

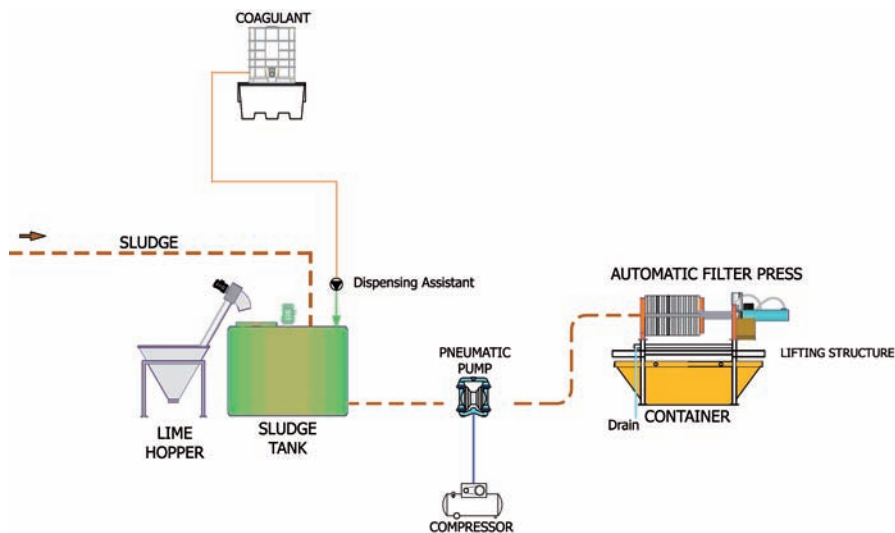


Draco[®] offers maximum dewatering and dry solids production.

Capable of operating in fully automatic, FPA, semi-automatic, FPSA, or completely in manual mode, FPM.

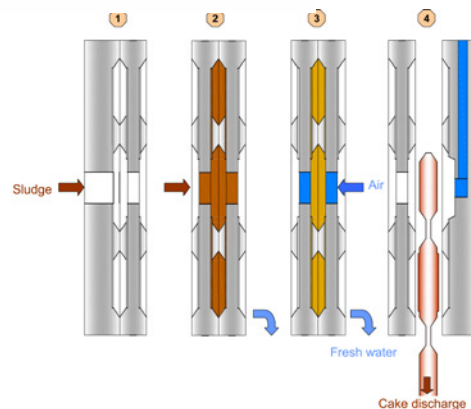
Draco[®] offers a range of efficient, high performance equipment for special applications.

Process Description



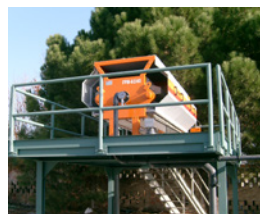
Filter press operation:

- 1-Close filter press
- 2-Loaded
- 3-Filtration
- 4-Openend and cake discharge



Advantages and Applications:

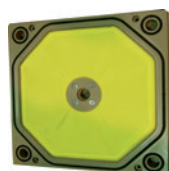
- Maximum dewatering and dry solids production.
- Large filtration area in a short space.
- Automatic control system.
- Low chemical consumption.
- After-sales technical assistance.
- Process flexibility-easily accommodates fluctuating inlet consistency.
- User friendly-simple, safe & reliable operation.
- Chemical industry.
- Mining industry.
- Industrial wastewater.
- Municipal wastewater.
- Special applications.



Filter fabrics and plates: The filter press have incorporated the filter cloth more appropriated for each application, in order to obtain the maximum performance.



Special fabrics for aggregate treatment



Fabrics for sealed plates



Non-drip fabrics

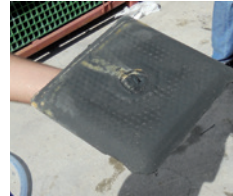
Filter fabrics types

- Standard fabrics.
- Non-drip fabrics.
- Fabrics for sealed plates.
- Special fabrics for aggregate treatment.
- Fabrics for other specific treatments.

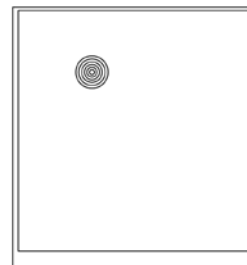
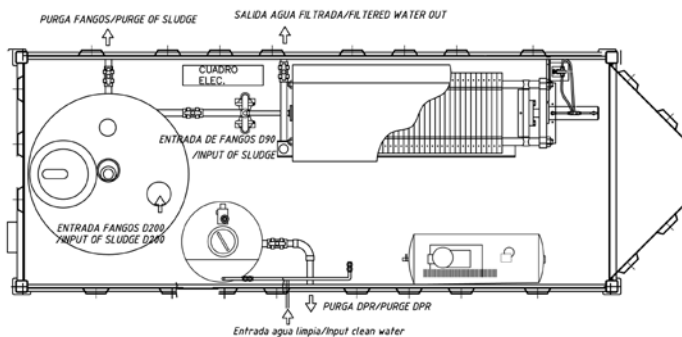
Draco® Test Equipment:



Toro Equipment manufactures the Draco® testing/pilot units. These units enable the testing and subsequent analysis for specific applications.



