



Dantek resume

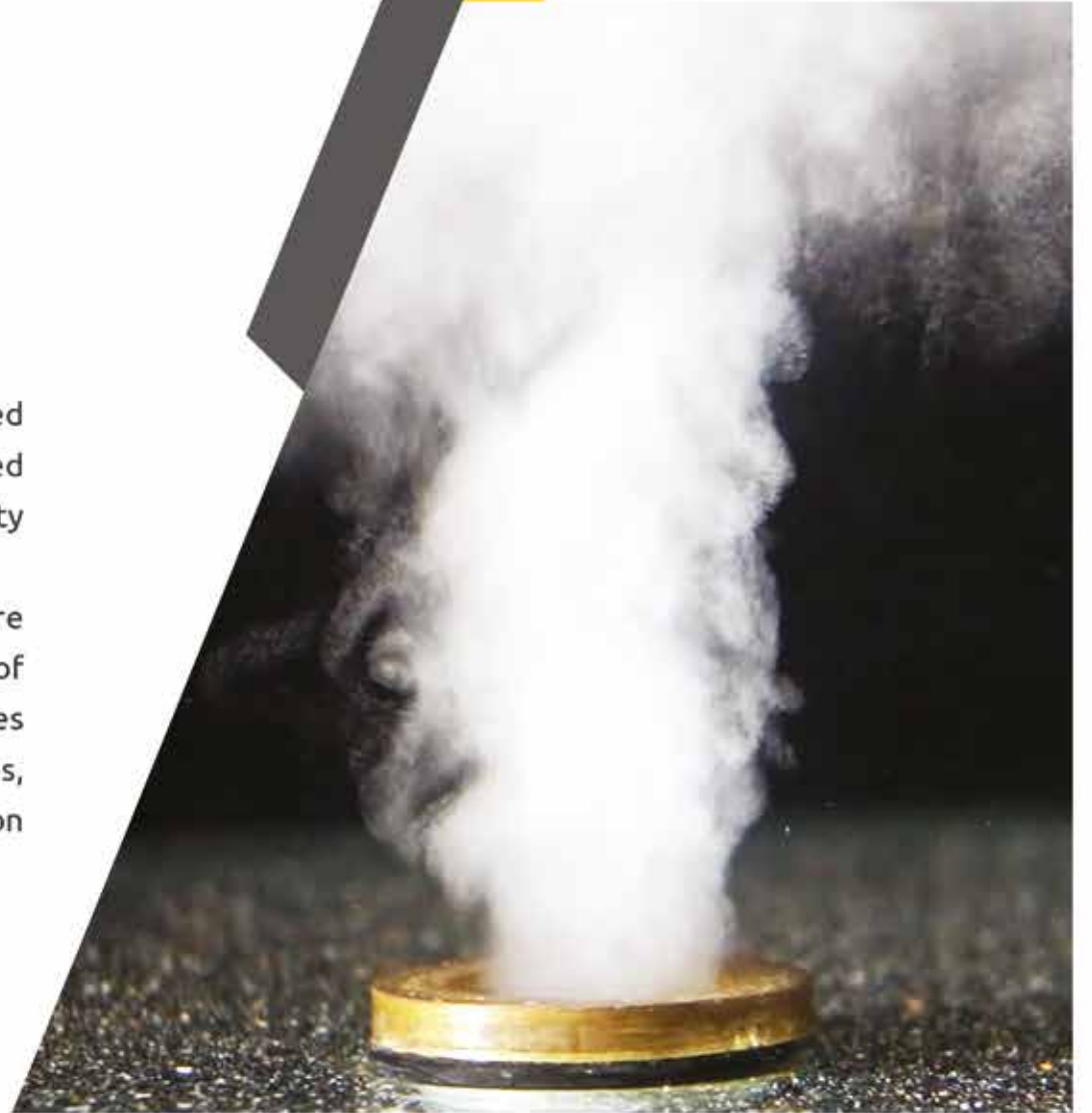
Micro-Nanobubble Technologies

An Innovative Idea

Dantek Introduction

Dana Tajhiz Petro Ab (DANTEK) Company is a technology based company in the field of water and energy with a focus on applied and interdisciplinary projects. Dantek Group has started its activity based on continuous research and development since 2018.

