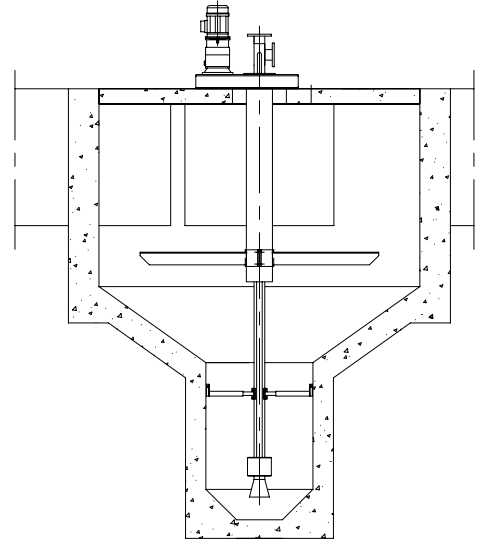


## **SAND TRAP OF PISTA TYPE – DP SERIES**

### **TENDER SPECIFICATION**

#### **DESCRIPTION**

Sand trap of pista type is used to separate the sand to the water. Water is put inside a circular tank with conical bottom. Rotation and shape of the mixing paddles create transversal currents that, placed above currents of the water, facilitate the concentration of the sand in the lower part of the tank cone. Sand is sucked by an air-lift and is brought till a certain height, while the clean water leaks from the discharge channel of the tank.



#### **HOW IT IS BUILT**

- 1) Gear reduction unit composed by a closed supporting structure in hot galvanized steel, in which is positioned the ball bearing/fifth wheel, which is turned with external teeth. Ball bearing/fifth wheel is driven by an induction tempered pinion directly fixed on the shaft of the gear reduction unit. Gear reduction unit is composed by a coaxial reducer coupled to the electrical motor at 4 poles, 220/440 V, 50 Hz, protection IP 55, class F. On the structure of the gear reduction unit group there are openings for inspection of the ball bearing/fifth wheel and of the pinion.
- 2) Supporting shaft of big thickness fixed to the fifth wheel and made in hot galvanized steel.
- 3) Mixing paddles adjustable in height and angle, made in hot galvanized steel.
- 4) Telescopic lower fixing brackets adjustable in height for the air-lift, made in hot galvanized steel.
- 5) Air- lift suitably scaled composed by a distribution chamber, in which there is a pipe for air and a pipe for washing. The ending superior part has a pipe fitting with "T" shape, where fixing the discharge pipe on the horizontal flange, while the vertical is used for inspection. All the air-lift is treated on the surface with hot galvanized steel.
- 6) Male threaded air attachment.
- 7) Male threaded water attachment.

#### **DIMENSIONS**

<i>Reference to technical sheet</i>	<i>Description</i>	<i>Dimensions</i>
[A]	Inner tank diameter	2000 - 6000 mm
	Air connection	1" – 1"¼
	Water connection	1" – 1" ¼
	Air-lift dimension	DN 80 – DN 100
	Flowrate	100-1850 l/s
	Installed power	1.1 kw
	Number of rotations of the mixing paddles	11 rpm



## **SAND TRAP SYSTEM range - DP -**

### **DESCRIPTION**



#### **1.0 HOW IT WORKS**

- 1.1 It is used to screen and wash sand present in water.
- 1.2 Water flows into a concrete circular tank with a cone-shaped bottom where some rotating paddles take continuously in movement the sewage.
- 1.3 The particular movement induced by the mechanical action of paddles, cause a secondary trasversal current that , meeting the main current of sewage, helps the concentration of sand in the bottom side of cone.
- 1.4 Sand accumulated in the cone bottom is sucked up by an hydroextracting pipe . The clarified water flows out from the exit, opposite to the entry, situated in the top side of tank.

