



## Residential & Commercial Water Booster Systems

- ✓ KI Series
- ✓ KO-ST Series
- ✓ KO Series





### **Experience**

With more than 47 years of R&D, production and installation experience in the pump technologies field coupled with expert sales and after-sales services, we protect you and your investments without sacrificing quality.

Under the brand name ETNA, we offer complete solutions for building pump systems with an extensive product range including wet and dry rotor circulation pumps, horizontal single-stage end suction pumps, vertical multistage centrifugal pumps, double-suction centrifugal pumps with removable casing, sewage pumps, automatic sewage discharge units, residential and commercial booster systems, residential fire booster systems, mobile fire-fighting and flood drainage pumps, and UL448, FM1319 certified fire pumps meeting TS EN 12845 and NFPA 20 standards.

### **Green Engineering**

By blending advanced pump specifications with innovative technologies, we offer high-quality, high-performance, energy-efficient, environmentally-friendly, and low-cost products to end users.

ETNA set out with the vision of offering sustainable products and is the brand of choice in both Türkiye and the world, used with confidence.

## ETNA Water Booster Systems



### Frequency Controlled Water Booster Systems

Conventional fixed-speed water booster systems run the pump at full force even with minimum water consumption and they make frequent stop & starts. This results in water pressure fluctuations of up to 2 bar.

By contrast, ETNA frequency controlled booster systems have a Hydrokon frequency control panel mounted on the electric motor. This automatically changes the pump speed in response to the pumps' varying capacity needs during the day and ensures that the booster won't stall when it is activated. (A wall-mounted control panel is used in booster systems with 3 or more pumps).

Hydrokon frequency controlled booster systems guarantee that whatever the amount of water requested, it will be delivered at the desired constant pressure, offering users the comfort of interruption-free supply. The next-gen IE3 & IE4 motor frequency controlled booster systems minimize operating costs when compared to conventional booster systems.

### Exactly What You Need

With a range of models tailored for residences, commercial buildings, and industrial applications, ETNA water booster systems are delivered as a set complete with chassis-mounted electric pumps, inlet-outlet collector groups, protection-control panel, and all accessories (pressure switches, manometer, valve, float switch, balance tank and flex connection).

With the KI, HF KI, PFK KI, KO-ST, KO-ST, HF KO-ST, PFK KO-ST booster series with fully stainless steel pump, constant speed and frequency control and the KO, HF KO, PFK KO booster series with Noryl fan, constant speed and frequency control, there is an ETNA solution to meet your pressurized water needs.

# FULLY STAINLESS STEEL WATER BOOSTERS

## KI SERIES



**KI 2**



**2 HF KI**



**3 PFK KI**

**Water booster systems designed to meet the pressurized water need of residences, apartments, commercial buildings (hotel, hospital, dorm, school etc.) as well as irrigation systems and agricultural practices.**

- KI series booster pumps have an in-line (on the same axis) input/output connection.
- Frequency control in the HF KI series models is provided by Hydrokon, a frequency control device that can be mounted on the pump motor.
- Frequency control in the PFK KI models is provided by a panel-mounted driver.

### Pump Properties

Pump Casing	: AISI304 Stainless Steel
Fan & Diffuser	: AISI304 Stainless Steel
Pump Shaft	: AISI316 Stainless Steel
Inlet - Outlet Housing	: AISI304 Stainless Steel
Mechanical Seal	: Carbon/Ceramic/EPDM

