SAMES KREMLIN

Airmix® spraying & equipment

Catalog V5.2

"Creator since 1975, bringing the perfect mix between quality and productivity"

Apply your Skills

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Editor's note

To help you increase your competitiveness, **SAMES KREMLIN** dedicates itself daily to excellence in terms of innovation and reliability.

We are constantly improving our performances as well as quality to meet your specific needs.

We also help you define the equipment allowing your installation to comply with V.O.C. directives and industry standards.

We enable you to benefit from reliable technologies while ensuring you a swift return on investment.

In this catalog, you will find the equipment that will enable you to reach the paint application results you are targeting and the finish quality you desire.

Our mission is to provide you with the best equipment to meet your needs and requirements.

The entire team at **SAMES KREMLIN** is at your disposal to answer your questions.

Enjoy your reading.

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PRODUCTS RANGE

Flash this QRcode to request a private access to download every user manual.

Customer satisfaction

SAMES KREMLIN HAS WORKED OUT A COMPLETE OFFER OF SERVICES, ADAPTED TO ALL YOUR NEEDS:

Advice, repair, servicing, adjustment or intervention by a qualified technician. Whatever your request may be, **SAMES KREMLIN** Customer satisfaction department, is at your disposal to answer your needs within the shortest time.

> HOTLINE

SAMES KREMLIN has a quality hotline which takes care of our customer satisfaction.
Please fill free to contact us. Our customer service team would like to provide an answer under 48 hours.

+33 (0)1 49 40 25 28

Monday to Friday: 8:30 - 12:00 am & 13:00 - 17:30 pm

> AUDIT

In order to make the most from your installation, paint or powder, advice and expertise of specialists are essential. Made of practical, experienced members, **SAMES KREMLIN** customer support team will carry out a diagnostic of your installation and will provide you with a worthy technical assistance for the improvement or retrofit of your paint line.

> REPAIR

A regular, and carried out professionally, maintenance or a retrofit of your equipment, is the best way to guaranty the correct running of your equipment. To this end, do not hesitate to contact one of our technicians:

- to get technical advice or technical assistance by phone
- to get one of your product repaired or controlled
- to carry out a retrofit

> SPARE PARTS

Original spare parts guaranty the correct running of your equipment. We are here to deal with all your orders of spare parts throughout the world. Thus, our aim is to rapidly supply you and at the best price, with the wished part in order to guaranty an optimum and prolonged running of your paint or powder application equipment.

> TRAINING

SAMES KREMLIN is registered as a training centre by the French Ministry of Employment.
Training sessions that allow you learning the requisite knowledge to the use and the maintenance of your equipment are organised throughout the year. A catalogue can be obtained upon request. You will be then able to choose among the proposed selection of training courses, the type of training that meets your needs or production aims. These training sessions can be organised within your premises or in our training centre located in our headquarters in Meylan - FRANCE.

Quality insurance

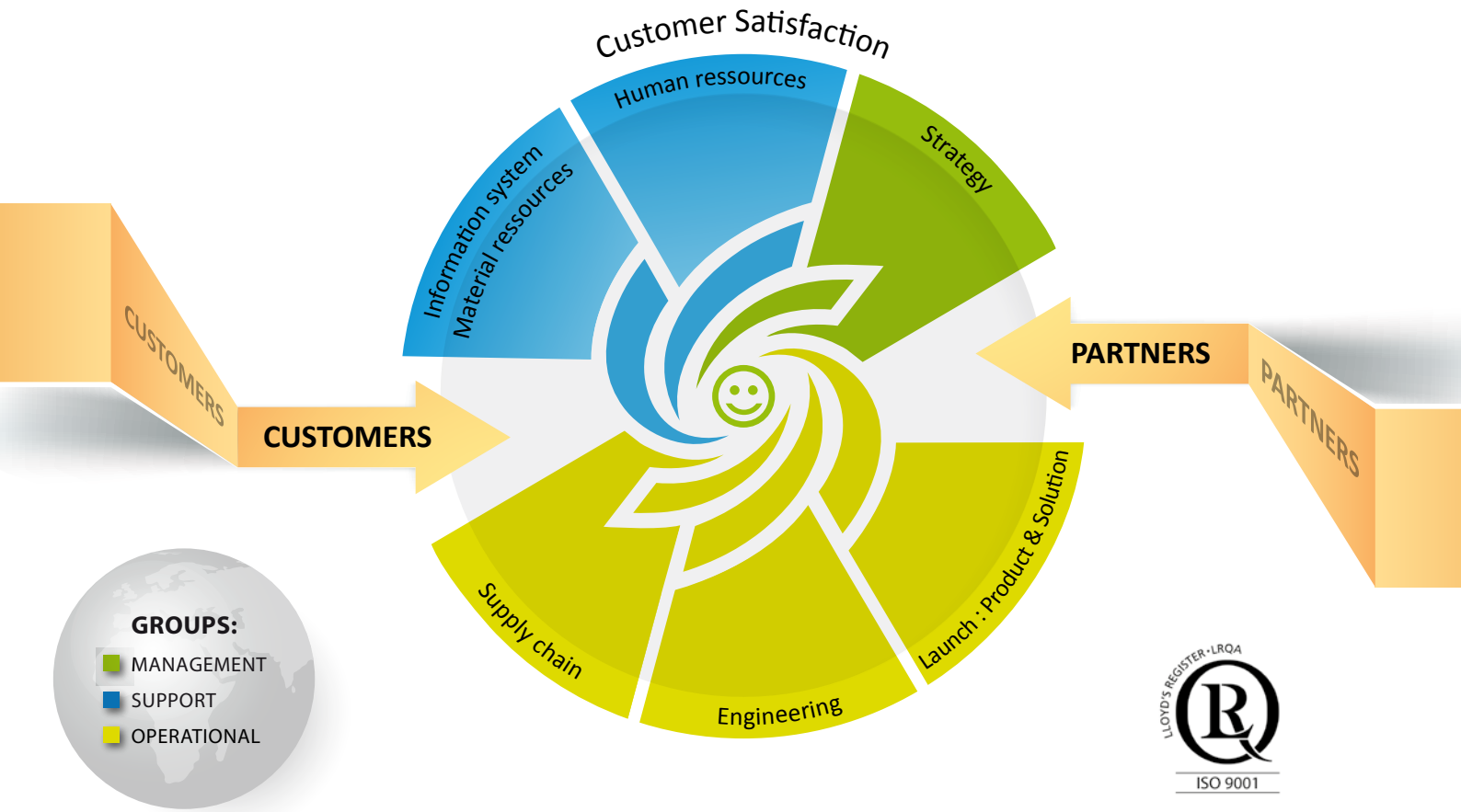
In conformity with the ISO9001 standard - issue 2008, the requisite procedures and registrations are mastered. The seriousness with which **SAMES KREMLIN**'s quality policy is dealt ensures you an optimum quality at each stage of the production and of the assembly of the components.

Our products are in the scope of the following European directives:

- 2014/34/UE Explosive Atmospheres
- 2006/42/CE Machinery
- 2014/35/UE Low Voltage
- 2014/30/UE Electromagnetic Compatibility
- 2011/65/UE RoHS Restriction of Hazardous Substances in electrical and electronic equipment
- 2012/19/UE WEEE Waste of Electrical and Electronic Equipment
- 1907/2006/CE REACH Registration, Evaluation, Authorization and Restriction of Chemicals.

A process mapping allows organizing all the stages while being very attentive to the various environments (customers, competition…), to the audits (inner and outer) and to the indicators linked to the defined aims.

PROCESSES MAPPING



ISO 9001

Global presence

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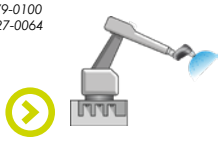

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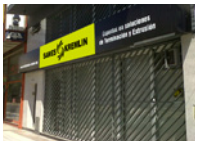

Global presence

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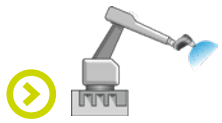

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Office

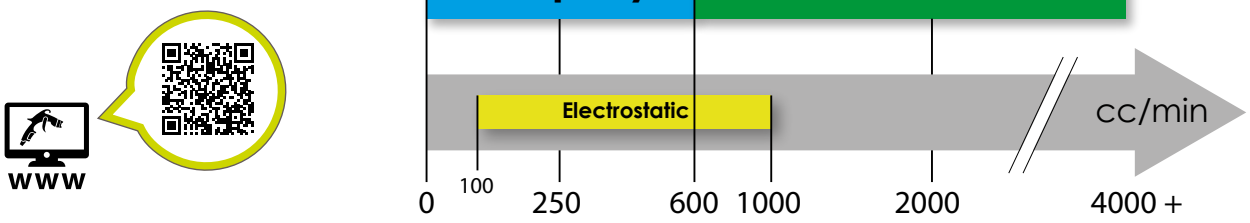
Application Center

Airmix® spray technology

The Airmix® Technology was created in 1975 by **SAMES KREMLIN**. Airmix® is an intermediate spray technology that combines the advantages of both conventional and Airless technology & is the industry standard for medium pressure atomization today.
A world-recognized technology that had largely been successful, often copied but without equal…

This concept was such a great success for a large number of users that it launched Airmix® from a commun technology to a well-known and reliable first category industry standard used all over the world in many business areas where high quality finish is a must.

The place of the Airmix® technology inside coatings technologies:



Recommended range of use

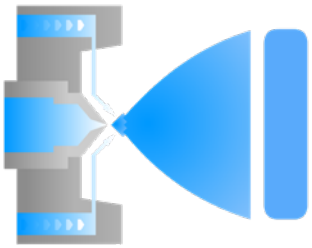
Airmix® is a unique medium pressure spraying technology in between Airspray (known for high finishing quality with limited flow rate ideally under 400cc/min) & Airless (known as efficient high flow solution but without quality finishing).

Airmix® gives a high finishing quality & uniform film build for high productivity on paint flow rates from 250 to 2000 cc/min.

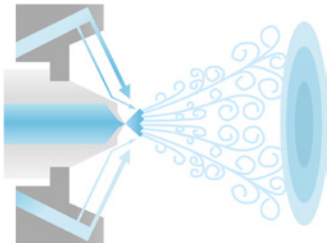
In order to do this, Airmix® associates middle pressure spraying and an indirect addition of atomization air (at a very low pressure), which leads to outstanding fan control.

Airmix® spray technology

Unattainable benefits from other medium pressure technologies such as air-assisted airless



WITH AIRMIX®, *the additional air is injected before the locus of atomization, it results in a very stable fan and a perfectly even build on all sorts of parts to be sprayed.*



WITH THE OTHER MEDIUM PRESSURE SYSTEMS, *such as air assisted airless, the additional air is injected into or beyond the locus of atomization, which leads to turbulent air flows, more overspray and less finish quality.*

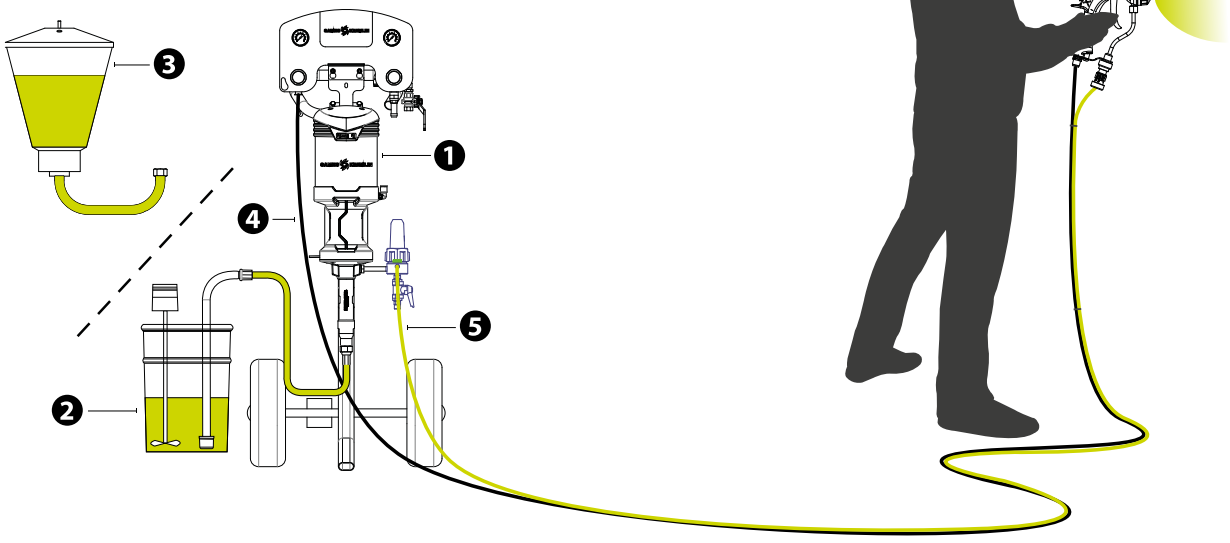
The equipment

The Airmix® range is designed for manual, automatic and electrostatic spraying.

The use of Airmix® systems is optimised in a range of pressure between 30 and 200 bar for paint and up to 400 bar for glue, which implies the use of pumps with a pressure ratio between 8/1 and 40/1.

A standard AIRMIX® equipment consists of a pump, a gun and two hoses.
- The pump **(1)** is equipped with a suction rod, that is suitable for any container **(2)**, or a 6L gravity hopper **(3)** for lower consumption.
- The gun is connected up to the pump by two hoses:
  - a small diameter, flexible, fluid hose **(5)**,
  - a conductive air hose for the atomization air **(4)**.

The choice of fluid hoses must been done according to the material sprayed and the maximum pressure than the pump can deliver.



Airmix® spray technology

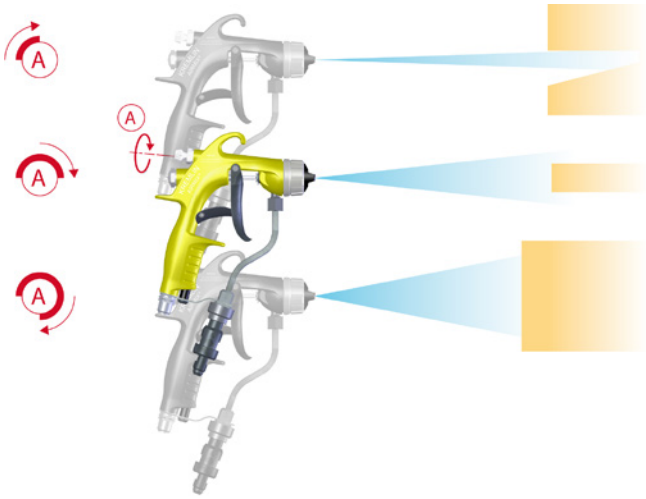
The equipment

The **SAMES KREMLIN** Airmix® spray gun delivers a transfer efficiency up to 86% eliminating overspray, reduce coating consumption by up to 35 % and offer an outstanding spraying quality.

The Airmix® concept was developed, bearing customers needs in mind, bringing many new benefits to the end-user and particular care over the ergonomics of our Xcite™ manual range : a user-friendly grip on the handle, a lightweigth gun, a low effort trigger, better visual control on your application...

FAN ADJUSTMENT

Our Airmix® spray gun range features a fan adjusting system (without having to change the tip) to keep the same powerful and unsurpassed atomization quality whatever the shape of the part to be painted.



Airmix® key points

- Unsurpassed finishing quality
- TE up to 86%
- Paint savings by 35% and more
- Higher efficiency of application for higher productivity
- Reduced overspray and particles rebounds
- Reduced spray booth maintenance
- Reduced solvents emission
- Outstanding working conditions
- A wide range of products following production needs
- Quick payback

With Airmix® technology, you will be able to apply many kind of material:

- Waterbased
- Solvent based
- Epoxy primer
- PU Top coat
- Polyester
- Acrylics
- Cellulosic
- 2K material with acid or moisture sensitive catalyst
- High gloss
- UV material
- High Solid Content

Spray Pack

You will find our Airmix® solution that includes:

A PUMP equipped with 2 manometer:
- one to control the pressure at the pump
- one to control the atomizing air delivered at the gun

2 HOSES:
- 1 conductive air hose 7,5m length
- 1 material hose 7,5m length

ONE MANUAL SPRAY GUN

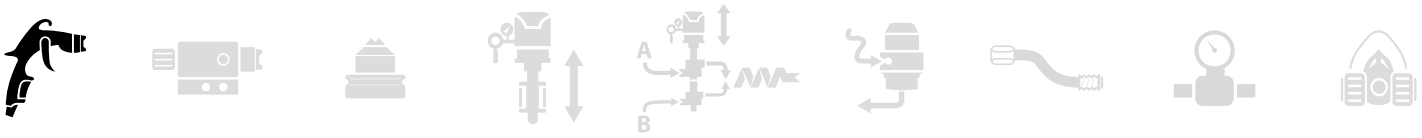
ONE HOSE SLEEVE to protect your hoses

Some pack may offer additional accessories such as trolley, tripod, suction rod or gravity hopper, filters or spraying tip
Please refer to the below table to select your spray pack.

= Table of spray pack

Type of usage	Set-up	Pump type	Gun type (1)	Pressure max. bar (psi)	Tip	Pump output filter	Hoses length (m)	Swivel fitting	Suction rod	Part number
< 5L / day	wall-mounted	10C18	Xcite™ 120	60 (870)	06.094	-	7,5	-	-	151.665.730
									Ø 6.35 (M 26x125)	151.665.740
	Tripod									151.665.760
									Straight suction tube (M 26x125)	151.665.770
	wall-mounted								Ø 6.35 (M 26x125)	151.665.780
							-		Without (F 1/2" BSP)	151.665.700
									Ø 6.35 (M 26x125)	151.665.720
	Tripod		Xcite™ Light 60				7,5			151.665.820
						• (In line filter)				151.665.810
	wall-mounted	15C25	Xcite™ Light 120	90 (1305)	09.114	•			Ø 15 (M 26x125)	151.140.600
			Xcite™ 120		-	-		•		151.260.976
										151.260.974
								-		151.261.001
From 5 to 15L/day		15C50	Xcite™ Light 120		12.114	•			Ø 23 (M 26x125)	151.143.600
			Xcite™ 120		-	-		•		151.265.050
						•			-	151.265.052
						•			Ø 23 (M 26x125)	151.265.053
From 5 to 15L/day		20C50		120 (1740)	-	•		•	Ø 23 (Fluid inlet M 26x125)	151.260.966
		20C50 GT								151.260.973
< 5L / day		30C25	Xcite™ 200	180 (2610)		-			-	151.260.977
									Ø 15 (Fluid inlet M 26x125)	151.260.975
						•			Ø 23 (Fluid inlet M 26x125)	151.260.978
						-		-		151.261.002
From 5 to 15L/day		17F60	Xcite™ 120	102 (1480)		•		•		151.260.967
		34F60	Xcite™ 200	204 (2960)						151.260.970
		40C50		240 (3480)						151.260.968

(1): Standard aircap type VX24



Manual spray guns

The Xcite™ gun family is the result of **SAMES KREMLIN** experience since 1925. The Xcite™ gun brings an excellent comfort to the operator. its ultra light trigger, its design, its ergonomy and its swivel fitting reduce the operator fatigue, improve the productivity and stop all risks of RSi (Repetitive strains injuries).

