

Screw Compactor · TC



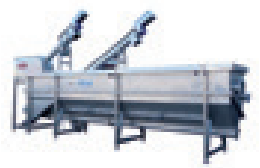
Screw Conveyor · TT



Sand Remover · DA

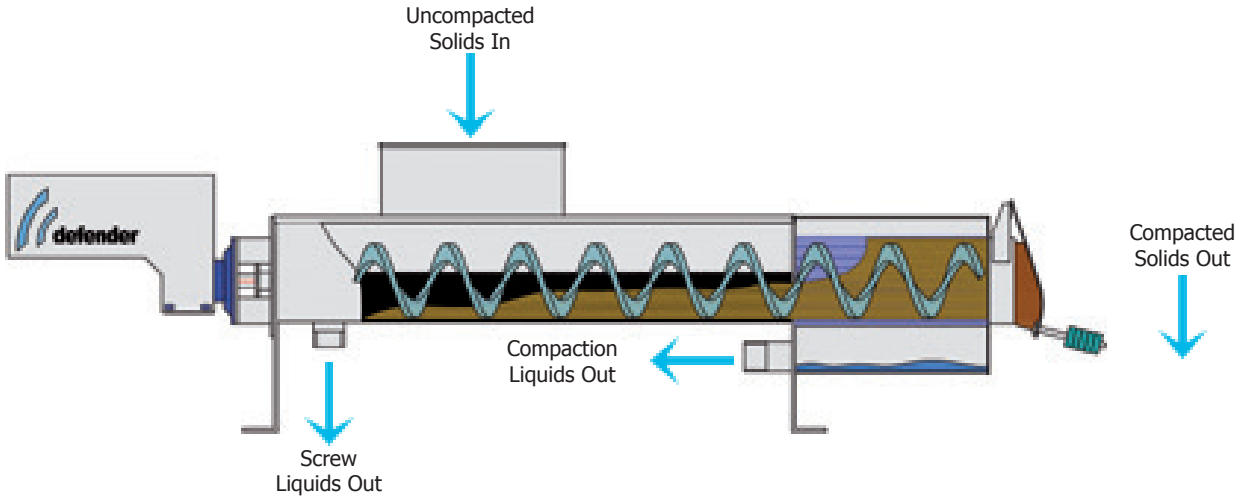


Channel Screen Conveyor · TTC



Compact Pretreatment Plant · PPC

Process Description:

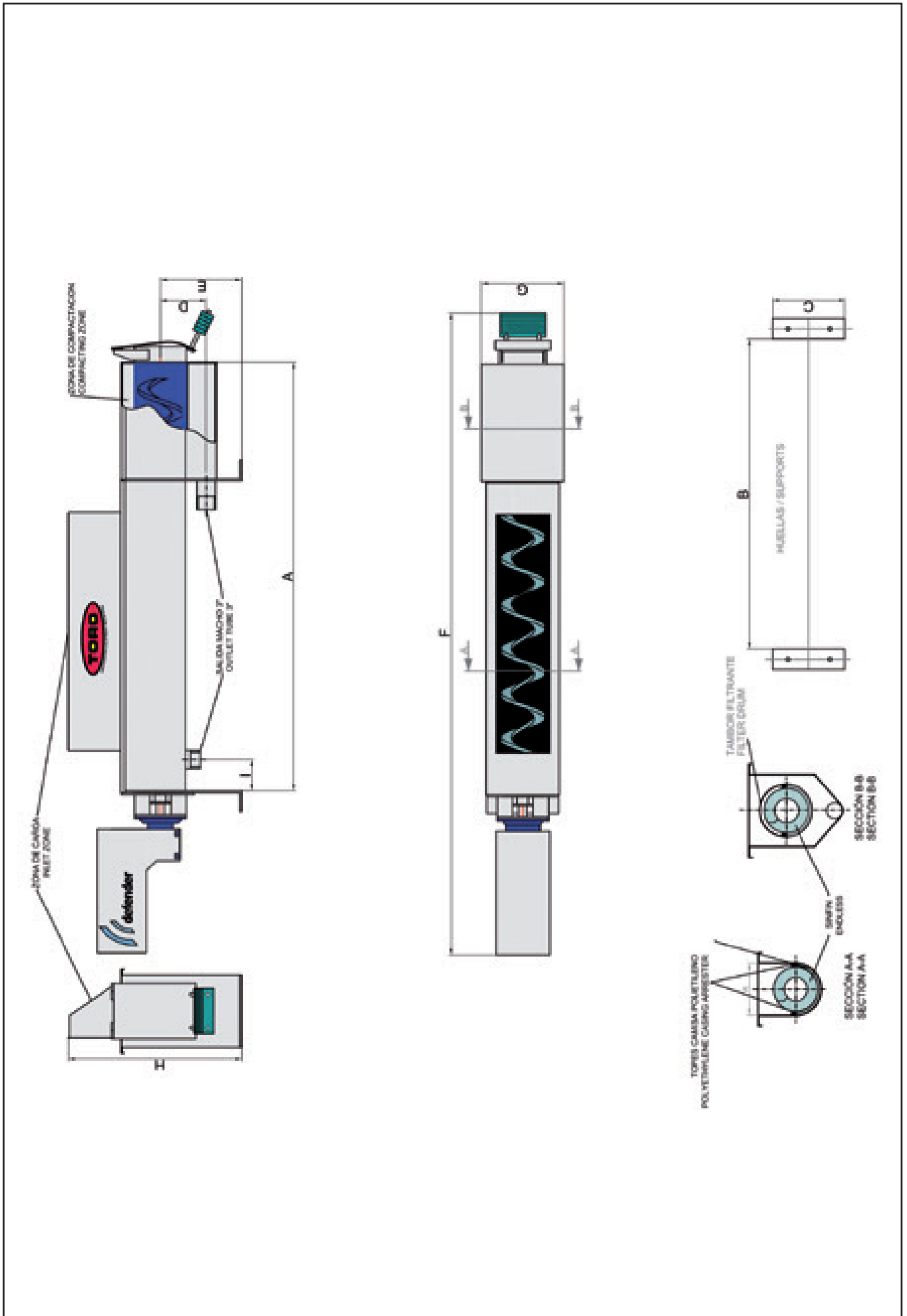


Technical Specifications:

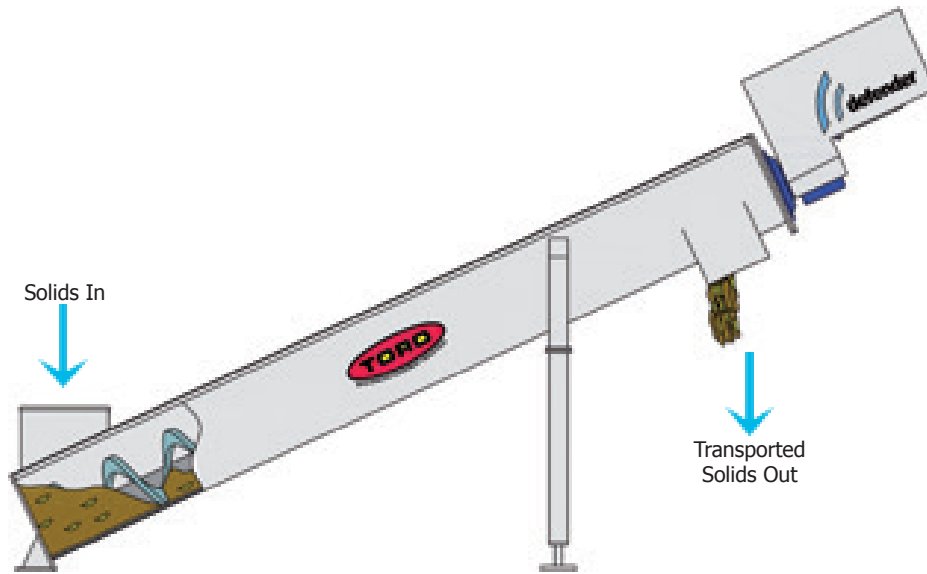
Screw Compactor - Technical Specifications, mm (in)													
Model	Screw Diameter	Power Kw (HP)	Flow 0° m³/h (US gpm)	Drainage Diameter	A	B	C	D	E	F	G	H	I
TC - 160	160 (6 2/8)	1.1 (1.5)	1.16 (5.11)	2"	2,075 (81 6/8)	1,510 (59 4/8)	300 (11 6/8)	200 (7 7/8)	377 (14 7/8)	3,050 (120 1/8)	360 (14 1/8)	767 (30 2/8)	150 (5 7/8)
TC - 215	215 (8 4/8)	1.5 (2)	2.81 (12.37)	3"	3,075 (121 1/8)	2,510 (98 7/8)	350 (13 6/8)	235 (9 2/8)	406 (16)	4,110 (161 6/8)	410 (16 1/8)	844 (33 2/8)	150 (5 7/8)
TC - 280	280 (11)	2.2 (3)	6.21 (27.34)	3"	2,575 (101 3/8)	2,010 (79 1/8)	435 (17 1/8)	275 (10 7/8)	444 (17 4/8)	3,650 (143 6/8)	495 (19 4/8)	929 (36 5/8)	150 (5 7/8)
TC - 315	315 (12 3/8)	2.2 (3)	8.84 (38.92)	3"	4,075 (160 3/8)	3,510 (138 2/8)	475 (18 6/8)	305 (12)	466 (18 3/8)	5,220 (205 4/8)	535 (21 1/8)	979 (38 4/8)	150 (5 7/8)

