

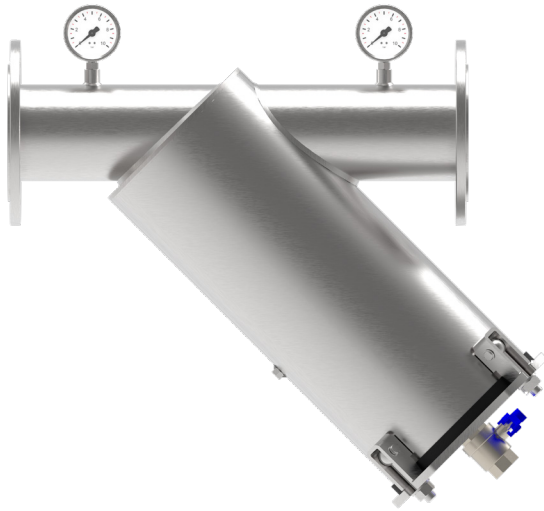
TerTech

LITEFIL

Static Mesh Filter



LITEFIL



LITEFIL is a static mesh filter, manufactured in stainless steel and available in 3 different constructive shapes Y, L and O to adapt to various installation types. It is the optimal solution to be implemented as a protection filter in closed-circuit plants and more in general in process water applications with a moderately low quantity of suspended solids.

Our range of FILTERKITS, supplied with either PES or Stainless-steel filtering elements, allows the customer to choose between a wide array of filtration degrees, from 3000µm to 25µm.

LITEFIL is equipped with our special "QUICK BOLTS" system which guarantees quicker maintenance operations and lower disassembling times and allows the user to remove the cover without completely unscrewing the tightening bolts. The filter is also equipped with an anti-cut stop that significantly prolongs the sealing gaskets' life.

LITEFIL's black EPDM gaskets are certified to be compliant with the following drinking water regulations: UBA, DVGW standard W-270, WRAS and ACS.

The filter is supplied complete of manometers and drain valve.

FILTRATION PROCESS

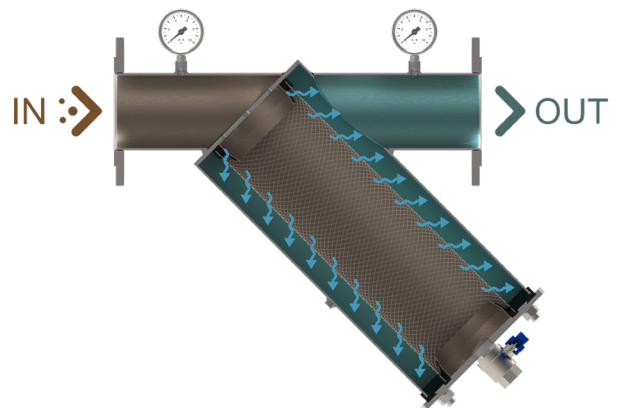
To be treated raw liquid enters the filter through the inlet connection (IN), suspended solids are retained inside the filtering element and purified liquid flow out of the outlet connection (OUT).

CLEANING

The continuous build-up of solids, trapped inside the filter mesh, creates a differential pressure between inlet and outlet, which can be read on the filter's manometers.

Cleaning of the filtering element must be performed manually when the differential pressure between the inlet and outlet manometers, exceeds the indicative value of 0,8-1 bar.

In order to perform the cleaning or replacement of the filtering element it is necessary to isolate the filter from the system, empty it and open the cover to remove the FILTERKIT.



TECHNICAL SPECIFICATIONS

Design Data

Flow rate	Up to 400 m ³ /h
Design Pressure (bar)	PN 10
Max Temperature (°C)	100
Salinity	< 10.000 ppm
pH range	3-9
Design Code	PED 68/2014/EU

Materials

Filter Housing	Stainless Steel AISI 304 - AISI 316L
Gaskets	EPDM*
Drain	Nickel-plated Brass - AISI 316L
Pressure Gauges	Stainless Steel AISI 304 - AISI 316L
Surface finishing	Microshot Peening and Passivation

