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Let's Solve Water

Sanitaire TurboMAX turbo blowers

EFFICIENT HIGH-SPEED BLOWERS FOR MEDIUM TO HIGH AIRFLOWS

SANITAIRE
a xylem brand

Sanitaire TurboMAX is an efficient, low maintenance, oil-free, direct drive blower available in many sizes. It is designed to meet higher airflow requirements in wastewater treatment facilities.

The TurboMAX series delivers an airflow of 300-40,000 m^3 per hour, helping larger-sized wastewater treatment plants achieve their treatment goals while saving energy and operating costs.

Designed with highest quality components, the blower provides:

- Ultimate efficiency
- Minimal maintenance need
- Optimized operator experience
- Ensured reliability
- Many customization options

TurboMAX is based on centrifugal blower technology, which eliminates low-frequency pulsating flow and ensures less noise emissions.

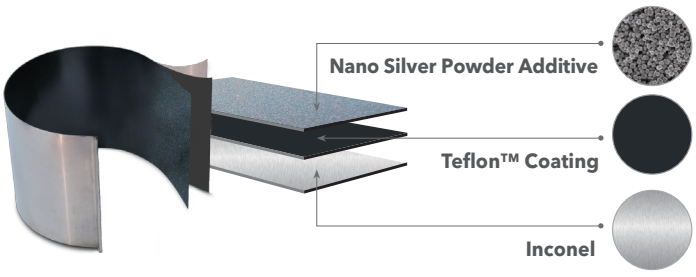
The high-speed permanent magnet synchronous motor provides high efficiency at varying loads with no slip and no mechanical losses. The impeller is directly connected to the motor shaft resulting in zero transmission losses.

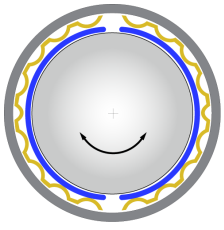
A high-efficiency blower developed for superior reliability.

Installation is simple and the blower is ready to use upon delivery with IP52 class protection, and IP 54 with outdoor enclosure on request. The unit does not require a concrete foundation and has adjustable feet. TurboMAX is CE compliant and manufactured in accordance with ISO 9000 and 14000 standards.

TurboMAX features:

- Easy access, built-in air filters
- Built-in flow meter with an accuracy of +/- 3% and optional alarm function, in some cases eliminating the need for independent flow meters
- Flow control by an integrated variable frequency drive (VFD) allows for a wide operating range on both pressure and flow
- Factory tested according to ASME PTC 10, PTC 13 or ISO 5389 standard. ASME PTC 13 is the only standard covering total input power and the true delivered outlet flow for all blower types, including positive displacement blowers, and should be referenced when comparing performance.
- Noise levels at 72-85 dB(A), depending on model and insolation type; standard according to ISO 3744:2010
- The new patent pending bi-directional airfoil bearing also features the Nano Silver triple treatment (NSTB) coating, which provides unmatched durability and reliability. NSTB offers over 15 years lifetime, and as much as 100,000 cycles, in normal operating conditions, which significantly exceeds the life expectancy of most active magnetic bearings. The bi-directional airfoil bearing is the only possible solution for any permanent magnet synchronous motor with airfoil bearing since the positioning of the motor can affect any other bearing negatively.





Bi-directional bearing

- Long life span
- 55,000-100,000 starts and stops
- Reversible rotation

Motor

- High-speed PMSM with Class H motor insulation
- Voltage 400 VAC, 50-60 Hz, 3-phase (optional 500 VAC)
- Protective earth (3P + PE)
- Class H isolation
- Titanium motor shaft

Impeller

- Solid forged aluminum Al7075-T6
- 5-axis, CNC-milled
- Anodized coating

Controls

- Danfoss Vacon® Variable Frequency Drive
- Siemens S7-1200 PLC, CPU1214C
- Full color 7" touchscreen panel
- Communication options: Modbus RTU, Modbus TCP, 4-20 mA, along with Profibus DP or ProfiNET by request

Enclosure

- Powder coated steel with IP52 rating
- Optional powder coated stainless steel 304 outdoor enclosure with IP54 rating
- Optional version with separated electrical panel and blower panel for hot climate installations up to 55°C

Additional features

- Easy access, built-in air filters
- Bellmouth flow meter (accuracy of +/-3%)
- Blow-off valve
- Optional accessories: discharge silencer, suction silencer (if flanged inlet is used), check valve, expansion joint

Approvals

- CE compliant
- ISO 9000 and ISO 14000 manufacturing standards
- Wimes

Cooling air quality

Permitted chemical vapors according to IEC 60721-3-3 class 3C2

Sulphur dioxide (SO_2)	0.3 / 1.0 mg/m^3
Hydrogen sulphide (H_2S)	0.1 / 0.5 mg/m^3
Chlorine (Cl)	0.1 / 0.3 mg/m^3
Hydrogen chlorine (HCl)	0.1 / 0.5 mg/m^3
Hydrogen fluoride (HF)	0.01 / 0.03 mg/m^3
Ammonia (NH_3)	1.0 / 3.0 mg/m^3
Ozone (O_3)	0.05 / 0.1 mg/m^3
Nitrogen oxide (NO_x)	0.5 / 1.0 mg/m^3

