

**PHILLIPS & TEMRO**  
industries®

# Truflo Cooling and Ventilation Systems

  
**Truflo®**

# Truflo's Unique Engineering Support and Manufacturing Capabilities

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Truflo, who has been designing and manufacturing fans since 1962, provides their customers with distinctive design and engineering expertise as well as exceptional manufacturing capabilities.

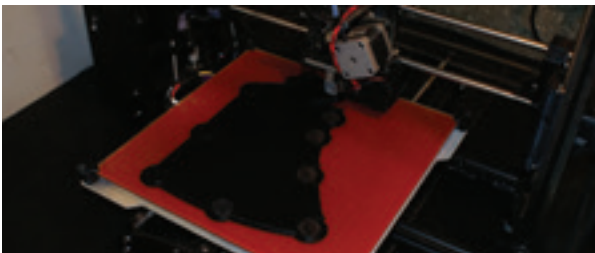
## Design & Verification

### Fan Design

- Solid Works CAD
- CFD (Computational Fluid Dynamics)
- FEA (Finite Element Analysis)

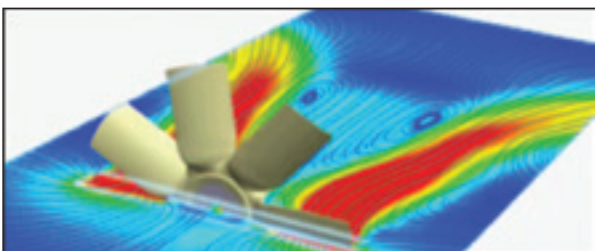
### Prototyping

- In house tooling
- 3D printing capabilities



### Product Verification

- Durability and environmental testing
- Thermal cyclic loading
- Modal analysis
- Fatigue testing
- Strain testing
- Performance validation
- Real world testing
- Noise recording



## Wind Tunnel

Truflo's wind tunnel is built to ISO 5801 (AMCA 210) standards and is one of the largest of its type, accommodating up to 2133 mm fan diameter. "Real world" simulation is carried out by introducing customer engines and cooling packages such as radiators and guard covers within the chambers.



# Truflo's Fan Products

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Truflo offers a comprehensive line of fan products ranging from 300 mm to 3000 mm in diameter. Also, our fans are offered in a variety of materials and blade profiles to meet virtually any cooling or ventilation need. All fans can be supplied with a variety of mounting configurations.



## ONE PIECE MOULDED FAN

Single-piece, glass-reinforced polyamide fan with blade geometry derived from our long experience as a market leader in radiator cooling for off-road applications. Ranges from 300 mm to 1000 mm in diameter.



## METAL SPIDER FAN

Robust riveted steel construction fans providing a cost effective solution for a wide range of cooling applications. Diameter ranges from 250 mm to 1850 mm. Aluminium blades can be supplied on request where there is a requirement for lower weight or high speeds.



## HYBRID FAN

Plastic bladed fan incorporating a galvanized centre plate to which reinforced sickle or tapered blades are fastened. Provides high efficiency and low noise. Diameter ranges from 310 mm to 1650 mm.



## METAL SEGMENTED FAN

Steel fans from 1500 mm to 3000 mm in diameter with higher pressure capability and durability. Discreet blade assemblies are attached to the central hub providing wide ranging performance options. Can be supplied in lightweight or super lightweight versions.



## REVERSIBLE FAN

Metal blades riveted to forged arms held inside an aluminium casting. Blades can be manually rotated to reverse the air flow.



## MODULAR FAN

Plastic bladed fan attached to steel hub by pressed steel "cups". Light duty, infinitely variable pitch design with 3 parallel blade widths. Available in both standard and reverse flow. From 280 mm to 1000 mm diameter.

# Truflo's Fan Product Line

## Diameter Specifications

Fan Type	Min. Diameter	Max. Diameter
One Piece Moulded Fan	300 mm	1000 mm
Hybrid Fan	310 mm	1650 mm
Metal Spider Fan	250 mm	1850 mm
Metal Segmented Fan	1500 mm	3000 mm
Modular Fan (FxA40)	280 mm	1000 mm
Reversible Metal Fan	580 mm	1350 mm



## Blade Profiles

Fan Type	Blade Count	Blade Angle	Blade Type
One Piece Moulded Fan	6, 7, 9	26, 32	Parallel, Sickle, Tapered
Hybrid Fan	2 - 18	10 - 42	Sickle, Tapered
Metal Spider Fan	2 - 11	10 - 40	Parallel, Sickle, Ejector, Tapered Twist, Bellmouth
Metal Segmented Fan	2 - 15	17 - 31	Parallel, Tapered Twist, Sickle
Modular Fan (FxA40)	3 - 12	Full Range	Parallel Twist
Reversible Metal Fan	6, 8	Full range	Parallel

Parallel



Sickle



Ejector



Tapered Twist



Bellmouth



## Fan Material

Fan Type	Fan Material
One Piece Moulded Fan	Steel centre disc, glass filled nylon blade. Other materials available on request
Hybrid Fan	Steel centre disc, glass filled nylon blade
Metal Spider Fan	Steel, stainless steel, aluminium
Metal Segmented Fan	Steel, stainless steel, aluminium
Modular Fan	Glass filled nylon or polypropylene fan blades. Steel hub
Reversible Metal Fan	Steel, aluminium

# Truflo's cooling and ventilation systems serve a wide range of market applications including:

## Construction & Mining

- Backhoe loader
- Wheel loader
- Hydraulic excavator
- Crawler
- Log Loader
- Articulated truck
- Skid steer
- Motor grader
- Telescopic handler
- Mining truck
- Bull dozer

## Agriculture

- Telescopic handler
- Tractor
- Mower
- Baler
- Combine harvester
- Forage harvester

## Power Generation

- Rental sets
- Base load gensets
- Emergency back-up

## Industrial

- Fork lift truck
- Reach stacker
- Container Handler

## HVAC

- Air handling units
- Full fan assembly
- Refrigeration
- Cooling towers
- Grain drying
- Agriculture
- Residential



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## Fan Selection Software

User friendly tool for engineers to ensure they are selecting the correct fan for their specific application.

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is a brand of Phillips & Temro Industries

#### About Phillips and Temro:

Phillips & Temro Industries (PTI) is a global OEM and aftermarket provider of custom engineered thermal systems and solutions. Trucking, automotive, oil and gas and off- road vehicles are just a few of the diverse markets that benefit from PTI's heating, cooling, and electrification solutions. PTI manages the entire process from concept design, prototyping and testing to delivery with a focus on quality. PTI's portfolio of technologies is an amalgamation of brands, including Zerostart, Temro, Arctic Fox, Idle Free Systems and Truflo.

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