#### **2.0 HOW IT IS BUILT**

- 2.1 Drive set composed of serrated fifth wheel , pinion and gearmotor contained in a box made in hot galvanized steel.
- 2.2 Thick central shaft coupled to serrated fifth wheel, complete with properly shaped rotating paddles, all in hot galvanized carbon steel.
- 2.3 Hydroextracting pipe of suitable diameter with attaching devices of 1" 1/4 for inlet of air and water, all in hot galvanized carbon steel.
- 2.5 Coassial gearmotor coupled to central shaft by pinion and serrated fifth wheel , electric motor type 220/380 Volt, 50 Hz, three-phase, IP 55 protection, F insulation class.

#### **3.0 COMPONENTS**

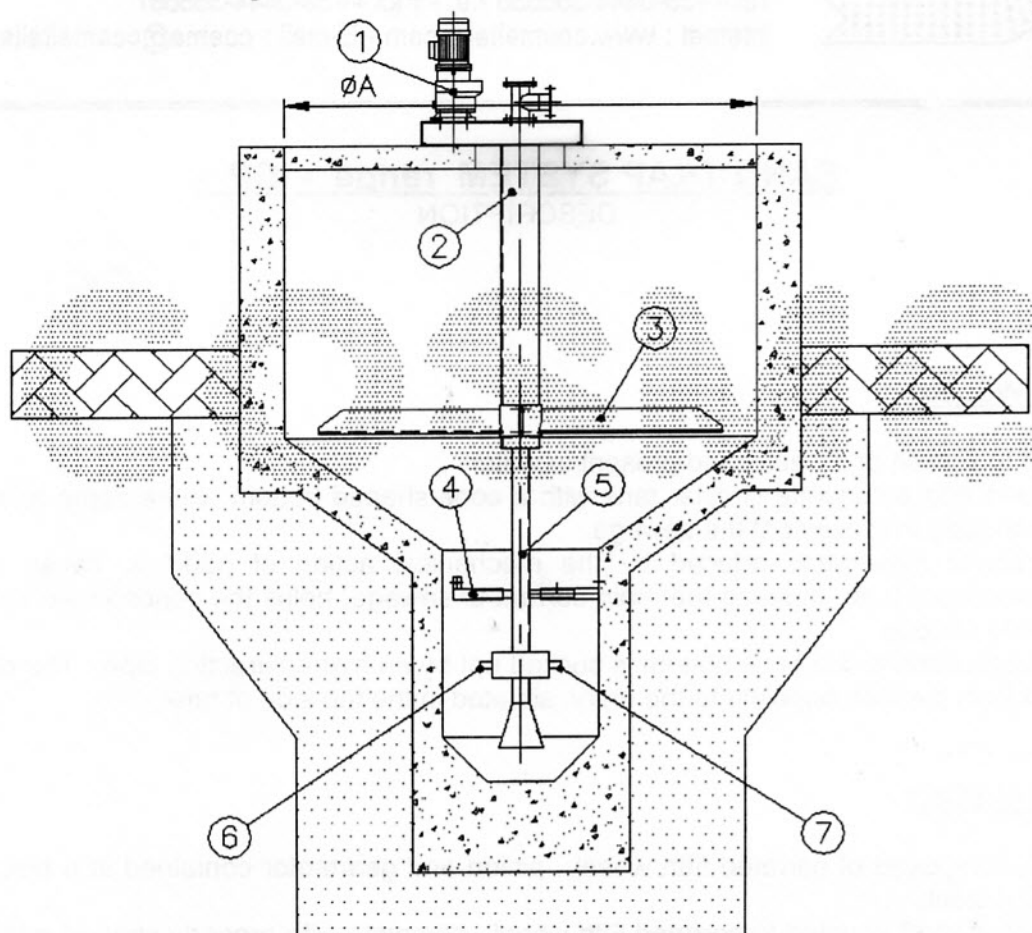
- 3.1 BOX made in hot galvanized steel sheet containing serrated fifth wheel, pinion, trasmission shaft and pipe for sand discharge.
- 3.2 CENTRAL SHAFT of suitable diameter complete with very thick rotating paddles all in hot galvanized carbon steel.
- 3.3 HYDROEXTRACTING PIPE in hot galvanized steel for sucking of sand, with attaching devices for inlet of air and water.
- 3.4 Coassial REDUCTION gear unit coupled to central shaft by pinion and fifth wheel.
- 3.4 ELECTRIC MOTOR type 220/380 Volt, 50 Hz, three-phase, IP 55 protection, F insulation class.