Compact Draco® Unit:



Advantages of the Compact Draco® unit:

- Rapid installation.
- Easy transportation.
- Minimal footprint required.
- Minimal operational costs.
- Minimal visual impact.



Containerization:

- 20ft container.
- 40ft container.
- Insulated containers.



Optional:

- Electrical control panel.
- Sludge conditioner tank (TAF).
- Polyelectrolyte dosing hopper (TDC).
- Lifting structure.
- SCADA.
- Washing system.
- Hydraulic ram protection.
- Conveyor belt.
- Cake collection support.
- Manifold available in stainless steel, polypropylene and special designs.



Electrical Control Panel



Mobil filter press FPA 120/115



Protective wooden crate



Conveyor belt

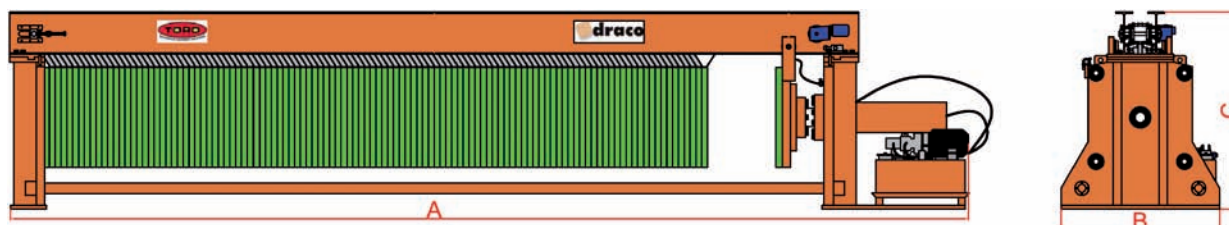


SCADA



TAF & TDC

High Performance FPA Technical Specifications (Closed Construction)



MODEL	Maximum number of plates	Maximum length mm (A)	Maximum width mm (B)	Maximum height mm (C)	Maximum filter surface (m²)	Maximum filtered volume (l)
FPA-AR 1000	125	11.000	1.400	2.100	215	3.220
Pump Type: Cylinder of 23 cm³ Power: 7,5 Kw		Tank volume (l): 150				
FPA-AR 1200	125	12.400	1.900	2.400	310	4.445
Pump Type: Cylinder of 23 cm³ Power: 7,5 Kw		Tank volume (l): 150				
Frame: Material ST-52/AISI-304, Finish: Epoxy Paint Operation: Automatic						

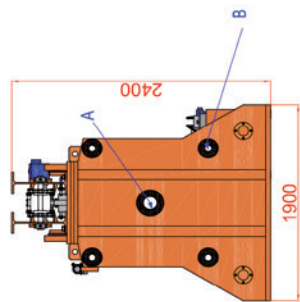
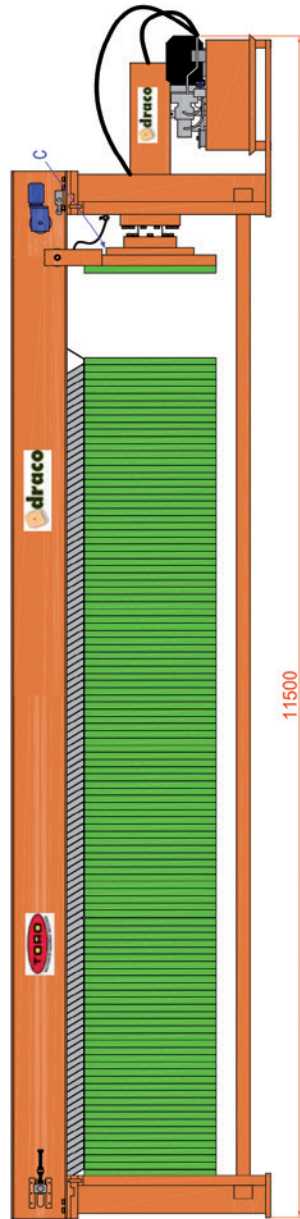
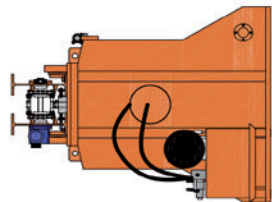
Options:

- Drip tray.
- Automatic cleaning system.
- Installation of walkways and roofs.
- Cake conveyor.
- Sludge collection hopper.