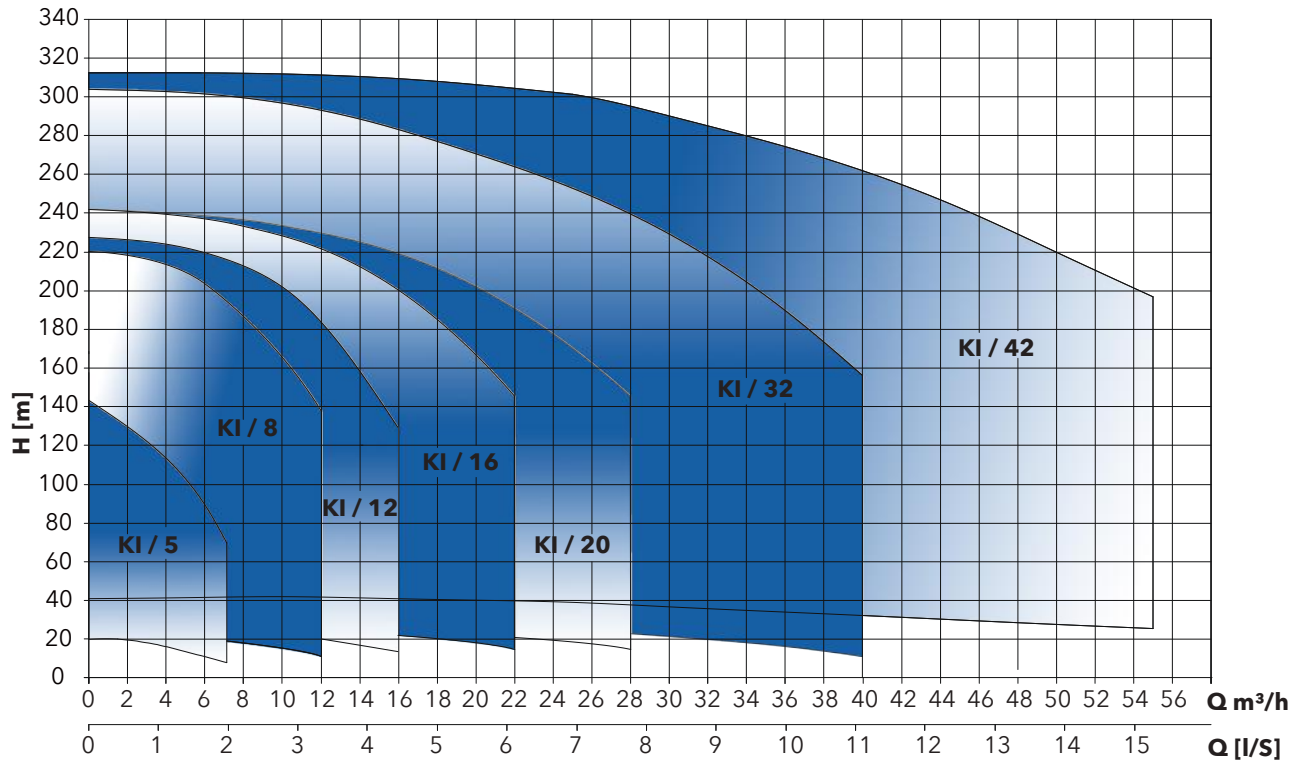
### Technical Specifications

Maximum Flow Rate	: 4x50 m <sup>3</sup> / h
Maximum Pressure	: 240 mwc
Connection Diameter	: 1" - 3"
Pressure Class	: PN16 & PN25
Maximum Ambient Temperature	: 40°C
Fluid Temperature	: 0 - 100 °C
Fluid Quality	: Clean, chemically neutral water with no solid particles.

### Motor Properties

Type	: Asynchronous, triphase electric motor
Mains Connection	: 3*380V, 50Hz
Speed	: 2900 rpm
Motor Power	: 1.1 - 35 kW
Motor Efficiency	: IE3 & IE4
Protection Class	: IP55
Insulation Class	: F

## KI BOOSTER SERIES FAMILY CURVE



Models	Standard Production	Motor Power	Mains Connection	Flow Rate (max.)	Pressure (max.)
		HP		m³/h	mwc
<b>KI 5</b>	Single / Twin / Triple	1.5-4	3~380V, 50Hz	7/14/21	144
<b>KI 8</b>	Single / Twin / Triple	3-7.5	3~380V, 50Hz	12/24/36	158
<b>KI 12</b>	Single / Twin / Triple	4-10	3~380V, 50Hz	16/32/48	151
<b>KI 16</b>	Single / Twin / Triple	7.5-15	3~380V, 50Hz	22/44/66	159
<b>KI 20</b>	Single / Twin / Triple	7.5-15	3~380V, 50Hz	28/56/84	157

**NOTE:** Please contact our company for your custom manufacturing booster requirements with 4-6 and more pumps.

# FULLY STAINLESS STEEL WATER BOOSTERS

## KO-ST SERIES



**1 KO-ST**



**2 HF KO-ST**



**3 PFK KO-ST**

**Water booster systems designed to meet the pressurized water need of residences, apartments, commercial buildings (hotel, hospital, dorm, school etc.) as well as irrigation systems and agricultural practices.**

- Frequency control in the HF KO-ST series models is provided by Hydrokon, a frequency control device that can be mounted on the pump motor.
- Frequency control in PFK KO-ST series models is provided by a panel-mounted driver.

