half masks shall collapse.

The requirement is fulfilled.

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Dieses Prüfprotokoll darf nur vollständig und zusammen mit den Seiten 1 bis 3 des Prüfberichtes veröffentlicht werden.  
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### 6.3 Mechanical strength

The in table 4 of DIN EN 149:2009 given number of particle filtering half masks has been subjected to mechanical strength conditioning according to DIN EN 149:2009 clause 8.3.3 before carrying out the further in table 4 given tests.

### 6.4 Flow conditioning

The in table 4 of DIN EN 149:2009 given number of particle filtering half masks has been subjected to flow conditioning according to DIN EN 149:2009 clause 8.3.4 before carrying out the further in table 4 given tests.

## 7. Clogging

7.1 Test flow rate: 15 cycles/min and 2,0 l/stroke

### 7.2 Test conditions

According to DIN EN 149:2001 clause 8.10 clogging is performed at a Dolomite dust concentration of  $(400 \pm 100) \text{ mg/m}^3$  until the product of dust concentration and test period is  $833 \text{ mg}\cdot\text{h/m}^3$  has been clogged.

### 7.3 Requirements

The breathing resistance after clogging of particle filtering half masks of the device class FFP3 NR D including an exhalation valve shall not exceed 700 Pa in case of inhalation measured at a continue flow rate of 95 l/min and 300 Pa in case of exhalation measured at a continue flow rate of 160 l/min.

### 7.4 Test results

Test	Conditioning	Inhalation resistance at 95 l/min [Pa]	Exhalation resistance at 95 l/min [Pa]
1	as received	259	93
2	EN 149:2001, 8.3.2	267	96

The test results refer to a dust concentration and test period product value of  $833 \text{ mg}\cdot\text{h/m}^3$ .

The requirements are fulfilled.

## 8. Breathing resistance

### 8.1 Requirements

Max. inhalation resistance at a flow rate of 30 l/min: 100 Pa

Max. inhalation resistance at a flow rate of 95 l/min: 300 Pa

Max. exhalation resistance at a flow rate of 160 l/min: 300 Pa

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**8.2 Test specimen**

- T.-No 1-2, 4-9: VENUS V-430 SLV FFP3
- T.-No 10: VENUS V-430-SLV FFP3 NR
- T.-No 3, 11: VENUS V-430-SLV FFP3 NR D

**8.3 Test results**

Test	Conditioning	Breathing resistance [Pa]		
		Inhalation at 30 l/min	Inhalation at 95 l/min	Exhalation at 160 l/min
1	as received	65	259	250
2	as received	52	206	231
3	as received	67	231	104
4	EN 149:2001, 8.3.1	63	245	241
5	EN 149:2001, 8.3.1	62	237	248
6	EN 149:2001, 8.3.1	60	227	245
7	EN 149:2001, 8.3.2	60	226	231
8	EN 149:2001, 8.3.2	63	242	240
9	EN 149:2001, 8.3.2	60	225	239
10	EN 149:2001, 8.3.2 & 8.3.4	71	245	127
11	EN 149:2001, 8.3.2	63	223	99

The requirements are fulfilled.

**9. Filter penetration at test against paraffin oil**

9.1 Test flow rate: 95 l/min

**9.2 Requirements**

Maximum filter penetration: 1,0 %

**9.3 Test specimen**

- T.-No 1-12: VENUS V-430 SLV FFP3
- T.-No 13: VENUS V-430-SLV FFP3 NR
- T.-No 14-15: VENUS V-430-SLV FFP3 NR D

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#### 9.4 Test results

Test	Conditioning	Penetration [%]	
		measured value 1	measured value 2
1	as received	0,10	-,-
2	as received	0,07	-,-
3	as received	0,12	-,-
4	EN 149:2001, 8.3.1	0,06	-,-
5	EN 149:2001, 8.3.1	0,08	-,-
6	EN 149:2001, 8.3.1	0,10	-,-
7	EN 149:2001, 8.3.2	0,47	0,70
8	EN 149:2001, 8.3.2	0,45	0,63
9	EN 149:2001, 8.3.2	0,58	0,71
10	EN 149:2001, 8.3.3	0,24	-,-
11	EN 149:2001, 8.3.3	0,08	-,-
12	EN 149:2001, 8.3.3	0,11	-,-
13	EN 149:2001, 8.3.3 & 8.3.2	0,39	0,59
14	EN 149:2001, 8.10	0,81	-,-
15	EN 149:2001, 8.3.2 & 8.10	0,57	-,-

Measured value 1: Filter penetration after 3 minutes

Measured value 2: Maximum filter penetration during paraffin oil exposure until 120 mg

The requirements are fulfilled.

#### 10. Filter penetration at test against sodium chloride

10.1 Test flow rate: 95 l/min

10.2 Requirements

Maximum filter penetration: 1,0 %

10.3 Test specimen

T.-No 1-12: VENUS V-430 SLV FFP3

T.-No 13: VENUS V-430-SLV FFP3 NR

T.-No 14-15: VENUS V-430-SLV FFP3 NR D

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#### 10.4 Test results

Test	Conditioning	Penetration [%]	
		measured value 1	measured value 2
1	as received	0,13	-, -
2	as received	0,07	-, -
3	as received	0,18	-, -
4	EN 149:2001, 8.3.1	0,06	-, -
5	EN 149:2001, 8.3.1	0,05	-, -
6	EN 149:2001, 8.3.1	0,06	-, -
7	EN 149:2001, 8.3.2	0,20	0,20
8	EN 149:2001, 8.3.2	0,22	0,22
9	EN 149:2001, 8.3.2	0,21	0,21
10	EN 149:2001, 8.3.3	0,06	-, -
11	EN 149:2001, 8.3.3	0,07	-, -
12	EN 149:2001, 8.3.3	0,17	-, -
13	EN 149:2001, 8.3.3 & 8.3.2	0,23	0,23
14	EN 149:2001, 8.10	0,11	-, -
15	EN 149:2001, 8.3.2 & 8.10	0,10	-, -

Measured value 1: Penetration after 3 minutes

Measured value 2: Maximum penetration

The requirements are fulfilled.