(Drip tray)





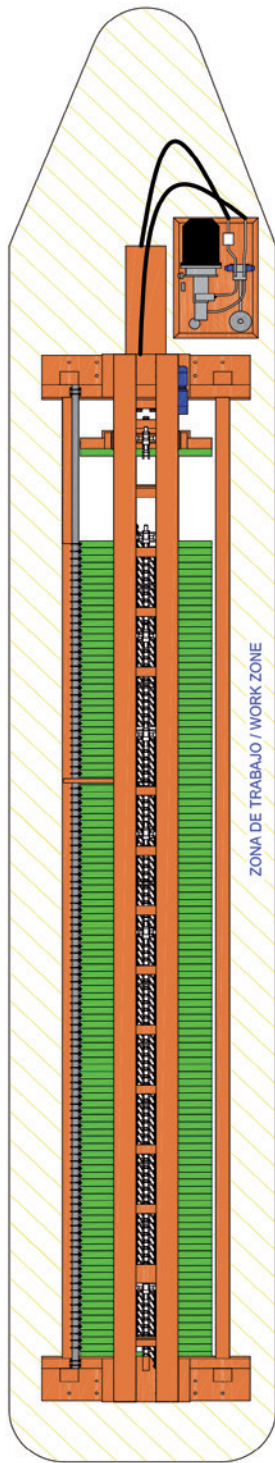
FPA-AR 120-115		VALOR
PARTE	DESCRIPCION	
A	ENTRADA DE FANOS	DN 10
B	SALIDA AGUA LIMPA	DN 20
C	ARET PARA SOPAQUEO DE TUBIAS	1"

NOTA LEGAL: El fabricante no se responsabiliza de los daños causados por el uso indebido de la máquina. No se permite el uso de la máquina para fines no autorizados. El uso de la máquina para fines no autorizados puede resultar en daños graves a la propiedad y a las personas.

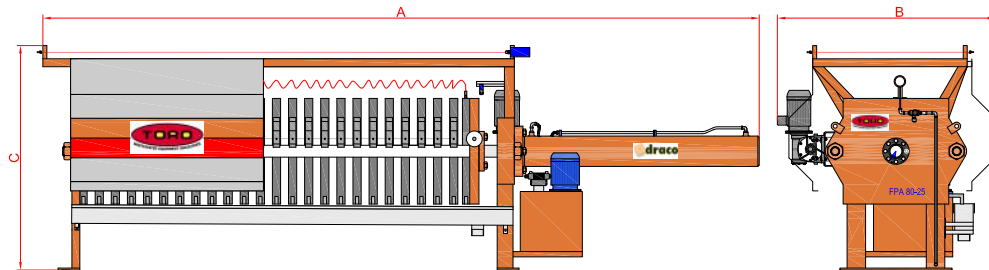
1. The manufacturer is not responsible for damages caused by the misuse of the machine. The use of the machine for unauthorized purposes is not permitted. The use of the machine for unauthorized purposes may result in serious damage to property and persons.

PARTE	DESCRIPCION	VALOR
A	ENTRADA DE FANOS	DN 10
B	SALIDA AGUA LIMPA	DN 20
C	ARET PARA SOPAQUEO DE TUBIAS	1"

LEGAL NOTICE: The manufacturer is not responsible for damages caused by the misuse of the machine. The use of the machine for unauthorized purposes is not permitted. The use of the machine for unauthorized purposes may result in serious damage to property and persons.



FPA Specifications (Open Construction)



