

ELCOMETER

KARA

AIR OPERATED DOUBLE
DIAPHRAGM PUMPS



elcometer®

ELCOMETER K A R A

AIR OPERATED DOUBLE
DIAPHRAGM PUMPS

RATIO

1:1

AS

AR

FF

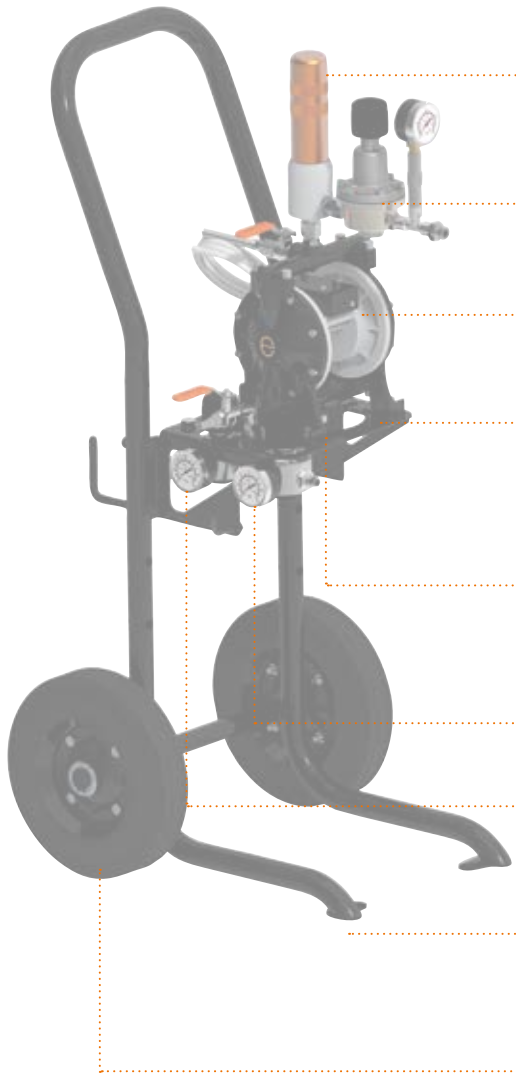
IF

COMPLIANCE:
ATEX  2 II GX

KARA 1-40

The **Elcometer KARA** pumps are a range of air operated double diaphragm pumps for conventional air spray applications. Engineered to supply high-quality coating materials for wood, plastic, metal or ceramics.

Key Features



Anti-pulse chamber with fluid mesh filter fitted as standard ensures any debris in the paint is filtered before supply to the spray gun

Fluid regulator included as standard for consistent control of fluid flow and pressure

Up to 40lpm (10.6gpm) ensures high fluid circulation to keep paint homogenous

Rugged stainless steel and aluminium pump construction to handle the most common automotive, industrial and marine paints

Aerospace grade aluminium change over valve uses metal on metal technology to prevent sticking

Air pressure regulator for regulating atomizing air to spray gun

Main system air inlet regulator – pump regulator up to 7bar

Stable footprint of 543 x 527mm

Each pump is fitted on to a rugged & ergonomic trolley with built-in hose & gun rack, for easy movement around site.

Heavy duty wheels for easy transportation



Unbolt the bracket and pump from the trolley to create a wall mounted version with suction hose - weighing up to 12.0kg (26.5lbs)

Elcometer **KARA** Key Features

With up to 40 litres per minute (10.6gpm) maximum free flow, the **Elcometer KARA's** high fluid delivery capacity delivers paint consistently whilst ensuring more than enough pulse-free flow at the nozzle, even with long fluid hoses.

