

# TFA V series



## ADJUSTABLE PITCH ANGLE AXIAL FAN

Vane Axial



GTG Industries Sdn Bhd certifies that the model: TFA/V shown herein is licensed to bear the AMCA Seal.

The ratings shown are based on tests and procedures performed in accordance with AMCA Publication 211 and AMCA Publication 311 and comply with the requirements of the AMCA Certified Ratings Program.



## Standard Features

- A** High static pressure
- B** High air volume
- C** High efficiency with low energy consumption
- D** Uniquely designed guide vanes
- E** Aerofoil impeller featured with adjustable pitch angle
- F** Precision die cast Aluminium hub and blades
- G** High Strength and rigidity spun flanges design
- H** Terminal box in IP 55 mounted externally on casing for easy wiring connection
- I** Equipped with single or three-phase motor in IP 55 and class F insulation



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 Testing | Advicing | Assuring



EWFA CERTIFICATE OF TEST CERTIFICATE No: SFC 2144500a.6 Page 1 of 1

Report Sponsor	Certificate Issue Date
G10 Industries Sdn Bhd 26-2, 1st Floor, Jalan P.U.D.3/08A, Surway Damansara Technology Park, 47810 Puchong Jaya, Selangor	03/04/2013

**Introduction**  
 The element of construction described below was tested by this laboratory on behalf of the test sponsor in accordance with the stated test standard and achieved the results stated below. Refer to the referenced test report for further information.

Referenced Reports	Report Date	To
WFRFA 2144500a.1	24/09/07	B573

**Description of Test Specimen**  
**TEST ASSEMBLY** - The test assembly comprised an elec within an instrumented section of duct.  
**TEST SPECIMEN** - The axial fan was a GTG Model No. T within a fan casing (of nominal ID 1200 mm). Cover model the manufacturer is for WELARE - TFA 1200A204 10" as The fan impeller consisted of 4 aluminium blades with a 28 inside of the fan casing.  
 The tested motor was a JEM Squirrel Cage Induction Motor 415 V / 50 Hz with a maximum FLC at ambient of 20.70, maximum rated speed was 1440 rpm. The frame size was ORIENTATION - The specimen was installed with the fan d Refer to the full report, WFRFA 2144500a.1, for a complete behaviour.

Test	Pass
Structural	
Electrical	
Aerodynamic	
Fire Rating Classification	

**THIS CERTIFICATE IS PROVIDED FOR GENERAL INFO REGULATORY REQUIREMENTS FOR EVIDENCE OF CD**  
 Reference should be made to the relevant test report to det installation. The results of these fire tests may be used to a test method will not provide a full assessment of fire hazard.

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EWFA CERTIFICATE OF TEST CERTIFICATE No: SFC 2143800.8 Page 1 of 1

Report Sponsor	Certificate Issue Date
G10 Industries Sdn Bhd 26-2, 1st Floor, Jalan P.U.D.3/08A, Surway Damansara Technology Park, 47810 Puchong Jaya, Selangor, Malaysia	16/11/2012

**Introduction**  
 The element of construction described below was tested by this laboratory on behalf of the test sponsor in accordance with the stated test standard and achieved the results stated below. Refer to the referenced test report for a complete record of the test construction and results.

Referenced Reports	Report Date	Test Standard	Significant Variations from standard test procedure and conditions
DWA 2143800.3	16/11/2012	BS7346: Part 2: 1990	None

**Description of Tested Specimen**  
**TEST ASSEMBLY** - The test assembly comprised an electrically powered axial fan within a fan casing and installed within an instrumented section of duct.  
**TEST SPECIMEN** - The axial fan was a GTG Model No. TFA S71 powered by an electric motor contained within a fan casing (of nominal ID 1200 mm). The fan impeller consisted of 4 aluminium blades with a pitch angle of 15° and a nominal clearance of 18 mm to the inside of the fan casing.  
 The tested motor was a TECO Squirrel Cage Induction Motor Model No. AES5-P1400 powered by an electrical supply of 415 V / 50 Hz with a maximum FLC at ambient of 10.9 Amps and the rated wattage was 5.5 kW (7.5 HP). The maximum rated speed was 1440 rpm. The frame size was 132S.  
**ORIENTATION** - The specimen was installed with the fan drawing air from the furnace over the electric motor. Refer to the full report, DWA 2143800.3, for a complete description of the test specimen construction and significant behaviour.

