

# Elcometer Tornado Airless Pumps

Conforms to: ATEX , II 2G TX, ATEX ,2 II GX



Engineered to quietly deliver high performance in the harsh environments of the protective coatings industry, the Elcometer TORNADO Airless Pump is ready for work.

## Summary

### Reliable Performance

Designed to handle the toughest high volume protective and corrosion resistant coatings in almost all environments.

**Tough Engineering** With smooth changeovers, low pulsation, and easy onsite maintenance, the Elcometer Tornado Airless

Pump has been engineered from the ground up and built to last.

### Whisper Quiet Spraying

The Elcometer Tornado's unique dual exhaust silencers and anti-icing technology ensure quiet and reliable operation in either hot or cold climates. **Tested for Ultimate Reliability & Durability**

Three years in development, over 3,640 hours of laboratory and field trials with a wide range of marine and protective coatings, in temperatures from -3 to 52°C, completing over 13.2 million pump cycles - you can have confidence in the Elcometer Tornado's reliability and durability.

## Easy Onsite Maintenance

Save time and money with maintenance in less than 20 minutes with no special tools!



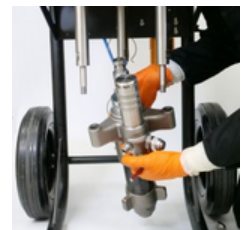
Loosen the fluid suction hose using a hammer.



Disconnect the piston collars.



Using a wrench, remove pump from tie rods.



Remove the lower to service or replace.

### Durable Stainless-Steel Hoppers

The Hopper fits directly on to the Elcometer Tornado trolley mount, providing a 38 litre gravity fed system. The secure quick lock mechanism simply clicks into the product inlet, feeding the pump.



### Sagola PSAM 500 Airless Pressure Spray Guns

Designed for airless systems up to 500bar, Elcometer's Sagola PSAM 500 offers fast, high product output with minimum overspray.



### The Elcometer TORNADO is suitable for use with...

The Elcometer TORNADO is suitable for use with Solvent Based and Water Based materials as well a wide range of products.

#### Product

1K Epoxy Coats	Glass Filled Epoxy Coatings	Inorganic Zinc Primers
100% Volume Solid Epoxy Coatings	Anti-Fouling Marine Coatings	Coal Tar Epoxy
Solvent Based 1K Polyurethane Coatings	Solvent Based 2K (pot life 1h and above)	Flame retardant barrier coats (Class B)

### Upgrade to Elcometer TORNADO Packages

The Elcometer TORNADO Pump is available as a complete kit with the Sagola PSAM 500 Airless Spray Gun with reversible tip spray guard and product hose kit.



#### Elcometer TORNADO Pump

The Elcometer TORNADO pump is supplied on a robust trolley with a fluid regulator and suction hose as standard. Hoppers purchased separately.

#### Product & Whip Hose

15m Product Hose with 1.5m Whip Hose.

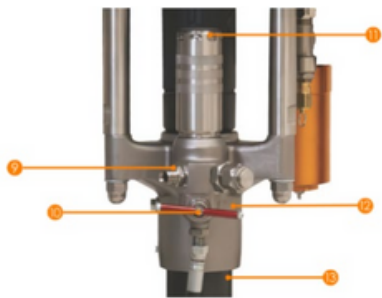
#### Sagola PSAM 500 Spray Gun

Sagola PSAM 500 Airless Spray Gun with Reversible Tip Spray Guard.

### Features

- Insulated Poppet Switches** - Incorporates aerospace technology to prevent icing. Quick access for servicing.
- Whisper Quiet Exhausts** - Eliminates internal icing. Ensures quiet operation.
- Accessible & Protected Air Controls & Filters** - Avoids accidental knocks. Integrated moisture separator to ensure good quality air.
- All Terrain Cart** - Lightweight and balanced. Robust roller-bearing airless tyres. Integrated spray gun and hose hooks. Pre-fitted hopper attachment points.
- Reliable & Robust Air Motor** - Smooth & crisp changeovers. Operates in hot & cold environments. Low pulsation even with two spray guns. Quiet, reliable operation.
- Integrated Tool Storage** - Ideal for storing essential tools, spray tips, filters and lubricating oils
- Rapid Change Suction Hose** - Smooth flow elbow joint for easy cleaning. Safe to use fluid purge hose. User-replaceable fluid hose. Integrated drip hook.