NOTES:

- The flow figure is for guidance only. Volume and turning speed of this screw will be extrapolated for each application in function of the type of waste to transport, inclination and degree of compaction.
- The length of the unit can be adapted to meet requirements.
- The dimensions and technical specifications can vary slightly due to the ongoing development of the products by the engineering department of Toro Equipment S.L.
- When preparing your order ask for a specifications diagram.
- More specific figures can be found on our webpage, www.toroequipment.com.



Process Description:



Hopper Inlet



Hopper Outlet



Rotating Base (Optional)



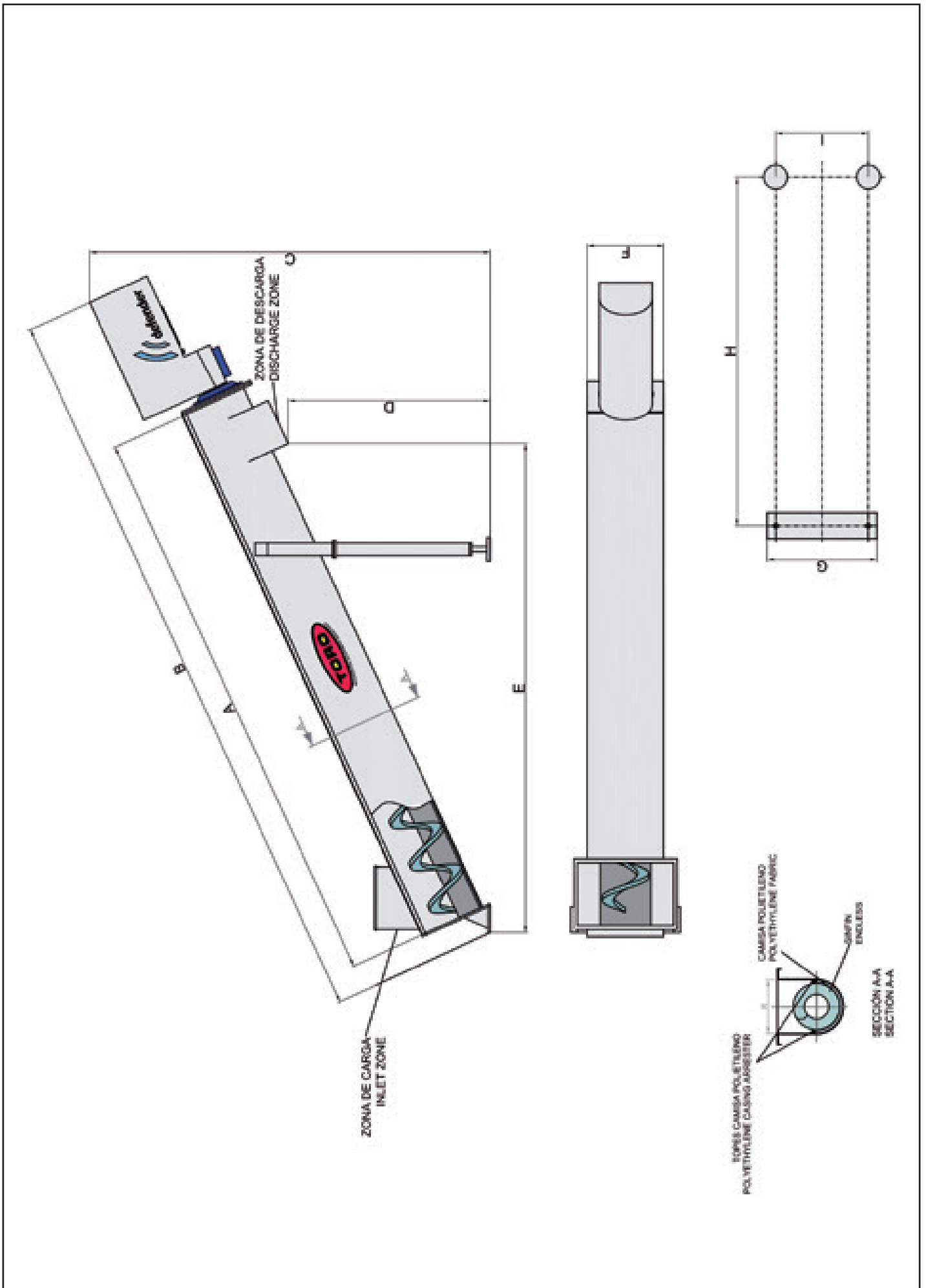
Wheels (Optional)

Technical Specifications:

Screw Conveyor - Technical Specifications, mm (in)													
Model	Screw Diameter	Power Kw (HP)	Flow 0° m³/h (US gpm)	Flow 25° m³/h (US gpm)	A	B	C	D	E	F	G	H	I
TT - 160	160 (6 2/8)	1.1 (1.5)	1.16 (5.11)	0.58 (2.55)	2,000 (78 6/8)	2,775 (109 2/8)	1,650 (65)	575 (22 5/8)	1,720 (67 6/8)	310 (12 2/8)	460 (18 1/8)	1,230 (48 3/8)	380 (15)
TT - 215	215 (8 4/8)	1.5 (2)	2.81 (12.37)	1.4 (6.16)	3,000 (118 1/8)	3,775 (148 5/8)	2,070 (81 4/8)	994 (39 1/8)	2,629 (103 4/8)	360 (14 1/8)	510 (20 1/8)	2,139 (84 2/8)	430 (16 7/8)
TT - 280	280 (11)	2.2 (3)	6.21 (27.34)	3.1 (13.65)	2,500 (98 3/8)	3,325 (130 7/8)	1,880 (74)	785 (30 7/8)	2,175 (85 5/8)	445 (17 4/8)	595 (23 3/8)	1,685 (66 3/8)	515 (20 2/8)
TT - 315	315 (12 3/8)	2.2 (3)	8.84 (38.92)	4.42 (19.46)	4,000 (157 4/8)	3,520 (138 5/8)	2,505 (98 5/8)	1,412 (55 5/8)	3,537 (139 2/8)	485 (19 1/8)	635 (25)	3,047 (120)	555 (21 7/8)