Test Results	Pass
Structural	120 minutes at 120 minutes
Electrical	No failure at 120 minutes
Aerodynamic	No failure at 120 minutes
Fire Rating Classification	B

**Notes**  
**THIS CERTIFICATE IS PROVIDED FOR GENERAL INFORMATION ONLY AND DOES NOT COMPLY WITH THE REGULATORY REQUIREMENTS FOR EVIDENCE OF COMPLIANCE.**  
 Reference should be made to the relevant test report to determine the applicability of the test result to a proposed installation. The results of these fire tests may be used to assess fire hazard, but it should be recognised that a single test method will not provide a full assessment of fire hazard under all conditions.

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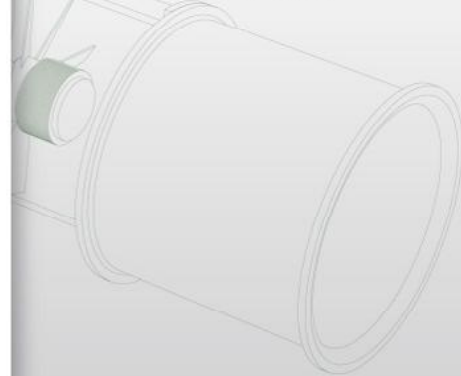
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## Smoke Spill Application

( on request )

The GTG TFA V Series can be used for smoke spill applications. The fan with class H insulation is capable of withstanding up to 250°C for 2 hours in accordance to BS7346 : Part 2, which was tested by Exova Warringtonfire Aus Pty Ltd



## Adjustable Pitch Axial Fans V Series

**GTG**<sup>®</sup> fully adjustable pitch vane axial fans are available in various sizes from 630mm diameter up to 1400mm diameter. The V series comes with uniquely designed guide vanes that enable the fan to deliver high air volume for high pressure applications at high efficiency.

The wide range of fan diameters, various hub designs and blade configurations, different pitch angles and motor speeds allow accurate selection of the fan to match the specific duty.

Pitch angle adjustment can be readily carried out on site allowing the fan performance to be modified to the final system resistance.

Whilst the standard range of axial fan cover most applications, purposed designed casings and mountings are available.



### Standard Product SPECIFICATION

#### Guide Vane

Multi vane section designed to serve as static regain device to ensure maximum efficiency in converting the velocity pressure to static pressure with minimal turbulence.

The function of the guide vanes is to improve the efficiency and the pressure characteristics by converting rotational energy at the propeller discharge into useful work.

#### Impellers

Precision cast aluminium adjustable pitch aerofoil blades are attached to injection cast aluminium hub, incorporate a taper lock bushing and keyed to the motor shaft for easy installation and removal.

Large hub to blade ratio prevents backflow of air and moves large volumes of air at high pressures.

#### Housings

Heavy gauge, mild steel casing, drum and rolled steel flanges finishes in hot-dipped galvanised (as standard) or epoxy powder coated (on request)

#### Motors

Motors are 415V / 3 Phase / 50Hz, foot mounted TEA) squirrel cage induction type with class F insulation.