Xcite™ family uses high quality components which ensure a perfect reliability maintaining a high level of performances. The last generation of Airmix® atomization aircap offers unsurpassed finish quality.

The sprayer has the ability to significantly vary the pattern without changing the tip while using minimum atomization air and pressure. it's really useful when painting complex shape parts (Only available on Xcite™ version (not Light)).

Features	Benefits	Specific to one family
Increased atomization quality Increased transfer efficiency	outstanding spraying quality with reduced overspray	All
High transfer efficiency - up to 86%	Significant paint savings - more paint on the goods and less on the booth	All
High flow rates	To meet demand production needs	All
Lightweight, light trigger and flexible design	Reduced fatigue and excellent working conditions for increased productivity	Xcite™ Light
Simple construction with no fan adjustments and EZ technology on aircap	Constant finish quality and smart usage from horizontal to vertical spray pattern	All
Compact design with optional whip hose connected directly to the spray gun	Really easy access into recessed areas	Xcite™ Light
Stainless steel fluid passages, Anodized body and Double seal technology	For long term usage even with water-based materials	All
Nickeled brass air needle	Long service life and good reliability	Xcite™

SPECIFICATIONS

		Xcite™ Light 60	Xcite™ Light 120	Xcite™ 120	Xcite™ 200	Xcite™ 400
Body of the gun		Forged aluminum				
Fuid pressure range / bar (psi)		20-60 (290-870)	20-120 (290-1740)	20-120 (290-1740)	20-200 (290-2900)	200-400 (2900-5800)
Maximum air inlet pressure / bar (psi)		6 (87)				
Atomization air pressure / bar (psi)		0.7 - 3 (10 - 43) Recommended				
Fluid output		Depends on the tip used				
Weigth	Without Swivel / g (lbs)	385 (13.5)		511 (18)		-
	With Swivel / g (lbs)	-	-	579 (20.4)		587 (20.7)
Maximum fluid Temperature / °C (°F)		50 (122)				
Air consumption / m3/h		4.8 - 7.2		3.2 - 7.5		
Wetted parts		Stainless steel, PTFE, carbide				
Safety		Trigger lock				
Filter (fitted on fluid tube)		-	-	#6 - 85 MESH / 168µ		
Seat		Acetal	Stainless steel	Stainless steel	Carbide	
ATEX Marking		II 2G Ex h IIA T6 X Gb		CE Ex II 2 G		
Fittings	Air inlet	M 1/4 NPS				
	Fluid inlet	M 1/2'' JIC				
Sprayed material	Waterbased	✓	✓	✓	✓	✓
	Solvent base	✓	✓	✓	✓	✓
	Primers	✓	✓	✓	✓	✓
	Stains	✓	✓	✓	✓	✓
	Direct Gloss / Metallic	-	-	-	-	-
	Top coats / High Gloss	✓	✓	✓	✓	✓
	UV products	-	-	-	-	-
	Moisture sensitive	✓	✓	✓	✓	✓
	Two components	✓	✓	✓	✓	✓
	Anti-corrosion / abrasives	-	-	-	-	✓
	Adhesives	-	-	-	-	✓
	Sealants	-	-	-	-	✓
	Greases	-	-	-	-	✓
	Wax	-	-	-	-	✓

Xcite™ Airmix®

The Xcite™ Airmix® manual spray gun delivers outstanding performance with unsurpassed finish quality for a quick payback. It is available in 3 pressure ranges:
120, 200 & 400 bar (1740-2900-5400psi) to meet every application. The Xcite™ is HVLP compliant.

- **Product savings & environmental protection due to high transfer efficiency (up to 86%)**
- **Unsurpassed atomization quality of spraying**
- **Ergonomically designed for outstanding performance**

UNSURPASSED ATOMIZATION FOR SUPERIOR PERFORMANCE

86*% TRANSFERT EFFICIENCY HVLP COMPLIANT

WWW

Configuration of the Xcite™ spray gun

Type of gun	Aircap	Tip (1)	Maximum fluid pressure - bar (psi)	Seat	Swivel	Part number
Xcite™ 120	VX 24 KHVLP	No	120 (1740)	SST	✓	135.720.100
Xcite™ 120					-	135.720.120
Xcite™ 200			200 (2900)	Carbide	✓	135.720.200
Xcite™ 200					-	135.720.220
Xcite™ 400	VX 124 KHVLP		400 (5800)		✓	135.720.400

(1): to be order on page **"Airmix® spray tips", page 21**

Maintenance kits

Description	Part number
Seal kit (Fluid) for Xcite™ 120 & 200	129.729.901
Seal kit (Fluid) for Xcite™ 400	129.729.941
Seal kit (Air) for Xcite™	129.729.908
Servicing kit for Xcite™ 120 (seal kits included)	129.729.920
Servicing kit for Xcite™ 200 (seal kits included)	129.729.921
Servicing kit for Xcite™ 400 (seal kits included)	129.729.943

Accessories

Description	Diameter Fluid hose (mm)	Maximum Fluid pressure (bar)	Hoses Length (m)	Part number
Whip end hose PTFE fittings 2 x F 1/2" JIC	6	500	1	050.457.301 (2)
Whip end hose PTFE fittings 2 x F 1/2" JIC			1,5	050.457.302 (2)

(2):To be ordered 1/2" JIC male/male fitting # 050.102.301 for high pressure hoses

Xcite™ kits with air and fluid hoses

Description	Aircap	Tip (1)	Ø Fluid hose (mm)	Ø Conductive Air hose (mm)	Hoses Length (m)	Part number
Xcite™ 120	VX 24 K HVLP	No	4.8	7	7.5	151.260.960
Xcite™ 200	VX 24 K HVLP					151.260.961

(1): to be order on page **"Airmix® spray tips", page 21**

**: +/- 2% according to norm (EN 13966-1)*

Xcite™ Light Airmix®

The Xcite™ Light Airmix® manual spray gun focuses on lightness, simplicity and maneuverability. For maximum benefits, this spray gun is available in two versions:
60 bar and 120 bar (870 psi & 1740 psi)

- **Excellent Airmix® finish quality**
- **High transfer efficiency - up to 86% (HVLP compliant)**
- **Designed to access recessed areas of parts**

THE LIGHTEST AIRMIX® MANUAL SPRAY GUN ON THE MARKET!

Configuration of the Xcite™ Light spray gun

Type of gun	Aircap	Tip (1)	Maximum fluid pressure - bar (psi)	Seat	Part number
Xcite™ Light 60	VX 124 KHVLP	No	60 (870)	ACETAL	135.725.020
Xcite™ Light 120			120 (1740)	SST	135.725.120

(1): to be order on page **"Airmix® spray tips", page 21**

Maintenance kits

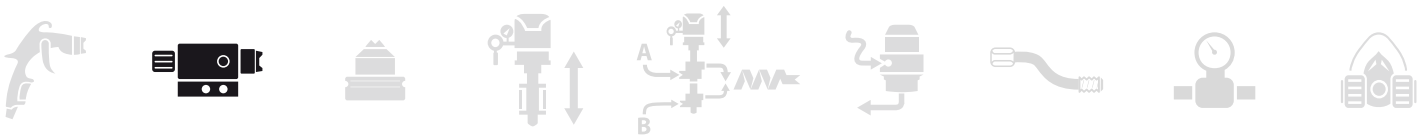
Description	Part number
Seal kit (Fluid) for Xcite™ Light	129.729.926
Seal kit (Air) for Xcite™ Light	129.729.927
Servicing kit for Xcite™ Light 60 (seal kits included)	129.729.924
Servicing kit for Xcite™ Light 120 (seal kits included)	129.729.925
Servicing kit - rear line for Xcite™ Light 60	129.729.923
Servicing kit - rear line for Xcite™ Light 120	129.729.910

Accessories

Description	Mounting	Maximum operating pressure (bar)	Fitting inlet	Fitting outlet	Filter screen	Part number
Male Male IINLINE FLUID FILTER	Between 2 hoses	200 bar (2900 PSI)	M 1/2 JIC	M 1/2 JIC	#6	155.010.000

**: +/- 2% according to norm (EN 13966-1)*

Notes



Automatic spray guns

Our automatic gun range family is the result of **SAMES KREMLIN** experience since 1925.
Our compact design and reduced weight increase the performances and the efficiency of the automatic machines.

This range is delivering unsurpassed quality of atomization, providing high finish quality and important product savings. Worldwide recognized by professionals, our automatic range is widely used in automatic finishing lines in most markets.

For guns assembled on base, the fluid circulation is available in the base (no pressure loss) or inside the gun (quick flushing).

Features	Benefits	Specific to one family
Light Airmix® technology: Reduced size and weight	Optimal application performances	AVX and AXC
High transfer efficiency - up to 86%	Significant paint savings - more paint on the goods and less on the booth	
Excellent atomization quality with outstanding transfer efficiency	Excellent finish quality, reduced paint costs, cleaner working environment, lower booth maintenance	All
Modular design	Quick service: only 4 bolts to unscrew, no need to remove hoses	
Stainless steel design	Quick service: only 4 bolts to unscrew, no need to remove hoses	
Compact Design	Minimal payload on the machine for efficient production	AXC
Large dimension fluid passages	Minimized the pressure drop and allows to work from liquid to semi-viscous materials	
Choice of circulation in the base or the gun	Performance level guaranteed for most materials and easy flushing	AVX and ATX
Choice of bases with rear or side connections	To fit each customer need and line configuration	
Choice of tips for water-based materials	The design of the gun optimizes performances and even flow. Dedicated tips (xtra™ fine finish) optimizes application performances.	All
Adjusting fan width kit as an option	To benefit from large to small fan width with the same tip, by remote control without stopping the line.	
Integrated filtration	Allows longer works without tip clogging	ATX

SPECIFICATIONS

			AVX	ATX	AXC
Body of the gun			Forged aluminum		
Fuid pressure range / bar (psi)			20-200 (290-2900)		
Maximum air inlet pressure / bar (psi)			6 (87)		
Minimal trigger air pressure / bar (psi)			3 (43)		
Recommended atomization air pressure / bar (psi)			0.7 - 3 (10 - 43)		
Fluid output			Depends on the tip used		
Weigth Gun only / g (lbs)			452 (16)	750 (26.5)	480 (17)
Maximum fluid Temperature / °C (°F)			50 (122)		
Air consumption / m3/h			3.2 - 7.5		
Wetted parts			Stainless steel - treated stainless steel		
Cartridge			PTFE	PTFE or Retightable or GT	PTFE
Seat / (1): option of carbide or acetal seat			SST (1)	SST	SST (1)
ATEX Marking			CE Ex II 2 G		
Fittings	Fluid	on the base	F 1/4 NPS		-
		Delivered but not fitted	M 1/4 NPT - M 1/2 JIC		M 1/2 JIC
	Atomizing air	on the base	F 1/4 NPS		-
		Delivered but not fitted	M 1/4 BSP - M 1/4 NPS		Quick fitting ø6x8
	Pilot air	on the base	F 1/8 NPS		-
		Delivered but not fitted	M 1/8 BSP - quick fitting ø4x6		Quick fitting ø4x6
Sprayed material		Waterbased	✓	✓	✓
		Solvent base	✓	✓	✓
		Primers	✓	✓	✓
		Stains	-	-	-
		Direct Gloss / Metallic	-	-	-
		Top coats / High Gloss	-	✓	✓
		UV products	-	✓	-
		Moisture sensitive	-	✓	✓
		Two components	-	✓	✓
		Adhesives	-	-	✓
		Sealants	-	-	✓
		Greases	-	-	✓

*: +/- 2% according to norm (EN 13966-1)

AVX Airmix®

The new version of the automatic Airmix® spray gun ensures high level performance with unsurpassed finish & excellent atomization quality.

LIGHWEIGHT AND POLYVALENCE FOR EFFICIENT PRODUCTION

- **High transfer efficiency**
- **Excellent atomization quality**
- **Modular design & high reliability**

86.% TRANSFERT EFFICIENCY HVLP COMPLIANT

WWW

Configuration of AVX spray gun

Type of gun	Base type	Version	Aircap (1)	Tip (2)	Part number
AVX gun (T)	-	circulation in the base	No	No	129.690.000
AVX gun (Ω)	-	circulation in the gun			129.691.000
AVX gun (T)	side outputs	circulation in the base			129.695.000
AVX gun (Ω)		circulation in the gun			129.695.100
AVX gun (T)	rear outputs	circulation in the base			129.695.050
AVX gun (Ω)	rear outputs	circulation in the gun			129.695.150
AVX gun (T) for CEFLA machines	side outputs	circulation in the base			129.695.200

(1):To be ordered separately - see table page **"Aircaps for Airmix® spray guns", page 22;** *(2):To be ordered separately - see table page* **"Airmix® spray tips", page 21**

Maintenance kits

Description	Part number
AVX seal kit (air and fluid)	129.690.901

Base for AVX spray gun

Description	Base type	Detail	Weight (g)	Filter	Wetted parts	Part number
Base for AVX - circulation in the base (T)	Side outlet	Standard flat	240	-	Stainless Steel	129.690.070
CEFLA base for AVX -circulation in the base (T)		For Cefla machine		-		129.690.090
Base for AVX - circulation in the gun (Ω)		Standard flat		-		129.691.070
Base for AVX - circulation in the base (T)	Rear outlet		480	-		129.690.080
Base for AVX - circulation in the gun (Ω)				-		129.691.080
Robotic Base for AVX (T) With filter	Behind	60°	540	✓		129.691.170
Robotic Base for AVX (Ω)				-		129.691.160
Semi robotic Base for AVX (T) With filter				✓		129.691.171
Semi robotic Base for AVX (Ω)				-		129.691.161

Accessories

Description	Part number
Filter support for robotic and semi-robotic base	129.691.180
Remote adjusting fan width kit	029.253.002
Air adjuster	129.253.100
Adjustable fan kit including VX 24 aircap + air adjuster + remote adjusting fan width	129.695.250

Fittings kit

Description	Including				Part number
	MM 1/4" - 1/4 NPS	MM 1/4 NPT - 12/ JIC SST	Plug M 1/4 NPT SST	M 1/8" - Fast fitting 4x6	
Fitting kit for side outlet base	1	2 off Elbow	1	1	129.690.075
Fitting kit for rear outlet base		2 off Straight			129.690.085

Support

Description	Part number
Mounting support Ø 16	049.351.000
Mounting support Ø 12	049.351.700
Adjustable mounting support for Ø12 support	049.351.705

ATX Airmix®

ATX automatic Airmix® spraying gun ensures high level performance with unsurpassed finish quality of pulverization due to Airmix® technology; recommended for applying **UV products**.

HIGH PERFORMANCES FOR EVERY APPLICATION

- **High transfer efficiency**
- **Excellent atomization quality**
- **Modular design & high reliability**

86% TRANSFERT EFFICIENCY HVLP COMPLIANT

WWW

Configuration of ATX spray gun

Type of gun	Version	Base type	Aircap (1)	Tip (2)	Seat	Cartridge	Part number
ATX gun (T)	Circulation inside the base	no	no	no	SST	PTFE	129.625.000
ATX gun (Ω)	Circulation inside the gun				Polyacetal		129.626.505
ATX gun (T) WBE	Circulation inside the base					WBE	129.625.700
ATX gun (Ω) with base	Circulation inside the base	129.626.510 included				PTFE	129.626.500

(1):To be ordered separately - see table page **"Aircaps for Airmix® spray guns", page 22;** *(2):To be ordered separately - see table page* **"Airmix® spray tips", page 21**

Maintenance kits

Description	Part number
ATX seal kit (air and fluid)	129.251.995
Support and screen n°2 kit (x 2)	129.629.906
Support and screen n°4 kit (x 2)	129.629.905
Support and screen n°6 kit (x 2)	129.629.907
Support and screen n°8 kit (x 2)	129.629.916

Base for ATX spray gun

Description	Base type	Weight (g)	Wetted parts	Part number
ATX base (circulation in the base (T)	side outlet	310	stainless steel	129.260.360
ATX base (circulation in the gun (Ω)				129.626.510

Accessories

Description	Part number
Remote adjusting fan width kit	029.253.002
Air adjuster	129.253.100
Adjustable fan kit including VX 24 aircap + air adjuster + remote adjusting fan width	129.695.250

Support

Description	Part number
Mounting support Ø 16	049.351.000
Mounting support Ø 12	049.351.700
Adjustable mounting support for Ø12 support	049.351.705

AXC Airmix®

AXC automatic Airmix® spray gun ensures high level performance with unsurpassed finish & excellent atomization quality.

