HILLER
separation & process
Member of the ferrum Group

DECANTER CENTRIFUGES
& PLANTS FOR SOLID/LIQUID SEPARATION

EXPLOSION-PROOF DECANTER CENTRIFUGES

Decanter in design according to RL 2014/34/EU

Hiller Decanters and Plants are used in many applications that require explosion protection. This is the case in many areas of industrial production, raw material production or environmental technology where products are processed that create potentially explosive atmosphere.
In order to protect man and machine against the possible dangers often extensive protection measures have to be made.

As a German manufacturer HILLER here always uses ATEX (Atmosphère Explosive) standard as design basis. Further requirements of the respective country or the specific project are an additional element of the machine design (eg according to NEC 500 or NEC 505).

POSSIBLE APPLICATIONS
for explosion-proof HILLER Decanters:

- Classification of colour pigments in a benzine suspension
- Alcoholic herb and root extracts
- Separation of chemical intermediates from acetone
- Separation of wash methanol from a salt suspension
- Processing of waste products from the mineral oil industry

Explosion-proof HILLER Decanters are classified as RL 2014/34/EU and are available for delivery in different ex zones, gas groups and temperature classes.

EXPLOSION PROTECTION

Generally speaking there are two aspects of explosion protection for a decanter:

- **Installation environment**
  Environment with risk of explosions
- **Product**
  The product forms an explosive atmosphere within the decanter or outside of the decanter, eg gas exhaust.

You can rely on MANY YEARS OF EXPERIENCE

"EXPLOSION PROTECTION" can cover a wide variety of proceedings. Only in very simple cases the installation of explosion-proof drive systems and instruments is sufficient. When the safety requirements grow more proceedings have to be made up to a "gastight" machine and impinging with inert gas.

The installation of the control system of a decanter is possible by the use of pressurized or flameproof switchboards. Furthermore, HILLER Decanters can be equipped with a full hydraulics drive system in order to ensure bowl and speed adjustment without frequency converters.

SCC-CERTIFIED STAFF

HILLER has many years of experience and know-how in the complex field of explosion protection. Our experts are SCC-certified (SCC=Safety Certificate Contractors).

HILLER Decanters and Plants with explosion protection are always designed and produced in accordance with the specific requirements of operation.

HILLER designs for you the ATEX construction of the decanter. Rely on decades of experience!

REQUIREMENTS of EXPLOSION PROTECTION

In an explosion protection document the operator has to determine all potential dangers in his process and evaluate them. Furthermore, suitable protective arrangements have to be determined. Within the frame of these works the final, precise requirements of explosion protection of a decanter are specified. Important criteria are - among others – the frequency of an explosion risk – expressed by the terms "category" or "zone".

- **Category 1** = Zone 0 or 20
  Frequent or permanent explosion risk
- **Category 2** = Zone 1 or 21
  Occasional explosion risk
- **Category 3** = Zone 2 or 22
  Seldom or short period explosion risk

Further important parameters are the flashpoint of the medium, its firing power and firing temperature (the temperature class of the equipment derives from the firing temperature) and its lower and upper explosion limit.

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