Our main mission in Dantek group is to design and manufacture two-phase Vortex pumps and related equipment with the aim of using this type of equipment in water and wastewater, refineries and petrochemical industries, food industries, mining, factories, agriculture and fisheries. Vortex pumps are an advanced generation of two-phase pumps which are capable of combining gas-fluid.





Dantek Team

Dantek is a technology based company in the field of water and energy with a focus applied and interdisciplinary projects. This mission will be possible just by continuous research and development and the integration of elites in various fields. What drives us to succeed is continuous evaluation and receiving national and international standards. We hope to accompany you with regard to using this technology by showing a glimpse of these achievements.



Davood Saeidi Ph.D.
Founder | CEO

Davood Saeidi is one of the founders of Dantek. He has Ph.D. in mechanical engineering. He has more than a decade of experience in the scientific and research centers and industry. Dr. Saeidi has sufficient mastery in simulation, design and construction of nanobubble systems and has various research-applied projects in his resume.



Ahmad Reza Zamani Ph.D.
Founder | Member of Board

Ahmad Reza Zamani is one of the founders of Dantek. He has a Ph.D. in mechanical engineering and is also a faculty member of Isfahan University of Technology. Dr. Zamani has been carrying out applied and interdisciplinary research and various engineering projects so far.



Navid Saeidi Ph.D.
Founder | Member of Board

Navid Saeidi is one of Dantek's research and development directors. He has a Ph.D. in materials science and has more than ten continuous years of experience in scientific and research centers both in academia and industry.

Dantek History

2018

The formation of Dantek core

2019

Manufacturing two-phase vortex pump

- Capacity 1m³ /h (Summer 2019)
- Capacity 7m³ /h (winter 2019)

2020

- Registering Company (summer 2020)
- Two-phase vortex pump with capacity of 25 m³/h (summer 2020)
- Receiving Nano-Related Certificate (Autumn 2020)
- Receiving knowledge-based company Certificate (autumn 2020)
- Acquisition of ozone nanotechnology (winter 2020)

2021

- Dantek Micro-Nano Bubble Laboratory (Spring 2021)
- Taking part in Iran-made Exhibition (Spring 2021)
- Registration in Iranian Strategic Technologies Laboratory Network (Summer 2021)
- Settling in Isfahan Science and Technology Town (Summer 2021)
- Obtaining a license to establish an engineering technical unit