Technical data

	MAX10	MAX15	MAX20	MAX25	MAX30	MAX35	MAX40	MAX50	MAX60	MAX75	MAX100	MAX125	MAX150	MAX200	MAX250	MAX300	MAX350	MAX400	MAX500	MAX600	MAX700	MAX800	MAX1000
	Air Flow [m³/min] - 1atm(14.7psi), 20°C(68°F), 0 RH, Air Flow Tolerance : ±5%																						
HP	12	15	20	25	30	35	40	50	60	75	100	125	150	200	250	300	350	400	500	600	700	800	1,000
kW	8.8	11	15	18	22	26	29	37	44	55	74	92	110	147	184	221	257	294	368	441	514	588	736
MVC																							
3.0	504	750	810	1,140	1,530	1,620	2,040	2,580		4,380	6,480	5,100	8,760	11,340	12,060	16,800	16,380	18,720	24,240	33,600	32,760	37,440	48,480
4.0	444	660	780	1,050	1,440	1,560	1,920	2,460		3,960	5,820	5,040	8,040	10,440	11,460	15,480	15,780	18,000	23,100	30,960	31,560	36,000	46,200
5.0	384	570	732	960	1,290	1,470	1,770	2,280		3,420	4,380	4,980	6,840	8,640	10,740	13,500	14,940	17,040	21,480	27,000	29,880	34,080	42,960
6.0	330	492	660	810	1,110	1,350	1,620	2,070		3,120	4,080	4,800	6,180	8,040	9,840	12,240	13,860	15,840	19,680	24,480	27,720	31,560	39,360
7.0					-	1,080	1,320	1,770		2,640	3,540	4,440	5,340	7,080	8,820	10,800	12,720	14,520	17,220	21,240	25,440	29,040	34,440
8.0						990	1,170	1,590		2,400	3,240		4,800	6,480	8,100	9,720	11,400	12,960	15,960	19,200	22,800	25,680	31,920
9.0							960	1,200		1,860	2,700		4,140	5,520	6,960	8,220		10,800	13,920	16,440		21,600	27,840
10.0								1,080	1,002	1,740	2,520		3,900	5,220	6,600	7,800		10,500	13,200	15,600		21,000	26,400
11.0									996	1,500	2,100		3,240	4,920		6,900				13,800			
12.0									990	1,440	2,040		3,180	4,680		6,720				13,320			
13.0									978	1,380	1,980		3,120	3,900		6,000							
15.0									948	1,260	1,800		3,000	3,660		5,520							

Enclosure dimensions, mm

Model versions (C numbers is based on nominal air pressure; e.g. C060 = 6 m nominal air pressure)	Enclouser dimensions, mm (for guidance only)			Weight (kg)	Discharge flange, DN (end of encloser/ manifold)
	W	L	H	[kg]	[mm]
MAX10-C060, MAX15-C060, MAX20-C060, MAX25-C060	600	1,050	1,000	270	100
MAX30-C060/070, MAX35-C060/080, MAX40-C060/080, MAX40-C090	700	1,150	1,050	380	150
MAX50-C040	850	1,300	1,400	630	200
MAX50-C060/080, MAX50-C100	700	1,150	1,050	380	150
MAX60-C150	850	1,750	1,250	700	150
MAX75-C040, MAX75-C060/080, MAX75-C100	850	1,300	1,400	630	200
MAX75-C150	850	1,750	1,550	700	150
MAX100-C040	900	1,900	1,650	900	250
MAX100-C060/080, MAX100-C100	850	1,300	1,550	700	200
MAX100-C150	850	1,750	1,550	780	150
MAX125-C070	850	1,300	1,550	730	200
MAX150-C040, MAX150-C060/070/080, MAX150-C100	900	1,900	1,650	900	250
MAX150-C120	900	2,100	1,800	900	200
MAX200-C040	1,100	2,150	1,950	1,400	250
MAX200-C060/070/080, MAX200-C100	900	1,900	1,650	970	250
MAX200-C150	1,000	2,300	1,900	1,250	250
MAX250-C060, MAX250-C080/100, MAX250-C120	1,100	2,150	1,950	1,300	250
MAX300-C040T	1,600	2,100	2,050	1,950	450
MAX300-C060, MAX300-C080, MAX300-C100/120	1,600	1,900	2,050	1,720	250
MAX300-C150	1,100	2,150	1,950	1,720	250
MAX350-C080	1,600	1,900	2,050	1,900	250
MAX400-C060T/070T	1,600	2,000	2,050	2,050	450*
MAX400-C080, MAX400-C100, MAX400-C120	1,600	1,900	2,050	1,950	250
MAX500-C060T, MAX500-C080T	1,600	2,200	2,050	2,300	500*
MAX500D-C060, MAX500D-C080/100	1,900	2,500	1,950	3,300	500*
MAX600D-C060,MAX600D-C120, MAX600D-C100	2,200	2,700	2,050	3,650	600*
MAX700D-C080	2,250	2,900	2,050	3,800	600*
MAX800D-C060T/070T	2,250	3,100	2,050	3,800	600*
MAX800D-C080	2,250	2,900	2,050	3,800	600*
MAX800D-C100	2,250	2,900	2,050	3,800	500*
MAX1000D-C060T	2,650	3,350	2,050	4,500	700*
MAX1000D-C080T	2,650	3,350	2,050	4,500	600*

The above data is for guidance only. Please contact your local Xylem office to confirm exact data and measurements.

Ambient conditions

- Ambient temperature ranges from -10°C to 40°C (For higher temperatures up to 55°C or lower temperatures to -30°C, different executions are available as standard option)
- Atmospheric pressure range 90-110 kPa
- Maximum relative humidity 95%, non-condensing, non-corrosive, no dripping water
- Maximum altitude 1,500 m above sea level

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