



De Dietrich
PROCESS SYSTEMS

AGITATED NUTSCHE FILTER AND FILTER- DRYER

The De Dietrich Process Systems Nutsche Filter and Filter / Dryer technology is particularly suited to meet the stringent requirements of the pharmaceutical and fine chemicals industries for solids washing and separation, even in the most challenging process conditions.

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PROCESS SYSTEMS



Tailored to your needs. From the smallest to the largest, from the most simple to the extremely complex Filter / Dryer.

VERSATILE FILTRATION AND DRYING

The Filter / Dryer performs a multitude of tasks including filtration, displacement or reslurry washing, vacuum or convection drying. It can discharge wet cake, slurry, liquid, or dried cake to less than 0.1% moisture.

Filter-Dryers have numerous advantages :

- Limited overall dimensions
- Reduced investment cost
- Improved product quality
- Reduced cross contamination risk
- Closed system : no operator contact, no product transfer from one machine to another.



FILTER / DRYERS ADVANTAGES

Our filters and filter / dryers have many features that make them the recognized industry leader including :

- Universal Filter Media - The filter plate design allows the use of all types of filter media:

cloth, single later metal screen, or multi-layer sintered metal.

- Side Discharge Valve - Metal-to-metal seals with minimal dead space, eliminating the cleanability issues that can arise with the use of o-rings. The valve provides a pressure/vacuum-tight seal.
- Heated Filter Plate - The fully welded design provides heat energy directly into the cake from the underside, allowing for heat transfer through all of the filter contact surfaces, for more efficient drying.
- Gas-knife system - small nozzles located underneath the S-blade agitator blow the heel of the product towards the discharge valve.



HIGH CONTAINMENT DISCHARGE ISOLATOR

Particularly suited for the [handling of cytotoxic or highly potent material \(HPAPI\)](#), the De Dietrich solution has been designed with particular attention to ergonomics and practicality,

whilst also maintaining cleanability.

This makes the design particularly suited to the pharmaceutical industry.

The rigid discharge glovebox has the following advantages :

- Creation of a microenvironment limiting impact on the cleanroom
- Reduction of the need for PPE (Personal Protective Equipment)
- Full recovery of the product heel
- Limited total life cycle cost
- Designed and built by De Dietrich - perfect integration with your filter / dryer



GLASS-LINED FILTER / DRYERS

When traditional nickel alloys (Stainless steel and Hastelloys such as C-22,C-276, B-3, ...) are not resistant enough, De Dietrich can offer a glass-lined agitated filter-dryer solution. The outstanding corrosion resistance of enamel combined with the filtration and drying know-how offers a unique solution.



STERILE FILTER / DRYERS

For products requiring sterile manufacturing conditions, filter / dryer can be specifically designed to include stem-in-place (SIP) capabilities, and eliminate all internal dead spaces. Key areas design include the side discharge valve, mechanical seal and the base design.

THE ESSENTIAL RANGE

De Dietrich Process Systems gets back to its roots for Filter / Dryers and launches an updated design for non-sophisticated operations.

The Essential range focuses on the key functions of Filter / Dryers with selected solutions that preserve the critical operations to their optimum level.

These equipment benefits of De Dietrich Process Systems's steadfast commitment to quality and services in their daily use.

While the Essential range is not GMP compliant, it is fully viable for chemistry and plant extraction applications.



Which kind of industry can use this product?

Pharmaceuticals and Fine chemicals

Questions? We are here to help.

If you'd like to talk with a sales representative about purchasing De Dietrich Process Systems's products and services, you can reach us here.

Total discharge with the Gas Knife system

The Rosenmund® Gas Knife System is a unique and innovative solution that enables a total product discharge without manual intervention tests. A number of blowing nozzles placed on the agitator blade are used to discharge the product with a gas stream.



Options

Gas Knife System – A unique and innovative solution that enables a total product discharge without manual intervention.

Various materials of construction including 316L stainless steel, Alloy 20, C-22 and others.

CIP/WIP and SIP systems

Heated agitator

Various main shaft seal designs



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