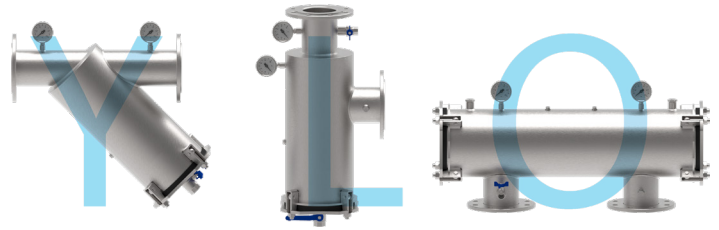
*Certified to comply to the following European Drinking Water regulations: UBA, DVGW standard W-270, WRAS and ACS

FEATURES

LITEFIL filters are manufactured with technical and constructive features suitable for industrial applications and are available in 3 different constructive shapes. Additionally, you can choose between 3 connection types: Threaded, Flanged and Grooved.

The vessel is manufactured in Stainless Steel AISI 304 or in AISI 316 upon request and is available in the following constructive shapes: Y, L and O. For each shape four different sizes are available: 6, 8, 18 and 30 which differ in the size of the filtering element inside them.

After the welding procedure the vessel receives two surface treatments: micro-shot peening and passivation. The former first provides a greater surface resistance and removes any manufacturing impurities whereas the latter recreates the natural passive film which protects the material against corrosion.



CONNECTIONS



FLANGED
UNI-EN 1092-1



THREADED
BSPB



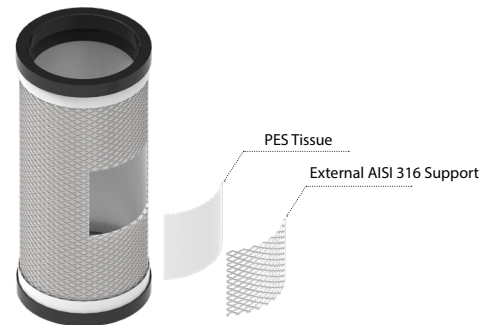
GROOVED

LITEFIL's Inlet and Outlet connections can be BSPP Threaded up to 3" and are ISO PN16 lap-joint flanged from DN80 onwards. Grooved quick-joint connections are also available upon request.

FILTERING ELEMENTS

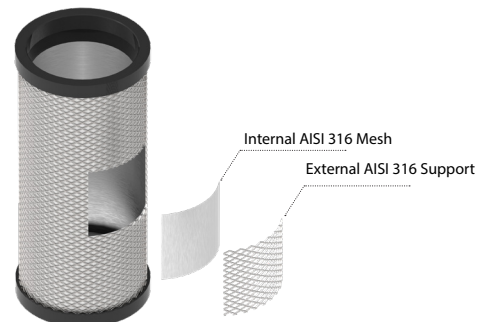
PES FILTERKIT

Composed of an AISI 316 Stainless Steel cylinder within which a polyester (PES) filter tissue is inserted, its wide array of available filtering tissues and allows the customer to choose from various filtration degrees starting from 25µm up to 810µm.



2LAY INOX FILTERKIT

Composed of a double layer stainless steel AISI 316 mesh, this type of filtering element is very resistant and proves to be an extremely valid alternative to PES FILTERKIT when it comes to harsh operating conditions, especially when sharp or cutting suspended solids might be present inside the liquid.



MODEL COMPOSITION

The model that identifies the filter is composed as follows:

LTFI	2"	Y	6
Filter acronym	Connections	Vessel Shape	Size

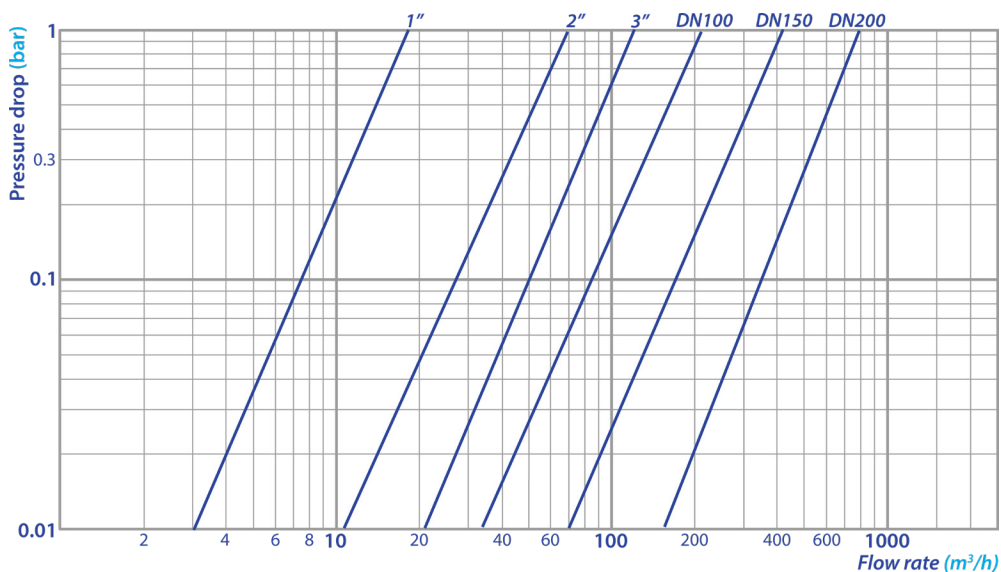
FLOW RATE & SIZE

You can select the product you need by identifying the IN/OUT connections and MAX flowrate first, then choosing one of the available constructive shapes and finally the relative size of the filtering element.

IN/OUT Ø	MAX FLOW RATE*		Y	SHAPE			FILTERING SURFACE		
	[m³/h]	[l/min]		L	O	SIZE	[cm²]	[in²]	
1" BSPP	10	166	✓	-	-	1	600	93	
2" BSPP	30	500	✓	✓	-	6	1500	233	
3" BSPP	60	1000	✓	✓	-				
DN 80	60	1000	✓	✓	✓				
DN100	100	1666	✓	✓	✓				
3" BSPP	70	1166	✓	✓	-	8	2200	341	
DN 80	70	1166	✓	✓	✓				
DN100	110	1833	✓	✓	✓				
DN100	120	2000	✓	✓	✓	18	3300	512	
DN150	240	4000	✓	✓	✓				
DN100	120	2000	✓	✓	✓	30	5400	837	
DN150	260	4333	✓	✓	✓				
DN200	400	6666	-	✓	✓				

*Max flow rates are calculated based on clean water with a filtration degree of 120µm
With the same IN/OUT connection and the same MAX flowrate, the larger filter will require less cleaning than the smaller one.

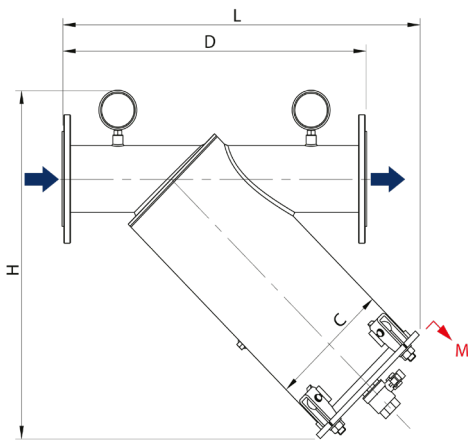
HEAD LOSS



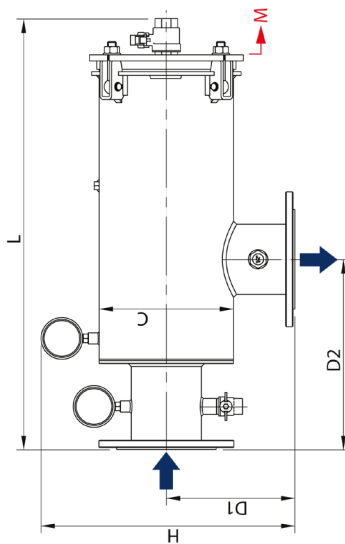
Head losses are referred to filters with 120 µm clean filtering mesh.

