



# TK - TANK FLOTATION CELLS



**TÜFEKÇIOĞLU®**

RUBBER & MACHINERY

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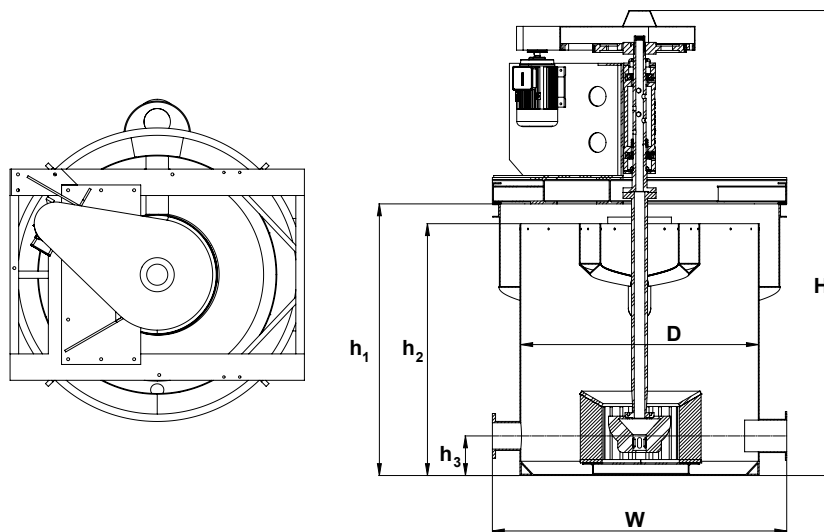
# TK-Tank Flotation Cells

Tüfekçioğlu Rubber & Machinery has pioneered the designing of a new flotation cell in Turkey, in collaboration with Tubitak (The Scientific and Technological Research Council of Turkey) and Hacettepe University. Tüfekçioğlu is proud of being granted a patent for the design of new tank flotation cells.

A new rotor-stator design improving the flotation performance has been developed using the CFD (Computational Fluid Dynamics) technique. Thus, production of tank cells with larger volumes- not possible in conventional types- has already been accomplished. Industrial feedbacks have been very positive since 2011 to the present because their specific energy consumption and metallurgical performance are much better than that of conventional cells and it also has a favourable impact upon the economy of the plant by downsizing of footprints.

## ADVANTAGES OF TK-FLOTATION CELLS

- Low capital and operating costs
- Ease of operation
- Superior metallurgical performance
- Ease of control and suitability for automation
- Less footprints
- Wear resistant polyurethane impeller and stator

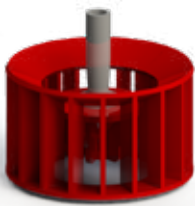


### TANK CELLS

Tank Code	H	D	W	h <sub>1</sub>	h <sub>2</sub>	L <sub>3</sub>	Volume
TK3	3515	1800	2215	2050	1800	260	3,0m <sup>3</sup>
TK5	3925	2000	2515	2500	2250	400	5,0m <sup>3</sup>
TK10	4260	2500	3035	2850	2560	460	10,0m <sup>3</sup>
TK20	4785	3100	3770	3300	3000	580	20,0m <sup>3</sup>
TK25	4885	3300	4080	3400	3100	580	25,0m <sup>3</sup>
TK40	5230	4000	4600	3750	3400	580	40,0m <sup>3</sup>
TK50	5500	4300	4920	3800	3500	600	50,0m <sup>3</sup>
TK70	5715	4500	5120	4650	4500	700	70,0m <sup>3</sup>
TK100	6700	5600	6400	5565	5315	700	100,0m <sup>3</sup>

## TANK CELLS

Tank Code	Motor (kW)	Motor Speed (rpm)	Weight (kg)	Required Air m <sup>3</sup> /min.	
				Min.	Max.
TK3	11	1000	3000	1,5	2,5
TK5	15	1000	3300	2	3,0
TK10	18,5	1000	4700	3	4,5
TK20	37	1000	7000	5	7
TK25	45	750	8000	6	8
TK40	55	750	10000	7	10
TK50	75	750	12000	9	14
TK70	90	1500	16000	14	20
TK100	90	1500	22000	16	25



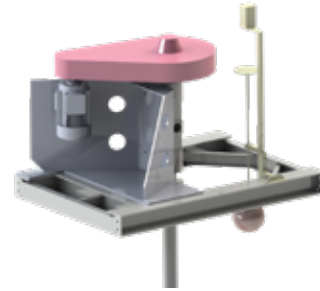
Innovative and patented design of impeller and stator reduces wear and brings about desired hydrodynamic conditions for a good flotation performance.



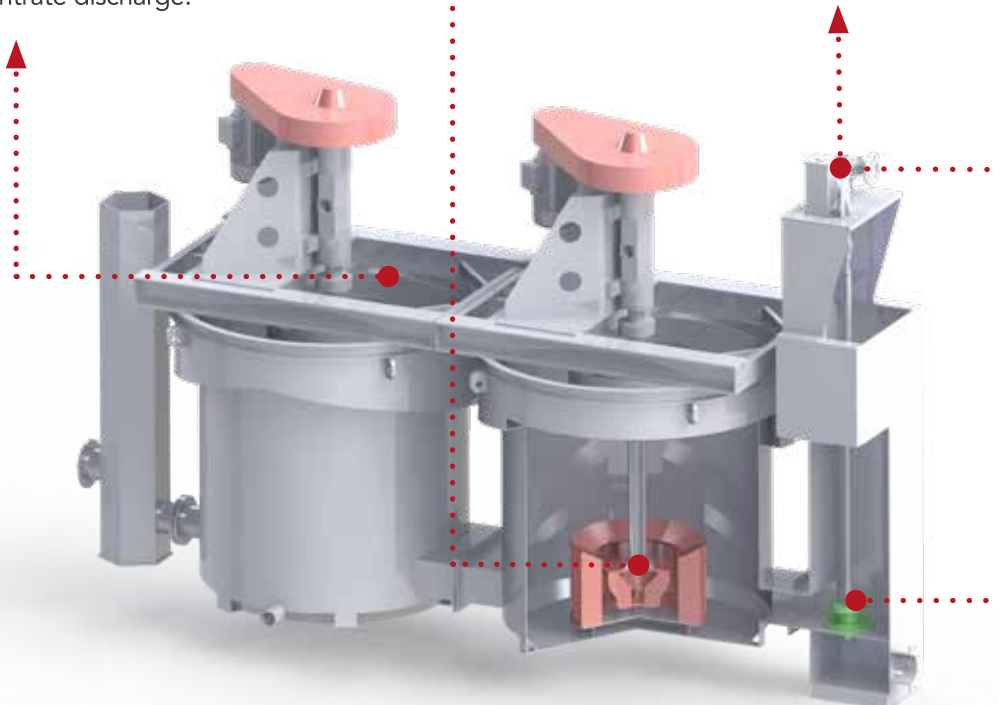
Innovative and patented design of impeller and stator hinders sanding and it never poses a problem.



Inner and outer donut launders accelerate concentrate discharge.



Fully automatic pulp level controller equipped with an ultrasonic sensor provides desired froth thickness precisely.





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