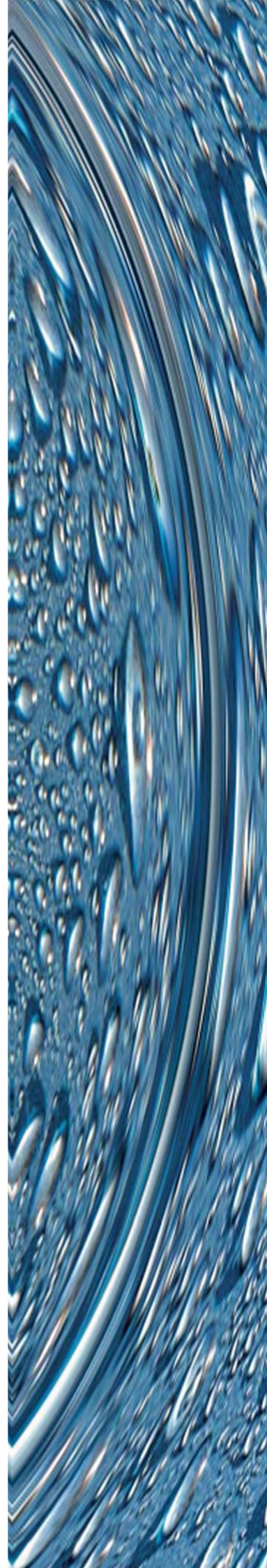


# TOP Combined Systems

- *Pre-treatment of Domestic & Municipal Waste Waters*
- *Recovery & Solids Processing from Industrial Discharges*



Complete Package Inlet Works  
Screening  
Grit Separation  
Fats, Oil, Grease Removal



## **M.A.IND**

With over 4,000 installations around the world, M.A.IND has developed a good reputation with a philosophy of offering high quality at low cost. This has served to provide equipment to smaller industries or applications where previously it was considered unviable and offers a lower purchasing cost for larger applications.

### **TOP Combined Systems**

The TOP Range of combined treatment systems integrates screening and grit separation with the option of fat, oil & grease (FOG) removal, all within a single package unit.

Waste water enters the screen section where gross solids are removed from the flow, washed, compacted and dewatered. Depending upon the solid properties, a volume reduction of around 40% dry solids or greater with organic washing efficiencies > 90% can be achieved prior to discharging the screenings into a container. The screened effluent then discharges to a hopper section where grit and sand settlement is induced. The grit is conveyed to a grit classifier and can be further washed prior to dewatering and disposal into a container.

The TOP range includes two variants, TOP 2 and TOP 3. TOP 2 integrates two treatment sections, 1) screening and 2) grit / sand separation. The TOP 3 range incorporates the TOP 2 sections plus a further treatment section for FOG removal. Both variants may be fitted with air diffusers to impart improved separation of attached organic matter from the grit and sand particles. With the TOP 3, this will also enhance flotation and removal of FOG which can then be drawn off and disposed of into a separate container. With air-agitation and screw classifier washing, grit and sand separation > 95 % removal of 0.20 – 0.25 mm (200 µm – 250 µm) grit particles in addition to organic matter removal > 97 % is attainable.

TOP range systems are supplied for direct installation onto prepared level ground. The screen section can be supplied with or without the option of a bypass rake screen. Continuous bagging systems are available to receive screenings and grit. This will abate odours and the screenings can be sealed without any personal contact.

The M.A.IND TOP range is manufactured with the same philosophy applied to all M.A.IND equipment comprising of bolted sections to grant far superior inspection and maintenance access which in turn will increase longevity and overall asset life.



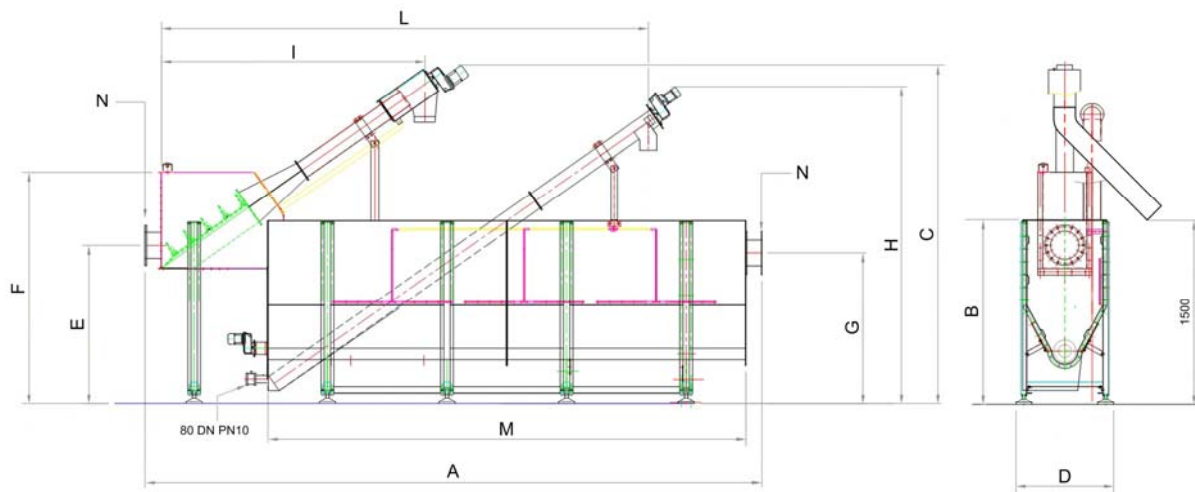
**Availability**

(*n* = TOP 2 or TOP 3 variants)