### Pump Properties

Pump Casing	: AISI304 Stainless Steel
Fan & Diffuser	: AISI304 Stainless Steel
Pump Shaft	: AISI420 Stainless Steel
Inlet - Outlet Housing	: AISI304 Stainless Steel
Mechanical Seal	: Carbon/Ceramic/EPDM

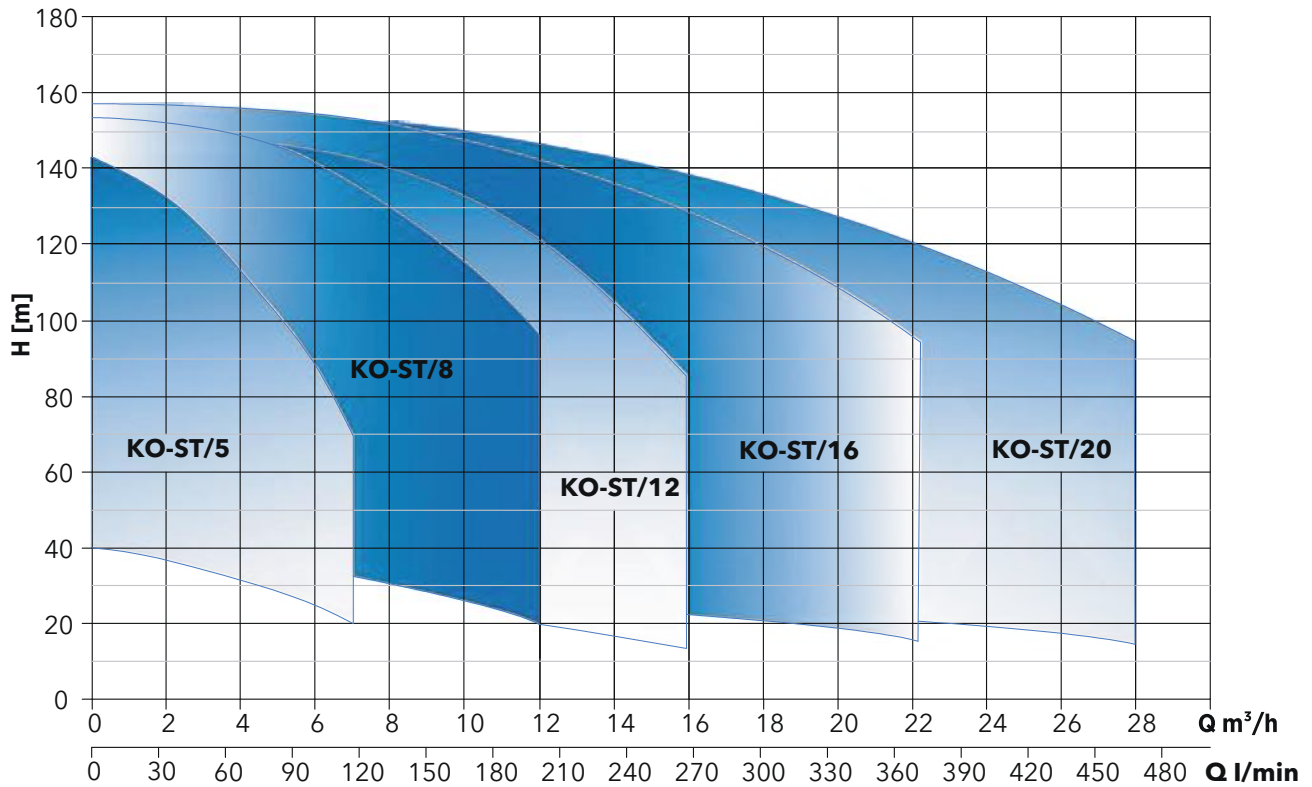
### Technical Specifications

Maximum Flow Rate	: 4x28 m <sup>3</sup> / h
Maximum Pressure	: 159 mwc
Connection Diameter	: 1"- 3"
Pressure Class	: PN16
Maximum Ambient Temperature	: 40°C
Fluid Temperature	: 0 - 100 °C
Fluid Quality	: Clean, chemically neutral water with no solid particles.

