



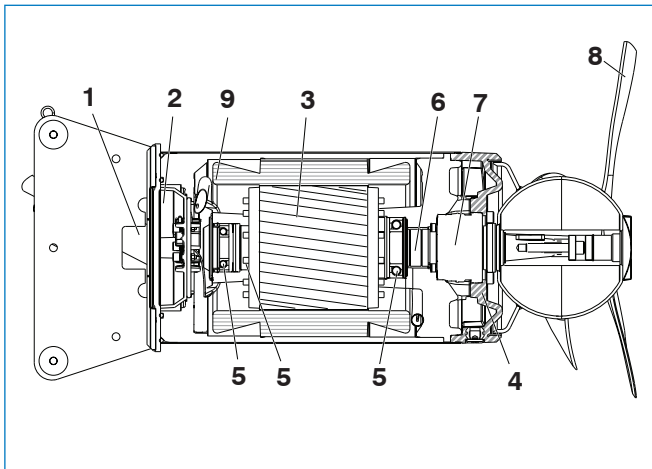
## Heavy duty, direct drive mixer

Nominal Thrusts: 370 to 820 N



### Applications:

4640 mixers are used in industrial processes such as Pulp & Paper, Chemicals, Food & Beverage and more. Also found in Municipal and Industrial waste treatment, Mining, Marine and Agricultural uses.



### Materials of Construction:

Available in a choice of the following:

- 304 Stainless Steel
- 316 Stainless Steel

### Approvals:

CSA tested and approved to UL Standard for Safety #778.

Factory Mutual Research tested and approved.

Suitable for use in:

Class I Div 1 groups C and D

Class II Div 1 groups E; F and G

Class III Div 1 Hazardous locations



### Specifications

#### 1. Cable Entry

Cable entry consists of two compressible rubber bushings to seal off motor area and relieve strain on the cable. Twice as many sealing bushings as previous designs means high reliability in difficult applications.

#### 2. Junction Box

Box is completely sealed off from surrounding liquid and stator casing via terminal board and an O-ring.

#### 3. Motor

Squirrel cage, 3 phase induction shell type design NEMA B motors are specifically designed for each mixer frame size. Non-overloading for full performance range. Motor insulation is Class H with a maximum working temperature of 180°C (356°F). Combined service factor of 1.10. Motors can be run continuously or intermittently. The stator is cooled by the surrounding mixed media.

#### 4. Oil Casing

An environmentally friendly white paraffin based, FDA approved, non-toxic oil lubricates and cools the seals and acts as an additional barrier to prevent liquid from penetrating the motor area. Pressure build-up within the casing is reduced by an inner and outer oil compartment design which transports any foreign liquids away from rotating components.

#### 5. Bearings

Bearings are of a preloaded design rated in excess of 100,000 hours of operation (B-10 rated life). Shaft is supported by a single row angular contact ball bearing and single row cylindrical roller bearing, plus a heavy duty single row angular contact ball bearing on the propeller side.

#### 6. Shaft

Motor shaft and rotor are a single integral unit. Shaft is completely isolated and cannot come in contact with the mixed media.

#### 7. Active Shaft Seals

Outer mechanical seal isolates the oil housing and surrounding liquids and is tungsten carbide lapped end faced running in oil. Inner mechanical seal operates between oil casing and stator casing. Only seal faces operate in the mixed media, all other components are within motor housing. One seal face of the inner seal pair has laser etched spiral grooves. As the seal rotates, these grooves act to pump any leakage back into the oil casing from out of the stator housing.

#### 8. Propeller

Three bladed, 316 stainless steel or optional high chrome propeller. Blades have large width, thin profile and smooth surface with a back swept design for optimum efficiency and non clogging operation. The blades are laser cut to exacting tolerances.