MODEL	Number of plates	Number of chambers	Length mm (A)	Width mm (B)	Height mm (C)	Weight empty (Kg)	Weight loaded (Kg)	Total filter area (m²)	FP total cake volume (l)	Plates and fabric size
FPA 47 /	5	4	1.470	1.170	1.370	750	780	1,4	19	470
	10	9	2.330	1.170	1.370	800	865	3,2	43	470
	15	14	3.240	1.170	1.370	860	960	5,0	67	470
	20	19	4.110	1.170	1.370	900	1.040	6,8	91	470
	25	24	4.670	1.170	1.370	970	1.140	8,6	115	470
	30	29	5.715	1.170	1.350	1.050	1.260	10,4	139	470
Pump flow (l/m): 7,5		Tank volume (l): 39		Power: 3 Kw	Calculated for cake thickness: 30 mm					
FPA 63 /	5	4	1.570	1.450	1.530	1.240	1.390	2,6	38	630
	10	9	2.443	1.450	1.530	1.360	1.560	5,9	85	630
	15	14	3.265	1.450	1.530	1.480	1.730	9,1	132	630
	20	19	4.130	1.450	1.530	1.600	1.900	12,4	179	630
	25	24	5.045	1.450	1.530	1.750	2.100	15,6	226	630
	30	29	5.930	1.450	1.530	1.900	2.310	18,9	273	630
Double pump flow (l/m): 12+4		Tank volume (l): 58		Power: 2,2 Kw	Calculated for cake thickness: 32 mm					
FPA 80 /	15	14	3.455	1.700	1.700	2.300	2.637	15,3	224	800
	20	19	4.385	1.700	1.700	2.511	2.968	20,7	305	800
	25	24	5.424	1.700	1.700	2.755	3.330	26,2	385	800
	30	29	6.350	1.700	1.700	3.000	3.697	31,6	465	800
Double pump flow (l/m): 12+4		Tank volume (l): 75		Power: 2,2 Kw	Calculated for cake thickness: 32 mm					
FPA 100 /	20	19	4.731	1.870	1.900	5.900	6.530	32,7	490	1.000
	25	24	5.650	1.870	1.900	6.300	7.300	41,3	619	1.000
	30	29	6.510	1.870	1.900	6.720	7.840	49,9	748	1.000
Double pump flow (l/m): 33+5		Tank volume (l): 100		Power: 4 Kw	Calculated for cake thickness: 32 mm					
FPA 120 /	20	19	4.850	2.100	2.100	7.000	8.000	46,9	676	1.200
	25	24	5.791	2.100	2.100	7.700	9.000	59,3	854	1.200
	30	29	6.810	2.100	2.100	8.350	9.900	71,6	1.032	1.200
Double pump flow (l/m): 33+5		Tank volume (l): 100		Power: 4 Kw	Calculated for cake thickness: 32 mm					
Frame: Material ST-52/AISI-304, Finish: Epoxy Paint										
Operation: Automatic										

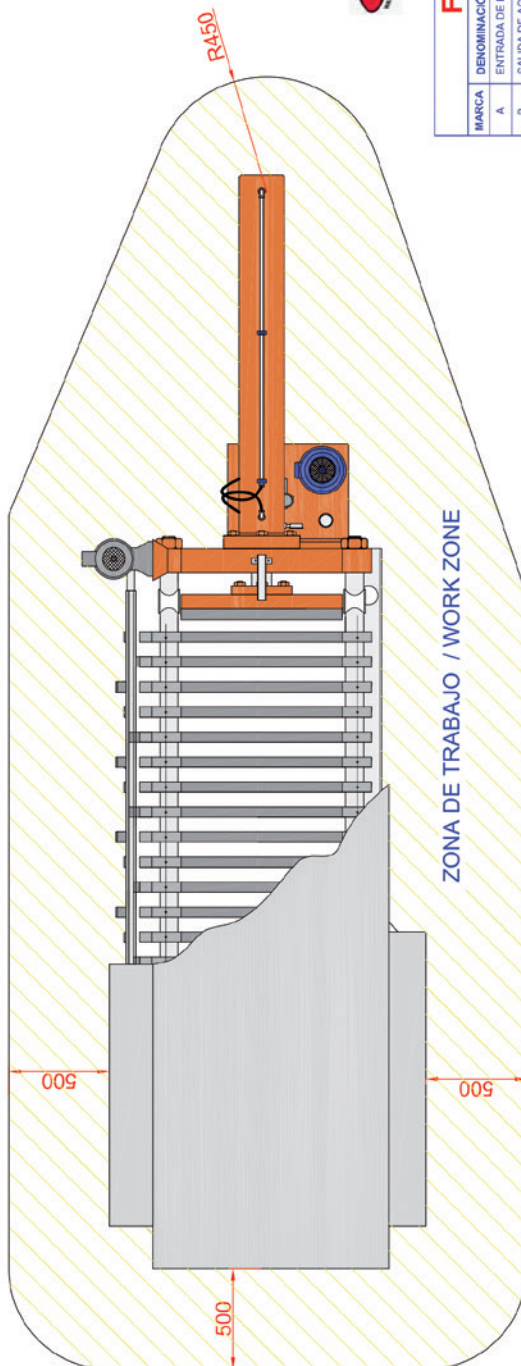
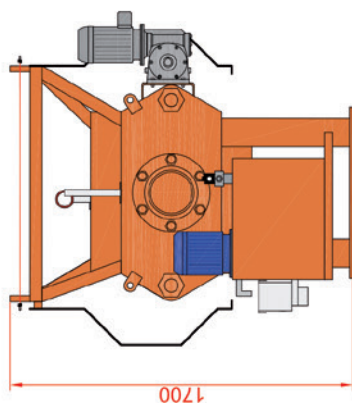
NOTE:

(1) The FPA is supplied with:

- Side protection plates.
- Filtered water collection channel and handles.
- Compressed air socket.
- Equipped with cake-blowing circuit.
- Emergency stop cable.
- Hydraulic oil included.

