



Filters



Solids

FilterPlus & DryFilter/Oyster



Pilot Filter dryer,
0,25 sqm, constructed in Hastelloy C22.

FILTERS

Olsa innovative design is a direct result of many years of consolidated experience in the field of process technology and this experience has significantly improved the pressure filtration and vacuum drying performance.

FilterPlus & DryFilter

The Olsa FilterPlus is a Nutsche type pressure filter for the solid-liquid separation, and the DryFilter is a multipurpose process unit to also perform the vacuum drying.

Olsa Filter/Dryers are also provided with integrated heating/cooling skids, vacuum

units and solvent recovery systems for application in the pharmaceutical and chemical processes.

Main Features:

- **Process control and management** with PLC and Operator Panel.
- **High efficiency jacket** for optimum heat exchange, and turbulent circulation of the heating and cooling fluid.
- **No thermal inertia:** the capacity of the special jacket is much lower than in traditional configurations.
- **Heated agitator** for improved heat transfer.

- **"S"-shaped agitator blades** for improved mixing efficiency and faster product discharge operation.
- **Reverse rotation** and step-less speed regulation of the agitator.
- **Removable filter base** provided with solid-plate design coupled to the vessel with fast opening clamps or with hydraulically operated automatic bayonet closure system.
- **Filter media** can be synthetic cloth or metal wire; installation of the filter media can be carried out without screws in contact with the product.



A: DryFilter 0,07 sqm.



B: DryFilter 0,20 sqm in Hastelloy C22.

FilterPlus & DryFilter/Oyster

C: DryFilter 2 liters glass execution.



D: The agitator is provided with specially designed blades and teeth for cake smoothing operation and cake washing processes, and for product agitation.



E: Olsa can provide a wide range of systems to control the process, and the management of the mechanical seal pressurization including continuous control and monitoring the seal integrity system.



- **Full containment-type discharge valve** is provided with a sealing plug, flush to the inside vessel and equipped with an O-ring or metal-to-metal seal and dedicated washing system of the sealing area.
- **Agitator axial movement**, opening of the discharge valve and filter base are hydraulically operated.
- **Dust filter** with synthetic filter bags or with sintered metal basket filter and automatic reverse-jet bag cleaning device.
- **Washing devices** for CIP/WIP procedures for main vessel, dust filter and discharge valve.
- **CIP skid** equipped with sanitary-type circulation pump, buffer tank, safety devices and skid configuration.

- **Vacuum group** as per required process needs.
- **Auxiliary skids** for thermal fluid production and circulation and for solvents condensation and recovery.
- **Design and manufacturing standards** certified according to PED 97/23/CE, American ASME VIII-Div.1 and ATEX requirements.
- **Material of construction** for contact parts in stainless steel AISI 316L, Hastelloy, Uranus (DIN 1.4539) or other special alloys.
- **Protocols** for IQ/OQ, calibration and validation.



F: DryFilter 3 sqm.

OYSTERS

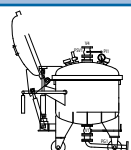
Olsa **OYSTER** filters are wheeled filters, designed for multipurpose use. These units find their main application in the pharmaceutical industry, they allow for easy transfer between different production areas and laboratory. The **OYSTER** filters allow for pressure filtration operation, which are performed manually in an enclosed, pressure rated unit. The top head can be easily opened through a manual operated hydraulic pump.



Main Features:

- **multipurpose** process unit
- maximum operation **flexibility** and minimum downtime
- **solid-liquid separation** under pressure and full-containment condition
- **dished top** fixed to the vessel by fast opening C-clamps to be easily opened for all manual process and service operations including product unloading, filter-medium installation and cleaning operation
- **cover opening and closure** by manually operated hydraulic system
- **fast operation** to install and change the filter-medium
- **bottom discharge** of the filtrate
- optional **drying** of the product
- optional external **heating jacket**
- optional manually controlled **agitator**
- **installation** on wheeled support structure
- simple and economic **cGMP** operation

TECHNICAL DATA



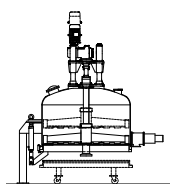
OYSTER Filter

Oyster Model	WF	100	150	250	350	500	650	950
Nom filter area	sqm	0.1	0.15	0.25	0.35	0.5	0.65	0.95
Working volume	L	20	40	70	100	175	250	400
Vessel diameter	mm	350	450	550	650	800	900	1100



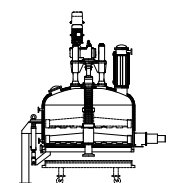
OYSTER Filter/Dryer

Oyster Model	WD	100	150	250	350	500	650	950
Nom filter area	sqm	0.1	0.15	0.25	0.35	0.5	0.65	0.95
Working volume	L	20	40	70	100	175	250	400
Vessel diameter	mm	350	450	550	650	800	900	1100



NUTSCHE Filter

FilterPlus Model	FP	250	500	700	1000	1500	2000	2500	3000	4000	6000
Nom filter area	sqm	0.25	0.5	0.7	1	1.5	2	2.5	3	4	6
Working volume	L	200	400	750	1000	1500	2000	2600	3200	4300	7500
Cake volume	L	45	125	200	300	500	800	1000	1250	1600	2750
Vessel diameter	mm	550	800	1000	1200	1400	1600	1800	2000	2300	2800
Agitator stroke	mm	200	250	300	300	350	400	400	400	400	450
Install. height	mm	2860	3500	3950	4150	4350	4650	4750	4800	5000	5600



Filter/Dryer

DryFilter Model	DF	250	500	700	1000	1500	2000	2500	3000	4000	6000
Nom filter area	sqm	0.25	0.5	0.7	1	1.5	2	2.5	3	4	6
Working volume	L	200	400	750	1000	1500	2000	2600	3200	4300	7500
Cake volume	L	45	125	200	300	500	800	1000	1250	1600	2750
Vessel diameter	mm	550	800	1000	1200	1400	1600	1800	2000	2300	2800
Agitator stroke	mm	200	250	300	300	350	400	400	400	400	450
Install. height	mm	2860	3500	3950	4150	4350	4650	4750	4800	5000	5600



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