ULTRA COMPACT FOR MAXIMUM PERFORMANCES

- **High transfer efficiency**
- **Excellent atomization quality**
- **Compact design & high reliability**

86% TRANSFERT EFFICIENCY HVLP COMPLIANT

WWW

Configuration of AXC spray gun

Type of gun	Aircap (1)	Tip (2)	Part number
AXC gun w/o tip nor aircap and w/o Air Fittings	no	no	129.697.000

(1):To be ordered separately - see table page **"Aircaps for Airmix® spray guns", page 22;** *(2):To be ordered separately - see table page* **"Airmix® spray tips", page 21**

Maintenance kits

Description	Part number
AXC seal kit (air and fluid)	129.697.901

Accessories

Description	Part number
Air inlet fitting kit	129.697.902
Remote adjusting fan kit	129.697.250
Stainless steel Y-fitting - for AIRMIX® guns	029.520.500

Support

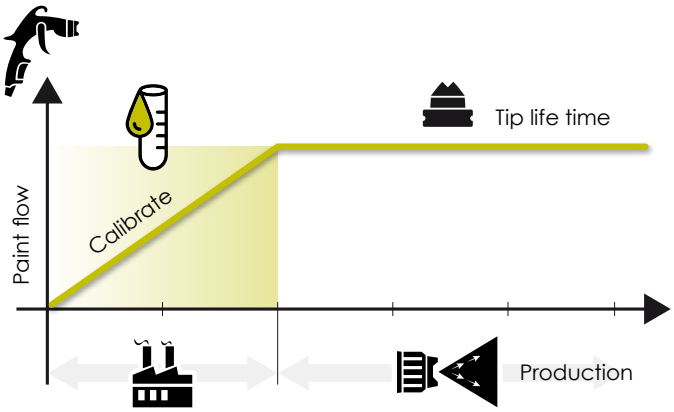
Description	Part number
Mounting support Ø 16	049.351.000
Mounting support Ø 12	049.351.700
Adjustable mounting support for Ø12 support	049.351.705

Tips and spraying accessories

The choice of the tip must be done according to the desired flowrate in order to achieve a good finish and reduce paint costs. An Airmix® tip needs to be replaced frequently in order to maintain the original transfer efficiency.

Why choosing our high quality tips?

To make sure that every tip built in our factory yields the best results, we follow a precise machining process that guarantees consistent material output at different spray angles each & every time.
Our tips are built with carefully selected materials to guarantee a lifetime production.



Ordering example

A customer needs to apply 0.59L/min at 120 bar of waterbased paint with a spray pattern of around 25 cm
Our tip chart give us the following tip size :

1. First 2 XX digits : caliber #09 will deliver the appropriate flowrate at 120 bar
2. Last 2 XX digits : For a spray pattern width of 25 cm, we should choose a width caliber #11
3. For water based spraying : we should select an Xtra(tm) fine finish tip. Part number will end with #2
4. The complete part number of the tip requested will be : 134.509.112

FOR EXAMPLE:

if you choose a 09.09 tip, order with the following reference:
134.509.094 for a fine finish tip,
134.509.092 for an Xtra™ fine finish tip,
134.509.097 for a fine finish tip with asymmetrical fan

only 100.17 and 100.21 tip have part number 134.100.174 and 134.100.214

Tips and Tricks

At the end of the day, we recommend that you place your tip in a closed solvent bucket for easy cleaning.

Airmix® spray tips

Table of fine finish tip - 134.5XX.XX4

Recommended for **solvent based** material

		Water output (l/mn) Pressure (bar)				Screen marking for filter	Marking on pump filter	Average width of fan (cm) at a distance of 25cm*									
Caliber	(mm)	35	70	120	200	Gun	Pump	9	12	17	21	25	29	33	37	44	56
02	0.15	0.07	0.10	0.13	0.17	4	2	02.03	02.05			02.11					
03	0.18	0.11	0.15	0.20	0.26	4	2	03.03	03.05	03.07			03.13				
04	0.23	0.16	0.22	0.29	0.38	4	2 or 4	04.03	04.05	04.07	04.09	04.11	04.13				
06	0.28	0.23	0.33	0.43	0.57	4	4 or 6	06.03	06.05	06.07	06.09	06.11	06.13	06.15			
07	0.30	0.28	0.39	0.51	0.66	6	4 or 6							07.15			
09	0.33	0.32	0.45	0.59	0.77	6	6 or 8	09.03	09.05	09.07	09.09	09.11	09.13	09.15	09.17		
12	0.38	0.42	0.60	0.79	1.03	6	8 or 12			12.07	12.09	12.11	12.13	12.15	12.17		
14	0.41	0.51	0.72	0.94	1.23	12	8 or 12		14.05	14.07	14.09	14.11	14.13	14.15	14.17		
18	0.48	0.67	0.95	1.24	1.63	12	12						18.13	18.15	18.17	18.19	
20	0.50	0.75	1.06	1.39	1.82	12	12			20.07	20.09	20.11	20.13	20.15	20.17	20.19	
25	0.56	0.94	1.33	1.74	2.28	12	15						25.13		25.17		
30	0.61	1.13	1.60	2.09	2.74	12	15					30.11	30.13	30.15	30.17	30.19	
40	0.72	1.54	2.18	2.85	3.73	12	20								40.17		
45	0.76	1.68	2.38	3.12	4.08	12	20					45.11		45.15	45.17	45.19	
100	1.04	3.96	5.68	7.33	9.47	12	20 - 30								100.17		100.21

Table of Xtra™ fine finish tip - 134.5XX.XX2

Recommended for **water based** material

		Water output (l/mn) Pressure (bar)				Screen marking for filter	Marking on pump filter	Average width of fan (cm) at a distance of 25cm*							
Caliber	(mm)	35	70	120	200	Gun	Pump	9	12	17	21	25	29	33	37
04	0.23	0.16	0.22	0.29	0.38	4	2 or 4	04.03	04.05	04.07	04.09	04.11	04.13		
06	0.28	0.23	0.33	0.43	0.57	4	4 or 6	06.03	06.05	06.07	06.09	06.11	06.13	06.15	
07	0.30	0.28	0.39	0.51	0.66	6	4 or 6							07.15	
09	0.33	0.32	0.45	0.59	0.77	6	6 or 8	09.03	09.05	09.07	09.09	09.11	09.13	09.15	
12	0.38	0.42	0.60	0.79	1.03	6	8 or 12			12.07	12.09	12.11	12.13	12.15	12.17
14	0.41	0.51	0.72	0.94	1.23	12	8 or 12		14.05	14.07	14.09	14.11	14.13	14.15	14.17

Table of fine finish tip with asymmetrical fan pattern - 134.5XX.XX7

Recommended for **solvent based** material to obtain an asymmetrical fan pattern

		Water output (l/mn) Pressure (bar)				Screen marking for filter	Marking on pump filter	Average width of fan (cm) at a distance of 25cm*							
Caliber	(mm)	35	70	120	200	Gun	Pump	9	12	17	21	25	29	33	37
06	0.28	0.23	0.33	0.43	0.57	4	4 or 6				06.09	06.11			
09	0.33	0.32	0.45	0.59	0.77	6	6 or 8				09.09	09.11			
12	0.38	0.42	0.60	0.79	1.03	6	8 or 12				12.09	12.11			
14	0.41	0.51	0.72	0.94	1.23	12	8 or 12				14.09	14.11			

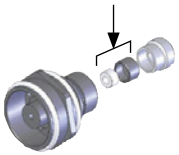
Aircaps for Airmix® spray guns

Description		VX124 KHVLP Xcite® type ring	VX124 KHVLP MVX type ring	VX24 KHVLP Xcite® type ring	VX114 KHVLP	VX14 KHVLP	VX54	BX116	BX16	BX56
Compatible with	Xcite™	-	-	✓	-	-	-	-	-	-
	Xcite™ Light	✓	-	-	-	-	-	-	-	-
	AVX	✓	✓	✓	✓	✓	✓	-	-	-
	AXC	-	-	-	✓	✓	✓	-	-	-
	ATX	-	-	-	-	-	-	✓	✓	✓
Adjustable fan		-	-	✓	-	✓	-	-	✓	-
Type of material	Water-based	✓	✓	✓	-	-	-	-	-	-
	Solvent-based	✓	✓	✓	✓	✓	✓	✓	✓	✓
Spraying quality		Excellent	Excellent	Excellent	Excellent	Excellent	Good	Excellent	Excellent	Good
Transfer efficiency		Excellent	Excellent	Excellent	Very good	Very good	Very good	Good	Good	Very good
non-corrosion coating		✓	✓	✓	-	-	-	-	-	-
non-stick coating		-	-	-	-	-	✓	-	-	✓
Part number		132.720.055	132.720.065	132.720.020(1)	132.670.940	132.670.920(1)	132.670.030	132.650.550	132.650.450(1)	132.650.300
HVLP Compliant		✓					-			

(1) To be used with the remote fan width adjustment kit on automatic gun

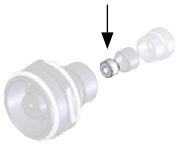
Pack of 3 aircap protection : PN = 132.720.003

Accessories for Airmix® spray guns



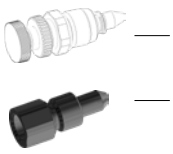
Seats for spray guns

Description	Quantity	Xcite™ & Xcite™ light	MVX	AVX/AXC	ATX	Part number
Stainless steel seat with seal (mounted on standard)	2	✓	✓	✓	-	129.679.905
		-	-	-	✓	129.629.923
Acetal resin seat	10	✓	-	-	-	129.729.904
		-	✓	✓	-	129.679.904
		-	-	-	✓	129.609.911
Carbide seat with seal (200 bar)	2	✓	✓	✓	-	129.679.906
		-	-	-	✓	129.659.904
Carbide seat with seal (400 bar)	2	•	-	-	-	129.729.907



Seals kit for spray guns

Seals for stainless steel or carbide seats	10	✓	✓	✓	✓	129.629.922
Seal kit for MVX spray gun	1	-	✓	-	-	129.679.901
Repair kit for MVX spray gun	1	-	✓	-	-	129.679.902

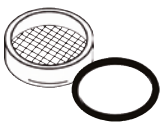


Accessories for automatic gun

Air adjuster	✓	-	129.253.100
Adjustable fan kit (VX 24 aircap + air adjuster + remote adjusting fan width)	✓	-	129.695.250
Remote adjusting fan width	✓	-	029.253.002

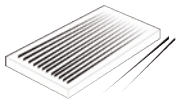
Extension for spray gun

Straight extension	400	✓	-	-	-	075.810.010
		-	✓	✓	-	075.800.012
	250	-	✓	✓	-	075.800.011
Elbow extension (45° angle)	250	-	✓	✓	-	075.850.011
		-	-	-	✓	075.850.001



Microscreen

Tip size	Microscreen (99µ) - Pack of 10	Part number
02 - 03 - 04 - 06	129.609.901	-
09 and above	-	129.529.903

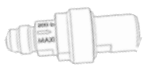


Tip cleaning needles

Description	Nozzles size (mm)	Quantity	Part number
Unclogging needles	≤ 0.9	12	000.094.000
Unplugging needles	≥ 0.9	12	000.094.002

In-line paint filter - With its compact dimensions, it fits on base of the handle or between two hoses.

Description	Set-up	Maximum fluid pressure (bar)	Thread		Part number
			Inlet	Outlet	
Stainless steel filters supplied with 6 screen - 168µ	Between 2 hoses	200	M1/2 JIC	M1/2 JIC	155.010.000
	At the gun fluid inlet			F1/2 JIC	155.010.100
Filter housing	On Xcite™ spraygun			Xcite Inlet	129.520.370



Screen for gun fluid filter

Stainless steel screen for filter	Size (µ)	Quantity	Part number
N° 4	100	5	129.609.907
N° 6 (mounted on the gun)	168	5	129.609.908
N° 12	280	5	129.609.909

Swivel fitting

Description	Maximum fluid pressure (bar)	Thread		Part number
		Inlet	Outlet	
Twist swivel fitting	500	M ½" JIC	F ½" JIC	129.670.425
		M 1/4" NPSM	F ½" JIC	129.670.435

Airmix® cup pumps

An Airmix® spraying system is included the following equipement list (at minimal):

- **A pump**
- **2 hoses : Air and Fluid**
- **A gun**

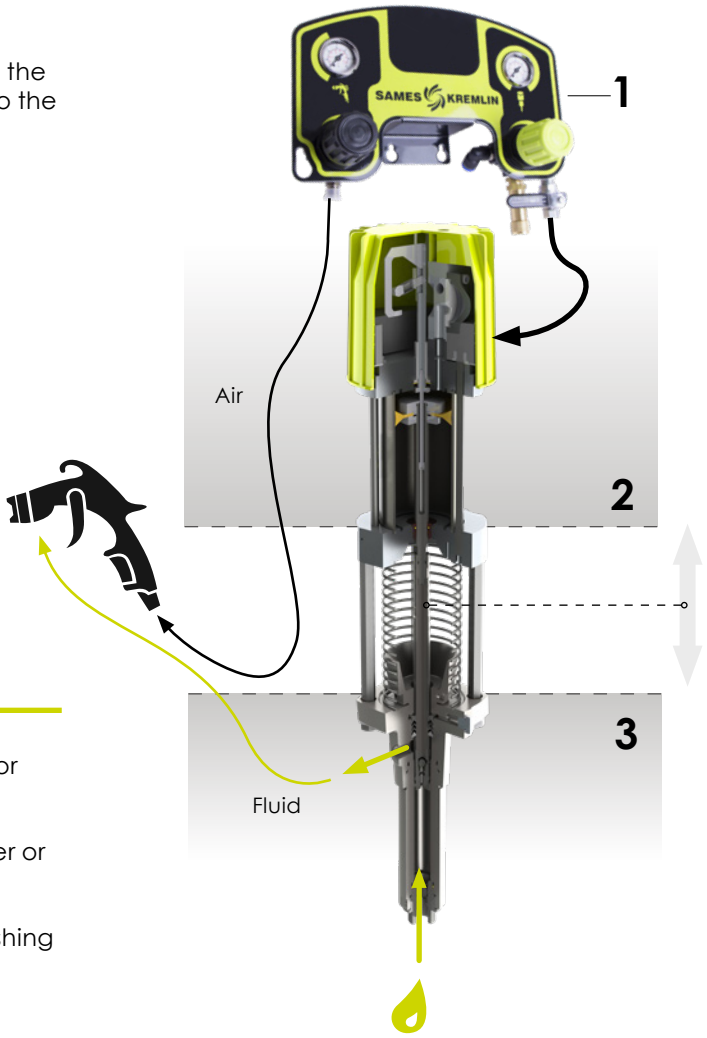
Every of our Airmix® pumps, hereafter detailed, are built in the same way:

1. **One pack of manometers: the first to supply the engine with compressed air and the second to supply the Airmix® spray gun in atomizing air.**
2. **One Pneumatic air motor.**
3. **One hydraulic section.**

The role of a pump is to suck the fluid from the drum and exhaust it under high pressure to the gun through an hose.

SAMES KREMLIN is a world leader in pneumatic piston pump manufacturing which is the benchmark technology in the industry for many reasons:

- No risk of fire in the presence of solvent vapors.
- Very high pressure even with the most viscous products.
- Continuous feed without flow variation *(thanks to double-acting operation)*, ideal to guarantee consistency of thickness and high finishing result.



Then, pump accessories can be added as standard or optional to complete the equipment:

- Suction tube with a selection of different diameter or gravity hopper.
- Filter at the pump outlet with purge rod - to limit nozzle clogging and to facilitate the priming/ flushing of your equipment.
- Wall mounted frame, trolley or tripod.

A pump must be selected according 2 essential parameters:

- The pressure ratio, brings the necessary power to transport the Fluid and to atomize it
- The hydraulic section size, which will allow the feeding of 1 or several guns

Selecting the correct pump for your application and adapted to your material requires know-how and our local SAMES KREMLIN teams are there to help you. It is important to mention that all our pumps are compatible with solvent and water-based materials.

The following chapter introduces you to our range of cup pumps. These pumps are built with a cup on top of the hydraulics which have to be filled with lubricant.

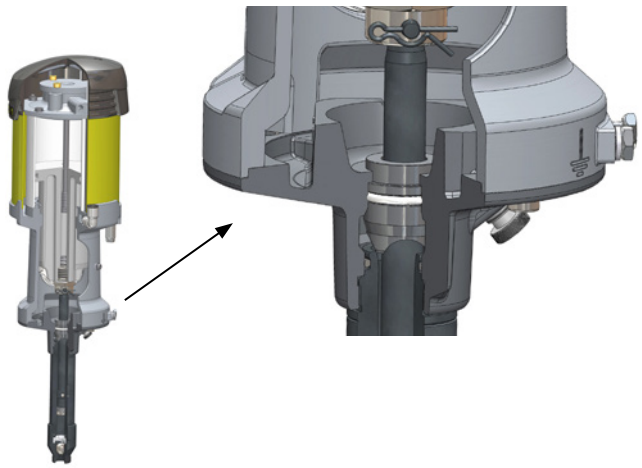
This lubricant ensures constant piston lubrication and must be compatible with the pumped material.
(we offer a range of lub on page 72)

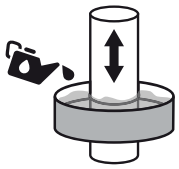
This **Cup-lub pump technology has many advantages**:

- Increases the pump lifetime: the lubricant prevents any paint drying on the piston
- Represents a visual leak indicator, alerting the user of the need to retighter the seal or to charge them
- Limits heating of the piston

Finally, our know-how is to propose a multitude of pump's option to prolong their lifespan whatever the material used and your constraints of application:

- Choice of different seals, GT, PFA, PU, MB-A, PTFE G, UHMW, Polyfluid, the table below will help you in your choice
- Ball valve option in stainless steel 316 or 316L
- Engine with anti-icing Turbo option





Cup lub technology

WWW

Selection table

FEATURES	BENEFITS	10C18	10C50	15C25	15C50	16C240	20C50	20C100	30C25
Stainless steel design	**Compatible with water-based materials**	**All**							
Small fluid section and suction rod	less product loss during color-changing and pump flushing	✓	-						
The gun/pump packs work with a compressor of 0,5 HP	Reduction of operational costs								
Simple design, reduced number of spare parts	Easy maintenance	All							
Compact design	Fits in small working areas	✓	✓	✓	✓	-	-	-	✓
large diameter suction rod and high compression ratio	Can be used with a wide range of materials	✓	✓	-	-	✓	✓	✓	-
Fluid section with mobile lower packing construction	Improved material refilling and emptying for constant output improved sealing - easier maintenance	-	-	✓	✓	-	-	-	✓
Simple and accessible air motor/fluid section coupling without tie rod	Possibility to rotate the fluid section to adjust the x	-	-	✓	✓	-	-	-	✓
Double stroke fluid section	fluid output on the application	-				✓			
Closed design with protective carter between air motor and fluid section	Lubricant protection against external pollution. Full operator safety	-	-	✓	✓	-	-	-	✓
Progressive strat up with very low air pressure	Easy priming at very low fluid discharge pressure. No pulsation even with 0.5 bar of air	-	-	✓	✓	-	-	-	✓
Sprayed material	Waterbased	✓	✓	✓	✓	✓	✓	✓	✓
	Solvent base	✓	✓	✓	✓	✓	✓	✓	✓
	Primers	✓	✓	✓	✓	✓	✓	✓	✓
	Stains	✓	✓	✓	✓	-	✓	✓	-
	Direct Gloss / Metallic	-	-	-	-	✓	-	-	-
	Top coats / High Gloss	✓	✓	✓	✓	✓	✓	✓	-
	UV products	-	-	-	-	-	-	-	-
	Moisture sensitive	-	-	-	-	-	-	-	-
	Two components	✓	✓	✓	✓	✓	✓	✓	✓
	Anti-corrosion / abrasives	-							
	Adhesives								
	Sealants								
	Greases								
	Wax								

