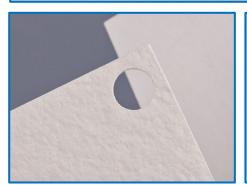
## THE FILTRATION MANUFACTURER



### **ULTRASHEET**

7 DIFFERENT SERIES







LIQUID FILTERS @ AIR/GAS FILTERS @ STERILE & PARTICULATE FILTERS @ INDUSTRIAL FILTERS



STEAM FILTERS @ SHEET & DISC FILTERS @ HIGHFLOW FILTERS @ BAG FILTERS @ UF/NF/RO-MEMBRANES

#### **ULTRASHEET**

The depth filter sheets are made from health-safe raw materials, especially various types of cellulose, high quality diatomaceous earth and pearlites. The filter sheets are basically three-dimensional depth filters which contain adsorbents – compounds with a large internal surface. The filtration mechanism involves various ways of particle trapping and the resulting filtration effect is a combination of them. It consists of mechanical filtration, electrostatic adsorption and electro-kinetic adsorption. More detailed specifications of ULTRASHEET depth filter sheets of the "N" series are listed below.

#### Specifications of ULTRASHEET filter sheets "N" series:

	Flow rate	Approximate nominal		Bacterial	Maximum recommended
Туре	(l/m²/min@100kPa)	retention (μm)	Thickness (mm)	retention (LRV)	differential pressure (bar)
ST 1 N	13	0.1	4.0	8	1.20
ST 3 N	32	0.2	3.8	8	1.20
ST 5 N	56	0.3	3.8	7	1.20
ST 7 N	94	0.4	3.8	6	1.20
ST 9 N	115	0.6	3.8	5	2
S 10 N	151	0.8	3.6	na	2
S 11 N	131	1.0	3.8	na	2
S 15 N	205	2.0	3.6	na	2
S 16 N	228	2.0	3.8	na	2
S 20 N	257	3.0	3.6	na	2
S 30 N	298	4.0	3.6	na	3
S 40 N	480	5.0	3.6	na	3
S 60 N	800	6.0	3.6	na	3
S 80 N	1233	8.0	3.6	na	3
S 100 N	1025*	11.0	3.3	na	3
S 150 N	1950*	25.0	3.3	na	3

<sup>\*</sup> I/m2/min@30kPa

#### Graph of indicative nominal retention of ULTRASHEET filter sheets "N" series:

# Filtration in pharmaceuticals and biotechnology Wine Filtration Beer Filtration Non-alcoholic beverages Filtration in chemistry, biochemistry and cosmetics STIN ST3N ST5N ST7N ST9N S10N S11N S15N S16N S20N S30N S40N S60N S80N S100N S150N Food and dairy filtration

Typical applications:

#### ULTRAFILTER offers the following range of ULTRASHEET depth filter sheets:

- Series "N" is a standard series which is used in all regular applications of filter sheets.
- Series "NT" is a technical series of filter sheets designed especially for high-flow technical applications.
- Series "R" is a special series of sorption filter sheets used in food filtration, mainly for filtration of gelatine.
- Series "O" series is a special series of filter sheets for oil filtration.
- Series "C" are filter sheets with very low level of extractable ions (e.g. calcium) frequently used for cognac, brandy and whiskey filtration.
- Series "AC" are filter sheets containing activated carbon designed to remove color and odor from liquids.
- Series "DZ" are support sheets for precoating the diatomaceous earth.

#### Standard dimensions and packaging of ULTRASHEET filter sheets:

Sheet size	Package	Cardboard box		Palette	
	pcs	Number of packages	pcs	Cardboard boxes	pcs
200 x 200 mm	20	20	400	24	9600
400 x 400 mm	25 (30)*	4	100 (120)*	24	2400 (2880)*
600 x 614 mm	25 (30)*	2 50 (60)*		20	1000 (1200)*

<sup>\*</sup> Series "NT"

ULTRASHEET filter sheets are manufactured within a controlled quality system ISO 9001 and ISO 14001 and the AIB audit food quality system. The products comply with national, European and American (FDA) standards defining products intended for contact with food. If necessary, request the relevant declaration of conformity or specific certificates.

