

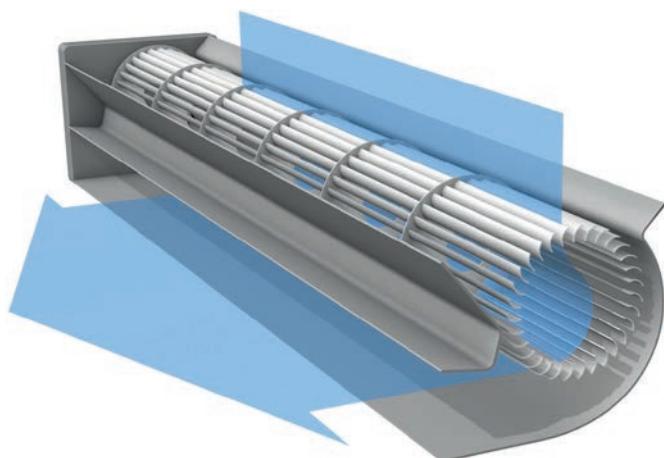
Technical brochure

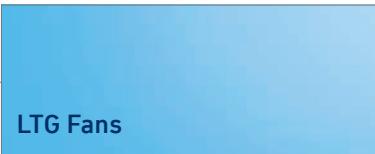
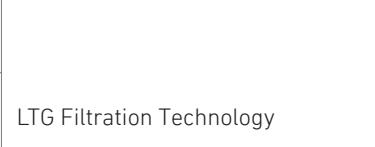
# LTG Fans

Tangential fans

## Type TA, TA t, TE t and GA

Impeller diameter 3.5" (90 mm)



LTG Process Air Technology	
	LTG Fans
	LTG Filtration Technology
	LTG Humidification Technology

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Dimensions in this technical documentation are given in inches (mm).

General tolerances according to DIN ISO 2768-cl apply.

## GENERAL

### An advantage for best heating, cooling, drying, air sweeping

Many production processes require a linear extended and absolutely even distribution of air or other gases to the working area.

Because of their special design, tangential fans meet these requirements especially well.

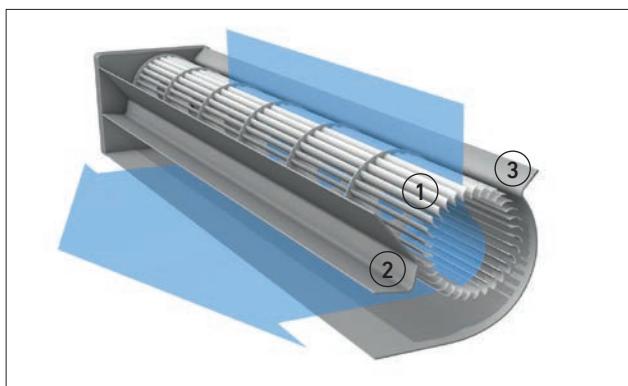
The rigid design and the use of high quality materials secure a long service life.

The working principle that does away with the need for additional baffles and vanes and the space saving design makes the use of tangential fans very economical.

### FLOW PRINCIPLE

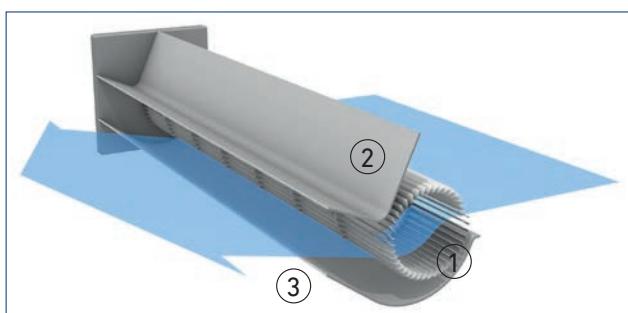
The air intake of tangential fans takes place over the whole length of the outer impeller periphery. The air then flows into the impeller interior where it is reversed and accelerated by the vortex caused by the impeller rotation. Finally the air is distributed at the discharge side over the whole impeller length. In this way the air flows through the impeller first from outside to inside and then from inside to outside. The impeller is a cylindrical cage of forward curved impeller blades with two or more supporting discs.

The vortex separates suction side and discharge side at the narrowest line between impeller ① and vortex inducer ② and causes the flow pattern together with the scroll ③.



Airflow tangential fan type TA 90 / TE 90, airflow deflection 90°

① Impeller    ② Vortex inducer    ③ Fan scroll



Airflow tangential fan type GA 90, airflow deflection 180°

### ADVANTAGES

- Uniform air flow over the entire fan width. Additional baffles, plenums and guide vanes are not required.
- Space saving due to a 90° or 180° airflow deflection.
- The fan width can be exactly matched to the machine width. The air flow pattern does not change with wider machines (simplifies design and drawings of modular systems).
- Works equally well in any arrangement (right hand drive or left hand drive available).
- Low noise operation due to aerodynamic impeller and scroll shapes.
- Long life expectancy due to the robust design and location of impeller bearings out of the air flow.

### APPLICATION OF LTG HIGH PERFORMANCE TANGENTIAL FANS

mechanical and plant engineering, medical technology, packaging industry, paper industry, pharmaceutical industry, power plant engineering, process engineering, railway technology, refrigeration technology, store design, surface technology, swimming pool technology, textile machinery design, tobacco industry, transportation cooling, wood industry...

- agricultural technology
- air conditioning technology
- apparatus engineering
- automotive industry,
- bakery technology
- biomedical industry
- building material industry
- chemical industry,
- cleaning technology
- control panel technology
- dedusting technology
- drying technology
- electronic industry
- environmental simulations
- food industry
- furnace technology
- heat treatment technology
- mechanical and plant engineering
- medical technology
- packaging industry
- paper industry
- pharmaceutical industry
- power plant engineering
- process engineering
- railway technology
- refrigeration technology
- store design
- surface technology
- swimming pool technology
- textile machinery design
- tobacco industry
- transportation cooling
- wood industry
- ...

## TYPE TA, TA t, TE t AND GA, IMPELLER DIAMETER 3.5" (90 MM)

### GENERAL INFORMATION

LTG Tangential Fans type TA, TA t, TE t and GA can be universally applied for heating, cooling, drying and air sweeping. These fans are specially suitable where an extended airflow over a wide area is necessary.

### POSITION OF THE FAN

Standard arrangement is horizontal. With vertical arrangement the drive motor has to be at the bottom.