Selection table of Cup pumps

Pump name		10C18	10C50	15C25	15C50	16C240	20C50	20C100	30C25
Construction									
Stainless Steel		✓	✓	✓	✓	✓	✓	✓	✓
Upper sealing available	GT cartridge	✓	✓	✓	-	✓	✓	✓*	✓
	MB-GT cartridge	-	-	-	✓	-	-	-	-
	MB-A cartridge	-	-	✓	-	-	-	-	✓
	PTFE G + Polyfluid	-	-	-	-	✓	✓	✓	-
	UHMW + Polyfluid	-	-	-	-	✓*	-	-	-
	Leather	-	-	-	-	✓*	-	-	-
	PU	-	-	-	-	✓*	-	✓*	-
Lower sealing available	PFA	✓	-	-	-	-	-	-	-
	PU	✓*	-	-	-	✓*	-	✓*	-
	GT	-	✓	-	-	-	✓	✓	-
	UHMW polyethylene	-	-	✓	✓	✓	-	-	✓
	PTFE G + PE	-	-	-	-	-	✓*	✓*	-
Turbo version available		-	-	-	-	✓	-	✓	-
Ball	Stainless steel	✓	✓	✓	✓	✓	✓	✓	✓
	Carbide	✓*	-	-	-	-	-	-	-
	316	-	-	-	-	-	✓*	✓*	-
	316L	-	-	-	-	✓*	-	-	-
Assembling									
Bare		-	-	-	-	✓	✓	✓	-
Wall mounted		✓	✓	✓	✓	✓	✓	✓	✓
Cart mounted		✓*	✓*	✓*	✓*	✓	✓	✓*	✓*
Portable		✓	-	✓	✓*	-	-	-	✓
ATEX Marking		CE Ex II 2 G IIA T4	CE Ex II 2 G	CE Ex II 2 G IIA T3		CE Ex II 2 G			CE Ex II 2 G IIA T3
Dimension (wall mounted pump without filter or suction rod)									
Height (mm)		390	820	585	585	864	838	864	585
Width (mm)		270	350	158	159	356	356	356	158
Depth (mm)		150	210	170	160	254	178	280	170
Weight (kg)		5,3	17	7.6	8	27	17	22	7.6
Characteristics									
Pressure ratio		10/1		15/1		16/1	20/1		30/1
Output per cycle (cc)		18	50	25	50	240	50	100	25
Number of cycle (per liter)		55	20	40	20	4	20	10	40
Output at 30 cycles/min (L)		0.55	1.5	0.75	1.5	7.2	1.5	3	0.75
Free flowrate (L/min)		1.1	3	1.5		14.4	3	6	1.5
Max fluid pressure (bar)		60		90		96	120		180
Max Paint temperature (°C)		60							
Operating air pressure (bar)		1-6							
Air consumption at 30 cyc/ min and 4 bar (m(3)/h)		1.9	10.8	2.8		41.5	10.8	21.6	7.1
Fittings	Air inlet	F 3/8 BSP				F 3/4 BSP	F 3/8 BSP		
	Fluid Inlet	F 1/2 BSP or M 26x125	M 26x125	F 1/2 BSP or M 26x125		M 26x125			F 1/2 BSP or M 26x125
	Fluid Outlet	M 1/2 JIC							

✓ *available*
* *optional*

= *available in* **spray pack** *version, see table page 11*

10C18 Airmix® paint pump

The 10C18 AIRMIX® painting pump is only available as a complete spraying package. It ensures constant and pulse free delivery for superior finish.

- **Designed for long-lasting industrial use**
- **Fast color changes with minimum solvent consumption**
- **Simple design to minimize maintenance time and operation**

COMPACT DESIGN ENSURING CONSTANT DELIVERY AND PULSE FREE FOR SUPERIOR FINISH

Configuration of the 10C18 Airmix® paint pump

The 10C18 is only available under spray pack, please refer to chapter **"Table of spray pack", page 11**, for part number list

Maintenance kits

Description	Part number
Repair kit for 340/2 air motor	144.850.150
C18 fluid section repair kit	144.855.799
* PU red seal for exhaust valve - recommended for water-based materials	144.855.704

Accessories

Description	Part number
Tripod	151.665.705
Single Post Cart	051.730.110
Handle	051.665.651
Suction rod Ø6.35 plunging tube length 420mm	151.665.640
Easyflush suction rod Ø16 plunging tube length 600 mm	149.596.050
Easyflush suction rod Ø16 plunging tube length 1000mm (for 200 liters drums)	149.596.060

*: +/- 2% according to norm (EN 13966-1)

10C50 Airmix® paint pump

This paint pump is perfect for Airmix® applications by providing exceptional performance. Recommended for one or two Airmix® gun operations.

- **Ideal for Airmix® applications**
- **High efficiency pump for maximum energy savings**
- **Optimized construction for simple & quick maintenance**

IDEAL FOR WATER-BASED AND HIGH SOLIDS MATERIALS

WWW

Configuration of the 10C50 Airmix® paint pump

Set-up	Sealing packings		Suction rod (Ø 25)	Drain rod	Atomization air regulator	Air regulator Fluid pressure	Filter pump outlet	Part number
	Lower sealing	Upper sealing						
Wall mounted	GT seal	GT seal cartridge	•	-	•	•	-	151.777.200
Wall mounted	GT seal	GT seal cartridge	•	•	•	•	•	151.777.100

Maintenance kits

Description	Part number
GT seal kit	144.950.091
GT repair kit	144.950.096
250-4 air motor seal kit	146.260.991
250-4 air motor maintenance kit	146.260.996

Accessories

Description	Part number
Single Post Cart	051.730.110
Two Post Cart w/o plate	051.221.000
Two Post Pump Mounting Plate	056.100.199
Gravity Hopper 6 liters	151.140.230
Easyflow suction rod Ø25 plunging tube length 600 mm	149.596.150
Easyflow suction rod Ø25 plunging tube length 1000mm (for 200 liters drums)	149.596.160
Stainless steel drain rod F18 x 125	049.596.000
Fluid filter	155.580.300

15C25 Airmix® paint pump

This compact paint pump is the ideal partner for your Airmix® spray guns providing simple design for fast maintenance and meets the spray painting requirements of main industry.

- **Ideal for Airmix® applications**
- **High efficiency pump for maximum energy savings**
- **Optimized construction for simple & quick maintenance**

ACCELERATOR OF PERFORMANCE

Configuration of the 15C25 Airmix® paint pump

Set-up	Sealing		Fluid inlet fitting	Suction rod	Drain rod	Atomization air regulator	Air regulator Fluid pressure	Filter pump outlet	Part number
	GT seal	MB-A							
Wall-mounted w/o rods	•	-	M 26x125	-	-	•	•	-	151.140.000
	•	-	F 1/2 BSP	-	-			-	151.140.320
	-	•	M 26x125	-	-			-	151.140.400
	-	•	F 1/2 BSP	-	-			-	151.140.450
Wall-mounted with suction rod	•	-	M 26x125	Ø 16	-			-	151.140.100
	•	-	M 26x125	Ø 16	-			•	151.140.150
	-	•	M 26x125	Ø 16	-			-	151.140.500

Maintenance kits

Description	Part number
Servicing kit - Motor 245-4	144.140.190
Servicing kit - hydraulic C25	144.130.291
GT cartridge	144.130.205
MB-A Cartridge	144.130.365
Piston assembly and MB-A cartridge	144.130.389

Accessories

Description	Part number
Wall-mounted totem	151.140.240
Stand	151.140.210
Double Post Cart	151.241.000
Gravity Hopper 6 liters	151.140.230
Easyflush suction rod Ø16 plunging tube length 600 mm	149.596.050
Easyflush suction rod Ø16 plunging tube length 1000mm (for 200 liters drums)	149.596.060
Easyflow suction rod Ø25 plunging tube length 600 mm	149.596.150
Easyflow suction rod Ø25 plunging tube length 1000mm (for 200 liters drums)	149.596.160
Stainless steel drain rod F18 x 125	049.596.000
Fluid filter	155.580.600
Air plate with 2 air regulator	151.140.070

15C50 Airmix® paint pump

This paint pump is able to supply one or two Airmix® spray guns meeting the spray painting requirements of main industry. This pump embeded a patented seals for long term usage.

- **Perfect Airmix® finish**
- **Built with minimal parts**
- **Lowest cost of ownership**

ACCELERATOR OF PERFORMANCE

Configuration of the 15C50 Airmix® paint pump

Set-up	Sealing		Fluid inlet fitting	Suction rod	Drain rod	Atomization air regulator	Air regulator Fluid pressure	Filter pump outlet	Part number
	GT seal	MB-A							
Wall Mounted F1/2	•	-	F 1/2 BSP	-	-	•	•	-	151.143.000
		-	M 26x125	-	-			-	151.143.050
Wall Mounted M26X125 with filter and suction		-		Ø25	•			•	151.143.250
Wall Mounted M26X125 with filter		-		-	•			•	151.143.450

Maintenance kits

Description	Part number
Servicing kit - Motor 420-4	144 130 190
MB-GT cartridge	144.135.205
Piston assembly and MB-GT cartridge	144.135.291

Accessories

Description	Part number
Wall-mounted totem	151.140.240
Stand	151.140.210
Double Post Cart	151.241.000
Gravity Hopper 6 liters	151.140.230
Easyflow suction rod Ø25 plunging tube length 600 mm	149.596.150
Easyflow suction rod Ø25 plunging tube length 1000mm (for 200 liters drums)	149.596.160
Stainless steel drain rod F18 x 125	049.596.000
Fluid filter	155.580.600
Air plate with 2 air regulator	151.140.070

16C240 Airmix® paint pump

Paint pump for medium pressure - medium output applications. Recommended for one to eight Airmix® gun operations.

- **Stainless steel construction**
- **Designed for medium viscosity materials**
- **Extended lifetime**

RECOMMENDED FOR ONE TO 8 AIRMIX® GUN OPERATIONS WITH ICE FREE PERFORMANCES

WWW

Configuration of the 16C240 Airmix® paint pump

Set-up	Suction rod (Ø 25)	Drain rod	Atomization air regulator	Air regulator Fluid pressure	Filter pump outlet	Part number
Bare	-	-	-	-	-	151.790.000
Wall mounted	-	-	•	•	-	151.790.100
Wall mounted	•	•			•	151.790.200
2 arm cart mounted	•	•			•	151.790.400
Turbo wall-mounted	-	-			-	151.797.100

Maintenance kits

Description	Part number
Seal kit hydraulic C240	144.970.090
Repair kit H120	144.970.095
Seal kit for 2000-4 air motor	146.270.990
Repair kit for 2000-4 air motor	146.270.996

Accessories

Description	Part number
Two Post Cart w/o plate	051.221.000
Two Post Pump Mounting Plate	056.100.199
Easyflow suction rod Ø25 plunging tube length 600 mm	149.596.150
Easyflow suction rod Ø25 plunging tube length 1000mm (for 200 liters drums)	149.596.160
Stainless steel drain rod F18 x 125	049.596.000
Fluid filter	155.580.300

20C50 Airmix® paint pump

This paint pump is perfect for Airmix® applications by providing exceptional performance.

- **Ideal for Airmix® applications**
- **High efficiency pump for maximum energy savings**
- **Optimized construction for simple & quick maintenance**

IDEAL FOR WATER-BASED AND HIGH SOLIDS MATERIALS

Configuration of the 20C50 Airmix® paint pump

Set-up	Sealing		Suction rod	Drain rod	Atomization air regulator	Air regulator Fluid pressure	Filter pump outlet	Part number
	Lower sealing	Upper sealing						
Bare pump	GT seal	Polyfluid + PTFE G		-	-	-	-	151.770.000
Wall mounted	GT seal	Polyfluid + PTFE G	Ø25	-	•	•	-	151.770.200
	GT seal			•			•	151.770.100
	GT seal	GT seal						151.773.100
1 arm cart mounted	GT seal	Polyfluid + PTFE G						151.770.150

Maintenance kits

Description	Part number
Seal kit for 500-4 air motor	146.260.990
Repair kit for 500-4 air motor	146.260.995
Package of seals for upper Polyfluid sealing, GT lower	144.950.091
Servicing kit for upper Polyfluid sealing, GT lower	144.950.096
Package of seals for upper Polyfluid sealing, PTFE G / PE lower	144.950.090
Servicing kit for upper Polyfluid sealing, PTFE G / PE lower	144.950.095
Package of seals GT upper and lower sealing	144.950.097
Servicing kit GT upper and lower sealing	144.950.098

Accessories

Description	Part number
Wall mounted support for bare pump	044.910.121
Single Post Cart	051.730.110
Two Post Cart w/o plate	051.221.000
Two Post Pump Mounting Plate	056.100.199
Gravity Hopper 6 liters	151.140.230
Easyflow suction rod Ø25 plunging tube length 600 mm	149.596.150
Easyflow suction rod Ø25 plunging tube length 1000mm (for 200 liters drums)	149.596.160
Stainless steel flushing rod F18 x 125	049.596.000
Fluid filter	155.580.300

20C100 Airmix® paint pump

This paint pump is perfect for your Airmix® applications. His size is big enough to supply up to 4 guns keeping stable spray pattern for optimal finishing.

- **Ideal for Airmix® applications**
- **High efficiency pump for maximum energy savings**
- **Optimized construction for simple & quick maintenance**

IDEAL FOR WATER-BASED AND HIGH SOLIDS MATERIALS WITH ICE FREE PERFORMANCES

WWW

Configuration of the 20C100 Airmix® paint pump

Set-up	Suction rod (Ø 25)	Drain rod	Atomization air regulator	Air regulator Fluid pressure	Filter pump outlet	Part number
Bare pump	-	-	-	-	-	151.780.000
Wall mounted	•	-	•	•	-	151.780.100
Wall mounted	•	•			•	151.780.200
Turbo wall-mounted	-	-			-	151.782.100
Trolley assembly	•	•			•	151.780.400

Maintenance kits

Description	Part number
Seal kit for 1000-4 air motor	146.270.991
Repair kit for 1000-4 air motor	146.270.995
Package of seals for upper PTFEG & Polyfluid sealing, GT lower	144.960.091
Servicing kit for upper PTFEG & Polyfluid sealing, GT lower	144.960.096
Package of seals for upper PTFEG & Polyfluid sealing, PTFE G / PE lower	144.960.090
Servicing kit for upper PTFEG & Polyfluid sealing, PTFE G / PE lower	144.960.095

Accessories

Description	Part number
Single Post Cart	051.730.110
Two Post Cart w/o plate	051.221.000
Two Post Pump Mounting Plate	056.100.199
Easyflow suction rod Ø25 plunging tube length 600 mm	149.596.150
Easyflow suction rod Ø25 plunging tube length 1000mm (for 200 liters drums)	149.596.160
Stainless steel flushing rod F18 x 125	049.596.000
Fluid filter	155.580.300

30C25 Airmix® paint pump

This compact paint pump is the ideal partner for your Airmix® spray guns. His design meets the spray painting requirements of every industry and is recommended for waterbased application which require powerful suction.

- **Efficiency - perfect for Airmix® finish**
- **Optimization - built with minimal parts**
- **Simplicity - lowest cost of ownership**

ACCELERATOR OF PERFORMANCE

Configuration of the 30C25 Airmix® paint pump

Set-up	Sealing		Fluid inlet fitting	Suction rod	Drain rod	Atomization air regulator	Air regulator Fluid pressure	Filter pump outlet	Part number
	GT seal	MB-A							
Wall-mounted w/o rods	•	-	M 26x125	-	-			-	151.145.000
	•	-	F 1/2 BSP	-	-			-	151.145.320
	-	•	M 26x125	-	-			-	151.145.400
	-	•	F 1/2 BSP	-	-			-	151.145.450
Wall-mounted with rod	•	-	M 26x125	Ø 16	-	•	•	-	151.145.100
	•	-	M 26x125	Ø 16	-			•	151.145.200
	•	-	M 26x125	Ø 25	-			-	151.145.150
Wall-mounted pump with rod and filter	•	-	M 26x125	Ø 25	-			•	151.145.250
	-	•	M 26x125	Ø 25	-			•	151.145.600

Maintenance kits

Description	Part number
Servicing kit - Motor 420-4	144.130.190
Servicing kit - hydraulic C25	144.130.291
GT cartridge	144.130.205
MB-A Cartridge	144.130.365
Piston assembly and MB-A cartridge	144.130.389

Accessories

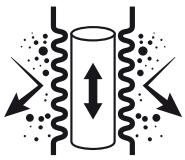
Description	Part number
Wall-mounted totem	151.140.240
Stand	151.140.210
Double Post Cart	151.241.000
Gravity Hopper 6 liters	151.140.230
Easyflush suction rod Ø16 plunging tube length 600 mm	149.596.050
Easyflush suction rod Ø16 plunging tube length 1000mm (for 200 liters drums)	149.596.060
Easyflow suction rod Ø25 plunging tube length 600 mm	149.596.150
Easyflow suction rod Ø25 plunging tube length 1000mm (for 200 liters drums)	149.596.160
Stainless steel flushing rod F18 x 125	049.596.000
Fluid filter	155.580.600
Air plate with 2 air regulator	151.140.070

Notes

Airmix® Flowmax® pumps

The exclusive Flowmax® SuperLife Technology is available only with **SAMES KREMLIN** . Nothing of similar pressure and fluid output in the piston pump design outperforms the Flowmax® SuperLife technology.
Flowmax® pumps substantially outlast standard piston pumps using self-adjusting seals. In addition there is no lubricant cup, thus eliminating packings. In sum, this is a packing-free pump that performs quietly with minimal service. Nothing Compares !

Flowmax® Bellow Technology is a patented **SAMES KREMLIN** design that ensures balanced fluid delivery and long leak free operation.



Flowmax® technology

The Bellows eliminates the top packings and lubricant cups found on other double acting pumps. Virtually pulsation free with low friction seals giving a smooth motion.