SUITABLE FOR USE WITH:

Material	
Solvent Based	◀
Water Based	◀
Product	
KARA 1-30 & KARA 1-40	
Single component (1k) epoxies	◀
Single component (1k) polyurethanes	◀
Plural (2k) & multi-component (3k) low viscose polyurethane epoxies ¹	◀
Water based enamel coatings	◀
Solvent-based primer and base coats	◀
Quick air dry enamel coatings	◀
Metallic-based epoxy coatings	◀
Wood stains	◀
High solid pre-catalysed lacquers	◀
Acid-catalyst wood lacquers	◀
Waterborne lacquers	◀
UV curable epoxies	◀
Water based UV coatings	◀
1k fire-retardant coatings	◀
Natural wood oils	◀
Antimicrobial lacquers	◀
Sealers and undercoats	◀
KARA 1-40A	
Inorganic zinc coatings	◀
Stove enamels	◀
Graphene-based materials	◀
Water based ceramic glaze coatings	◀
Abrasive coatings for cosmetic & glass	◀
Vitreous enamel	◀
Vitreous sanitaryware glaze	◀
Industrial porcelain coating	◀
Ceramic tableware glaze	◀

Powerful performance

Elcometer Kara's high fluid delivery keeps paint homogenous whilst ensuring more than enough pulse-free flow at the nozzle, even with long fluid hoses up to 30m (98.4ft). In fact, with up to 40 litres per minute (10.6gpm) maximum free flow, the Elcometer Kara's high performance can supply a second spray gun.

Durable and hardwearing

Its rugged stainless steel and aluminium construction ensures the Elcometer Kara has low maintenance and a long service life.

Efficient

With an air consumption of 0.28cfm (2.09gpm) the Elcometer Kara ensures economical compressor running costs.

Versatile

Choice of suction hose or product tank, suitable for spraying solvent or waterborne coatings, primers, fillers, stains and lacquers.



Consistent paint supply with longer fluid hose sets.



Fast colour change and material refills in high production environments.

1. 2k & 3k coatings with a pot life of 30 minutes at ambient temperatures of 24°C/75°F are not advised to be used with Kara 1-30 and 1-40 supply pumps

TECHNICAL SPECIFICATION

	KARA 1-30	KARA 1-40	KARA 1-40A
Ratio	1 : 1	1 : 1	1 : 1
Maximum fluid particle size ¹	0.25mm (10mils)	0.25mm (10mils)	0.25mm (10mils)
Fluid temperature range	4.4 - 60°C (40 - 140°F)	4.4 - 60°C (40 - 140°F)	4.4 - 60°C (40 - 140°F)
Fluid inlet size	½" BSP Male	½" BSP Male	½" BSP Male
Fluid outlet size	¾" BSP Male	¾" BSP Male	¾" BSP Male
Compatible Products that can be pumped ²	Solvent and waterbased products	Solvent and waterbased products	Abrasive, solvent and waterbased products
COMPOSITION OF PARTS IN CONTACT WITH PRODUCT (WET)			
Seats	Stainless Steel	Polypropylene	Stainless Steel
Balls	Stainless Steel	PTFE	Stainless Steel
Diaphragm	Polyethylene	PTFE	PTFE
Pump Body / Cylinder Housing	Polyethylene / Aluminium	PTFE / Aluminium	PTFE / Aluminium
EXTERNAL PUMP PARTS (DRY)			
Pump Body / Cylinder Housing	Polyamide / Aluminium	Polyamide / Aluminium	Polyamide / Aluminium
AIR			
Air Pressure Operating Range	1-6bar (14-87psi)	1-7bar (14-101psi)	1-7bar (14-101psi)
Air Consumption at 3 bar (43.5 psi) & 7.5 CPM	1.8lpm (0.06cfm)	-	-
Air Consumption at 3 bar (43.5 psi) & 16 CPM	-	7.92lpm (0.28cfm)	7.92lpm (0.28cfm)
Maximum Air Inlet Pressure	6bar (87psi)	7bar (101psi)	7bar (101psi)
Air Inlet	¼" BSP Female	¼" BSP Female	¼" BSP Female
Air Exhaust / Silencer Port	½" BSP Female	½" BSP Female	½" BSP Female
Compressor Requirements (Minimum)	Contact Elcometer	Contact Elcometer	Contact Elcometer
Ambient Air Temperature Operating Range	4.4 - 60°C (40 - 140°F)	4.4 - 60°C (40 - 140°F)	4.4 - 60°C (40 - 140°F)
FLUID / PRODUCT			
Maximum Fluid Outlet Working Pressure	6bar (87psi)	7bar (101psi)	7bar (101psi)
Product Output per Cycle ²	80 cc (2.61fl oz/min)	165 cc (4.61fl oz/min)	165 cc (4.61fl oz/min)
Maximum Free Flow ³	30lpm (7.9gpm)	40lpm (10.6gpm)	40lpm (10.6gpm)
Free Flow Delivery @ 60 CPM ⁴	4.8lpm (1.26gpm)	10lpm (2.64gpm)	10lpm (2.64gpm)
DIMENSIONS			
Weight (Pump only)	3.3 kg (7.3lb)	4.6kg (10.1lb)	4.8kg (10.6lb)
Weight (Wall Mount with Suction Hose)	10.5kg (23.1lb)	11.8kg (26lb)	12kg (26.5lb)
Weight (Cart Mount with Suction Hose)	21.7kg (47.8lb)	23kg (50.7lb)	23.2kg (51.1lb)
Weight (Wall Mount with Hopper)	10.6kg (23.4lb)	11.9kg (26.2lb)	12.1kg (26.7lb)
Weight (Cart Mount with Hopper)	21.8kg (48.1lb)	23.1kg (50.9lb)	23.3kg (51.4lb)
Dimensions (Cart Mount)	439 x 498 x 1000mm (17.3 x 19.62 x 39.36")	439 x 501 x 1015mm (19.3 x 19.72 x 39.95")	439 x 501 x 1015mm (19.3 x 19.72 x 39.95")
Dimensions (Wall Mount)	328 x 331 x 563mm (12.92 x 13.03 x 22.15")	333 x 441 x 630mm (13.13 x 17.36 x 24.79")	333 x 441 x 630mm (13.13 x 17.36 x 24.79")

