



# Flygt 4200 Series Compact Adaptive Mixers



With its ability to match and adjust output to the real demand, Xylem’s range of Flygt adaptive mixers represents a new level in mixing performance. The Flygt 4200 series of submersible compact adaptive mixers revolutionizes the wastewater treatment industry by bringing complete control and adaptability into the mixing process. Along with the integrated power electronics, high-efficiency IE4 equivalent motor and optimized hydraulics, these enhanced capabilities bring a number of unmatched customer values:



**SPEND UP TO 50% LESS ON ENERGY**

Whether you control the mixer from the tank side or manage it from the control room, the Flygt 4200 adaptive mixers provide significant energy savings. By matching output to real demand, they save operational costs and optimize process efficiency.



**IMPROVE PROCESS RESILIENCY**

Experience full and immediate flexibility with the Flygt 4200 series. With manual tank side control or SCADA-integrated management, you can be sure that the mixer will adapt to handle both unexpected and planned changes with maintained efficiency.



**INCREASE MIXER UPTIME**

Diminish wear and tear thanks to the mixer’s high performance even at low speeds. The automatic motor overload protection reduces the risks for process down time.



**REDUCE MIXER INVENTORY**

Mixers in the Flygt 4200 series have multiple duty points and can easily be deployed across different applications, reducing the need for inventory of back-up mixers and spares and lowering capital investment for rebuild or mixer replacements.

**Scalable Mixer System**

Whether you choose a standard or adjustable mixer of the Flygt 4200 series, you can be assured of its unparalleled performance to meet your shifting process demands of wastewater treatment.



	<b>FLYGT 4220 AD FLYGT 4230 AD</b>	<b>FLYGT 4220 ADF FLYGT 4230 ADF</b>
Gateway FPG 415		✓
IE4 motor efficiency	✓	✓
High efficiency propeller	✓	✓
Soft start	✓	✓
Power factor close to 1	✓	✓
Always correct propeller rotation	✓	✓
Automatic overload speed control	✓	✓
Easily adjustable speed		✓
Analog I/O and Modbus RTU/TCP		✓
Full status and alarms information		✓
Jog wheel operator panel FOP 31 (optional)		✓
Touch screen operator panel FOP 402 (optional)		✓

**AD - STANDARD CONTROL**

Standard system with pre-set control incorporates many built-in valuable features providing energy savings, key autonomous protection capabilities, and scalability for ADF functionality at a later stage. It can easily replace any conventional compact mixer without any infrastructure modifications.

**ADF - FLEXIBLE CONTROL**

Gear up your Flygt 4220 or Flygt 4230 for tank-side and remote operation by adding the FPG 415 gateway with analog I/O and fieldbuses. Ease of connectivity and connections to the operator panel allow fully integrated monitoring functions, so you can be assured of optimal mixer operation wherever you may be.



# Gateway and Operator Panels

## GATEWAY - FPG 415

The FPG 415 gateway enables monitoring and control of mixer performance and status, including speed, power, alarms, running time and energy consumption, via operator panel or remote communications.

Communication	Modbus RTU / TCP, 4-20 mA
Standard Input/Output	4×DO, 4×DI, 1×AO, 1×AI
Ports	USB, RS485, Ethernet, operator panel, mixer
Environment class	IP 20, operation temperature -20°C to +65°C (-4°F to 149°F)
Power supply	24 VDC
Size (W×L×H)	45×100×100 mm, (1.77 x 3.94 x 3.94 in.), DIN mount
Approvals	CE, UL, CSA, RCM



## JOG WHEEL OPERATOR PANEL - FOP 315

The FOP 315 jog wheel operator panel is a traditional push-button interface for operator's inspection and mixer control.

Screen	3.5" monochrome LCD
Environment class	Handheld: IP20 Door mount. Front: IP 54; Back: IP21 Operation temp: -20°C to +70°C (-4°F to 158°F)
Power supply	24 VDC
Size (W×L×H)	205×33×110 mm, (8.07 x 1.3 x 4.33 in.), DIN or door mount
Approvals	CE, UL



## TOUCH SCREEN OPERATOR PANEL - FOP 402

The FOP 402 touch screen operator panel is a full text and graphics interface for quick and easy operator's management.