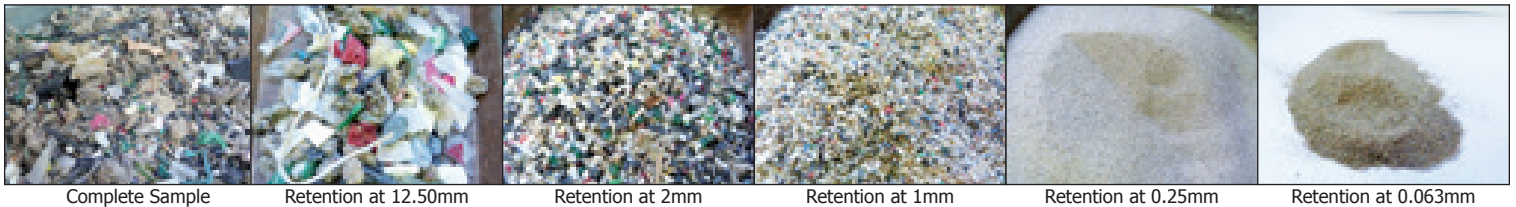
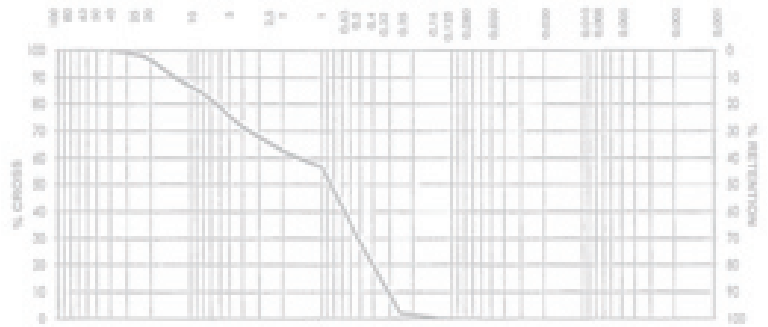
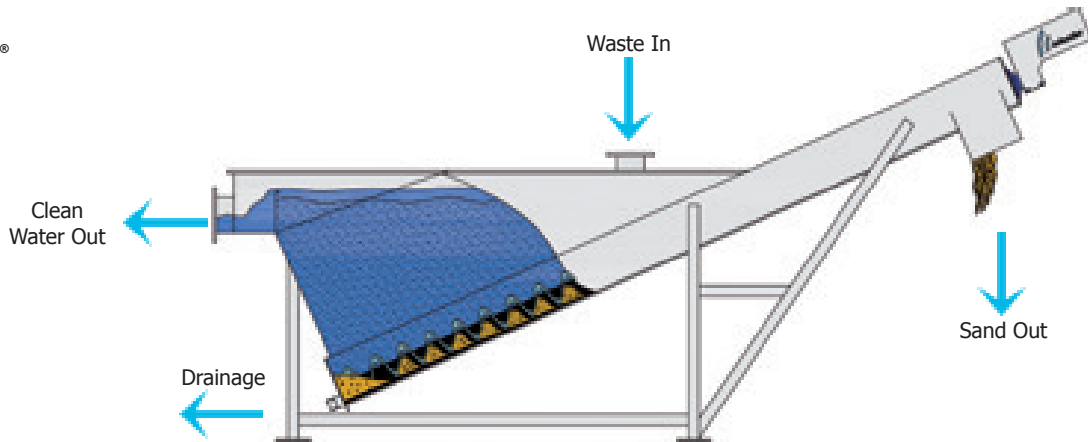
NOTES:

- The flow figure is for guidance only. Volume and turning speed of this screw will be extrapolated for each application in function of the type of waste to transport, inclination and degree of compaction.
- The length of the unit can be adapted to meet requirements.
- The dimensions and technical specifications can vary slightly due to the ongoing development of the products by the engineering department of Toro Equipment S.L.
- When preparing your order ask for a specifications diagram.
- More specific figures can be found on our webpage, www.toroequipment.com.



Sand Remover · DA

Process Description:



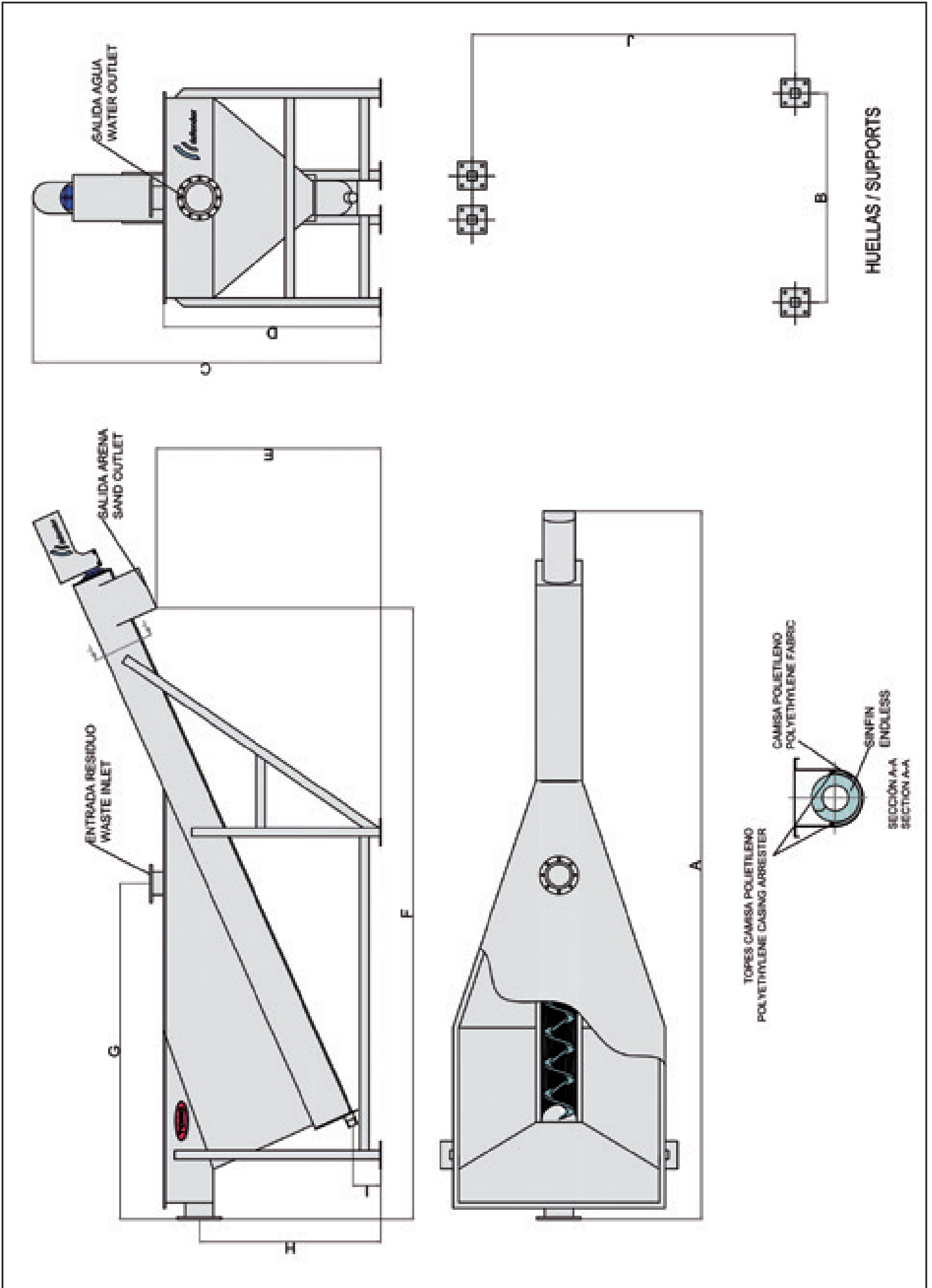
Grain-size test of a sample coming from a Defender® sand remover unit installed in a plastics factory.

Technical Specifications:

Sand Remover - Technical Especifications, mm (in)																
Model	Srew Diameter	Power Kw (HP)	Flow m³/h (US gpm)	Inlet	Outlet	Drainage	A	B	C	D	E	F	G	H	I	J
DA - 0,6/100	100 (3 7/8)	0.25 (0.33)	15 (66.045)	DN 100 4"	DN 100 4"	2"	2,621 (103 2/8)	750 (29 4/8)	1,384 (54 4/8)	950 (37 3/8)	988 (38 7/8)	2,215 (87 2/8)	1,300 (51 1/8)	802 (31 5/8)	250 (9 7/8)	1,165 (45 7/8)
DA - 2/215	215 (8 4/8)	0.75 (1)	50 (220.15)	DN 100 4"	DN 150 6"	3"	4,963 (195 3/8)	1,480 (58 2/8)	2,436 (95 7/8)	1,650 (65)	1,666 (65 5/8)	4,190 (165)	2,550 (100 3/8)	1,327 (52 2/8)	250 (9 7/8)	2,330 (91 6/8)
DA - 4/280	280 (11)	1.1 (1.5)	100 (440.30)	DN 200 8"	DN 250 10"	3"	6,058 (238 4/8)	1,880 (74)	2,920 (115)	1,950 (76 6/8)	2,095 (82 4/8)	5,490 (216 1/8)	3,015 (118 6/8)	1,627 (64)	250 (9 7/8)	2,900 (114 1/8)
DA - 6/280	280 (11)	1.5 (2)	150 (660.45)	DN 200 8"	DN 250 10"	3"	6,742 (265 3/8)	2,280 (89 6/8)	3,140 (123 5/8)	2,250 (88 5/8)	3,175 (125)	5,950 (234 2/8)	3,750 (147 5/8)	1,902 (74 7/8)	250 (9 7/8)	2,660 (104 6/8)