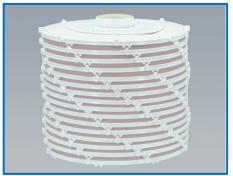
## THE FILTRATION MANUFACTURER











LIQUID FILTERS @ AIR/GAS FILTERS @ STERILE & PARTICULATE FILTERS @ INDUSTRIAL FILTERS



STEAM FILTERS @ SHEET & DISC FILTERS @ HIGHFLOW FILTERS @ BAG FILTERS @ UF/NF/RO-MEMBRANES

#### **ULTRADISC**

ULTRADISC filter modules are designed for effective depth filtration of liquids in the food, pharmaceutical, biotechnological and chemical industries, as well as in other industries. These modules, containing ULTRADISC depth filter sheets, are manufactured according to the highest quality standards. Through filtration on filter modules, you achieve the effect of depth filtration with easier handling, in a closed system, without air access and without leaks. ULTRADISC filter modules can also be supplied with filter sheets of the "C" series, or others.

In addition, the innovated ULTRADISC filter modules have a reinforced polypropylene construction without the use of stainless-steel clips, providing protection against mechanical damage. The construction is adapted to make the most efficient use of the total filtration area. This allows ULTRADISC modules to provide a higher overall filtration capacity, depending on the application and use.

#### Available versions of ULTRADISC depth filter modules:

Size (diameter):	12" (30 cm)	16" (40 cm)
Number of lenses:	16	16
Filter area:	1,8 m <sup>2</sup>	4,9 m <sup>2</sup>
Adapter type:	DOE (Flat), DOR (Bayonet)	DOE (Flat), DOR (Bayonet)

#### Range of ULTRADISC modules and specifications of the ULTRASHEET "N" series filter sheets used:

ULTRADISC type	ULTRASHEET used type	Flow rate (l/m²/min@100kPa)	Approximate nominal retention (µm)	Bacterial retention (LRV)	Maximum recommended differential pressure (bar)
ST30	ST 3 N	32	0,2	8	1,20
ST50	ST 5 N	56	0,3	7	1,20
ST70	ST 7 N	94	0,4	6	1,20
ST90	ST 9 N	115	0,6	5	2
S100	S 10 N	151	0,8	na	2
S110	S 11 N	131	1,0	na	2
S150	S 15 N	205	2,0	na	2
S160	S 16 N	228	2,0	na	2
S200	S 20 N	257	3,0	na	2
S300	S 30 N	298	4,0	na	2
S400	S 40 N	480	5,0	na	3
S600	S 60 N	800	6,0	na	3
S800	S 80 N	1233	8,0	na	3
S1000	S 100 N	1025*	11,0	na	3
S1500	S 150 N	1950*	25,0	na	3

<sup>\*</sup> I/m²/min@30kPa

#### Chemical resistance of individual components of ULTRADISC filter modules:

			Polypropylene	Sealing		
Substance	Concentration	Filtersheet	construction	Silicone	EPDM	Viton
NaOH	1 %	++	++	++	++	+
HCI	5 %	++	++	+	+	++
Acetic acid	20 %	++	++	_	+	++
Acetone	concentrated	++	_	+	++	_
Ethanol	80 %	++	++	_	++	++

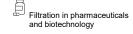
<sup>++</sup> resistant, + limited resistant, - non-resistant (indicative values)

#### **Dimensions of ULTRADISC filter modules:**

Module Adapter	DOE	DOE (Flat)		ayonet)
Module size	12"	16"	12"	16"
Total height (mm)	272	272	330	330
Total diameter (mm)	294	404	294	404

#### Standard ULTRADISC filter modules packaging:

#### Typical applications:

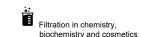


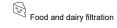












The filter modules are placed in a PE protective bag and placed in a cardboard box as standard. The box has special protective cardboard inserts on the bottom and top to prevent movement inside. Packaging specifications in the table below.

Module size	Box (pc)	Pallet (pc)	Box dimension (mm)	Pallet dimension (mm)
12"	1	60	330x330x370	1300x1030x1850
16"	1	30	440x440x370	1300x1030x1850

#### Information for ordering (coding) ULTRADISC filter modules:

Product	Type*	Size (")	Number of lenses**	Adapter type	Sealing***
ULTRADISC	ST30, STC30	12	16	F (DOE)	S (silicone)
		16		B (DOR)	E (EPDM)
	S1500, SC1500				V (Viton)

<sup>\*</sup> other type on request\*\* other number of lenses on request\*\*\* Example of order code: ULTRADISC ST30 16 16 B S

The development, production and sale of ULTRADISC filter modules are carried out in accordance with the requirements of the ISO 9001 and ISO 14001 system standards. It conforms and is audited according to the AIB International standard defining the quality and safety requirements for materials intended for direct contact with food. ULTRADISC modules meet the requirements of national and European legislation for products intended for direct contact with food and are in accordance with FDA requirements for these materials. If necessary, request the appropriate declaration of conformity or specific certificate