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HUBER Safety Vision increases the availability of machines



HUBER Safety Vision system for critical coarse material identification

An innovative building block for your digitisation strategy

The main duty of the screens installed in the inlet to sewage treatment plants is to protect downstream machines and systems and ensure perfect operation of the sewage treatment plant. When selecting the headworks screens it is usually assumed that coarse material up to a certain maximum size will occur. Increasingly, however, unforeseen material such as cans, wood pallets, large tree branches or even iron rods are also found in sewers.

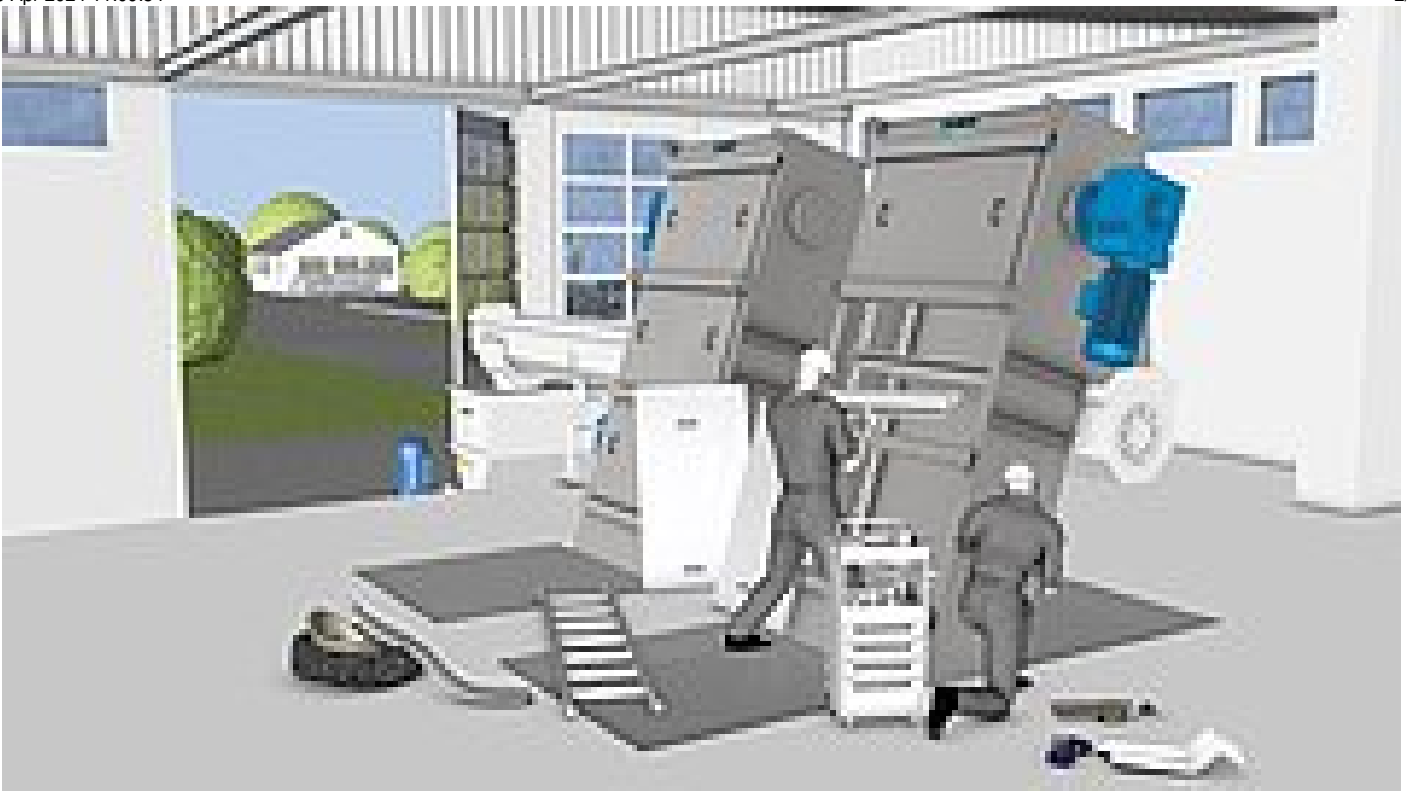
Although such coarse material should definitely not be present in a sewer, there is no possibility to reliably exclude they are there. If such material arrives at a screen and the screen takes it up, this may result in mechanical damage of the screen or downstream systems, such as conveyors, wash presses, etc., and this can lead to severe failures in the operation of a sewage treatment plant.