The Flowmax® bellow technology keeps the air and the light out which is crucial when processing:

- Moisture sensitive Polyurethane hardener
- Waterbased paint
- UV curing paints

This pumps are also excellent for material recirculation applications with low pulsation characteristics

With this technology, no need to care if the lubricant cup is enough filled out with lubricant ! You can use it with eyes closed.

Selection table

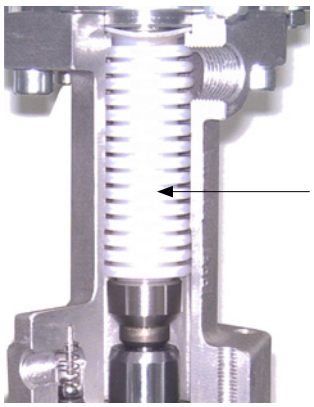
FEATURES	BENEFITS	10C18	10C50	15C25	15C50	16C240
Stainless steel design	**Compatible with water-based materials**					
Sealing ensured by a Superlife™ bellow seal	High reliability	✓	✓	✓	✓	✓
	no more lubricant cups					
	leak free					
	Total sealing between pump and its					
	environment, ideal to work with moisture sensitive					
	catalysts					
	ideal for uV and pre-catalyzed materials					
Large and smooth fluid passages	fluid discharge without retention of a wide range of coating materials	✓	✓	✓	✓	✓
Stainless steel design	Compatible with water-based materials	✓	✓	✓	✓	✓
Balanced fluid section	Constant fluid output pressure	✓	✓	✓	✓	✓
mobile piston seal	Excellent suction capacity	✓	✓	✓	✓	✓
External valves assemby	Easy maintenance	-	✓	-	-	-
floating piston	Fast inversions and very high efficiency	-	✓	-	-	-
Sprayed material	Waterbased	✓	✓	✓	✓	✓
	Solvent base	✓	✓	✓	✓	✓
	Primers	✓	✓	✓	✓	✓
	Stains	-				
	Direct Gloss / Metallic	-				
	Top coats / High Gloss	✓	✓	✓	✓	✓
	UV products	✓	✓	✓	✓	✓
	Moisture sensitive	✓	✓	✓	✓	✓
	Two components	-				
	Anti-corrosion / abrasives					
	Adhesives					
	Sealants					
	Greases					
	Wax					

Selection table of Flowmax® pumps

Pump name		16F240		17F60	20F50	20F100	20F440	
		Construction						
Stainless Steel fluid passage		✓		✓	✓	✓	✓	
Bellow		Polyethylene						
Upper sealing		GT	PU*	GT	GT	GT	GT	PU*
Lower sealing		UHMW	PU*	GT	GT	GT	UHMW	PU*
Turbo version		✓		-	-	•	-	
Stainless Steel ball		✓		✓	✓	✓	✓	
316L ball		✓*			✓*	✓*		
		Assembling						
Bare		✓		-	✓	✓	-	
Wall mounted		✓		✓	✓	✓	✓	
Cart mounted		✓		✓	✓	✓	✓	
Portable		-			-	-	-	
		Dimension (wall mounted pump without filter or suction rod)						
Height (mm)		105		622	991	975	111,5	
Width (mm)		400		330	483	470	640	
Depth (mm)		270		210	280	270	325	
Weight (kg)		32		20	22	27	66	
		Characteristics						
Output per cycle (cc)		240		60	50	100	440	
Number of cycle (per liter)		4		16	20	10	2.3	
Output at 30 cycles/min (L)		5.7		1.8	1.5	3	8.8	
Free flowrate (L/min)		14.4		3.6	3	6	26.4	
Max fluid pressure (bar)		96		100	120	120	120	
Max Paint temperature (°C)		60		60	60	60	60	
Operating air pressure (bar)		1-6		1-6	1-6	1-6	1-6	
Air consumption at 30 cyc/min and 4 bar (m(3)/h)		41.5		11	10.8	21.6	63.4	
ATEX Marking		CE Ex II 2 G						
Fittings	Air inlet	F 3/4 BSP		F 3/8 BSP			F 3/4 BSP	
	Air outlet	-		M 1/4 NPS			-	
	Fluid Inlet	M 26x125					M 38 x 150	
	Fluid Outlet	M 1/2 JIC					F 3/4 NPS	
	Fluid Outlet (after filter)	M 1/2 JIC					M 3/4 JIC	

✓ *available*
* *optional*

= *available in* **spray pack** *version, see table page 11*



Flowmax® technology

16F240 Airmix® Flowmax® paint pump

Idel to supply several guns and a circulating with ice free performances.

- **Flowmax® technology for zero maintenance**
- **Designed for moisture-sensitive & slightly abrasive materials**
- **Extended lifetime**

WWW

Configuration of the 16F240 Airmix® Flowmax® paint pump

Set-up	Suction rod (Ø 25)	Drain rod	Atomization air regulator	Air regulator Fluid pressure	Filter pump outlet	Part number
Bare pump	-	-	-	-	-	151.793.000
Wall mounted	-	-	•	•	-	151.793.100
Wall mounted	•	•	•	•	•	151.793.200
2 arm cart-mounted	•	•	•	•	•	151.793.400
Turbo wall-mounted	-	-	•	•	-	151.796.100
Turbo wall-mounted	•	•	•	•	•	151.796.200

Maintenance kits

Description	Part number
Seal kit for 2000-4 air motor	146.270.990
Repair kit for 2000-4 air motor	146.270.996
Seal kit for F240 Fluid section	144.970.490
Repair kit for F240 Fluid section	144.970.495
Package of PU seals	144.970.270

Accessories

Description	Part number
Two Post Cart w/o plate	051.221.000
Two Post Pump Mounting Plate	056.100.199
Easyflow suction rod Ø25 plunging tube length 600 mm	149.596.150
Easyflow suction rod Ø25 plunging tube length 1000mm (for 200 liters drums)	149.596.160
Stainless steel flushing rod F18 x 125	049.596.000
Fluid filter drain	155.580.300

17F60 Airmix® Flowmax® paint pump

Flowmax® lub free technology ensures total sealing and reliability. Quick pump reversing allows a perfectly stable fan and flow rate. Recommended for one 2 Airmix® guns operation.

- **Unique Flowmax® Bellows technology**
- **Extended lifetime**
- **Easy maintenance**

LUB FREE PUMP WITH ZERO MAINTENANCE

Configuration of the 17F60 Airmix® Flowmax® paint pump

Set-up	Suction rod (Ø 25)	Drain rod	Atomization air regulator	Air regulator Fluid pressure	Filter pump outlet	Part number
Wall-mounted	•	•	•	•	•	151.730.700
1 arm cart	•	•	•	•	•	151.730.750

Maintenance kits

Description	Part number
Seal kit for 1000-2 air motor	144.919.904
Repair kit for 1000-2 air motor	144.919.914
Seal kit for F60 fluid section	144.910.799
Repair kit for F60 fluid section	144.910.797
Seal kit for external valves	144.910.798
Air motor alone	144.910.300

Accessories

Description	Part number
Single Post Cart	051.730.110
Two Post Cart w/o plate	051.221.000
Two Post Pump Mounting Plate	056.100.199
Easyflow suction rod Ø25 plunging tube length 600 mm	149.596.150
Easyflow suction rod Ø25 plunging tube length 1000mm (for 200 liters drums)	149.596.160
Stainless steel drain rod F18 x 125	049.596.000
Fluid filter drain	155.580.300

20F50 Airmix® Flowmax® paint pump

This 20F50 paint pump uses Flowmax® technology for total sealing, performance and extended lifetime for Airmix® applications.

- **Unique Flowmax® Bellows technology**
- **Extended lifetime**
- **Easy maintenance**

LUB FREE PUMP WITH ZERO MAINTENANCE

WWW

Configuration of the 20F50 Airmix® Flowmax® paint pump

Set-up	Suction rod (Ø 25)	Drain rod	Atomization air regulator	Air regulator Fluid pressure	Filter pump outlet	Part number
Bare pump	–	-	-	-	-	151.771.000
Wall-mounted	•	–	•	•	–	151.771.100
Wall-mounted	•	•	•	•	•	151.771.200
2 arms cart-mounted	•	•	•	•	•	151.771.400

Maintenance kits

Description	Part number
Seal kit for 500-4 air motor	146.260.990
Repair kit for 500-4 air motor	146.260.995
Seal kit for F50 hydraulic section	144.950.291
Repair kit F50 hydraulic section	144.950.292

Accessories

Description	Part number
Two Post Cart w/o plate	051.221.000
Two Post Pump Mounting Plate	056.100.199
Easyflow suction rod Ø25 plunging tube length 600 mm	149.596.150
Easyflow suction rod Ø25 plunging tube length 1000mm (for 200 liters drums)	149.596.160
Stainless steel drain rod F18 x 125	049.596.000
Fluid filter drain	155.580.300

20F100 Airmix® Flowmax® paint pump

Flowmax® paint pump for medium pressure applications. Recommended for all materials, including water-based and high solids.

- **Flowmax® technology for zero maintenance**
- **Designed for moisture-sensitive & slightly abrasive materials**
- **Extended lifetime**

IDEAL TO SUPPLY 2 GUNS WITH ICE FREE PERFORMANCES

WWW

Configuration of the 20F100 Airmix® Flowmax® paint pump

Set-up	Suction rod (Ø 25)	Drain rod	Atomization air regulator	Air regulator Fluid pressure	Filter pump outlet	Part number
Bare pump	-	-	-	-	-	151.781.000
Wall mounted	•	-	•	•	-	151.781.100
Wall mounted	•	•	•	•	•	151.781.200
Turbo wall-mounted	-	-	•	•	-	151.783.100
Turbo wall-mounted	•	•	•	•	•	151.783.200
Turbo on trolley kits	-	-	-	-	•	151.783.400

Maintenance kits

Description	Part number
Seal kit for 1000-4 air motor	146.270.991
Repair kit for 1000-4 air motor	146.270.995
Seal kit for F100 hydraulic section	144.960.291
Repair kit F100 hydraulic section	144.960.292

Accessories

Description	Part number
Two Post Cart w/o plate	051.221.000
Two Post Pump Mounting Plate	056.100.199
Easyflow suction rod Ø25 plunging tube length 600 mm	149.596.150
Easyflow suction rod Ø25 plunging tube length 1000mm (for 200 liters drums)	149.596.160
Stainless steel drain rod F18 x 125	049.596.000
Fluid filter drain	155.580.300

20F440 Airmix® Flowmax® paint pump

The Flowmax® pump ensures total leak free sealing, performance, an extended lifetime and reliability.

- **Zero maintenance: FLOWMAX® technology**
- **Designed for moisture-sensitive & abrasive materials**
- **Extended lifetime**

HIGH OUTPUT, CARTRIDGE FREE BELLOW PUMP FOR PCS AND AUTOMATIC MACHINES

WWW

Configuration of the 20F440 Airmix® Flowmax® paint pump

Set-up	Suction rod	Drain rod	Air regulator Fluid pressure	Filter pump outlet	Part number
Wall-mounted	–	–	•	–	151.860.200
Wall mounted GT&PEHD seals with filter	–	–	•	•	151.860.300
Wall mounted PU seals bare	–	–	–	–	151.860.500
Wall mounted PU seals	–	-	•	-	151.860.600
Wall mounted PU seals with filter	–	-	•	•	151.860.700

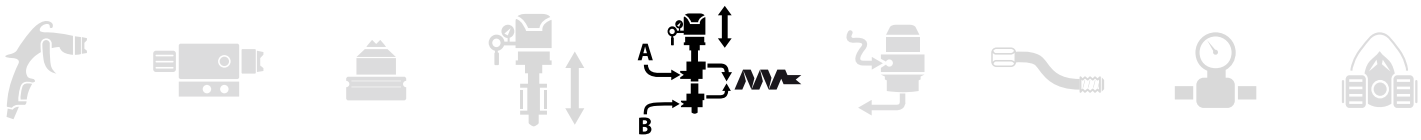
Maintenance kits

Description	Part number
Seal kit for 5000-4 air motor	146.280.991
Repair kit for 5000-4 air motor	146.280.996
Seal kit for F440 hydraulic section	144.990.090
Repair kit F440 hydraulic section	144.990.095
Adaptation assembly for PU seals	144.990.120

Accessories

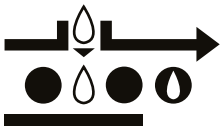
Description	Part number
Two Reinforced Arms w/o mounting plate	051.231.000
Pump bracket	051.341.206
Stainless steel Accumulator equipped filter 3/4"	155.581.400
Suction rod Ø25 plunging tube length 600 mm	049.597.100
Stainless steel flushing rod F18 x 125	049.596.000
Equipped filter	155.581.400

Notes

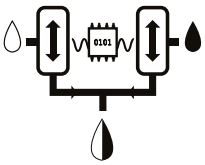


Mechanical & Electronic dosing

SAMES KREMLIN offers a complete range of 2K liquid systems for material dosing. Their uses are either mechanical, mechatronic or electronic dosing machine.
Our systems integrate many technologies, here are the main ones:



Injectmix technology



PFE technology

Injectmix technology allows injecting a custom catalyst volume into a continuous flow of base - directly in a high performance mixer, thus guaranteeing the mixing quality.

The two materials are then instantly vehicles in an inline static mixer without intermediate pre-mixing chamber.

- EASY to flush technology: limiting maintenance
- HIGH ACCURATE mixing
- DIFFERENT INJECTOR size: optimal hardener inejction volume

Pulse-Free Electronic Control (PFE) acts on unique pump changeover technology to ensure consistent metering.
Liquid mixing technology
PFE technology exist on the reverse pump in hidden time to ensure consistent metering.

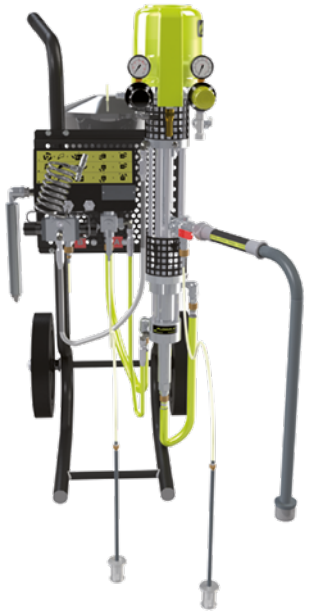
- PRECISE METERING because the pumps never change over during an injection cycle.
- PULSATION FREE You will never have a spray pattern variation during spraying
- DOSING ACCURACY of ±1%

Specifications

Machine name		PU2160F	PU3000	Cyclomix™ Micro	Cyclomix™ Multi	Cyclomix™ Expert
Dosing type		Mechanical	Mechatronic	Electronical		
Ratio		Fixed	Adjustable			
Injectmix technology		-	✓	-		
FPE technology		-	✓	✓		
		Dimension				
Height (cm)		110	28.6 (control cabinet) - 130-150 (dosing unit)	17.3 (control cabinet) - 40 (dosing unit)	60 (control cabinet) - 77 (mixing unit)	60 (control cabinet) - 91 (mixing unit 2K)
Width (cm)		55	36.7 (control cabinet) - 86 (dosing unit)	36.6 (control cabinet) - 40.7 (dosing unit)	60 (control cabinet) - 60 (mixing unit)	60 (control cabinet) - 89 (mixing unit 2K)
Depth (cm)		50	14.3 (control cabinet) - 70 (dosing unit)	11.1 (control cabinet) - 30 (dosing unit)	40 (control cabinet) - 77 (mixing unit)	40 (control cabinet) - 68 (mixing unit 2K)
Weight (kg)		60	-	25	70	48 (2K)
		Characteristics				
Electrical Power		-	115 / 230V - 75W	115 / 230V - 75W	115 / 230 V - 75 W	115 / 230V - 75W
Trigger air pressure (bar mini)		6	6	4	4	4
Product pressure (bar)		40 - 120	2 - 200	2 -175	2 - 200	5 - 200
Wetted parts		Stainless steel, polyethylene, PTFE, nickel-coated steel Catalyst fluid section 1/1, 2/1 and 5/1: 304L; 10/1: 316L	Stainless steel and PeHD	Stainless steel and PEHD 316L stainless steel on PH version catalyst side	Stainless steel and PeHD	Stainless steel and PeHD (option 316L)
Mixing ratio		1/1; 2/1; 5/1; 10/1	1/1 to 20/1	single component and 0.6/1 to 20/1	0.6/1 to 20/1 (160% to 5%)	0.6/ at 30/1
Mixing accuracy			+/- 1%	+/- 1%	+/- 1%	+/- 1%
Number of Products		1	1	1 - 3	7* - 20*	21*
Mixed fluid output (cc/min)		800 -> 1/1 600 -> 2/1 500 -> 5/1 440 -> 10/1	PU 3000 2l: up to 2000 PU 3000 4l: up to 4000	100 - 2000	100 - 2000	50 - 6000
Fluid viscosity		180 sec - CA4	30 - 8000 cps	30 - 5000 cps	30 - 5000 cps	30 - 5000 cps
Fittings	Air inlet	F 3/8" BSP	F 3/4" BSP	-	F 1/4" BSP	-
	Air outlet	M 1/4" NPS	F 1/4" BSP	-	F 1/4" BSP	-
	Fluid Inlet	-	-	M 1/2" JIC	M 1/2" JIC	-
	Fluid Outlet	M 1/2" JIC	F 3/4" JIC	M 1/2" JIC	F 1/4" BSP	-

** This value is interdependent on the number of catalysts*

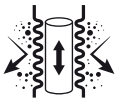
PU 2160F Airmix®



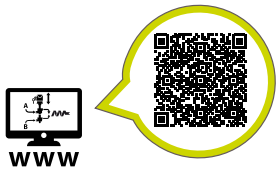
Mechanical dosing & mixing equipment, includes pumping, metering in medium pressure

- **User friendly and easy operation**
- **Material mixing quality**
- **Security of application**

ALL IN ONE SOLUTION: PUMPING AND MIXING ON SECURED RATIO



Integrate Flowmax® pump technology

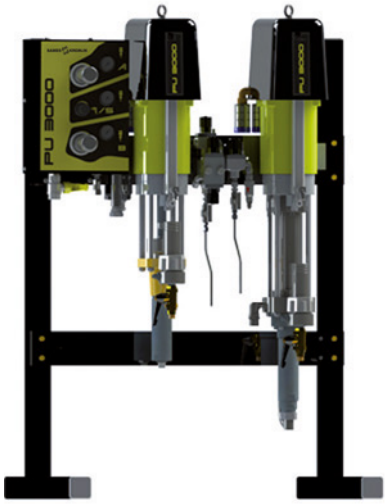


FEATURES	BENEFITS
Cart-mounted pump	Easy positioning in the working area (various working areas)
Comes with mixer, mix manifold, air feeding assembly, suction rod for base and flushing solvent, 6 L catalyst gravity tank	Ready to use pump
Stainless steel fluid sections (base and catalyst) - in standard	Chemical compatibility w/o any risk of corrosion with water-based materials
Sealing done by a FLOWMAX® bellow on the catalyst side	High reliability No more lubricant cups Leak free Total sealing between pump and its environment, ideal to work with moisture-sensitive catalysts Ideal for UV and pre-catalyzed materials
Semi-automatic manifold with synoptic	Safe operation User-friendly
Catalyst re-circulation	Quick color change and flushing without catalyst loss
Complete stainless steel 316 catalyst circuit on 10/1 pressure ratio version	Ideal for chemically agressive catalysts

Configuration of the PU 2160F Airmix® Flowmax® dosing paint pump

Description	Dosing ratio	Version	Max. output pressure (bar/psi)	Flow rate at 20 cycle/min.	Part number
PU 2160 F pump	1/1	Trolley	60 (870)	0.8	151.586.690
	2/1		90 (1300)	0.6	151.586.695
	5/1		108 (1570)	0.5	151.586.710
	10/1		120 (1740)	0.4	151.586.700

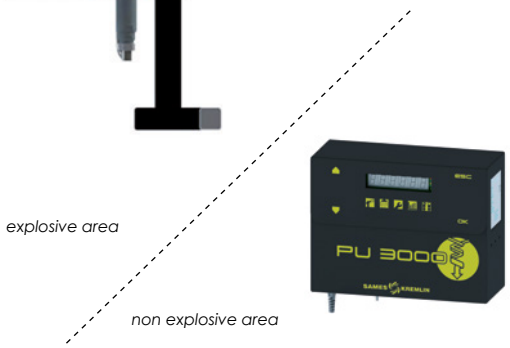
PU 3000 Airmix®



PU 3000 2L

Electronic dosing & mixing equipment, includes pumping, metering & electronic functions in low and medium pressure.
Available in 2 versions: 2 Liters and 4 Liters.

