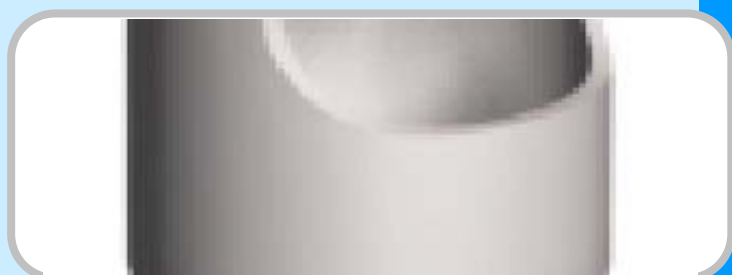


MINICYCLONE SEPARATORS



HEAD OFFICE:
10060 Scalenghe (TO) ITALY
Tel. (+39) 011-9866231
Fax. (+39) 011-9866310
Regione Botteghe, 28

REGISTERED OFFICE:
10121 TORINO
Cap. Sociale 520.000.00€
C.C.I.A.A. Torino 738618
C.F./IVA 05826680018
C.so Vinzaglio, 12 bis

PRODUCTION FACILITIES:
-Via Circonvallazione, 28 - 10060 BURIASCO (TO)
-S.Statale 23 Km 28.5 Fraz. Viotto - 10060 Scalenghe (TO)
-Regione Botteghe, 28 - 10060 Scalenghe

WEB ADDRESS:
URL: <http://www.filters.it>
e-mail: sales@filters.it



SCOPE OF APPLICATION

FILTER Minicyclone Separators are used to remove suspended solids from large gas flow-rates, when it is not essential to achieve very high efficiencies. A coalescing action is also obtained.

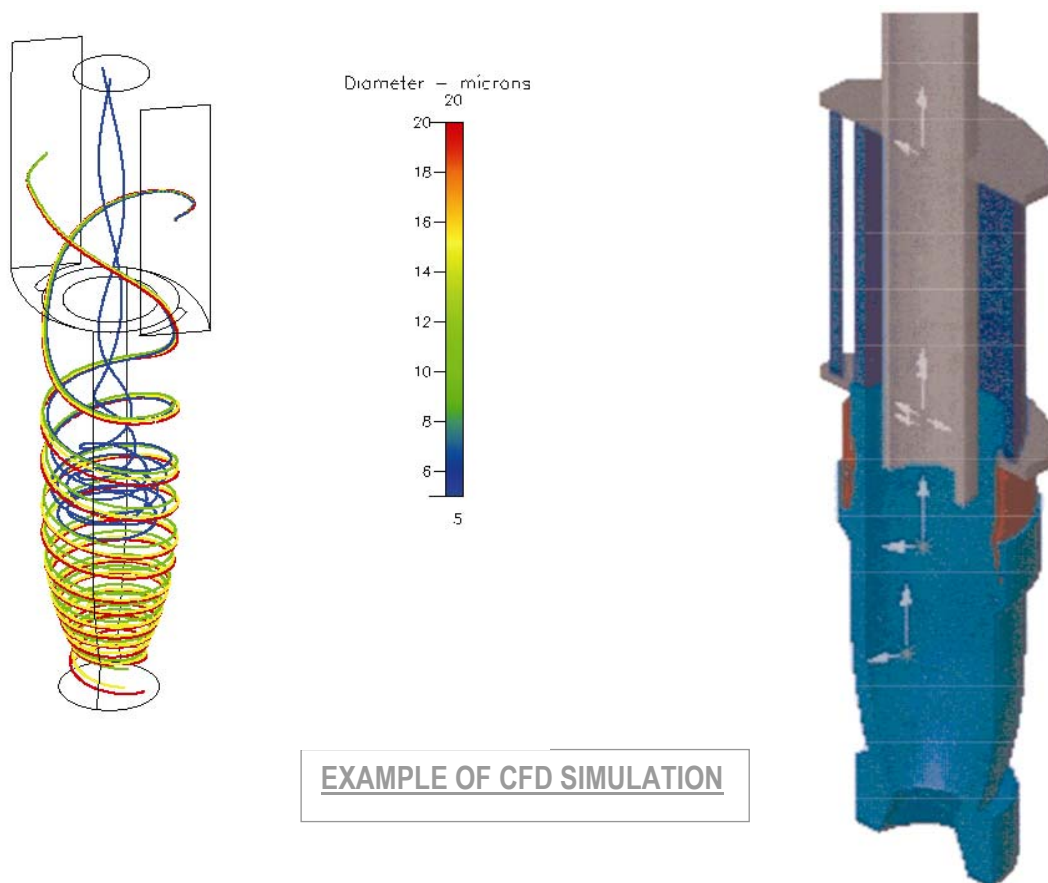
Typical applications are:

- Wellhead separators;
- Compressor suction scrubbers. If traces of sand are present in the feed;
- High pressure compressor discharge scrubber to remove lube-oil.