### INSTALLATION AND START UP

Fix the fans to a plane base frame without any distortion. For the fixation use only the bolt holes in the side elements. Make sure to observe the applicable safety codes before starting the fans.

### MOTOR ARRANGEMENT

With suction opening on top, viewed against the discharge opening, the driving motor is optional either right hand (TAR, TARt, TERt, GAR) or left hand (TAL, TALt, TELt, GAL).

### ELECTRICAL EQUIPMENT

The fan is driven by a 4-pole single phase induction motor with capacitor, 115 V, 60 hz or 220 V, 50 hz.

Motor protection IP 44, protecting against dust deposits inside the motor and spray water.

Different motor performance and voltages are available.

### PACKAGING

We are exclusively using cardboard packaging with the RE-SY-symbol, in order to secure the acceptance and recycling guarantees.

The wooden pallets, shrinking foils, inner packages of styrofoam used for the protection of the articles/products/ goods are accepted by the recycling facilities which are affiliated to the RESY- association.

On request our shipping department will support you finding recycling facilities at your location.

### ELECTRICAL CONNECTION

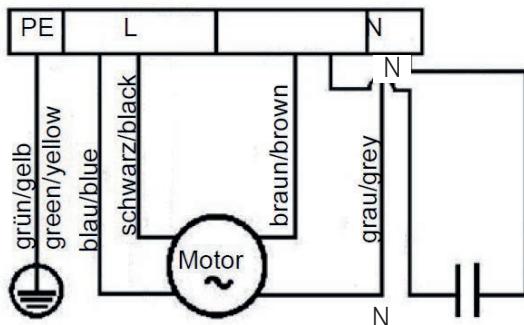


Figure: TAR / TER / GAR

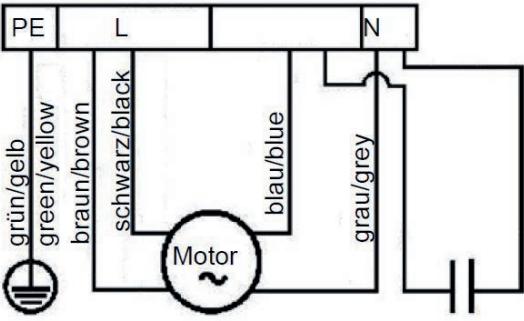


Figure: TAL / TEL / GAL

## TYPE TA, TA t AND TE t, IMPELLER DIAMETER 3.5" (90 MM)

The tangential fan type TA is a fan with enhanced corrosion resistance and suitable for use in low temperature applications.

The tangential fans type TA t and TE t are fans with enhanced corrosion resistance and suitable for an extended temperature range.

### OPERATING CONDITIONS

#### Air / Gas temperatures:

-40 °F up to +160 °F (-40 °C up to +70 °C)	TA
-40 °F up to +250 °F (-40 °C up to +120 °C)	TA t
-13 °F up to +400 °F (-25 °C up to +200 °C)	TE t

#### Ambient temperatures:

For the drive side with motor:

-13 °F up to +104 °F (-25 °C up to +40 °C)

For the counter side (TA and TA t):

-40 °F up to max. +160 °F (-40 °C up to +70 °C)

For the counter side (TE t):

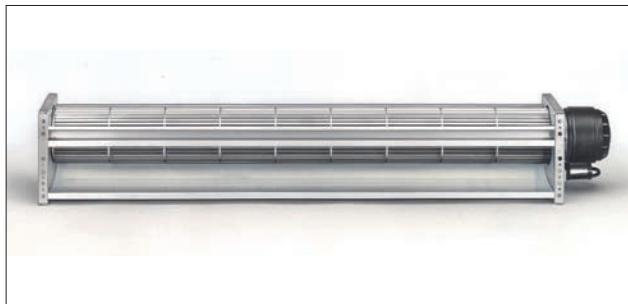
-13 °F up to max. +160 °F (-25 °C up to +70 °C)

### TYPES TA / TA t / TE t: THE RANGE

Type	Max. medium temperatures	Nominal impeller length [inch] (mm)	Casing	Impeller	Motor *	
TAR 90/397/24V	-40 °F to +160 °F (-40 °C to +70 °C)	15.5 (397)	marine grade aluminum	24 V	IP 42	
TAR/TAL 90/397/US		23.5 (597)		115 V, 60 Hz	IP 44 4 poles	
TAR 90/597/24V		32.5 (827)		24 V	IP 42	
TAR/TAL 90/597/US		40.5 (1027)		115 V, 60 Hz	IP 44 4 poles	
TAR 90/827/24 24 V		15.5 (397)		24 V	IP 42	
TAR/TAL 90/827/US		23.5 (597)		115 V, 60 Hz	IP 44 4 poles	
TAR 90/1027/24V		32.5 (827)		24 V	IP 42	
TAR/TAL 90/1027/US		40.5 (1027)		115 V, 60 Hz	IP 44 4 poles	
TART 90/397/24V	-40 °F to +250 °F (-40 °C to +120 °C)	15.5 (397)	marine grade aluminum	24 V	IP 42	
TART/TALT 90/397/US		23.5 (597)		115 V, 60 Hz	IP 44 4 poles	
TART 90/597/24V		32.5 (827)		24 V	IP 42	
TART/TALT 90/597/US		40.5 (1027)		115 V, 60 Hz	IP 44 4 poles	
TER t 90/397 24V	-25 °C bis +200 °C (-13 °F to +392 °F)	15.5 (397)	stainless steel	24 V	IP 42	
TER/L t 90/397 US		23.5 (597)		115 V, 60 Hz	IP 44 4 poles	
TER t 90/597 24V		32.5 (827)		24 V	IP 42	
TER/L t 90/597 US		40.5 (1027)		115 V, 60 Hz	IP 44 4 poles	
TER t 90/827 24V		15.5 (397)		24 V	IP 42	
TER/L t 90/827 US		23.5 (597)		115 V, 60 Hz	IP 44 4 poles	

\* Use the standard for every voltage and frequency indicated. 115 V, 60 Hz standard motor is UL/CSA approved