### Motor Properties

Type	: Asynchronous, triphase electric motor
Mains Connection	: 3*380V, 50Hz
Speed	: 2900 rpm
Motor Power	: 1.1 - 11 kW
Motor Efficiency	: IE3
Protection Class	: IP55
Insulation Class	: F

## KO-ST BOOSTER SERIES FAMILY CURVE



Models	Standard Production	Motor Power	Mains Connection	Flow Rate (max.)	Pressure (max.)
		HP		m³/h	mwc
<b>KO-ST 5</b>	Single / Twin / Triple	1.5-4	3~380V, 50Hz	7/14/21	144
<b>KO-ST 8</b>	Single / Twin / Triple	3-7.5	3~380V, 50Hz	12/24/36	158
<b>KO-ST 12</b>	Single / Twin / Triple	4-10	3~380V, 50Hz	16/32/48	151
<b>KO-ST 16</b>	Single / Twin / Triple	7.5-15	3~380V, 50Hz	22/44/66	159
<b>KO-ST 20</b>	Single / Twin / Triple	7.5-15	3~380V, 50Hz	28/56/84	157

**NOTE:** Please contact our company for your custom manufacturing booster requirements with 4-6 and more pumps.

## NORLY FAN BOOSTERS KO SERIES



**KO 1**



**2 HF KO**



**3 PFK KO**

**Water booster systems designed to meet the pressurized water need of residences, apartments, commercial buildings (hotel, hospital, dorm, school etc.) as well as irrigation systems and agricultural practices.**

- Frequency control in the HF-KO series models is provided by Hydrokon, a frequency control device that can be mounted on the pump motor.
- Frequency control in the PFK-KO models is provided by a panel-mounted driver.

### Pump Properties

Pump Casing	: AISI304 Stainless Steel
Fan & Diffuser	: Noryl
Pump Shaft	: AISI420 Stainless Steel
Inlet - Outlet Housing	: GG25 Pig Iron
Mechanical Seal	: Carbon/Ceramic/NBR