8. **Two Gun Outlets** - Supports two spray guns.
9. **Accessible Bleed Valve** - Safe and ensures greater control when purging under high pressure.
10. **Fluid Filter** - Integrated pump filter. Accessible for easy maintenance.
11. **Powerful Pump Lower** - Suitable for use with protective and marine coatings. Long-life stainless-steel balls and tungsten carbide seats.
12. **Piston Guard** - Prevents finger trap. Keeps debris out of the throat wet cup.

13. **Recirculation / Flush Hose** - Longer recirculation / flush hose to relieve pressure build up.
14. **Minimise Product Build Up** - Smooth flow angled elbow to ensure there is no product build up.
15. **Unique 2-Way Seat Technology<sup>1</sup>** - Rapidly switch between low / standard and high viscosity coatings in the field, in less than 5 minutes.
16. **Quick Release Assembly** - Quick dismantle pump lower housing for easy onsite maintenance. Easy to service with standard tools.
17. **Suction Hose** - Easy to remove and clean. Main hose is replaceable with any compatible paint hose. Smooth flow angled elbow helps to ensure no product build up. Integrated product filter supplied as standard.

<sup>1</sup>Patent applied for

<sup>2</sup>UHMWPE



## Technical Specifications

	Tornado 71	Tornado 43
Ratio	71:1	43:1
Compatible Products that can be pumped	Protective Coatings	Protective Coatings
Fluid temperature range	4.4 - 60°C	4.4 - 60°C
Hydraulic Cylinder Size	270cc (3.57gpm)	270cc (3.57gpm)
Maximum Sound (70 psi (0.48 MPa, 4.8 bar) at 15 CPM per ISO-9614-2)	88dB	84dB
Power Source	Air	Air

### Composition Of Parts In Contact With Product (Wet)

Seats	Tungsten carbide	Stainless	Tungsten carbide	Stainless
Balls	Steel	Stainless	Steel	Stainless
Pump Body / Cylinder Housing	Stainless	Steel	PTFE,	Stainless
Piston Rod Material	UHMWPE & Leather		UHMWPE & Leather	
Packing Kit				

### Air

Air Pressure Operating Range	1-6bar (14-87psi)	1-6bar (14-87psi)
Maximum Air Consumption (60 cycles/min)	6894 lpm (243.46 cfm)	4187 lpm (147.86 cfm)
Air Consumption at 100bar (1450psi) & 5.7 CPM	175.8lpm (6.21cfm)	175.6lpm (6.2cfm)
Maximum Air Inlet Pressure	6bar (87psi)	6bar (87psi)
Air Inlet	3/4" BSP Female	3/4" BSP Female
Compressor Requirements (Minimum)	175.8 lpm (6.21 cfm)	175.6 lpm (6.2 cfm)
Ambient Air Temperature Operating Range	-10 - 60°C	-10 - 60°C

### Fluid / Product

Maximum Fluid Outlet Working Pressure	425bar (6164psi)	260bar (3771psi)
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## Technical Specifications continued

	<b>Tornado 71</b>	<b>Tornado 43</b>
	2Fluid Outlets	2Fluid Outlets
Fluid outlet size	Outlet 1: 3/8" BSP M	Outlet 1: 3/8" BSP M
	Outlet 2: 1/2" BSP M	Outlet 2: 1/2" BSP M
	(Supplied with adapter to reduce outlet 2 to 3/8" BSP M)	(Supplied with adapter to reduce outlet 2 to 3/8" BSP M)
Stroke Length Maximum Spray	120 mm	120 mm
Tip Size	Dependent on product being sprayed and application	Dependent on product being sprayed and application
Product Output per Cycle	270cc	270cc
Free Flow Delivery @ 60 CPM*	16.2lpm (4.28gpm) <sup>2</sup>	16.2lpm (4.28gpm) <sup>2</sup>
Number of Guns	1-2 Spray Guns <sup>3</sup>	1Spray Gun

