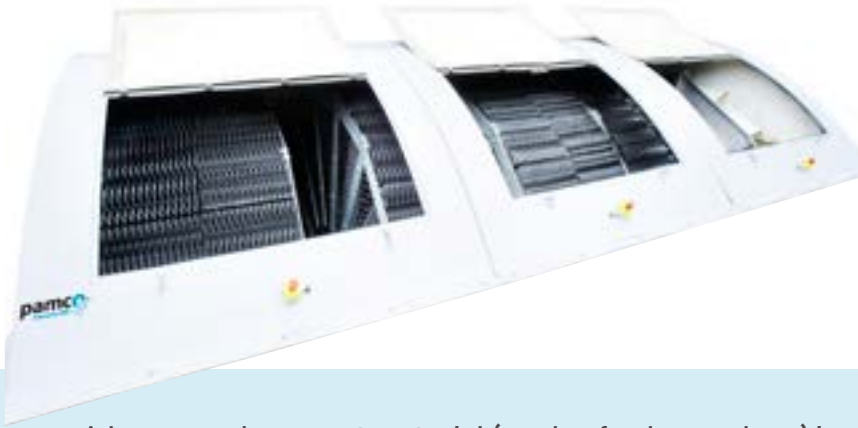


Biorotors



pamco® biorotors are a special use of fixed biomass reactors for wastewater treatment plants.



A honeycomb support material (made of polypropylene) is used to put a maximum of purifying bacteria in contact with the pollution to be treated : the support material is fixed on a shaft which is slowly rotated by a low power geared motor.

The pamco® biorotor is installed in a tank in which the effluent to be purified passes through. Since the shaft is rotating, the support is alternately in contact with the water and with the air. The conditions are met for aerobic bacteria growth. Within a few days, the development of a biofilm can be observed on the surface of the support material.

Integrating the pamco® biorotors to your treatment process has many advantages :

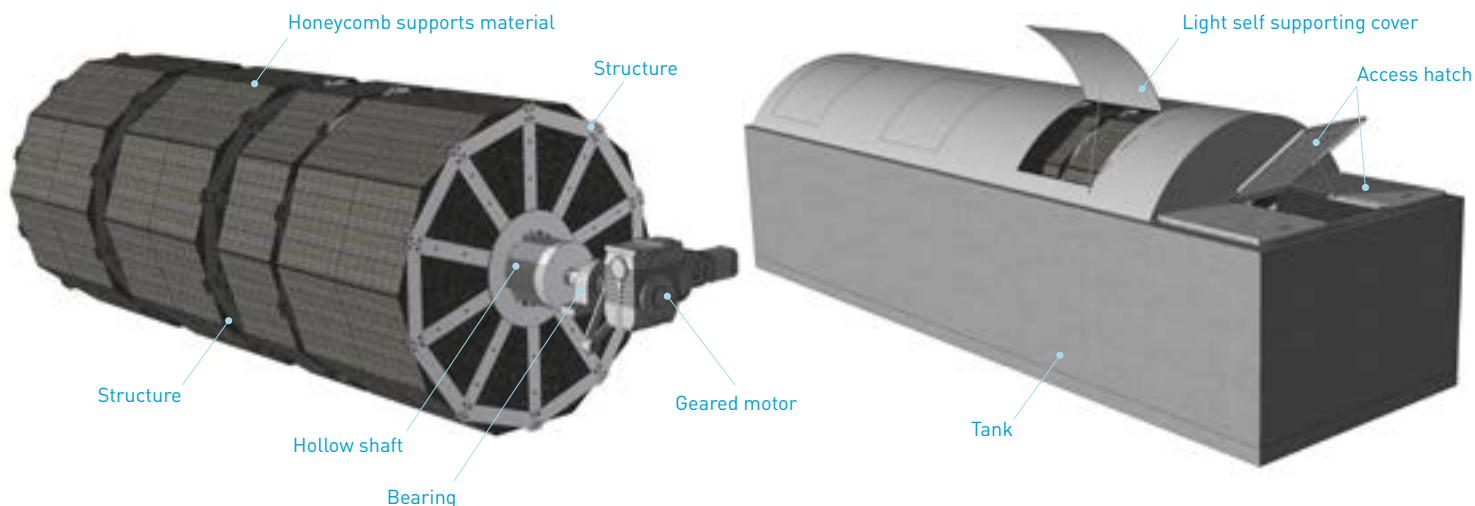
- it is an ideal treatment process for small and medium-sized communities (100 to 5 000 PE)
- high purification performances : carbon and nitrogen (nitrification – denitrification) removal
- excellent resistance to organic loading variations (safety in the design of the surface)
- very low operating costs compared to other processes
- excellent landscape integration
- safe maintenance from the outside (no need to go inside the tank)
- tried en proven automatic unbalance detection and management system
- competent and reliable advices about the other stages of an RBC water treatment plant
- a bucket wheel to reduce investment costs and to regulate the flow
- electrical cabinet with frequency converter (protection against high torques, cleaning of biofilm, energy savings by choosing the most adequate speed, ...)



