



**A GOOD TREATMENT PLANT
CALLS FOR
QUALITY EQUIPMENT**

 **mass**



We are living in a world where increasing population, industrialization and agriculture exert an ever intensifying pressure on the natural resources, and where it has gained vital importance to limit the quality deterioration of these resources, especially that of water and air. In this context, the quality of life in tomorrow's world is dependent, to an appreciable extent, upon our success in utilizing and developing the environmental technologies. MASS is equally inspired with this global perspective today, as when it was founded in 1983.

Today, in an increasing number of markets, MASS is active in all fields of environmental technology, predominantly in industrial and domestic effluent treatment and water treatment. The scope of services extend from laboratory tests and feasibility studies to equipment manufacturing and supply and to turn-key contracting. MASS owes its leading position in the market to the competence of

its staff, to faith in innovation and methodological accuracy and to diligence in developing optimal solutions for specific circumstances. No wonder MASS name is identified with technical proficiency and with excellent treatment plants.

Our objective, in the threshold of the new century, is to accelerate opening up new territories for MASS products and services and to secure the permanence of MASS in these new markets from Europe to Far East.

A good treatment plant calls for quality equipment. MASS is a leading manufacturer of state-of-the-art equipment for water and wastewater treatment plants. Manufacturing program covers mechanical screens, screenings presses, tangential and rotary sieves and screens, degritting equipment, agitators, flocculators, vertical and horizontal shaft mechanical aerators, fixed and revolving bridge scrapers, sluice gates and penstocks, granular media pressure filters, sludge dewatering units, ion exchangers and electric control panels.

MASS has delivered equipment to all size of plants, ranging up to large metropolitan sewage treatment plants serving more than 4 million population. TSE (Turkish Institute of Standards) quality certificates exist for the equipment. Besides, compliance with other norms (DIN, BS, etc) is provided when specifically requested by the customers.

Today thousands of equipment operating in various countries testify the outstanding production and service quality of MASS.



MASS ARITMA SİSTEMLERİ İNŞAAT SANAYİ VE TİCARET ANONİM ŞİRKETİ

CHANNEL SHUT OFF DEVICES

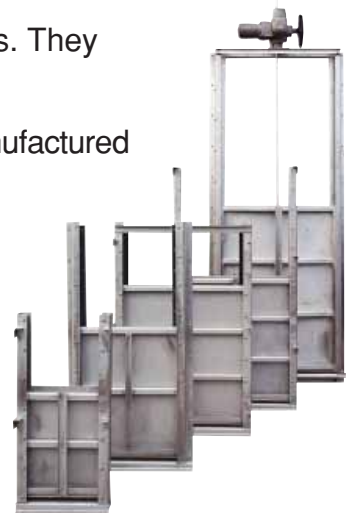
CHANNEL SHUT OFF DEVICES



Flow in channels can be controlled by penstocks, sluice gates and stop logs. They operate as on seating or off seating based on flow direction.



Channel shut off devices are manufactured with alternative materials, drive mechanisms and sealing types. Material alternatives are carbon steel with epoxy or plastic coating or galvanizing or stainless steel.



FLASH MIXERS AND FLOCCULATORS

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After chemical addition to the water, it must be thoroughly mixed then slowly stirred for flocculation. The mixers are designed according to required agitation level. Power range 0.18-22 kW for flash mixers and 0.18-15 kW for flocculators.

GRIT REMOVAL

Grit can be trapped in circular or rectangular tanks. Circular tanks must be agitated by a mixer to suspend light particles. Specially designed mixer provides slow mixing and air lift pumping can be applied for grit removal.



Grit accumulated at the aerated grit chambers is removed with the help of grit bridges which moves in bilateral direction. Single dual or multiple type of grit bridges is available with scum scraping options. Material alternatives are carbon steel, stainless steel or aluminum



Grit washing and final transport to storage bins are provided units that contain agitators, screw conveyors equipped with necessary water injection accessories.



Combined units provide complete grit removal process on small scale applications.