Special lengths on request

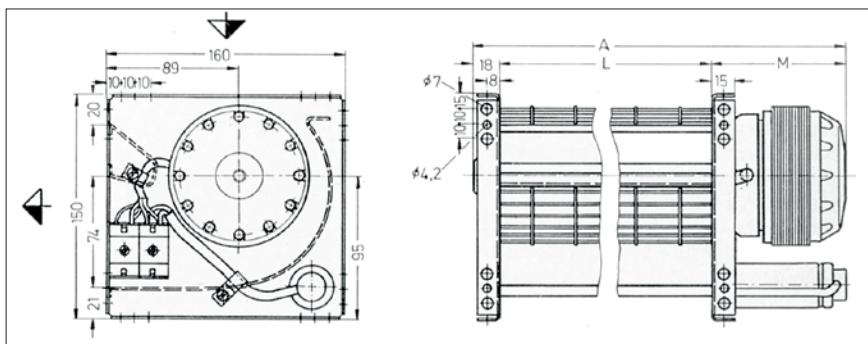
**TYPE TA, IMPELLER DIAMETER 3.5" (90 MM) -40 °F up to +160 °F (-40 °C up to + 70 °C)**

*Tangential fan type TAR 90 (right hand drive)*
**SPECIFICATION AND DESIGN FEATURES**

Tangential fan with close coupled, spray water protected drive motor.

Rigid bolted, corrosion proof casing. Impeller and casing of marine grade aluminum. Side elements of stainless steel (1.4301). On the drive side the impeller is bedded via an elastic coupling on the motor shaft; on the counter side in vibration damped friction bearings from sinter bronze with an ample grease reserve.

Bearing design life is 20 000 hours. Drive motor with capacitor and terminal block. Intake and discharge openings have sealing planes to connect exactly to ducts and appliances.

Low noise operation due to aerodynamic impeller and scroll shapes.

**DIMENSIONS AND PERFORMANCE DATA**

*Dimensions in mm*

Type	Dimensions [inch] (mm)			Air Volume V [cfm] (m³/h)	Speed n [rpm]	Power consumption P <sub>A</sub> [W]	Full load amps J <sub>A</sub> [A]	Capacitor		Masses [lb] (kg)
	A	L	M					[μF]	[V]	
<b>TAR 90/397/24V</b>	19.45 (494)	15.63 (397)	3.11 (79)	580 (980)	1700	83	3.46	-	-	5.7 (2.6)
<b>TAR 90/397/US TAL 90/397/US</b>	20.47 (520)	15.63 (397)	4.13 (105)	550 (940)	1570	115	1	12	220	6.4 (2.9)
<b>TAR 90/597/24V</b>	27.32 (694)	23.50 (597)	3.11 (79)	775 (1320)	1450	96	4	-	-	6.8 (3.1)
<b>TAR 90/597/US TAL 90/597/US</b>	28.35 (720)	23.50 (597)	4.13 (105)	790 (1340)	1390	134	1.17	12	220	7.5 (3.4)
<b>TAR 90/827/24V</b>	36.38 (924)	32.56 (827)	3.11 (79)	960 (1630)	1300	106	4.42	-	-	9.5 (4.3)
<b>TAR 90/827/US TAL 90/827/US</b>	37.40 (950)	32.56 (827)	4.13 (105)	980 (1660)	1220	149	1.28	12	220	10.1 (4.6)
<b>TAR 90/1027/24V</b>	44.25 (1124)	40.43 (1027)	3.11 (79)	1050 (1790)	1200	112	4.7	-	-	10.8 (4.9)
<b>TAR 90/1027/US TAL 90/1027/US</b>	45.28 (1150)	40.43 (1027)	4.13 (105)	960 (1630)	1130	150	1.31	12	220	11.5 (5.2)

**TYPE TA T, IMPELLER DIAMETER 3.5" (90 MM) -40 °F up to +250 °F (-40 °C up to + 120 °C)**


Tangential fan type TARt 90 (right hand drive)

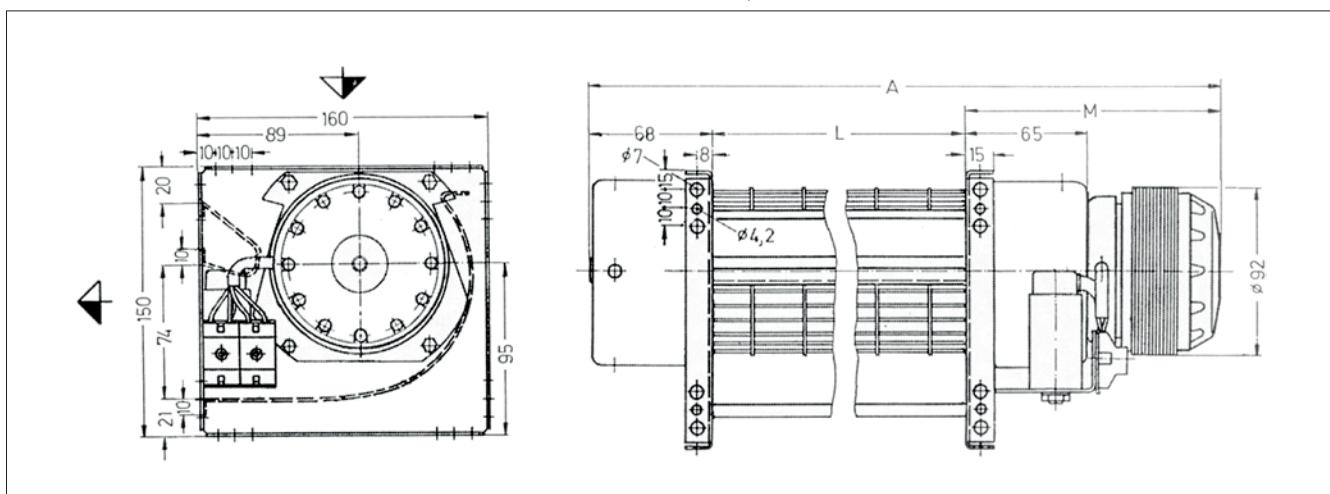
**SPECIFICATION AND DESIGN FEATURES**

Tangential fan with close coupled, spray water protected drive motor.

Rigid bolted, corrosion proof casing. Impeller and casing of marine grade aluminum. Side elements of stainless steel (1.4301). On the drive side the impeller is bedded via an elastic coupling on the motor shaft; on the counter side in vibration damped friction bearings from sinter bronze with an ample grease reserve.

Bearing design life is 20 000 hours. Drive motor with capacitor and terminal block. Intake and discharge openings have sealing planes to connect exactly to ducts and appliances.

Low noise operation due to aerodynamic impeller and scroll shapes.