The untreated gas flows into the middle section of the vessel, where a bundle of minicyclone tubes is fitted between the upper and lower plates. The gas enters each minicyclone tube at its base, horizontally, through two apposite spiral-shaped passages. In doing so a strong centrifugal motion is imparted to the gas which forces the suspended particles outward and downward against the lower part of the minicyclone cone, where the particles are expelled and drop into the lower section of the vessel.

The clean gas reverses direction, rises, still spinning, reaches the upper chamber through the clean gas tubes and exits the vessel.

An increase of gas through the cyclone does not mean a reduction in efficiency, which remains almost constant; it does, though, increase the pressure drop causing, above a certain limit, the wear of the minicyclone lower section which requires to be built in a highly resistant material.



EXAMPLE OF CFD SIMULATION



FEATURES

FILTERS Minicyclone Separators are usually manufactured in a vertical configuration, consisting basically of:

- a vessel shell with heads at both ends, complete with supporting skirt;
- inlet and outlet nozzles and flanges;
- drain connection;
- Inspection manhole with davit, if required;
- Internal parts including: a bundle of minicyclone tubes, with two circular supporting plates;
- Complete self automatic controls for unattended operation if required.

MATERIAL

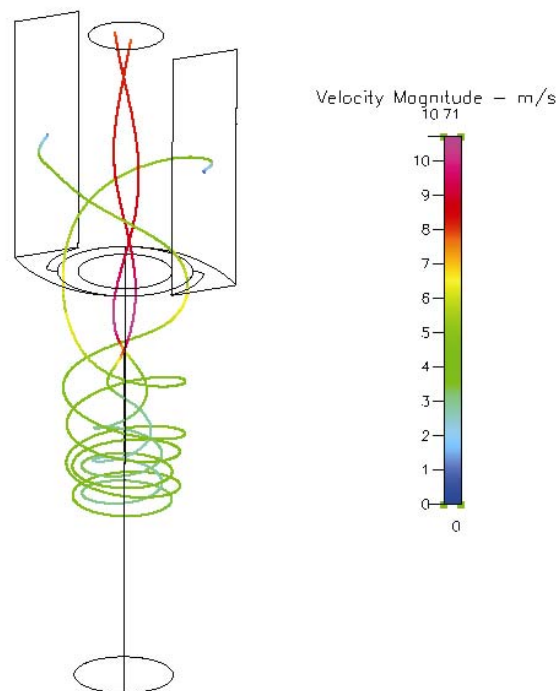
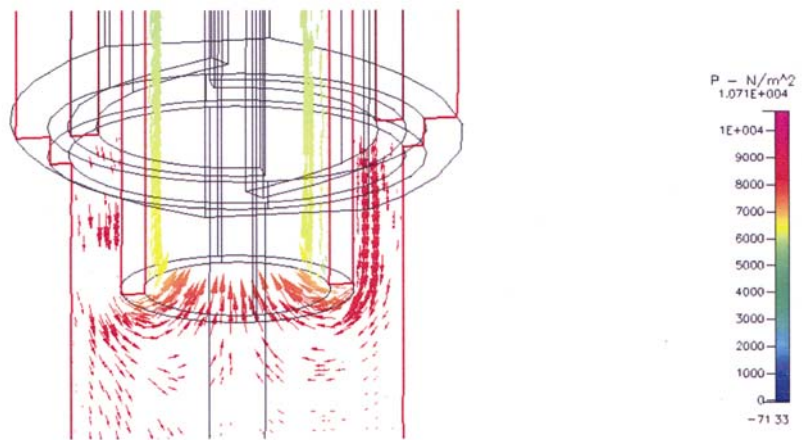
The Separator body is generally made in carbon steel, while internals are generally made in stainless steel. However other materials can be used depending on the service of the Separator.

DESIGN

We can provide a "tailor-made" design of any type of separator according to any duty requirement. Vessels can be built in accordance with any international code

Required design information:

- Gas characteristics (i.e. molecular weight, composition);
- Gas flow rate;
- Operating pressure and temperature;
- Type and amount of particles to be removed;
- Vessel design pressure and temperature;
- Design Code;
- Special metallurgical requirements.



EXAMPLE OF CFD SIMULATION