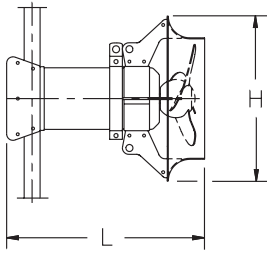
#### 9. Monitoring Equipment

The stator incorporates three thermal switches connected in series (one in each phase) which open at 260°F (125°C).

### Flygt products are affiliated with the following associations:

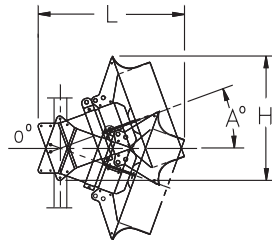


4640



ALL DIMENSIONS IN INCHES

DIMENSIONAL CHART					
A°	-20	-10	0	+10	+20
H	19 1/4	20 3/8	20 1/2	20 1/8	19 1/4
L	27 1/8	26 1/2	24 1/2	26 1/4	27 1/8



WEIGHT(LBS)
140

Propeller Performance

Model	*Prop. Code	Ø	Poles	Max. Motor HP Rating	Shaft HP	% Full Load	Power Input (kW)	Prop. Speed (RPM)	Prop. Dia. (inches)	Blade Angles (Degree)	Nominal Thrust (N)
Mixer With Jet Ring	083705SJ	3	8	4.0	1.8	44	1.73	855	14 7/16"	5°	370
	083706SJ	3	8	4.0	1.9	48	1.87	855	14 7/16"	6°	430
	083707SJ	3	8	4.0	2.1	52	2.03	855	14 7/16"	7°	490
	083708SJ	3	8	4.0	2.3	57	2.22	855	14 7/16"	8°	550
	083709SJ	3	8	4.0	2.5	62	2.43	855	14 7/16"	9°	620
	083711SJ	3	8	4.0	3.0	75	2.91	855	14 7/16"	11°	750
Mixer Without Jet Ring	083712SJ	3	8	4.0	3.3	82	3.19	855	14 7/16"	12°	820
	083705SF	3	8	4.0	2.1	53	2.05	855	14 7/16"	5°	450
	083706SF	3	8	4.0	2.4	59	2.29	855	14 7/16"	6°	510
	083707SF	3	8	4.0	2.6	65	2.53	855	14 7/16"	7°	570
	083708SF	3	8	4.0	2.8	71	2.77	855	14 7/16"	8°	630
083709SF	3	8	4.0	3.1	77	3.01	855	14 7/16"	9°	700	

\* Propellers also available in high chrome.

Motor Data:

Rated Output Power HP (kW)	Ø	Volts nom.	Full Load Amps	Locked Rotor Amps	Locked Rotor KVA	NEC Code Letter	Rated Input Power kW	Poles/RPM	Cable Size	Cable Part Number	Max. Cable Length (FT.)
4.0 (3.0)	3	200	15.0	51	17.6	D	3.8	8/855	4G2.5+2x1.5 17.5 mm (0.69")	94 20 59	100
		230	13.0	46	18.3	E					125
		460	6.7	23	18.3	E					500
		575	5.4	19	18.9	E					775

**Warm Liquid Cable:** (all voltages) HCR cable rated to 195°F (90°C): 7G2.5 94 20 91  
11.4 mm (0.45")

**Liquid Temperatures:** Mixers constructed in 316SS are assembled using components that will withstand liquid temperatures up to 195°F. Cable sizes shown above are based on max. liquid temperature of 104°F. Choose warm liquid cable for liquid temperatures exceeding 104°F.

Efficiency			Power Factor			Electrical Service Specifications
100% Load	75% Load	50% Load	100% Load	75% Load	50% Load	
77.5	78.0	78.0	0.72	0.65	0.52	Voltage Tolerances: ±5% (Rated Output), ±10% (without overheating) Frequency Tolerance: ±5% Voltage Balance (Phase to Phase): ±1% VFD Compatible

Xylem Inc., Flygt products, reserves the right to modify performance, specifications or design without notice.

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