#### **4.0 OPTIONAL**

- 4.1 Manufacturing in AISI 304 stainless steel.
- 4.2 Mechanical torque limiting device with electronic device to signal shutdown of gearmotor.
- 4.3 Control and protection electric panel, with timer and emergency head switch.

# DISSABBIATORE TIPO PISTA SERIE DP.

SAND TRAP RANGE DP.



- 1- GRUPPO MOTORIDUTTORE  
GEAR MOTOR UNIT
- 2- ALBERO PORTANTE  
BEARING SHAFT
- 3- PALE ROTANTI  
ROTATING BLADES
- 4- STAFFE DI FISSAGGIO  
FIXING BRACKETS

- 5- IDROESTRATTORE  
HYDROEXTRACTOR
- 6- ATTACCO MANDATA ARIA  
AIR THROW ATTACH
- 7- ATTACCO MANDATA ACQUA  
WATER THROW ATTACH

MODELLO TYPE	$\varnothing A$ [cm]	PORTATA IDRAULIC OUTPUT [mc/h]	POTENZA POWER [kw]
DP 200	2000	285	1.1
DP 250	2500	580	
DP 300	3000	950	
DP 350	3500	1470	2.0
DP 400	4000	2500	
DP 500	5000	4000	2.6
DP 600	6000	6650	4.0

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macchine per il trattamento  
delle acque reflue

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machines for waste  
water treatment

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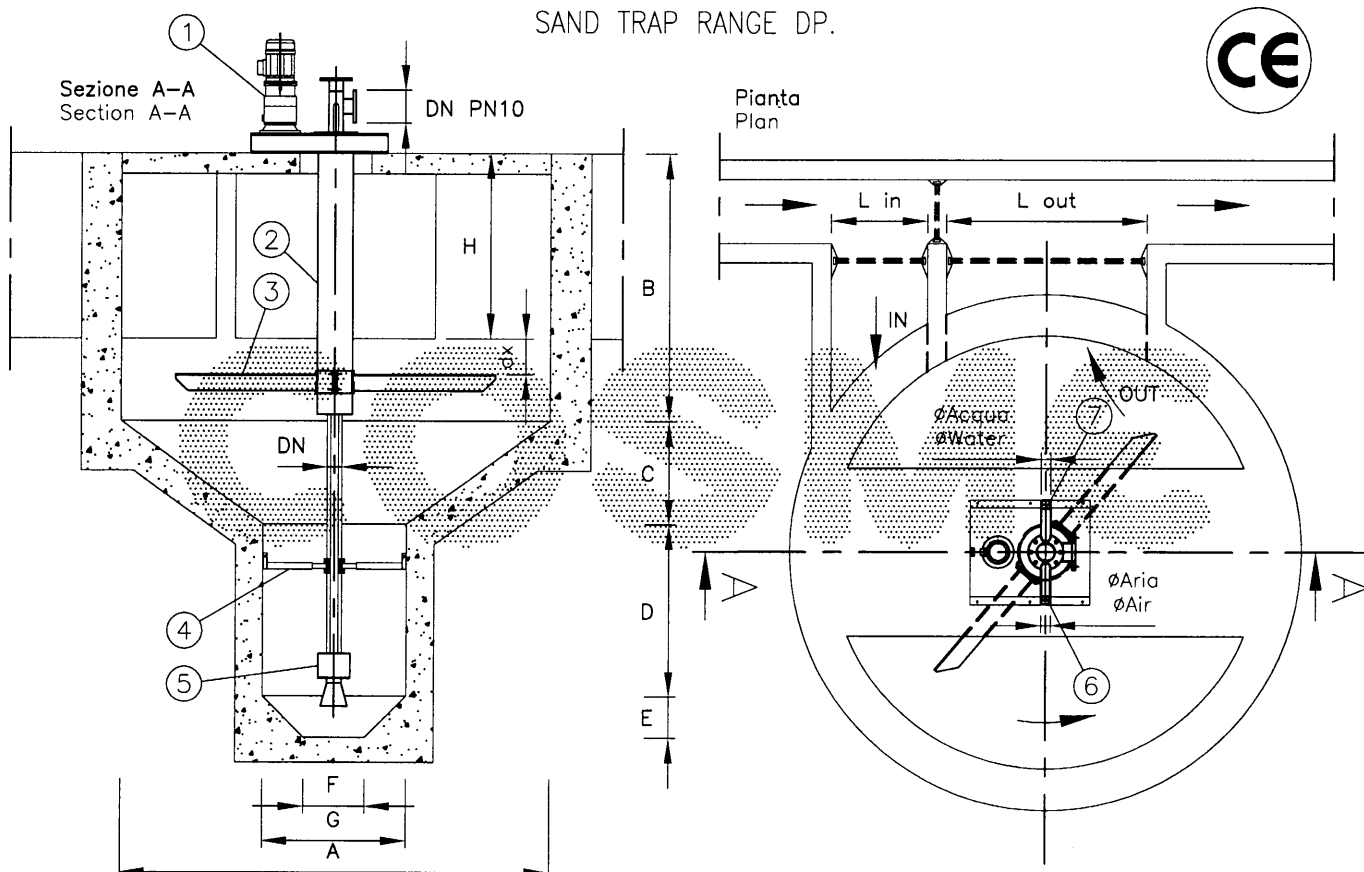
Rev.:002