#### 11. Total inward leakage

##### 11.1 Test conditions

Treadmill speed: 6 km/h

Duration of exercise: 2 min per exercise

Type of exercises: Ex. No. 1 = Walking

Ex. No. 2 = Walking and turning the head

Ex. No. 3 = Walking and head up and down

Ex. No. 4 = Walking and speaking

Ex. No. 5 = Walking

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## 11.2 Requirements

The total inward leakage shall not exceed 5 % in 46 of the 50 individual results (10 persons x 5 exercises).

The total inward leakage shall not exceed 2 % in 8 of the 10 arithmetic means (10 persons).

## 11.3 Test specimen

P.-No 1-10: VENUS V-430-SLV FFP3 NR

## 11.4 Test results (total inward leakage in %)

Subject	Conditioning	Exercises					mean
		1	2	3	4	5	
1	as received	0,3	0,6	0,8	0,8	0,4	0,6
2	as received	0,1	0,2	0,2	0,1	0,1	0,1
3	as received	0,5	0,5	0,7	0,9	0,4	0,6
4	as received	1,4	2,3	1,5	1,5	0,8	1,5
5	as received	1,2	1,2	0,9	0,5	0,4	0,8
6	EN 149:2001, 8.3.2	0,7	0,8	0,6	0,4	0,5	0,6
7	EN 149:2001, 8.3.2	0,2	0,1	0,2	0,4	0,2	0,2
8	EN 149:2001, 8.3.2	0,6	0,6	0,6	0,5	0,4	0,5
9	EN 149:2001, 8.3.2	0,6	1,0	0,5	0,2	0,2	0,5
10	EN 149:2001, 8.3.2	3,7	3,8	2,5	0,8	2,6	2,7

The requirements are fulfilled.

## 12. Practical performance

After the practical performance test the respiratory protective device was assessed by two test subjects.

### 12.1 Assessment wearer 1

Head harness comfort : no complaint  
 Security of fastenings: no complaint  
 Field of vision: no complaint  
 Additional remarks: none

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## 12.2 Assessment wearer 2

Head harness comfort:	no complaint
Security of fastenings:	no complaint
Field of vision:	no complaint
Additional remarks:	none

## 13. Carbon dioxide content of the inhalation air

### 13.1 Test procedure

The carbon dioxide content of the inhalation air (dead space) shall be measured at the mouth of the dummy head with a breathing machine adjusted to 25 cycles/min and 2.0 l/stroke.

### 13.2 Requirement

The carbon dioxide content of the inhalation air (dead space) shall not exceed an average of 1.0 % (by volume), measured at an ahead wind-speed of 0.5 m/s.

### 13.3 Test results

Concentration [Vol.-%]	Test 1	Test 2	Test 3
CO <sub>2</sub> content of the inhalation air	0,63	0,60	0,55

The requirement is fulfilled.

## 14. Package

Particle filtering half masks shall be offered for sale and packaged in such a way that they are protected against mechanical damage and contamination before use.

The requirements are fulfilled.

## 15. Flammability

Four particle filtering half masks were tested, two in the state as received and two after temperature conditioning (DIN EN 149:2009, clause 8.3.2).

The four tested samples shall not burn with their own flame.

The requirement is fulfilled.

## 16. Dimensional stability

During the simulated wearing treatment and the temperature conditioning in accordance with clauses 8.3.1 and 8.3.2 of DIN EN 149:2009, the particle filtering half masks shall not collapse.

The requirements are fulfilled.

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## 17. Finish of parts

Parts of the device likely to come into contact with the wearer shall have no sharp edges or burrs.

The requirements are fulfilled.

## 18. Head harness

### 18.1 Head harness after simulated wearing

After the simulated wearing treatment (DIN EN 149:2009 clause 8.3.1) of three particle filtering half masks, no mechanical deflection of the head harness shall occur.

The requirement is fulfilled.

### 18.2 Adjustability and hold of the head harness

The assessment was executed during the leakage tests and practical performance tests.

The requirements are fulfilled.

## 19. Compatibility with skin

The materials coming into contact with the wearers' skin during the leakage tests and practical performance tests shall not cause any irritation or any other negative health effect for wearers.

The requirements are fulfilled.

## 20. Field of vision

The field of vision is acceptable if determined so in practical performance tests.

The requirements are fulfilled.

## 21. Exhalation valve

### 21.1 Test at exhalation flow rate of 300 l/min

Two particle filtering half masks were tested after temperature conditioning (DIN EN 149:2009 clause 8.3.2) and one particle filtering half mask was tested as received.

The requirements are fulfilled.

### 21.2 Test of the fitting of the exhalation valve housing

Three particle filtering half masks were tested one as received, one after temperature conditioning (DIN EN 149:2009 clause 8.3.2) and one after mechanical strength conditioning (DIN EN 149:2009 clause 8.3.3).

The requirements are fulfilled.

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**22. Mass of the respiratory device:** 17 g

**23. Marking**

23.1 Marking of mask

The requirements are fulfilled.

23.2 Marking of packaging

The requirements are fulfilled.

**24. Information supplied by the manufacturer**

Only the instructions for use in English language were revised.

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The performed test results apply to the tested objects only.  
A statement about the uniformity of production cannot be derived.

Institute for Occupational Safety and Health – IFA –  
In charge

  
Dipl.-Ing. Judith Krisinger

Person responsible

  
Benedikt Brenner

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