Dantek Products

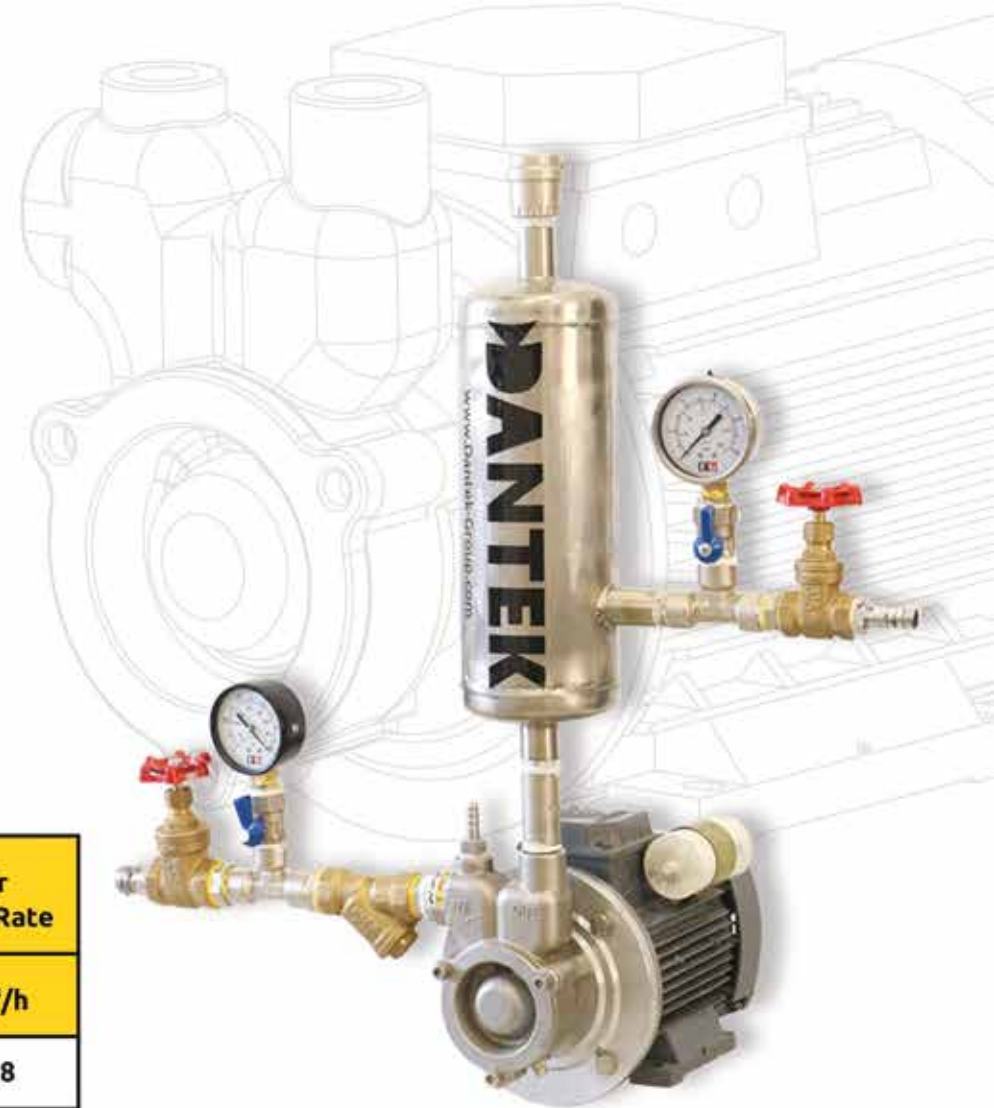
Model: SVP20 S 05

Capacity: 1m³/h

Applications:

- Beauty and hygiene items
- Small fish incubators
- Equipment using ozone gas
- Mixing two liquids with low capacity
- Used in laboratories & very low capacity applications
- Sterilization process of small scale laboratory and hospital

Pump Model	Power (kW)	RPM	Inlet/Outlet size	Material	Water Flow Rate	Air Flow Rate
					m ³ /hr	Nm ³ /h
SVP 20 S 05	0.55	2900	DN 20/ DN 15	SS 304/Al	1	0.08



