INTEGRATED PRE-TREATMENT SYSTEM-IPT

The first step of treatment works is mechanical pre-treatment. This step is very important to protect further steps of the treatment, to prevent operational problems, such as blockages, wear, or silting. Therefore the equipment used for pre-treatment is the most important members of the process. They have to be reliable for efficient separation of solids in the inlet of the treatment plant.

Astim offers an integrated system which combines all mechanical treatment process stages in one single stainless steel tank with little space requirement.

- Fine Screening
- Screening Treatment
- Grit Trap
- Grit Treatment
- Grease Trap

FUNCTION OF INTEGRATED
PRE-TREATMENT SYSTEM

The wastewater flows through a fine screen where all floating and suspended matter is removed. The conveyor of fine screen is equipped with screenings press which transports the screenings out of the tank. The screenings are dewatered and compacted in the compacting zone before disposal. The dewatered and compacted screenings are dropped into a container. The press water is led back into the wastewater stream.

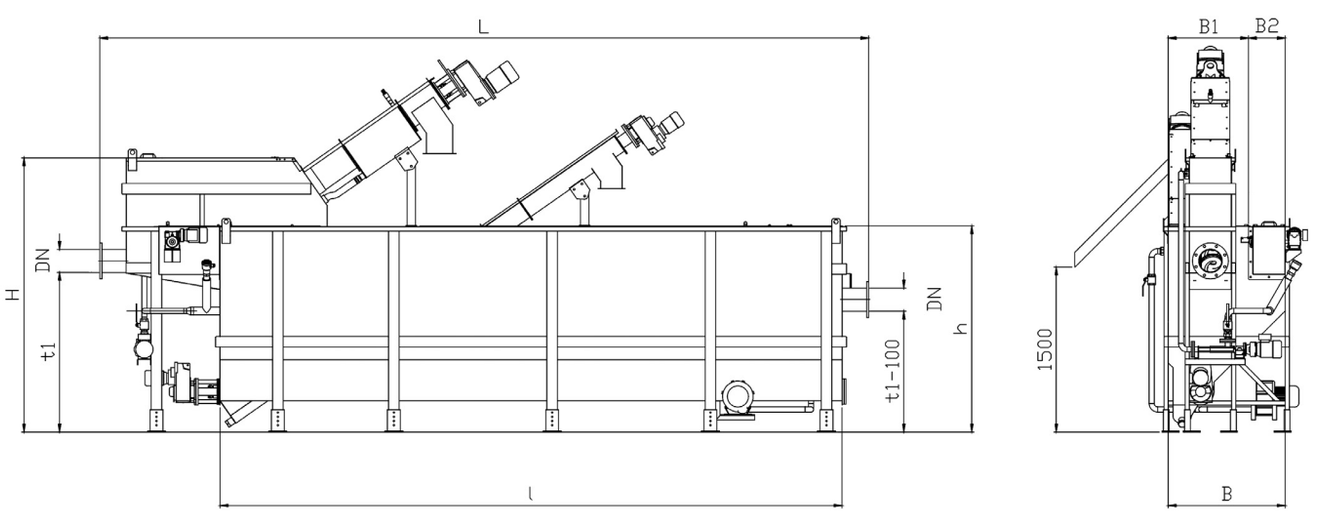
The grit trap is designed in compliance with the ATV rules. In the grit trap settling matter is transported against flow direction and organic material is washed out. At the end of the horizontal transporting screw the settling matter falls into a lateral sump. While a grit classifier transports them out of the sump, the grit is dewatered and finally dropped into a container.

The complete plant can be equipped with aeration or additionally with a grease trap in order to improve the function of the plant. The fully automatic control of the plant depends on the water level, the control of the grit removal equipment on time. For cases of power failure, an emergency bypass can be connected to the channel.

ADVANTAGES

- Low initial and operation costs
- Low installation expenses, short installation periods
- Little space required
- Screenings and settling material are dewatered, thus disposal costs are lower
- Floating and settling material is removed within a closed system, thus no odor problem

GENERAL DIMENSIONS					WITHOUT AERATION				WITH AERATION				WITH GREASE TRAP	
Q (l/s)	Q (m^3/h)	DN	L	l	H	h	t_1	B_1	H	h	t_1	B_1	B	B_2
10	36	200	4.385	3.000	2.050	1.370	1.000	800	2.600	1.950	1.520	800	1.100	300
20	72	200	6.285	4.900	2.050	1.370	1.000	800	2.600	1.950	1.520	800	1.100	300
30	108	250	7.385	6.000	2.050	1.370	1.000	800	2.600	1.950	1.520	800	1.100	300
40	144	300	8.885	7.500	2.050	1.370	1.000	800	2.600	1.950	1.520	800	1.100	300
60	216	350	9.415	7.700	2.160	1.480	1.000	950	2.920	2.270	1.760	950	1.350	400
80	288	350	12.015	10.300	2.160	1.480	1.000	950	2.920	2.270	1.760	950	1.350	400
100	360	400	13.800	12.000	2.650	1.650	1.160	1.165	3.500	2.500	2.070	1.165	1.665	500
120	432	400	15.300	13.500	2.650	1.650	1.160	1.165	3.500	2.500	2.070	1.165	1.665	500
160	512	500	14.015	12.000	2.900	1.850	1.225	1.365	3.800	2.750	2.200	1.365	1.965	600
200	720	500	15.515	13.500	2.900	1.850	1.225	1.365	3.800	2.750	2.200	1.365	1.965	600



Other sizes are available upon request.

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