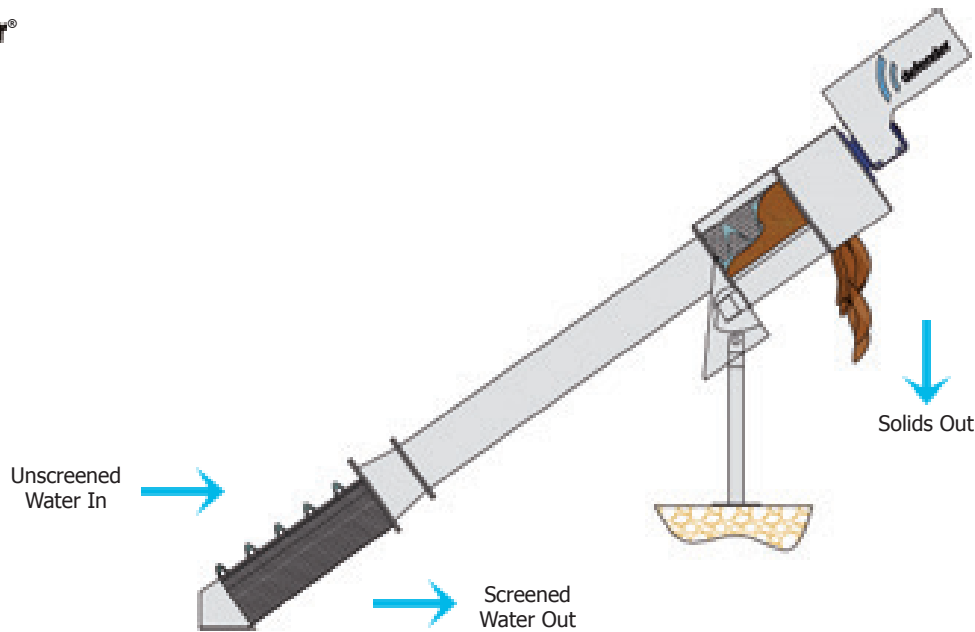
NOTES:

- The specified flow rates are for fine sands of 2.65 kg/dm³. It will be necessary to adjust the de-sander depending on the type and quantity of sands to remove. Consult our engineering department for further information.
- The dimensions and technical specifications can vary slightly due to the ongoing development of the products by the engineering department of Toro Equipment S.L.
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- More specific figures can be found on our webpage, www.toroequipment.com.



Channel Screen Conveyor · TTC

Process Description:



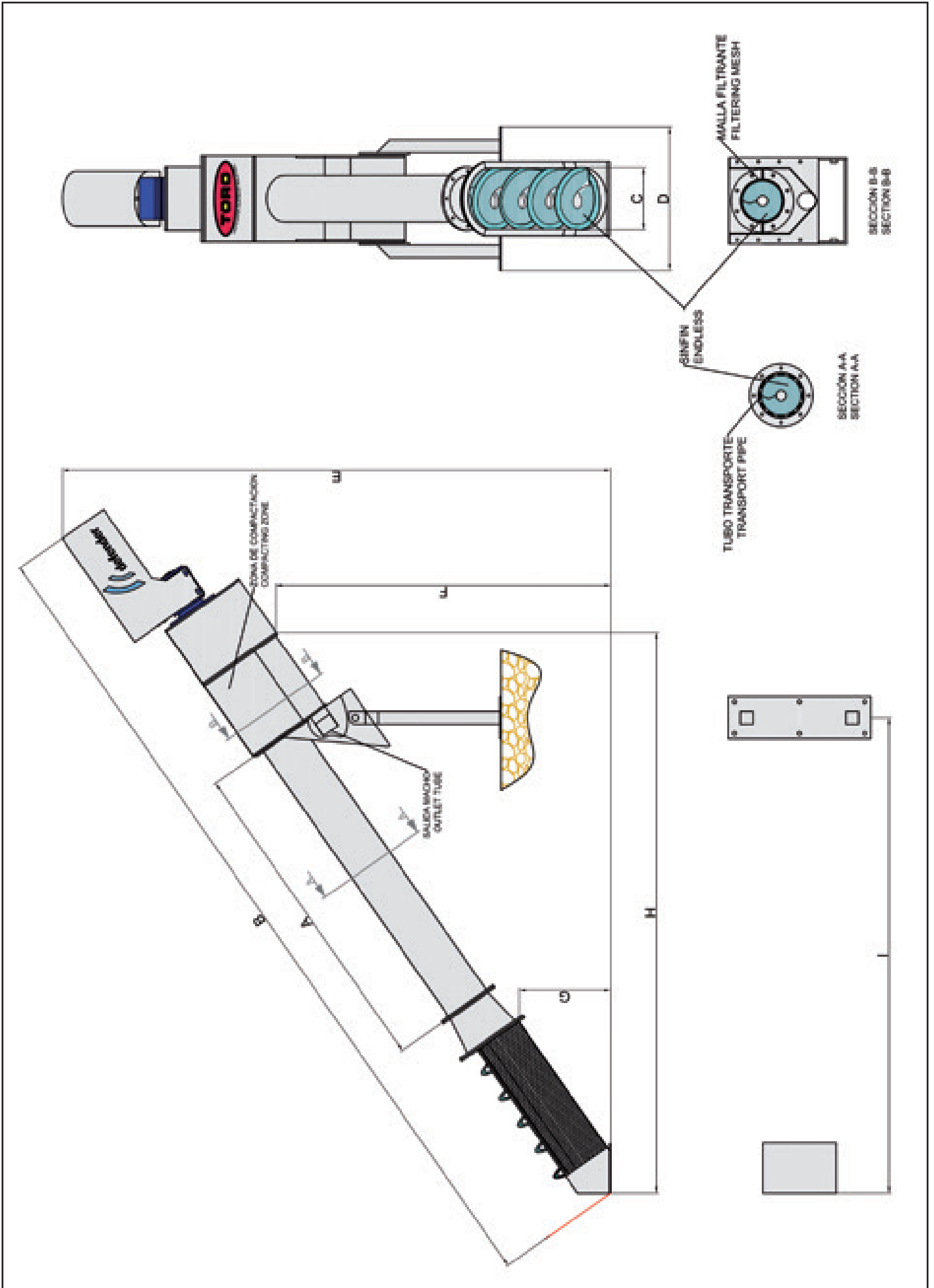
Technical Specifications:

Channel Screen Conveyor - Technical Specifications, mm (in)											
Model	Screw Diameter	Power Kw (HP)	A	B	C	D	E	F	G	H	I
TTC - 200	190 (7 1/2)	1.1 (1.5)	1,500 (59)	3,750 (147 5/8)	200 (7 7/8)	680 (26 6/8)	2,465 (97)	1,450 (57 1/8)	435 (17 1/8)	2,465 (97)	2,060 (81 1/8)
TTC - 300	262 - 190 (10 3/8 - 7 4/8)	1.1 (1.5)	1,500 (59)	3,995 (157 2/8)	300 (11 6/8)	680 (26 6/8)	2,605 (102 4/8)	1,590 (62 5/8)	435 (17 1/8)	2,667 (105)	2,262 (89)
TTC - 400	344 - 190 (13 4/8 - 7 4/8)	1.1 (1.5)	1,500 (59)	4,260 (167 6/8)	400 (15 6/8)	680 (26 6/8)	2,757 (108 4/8)	1,742 (68 5/8)	506 (19 7/8)	2,884 (113 4/8)	2,479 (97 5/8)
TTC - 500	442 - 190 (17 3/8 - 7 4/8)	1.1 (1.5)	1,500 (59)	4,510 (177 4/8)	500 (19 5/8)	680 (26 6/8)	2,900 (114 1/8)	1,885 (74 2/8)	570 (22 4/8)	3,088 (121 5/8)	2,683 (105 5/8)