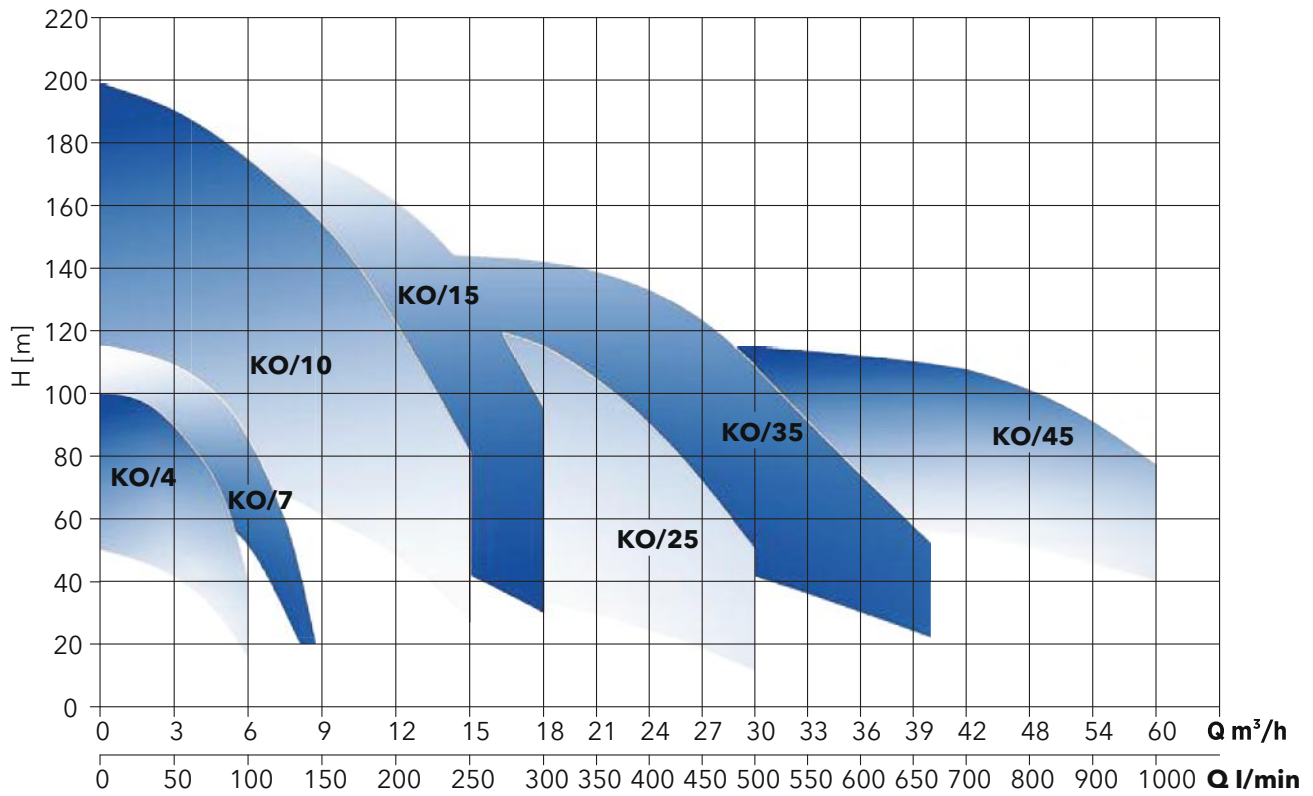
### Technical Specifications

Maximum Flow Rate	: 4x60 m <sup>3</sup> / h
Maximum Pressure	: 200 mwc
Connection Diameter	: 1" - 4" & DN125
Pressure Class	: PN16 & PN25
Maximum Ambient Temperature	: 40°C
Fluid Temperature	: 0 - 40 °C
Fluid Quality	: Clean, chemically neutral water with no solid particles.

### Motor Properties

Type	: Asynchronous, triphase electric motor
Mains Connection	: 3*380V, 50Hz
Speed	: 2900 rpm
Motor Power	: 0.75 - 22.5 kW
Motor Efficiency	: IE3
Protection Class	: IP54
Insulation Class	: F

## KO-ST BOOSTER SERIES FAMILY CURVE



Models	Standard Production	Motor Power	Mains Connection	Flow Rate (max.)	Pressure (max.)
		HP		m³/h	mwc
<b>KO 4</b>	Single / Twin / Triple	1-3	3~380V, 50Hz	6/12/18	100
<b>KO 7</b>	Single / Twin / Triple	1.5-4	3~380V, 50Hz	8/16/24	115
<b>KO 10</b>	Single / Twin / Triple	3-7.5	3~380V, 50Hz	15/30/45	199
<b>KO 15</b>	Single / Twin / Triple	3-10	3~380V, 50Hz	18/36/54	186
<b>KO 25</b>	Single / Twin / Triple	4-15	3~380V, 50Hz	30/60/90	142
<b>KO 35</b>	Single / Twin / Triple	7.5-20	3~380V, 50Hz	40/80/120	145
<b>KO 45</b>	Single / Twin / Triple	7.5-30	3~380V, 50Hz	60/120/180	120

**NOTE:** Please contact our company for your custom manufacturing booster requirements with 4-6 and more pumps.

## FREQUENCY CONTROL PANELS



### Hydrokon Pump Mounted Variable Frequency Driver

- 2\* 16 character LCD screen
- Driving a total of 4 pumps with Hydrokon driver (1 main + 3 booster)
- Data transfer to building automation system through MODBUS via RS485 interface
- It features harmonic filtering technology that protects against harmful voltages.
- Programmable sleep and wakeup times (for the main pump)
- Power On / Running / General Error LEDs
- High and low voltage protection
- Short circuit protection on engine terminals
- Phase loss and phase sequence error protection
- Programmable activation and deactivation times (for the booster pumps)
- IEC 60204-1: It has passed the tests required by the 2006/AC 2010 standard.
- It meets the requirements of the 2006/42/EC regulation and the applied harmonized standards EN ISO 12100:2010 and has passed the tests.
- Operating temperature range between 0°C and 50°C
- Protection class IP 55

### AVS Wall Mounted Variable Speed Control Panel



- Allows cascade control of 1 driver and up to 6 pumps with specially designed PLC with 4.3" TFT touch screen
- Manual/Automatic operation with selector switch on front panel
- Phase protection relay for phase loss, asymmetry, and phase sequence protection
- Can transfer system operating data via Modbus using RS-485 communication protocol
- Protection against high pressure with limit- and duration-adjustable overpressure protection feature
- Protection against dry running and running under curve (cavitation) with limit- and duration-adjustable low-pressure protection
- Can set pumps for mutual aging
- Choice of driver-fitted or driverless system.

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