(2) Compressor not included.

(3) The dimensions and specifications may vary slightly due to the normal development of products by the engineering department or Toro Equipment SL.
When ordering request the specifications sheet at www.toroequipment.com



FPA 80-25		
MARCA	DENOMINACION	VALOR
A	ENTRADA DE FANGOS	DN 80
B	SALIDA DE AGUA LIMPIA	3"
C	AIRE PARA SOPLOADO DE TORTAS	12"

NOTA LEGAL:
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2.- Este plano pertenece a Toro Equipment S.L. En la utilización total o parcial del mismo se hará referencia a esta propiedad.

MARK	NAME	VALUE
A	SLUDGE INLET	DN 80
B	WATER OUTLET	3"
C	AIR INLET FOR BLOWING CAKES	1/2"

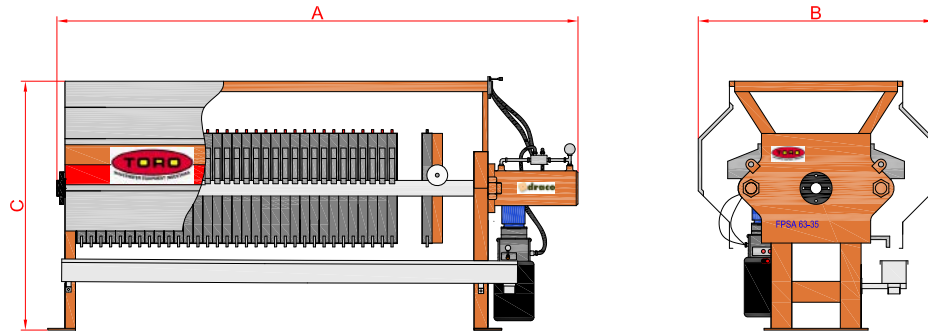
LEGAL NOTICE:

LEGAL NOTICE:
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2.- This plane belongs to Toro Equipment S.L. In the use of all or part of it is this property will reference this.



HUELLAS / SUPPORTS

FPSA Specifications (Open Construction)



MODEL	Number of plates	Number of chambers	Length mm (A)	Width mm (B)	Height mm (C)	Weight empty (Kg)	Weight loaded (kg)	Total filter area (m²)	FP total cake volume (l)	Plates and fabric size
FPSA 47 /	5	4	1.300	1.120	1.270	630	680	1,4	19	470
	10	9	1.560	1.120	1.270	660	750	3,2	43	470
	15	14	1.820	1.120	1.270	690	820	5,0	67	470
	20	19	2.110	1.120	1.270	720	890	6,8	91	470
	25	24	2.340	1.120	1.270	750	960	8,6	115	470
	30	29	2.630	1.120	1.270	780	1.030	10,4	139	470
	35	34	2.890	1.120	1.270	810	1.100	12,2	164	470
	40	39	3.150	1.120	1.270	840	1.170	14,0	188	470
	45	44	3.410	1.120	1.270	870	1.240	16,8	212	470
	50	49	3.670	1.120	1.270	900	1.310	17,6	236	470
	55	54	3.930	1.120	1.270	930	1.380	19,4	260	470
	60	59	4.190	1.120	1.270	960	1.450	21,2	284	470
Pump flow (l/m): 2,46		Tank volume (l): 8	Power: 1,1 Kw	Calculated for cake thickness: 30 mm						
FPSA 63 /	5	4	1.360	1.464	1.430	1.140	1.205	2,6	38	630
	10	9	1.635	1.464	1.430	1.260	1.315	5,9	85	630
	15	14	1.930	1.464	1.430	1.380	1.500	9,1	132	630
	20	19	2.310	1.464	1.430	1.500	1.685	12,4	179	630
	25	24	2.495	1.464	1.430	1.620	1.870	15,6	226	630
	30	29	2.780	1.464	1.430	1.740	2.055	18,9	273	630
	35	34	3.060	1.464	1.430	1.860	2.240	22,1	321	630
	40	39	3.350	1.464	1.430	1.980	2.425	25,4	368	630
	45	44	3.635	1.464	1.430	2.100	2.610	28,6	415	630
	50	49	3.920	1.464	1.430	2.220	2.795	31,9	462	630
	55	54	4.210	1.464	1.430	2.340	2.980	35,1	509	630
	60	59	4.490	1.464	1.430	2.460	3.165	38,4	556	630
Pump flow (l/m): 2,46		Tank volume (l): 8	Power: 1,1 Kw	Calculated for cake thickness: 32 mm						
FPSA 80 /	10	9	1.930	1.509	1.600	1.650	1.750	9,8	144	800
	15	14	2.240	1.509	1.600	1.770	1.920	15,3	224	800
	20	19	2.550	1.509	1.600	1.890	2.090	20,7	305	800
	25	24	2.860	1.509	1.600	2.100	2.350	26,2	385	800
	30	29	3.170	1.509	1.600	2.250	2.550	31,6	465	800
	35	34	3.486	1.509	1.600	2.370	2.720	37,1	545	800
	40	39	3.795	1.509	1.600	2.490	2.840	42,5	625	800
	45	44	4.105	1.509	1.600	2.610	3.010	48,0	705	800
	50	49	4.415	1.509	1.600	2.750	3.200	53,4	785	800
	55	54	4.725	1.509	1.600	2.870	3.370	58,4	866	800
	60	59	5.035	1.509	1.600	3.100	3.600	64,3	946	800
	Pump flow (l/m): 7,25		Tank volume (l): 14	Power: 3 Kw	Calculated for cake thickness: 32 mm					
Frame: Material ST-52 / AISI-304, Finish: Epoxy Paint Operation: Joystick.										

