

[1] **EC-TYPE EXAMINATION CERTIFICATE**

according to Directive 94/9/EC, Annex III  
(Translation)



[2] Equipment and protective systems intended for use  
in potentially explosive atmospheres, **Directive 94/9/EC**

[3] EC-Type Examination Certificate Number: **IBExU12ATEX1189 X**

[4] Equipment: **Magnetic Separator (clean flow magnet)**  
Type SECC...

[5] Manufacturer: **GOUDSMIT magnetic systems b.v.**

[6] Address: **Petunialaan 19**  
**5582 HA Waalre**  
**Netherlands**

[7] The design of the equipment mentioned in [4] and any acceptable variations thereto are specified  
in the schedule to this EC-Type Examination Certificate.

[8] IBExU Institut für Sicherheitstechnik GmbH, NOTIFIED BODY number 0637 in accordance with  
article 9 of the Council Directive 94/9/EC of 23 March 1994, certifies that the equipment men-  
tioned in [4] has been found to comply with the essential health and safety requirements for the  
design and construction of equipment and protective systems intended for use in potentially ex-  
plosive atmospheres given in Annex II to the Directive.  
The test results are recorded in the test report IB-12-2-102 of 19 December 2012.

[9] Compliance with the essential health and safety requirements has been assured by compliance  
with EN 1127-1:2011, EN 13463-1:2009, EN 13463-5:2011 and CLC/TR 50404:2003.

[10] If the sign „X“ is placed after the certificate number, it indicates that the equipment is subject to  
special conditions for safe use specified in [17] in the schedule to this EC-Type Examination Cer-  
tificate.

[11] This EC-Type Examination Certificate relates only to the design and construction of the specified  
equipment. If applicable, further requirements of this Directive apply to the manufacture and sup-  
ply of this equipment.

[12] The marking of the equipment mentioned in [4] shall include the following:

 II 1 / 2 D c TX  
 II - / 3 G c IIB TX

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Authorized for certifications  
-Explosion protection-

Freiberg, 19 December 2012

By order

  
(Dipl.-Ing. Willamowski)

Schedule



Certificates without signature  
and seal are not valid.  
Certificates may only be dupli-  
cated completely and un-  
changed. In case of dispute,  
the German text shall prevail.



[13] **Schedule**

[14] **to the EC-TYPE EXAMINATION CERTIFICATE IBExU12ATEX1189 X**

[15] **Description of the equipment**

The magnetic separators mentioned in [4] consist of a housing with one product inlet and three outlets arranged besides each other. The central outlet serves as product outlet and the two outlets on the sides are used as outlets for the separated ferromagnetic particles.

The housing includes several bars which are arranged horizontally in longitudinal direction. In the area of the product inlet these bars are provided with a package of permanent magnets. Tubes with holding rings are installed on the bars.

Pressurized air is led to the bars and blown into the tubes so that they can move in two directions over the bars with the magnet package.

The ferromagnetic particles in the product flow are attracted by the permanent magnets and stick on the tubes. In fixed intervals the tubes with the adherent ferromagnetic particles are moved to the left or to the right, whereupon the particles are transported out of the activity area of the magnetic field. The ferromagnetic particles fall then through the side outlets.

Subject of this EC-Type Examination is only the non-electrical part of the magnetic separators. Purchased parts (e.g. magnetic valves, control boxes) are not subject of this EC-Type Examination. They must be selected and installed in accordance with the requirements on the equipment category and the respective zone.

Technical details to the constructive design of the magnetic separators are specified in the Test Report IB-12-2-102 or in the test documents which are part of the test report.

[16] **Test report**

The test results are recorded in the Test Report IB-12-2-102 of 19 December 2012. All documents underlying this examination and the operating range of the magnetic separators are mentioned in the test report. Designs are only permitted when they conform to the documents listed in the test report.

**Summary of the test results:**

The test results show that the magnetic separators mentioned in [4] fulfil the requirements on equipment of Category 1D inside and Categories 2D and 3G outside in type of protection "c" (protection by constructional safety).

The test documents are listed in chapter 2 of the test report.

It has been taken into account that in rare cases hybrid mixtures can occur.

[17] **Special conditions for safe use**

The "X" after the number of the EC-Type Examination Certificate means that special conditions must be maintained for the safe use of the magnetic separators.

- The smoulder temperature of dusts must not be less than the maximum surface temperature (temperature of the media) plus a safety margin of 75 K.
- The ignition temperature of dusts must not be less than 1.5 times the maximum surface temperature in °C (temperature of the media).
- The ignition temperature of gases must not be less than the maximum surface temperature in °C plus a safety margin of 5 K.
- Before a longer standstill the magnetic separators must be emptied. If nevertheless an autoignition hazard can arise, the operating company has to take additional protective measures.

- The inner surfaces must not be provided with electrically insulating coatings with a breakdown voltage of > 4 kV.
- The equipotential bonding of the movable tubes has to be checked in regular intervals. If necessary, it must be performed again.
- Purchased parts must be selected and installed in accordance with the requirements for the respective zone.

[18] **Essential Health and Safety Requirements**

Confirmed by compliance with standards (see [9]).

By order

Freiberg, 19 December 2012

  
(Dipl.-Ing. Willamowski)