**DIMENSIONS AND PERFORMANCE DATA**


Dimensions in mm

Type	Dimensions [inch] (mm)			Air Volume V [cfm] (m³/h)	Speed n [rpm]	Power consumption P <sub>A</sub> [W]	Full load amps J <sub>A</sub> [A]	Capacitor		Masses [lb] (kg)
	A	L	M					[μF]	[V]	
TARt 90/397/24V	23.43 (595)	15.63 (397)	5.12 (130)	577 (980)	1700	83	3.46	-	-	6.4 (2.9)
TARt 90/397/US TALt 90/397/US	24.45 (621)	15.63 (397)	6.10 (155)	550 (940)	1570	115	1.00	12	220	7.1 (3.2)
TARt 90/597/24V	31.30 (795)	23.50 (597)	5.12 (130)	1320 (777)	1450	96	4	-	-	7.5 (3.4)
TARt 90/597/US TALt 90/597/US	32.32 (821)	23.50 (597)	6.10 (155)	790 (1340)	1390	134	1.17	12	220	8.2 (3.7)

## TYPE TA AND TA t, IMPELLER DIAMETER 3.5" (90 MM)

### FAN CURVES FOR 110...115 V, 60 Hz

#### Test conditions for the fan curves

The indicated curves are valid for an air density of 0.075 lb/ft<sup>3</sup> ( $\rho = 1.2 \text{ kg/m}^3$ ), a supply voltage of  $U = 115 \text{ V}$ , 60 hz, if operated with a 4-pole motor.

The rating tests were done as laboratory tests according to VDI 2044 with unrestricted inlet and discharge.

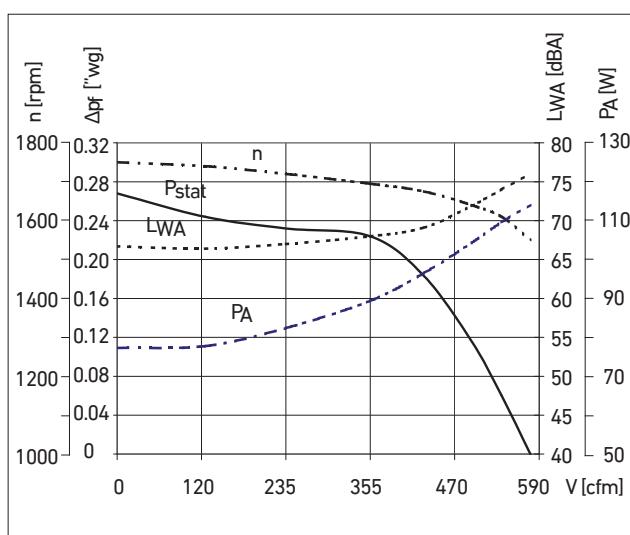
Measuring tolerances for  $\Delta p$ :  $\pm 0.08 \text{ "wg}$ ;

Measuring tolerances for  $L_{WA}$ :  $\pm 2 \text{ dB(A)}$

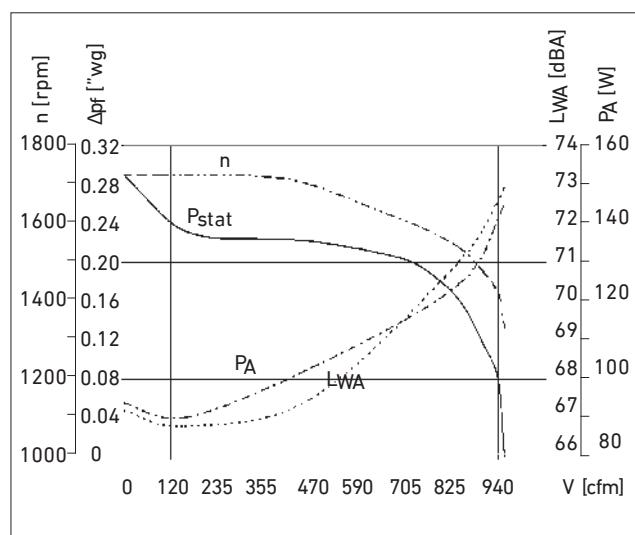
#### ACOUSTICAL DATA

The acoustical data are for discharge side, tested in a reverberant field.

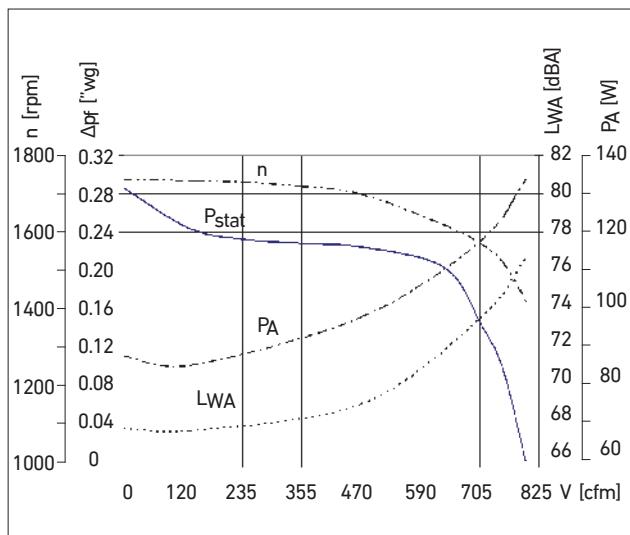
The A-weighted sound power level  $L_{WA}$  can be transformed into an A-weighted sound pressure level by the equation  $L_{PA} = L_{WA} - 10 \log S/1 \text{ m}^2$ . For this the exact total panel area  $S$  can be used. The sound pressure level in the free field in 1 m distance (full spheric sound radiation) is abt. 11 dB less than the sound power level.