Data:15-03-00

N°.doc: DP002

# DISSABBIATORE TIPO PISTA SERIE DP.

SAND TRAP RANGE DP.



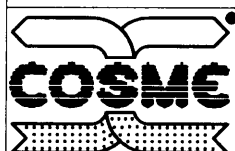
- 1- GRUPPO MOTORIDUTTORE  
GEAR MOTOR UNIT  
2- ALBERO PORTANTE  
BEARING SHAFT

- 3- PALE ROTANTI  
ROTATING PADDLES  
4- STAFFE DI FISSAGGIO  
FIXING BRACKETS  
5- AIR LIFT  
AIR-LIFT

- 6- ATTACCO MANDATA ARIA  
AIR THROW ATTACH  
7- ATTACCO MANDATA ACQUA  
WATER THROW ATTACH

Modello TYPE		DP 200	DP 250	DP 300	DP 350	DP 400	DP 500	DP 600
Dimensioni Costruttive Construclional Dimension	A [mm]	2000	2500	3000	3500	4000	5000	6000
	B [mm]	1000	1100	1200	1350	1500	1650	1850
	C [mm]	300	300	450	650	650	900	1200
	D [mm]	1000	1100	1200	1200	1400	1600	1800
	E [mm]	450	650	650	650	900	900	900
	F [mm]	300	400	400	400	500	500	500
	G [mm]	1000	1500	1500	1500	2000	2000	2000
	L in [mm]	300	450	600	750	900	1150	1300
	L out [mm]	600	900	1200	1500	1800	2300	2600
	H [mm]	600	700	800	800	950	1100	1300
	dx [mm]	250	275	285	350	380	390	410
Air-Lift	Ø Aria Air	1"	1"	1"	1"	1 1/4"	1 1/4"	1 1/4"
	Ø Acqua Water	1"	1"	1"	1"	1 1/4"	1 1/4"	1 1/4"
	DN (PN10)	80	80	80	80	100	100	100
	Aria Air [Nm³/h]	60	60	60	60	90	90	90
	R.p.m.	11	11	11	11	11	11	11

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