SCREENING



Major parts of bar screens are screen bars, frame, drive mechanism, rake wiper assembly and discharge chute. Mechanical drive mechanism can be designed as grab type, multi rake type, or cable operated type. Bar openings range

from 6 mm to 80 mm. Material alternatives are hot dip galvanized carbon steel or stainless steel.



Screening press is an effective mean to reduce the del of such waste from screening operation.



Static and drum screens utilize wedge wire screening surface to remove solids from wastewaters. Units are made off stainless steel and can be implemented inside the channel or above.



Traveling band screens are especially suitable for fine screening of intake waters or effluent polishing whereas arch screens are preferred in shallow channels.



AERATION



Aeration and mixing of biological reactors can be achieved by using surface aerators. Designed at various standard sizes, they provide oxygen for specified application. Power range from 5.5 – 75 kW for vertical types and 5,5 – 45 kW for horizontal types. They are also available with floating systems.



Jet mixing provides similar efficiencies as diffused air systems without the problem of clogging and maintenance requirements. They are available for small size package plant aeration to large size biological basin aeration.



SCRAPERS



Settling tank scrapers are designed as revolving (half bridge, extended half bridge, full bridge) or reciprocating bridge scrapers for circular or rectangular basins, respectively. The material alternatives are epoxy coated or galvanized carbon steel, stainless steel or aluminium. Thickeners for circular sludge thickening tanks are also available.



GRANULAR MEDIA PRESSURE FILTERS

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Pressure filters are essential element of suspended solid removal. Depending upon the purpose, they can be designed single or multi media, manual or automatic operation.

Standard sizes range from 10 m³/h to 100 m³/h.

CONTAINERS

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General purpose containers manufactured from mild steel and surface protection is provided by epoxy coating or hot dip galvanizing. Storage volume range from 1 m³ to 15 m³.

Hazardous waste containers are designed to provide lifting and storage security for standard vehicles and meet international norms.



DEWATERING

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Belt press frame and main body are manufactured by stainless steel. Standard sizes have 1000, 1500, 2000 mm belt width. Accessories include washing pump, compressor, control panel, screw conveyor.

GRAVITY THICKENER

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Thickeners are used in mechanical thickening and bottom scraping of sludges in cylindrical sludge thickening tanks.

Standard sizes range between 4-25 m as tank diameter, 1-2 m as bridge width.

POLYMER MAKE UP UNITS

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Main body is manufactured with stainless steel. Single, double and multi compartment types are available.

Unit is equipped with heating element, vibrator, polymer feed screw, water intake valve and level instruments for automatic operation



PACKAGE PLANTS

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Bio-mass system is especially designed to treat domestic wastewater to internationally accepted effluent standards. Semi continuous activated sludge process is utilised for biochemical oxidation of organic.

Available at sizes 50-500 PE; **Bio-mass** contains necessary equipment and control board in a special compartment.

Chemical package unit consists of flash mixing, flocculation, lamella clarification and filtration (optional). Preparation and dosing systems of the suitable chemicals are also included in the containerised unit. All necessary piping, cabling and control are preassembled and the unit is shipped as “ready to operate”.



In DAF units, main process consists off chemical addition before static mixing, flocculation, skimming and effluent pressurization before recycling to skimming tank. Chemical preparation and dosing is similar to chemical package units and “ready to operate” principles are also valid.





ISO 9001:2000/04100 20041819



ISO 14001/04104 20041819



OHSAS 18001/04116 20041819



“Having the quality” on the products and services is a must in today's business world. But “having the quality” is not possible by simply declaring it by the words or holding a quality certificate from third party-institutions MASS understands the quality as a utmost customer satisfaction and emphasizes to establish a trade name such that it is used as a reference point in defining “quality”. As we always cherish this idea during our past 20 years, our name is considered to fit best with the word “quality” in environmental sector.

MASS also holds ISO 9001:2000 Quality Management Certificate, ISO 14001:1996 Environment Management Certificate and OHSAS 18001 Work Safety and Health Certificate and TSEK certificates for his products as a proof of his devotion to the quality.





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