The innovative system **HUBER Safety Vision** is able to identify critical coarse material and protect machines safely and reliably against damage. Optical sensors continuously monitor the shape and size of the coarse material taken up by the screen. The sensor data are evaluated in real time through digital image processing. Whenever the system detects any impermissible material, a warning message with image is immediately sent to the operating staff. They can decide if the screen is to continue running or stop until the material has been removed. This process reliably prevents blockage or damage of the screen or downstream systems and at the same time increases equipment availability.

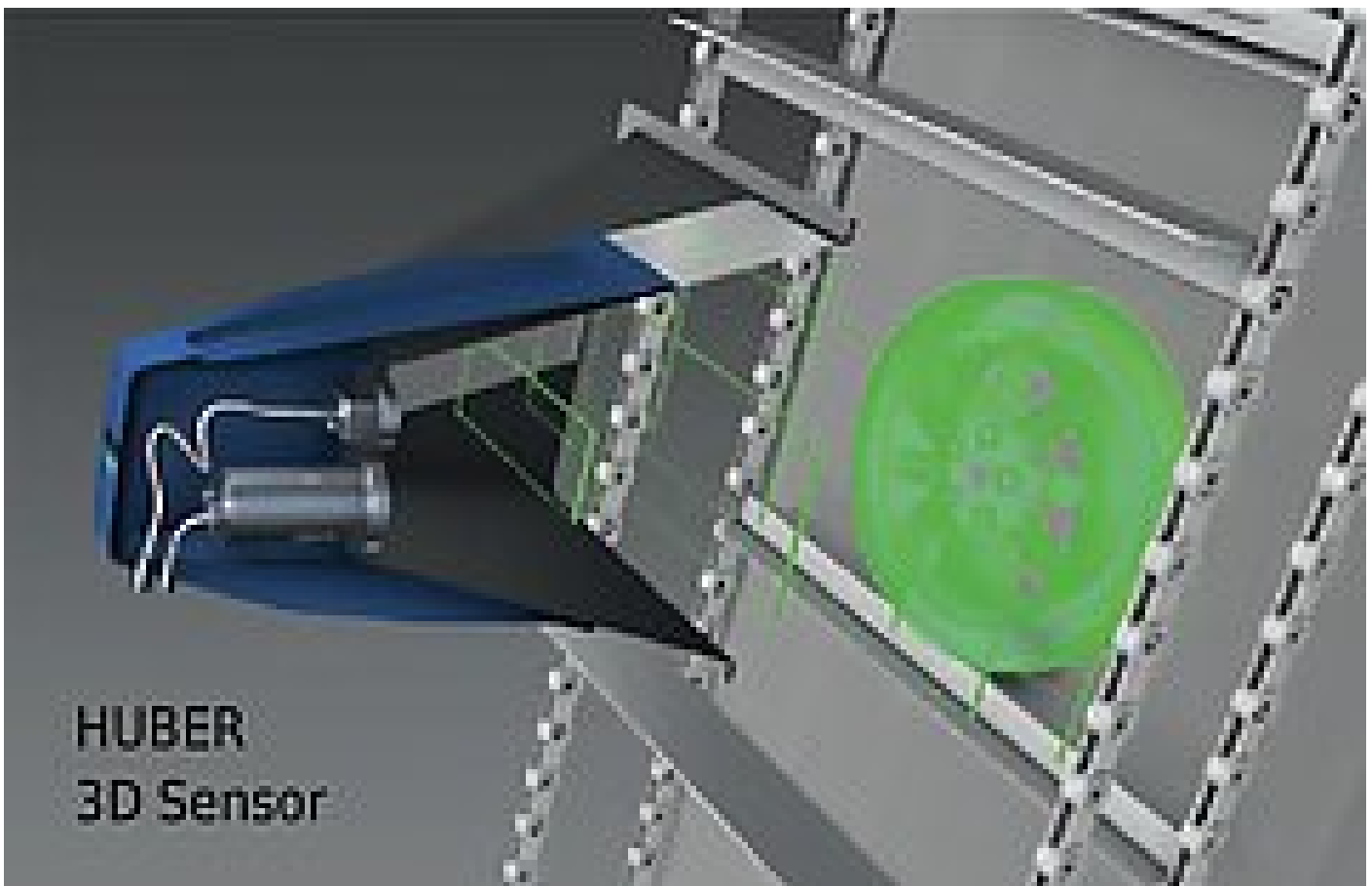
Another advantage of the **HUBER Safety Vision** is the preventive identification of explosion risks. Accidents or failures may lead to the ingress or unpermitted feeding of inflammable liquids and gases which can cause an explosive atmosphere in the inlet to a sewage plant even if only small amounts are present in the sewer network. Knowing the explosion risks is essential for the operating reliability of the plants but especially for the health and safety of the operating staff. To ensure reliable monitoring, a sturdy scalable gas alarm device is installed directly on the machine which can trigger an alarm in real time whenever pre-defined limit values are exceeded.