1. With suction hose or deposit and pump output filter.

2. Product Output per Cycle = Fluid Displacement per Cycle

3. Maximum Free Flow is the volume of fluid the pump is able to transfer at maximum speed and at an undefined number of cycles.

3. Maximum values with water as test media.

lpm: Litres per minute **fl oz/min:** US Fluid ounces per minute **gpm:** US Gallons per minute **CPM:** Cycles per minute

Elcometer **KARA** Part Numbers

PART NUMBERS		◀ Supplied as standard ◁ Optional extra				
Part Number	Description	Support Type		Air & Product Hose	Fluid Supply	
		Wall Mount	Trolley Mount ¹		Suction Hose	Hopper
PSD130AS-T	Elcometer Kara 1-30 Double Diaphragm Air Spray Pump		◀	◀	◀	◁
PSD140AS-T	Elcometer Kara 1-40 Double Diaphragm Air Spray Pump		◀	◀	◀	◁
PSD140AAS-T	Elcometer Kara 1-40A Double Diaphragm Air Spray Pump for Abrasive Materials		◀	◀	◀	◁
PSD130AS-W	Elcometer Kara 1-30 Double Diaphragm Air Spray Pump - Wall Mount Only	◀		◀	◀	◁
PSD140AS-W	Elcometer Kara 1-40 Double Diaphragm Air Spray Pump - Wall Mount Only	◀		◀	◀	◁
PSD140AAS-W	Elcometer Kara 1-40A Double Diaphragm Air Spray Pump for Abrasive Materials - Wall Mount Only	◀		◀	◀	◁