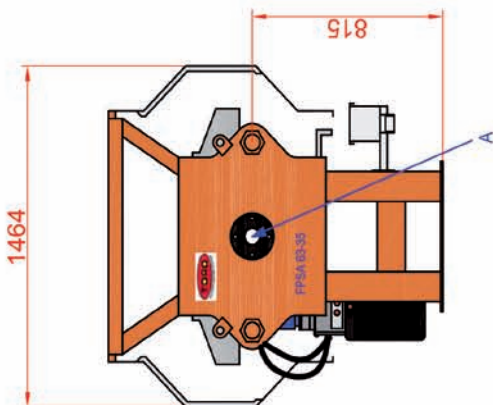
NOTE:

(1) The FPSA is supplied with:

- Side protection plates.
- Filtered water collection channel and handles.
- Compressed air socket.
- Equipped with circuit-blowing cakes.
- Hydraulic oil included.

(2) Compressor not included.

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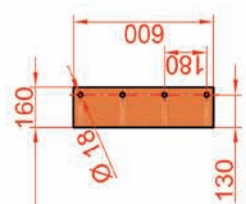
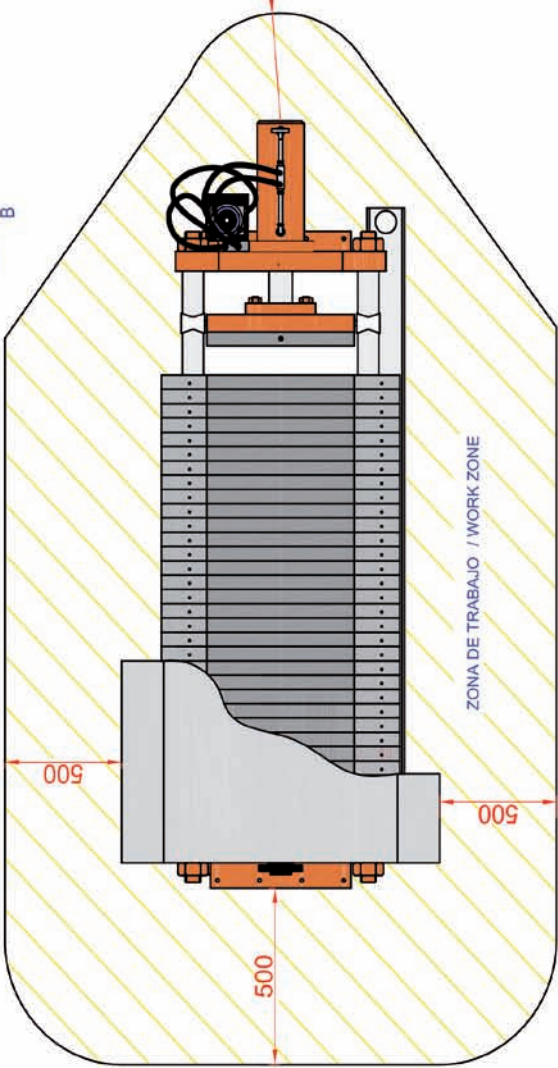
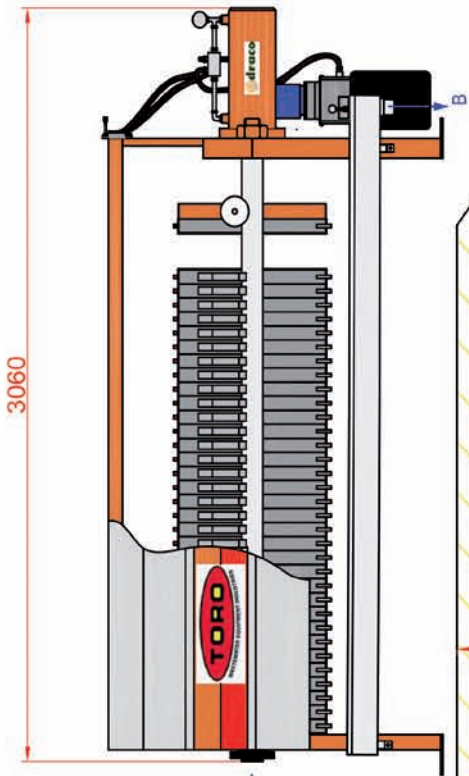