Dantek Products

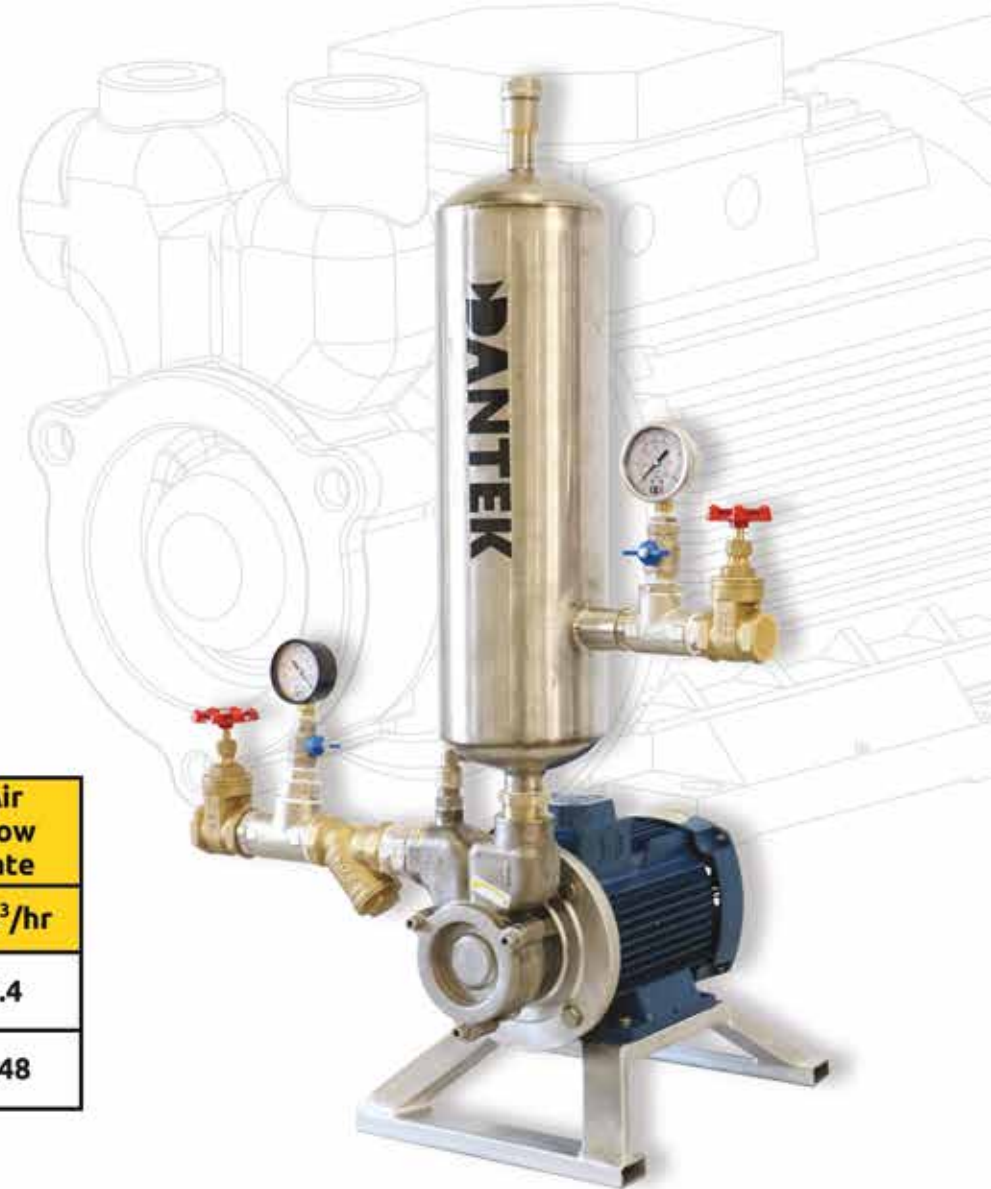
Model: SVP40 S 22-A,B

Capacity: 4m³/h- 7m³/h

Applications:

- DAF systems
- Industrial centers
- Aquaculture
- Medium capacity aeration
- Ozone injection

Pump Model	Power (kW)	RPM	Inlet/Outlet size	Material	Water Flow Rate	Air Flow Rate
					m ³ /hr	Nm ³ /hr
SVP 40 S 22-A	2.2	2900	DN 40/ DN 32	SS 304/316	4	0.4
SVP 40 S 22-B	2.2	2900	DN 40/ DN 32	SS 304/316	7	0.48



Dantek Products

Model : SVP63 S 110-A,B

Capacity: 25m³/h- 20m³/h

Applications:

- High capacity DAF systems
- Industrial, textile and food industries
- Closed and semi-closed aquaculture systems
- High-capacity aeration and injection of other gases into the fluid
- Ozone injection in industrial and large scale plants