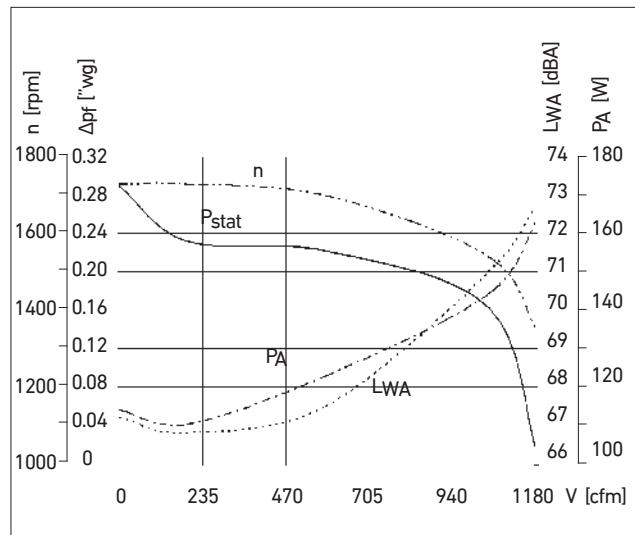
Fan curves for 15.5" / 397 mm nominal length



Fan curves for 32.5" / 827 mm nominal length



Fan curves for 23.5" / 597 mm nominal length



Fan curves for 40.5" / 1027 mm nominal length

## TYPE TA AND TA T, IMPELLER DIAMETER 3.5" (90 MM)

### FAN CURVES FOR 24

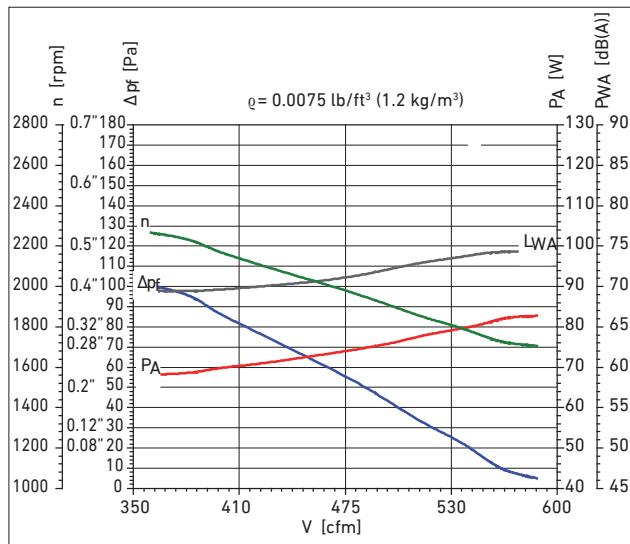
#### Test conditions for the fan curves

The indicated curves are valid for an air density of 0.075 lb/ft<sup>3</sup> ( $\rho = 1.2 \text{ kg/m}^3$ ), an input supply voltage of  $U = 24 \text{ V DC}$ .

The rating tests were done as laboratory tests according to VDI 2044 with unrestricted inlet and discharge.

Measuring tolerances for  $\Delta p: \pm 0.08 \text{ "wg}$ ;

Measuring tolerances for  $L_{WA}: \pm 2 \text{ dB(A)}$

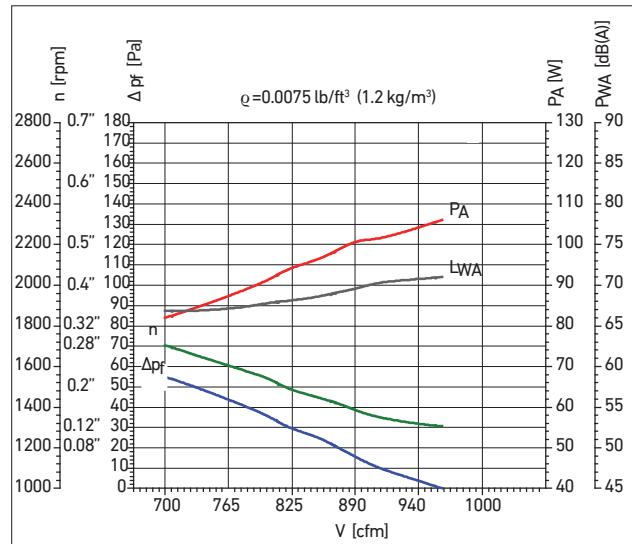


Fan curves for 15.5" / 397 mm nominal length

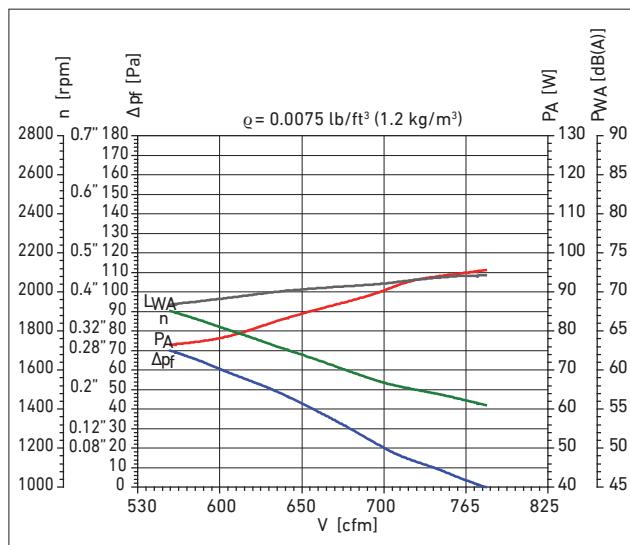
#### ACOUSTICAL DATA

The acoustical data are for discharge side, tested in a reverberant field.

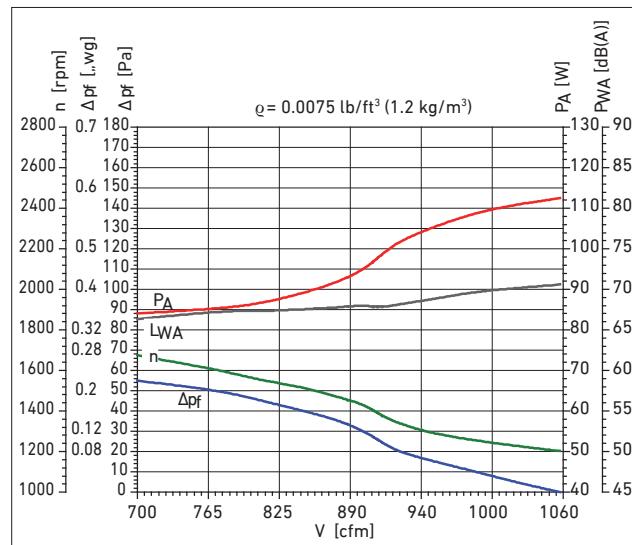
The A-weighted sound power level  $L_{WA}$  can be transformed into an A-weighted sound pressure level by the equation  $L_{pA} = L_{WA} - 10 \log S/1 \text{ m}^2$ . For this the exact total panel area  $S$  can be used. The sound pressure level in the free field in 1 m distance (full spheric sound radiation) is abt. 11 dB less than the sound power level.