Model	Inlet Flow (l/s)
TOP <i>n</i> -15	15
TOP <i>n</i> -30	30
TOP <i>n</i> -45	45
TOP <i>n</i> -60	60
TOP <i>n</i> -80	80
TOP <i>n</i> -100	100
TOP <i>n</i> -150	150
TOP <i>n</i> -200	200



**TOP Combined Range Nominal Dimensions**



Model	A	B	C	D	E	F	G	H	I	L	M	N
TOP <i>n</i> -15	4400	1600	3250	730	1400	2300	1330	3050	2750	4650	3000	150 DN
TOP <i>n</i> -30	7400	1600	3250	730	1400	2300	1330	3050	2750	4650	6000	200 DN
TOP <i>n</i> -45	10400	1600	3250	730	1400	2300	1330	3050	2750	4650	9000	200 DN
TOP <i>n</i> -60	7700	2300	3900	1230	2000	3200	1850	3800	3300	6100	6000	300 DN
TOP <i>n</i> -80	10700	2300	3900	1230	2000	3200	1850	3800	3300	6100	6000	300 DN
TOP <i>n</i> -100	13650	2300	4500	1230	2000	3200	1850	4000	3620	6400	12000	400 DN

Dimensions for TOP *n* 150 until TOP *n* 400 available on request

**TOP Combined Systems for receiving tanker imported sewage**

N inlet: 100 DN with Perrot or Perrot Connector; N outlet: 200 DN PN 10

Model	A	B	C	D	E	F	G	H	I	L	M
TOP <i>n</i> -50	8200	1600	3250	730	1400	2300	1330	3050	2750	4650	6000
TOP <i>n</i> -100	8200	2300	4500	1230	2000	3200	1850	3970	3620	6400	6000



Typical TOP Combined System installed at a waste water treatment works to receive tanker imported sewage from cesspools and septic tanks.

## TOP Combined Systems – All-in-One Preliminary Treatment for Municipal and Industrial Effluents...

TOP Combined Systems can be retrofitted to existing works, or installed at new works, to impart reliable screening, grit and FOG removal for meeting the most demanding standards.

### Specifications

#### Flow Capacities

Up to 200 l/s

#### Fabrication

Stainless steel: 304 (BS EN 10088 1.4301)

Stainless steel: 316 (BS EN 10088 1.4401)

#### Screening solids reduction

≥ 40% DS

#### Screening organic washing efficiency

≥ 90%

#### Grit removal efficiency

≥ 95% grain size ≥ 200 µm (0.2 mm)

#### Volatile organic reduction

≥ 97%

#### Organic content

≤ 3%

#### Dewatering efficiency

90% dry residue

#### The Benefits

- high quality and reliability at low costs
- quick and easy installation
- retrofit capability
- stainless steel fabrication
- reliable and automatic self cleaning operation

#### Typical Applications

- Small sewage treatment works
- Municipal waste water treatment works
- Industrial effluent discharges
- Receiving waste from tankers

#### Other products from M.A.IND include:

- ⇒ Screw Compactors
- ⇒ Screw Conveyors, Horizontal, Inclined or Vertical
- ⇒ SLUDGLESS Sludge Thickening & Dewatering

Contact M.A.IND for further information regarding other products or screen variants

We reserve the right to amend any detail without notice. Please ensure you have the latest information.  
Issue Combined TOP 0408 (en)

### M.A.IND Screening Systems



M Range Screens; available for channel mount or supplied in stainless steel tank, ≤ 300 l/s



SP Range Screens for high solids content



MID/V Vertical screens for pump station etc, ≤ 300 l/s



M Range Tanker reception screens with Bauer connection



GSR Range Sludge reception - Rapid tanker emptying



MINYSCREEN probably the smallest low cost screw screen available on today's market

Head Office:  
M.A.IND srl  
Via Calcinaro, 2131  
470023 Cesena (FC)  
Tel: +39 0547 385043  
Fax: ++39 0547 638182

Factory:  
M.A.IND srl  
Via Pitagora 30  
41010 Limidi di Soliera (Mo)  
Tel: +39 059 525720  
Fax: ++39 059 525443

Email: [maind@maindsrl.it](mailto:maind@maindsrl.it)  
Web: [www.maindsrl.it](http://www.maindsrl.it)



UNI EN ISO 9001:2000  
Quality Certification  
No: 50 100 7256