Pump Model	Power (kW)	RPM	Inlet/Outlet size	Material	Water Flow Rate	Air Flow Rate
					m ³ /hr	Nm ³ /hr
SVP 63 S 110-A	11	1460	DN 63/ DN 50	SS 316	20	1.5
SVP 63 S 110-B	11	1460	DN 63/ DN 50	SS 316	25	2





008

Dantek Laboratory

Based on the technical knowledge gained in the field of nanobubbles and two-phase vortex pumps, Dantek has designed and implemented various laboratory pilots. The pilots are based at the Dantek Laboratory. Various tests can be performed through Dantek laboratory pilots, some of which are mentioned below.

Dantek Laboratory Services

- Short-term or long-term aeration to the desired fluid
- Dissolution of gas in fluid on a micro-nano-bubble scale with a capacity of 1 to 25 cubic meters per hour of inlet fluid (gases used in the laboratory: air, oxygen, carbon dioxide, nitrogen, ozone, other gases)
- Testing the effect of nano-bubble on industrial wastewater treatment (textile, food industry, oil and gas, etc.)
- Testing the effect of ozone nanobubble on bleaching and improving the quality of industrial effluents
- Air floatation tests in laboratory tanks in capacities of 20 liters, 1000 liters and 4000 liters
- Supplementary treatment test of crop effluent sample
- Production of white water for flotation tests
- Performing liquid-liquid rapid mixing tests
- Two phase fluid transfer tests



Some of Dantek's clients



Pentane Chemical Industries: process-Oil and Gas



Beh Palayesh Sabz Anahita: DAF-Textile Industry



Yasin Pajooch: Process-effluent treatment



Arakia Ab Palayesh (Clean Water): DAF - Water and Wastewater Industry



Nab zist: Ozone Injection - Agricultural Industry



Bama company: Flotation and ozone-mine injection



Ozone pajoochan Novin Asia: Oxygen injection – fisheries



University of Isfahan: Laboratory Pilot - Faculty of Chemistry






Isfahan University of Technology: Oxygen Injection - Faculty of Natural Resources, Ozone Injection - Faculty of Textile





Dantek Laboratory Service Customers

-  Mobarak Steel of Isfahan
Oxidation of soluble iron
-  Isfahan Oil Refinery
DAF- Municipal effluent
-  Modern Kaghad Paper manufacturing
High concentration ozone injection



Ongoing Projects

-  Beh Palayesh Sabz Anahita
Dye removal test from dyeing effluent using nano-ozone
-  Shafaa Cheshmeh Noor Kowsar
Oxygenation test at high concentration using a 25 m³ / h pump

Dantek Departments

Sales Engineering:

In this section, the necessary tips and advice for selecting individual products or modular systems can be provided by Dantek. These systems include various capacities of two-phase vortex pumps, vortex pumping stations, feed pumps, steel pumps, peripheral pumps, control and monitoring systems, power supply and various pilots.

Dantek Academy:

Due to the novelty of this technology, all theoretical and practical trainings about Dantek products are provided in this section. Also, due to the vastness of the research fields of this technology in different industries, as well as the potentials for conducting research and academic projects, small-scale pilots are designed by Dantek.

Set up and installation:

In this unit, installation and the set-up of Dantek equipment is done based on the requirements of the Vortex pumps and the accessories.

After-sales service:

Dantek products and their parts are completely based on domestic production capacity and Dantek meets the needs of its consumers in terms of spare parts and any possible repairs.



Certificates

Dantek Group, using dynamic light scattering (DLS) test method, has succeeded in obtaining valid certificates for the bubbles produced by the two-phase Vortex pump by the DLS-SZ100- device of the Nanotechnology Research Institute of Isfahan University of Technology. These certifications are based on the effective presence and high density of nanoscale bubbles in the fluid.