Options are available for a varying range of applications including :

- Single phase
- Special frequency
- Explosion proof
- Speed control
- High temperature
- 2 speed
- Smoke spill
- Thermal overload protection
- Special voltage
- Special insulation

#### Product Identification

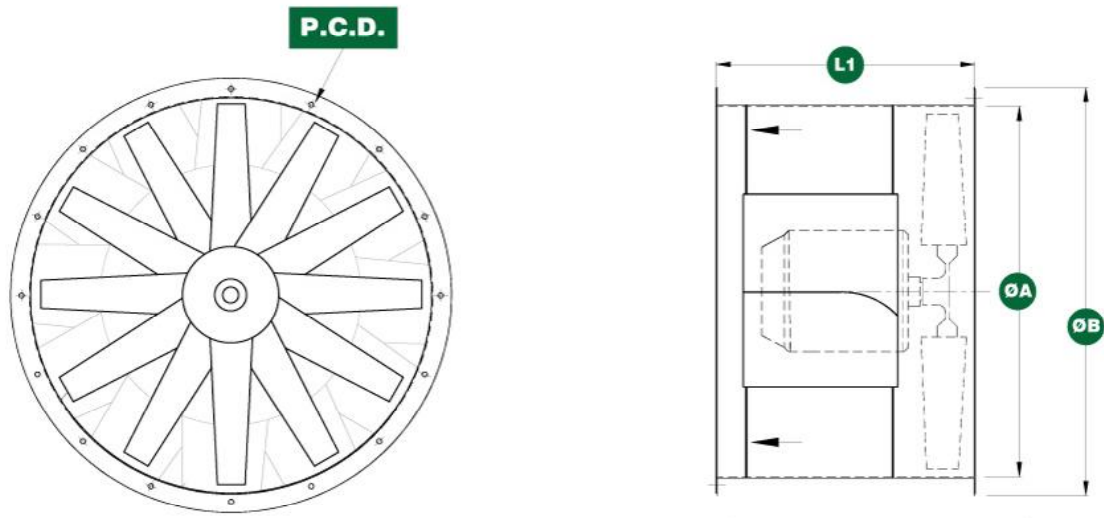
TFA 630/250/14/V-20

TFA	- Model Tube Axial
630	- Case Diameter
250	- Hub Diameter
14	- No. of Blades
V	- Vane Axial Series
20	- Blade angle

#### Options

- Inlet and discharge cones
- Inlet and discharge guards
- Flexible Connections
- Matching flanges
- Mounting feet
- Vibration isolation mounts
- Sound attenuators

# TFA V Series Dimensions



All Dimension in mm

Model	Electric Motor (kW)			L1	ØA	ØB	P.C.D.	Flange Size	No of Holes	Approx. Weight (kg)	Max. Motor Frame Size
	6P	4P	2P								
TFA 630/250/14/V	-	4.00	-	450	630	720	678	45	12	43	112M
	-	-	7.50	525	630	720	678	45	12	50	132M
	-	-	15.00	660	630	720	678	45	12	65	160M
TFA 800/250/14/V	-	5.50	-	525	800	900	856	50	12	69	132S
	-	11.00	15.00	660	800	900	856	50	12	87	160M
	-	-	22.00	725	800	900	856	50	12	97	180M
TFA 800/350/12/V	-	5.50	-	545	800	900	856	50	12	71	132S
	-	11.00	-	680	800	900	856	50	12	89	160M
	-	-	37.00	845	800	900	856	50	12	114	200L
TFA 1000/350/12/V	-	22.00	-	780	1000	1100	1056	50	12	124	180L
	-	30.00	37.00	845	1000	1100	1056	50	16	136	200L
TFA 1250/350/12/V	-	55.00	-	1000	1250	1350	1306	50	16	206	250M
TFA 1400/350/12/V	-	37.00	-	890	1400	1510	1456	55	16	197	225S
	-	90.00	-	1190	1400	1510	1456	55	16	266	280M
TFA 1400/420/11/V	-	37.00	-	900	1400	1510	1456	55	16	199	225S
	-	110.00	-	1250	1400	1510	1456	55	16	293	315S
TFA 1600/420/11/V	22.00	37.00	-	970	1600	1720	1656	60	24	328	225S
	55.00	90.00	-	1125	1600	1720	1656	60	24	405	280M
	-	220.00	-	1475	1600	1720	1656	60	24	426	315S

\* The actual dimension is subject to the motor frame size used, kindly refer to GTG Technical Submittal for further details.  
 \* Weight indicated above excluded the weight of motor, hub and fan blades.