PACKAGE SELECTOR		◀ Supplied as standard ◁ Optional extra										
Part Number	Pump Configuration						Spray Gun			Transfer Efficiency		
	Wall Mount Only	Trolley & Wall Mount	Suction Hose	Hopper Fed	7.5m (24.6ft) Air & Product Hose ¹	Fluid Regulator	Sagola X4100 Pressure Spray Gun	Needle & Nozzle Size (mm)	Aircap	Conventional	HVLP	High Transfer Efficiency (Compliant)
KARA 1-30												
KA130-X41-76512		◀	◀	◁	◀	◀	◀	1.2	765	◀		
KA130-X41-XT0312		◀	◀	◁	◀	◀	◀	1.2	XT03		◀	
KA130-X41-XT01B12		◀	◀	◁	◀	◀	◀	1.2	XT01B			◀
KA130W-X41-76512	◀		◀	◁	◀	◀	◀	1.2	765	◀		
KA130W-X41-XT0312	◀		◀	◁	◀	◀	◀	1.2	XT03		◀	
KA130W-X41-XT01B12	◀		◀	◁	◀	◀	◀	1.2	XT01B			◀
KARA 1-40												
KA140-X41-76512		◀	◀	◁	◀	◀	◀	1.2	765	◀		
KA140-X41-XT0312		◀	◀	◁	◀	◀	◀	1.2	XT03		◀	
KA140-X41-XT01B12		◀	◀	◁	◀	◀	◀	1.2	XT01B			◀
KA140W-X41-76512	◀		◀	◁	◀	◀	◀	1.2	765	◀		
KA140W-X41-XT0312	◀		◀	◁	◀	◀	◀	1.2	XT03		◀	
KA140W-X41-XT01B12	◀		◀	◁	◀	◀	◀	1.2	XT01B			◀
KARA 1-40 A												
KA140A-C41-XT0314TC		◀	◀	◁	◀	◀	◀ ²	1.4 ³	XT03		◀	
KA140AW-C41-XT0314TC	◀		◀	◁	◀	◀	◀ ²	1.4 ³	XT03		◀	

¹ Includes wall mount ² Sagola 4100 Xtreme Ceramic Pressure ³ Tungsten Carbide Needle & Nozzle Kit

Elcometer **KARA** Packages

The Elcometer KARA range is available as a package which includes fluid regulator, filter, air regulation and hose kits, complete with a choice of Sagola pressure fed spray guns.



The range of Elcometer Kara pumps are available wall or trolley mounted supplied with a fluid regulator and suction hose as standard. Hoppers can be purchased separately.



7.5m (24.6ft) Combined Anti-Static Air & Product Hose with Protective Cover for Air Spray (Low Pressure) Systems



The Elcometer Kara is ideal for use with low pressure fed spray guns such as the Sagola X4100 and Sagola X4100 Ceramic spray gun, the Sagola Mini Xtreme and the Sagola 3300 GTO

Ideal for high production use the **Sagola X 4100 Series** Pressure Spray Gun offers a high quality spray, whatever the coating.

- **Ergonomic and easy to use**
perfectly balanced for comfortable use over long periods
- **Minimal maintenance**
with no seals or plastic parts in the product area it is easy to maintain
- **Interchangeable aircaps, needles & nozzles**
for high quality spraying, whatever the coating



Elcometer **KARA** Accessories

Product Hopper Kit

5 litre (1.32 US Gallon) gravity product tank and filter for use with Elcometer Kara and Baltic pumps.



Part Number	Description
PT30090399	Hopper Kit & Product Filter for Kara & Baltic Pumps

Combined Air & Product Hose for Air Spray (Low Pressure) Systems

Polyester covered, lightweight and durable combined air and product hose, comprises of an 8 x 15mm (0.31 x 0.59") rubber EPDM anti-static air hose with female to female 1/4" connections and 6 x 8mm (0.24 x 0.31") nylon product hose with female 3/8" adaptor for pressure spray guns.



Air Hose Working Pressure (Max): 20bar (290psi)
 Product Hose Working Pressure (Max): 18bar (261psi)

Part Number					
1.8m (5.9ft)	5m (16.4ft)	7.5m (24.6ft)	10m (32.8ft)	15m (49.2ft)	20m (65.6ft)
PT56414130	PT56414039	PT56414044	PT56414040	PT56414041	PT56414042

Anti-Static Air Hose for Air Spray (Low Pressure) Systems

Anti-Static, EDPM with textile reinforcement, ID: 8mm x OD: 15mm with 1/4" Female Connection, ideal for use with Elcometer Kara Pumps.



Part Number				
6m (19.7ft)	11m (36ft)	16m (52.5ft)	21m (68.9ft)	26m (85.3ft)
PT56414024	PT56414025	PT56414027	PT56414028	PT56414026

Thermo Rubber Product Hose for Air Spray (Low Pressure) Systems

Thermo Rubber, ID: 8mm x OD: 16mm with 3/8" Female Connection, ideal for use with Elcometer Kara Pumps.



Part Number				
6m (19.7ft)	11m (36ft)	16m (52.5ft)	21m (68.9ft)	26m (85.3ft)
PT56414116	PT56414117	PT56414115	PT56414118	PT56414119

Elcometer **KARA** Spares

For a complete breakdown of Elcometer Kara pump spares, including diagrams, please see Spare Parts Section.