HUBER Safety Vision provides the technological preconditions for a variety of applications:

- Intelligent detection of impurities



If the screen is stopped by an obstacle, it is labour-intensive to remove it. At least two persons with suitable tools are necessary to put the screen into operation again. Frequently, they additionally have to repair damage.



The HUBER Safety Vision system recognizes impermissible material and stops the screen before the screen is stopped due to blockage. Damage of the screen or downstream systems is prevented. The obstacle can be removed by one person without the need of tools.



Warning messages and live pictures can be sent to the staff and various devices

- Continuous monitoring and identification of abnormalities
- Intelligent preview and early detection of disturbances
- Continuous transmission of live images
- Exact determination of the volume and dimensions of screenings by a 3-D scanner and load-dependent control of downstream systems
- Reduced machine run times
- Load-dependent adjustment of maintenance intervals
- Predictive maintenance
- Reduced maintenance and repair costs
- Immediate signal from the image processing software to the machine control system if limits are exceeded
- Detection of explosion risks before they can become dangerous
- Integration of smart phones, tablet PCs and mobile or stationary displays of a PLC.

Due to the variety of possibilities the system provides, **HUBER Safety Vision** represents an important element in the digitalisation strategy of any sewage treatment plant.

Especially the pollution load-dependent control of systems installed downstream of the screen provides a considerable cost saving potential as it reduces unnecessary operation hours and consequential expenses for maintenance and repairs and increases the lifetime of the systems.

The impurity detection system HUBER Safety Vision it is possible to identify critical coarse material and protect machines reliably against damage.

Download: HUBER Detection System Safety Vision for impurity detection

[📄 Brochure: HUBER Detection System Safety Vision](#) [pdf, 300 KB]

Animation: HUBER Safety Vision system for impurity detection



"Safety Vision" installation, running to the full satisfaction of the plant operators

Innovative and intelligent early detection of critical coarse material by continuous monitoring to protect screens safely and reliably against blockage and damage.



Animation: HUBER Safety Vision
system for impurity detection

[https://www.youtube.com/watch?
v=W1o94KTzHYs](https://www.youtube.com/watch?v=W1o94KTzHYs)

A member of the HUBER Group

Postaddress / Mailing address:
HUBER Technology Nordic AB
Box 125, 437 22 Lindome, Sweden

Besöksadress / Visiting address:
Heljesvägen 4
437 36 Lindome, Sweden

Telephone: + 46 31 99 64 60
E-mail: info@hubersverige.se

www.hubersverige.se
Bankgiro: 5870-0386
Postgiro: 6402198-3