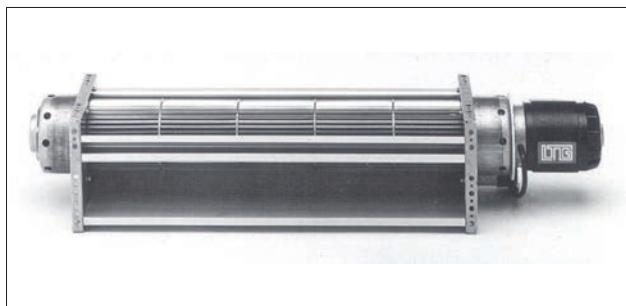
Fan curves for 32.5" / 827 mm nominal length



Fan curves for 23.5" / 597 mm nominal length



Fan curves for 40.5" / 1027 mm nominal length

**TYPE TE T, IMPELLER DIAMETER 3.5" (90 MM) -13 °F up to +400 °F (-25 °C up to +200 °C)**


Tangential fan type TERt 90 (right hand drive)

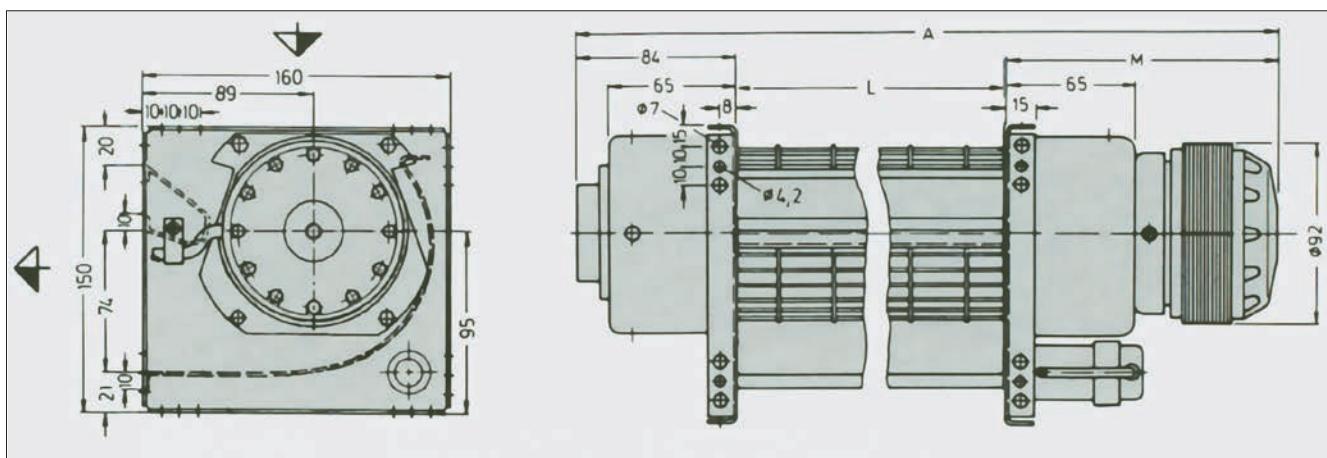
**SPECIFICATION AND DESIGN FEATURES**

Tangential fan with close coupled, spray water protected drive motor.

Rigid bolted, corrosion proof casing. Impeller of stainless steel, casing of marine grade aluminum. Side elements of stainless steel (1.4301). On the drive side the impeller is bedded via an elastic coupling on the motor shaft, on the counter side via vibration damped bearing inserted in the heat insulation cover.

Motor and end bearing side in specially greased ball bearings, made for a service life of 10,000 hours. Intake and discharge openings have sealing planes to connect exactly to ducts and appliances.

Low noise operation due to aerodynamic impeller and scroll shapes.

**DIMENSIONS AND PERFORMANCE DATA**


Dimensions in mm

Type	Dimensions [inch] (mm)			Air Volume V [cfm] (m³/h)	Speed n [rpm]	Power consumption P <sub>A</sub> [W]	Full load amps J <sub>A</sub> [A]	Capacitor		Masses [lb] (kg)
	A	L	M					[μF]	[V]	
<b>TERt 90/497/E104</b>	30.24 (768)	19.57 (497)	7.36 (187)	1060 (1800)	2600	430	0.8	6	400	10 (4.5)
<b>TELt 90/497/E104</b>										

## TYPE TE T, IMPELLER DIAMETER 3.5" (90 MM)

### FAN CURVES FOR 220 V, 50 Hz

#### Test conditions for the fan curves

The indicated curves are valid for an air density of 0.075 lb/ft<sup>3</sup> ( $\rho = 1.2 \text{ kg/m}^3$ ), a supply voltage of  $U = 220 \text{ V}$ , with  $f = 50\text{Hz}$  if operated with a 2-pole motor.

The rating tests were done as laboratory tests according to VDI 2044 with unrestricted inlet and discharge.

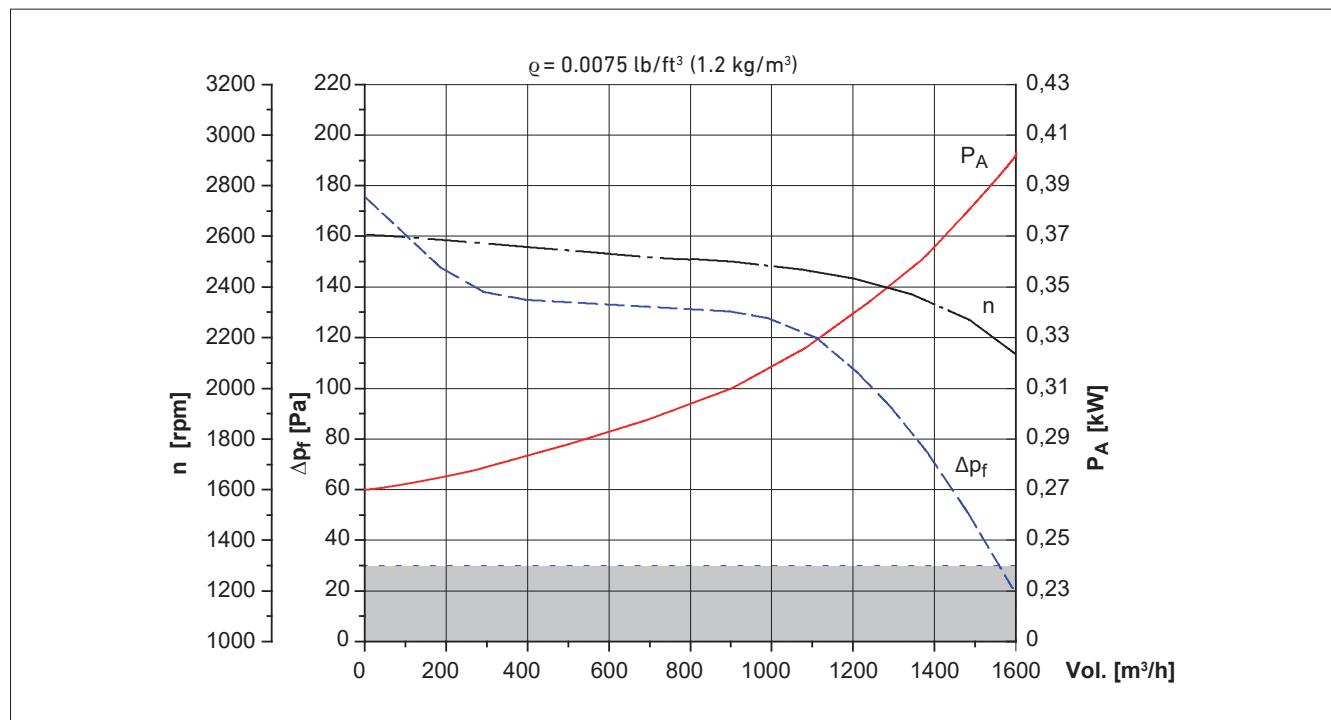
Measuring tolerances for  $\Delta p$ :  $\pm 0.08 \text{ "wg}$ ;

