

Tonkaflo* Pumps

AS 40K Series



Figure 1: AS 40K Series

The new AS40K pump (Figure 1) combines high flow with the durability of stainless steel. The AS40K pump is a multistage centrifugal pump with an all stainless steel liquid end mounted on a high-thrust bearing frame. AS40K pumps are available in 60 Hz and 50 Hz models.

Especially designed for high-flow applications, the AS40K pumps tolerate punishing applications and harsh environments. AS40K pumps are ideal for use in the power generation and municipal industries, excelling in applications such as large-capacity membrane systems, general industrial boost applications, sanitizing systems and higher temperature water recirculation. In many applications one AS40K pump can take the place of two pumps, reducing both capital and energy costs.

Features & Benefits

- **All Stainless Steel Construction** makes AS Series pumps more durable and less susceptible to operator error. AS Series pumps are also chemically compatible with hydrocarbons and can perform within a greater temperature range than the standard Tonkaflo SS Series.
- **Mixed Flow Stage Design** delivers up to 74% efficiency.
- **High Grade Elastomers:** all seal materials are EPDM or PTFE in our standard design.
- **New Higher Efficiency** SS stages in the 40K design.
- **Fabricated Stainless Steel Stages** require less maintenance and eliminate the need to balance pump impellers as with single-stage pumps. The end result is smoother operation, less vibration and longer pump life.
- **Separate Bearing Frame** increases pump reliability and life because there is no thrust load on the motor. In addition, this feature allows the AS Series pumps to be powered by standard motors. The larger AS 40K's also include our new high thrust bearing frame design to insure smooth reliable operation.
- **Modular Liquid End** allows service of the mechanical seal without disassembling the liquid end of the pump. The AS Series' modular design also facilitates service of both pump and bearing frame.
- **Flexible Inlet Piping** can be modified to fit almost any application. For pressure boost applications, 4-inch inlets are available. For transfer applications, 6-inch inlets are available to connect with 6-inch piping and improve the net positive suction head (NPSH) available to the pump. Victaulic clamps reduce piping stress and make installation of the AS Series pumps easier.
- **Industry Standard Mechanical Seal** on pump inlet delivers higher boost pressure capability and longer seal life.



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General Specifications

Standard Features

- Motor: Standard Air-Cooled NEMA Motors (3550 rpm) 60 Hz; (2950 rpm) 50 Hz
- Mounting: Horizontal (all), Vertical (limited)
- Pump and Motor Combinations: 60 Hz: (8), 50 Hz: (9)
- Capacity: 250 to 525 gpm (114 m³/h)
- Pressures: up to 410 psid (28.9t bar)
- Total Discharge Head Pressure: up to 1000 psig (68.9 bar)
- Maximum Operating Temperature: 200°F (93°C) (limited flow range)

Table 1: Materials of Construction

Pump Shell	304SS
Diffusers and Impellers	304SS
Shaft	304SS
Discharge Housing	316SS
Inlet Housing	316SS
o-Ring/Seal Elastomers	Standard: EPDM/Optional: Viton ¹
Shaft Bearings & Seal Elastomers	Standard: Teflon ¹
Mechanical Seal	Standard: Stainless Steel, EPDM, Carbon-Ceramic Seal

¹Viton and Teflon are trademarks of DuPont

Connections

- 4- or 6-inch Inlet
- 4-inch Discharge

Power²

- 60 Hz - 3-phase (230/460 volt); 100Hp: 460 VAC only
- 50 Hz - 3-phase (190/380 volt); 75Hp: 380 VAC only

²575 volt 60 Hz, 400 volt 50 Hz, 415 volt 50 Hz motors are available on request.

Housing Specifications

Table 2: Close-Coupled Pumps

Model (60 Hz)	A	B	C	D
AS40402D/40602D	Inches (mm) 6.5 (168)	10.5 (267)	35.1 (891)	54.4 (1382)

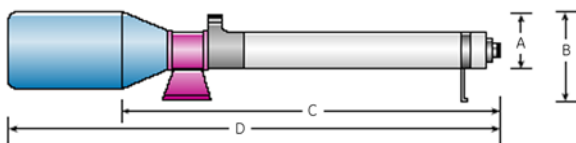


Figure 2: Close-Coupled

Table 2: K-Bearing Frame

Model (60 Hz)	A	B	C	D
AS40403KC/40603KC	Inches (mm) 7 (178)	12.5 (318)	42.1 (1069)	65.6 (1796)
AS40404KC/40604KC	6.6 (168)	12.5 (318)	47.1 (1069)	70.7 (1923)
AS40405KE/40605KE	6.6 (168)	13.5 (368)	52.2 (1326)	75.7 (2116)
AS40406KE/40606KE	6.6 (168)	14.5 (366)	58.5 (1486)	83.3 (2116)
AS40407KE/40607KE	6.6 (168)	14.5 (366)	63.5 (1614)	88.3 (2244)
AS40409KE/40609KE	6.6 (168)	14.5 (366)	73.7 (1872)	100.6 (2555)
AS40412KE/40612KE	6.6 (168)	15.5 (394)	88.7 (2255)	119.6 (3038)

For 50 Hz and specific performance data please see individual performance curves. Dimensions vary by model.

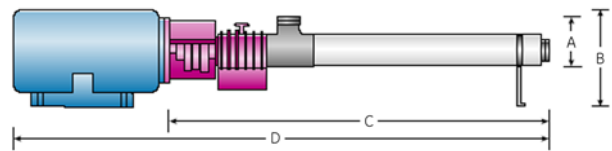


Figure 3: K-Bearing Frame

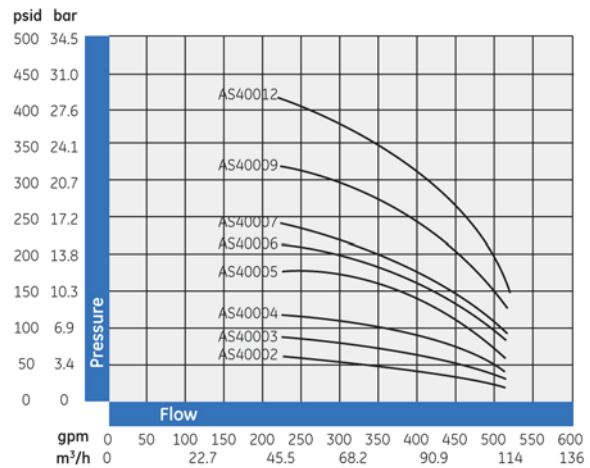


Figure 4: Performance Curve (60 Hz)