- **User friendly**
- **Material mixing quality**
- **Security of application**



PLUG AND SPRAY SOLUTION PUMPING AND MIXING 2 COMPONENTS WITH ADJUSTABLE RATIO

WWW

FEATURES	BENEFITS
Plug & Spray	Quick start-up
SAMES KREMLIN patent : Free Pulse Electronic Control (FPE) Innovative control system of pump change-over	Constant fluid flowrate Unsurpassed +/- 1% mixing accuracy and +/- 1% repeatability
Direct injection in the high performance static mixer	Perfect mixing
Recording of fluid consumptions and VOC Possibility to print records	Fluid and solvent consumptions stored in memory
Automatic component management : base, catalyst and solvent Automatic flushing and material generation User-friendly control panel	User-friendly and easy programming for the operator
Preventive maintenance alarm Continuous ratio checking and alarm Low level drum alarm	Safe operation
Ratio check kit in standard with 2 liters test tube Filter and drain assembly in standard	Visual control of mixing accuracy No product loss
Sealing done by a FLOWMAX® bellow on the catalyst side	High reliability Ideal to work with moisture-sensitive catalysts
Variable ratio from 5 to 160% Suitable for AIRMIX® spraying technologies Very low flow rate from 10cc	Suitable for use on a wide range of markets

Configuration of the PU 3000 Airmix® dosing paint pump

Description	Fluid volume per cycle (cm3)	Pressure Ratio	Hardener section	Part number
PU3000 2L	100	30/1	Flowmax®	155.680.110
PU3000 4L	225		C-Cup or Cup lub	155.680.155

Option

Description	Part number
Spray booth glass mounting kit	155.660.340

Flushing pump

Description	Suction rod	Purge rod	Air regulator fluid pressure	Part number
30-C25 flushing pump - PU 3000	• (Ø 16)	-	-	151.145.090

CYCLOMIX™ Micro Airmix®

non explosive area

explosive area

Supplied without pumps or guns to be ordered separately
Designed to supply one gun only

The Plural Component Electronic Mixing & Dosing System allows the user to dose, mix & continuously deliver two-component paints or adhesives.

- **Fresh material on demand**
- **Elimination of manual mixing errors**
- **Significant material savings**

ENTRY LEVEL DOSING MACHINE UP TO 3 COLORS MANAGEMENT

WWW

FEATURES	BENEFITS
Automatic component management : base, catalyst and solvent	Dosing +/- 1% and repeatability +/- 0.5%
Automatic flushing and material generation	Quick start-up. Minimal material and solvent wastage.
Adjustable flushing volume Several flushing sequence available : only Base side; Base side then Catalyst ; Catalyst side then Base side	Solvent savings and environmental protection
Continuous ratio checking and alarm	The paint applied on parts always conforms to specifications
User-friendly control panel	User-friendly and easy programming for the operator
Stainless steel design	To handle a wide range of materials
Recording of fluid consumptions and VOC with the possibility to print records (with RS 232 option)	Fluid and solvent consumptions stored in memory
Possibility to monitor the Cyclomix™ Micro from the spray booth (with the glass kit option)	Ergonomy of the working station
Design of the mixing plate	Easy maintenance and spare parts standardization
PH version (stainless steel 316L)	Compatible with acid catalyst

Configuration of the CYCLOMIX™ Micro Airmix® electronic dosing system

Description	Catalyst flushing	Number of bases	Number of catalysts	Part number
CYCLOMIX™ Micro	-	1	1	155.660.900
	-	3		155.660.930
CYCLOMIX™ Micro+	•	1		155.660.911
	•	3		155.660.933
CYCLOMIX™ Micro+ PH (without mixer - see options)	•	1		155.660.951
	•	3		155.660.953

Options

Description	Part number
Mixing assembly for Cyclomix® Micro+ PH	155.660.955
RS 232 connection kit for printer	155.660.935
Spray booth glass mounting kit	155.660.340
5m extension cable between control cabinet and mixing panel	901.250.216

CYCLOMIX™ Multi Airmix®

Supplied without pumps or guns to be ordered separately
Designed to supply one gun only

The Cyclomix™ Multi allows the user to dose, mix & continuously deliver two-component paints or adhesives.

- **Elimination of manual mixing errors**
- **Material savings guaranteed**
- **Always fresh material on demand**

PROFESSIONAL DOSING MACHINE UP TO 20 COLORS

WWW

FEATURES	BENEFITS
Automatic component management: base, catalyst and solvent	Dosing +/- 1% and repeatability +/- 0.5%
Automatic mix material fill	Quick start-up. Minimal material and solvent wastage.
Adaptable programming for each color	Ideal application for each color
Several flushing modes: production cycle, extended production stops, solvent-based materials	Perfect compatibility with production conditions evolutions
Fast mixing ratio accuracy	Visual control of mixing accuracy
batch mode	To easily get small quantities of mixed materials for touch-up works
Autowash system	Off-production gun automatic monitoring
Multilingual display and integrated instruction manual	User-friendly and easy programming for the operator
Stainless steel design	Compatible with water-based materials
Numerical interface	Quick link with an on-line automate
Integrated spraying air management	Comfort and safety during color and solvent fill
Pneumatic emergency flushing	Perfect flushing in case of power supply cut-off
Design of the mixing plate	Easy maintenance and spare parts standardization
Robotic interface	Connection with an on-line automate

Configuration of the CYCLOMIX™ Multi Airmix® electronic dosing system

Description	Number of bases	Number of catalysts	Part number
CYCLOMIX™ Multi	3	1	155.660.813
	5		155.660.815
	7		155.660.817
	3	2	155.660.823
	5		155.660.825
	3	3	155.660.833
CYCLOMIX™ Multi Configurable	up to 20	up to 10	Contact us
CYCLOMIX™ Multi PH (without mixer - see options)	3	1	155.660.513
	5		155.660.515
	7		155.660.517

Option

Description	Part number
Autowash	155.660.300
Static mixer 1 m long.	155.660.955

CYCLOMIX™ Expert Airmix®

non explosive area

explosive area

Supplied without pumps or guns to be ordered separately
Designed to supply one gun only

The Cyclomix™ Expert is an innovative, industrial solution that is configured to meet the needs of the customer.

- **Capable of metering 1 component as well as mixing 2 and 3 component materials**
- **Flexible modular design - up to 24 programmable components**
- **PH version available for acid-catalyzed coatings**
- **Handles up to 50 receipes**
- **Constant flow technology**

PREMIUM DOSING MACHINE UP TO 3 COMPONENTS

WWW

FEATURES	BENEFITS
Automatic component management up to 24 components in 1, 2, 3 components and solvent	Innumerible possibilities Flexibility when changing materials
Real time display of instant real ratio and flowrate	Continuous process control
No pre-mixing chamber: optimized fluid passages w/o retention zones	Perfect flushing Prevent fluid waste
Stainless steel design	Compatible with water-based materials
Frequency configuration before flushing at the end of potlife	Mixed material and solvent savings Safe operation
Emergency pneumatic manual flushing	Perfect flushing in case of power supply cut-off
Batch mode	To easily get small quantities of mixed materials for touch-up works
Adaptable programming for each color	Ideal application for each color
3 data access level upon each operator	Safety use
Assisted data and tolerance product manufacturer specification entry	Quick and easy data entry eliminating any errors
Color man/machine interface	User friendly
Standard monitoring of 2 guns (2 priming - 2 flushing)	Possibility to manage 2 workstations simultaneously (1 or 2 guns or both)
Ratio check	Safe operation Full operator safety
6 different flushing sequences (air-solvent es standard) Volume or time flushing Multiples solvent choice for each recipe	Solvent consumption optimlization upon recipe Optimized flushing
Magnetic injection volume adjustment - electro magnetic valves	Mixing optimization upon ratios Increase of injection frequency
USB data storage Batch number management	Production Follow-up optimization
Various Product mesurement technology: mass or gear	Handles a large range of materials

Configuration of the CYCLOMIX™ Expert Airmix® electronic dosing system

Description	Part number
CYCLOMIX™ Expert	Contact us

Fluid regulators

Regulation technology

The driven regulator technology consists in flow controlled by an air pressure regulator. The air pressure is applied on all the regulator diaphragms where a manual spring pushes on a limited surface. The high performance diaphragm delivers very high precision even at low pressures. It also brings fast response time to robotic applications.

REMOTE control

FAST response

HIGH precision

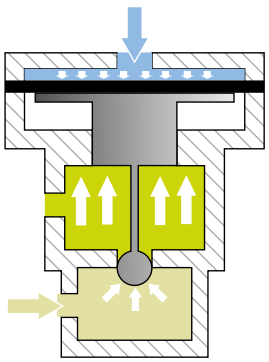
Fluid pressure regulators are used to reduce and balance the fluid pressure delivered from a pump. Regulators are designed to deliver constant fluid pressure based upon the inputs or setting of the regulator. Fluid regulators should be placed as close as possible to the point of application.

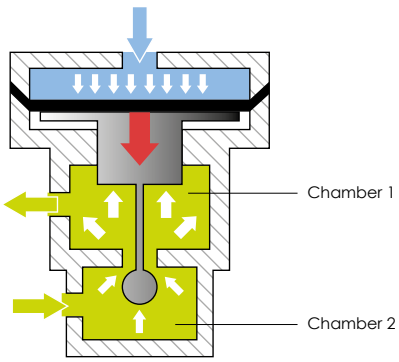
The fluid regulator closes and stops fluid flow when the downstream pressure in the hose of the regulator is greater than the set regulator pressure.

The input fluid pressure should be approximately 40% higher than the regulated pressure. For good control in a pneumatic regulated system, a stable air supply is required. Fluid supply pulsation should be minimized to help ensure ideal regulator function.

Specifications

		Pressure regulator		
		Manual control	Piloted	Back pressure
Pressure range (bar)	Inlet	250 max	120 max (version 5-40) 250 max (versions 10-70 and 10-120)	120 max
	Outlet (upon version)	10 - 70 10 - 120	05 - 40; 10 - 70; 10 - 120	10 -120
Weight (kg)		3.6	4.1 (version 10-120)	3.6
Width (cm)		8.9	8.9	8.9
Height (cm)		20	27.5	20
Wetted parts		Stainless steel, PTFE, carbide		
Fittings	Air inlet	-	F 1/4" BSP	-
	Fluid Inlet	F 3/8" BSP		M 1/2 JIC
	Fluid Outlet	F 3/8" BSP		-





FLUID FLOW
Force equilibrium unbalanced: the air piston doesn't move; the piston ball check "Inlet Material" is closed by the fluid pressure.

PRESSURE DROP
As soon as a pressure drop occurs in the system the regulator piston moves with air pressure by opening the ball check and allowing material to flow in chamber 2.

Fluid regulators

Pressure regulator manual control

AIRMIX® fluid regulator is designed for low to medium viscosity materials.

- **Stainless steel design to handle water-based & solvent-based materials**
- **High precision regulation**
- **Constant fluid outlet**

Configuration of pressure regulator manual control

Description	Part number
Manual regulator 250 - 10 / 70 bar	155.271.730
Manual regulator 250 - 10 / 120 bar	155.271.735
Manual regulator PH 250 - 10 / 120 bar	155.271.770

Pressure regulator piloted control

AIRMIX® fluid regulator is designed for low to medium viscosity materials.

- **Stainless steel design to handle water-based & solvent-based materials**
- **High precision regulation with possibility to plug to proportional valve**
- **Constant fluid outlet**

Configuration of pressure pilot regulator

Description	Integrated pilot	Part number
Piloted regulator 120 - 5/40 bar	•	155.271.765
Piloted regulator 250 - 10 / 70 bar		155.271.750
Piloted regulator 250 - 10 / 120 bar		155.271.755
Piloted regulator 120 - 5 / 40 bar	-	155.271.760
Piloted regulator 250 - 10 / 70 bar		155.271.740
Piloted regulator 250 - 10 / 120 bar		155.271.745
Cartridge piloted regulator 120 - 5 / 40		155.271.719
Cartridge piloted regulator 250 - 10 / 70		155.271.715
Cartridge piloted regulator 250 - 10 / 160		155.271.716

Fluid regulators

Back pressure regulator - Airmix®

Configuration

Description	Fitting (suction)	Part number
Manual regulator 120 - 10 / 120	-	155.271.835
Manual regulator 120 - 10 / 120 for wall-mounting, supplied with 2m fluid hose and fittings for pump suction	M 26 x 125	051.314.030

Accessories

Description	Part number
Wall bracket	155.484.010

High pressure gauges

Metal pressure gauge with glass and glycerin lens ; totally impact and solvent resistant.

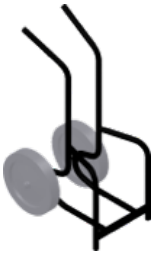
Description	Pressure range (bar)	Fitting	Internal diameter (mm)	Part number
Diaphragm high pressure gauge (Y mounted)	0 - 250	M 3/8" NPS F 3/8" NPS	50	155.271.790
Pressure gauge side inlet	0 - 120	M 1/4 G	63	910.010.802
	0 - 400			910.010.801

Trolley

Compatibility of trolleys



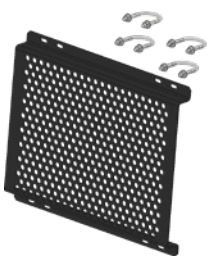




	Single post trolley	Dismountable		Double post trolley	Reinforced double post trolley
		trolley	trolley with drum table (1)		
Part number	**051.730.110**	**151.241.000**	**151.242.000**	**051.221.000**	**051.231.000**
			Compatible with		
10C18	✓	-	-	-	-
10C50	✓	-	-	✓	-
15C25	-	✓	✓	-	-
15C50	-	✓	✓	-	-
16C240	-	-	-	✓	-
20C50	✓	-	-	✓	-
20C100	✓	-	-	-	-
30C25	-	✓	✓	-	-
16F240	-	-	-	✓	-
17F60	✓	-	-	✓	-
20F50	-	-	-	✓	-
20F100	-	-	-	✓	-
20F440	-	-	-	-	✓
34F60	-	-	-	✓	-
40C50	-	-	-	✓	-

Description	Part number
(1) Drum table alone	151.240.009

Description	Part number
Perforated rack with brackets	056.100.199



Agitators

Cyclix™ drum cover agitators

WWW

This elevator-agitator for 20-40 to 200 L drums features a double-effect jack for a fast lift of a stainless steel cover fitted for a quick material drum change. The cover is equipped with a motorized agitator fitted with blades for low viscosity materials and a full stainless steel rod.

The elevator is coming on a large fixing plate which makes it very stable and easy to install in paint kitchens, existing installations or an essential component of new installations.

- **Constant quality of mixed materials**
- **Stainless steel wetted parts**
- **High ROI - no product loss**

FEATURES	BENEFITS
Stainless steel (agitator cover, suction and drain rods)	Compatibility with all materials
Adjustable suction rod height	No product loss
Suction and return tubes	Suitable for recirculating
Double effect jack with 3 positions command lever: up, stop, down	Important flexibility
The agitator cannot work during elevator movements	Security

Specifications

Agitator name	Cyclix™ 20-40	Cyclix™ 200
Capacity (L)	20 - 40	200
Motor type	Pneumatic	Pneumatic
Reductor type	-	Gear train
Rotation speed (rpm)	60 - 300	5 - 90
Motor torque (Nm)	2.2	34

Agitators

Configuration of CYCLIX™ for 20 - 40 l drums

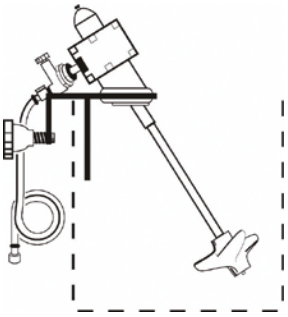
Description	Elevator height (mm)	Agitator rod length (mm)	Paddle diameter (mm)	Cover diameter (mm)	Part number
Elevator for 20 -40 l drums	1024 (min) - 1500 (max)	-	-	-	151.081.000
Agitator for 20 -40 l drums	-	400	134	-	154.261.700
Cover for 20 -40 l drums	-	-	-	400	154.261.600
Suction/exhaust kit	-	-	-	-	154.261.800

Configuration of CYCLIX™ for 200 l drums

Description	Elevator height (mm)	Agitator rod length (mm)	Paddle diameter (mm)	Cover diameter (mm)	Part number
Elevator for 200 l drums	1510 (mini) - 2410 (maxi)	-	-	-	151.091.000
Agitator for 200 l drums	-	800	370	-	154.261.300
Cover for 200 l drums	-	-	-	635	154.261.200
Suction/exhaust kit	-	-	-	-	154.261.400

Recommended accessories

Description	Part number
1/4" air lubrificator + support	154.261.997
Exhaust assembly with oil recovery (length 1 m)	154.261.996
Air feeding kit	154.261.930
Drum roller unit for 200 litres drum	151.098.100
Slotted paddle for thick materials	154.261.952
HP 150 2 liters lubricant can	149.990.017



Agitators for edge pail mounting

Agitator for barrel edge mounting.
Minimum barrell height of 300 mm.