DIMENSIONS

Y Shape - Dimensions

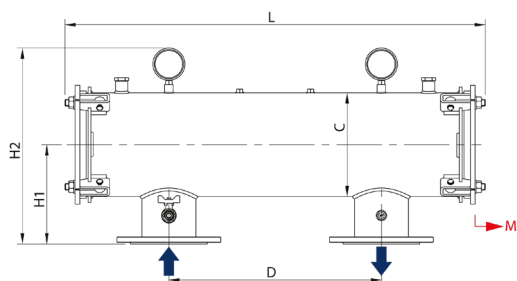


MODEL	D [mm]	L [mm]	H [mm]	C [mm]	M [mm]	Weight [Kg]
LTFI 1" Y 1	293	370	387	114	300	6
LTFI 2" Y 6	412	464	460	219	500	17
LTFI 3" Y 6	464	490	480	219	500	18
LTFI 80 Y 6	487	490	480	219	500	22
LTFI 100 Y 6	547	530	490	219	500	24
LTFI 3" Y 8	464	600	580	219	700	21
LTFI 80 Y 8	487	600	580	219	700	25
LTFI 100 Y 8	547	640	600	219	700	26
LTFI 100 Y 18	585	660	620	273	700	33
LTFI 150 Y 18	660	680	640	273	700	38
LTFI 100 Y 30	585	880	830	273	1000	40
LTFI 150 Y 30	660	900	860	273	1000	46



L Shape - Dimensions

MODEL	D1 [mm]	D2 [mm]	L [mm]	H [mm]	C [mm]	M [mm]	Weight [Kg]
LTFI 2" L 6	190	310	550	390	219	500	17
LTFI 3" L 6	190	310	550	390	219	500	18
LTFI 80 L 6	210	310	550	410	219	500	22
LTFI 100 L 6	210	310	550	410	219	500	23
LTFI 3" L 8	190	310	700	390	219	700	21
LTFI 80 L 8	210	310	700	410	219	700	25
LTFI 100 L 8	210	310	700	410	219	700	26
LTFI 100 L 18	246	350	740	480	273	700	33
LTFI 150 L 18	246	350	740	480	273	700	38
LTFI 100 L 30	246	350	1050	480	273	1000	41
LTFI 150 L 30	246	350	1050	480	273	1000	45
LTFI 200 L 30	246	350	1050	500	273	1000	51



O Shape - Dimensions

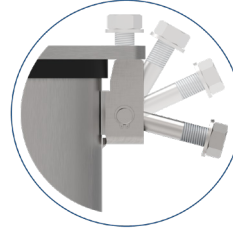
MODEL	D1 [mm]	L [mm]	H1 [mm]	H2 [mm]	C [mm]	M [mm]	Weight [Kg]
LTFI 80 O 6	450	890	210	410	219	500	36
LTFI 100 O 6	450	890	210	410	219	500	37
LTFI 80 O 8	450	890	210	410	219	700	37
LTFI 100 O 8	450	890	210	410	219	700	38
LTFI 100 O 18	640	1350	246	480	273	700	58
LTFI 150 O 18	640	1350	246	480	273	700	62
LTFI 100 O 30	640	1350	246	480	273	1000	59
LTFI 150 O 30	640	1350	246	480	273	1000	64
LTFI 200 O 30	640	1350	246	500	273	1000	69

ACCESSORIES

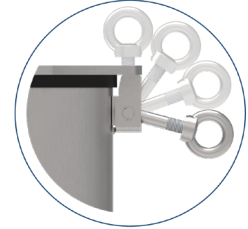
LITEFIL filters are built with our QUICK BOLTS system which allows for an easy and quick filter's opening for maintenance operations. Standard bolts can be replaced with stainless steel Eye Bolts, more practical because they don't require special keys to be rotated.



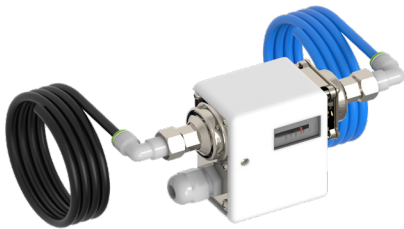
EYE BOLTS KIT



QUICK BOLTS SYSTEM
with standard nuts



QUICK BOLTS SYSTEM
with eye bolt



DIFFERENTIAL PRESSURE KIT

LITEFIL can be equipped with a Differential Pressure Control Kit which detects the pressure difference between the filter's inlet and outlet connections. This greatly facilitates maintenance operations by measuring the degree of clogging of the filtering element and helps the operator plan its replacement.



MAGNET KIT

LITEFIL is designed to accommodate special Neodymium magnetic candles, coated in stainless steel to ensure an optimal corrosion resistance, that attract and trap ferrous particles. Modular kits (MGKIT) with different lengths are available to be factory-installed or subsequently purchased.

Magnetic Flux Density: 9000 Gauss (each candle)