Measuring tolerances for  $L_{WA}$ :  $\pm 2 \text{ dB(A)}$

#### ACOUSTICAL DATA

The acoustical data are for discharge side, tested in a reverberant field.

The A-weighted sound power level  $L_{WA}$  can be transformed into an A-weighted sound pressure level by the equation  $L_{pA} = L_{WA} - 10 \log S/1 \text{ m}^2$ . For this the exact total panel area  $S$  can be used. The sound pressure level in the free field in 1 m distance (full spheric sound radiation) is abt. 11 dB less than the sound power level.



Fan curves for 19.5" / 497 mm nominal length

#### Attention!

The fan is not suitable for free flow operation!

Minimum back pressure (static) should be 0.12 "wg (30 Pa).

## SELECTION

Application	Example	Your Data	Designations	
gas	hot air		V	[cfm] air volume
gas temperature	t [°F]	+210	$\Delta p_f$	[wg] static pressure
ambient temperature			$p_d$	[wg] dynamic pressure at discharge area
drive side	t [°F]	+95	c	[fpm] velocity at the discharge area
counter side	t [°F]	+115	$\rho$	[kg/m³] specific gravity
condensation	no		$\rho_d$	= $\rho/2 \cdot c^2$
located at	drying oven		J <sub>A</sub>	= $P_A / U$
drive side	right hand		n	[rpm] speed
arrangement	horizontal		U	[V] voltage
<b>Drive motor</b>			f	[Hz] frequency
power supply	AC		J <sub>A</sub>	[A] full load amps
voltage	U [V]	115	P <sub>A</sub>	[W] power consumption
frequency	f [Hz]	60	L <sub>WA</sub>	[dB(A)] A-weighted sound power level
<b>Specified performance</b>			L <sub>pA</sub>	[dB(A)] A-weighted sound pressure level
air volume*	V [cfm]	470	s	[m²] panel area
static pressure*	$\Delta p_f$ [wg]	0.1		
*at specific gravity	$\rho$ [lb/ft³]	0.075		
active impeller length	min. L ["]	12		
	max. L ["]	24		
<b>Procedure</b>				
1. conditions of application				
fan type		hot air 210 °F		
		TA t		
2. air volume achievable with length	V [cfm]	470 397 and 597		
3. static pressure achievable with length	$\Delta p_f$ [wg]	0.2 597		
4. drive side		right hand		
<b>Selected</b>				
LTG Tangential fan type		TART 90/597/US		
<b>Performance data</b>				
air volume	V [cfm]	470		
static pressure	$\Delta p_f$ [wg]	0.21		
dynamic pressure	$p_d$ [wg]	0.06		
exhaust velocity	c [fpm]	1000		
speed	n [rpm]	1700		
<b>Electrical data</b>				
power input	P <sub>A</sub> [W]	74		
full load amps	J <sub>A</sub> [A]	0.28		
<b>Acoustical data</b>				
sound power level A-weighted	L <sub>WA</sub> [dB(A)]	69		
sound pressure level in the free field in 1 m distance (full spheric sound radiation)	L <sub>pA</sub> [dB(A)]	59		

## TYPE GA, IMPELLER DIAMETER 3,5" (90 MM)

The tangential fan series GA 90 is used when an airflow deflection of 180° is required.

This Series is equipped with enhanced corrosion resistance and is suitable for an extended temperature range.

### OPERATING CONDITIONS

#### Air / Gas temperatures:

-40 °F up to +160 °F (-40 °C up to +70 °C)

#### Ambient temperatures:

For the drive side with motor:

-13 °F up to +104 °F (-25 °C up to +40 °C)

For the counter side:

-40 °F up to max. +160 °F (-40 °C up to +70 °C)

### TYPE GA: THE RANGE

Type	Max. gas temperatures	Nominal impeller length [inch] (mm)	Casing	Impeller	Motor *
GAR 90/397/US GAL 90/397/US		15.5 (397)			
GAR 90/597/US GAL 90/597/US		23.5 (597)			
GAR 90/827/US GAL 90/827/US	-40 °F to +160 °F (-40 °C to +70 °C)	32.5 (827)	marine grade aluminum		115 V, 60 Hz
GAR 90/1027/US GAL 90/1027/US		40.5 (1027)			IP 44 4 poles

\* Use the standard for every voltage and frequency indicated.