Screen	7" color touch screen
Environment class	Front: IP65; Back: IP20 Operation temp: -20°C to +60°C (-4°F to 140°F)
Power supply	24 VDC
Size (W×L×H)	197×42×140 mm (7.76 x 1.65 x 5.51 in.), Door mount
Approvals	CE, UL



## PERFORMANCE - FLYGT 4200 SERIES

Rated Power 50/60 Hz, kW (hp)	Flygt 4220				Flygt 4230				
	1.1 (1.5)	1.5 (2.0)	2.2 (3.0)	3.0 (4.0)	2.2 (3.0)	3.0 (4.0)	4.0 (5.5)	5.5 (7.5)	7.3 (10.0)
Propeller speed, rpm	variable, up to 800				variable, up to 290				
Maximum thrust, N*									
370 mm (14.5 in.) propeller	380	510	670	790	-	-	-	-	-
580 mm (22.8 in.) propeller	440	670	870	-	-	-	-	-	-
770 mm (30.3 in.) propeller	-	-	-	-	960	1,240	1,710	2,080	2,470
Maximum efficiency, N/kW*									
370 mm (14.5 in.) propeller	530	530	530	450	-	-	-	-	-
580 mm (22.8 in.) propeller	450	590	590	-	-	-	-	-	-
770mm (30.3 in) propeller	-	-	-	-	670	670	760	760	760

\*According to ISO 21630:2007 and depending on product configuration

# Flygt 4200 Series COMPACT ADAPTIVE MIXERS

		Flygt 4220	Flygt 4230
<b>Motor data</b>	Speed, max Type Efficiency Frequency Voltage Insulation class	800 rpm Synchronous permanent magnet motor IE4 level according to IEC/TS 60034-30-2 Ed. 1 50-60 Hz 380-480 V H (180°C, 356°F)	290 rpm Synchronous permanent magnet motor IE4 level according to IEC/TS 60034-30-2 Ed. 1 50-60 Hz 380-480 V H (180°C, 356°F)
<b>Materials</b>	Stator housing Wetted metal parts Connection housing Lifting handle and guide bar bracket Hub and propeller blades Propeller shaft O-rings Oil	Cast iron, ASTM 35B Stainless steel, ASTM 316L Stainless steel, ASTM 316L Stainless steel, ASTM 316L Stainless steel, ASTM 316L Stainless steel, ASTM 316L Stainless steel, ASTM/AISI 431 Flourinated rubber Paraffin oil ISO VG32	Cast iron, ASTM 35B Stainless steel, ASTM 316L Stainless steel, ASTM 316L Stainless steel, ASTM 316L Stainless steel, ASTM 316L Stainless steel, ASTM 316L Stainless steel, ASTM/AISI 431 Flourinated rubber Paraffin oil ISO VG32
<b>Cable</b>	Screened Flygt SUBCAB® with integrated control leads	10 or 20 m (30 or 65 ft)	10 or 20 m (30 or 65 ft)
<b>Application data</b>	Liquid temperature, max Liquid density, max pH range of mixed liquid Depth of immersion, max	40°C (104°F) 1,100 kg/m <sup>3</sup> (9.2 lb per US gal) 1-12 20 m (65 ft)	40°C (104°F) 1,100 kg/m <sup>3</sup> (9.2 lb per US gal) 1-12 20 m (65 ft)
<b>Weight and dimensions</b>	Weight, max Length, excl. bracket Propeller diameter  Guide bar bracket	70 kg (154 lb) 660 mm (26.0 in.) 580 mm (22.8 in.), Option: 370 mm (14.5 in.)  50x50 mm (2x2 in.) 50x100 mm (2x4 in.) 60x60 mm (2.4x2.4 in.) 80x80 mm (3x3 in.) 100x100 mm (4x4 in.)	220 kg (485 lb) 920 mm (36.2 in.) 770 mm (30.3 in.)  100x100 mm (4x4 in.) 100x150 mm (4x6 in.)
<b>Approvals</b>	CE, CSA, UL	Yes	Yes