Description	Part number
Bare agitator	051.332.610
Agitator with 25 cm hose	051.332.600
Agitator with 5 m hose	049.220.710
System for barrel mounting	049.220.720

Agitators on stainless steel cover

Agitator:
For drums diameter between 295 and 325 mm.
Minimum drum height of 390 mm.

Description	Part number
Agitator for Ø325 cover	903.290.101

Strainer for Cyclix™ suction rods

Description	Part number
Strainer for cyclix™ suction rods	154.261.940

Heater
Magma 500

Material fluid heater is an auxiliary device used for material preparation and air heating.
Higher layer thicknesses can be achieved by heating the material, as well as shorter drying times and higher finishing quality.

- **High pressure for heavy duty applications**
- **Excellent performances even without Fluid recirculation**
- **Stainless steel design and Explosion proof, compatible with most coatings**

WWW

WARM UP PRODUCTIVITY

FEATURES	BENEFITS
Standard Stainless steel design	Compatible with water-based materials
Thermometer integrated into the command box	Direct information on the desire temperature
Flexible positioning of the heat exchanger connections	Easy implementation
The highest fluid passage volume of the market	Insure outstanding performances even when used as one pass (without recirculation)
Possibility of heating atomizing air	Increase finishing quality and regrease drying times
ATEX Compliant	Can be used in hazardous atmosphere
Weather resistant	Always efficient even in high humidity environments

Specifications

Heater name	MAGMA 500 ID9			MAGMA 500 ID14			
Maximum fluid pressure	500 bar (7 250 psi)						
Fluid passage volume	0.225 L (0.0594 gal)			0.390 L (0.130 gal)			
Internal diameter	9 mm (0.35")			14 mm (0.55")			
Fluid passage length	354 cm (140")			253 cm (100")			
Voltage range (V)	115	230	400	115	230	400	440 (1)
Maximum fluid temperature	90 °C (194 °F)						
Temperature classification	T4						
Wetted parts	Stainless Steel						
Weight	17,6 kg (38.8 lbs)						
Explosion Proof	II 2G Ex db IIB T4 Gb						
Dimensions (H x L x l)	405 x 220 x 180 mm (16 x 8.7 x 7.1 in)						

(1): Need an external control unit with a switching element for 440V

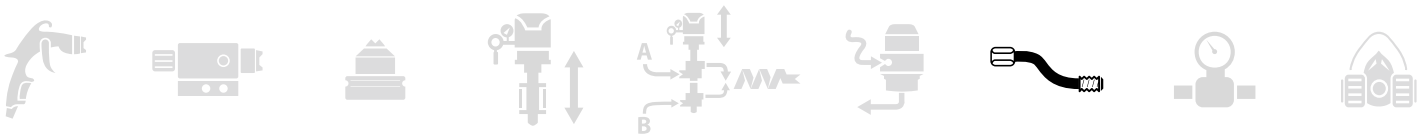
Magma 500

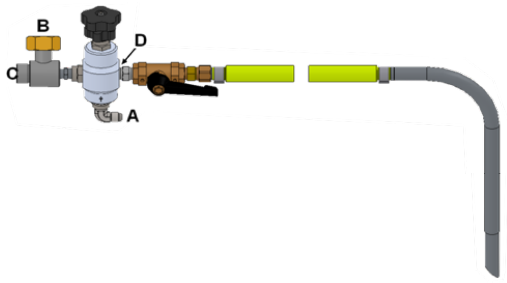
Configuration of the MAGMA 500 material fluid heater

Description	Fitting IN/OUT	Internal Fluid diameter (mm)	Volt max (V)	Power (W)	Material	Pmax pressure (bar)	Delta T°C	Part number
ID14 HV 230V 3500W M3/4 JIC	M 3/4 JIC	1,4	230	3500	SST	500	15-90	156.160.010
ID14 HV 115V 1800W M3/4 JIC			115	1800			15-90	156.160.020
ID 14 HV 400V 3800W M3/4 JIC			400	3800			15-90	156.160.030
ID9 230V 3500W M1/2 JIC	M 1/2 JIC	0,9	230	3500			15-90	156.160.040
ID9 115V 1800W M1/2 JIC			115	1800			15-90	156.160.050
ID9 400V 3800W M1/2 JIC			400	3800			15-90	156.160.060
ID14 HV 440V 3500W M3/4 JIC	M 3/4 JIC	1,4	440	3500			15-90	156.160.070

Accessories

Description	Fits to ID		Part number
TEMPERATURE INDICATOR FOR MAGMA 500 ID9	9 mm (0.35")		156.160.110
TEMPERATURE INDICATOR FOR MAGMA 500 ID14 HV	14 mm (0.55")		156.160.111
KIT FOR HEATING ATOMIZING AIR MAGMA 500	9 mm (0.35") & 14 mm (0.55")		156.160.114





Fluid line
Circulation valve

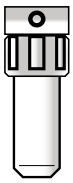
A circulation valve allows paint recirculation at the pump bottom (piston pump) and permits to set the perfect output for material circulation.
Max. fluid pressure = 240 bar

Configuration of Circulation valve

Version	Material	A. Inlet fitting	Outlet fitting		D. Purge	Flushing valve	Flushing rod M 18x125	Part Number
			B. Pump intake	C. Suction rod				
Bare	SST	F 1/4 NPS	F 1/4 BSP	-	F 1/8 BSP	-	-	149.220.420
Circulation kits	Carbon steel	M 1/2 JIC	F 26x125	M 26x125	-	•	•	051.314.010
		M 3/4 JIC	M 1" G	M 38x150				051.341.100
	SST	M 1/2 JIC	F 26x125	M 26x125				051.314.050
		M 3/4 JIC	M 1" G	M 38x150				051.341.100

Description	Part number
Maintenance kit for recirculation valve	049.220.450

Filters



Bare fluid filters

Description	Maximum fluid pressure (bar)	Average output	Fittings			Part number
			Inlet	Outlet	Purge	
3/8" stainless steel filter - medium pressure	60	4	1x F 3/8" NPT	2x F 3/8" NPT	1x F 3/8" G cup	155.580.500
3/8" stainless steel filter - high pressure	360				1x F 1/4" NPT base	155.580.200

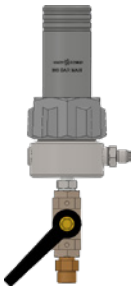
Accessories for filters

Description	Part number
Stainless steel filter fitting lenght 70 mm (MM 3/8" NPT)	055.580.301
Wall-mounted bracket and screws for 3/8", 3/4" and 1" filter with 9 digits part numbers	155.190.105

Equipped filters

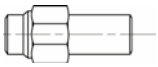
Equipped with inlet/outlet Fittings and drain valve and drain rod

Description	Maximum fluid pressure (bar)	Screen	Fittings			Part number
			Inlet	Outlet	Purge	
3/8" stainless steel filter - low pressure	60	6	M 3/8" NPT	M 1/2" JIC	M 18x125	155.580.510
Stainless steel accu 3/8" filter - medium pressure	240		F 3/8" NPT			155.580.300
Stainless steel accu 3/8" filter - medium pressure	250		F 1/2" JIC			155.580.600
Stainless steel accu 3/8" filter - medium pressure	240	12	F 3/8" NPT			155.580.400



Screens for fluid filter

Filter number	Filtration size		Nozzle size	Part number
	Micron	Mesh		
1	40	325	3	000.161.101
2	74	200	4	000.161.102
3	90	170		000.161.103
4	100	140		000.161.104
6	168	85	6	000.161.106
8	210	70	09 & 14	000.161.108
12	280	55	20	000.161.112
15	360	45	30 & 45	000.161.115
20	510	30	≥ 68	000.161.020
30	750	20		000.161.030



Inline fluid filters 200 bar

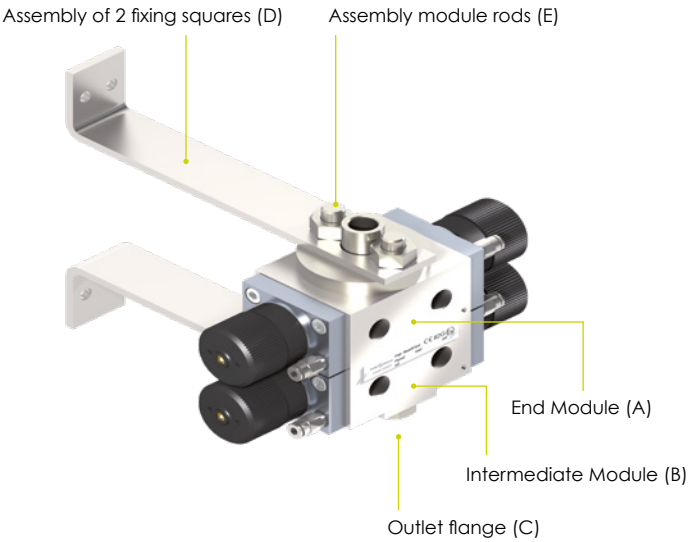
Description	Maximum fluid pressure (bar)	Screen	Output (l/mn)	Fittings		Part number
				Inlet	Outlet	
Medium pressure stainless steel filter	200	6	2	F 1/4 NPS	F 1/4 NPS	055.600.000
Airmix filter MM 1/2 JIC	200	6	2	M 1/2" JIC	M 1/2" JIC	155.010.000
Airmix filter MF 1/2 JIC	200	6	2	M 1/2" JIC	F 1/2" JIC	155.010.100

Gun fluid filter screen

Stainless steel screen for filter	Size (µ)	Quantity	Part number
N° 4	100	5	129.609.907
N° 6	168	5	129.609.908
N° 12	280	5	129.609.909

Notes

CTM Color Change Valves



CTM are designed for a rapid color change.

- No dead zone inside CTM reducing flushing time and solvent consumption
- PTFE seals
- Design allows modular expansion
- Monostable valve normally closed
- Visual Opening detector
- Two valves per module (the solvent valve should be facing the fluid outlet)

How to build your complete assembly upon the number of colors:

Nb of material up to	Number of element to order				
	(A) End module	(B) Intermediate modules	(C) Oultet flange	(D) Fixing square kits	(E) Rod assembly size
2	1	-	1	1	for 1 module
4		1			for 2 modules
6		2			for 3 modules
8		3			for 4 modules
10		4			for 5 modules

CTM valve specifications

Description	CTM AIRMIX®
Max pressure (bar)	120-200
Ø of passage (mm)	6
Trigger air	for hose 2.7 x 4
Fluid inlet	F 1/4 NPS
Fluid outlet	F 1/4 NPS

Configuration of CTM Valves

Description		Max. pressure (bar)	Part number
Modules Airmix®	End module (inlet)	120	155.535.300
		200	155.535.350
	End module (inlet) - stainless steel (316 L)		155.536.200
	Intermediate module	120	155.535.400
		200	155.535.450
	Intermediate module - stainless steel (316 L)		155.536.320
	Outlet flange		155.535.500
	Outlet flange - stainless steel (316 L)		155.535.410
	Fixing square kit		155.535.700
	Description	**Nb. of materials**	**Part number**
Rod assembly size	For 1 module (1 end + 1 flange)	2	155.535.610
	For 2 modules (1 end + 1 intermediate + 1 flange)	4	155.535.620
	For 3 modules (1 end + 2 iintermediate + 1 flange)	6	155.535.630
	For 4 modules (1 end + 3 intermediate + 1 flange)	8	155.535.640
	For 5 modules (1 end + 4 intermediate + 1 flange)	10	155.535.650

Rod's

A suction rod will transfer the paint from the drum to the pump inlet
Please refer to your pump information to know which suction rod will fit
NOTA : A suction rod will include a strainer and a flushing rod not

Suction and flushing rod

Hose				Tube				Strainer	Part number
Internal diameter (mm/")	Length (mm/")	Material	Thread	External diameter (mm/")	Internal diameter (mm/")	Height (mm/")	Material	Material	
6,35(1/4)	800 (31.5)	PEBD (phospho)	F 18 x 125	8 (0.31)	6 (0.24)	280 (11)	SST	SST	051665620
6,35(1/4)	800 (31.5)	PEBD (phospho)	F 26 x125	8 (0.31)	6 (0.24)	280 (11)	SST	SST	151665640
10 (3/8)	1000 (39)	PEBD (black)	F 26 x125	18 (0.7)	15 (0.6)	440 (17)	SST	SST	149596080
10 (3/8)	1000 (39)	PEBD (phospho)	F 18 x 125	18 (0.7)	15 (0.6)	560 (22)	SST	-	049596000
10 (3/8)	1000 (39)	PEBD (phospho)	F 26 x125	18 (0.7)	15 (0.6)	560 (22)	SST	Polyamide	149596050
19 (3/4)	1000 (39)	PEBD (black)	F 26 x125	25 (1)	23 (0.9)	600 (23.6)	SST	SST	049596110
19 (3/4)	1500 (59)	PEBD (black)	F 26 x125	25 (1)	23 (0.9)	1000 (39)	SST	SST	049596130
19 (3/4)	1000 (39)	PEBD (black)	F 26 x125	25 (1)	23 (0.9)	560 (22)	SST	SST	149596150
25 (1)	1500 (59)	PEBD (black)	F 38 x 150	25 (1)	23 (0.9)	600 (23.6)	SST	SST	049597100
28 (1"1/10)	1000 (39)	PEBD (black)	F 1"	32 (1.26)	28 (1.1)	560 (22)	SST	SST	921270101
28 (1"1/10)	1000 (39)	PEBD (black)	F 1"1/4 - (1)	32 (1.26)	28 (1.1)	600 (23.6)	SST	SST	049597200
28 (1"1/10)	1500 (59)	PEBD (black)	F 1"1/4 - (1)	32 (1.26)	28 (1.1)	1000 (39)	SST	SST	049597250
-	290 (11.4)	SST	F 26x125	18 (0.7)	15 (0.6)	300 (11.8)	SST	SST	149596040
10 (3/8)	1000 (39)	PEBD (black)	F 18 x 125	18 (0.7)	15 (0.6)	560 (22)	SST	Polyamide	049596210 ***(1)***
10 (3/8)	1000 (39)	PEBD (black)	F 18 x 125	18 (0.7)	15 (0.6)	560 (22)	SST	-	049596200 ***(1)***
10 (3/8)	1000 (39)	PEBD (black)	F 18 x 125	18 (0.7)	15 (0.6)	560 (22)	SST	Polyamide	049596020

(1): Elbow fitting

Strainer for suction rods

Pump	Height (mm)	External diameter (mm)	Material	filtration size		Part number
				Micron	MESH	
10C18	60	40	Polyamide	300	50	051.531.600
10C18	34	28	Stainless steel	1000	15	151.665.645
15C25 & 30C25 (ø16)	32,5	28	Stainless steel	1000	15	149.596.052
30C25, 15C50, 10C50, 17F60, 20C50, 20F50, 34F60, 40C50, 40F50, 08C240, 08F240, 16C240, 16F240 (ø25)	40	48	Stainless steel	1000	15	149.596.152
40C260, 40F260, 65C260, 65F260, 20.25 (OLD GENERATION)	112	66	Polyamide	1000	15	149.591.400

Product hoses for suction rods

Polyethylene hose sleeve	Part number		
	ø9.5 mm	ø19 mm	ø25 mm
5 m cut	-	050.366.051	050.367.001
15 m cut	-	050.366.052	-
25 m cut	050.361.001	050.366.053	050.367.003
Grooved conical fittings	***050.140.517***	***050.140.545***	***050.140.543***
Nickeled nut fitting	050.271.303 (1)	050.271.502 (2)	049.595.306 (3)
1 wing collar	906.311.234	906.311.207	906.311.204

(1): F18x125, (2): F26x125, (3): F38x150

Fluid Hoses

Fluid hoses for AIRMIX® spraying

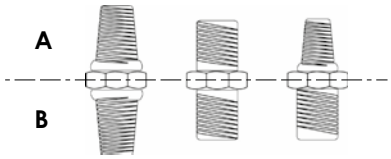
The hoses should be chosen according to the pressure used in the application and electrical conductibility.