**TYPE GA, IMPELLER DIAMETER 3.5" (90 MM) -40 °F UP TO +160 °F (-40 °C UP TO + 70 °C)**


Tangential fan type GAR 90 (right hand drive)

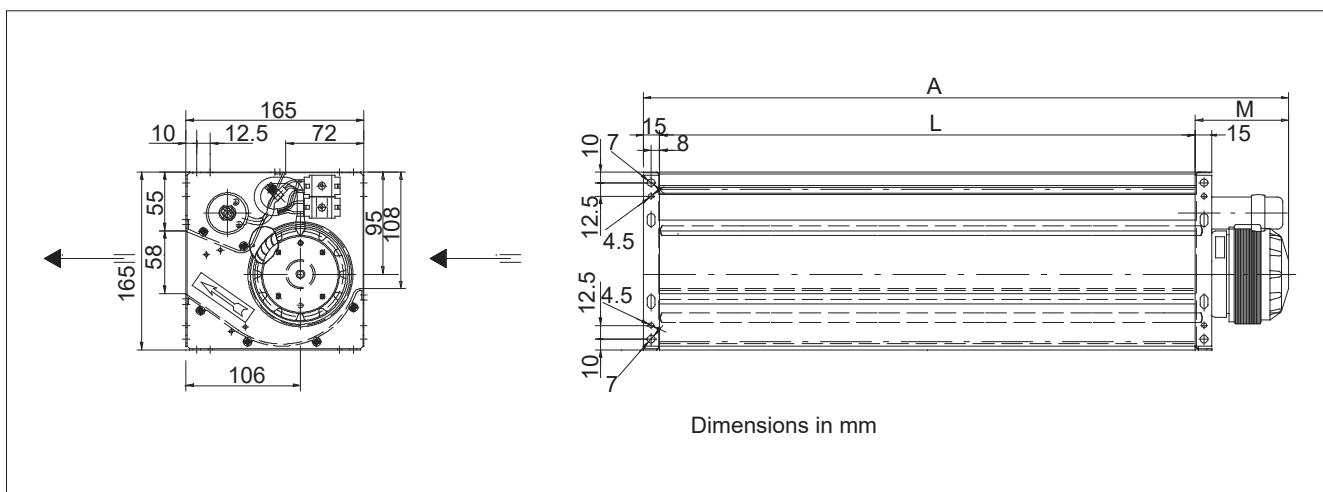
**SPECIFICATION AND DESIGN FEATURES**

Tangential fan with close coupled, spray water protected drive motor.

Rigid bolted, corrosion proof casing. Impeller and casing of marine grade aluminum. Side elements of stainless steel (1.4301). On the drive side the impeller is bedded via an elastic coupling on the motor shaft; on the counter side in vibration damped friction bearings from sinter bronze with an ample grease reserve.

Bearing design life is 20 000 hours. Drive motor with capacitor and terminal block. Intake and discharge openings have sealing planes to connect exactly to ducts and appliances.

Low noise operation due to aerodynamic impeller and scroll shapes. .

**DIMENSIONS AND PERFORMANCE DATA**


Type	Dimensions [inch] (mm)			Air Volume V [cfm] (m³/h)	Speed n [rpm]	Power consumption P <sub>A</sub> [W]	Full load amps J <sub>A</sub> [A]	Capacitor		Masses [lb] (kg)
	A	L	M					[μF]	[V]	
<b>GAR 90/397/US</b> <b>GAL 90/397/US</b>	20.47 (520)	15.63 (397)	4.13 (105)	440 (750)	1570	115	1.00	12	220	6.4 (2.9)
<b>GAR 90/597/US</b> <b>GAL 90/597/US</b>	28.35 (729)	23.50 (597)	4.13 (105)	630 (1070)	1390	134	1.17			7.5 (3.4)
<b>GAR 90/827/US</b> <b>GAL 90/827/US</b>	37.40 (950)	32.56 (827)	4.13 (105)	780 (1330)	1220	149	1.28			10.14 (4.6)
<b>GAR 90/1027/US</b> <b>GAL 90/1027/US</b>	45.28 (1150)	40.43 (1027)	4.13 (105)	775 (1320)	1130	150	1.31			11.46 (5.2)

## SELECTION

<b>Application</b>		<b>Example</b>	<b>Your Data</b>	<b>Designations</b>	
gas		warm air		V	[cfm] air volume
gas temperature	t [°F]	+140		Δp <sub>f</sub>	[wg] static pressure
ambient temperature				p <sub>d</sub>	[wg] dynamic pressure at discharge area
drive side	t [°F]	+95		c	[fpm] velocity at the discharge area
counter side	t [°F]	+115		q	[kg/m³] specific gravity
condensation		no		p <sub>d</sub>	= q/2 • c²
located at		drying oven		J <sub>A</sub>	= P <sub>A</sub> / U
drive side		right hand		n	[rpm] speed
arrangement		horizontal		U	[V] voltage
<b>Drive motor</b>				f	[Hz] frequency
power supply		AC		J <sub>A</sub>	[A] full load amps
voltage	U [V]	115		P <sub>A</sub>	[W] power consumption
frequency	f [Hz]	60		L <sub>WA</sub>	[dB(A)] A-weighted sound power level
<b>Specified performance</b>				L <sub>pA</sub>	[dB(A)] A-weighted sound pressure level
air volume *	V [cfm]	470		s	[m²] panel area
static pressure *	Δp <sub>f</sub> [wg]	0.1			
* at specific gravity	q [lb/ft³]	0.075			
active impeller length	min. L ["]	20			
	max. L ["]	35			
total length	A ["]	40			
<b>Procedure</b>					
1. conditions of application		warm air 140 °F			
fan type		GA			
2. air volume achievable with length	V [cfm]	470 597 and 827			
3. static pressure achievable with length	Δp <sub>f</sub> [wg]	25 827			
4. drive side		right hand			
<b>Selected</b>					
LTG Tangential fan type		GAR 90/827/N			
<b>Performance data</b>					
air volume	V [cfm]	470			
static pressure	Δp <sub>f</sub> [wg]	0.12			
dynamic pressure	p <sub>d</sub> [wg]	0.05			
exhaust velocity	c [fpm]	900			
speed	n [rpm]	1420			
<b>Electrical data</b>					
power input	P <sub>A</sub> [W]	76			
full load amps	J <sub>A</sub> [A]	0.35			
<b>Acoustical data</b>					
sound power level A-weighted	L <sub>WA</sub> [dB(A)]	58			
sound pressure level in the free field in 1 m distance (full spheric sound radiation)	L <sub>pA</sub> [dB(A)]	47			



### COMFORT AIR TECHNOLOGY

Air Conditioning Systems

Air Diffusers

Air Distribution

### PROCESS AIR TECHNOLOGY

Fans

Filtration Technology

Humidification Technology

### ENGINEERING SERVICES

Laboratory Test & Experiment

Field Measurement &  
Optimization

Simulation / Expertise

R&D & Start-up

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