

# RELIABLE FILTRATION





#### About company

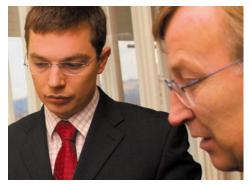
The Broumov company HOBRA-Skolnik s.r.o. has been a producer of filtersheets since 1950. The firm has also been producing high quality insulating materials since 1965.

Within the strategical marketing program, under the name "Reliable filtration", HOBRA manufactures and supplies filtration equipment: sheet filters (HOBRACOL), module housings (ORBICOL) and membrane housings (CANDECOL).

HOBRA supplies traditional filtration media for sheet filters – deep filter sheets (HOBRAFILT), supplemented by modules (ORBIFILT) and filtration membranes (CANDEFILT). Consultancy and structured solutions of the filtration requirements with the utilization of all available technologies are also offered within the comprehensive "Reliable filtration" program.

HOBRA-Skolnik s.r.o. is fully aware of the importance of the quality control system and therefore it invests great effort into obtaining quality certificates. The quality control system certificate according to the ISO 9001 standard obtained in 2000 and the environmental management certificate according to ISO 14001 obtained in 2001 are the results of this effort.













HOBRA – SOLUTION consultancy and advisory activities in the area of filtration

HOBRA's solution does not consist only of the product supply itself, but is based especially on providing consultancy and advisory activities, design and supply of complete systems for the solution of customer's filtration requirements. A knowledgeable and experienced team of specialists is at your disposal in the Research & Development Department as well as in the Marketing & Sales Department of the company.

## HOBRAFILT depth filter sheets

The filter sheet is basically a three-dimensional depth filter containing adsorbents with a large inner surface. It can be defined as a labyrinth of ducts with various lengths inside the sheet, that are used for catching impurities. The total filtration surface of the depth filter sheet is many times larger in comparison with the sieve filtration due to the presence of adsorbent. It also increases the amount of the filtered liquid.

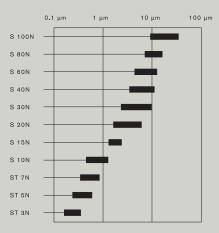
Deep filter sheets are utilized generally for liquid filtration and therefore they are used in the production of beverages (beer, wine, other alcoholic and non-alcoholic drinks), in the chemical, pharmaceutical and cosmetics industries. In addition to the standard "N" serie of filtersheets, HOBRA offers several special series designed for industrial applications, gelatine filtration or biotechnological industry applications (with lower content of extractable ions, metals or pyrogens).

## ORBIFILT filtration modules

Filter modules ORBIFILT help to achieve the sheets filtration effect with easier manipulation. The filtersheets are placed lenticularly on the draining body. Several lenses are placed in the filtration module and they are connected either by metal clips or with grating case made of polypropylene. Sealing rings among the individual lentils avoid any penetration of unfiltered matter.

The number of modules can be changed in the ORBICOL system and thus the filtration surface can be multiplied very easily. Filtration with the filter modules is carried out in a closed system without foreshots.

Diagram of retention the HOBRAFILT "N" serie:











#### CANDEFILT filter cartridges / membranes

The diversity of the products in the filter cartridges is based on the variability of membrane materials and retention degree. The membrane filter cartridges have a good capacity and total retention values. Therefore, these products are used in microbiological applications as safety stages of filtration. Economically the membranes are suitable mainly for the last stage of the filtration process, whereas the pre-filtration is carried out by filter sheets or modules. The functions of the membrane filter cartridges can be tested before and after filtration with a pressure integrity test.

#### HOBRACOL sheet filter

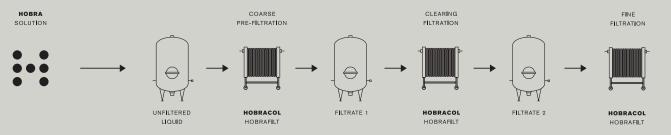
HOBRACOL equipment are manufactured solely from AISI 304 food industry quality stainless steel. The material selection fulfils the requirements of the food industry and the customer's operation can therefore be certified without problems when needed. HOBRACOL is usually supplied in the variant of the maximum operating pressure of 6 bars and maximum pressure difference during the filtration of 3 bars for the HOBRACOL 400 and 4 bars for the HOBRACOL 600. It enables complete utilization of the filter sheets potential.

Moreover, the HOBRACOL 600 is equipped with automatic hydraulic contraction that controls pressure in relation to the filtration pressure and minimizes spills from the filter. This can also be installed to the HOBRACOL 400 upon the customer's request.

## ORBICOL module filter

ORBICOL housings are manufactured solely from food industry quality AISI 316L stainless steel. The material selection fulfils the requirements of the food industry and the customer's operation can therefore be certified without problems when needed. The ORBICOL equipment is designed for a maximum operating pressure of 6 bars, maximum usable temperature of the filtered liquid is 95°C and the filtration surface is from 1.8 m² to 14.4 m². The device can be supplied in three variants of the equipment.

On this simplified and generalized filtration process scheme you can see the use of our products:











## CANDECOL cartridge filter

CANDECOL housings are manufactured solely from food industry quality AISI 316 Ti stainless steel. The material selection fulfils the requirements of the food industry and the customer's operation can therefore be certified without problems when needed. The CANDECOL equipment is designed for a maximum operating pressure of 10 bars, maximum usable temperature of the filtered liquid is 140°C, the lengths from one 10" cartridge up to several 30" cartridges, depending on the required hour capacity. The device can be supplied in three variants of the equipment.