### Dimensions

Dimensions	839 x 623 x 1054 mm	839 x 623 x 1054 mm
Weight (with Suction Hose)	102kg 121kg	92kg
Weight (with Hopper)		111kg

1. Product Output per Cycle = Fluid Displacement per Cycle

2. Maximum values with water as test media.

3. Supports up to 2 spray guns, contact your Elcometer Spray Equipment Representative for further information.

## Package Selector

Part Number	Trolley Mount*	SuctionHose	Hopper Fed	with 1.5m Whip Hose with 1.5m ProductHose	Filter Integrated Pump	Sagola PSAM 500 Airless Spray Gun with Reversible Tip Spray Guard & Reversible Airless Spray Tip: 19/40:
<b>TORNADO 71 - Airless Pump</b>						
PSP71AL-T	▲	▲	△	▲	▲	
TN71-PS500-15	▲	▲	△	▲	▲	▲
<b>TORNADO 43 - Airless Pump</b>						
PSP43AL-T	▲	▲	△	▲	▲	
TN43-PS500-15	▲	▲		▲	▲	▲

## Pump Only Part Numbers

Part Number	Description	Trolley	Product & Whip Hose	Suction Hose	Hopper Fed
PSP71AL-TZ	Elcometer Tornado (71:1)	▲		▲	△ △
PSP43AL-TZ	Elcometer Tornado (43:1)	▲		▲	







## Part Numbers

ElcometerTORNADO 43 AirlessPump Only		
	Part Number:	PSP43AL-TZ
Elcometer TORNADO 71 AirlessPump Only		
	Part Number:	PSP71AL-TZ
Elcometer TORNADO 43 AirlessPump with Hose		
	Part Number:	PSP43AL-T
Elcometer TORNADO 71 AirlessPump with Hose		
	Part Number:	PSP71AL-T
Elcometer TORNADO 43 AirlessPump with Hose andSpray Gun		
	Part Number:	TN43-PS500-15
Elcometer TORNADO 71 AirlessPump with Hose andSpray Gun		
	Part Number:	TN71-PS500-15

## Accessories

Sagola PSAM 500 Airless Spray Gunwith Reversible TipSpray Guard		
	Part Number:	PG30170111
ElcometerHopper Kit38 litre		
	Part Number:	PT30090389
Elcometer HighPressure Airless Product Hose Set, 15mProduct Hose, 1.5m Whip Hose and 1/4" to 3/8" Adapter		
	Part Number:	PT56414131

Elcometer High Pressure Airless Product Hose 15m



Part Number: PT86463831

Elcometer High Pressure Airless Whip Hose 1.5m



Part Number: PT56414110

Elcometer 1/4" to 3/8" Adapter



Part Number: PT55750311

Elcometer 3/8" M-M Stainless Steel Connector for High Pressure Hose

Part Number: PT85761110

Sagola PSAM 500 Airless Spray Gun with Fixed Tip Spray Guard



Part Number: PG30170108

Elcometer elcoTOUGH™ Upper Packing Kit: UHMWPE, PTFE & Graphite Filled PTFE



Part Number: PT56418753

Elcometer elcoTOUGH™ Upper Packing Kit: UHMWPE & Leather



Part Number: PT56418754

Elcometer elcoTOUGH™ Lower Packing Kit: UHMWPE, PTFE & Graphite Filled PTFE



Part Number: PT56418749

Elcometer elcoTOUGH™ Lower Packing Kit: UHMWPE & Leather



Part Number: PT56418750