FPSA 63-35		
MARCA	DENOMINACIÓN	VALOR
A	ENTRADA DE FANGOS	DN 65
B	SALIDA AGUA LIMPIA	3"

NOTA LEGAL:
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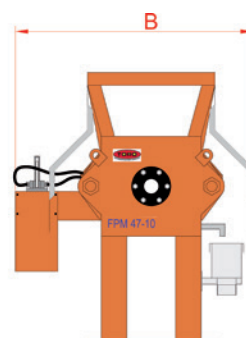
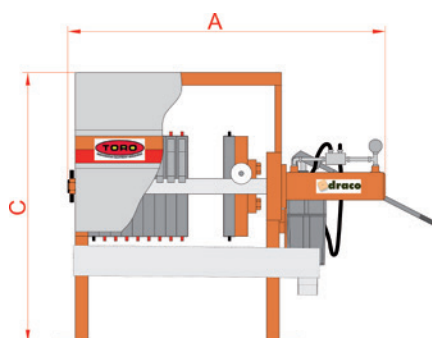
MARK	NAME	VALUE
A	SLUDGE INLET	DN 65
B	WATER OUTLET	3"

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HUELLAS / SUPPORTS

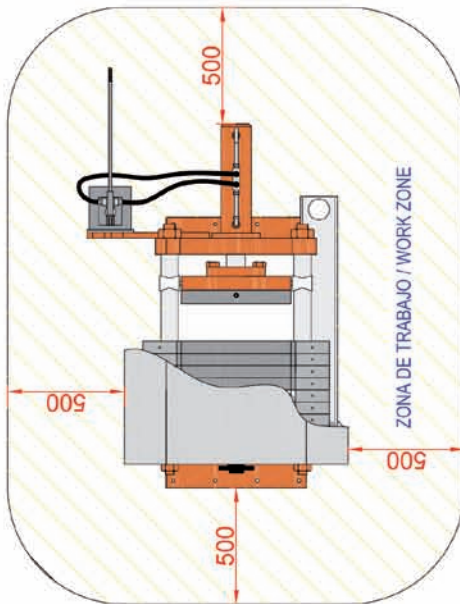
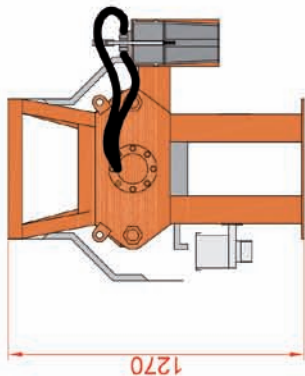
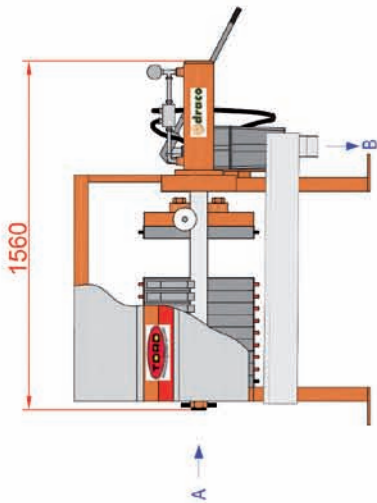
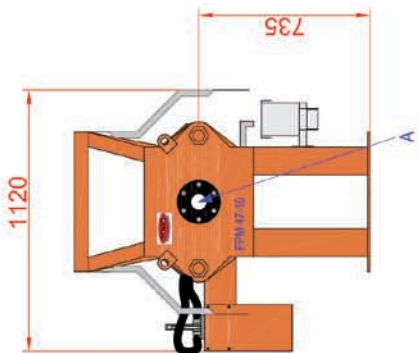
FPM Specifications (Open Construction)