Spares

Part Number	Description
PT83660047	Suction Hose Product Filter
PT83660001	Hopper Product Filter: 40 Mesh
PT83660030	Anti-Pulsation System Filter: 60 Mesh
PT83660029	Anti-Pulsation System Filter: 100 Mesh
PT84760004	Hopper Product Filter Spring Clip

Replacement Parts - General

KARA 1-30	KARA 1-40	KARA 1-40A	Description
PT86465206	PT86465206	PT86465206	Suction Hose complete with Suction Hose Product Filter
PT57550110	PT57510019	PT57510019	Product Return Valve
PT60760104	-	-	Product Return Hose
PT55710362	-	-	Product Return Hose to Valve Spring Connection
-	PT86410082	PT86410082	Product Return Hose with Hose to Valve Spring Connection
PT56413513	PT56413512	PT56413512	Anti-Pulsation System
PT54550016	PT54550016	PT54550016	Analogue Pressure Gauge 0 - 12 bar / 0 - 160 psi

Replacement Parts - Diaphragm Pump

KARA 1-30	KARA 1-40	KARA 1-40A	Description
PT49000477	-	-	Upper Valve Kit
PT49000476	-	-	Lower Valve Kit
-	PT30090020	PT30090092	Valve Kit - Kara Valve Seat
PT49000478	PT30090017	PT30090096	Diaphragm Replacement Kit
PT49000481	PT30090019	PT30090019	Distribution Pump Kit (includes Insert & Plate)

Replacement Parts - Product Pressure Regulator Parts

KARA 1-30	KARA 1-40	KARA 1-40A	Description
PT86464715	PT52410019	PT86464717	Product Pressure Regulator - Complete Replacement Kit
PT84560002	PT84560002	PT84560002	Product Pressure Regulator Analogue Pressure Gauge 0 - 4 bar (0 - 58 psi)
PT86463904	PT56418581	PT56418581	Diaphragm Assembly
PT87560037	PT87560037	PT87560039	Product Regulator Valve Kit

elcometer[®]
www.elcometer.com

ENGLAND, UK

Elcometer Limited
+44 (0)161 371 6000
sales@elcometer.com
www.elcometer.com

FRANCE

Elcometer Sarl
+33 (0)2 38 86 33 44
fr_info@elcometer.com
www.elcometer.fr

GERMANY

Elcometer Instruments GmbH
AALEN: +49 (0) 7361 52806 0
LEER: +49 (0) 7361 528 06 60
de_info@elcometer.com
www.elcometer.de

THE NETHERLANDS

Elcometer B.V.
+31 (0)30 259 1818
nl_info@elcometer.com
www.elcometer.nl

SPAIN

Sagola SA
+34 945 214 150
sagola@sagola.com
www.sagola.com

JAPAN

Elcometer KK
+81 (0)3 6869 0770
jp_info@elcometer.com
www.elcometer.co.jp

REPUBLIC OF SINGAPORE

Elcometer (Asia) Pte Ltd
+65 6462 2822
asia@elcometer.com
www.elcometer.com

UNITED ARAB EMIRATES

Elcometer LLC
+971 4 295 0191
+971 4 280 3526
uae_sales@elcometer.com
www.elcometer.ae

UNITED STATES OF AMERICA

Elcometer Inc
WARREN, MI: +1 248 650 0500
HOUSTON, TX: +1 713 450 0631
Toll Free: 800 521 0635
inc@elcometer.com
www.elcometer.com

Elcometer is a registered trademarks of Elcometer Limited. Sagola DPC is a trademark of Elcometer Limited. All other trademarks are acknowledged.

Due to our policy of continuous improvement, Elcometer Limited reserves the right to change specifications without notice.

All products are covered by a comprehensive warranty, for more information visit www.elcometer.com/warranty.

© Elcometer Limited, 2023. All rights reserved. No part of this document may be reproduced, transmitted, stored (in a retrieval system or otherwise), or translated into any language, in any form, or by any means, without the prior written permission of Elcometer Limited.