Simply efficient

Choosing pamco® is opting for :

- over 30 years of experience
- the most robust and industrial RBC on the market
- a hollow shaft - only two support bearings - no intermediate bearings
- three different honeycomb specific surfaces ensuring a clog-free operation



Material of the pamco[®] biorotors

- Honeycomb support material : polypropylene (PP) – specific surfaces of 125, 150 or 240 m²/m³
- Central shaft : ST37 steel + surface treatment (blasting SA 2 ½ + primer, min. 80 µm + 2 component sealer + several layers of epoxy, total min. 300 µm)
- Shaft ends : ST57-2 manufactured uncoated steel
- Metal frame : stainless steel (AISI 304)
- Spacers between the support material and the structure : stainless steel (AISI 304)
- Mounting plates : galvanized steel or stainless steel (AISI 304)
- Bearings : epoxy protection (2 coats of epoxy minimum thickness : 150 µm, applied on a base layer)
- Fixations : stainless steel (A2 minimum)
- Tank (in option) : fiber reinforced concrete

« Standard » range : RBC pamco[®] + prefab tank

Diameter	Type (codic n°)											PE	BOD5 (mg/l)				Total surface (m ²)	"Average g BOD5/m ² .j"	Efficiency on BOD5	Nitrification
													S0	S1	S2	S3				
2	3	3	42	20	s	s	h	2	2	3	150	225	36,4	14,7	6,0	2.065	2,9	97%	yes	
2	3	2	24	20	s	s		2	2		150	225	36,4	14,7	-	940	6,5	93%	no	
2	3	3	54	20	s	s	h	3	2	4	200	225	34,3	16,4	6,4	2.675	3,0	97%	yes	
2	3	2	30	20	s	s		3	2		200	225	34,3	16,4	-	1.175	6,9	93%	no	
2	3	3	66	20	s	s	h	3	3	5	250	225	38,4	15,9	6,3	3.285	3,1	97%	yes	
2	3	2	36	20	s	s		3	3		250	225	38,4	15,9	-	1.410	7,2	93%	no	
2,5	3	3	42	25	s	s	h	2	2	3	250	225	37,5	15,3	6,3	3.256	3,1	97%	yes	
2,5	3	2	24	25	s	s		2	2		250	225	37,5	15,3	-	1.480	6,8	93%	no	
2,5	3	3	60	25	s	s	h	3	3	4	350	225	36,2	14,5	6,3	4.588	3,1	97%	yes	
2,5	3	2	36	25	s	s		3	3		350	225	36,2	14,5	-	2.220	6,4	94%	no	
3	3	3	42	30	s	s	h	2	2	3	350	225	36,7	14,8	6,1	4.755	3,0	97%	yes	
3	3	2	24	30	s	s		2	2		350	225	36,7	14,8	-	2.160	6,6	93%	no	
3	3	3	54	30	s	s	h	3	2	4	500	225	35,8	17,5	6,8	6.160	3,3	97%	yes	
3	3	2	30	30	s	s		3	2		500	225	35,8	17,5	-	2.700	7,5	92%	no	

Note : pamco[®] RBC are also available in 4 m diameter. To be placed in a reinforced concrete tank built on site.

pamco[®] biorotors are designed, manufactured and distributed by :



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