

## **SINGLE INLET CENTRIFUGAL FANS** (Forward Curved, Belt Driven) **SAT Series**



### **Salient Technical Features :**

The **Blower Wheel** is made from high quality rust resistant galvanized sheet steel and has forward curved blades. A large forged steel or die cast aluminium hub with a precisely machined bore and a keyway is fitted to the wheel backplate. Use of precision tooling for the punching and assembling of wheel components results in **extremely low levels of eccentricity and run out** . The wheel is **statically and dynamically balanced to balance** quality grade G 4.0 of ISO 1940 standard.

The **Fan Housing** is also made from high quality rust resistant galvanized sheet steel with the housing wrapper fixed to the side plates using 'Pittsburg Lock'. Side plate profiles are precision cut for proper centering of the Impeller - Shaft assembly and accurate overall fan dimensions. **Aerodynamically shaped inlet venturies form an integral part of the side plates.**

The **Fan Shaft** is manufactured from high quality EN9 carbon steel with keyways at the drive end (for pulleys) and at the centre (for wheel hub) and is **ground to close tolerance** for precision fit.

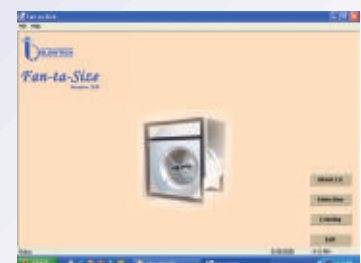
The **Wheel Shaft Assembly** is supported at both ends in **very high quality imported pre-greased permanently sealed ball bearings** with an eccentric locking collar. Each bearing sits inside a moulded rubber housing which in turn is mounted on to the fan housing using a set of 4 specially designed die formed epoxy powder coated sheet steel brackets on each side. After assembly, the shaft is coated with a fine layer of anti-corrosion laquor.

**Rectangular Side Frames** made from G.I. sheets are bolted to the Fan Housing. This improves fan rigidity and strength and allows easy mounting of the fan in various orientations. SAT S fans are supplied with mounting feet.

SAT series fans can be supplied with **inlet and outlet flanges** for duct connection.

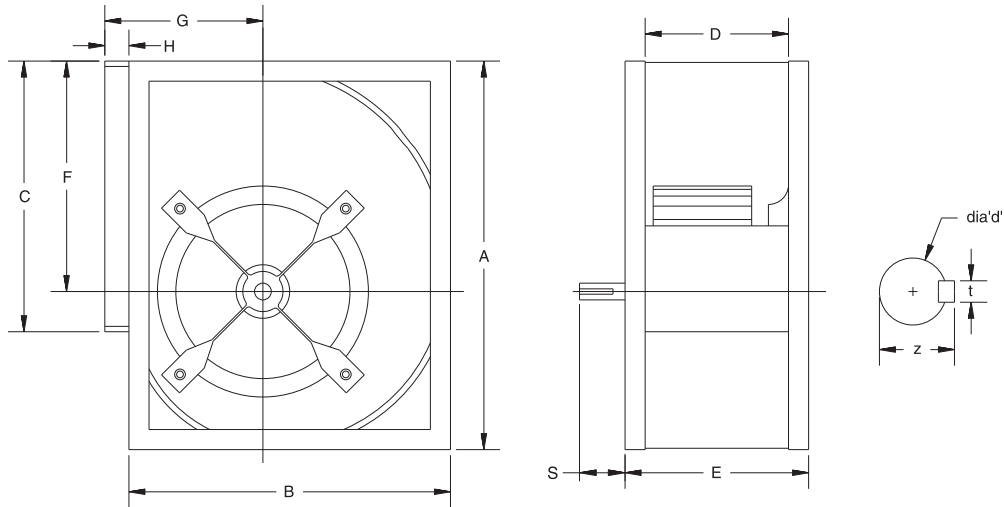
### **“FAN-TA-SIZE” Computerized Optimal Fan Selection Program**

This sophisticated Windows based fan selection program automatically provides the best selection of BLOWTECH fans for a given requirement of air volume and pressure. It gives all the desired operating point parameters such as fan speed, fan power, motor power, outlet velocity, efficiency, etc. in a fraction of a second. No need now for voluminous fan performance data and approximate and laborious extrapolation methods for fan selection and operating point determination.



# BLOWTECH SINGLE INLET CENTRIFUGAL FANS

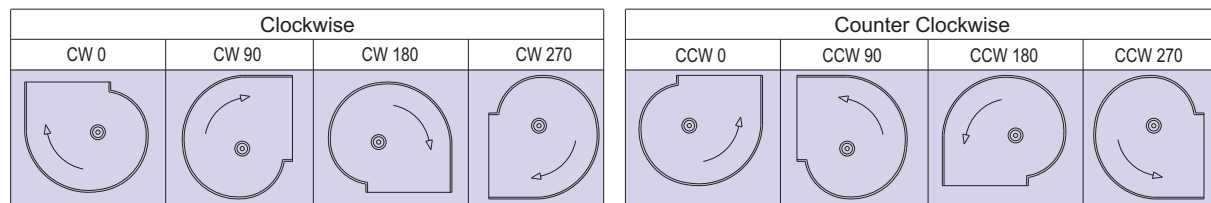
## Dimensions - SAT Series (mm)



Model	A	B	C	D	E	F	G	H	S	d	t	z
9x3.5 S	390	380	262	130	180	215	185	-	50	20	6	22.5
9x4.5 S	390	380	262	160	210	215	185	-	50	20	6	22.5
10x4 S	446	425	289	145	195	249	203	-	50	20	6	22.5
10x5 S	446	425	289	175	225	249	203	-	50	20	6	22.5
12x6	525	455	341	205	265	294	230	38	62	25	8	28
15x7.5	620	538	404	240	320	342	264	36	67	25	8	28
18x9	745	650	478	285	365	415	314	36	76	25	8	28

Note – SAT S fans (9x3.5 to 10x5) are provided with mounting feet (not rectangular side frames).

## Fan Rotation & Orientation



Rotation is determined from the drive (motor) side of the fan

## Performance Data

Normal Performance Range			Typical Operating Point				
Model	CFM	Ps (mm)	CFM	Out. Vel. (m/s)	Ps (mm)	RPM	Shaft Power (hp)
9x3.5 S	400-800	15-100	650	9.4	40	1319	.27
9x4.5 S	500-1000	15-100	800	9.3	40	1357	.33
10x4 S	500-1000	15-100	800	9.4	40	1168	.31
10x5 S	600-1200	15-100	1000	9.4	40	1172	.40
12x6	800-1600	20-85	1400	9.6	40	1037	.56
15x7.5	1200-2400	20-85	2000	9.7	40	856	.79
18x9	1700-3400	20-85	2800	9.8	40	705	1.08

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