MODEL	Number of plates	Number of chambers	Length mm (A)	Width mm (B)	Height mm (C)	Weight empty (Kg)	Weight loaded (kg)	Total filter area (m²)	FP total cake volume (l)	Plates and fabric size
FPM 47 /	5	4	1.300	1.120	1.270	630	680	1,4	19	470
	10	9	1.560	1.120	1.270	660	750	3,2	43	470
	15	14	1.820	1.120	1.270	690	820	5,0	67	470
	20	19	2.110	1.120	1.270	720	890	6,8	91	470
	25	24	2.340	1.120	1.270	750	960	8,6	115	470
	30	29	2.630	1.120	1.270	780	1.030	10,4	139	470
	35	34	2.890	1.120	1.270	810	1.100	12,2	164	470
	40	39	3.150	1.120	1.270	840	1.170	14,0	188	470
	45	44	3.410	1.120	1.270	870	1.240	16,8	212	470
	50	49	3.670	1.120	1.270	900	1.310	17,6	236	470
	55	54	3.930	1.120	1.270	930	1.380	19,4	260	470
	60	59	4.190	1.120	1.270	960	1.450	21,2	284	470
Pump flow (cm³/cycle):25			Tank volume (l): 5		Calculated for cake thickness: 30 mm					
FPM 63 /	5	4	1.360	1.464	1.430	1.140	1.205	2,6	38	630
	10	9	1.635	1.464	1.430	1.260	1.315	5,9	85	630
	15	14	1.930	1.464	1.430	1.380	1.500	9,1	132	630
	20	19	2.310	1.464	1.430	1.500	1.685	12,4	179	630
	25	24	2.495	1.464	1.430	1.620	1.870	15,6	226	630
	30	29	2.780	1.464	1.430	1.740	2.055	18,9	273	630
	35	34	3.060	1.464	1.430	1.860	2.240	22,1	321	630
	40	39	3.350	1.464	1.430	1.980	2.425	25,4	368	630
	45	44	3.635	1.464	1.430	2.100	2.610	28,6	415	630
	50	49	3.920	1.464	1.430	2.220	2.795	31,9	462	630
	55	54	4.210	1.464	1.430	2.340	2.980	35,1	509	630
	60	59	4.490	1.464	1.430	2.460	3.165	38,4	556	630
Pump flow (cm³/cycle):25			Tank volume (l): 5		Calculated for cake thickness: 32 mm					
FPM 80 /	10	9	1.930	1.509	1.600	1.650	1.750	9,8	144	800
	15	14	2.240	1.509	1.600	1.770	1.920	15,3	224	800
	20	19	2.550	1.509	1.600	1.890	2.090	20,7	305	800
	25	24	2.860	1.509	1.600	2.100	2.350	26,2	385	800
	30	29	3.170	1.509	1.600	2.250	2.550	31,6	465	800
	35	34	3.486	1.509	1.600	2.370	2.720	37,1	545	800
	40	39	3.795	1.509	1.600	2.490	2.840	42,5	625	800
	45	44	4.105	1.509	1.600	2.610	3.010	48,0	705	800
	50	49	4.415	1.509	1.600	2.750	3.200	53,4	785	800
	55	54	4.725	1.509	1.600	2.870	3.370	58,4	866	800
	60	59	5.035	1.509	1.600	3.100	3.600	64,3	946	800
	Pump flow (cm³/cycle):25			Tank volume (l): 15		Calculated for cake thickness: 32 mm				
Farme: Material ST-52/AISI-304, Finish: Epoxy Paint Operation: Handle lever										

NOTE:

- (1) The FPM is supplied with side shields.
- (2) The FPM is supplied with filtrate collection channel and handles.
- (3) The dimensions and specifications may vary slightly due to the normal development of products by the engineering department or Toro Equipment SL.
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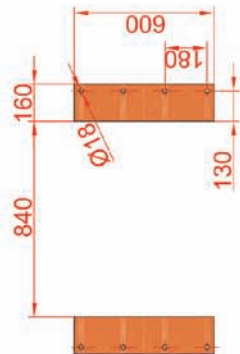


MARCA	DENOMINACIÓN	VALOR
A	ENTRADA DE FANGOS	DN 40
B	SALIDA DE AGUA LIMPIA	2"

NOTA LEGAL:
 1.- Las dimensiones y el aspecto representado son a título informativo. No implican compromiso contractual y son susceptibles de cambios.
 2.- Este plano pertenece a Toro Equipment S.L. En la utilización total o parcial del mismo se hará referencia a esta propiedad.

MARCA	NAME	VALUE
A	SLUDGE INLET	DN 40
B	WATER OUTLET	2"

LEGAL NOTICE:
 1.- The dimensions and appearance are shown for information. They do not involve contractual commitment and are subject to change.
 2.- This plane belongs to Toro Equipment S.L. In the use of all or part of it is this property will reference this.



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