Clean Water Maximum Flow Rates, m ³ /h (US gpm)								
Mesh Size	Grill Mesh ▼▼, mm (in)			Perforated Mesh Ø, mm (in)				
	1.00 (0.04)	2.00 (0.08)	3.00 (0.12)	2.00 (0.08)	3.00 (0.12)	4.00 (0.16)	5.00 (0.20)	6.00 (0.24)
TTC - 200	82 (361)	127 (559)	156 (687)	55 (242)	65 (286)	74 (326)	84 (370)	93 (409)
TTC - 300	159 (700)	246 (1,083)	302 (1,330)	108 (476)	126 (555)	144 (634)	162 (713)	180 (793)
TTC - 400	249 (1,096)	386 (1,700)	475 (2,091)	155 (682)	198 (872)	245 (1,079)	281 (1,237)	324 (1,427)
TTC - 500	354 (1,559)	548 (2,413)	674 (2,968)	216 (951)	281 (1,237)	353 (1,554)	425 (1,871)	497 (2,188)

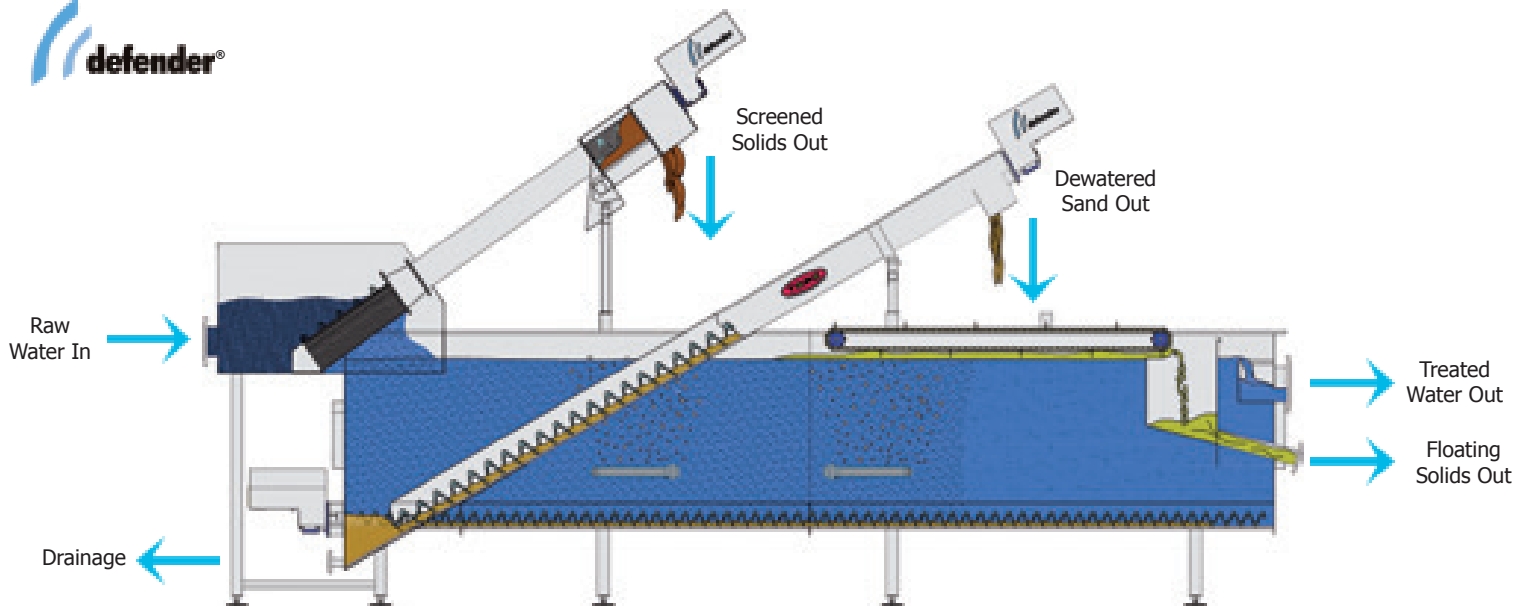


- NOTES:
- A reduction factor has to be applied to the specified clean water flow rates, depending on the type and quantity of solids to be removed. Enquiries to our engineering department.
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Compact Pretreatment Plant · PPC

Process Description:



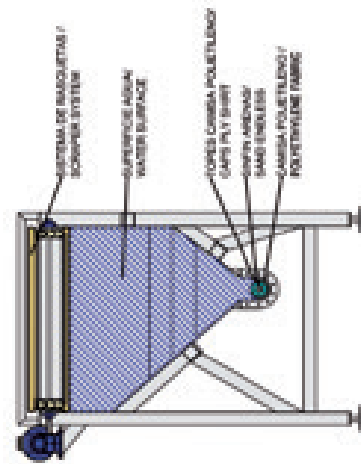
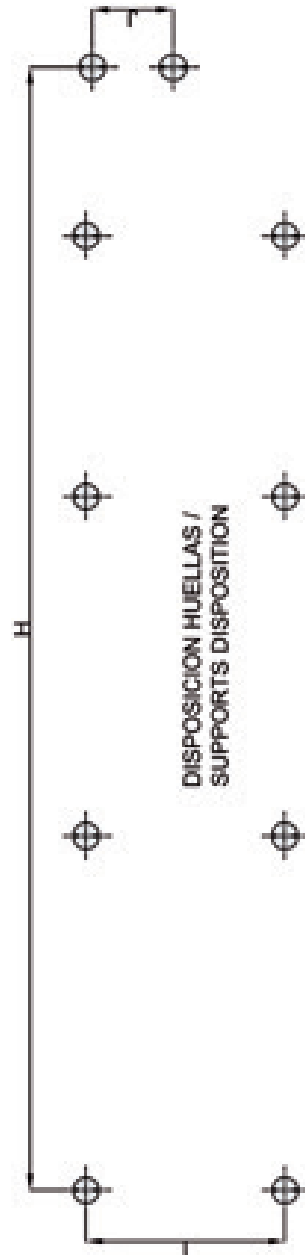
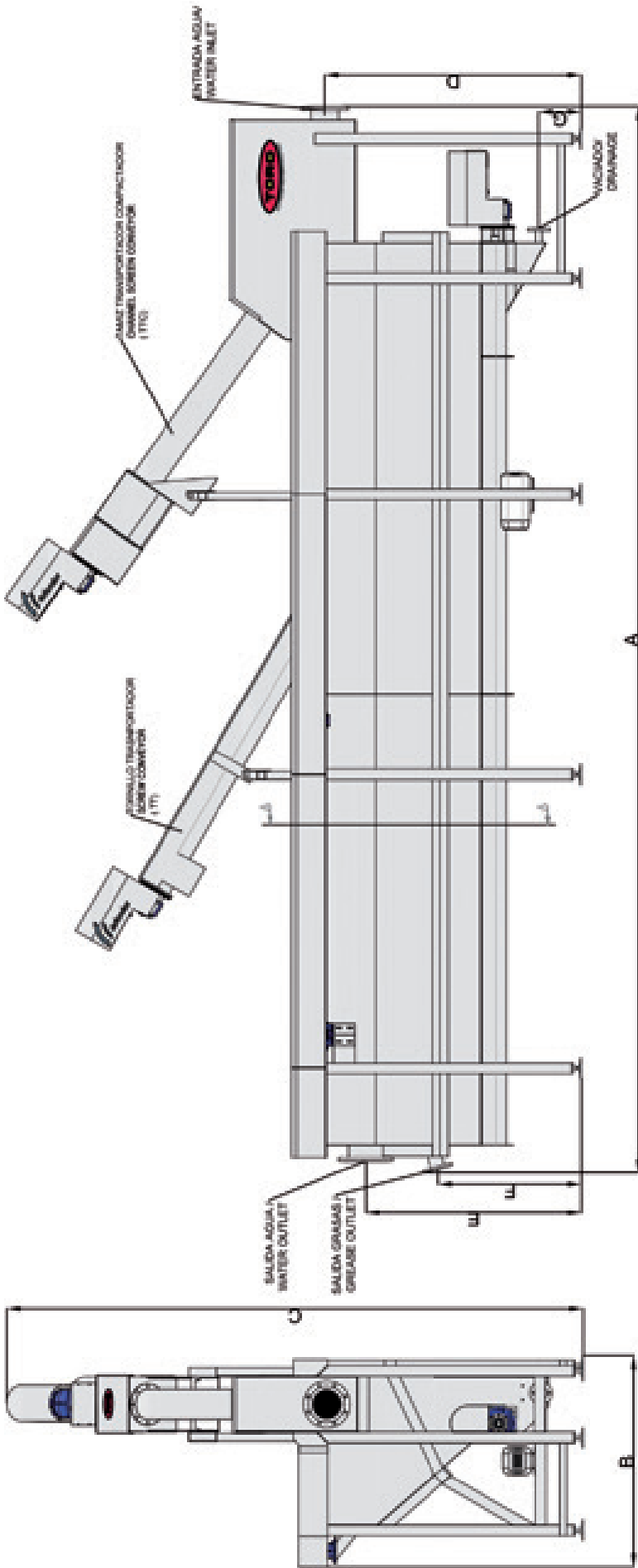
Technical Specifications:

Compact Pretreatment Plant - Technical Specifications, mm (in)

Model	Power Kw (HP)	Flow Rate m ³ /h (US gpm)	Inlet	Outlet	Grease Outlet	Drainage	A	B	C	D	E	F	G	H	I	J
PPC-10	3.07 (4.17)	36 (158.51)	DN 150 ANSI 6"	DN 150 ANSI 6"	DN 100 ANSI 4"	DN 50 ANSI 2"	4,220 (166 1/8)	1,550 (61)	3,950 (155 4/8)	1,820 (71 5/8)	1,550 (61)	820 (32 2/8)	310 (12 2/8)	3,215 (126 5/8)	1,205 (47 4/8)	390 (15 3/8)
PPC-30	4.02 (5.46)	108 (475.52)	DN 200 ANSI 8"	DN 250 ANSI 10"	DN 100 ANSI 4"	DN 50 ANSI 2"	7,807 (307 3/8)	1,550 (61)	4,214 (165 7/8)	1,875 (73 7/8)	1,575 (62)	1,045 (41 1/8)	310 (12 2/8)	6,802 (267 6/8)	1,205 (47 4/8)	490 (19 2/8)
PPC-60	4.57 (6.21)	216 (951.05)	DN 250 ANSI 10"	DN 300 ANSI 12"	DN 150 ANSI 6"	DN 50 ANSI 2"	8,807 (346 6/8)	1,790 (70 4/8)	4,414 (173 6/8)	2,070 (81 4/8)	1,740 (68 4/8)	1,490 (58 5/8)	350 (13 6/8)	7,802 (307 1/8)	1,497 (58 7/8)	640 (25 2/8)
PPC-100	5.40 (7.34)	360 (1,585.08)	DN 350 ANSI 14"	DN 400 ANSI 16"	DN 200 ANSI 8"	DN 100 ANSI 4"	12,200 (480 3/8)	2,110 (83 1/8)	4,720 (185 7/8)	2,315 (91 1/8)	1,990 (78 3/8)	1,490 (58 5/8)	375 (14 6/8)	11,195 (440 6/8)	1,810 (71 2/8)	740 (29 1/8)

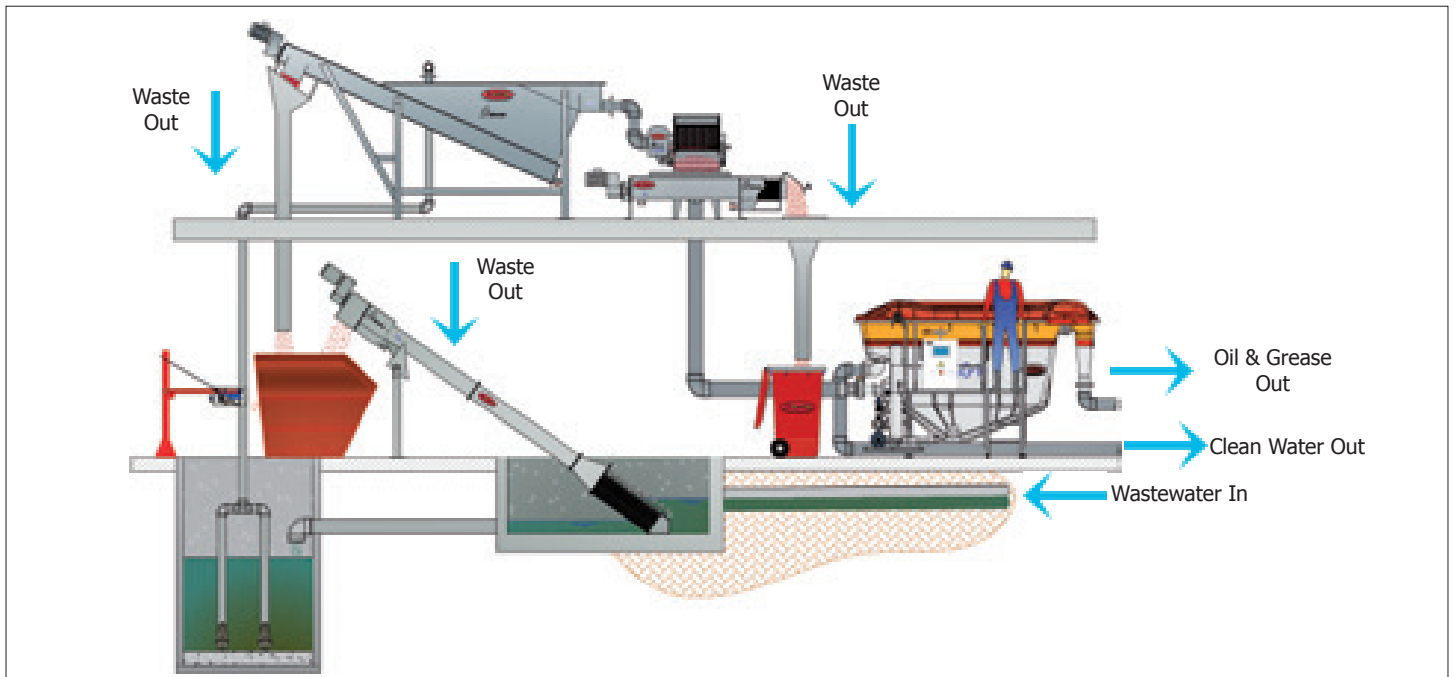
NOTES:

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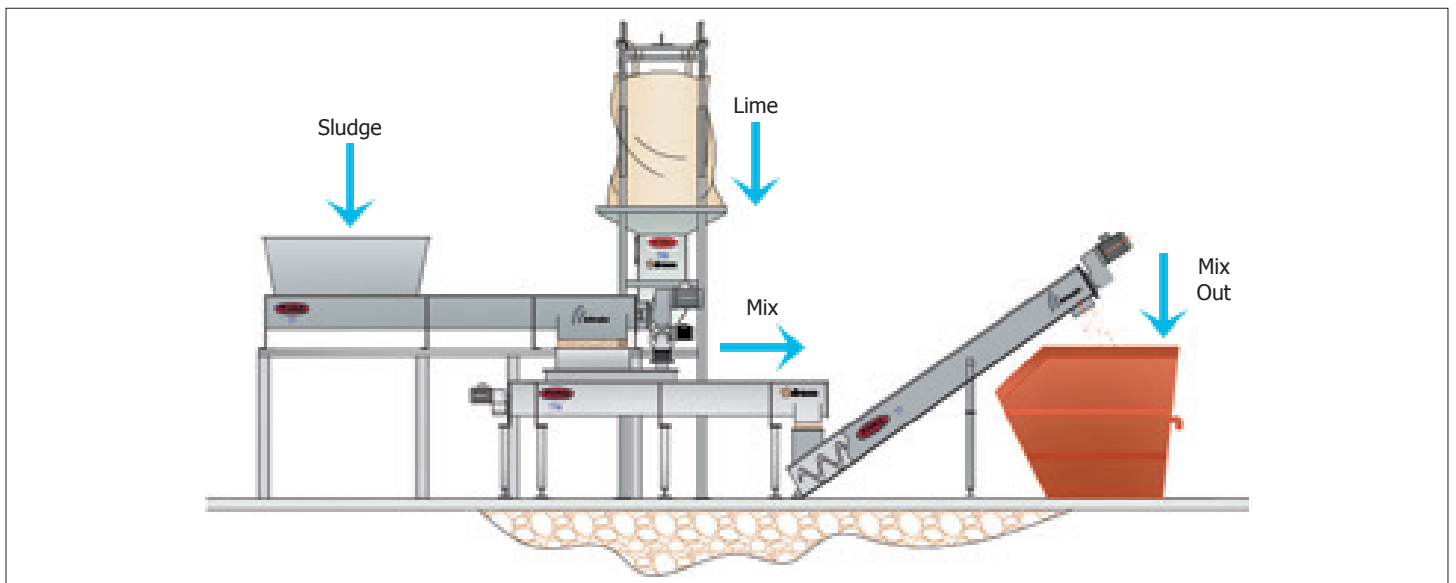


La maquina esta fija al suelo mediante niveladores
The machine is clamped to the floor by levelers

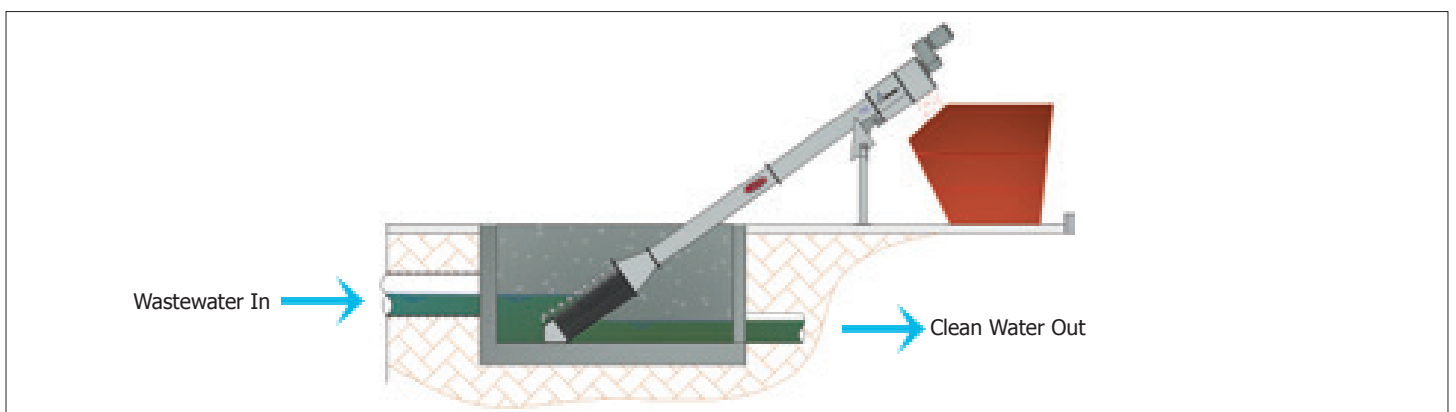
Standard Pretreatment: TTC, DA, TR, TC and FSG



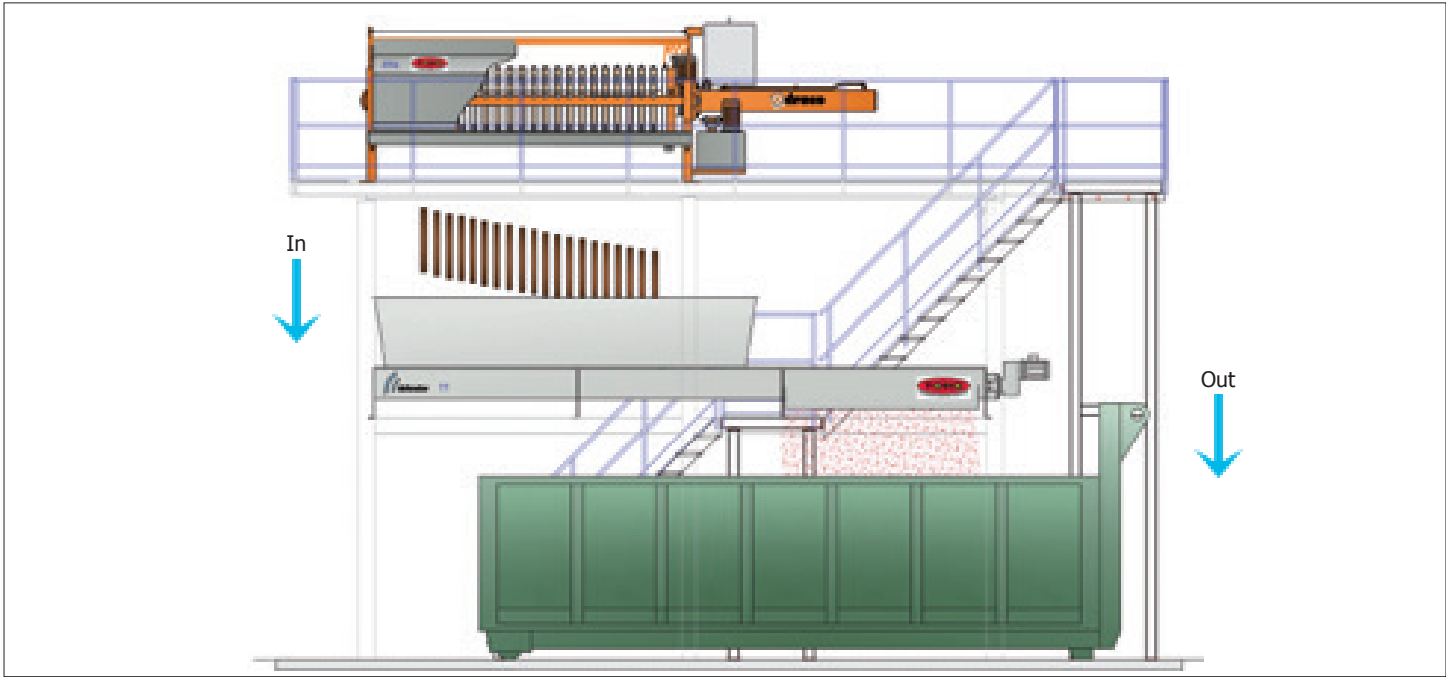
Group TT, TBB, TTM and TT:



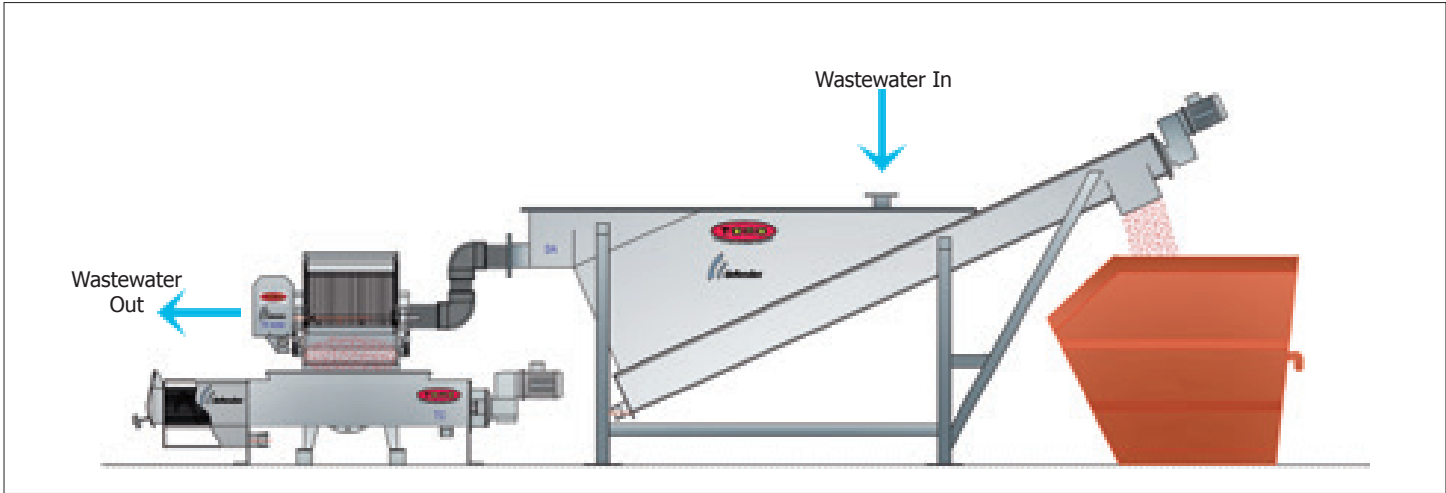
Channel Screen Conveyor:



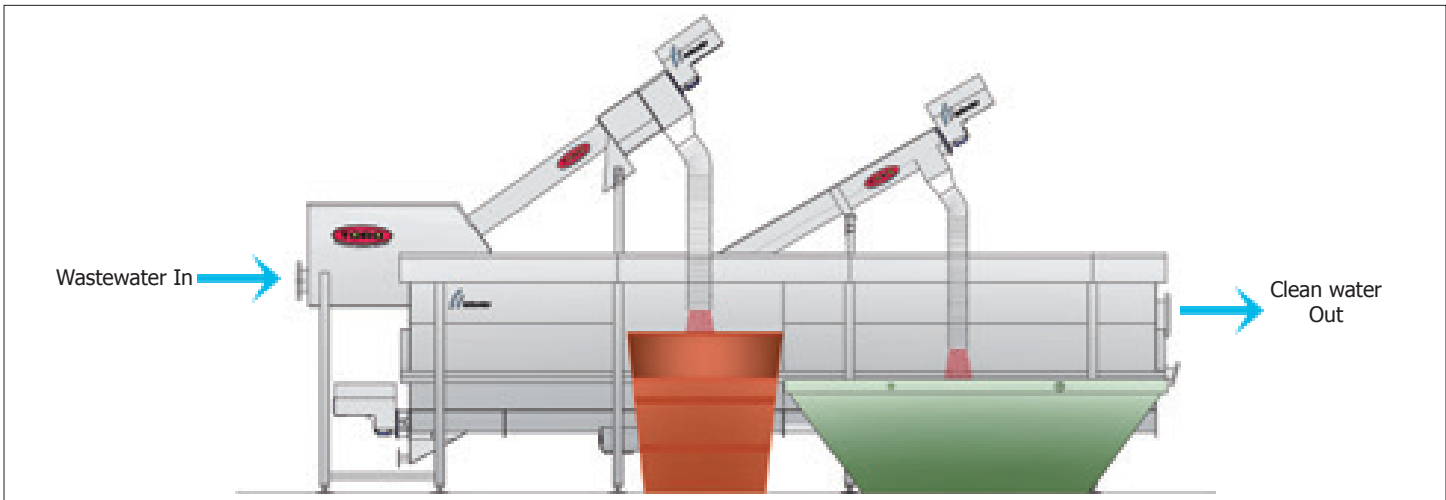
Screw Conveyor:



Group DA, TR and TC:



Compact Pretreatment Plant:



Optionals

Equipment: **Standard** & **Optional**

BODY:	TC	TT	DA	TTC	PPC
Material AISI-304	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Material AISI-316	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Connection flanges ISO/ANSI	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Srew couplings	<input checked="" type="checkbox"/> / <input type="checkbox"/>	<input checked="" type="checkbox"/> / <input type="checkbox"/>	<input checked="" type="checkbox"/> / <input type="checkbox"/>	<input checked="" type="checkbox"/> / <input type="checkbox"/>	<input checked="" type="checkbox"/> / <input type="checkbox"/>
Protective cover	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Motor housing	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Lifting eyebolts	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Anchoring legs	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Blast finish 125-250 µm Microspheres B60	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
CLEANING SYSTEM:	TC	TT	DA	TTC	PPC
Self-cleaning brush	-	-	-	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
SCREENING MESH:	TC	TT	DA	TTC	PPC
Material AISI-304	<input checked="" type="checkbox"/>	-	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Material AISI-316	<input type="checkbox"/>	-	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Grill mesh	<input checked="" type="checkbox"/> / <input type="checkbox"/>	-	<input checked="" type="checkbox"/> / <input type="checkbox"/>	<input checked="" type="checkbox"/> / <input type="checkbox"/>	<input checked="" type="checkbox"/> / <input type="checkbox"/>
Perforated mesh	<input checked="" type="checkbox"/> / <input type="checkbox"/>	-	<input checked="" type="checkbox"/> / <input type="checkbox"/>	<input checked="" type="checkbox"/> / <input type="checkbox"/>	<input checked="" type="checkbox"/> / <input type="checkbox"/>
DOCUMENTATION:	TC	TT	DA	TTC	PPC
User manuals in specific language	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
ISO standard documentation	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
CERTIFICATES:	TC	TT	DA	TTC	PPC
EC Certificate	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Certificate of origin	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Factory test Certificate	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Quality certificate	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Certificate of materials	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Welding certificate	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
ELECTRIC PANEL:	TC	TT	DA	TTC	PPC
Incorporation of electrical panel	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Start/Stop	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Automatic cleaning program	-	-	-	-	-
Emergency stop	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
DRIVE SYSTEM:	TC	TT	DA	TTC	PPC
Multi-voltage motor	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
ATEX Motor	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Motor fulfilling NEMA standards, CSA, etc...	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
OTHERS:	TC	TT	DA	TTC	PPC
Packed in fumigated crate	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Retractable packaging	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Containerisation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Lifting structure	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Rotating base	-	<input type="checkbox"/>	-	-	-
Wheels in legs	-	<input type="checkbox"/>	-	-	-
Solids collection hopper AISI-304	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Solids collection hopper AISI-316	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Solids collection hopper AISI-PRFV	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Mixer Transporter Screw TTM Draco®	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Rotary Screen TR 40&63 Defender®	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Rotary Screen TR HPS M&L Defender®	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Static Screen TE Defender®	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

NOTAS:

- The optional equipment has a surcharge. Request information and quotation.
- The ongoing development of the units can alter some of their specifications.
- You will find the latest information in www.toroequipment.com.

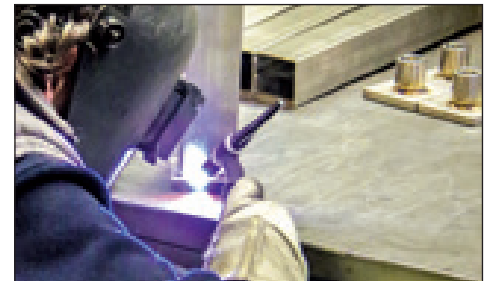
Advantages and Applications:

- Extensive range of models designed and tested by Toro Equipment, manufactured in stainless steel type 304 and 316.
- Guaranteed against material or production defects under normal conditions of use and maintenance.
- The Defender® equipments can be combined with each other to achieve optimal treatment results.
- Quick and easy installation. Can be mounted in limited spaces.
- Maintenance is fast and easy.
- The units are always wrapped in retractable material and optionally in treated wooden crates.
- Toro Equipment offers commissioning services and after-sales service. Ask for details.
- Applications: paper mills, tanneries and textile works, food industry, municipal works, cellars, fish and meat handling, products with high oil content, canning, laundries, dairy industry, biodiesel, etc.



Quality and Industrial Processes:

- To achieve the high quality of our products and services, Toro Equipment has developed and implemented a Quality Management System according to the standard UNE-EN-ISO 9001, adapted to the needs of the company and is continuously improving the procedure.
- The system is based on continuous monitoring of all activities undertaken in the company:
 - Design.
 - Manufacture.
 - After sales service.
- Standard finish with microsphere shot-blasting.



Compact and Pre-mounted plants:

- Defender® pretreatment units can be preinstalled in marine containers or on platforms in the place of origin, ready for assembly and use.



Worldwide References



- Argentina
- Australia
- Belgium
- Brazil
- Bulgaria
- Canada
- Chile
- China
- Croatia
- Colombia
- Denmark
- Dominican Republic
- Egypt
- Estonia
- France
- Germany
- Ghana
- Greece
- Holland
- Hungary
- India
- Indonesia
- Jordan
- Latvia
- Mexico
- Moldova
- Morocco
- NZ
- Pakistan
- Peru
- Poland
- Portugal
- Romania
- Russia
- Saudi Arabia
- Singapore
- Spain
- Tunisia
- UAE
- UK
- Ukraine
- Venezuela



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 DEFENDER® SCREW CONVEYOR
 DEFENDER® SAND REMOVER
 DEFENDER® CHANNEL SCREEN CONVEYOR
 DEFENDER® COMPACT PRETREATMENT PLANT