Fluid hoses configuration

Designation	Part number						
Conductive	**NO**			**YES**			
Color	**GREY**			**GREEN**			**BLACK**
Internal diameter mm	3.2 (1/8")	4.8 (3/16")	6.35 (1/4")	3.2 (1/8")	4.8 (3/16")	6.35 (1/4")	6,35 (1/4")
Max.operating pressure bar	120			240			450
Temperature	up to 100°C						
25 m	050.450.059	050.450.060	050.450.070	-		-	-
100 m	-	050.450.061	050.450.071	-	-	-	-
300 m	-	050.450.064	050.450.072	-	-	-	-
Fitting alone to crimp	-	905.063.304	-	-	-	-	-
Fitting alone to screw in	-	905.063.308	905.063.309	-	-	-	-
Fitting alone stainless steel to crimp	905.063.359	905.063.354	905.063.355	-	-	-	-
Fitting alone stainless steel to screw in	905.063.356	905.063.358	905.063.357	-	-	-	-
Spring for fitting to crimp	-	905.063.361		-	-	-	-
PART NUMBER ACCORDING TO LENGTH WITH FITTINGS per meter							
A and B fittings (free nut)	1/2 JIC						

Treated Stainless Steel Fittings							
		With spring	**Without spring**	**Without spring**	**With spring**	**Without spring**	
0.4 m	-	-	-	-	-	050.450.101	-
0.6 m	-	050.450.805	050.450.701	-	-	050.450.106	-
0.8 m	-	-	050.450.702	-	-	050.450.107	-
1 m	-	050.450.809	050.450.703	-	050.450.601	050.450.102	050.451.001
2 m	-	050.450.806	050.450.704	-	050.450.602	050.450.109	-
3 m	-	050.450.810	050.450.705	-	050.450.603	050.450.110	-
5 m	-	050.450.801	050.450.706	-	050.450.604	050.450.108	050.451.002
7.5 m	-	050.450.808	-	-	050.450.605	050.450.111	-
10 m	-	050.450.802	050.450.707	-	050.450.606	050.450.104	050.451.003
15 m	-	050.450.811	050.450.709	-	050.450.607	050.450.112	-
20 m	-	050.450.812	050.450.708	-	050.450.608	050.450.105	-
25 m	-	-	-	-	-	050.450.113	-
30 m	-	-	050.450.710	-	050.450.609	-	-
Stainless Steel Fittings							
0.6 m	-	050.450.851	-	-	050.450.651	-	-
1 m	-	-	-	050.451.151	-	-	-
1.6 m	050.451.051	050.450.854	-	050.451.155	050.450.654	050.450.155	050.450.951
3.4 m	-	050.450.501	-	-	-	-	-
5 m	-	050.450.852	-	050.451.152	050.450.652	050.450.152	-
6 m	-	050.450.855	-	-	-	-	-
7.5 m	-	050.450.853	-	050.451.153	050.450.653	050.450.153	-
10 m	-	-	-	050.451.154	-	050.450.154	-

Fittings

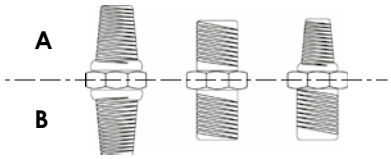


Male to Male connection Pmax. = 20 Bar

Fittings and adaptator METRIC / NPT / BSP (Gas)

	Male (B)						
Male (A)	**M 14 x 125**	**M 18 × 125**	**M 26 × 125**	**G1/4" (8x13)**	**G3/8" (12x17)**	**G1/2" (15x21)**	**G3/4" (20x27)**
M 14 x 125		050.102.133 050.102.142(2)					
M 18 × 125	050.102.133 050.102.142(2)	050.102.102					
G1/8" (5x10)	050.102.412						
G1/4" (8x13)	050.102.405 050.102.441(2)	050.102.408 050.102.444(2)			904.523.003		
G3/8" (12x17)	050.102.410	050.102.411 050.102.436(2)		904.523.003		904.523.006	
G1/2" (15x21)	050.102.513	050.102.406 050.102.418(2)	050.102.402 050.102.437(2)		904.523.006		904.523.012
G3/4" (20x27)		050.102.429	050.102.407			904.523.012	211017 (2)(1)
1/2" NPT			050.102.507				

(1): Length 850 mm, (2): Stainless steel



Male to Male connection Pmax. = 60 Bar

Fittings and adaptator BSP (Gas) / NPS / NPT

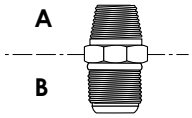
	Male (B)								
Male (A)	**G1/8" (5x10)**	**G1/4" (8x13)**	**G3/8" (12x17)**	**G1/2" (15x21)**	**G3/4" (20x27)**	**1/4" NPT**	**3/8" NPT**	**1/4" NPS**	**3/8" NPS**
G1/8" (5x10)		906.314.207 (2)							
G1/4" (8x13)	906.314.207(2)	050.102.213 906.314.203 (2)	906.314.204 (2)	050.102.211 050.102.647(2)				050.102.624 050.102.644 (2)	050.102.646 (2)
G3/8" (12x17)		906.314.204 (2)	050.102.214 906.314.202 (2)	906.314.205 (2)				050.102.627 050.102.647 (2)	050.102.628 050.102.648 (2)
G1/2" (15x21)		050.102.211 050.102.647 (2)	906.314.205 (2)	050.102.212				050.102.633	050.102.629 050.102.649 (2)
G3/4" (20x27)					050.102.215				050.102.654 (2)
1/4" NPT							905.083.201		
3/8" NPT						905.083.201			
1/4" NPS		050.102.624 050.102.644 (2)	050.102.627 050.102.647 (2)	050.102.633				050.102.630	050.102.632
3/8" NPS		050.102.646 (2)	050.102.628 050.102.648 (2)	050.102.629 050.102.649 (2)	050.102.654 (2)			050.102.632	050.102.631 050.102.652 (2)

(2): Stainless steel

Male to Male Fittings and Adaptators (Stainless Steel) Pmax. = 250 Bar

	Male (B)	
Male (A)	**1/2" JIC**	**3/4" JIC**
1/2" JIC	905.210.709 (3)	906.314.217
3/4" JIC	906.314.217	
1/8" NPT	905.210.501	
1/4" NPT	905.210.502	905.210.512
3/8" NPT	905.210.503	905.210.513
1/2" NPT	905.210.504	905.210.514
3/4" NPT		905.210.515

(3): up to 400 Bar; (4): Nickel Coated



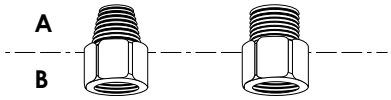
Male to Male Fittings and Adaptators (Protective coated Steel) Pmax. = 360 Bar

	Male (B)		
Male (A)	**7/16" JIC**	**1/2" JIC**	**3/4" JIC**
1/2" JIC		050.102.301	905.160.201
3/4" JIC		905.160.201	905.160.202 550.545 (3)
7/8" JIC	-	550.914 (3)	550.915 (3)
1/4" NPT		000.972.025	905.160.212
3/8" NPT		000.972.028 050.470.202 (4)	905.160.206 905.160.103 (4)
1/2" NPT			905.160.204
3/4" NPT			905.160.203
G1/8" co	550.920 (3)	550.548 (3)	
G1/4" co		550.542 (3)	
G3/8" co		550.549 (3)	550.679 (3)
G1/2" co			550.544 (3)
G3/4" co		550.905 (3)	

Fittings

Male to Female connection Pmax. = 20 Bar

Fittings and adaptator METRIC / NPS / JIC / BSP (Gas)



	Male (B)								
Male (A)	**1/2" JIC**	**1/4" NPS**	**3/8" NPS**	**M 14 x 125**	**M 18 × 125**	**M 26 × 125**	**G1/4" (8x13)**	**G3/8" (12x17)**	**G3/4" (20x27)**
1/2" JIC		150.123.305 (1)	050.103.537 (1)	050.230.619	050.230.620				
1/4" NPS	050.123.304		050.103.534 (1)	050.123.535	050.123.526				
3/8" NPS	050.123.533				050.123.610				
M 14 x 125			050.103.523 (1)		050.123.109				
M 18 × 125	050.123.521			050.123.101		050.123.110			
M 26 × 125					050.123.106				
G1/4" (8x13)								904.533.003	
G3/8" (12x17)							904.513.003		
G1/2" (15x21)							904.513.005		904.533.009
G3/4" (20x27)							904.513.011	904.513.012	
G1" (26x34)									904.513.012

Male to Female connection Pmax. = 60 Bar

Fittings and adaptator BSP (Gas) / NPS / JIC

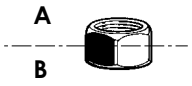
1/4" NPS	050.123.304								
G1/4" (8x13)							050.123.205		

(1): Stainless steel

Female to Female connection Pmax. = 60 Bar

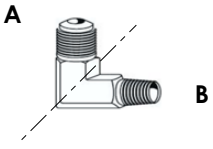
Fittings and adaptator METRIC / BSP (Gas)

	Female (B)		
Female (A)	**G1/4" (8x13)**	**G3/8" (12x17)**	**M 14 x 125**
G1/4" (8x13)	904.593.002 552.486 050.470.301(1)	904.503.003	050.221.401



Male to Male Elbow Fittings and Adaptators (Protective coated steel) Pmax. = 400 Bar

	Male (B)	
Male (A)	**1/2" JIC**	**3/4" JIC**
1/8" NPT	905.160.105 (2)	
1/4" NPT		905.160.102 (2)
3/8" NPT		905.160.103 (2)
1/2" NPT		905.160.104 (3)
G1/4" co	550,596	550,923
G3/8" co	551,819	



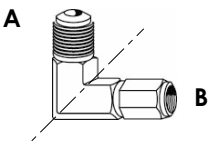
(Stainless Steel) Pmax. = 250 Bar

1/4" NPT	905.210.602	905.210.612
3/8" NPT	905.210.603	
1/2" NPT	905.210.604	
3/4" NPT		905.210.615

(2): up to 360 Bar; (3): up to 250 Bar

Male to Female Elbow Fittings (Stainless Steel) Pmax. = 360 Bar

	Female (B)
Male (A)	**1/2" JIC**
3/4" JIC	905.210.602



Female to Female Elbow Fittings (Protective coated steel) Pmax. = 400 Bar

	Female (B)	
Female (A)	**G 3/4"**	**G1"**
G 3/4"	551011	
G1"		551012

Fittings

T Female connection Pmax. = 25 Bar

Description	Part number
G1/4" (8x13)	904.303.002 550.038 (1)
G3/8" (12x17)	904.303.003
G1/2" (15x21)	904.303.004
G3/4" (20x27)	904.303.006
1/4" NPT	905.083.301 (2)

(1): Stainless steel 80 Bar; (2): 250 Bar

Y Stainless steel fitting High Pressure

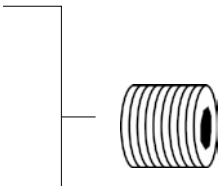
	Male (B)
Female (A)	**2 x 1/2" JIC**
1/2" JIC	029.520.500

Plugs Male Pmax. = 20 Bar

Description		Part number
G 1/8 " (5 x 10)		906.333.106
G 1/4" (8 x 13)		906.333.102
G 3/8" (12 x 17)		906.333.104
G 1/2" (15 x 21)		906.333.103
G 3/4" (20 x 27)		906.333.105

Plugs Male Pmax. = 360 Bar

Description		Part number
1/8" NPT		905.083.301
1/4" NPT		905.210.303
G1"		551.247



Plugs female Pmax. = 360 Bar

Description		Part number
1/2" JIC		906.333.301

Check valve

Description	80 BAR	200 BAR	400 BAR	500 BAR
FF 1/4" NPT			903.160.512 (3)	
FF G3/4"				601.278 (L86 mm)
FF G1"			625.119 (L141 mm) 625.759 (4) (L141 mm)	
MF G3/8"		900.011.229		
MF G1/2"	104.403 (3)			

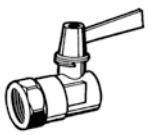
(3): Stainless steel; (4): with plug

Swivel fittings

Description	Max pressure	Inlet	Outlet	Part number
TWIST SWIVEL FITTING	500	M 1/2" JIC	F 1/2" JIC	129.670.425
		M 1/4" NPSM	F 1/2" JIC	129.670.435

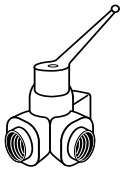
High pressure fluid valves

Description	Input	Output	Maximum fluid pressure (bar)	Part number
Female/Female	G 3/8" (12 x 17)	G 3/8" (12 x 17)	250 bar	000.750.040



3 ways valve - 350 bar - part numbers

Description	Part number
3 x 1/4" BSP (female) (stainless steel)	903.091.006



Air Hoses

Air hoses

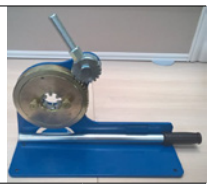
Used in majority of the applications, allows the equipment (gun and pump) to have the same potential, ATEX certified.

- **60% lighter**
- **150% more flexible**

Air hoses configuration

Available in 3 diameters:	Small	Medium	Big
Technical Characteristics			
Material	TPU*	TPU*	Nitrile
Color	Black	Black	Black
Internal Diameter (mm)	6.5	8	10
External Diameter (mm)	10.5	12	16
Conductor	Yes	Yes	Yes
Weight (grams per meter)	61	75	130
Max operating pressure in bar	14	14	10
Operating temperature in °C	-40 to 80	-40 to 80	up to 60
Hoses with fittings			
Fittings	1/4" NPS		3/8" NPS
0.6m	050.382.105	050.389.109	-
1.2m	050.382.102	050.389.107	-
2m	050.382.111	050.389.110	-
5m	050.382.109	050.389.101	050.381.101
7.5m	050.382.114	050.389.103	-
10m	050.382.110	050.389.102	050.381.102
12.5m	050.382.106	-	-
15m	050.382.116	050.389.105	-
20m	-	050.389.108	-
30m	-	050.389.106	-
Hoses without fittings			
25m	050.382.001	050.389.001	050.381.001
152m	050.382.006	050.389.005	-
Fittings			
Hose crimp ring	906.311.237	906.311.238	906.311.226
KIT STRAIGHT CONN. + NUT 1/4 NPS	050.231.705	050.231.707	050.231.702
fitting = 1 crimp ring + 1 kit			
Manual Crimper (Diameters 5 to 22)	906.311.202		

** TPU : Thermoplastic Polyurethane*



Manual crimper

Polyamide or Polyurethane Air Hoses

Non-conductive hoses to clip on automatic guns or any other device.

Conductive	No							
Max operating pressure	10 Bar							
Temperature	Up to 60°C							
Length	25m							
Material	Polyamide					Polyurethane		
Color	**Translucent**			**Black**		**Green**		**Black**
Diameter (internal/external) in mm	2.7 x 4	4x6	6x8	6x8	8x10	4x6	6x8	8x12
Part number	050.372.102	050.372.103	050.372.104	050.372.124	050.372.125	050.372.213	050.372.214	050.372.226

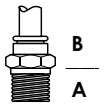
Hose Sleeve

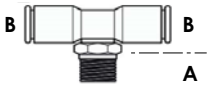
Hose sleeve adds a protection to the hose for a longer life

Product hole (mm)	Length (m)	Part number
40	10	129.270.087

FAST FITTINGS FOR SMALL DIAMETER SPECIAL AIR HOSES

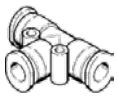
A	B	Straight	Right angle 90°	T- piece
G1/8" (5x10)	4	905.120.907	905.120.926	
	6	905.124.901	552262	
	8		905.120.934	
G1/4" (8x13)	4		905.120.927	
	6	905.120.965	905.120.905	
	8	905.120.904	905.120.912	905.120.920
	10	905.190.406	552280	
G3/8" (12x17)	10		905.190.415	





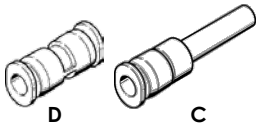
Fast fitting T

Description	Part number
For hose 2,7 x 4	905.120.957
For hose 4 x 6	905.120.903
For hose 6 x 8	905.120.915
Reduction 2,7 x 4 / 4 x 6	905.120.928



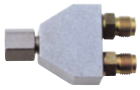
Fast fitting reduction and union

Description	to	Part number
Ø2,7 x 4	Ø4 x 6	905.120.945 (C)
Ø4 x 6		552.322 (D)
Ø6 x 8		905.120.923 (C)



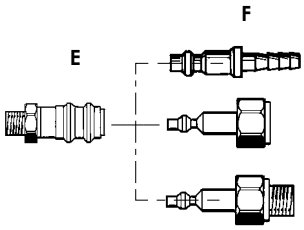
Y Air fitting

Description	to	Part number
F 1/4" NPS	2x M 1/4" NPS	129.029.920



ISO 6150 Quick-fit fittings (maximum pressure: 10 bar)

Type	Complete assembly E and F	Part E	Part F			
			Female fitting	Male fitting	Cuanneled Ø 7	Cuanneled Ø 10
Ø5 (14x125)	905.030.405	905.030.102	905.030.406	-	905.030.203	905.030.204
Ø5 (1/4" BSP)	-	-	-	905.030.804	-	-
Ø5 (1/4" BSP)	-	-	905.030.803	-	-	-
Ø5 (1/4" NPS)	905.030.105	905.030.104	905.030.106	-	-	-
Holding collar	-	-	-	-	906.311.224	906.311.226



Complete quick disconnect 1/4" NPS for air hose

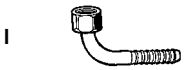
Description	Part number
Air inlet quick-disconnect fitting	905.030.105

Quick fittings for Ø 8 hose

Type	Part A with on/off press buttom for hose Ø 8	Part C for hose Ø 8
Ø 5	905.030.801	905.030.802

Crimp fittings for low pressure air hoses

Description	Thread size	Hoses Inter. Diameter (mm)	Part G	Part H
Straight fittings				
Nickel plated brass	1/4" NPS	7	050.231.705	906.311.224
Nickel plated brass	1/4" NPS	8	050.231.707	906.311.224
Nickel plated brass	1/4" NPS	10	050.231.702	906.311.226
Nickel plated brass	3/8" NPS	7	050.231.716	906.311.224
Nickel plated brass	3/8" NPS	10	050.231.706	906.311.226
Nickel plated brass	3/8" NPS	16	050.231.701	906.311.232
Stainless steel	M 14 x 125	5	050.230.610	906.311.208
Nickel plated brass	M 14 x 125	10	050.230.602	906.311.226
Nickel plated brass	M 18 x 125	7	050.230.616	906.311.224
Stainless steel	M 18 x 125	10	050.230.614	906.311.226
Nickel plated brass	M 18 x 125	10	050.230.606	906.311.226
Nickel plated brass	M 18 x 125	16	050.230.601	906.311.232
Nickel plated brass	M 26 x 125	16	050.230.603	906.311.232
Elbow fittings - I				
Nickel plated brass	M 18 x 125	10	050.250.202	906.311.226
Junction fittings without thread - J				
Nickel plated brass	-	7	050.190.403	906.311.224
Nickel plated brass	-	10	050.190.401	906.311.226



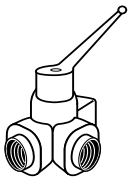
Valves

Low pressure valves

3 ways valve

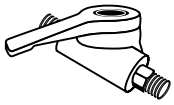
Descriptif	Part number
3 × 1/4" BSP (female)	903.090.804
3 x 1/4" BSP (female) (stainless steel)	903.090.805

2 ways male/male valve



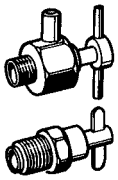
Descriptif	Input	Output	Part number
Ball valve	(M) G 1/4" (8 x 13)	(M) M 14 x 125	050.070.205
Inlet (male) G 3/8" (12 x 17) outlet (male) M 14 x 125	(M) G 3/8" (12 x 17)	(M) M 1/4" NPS	050.070.211
Inlet (male) G 1/2" (15 x 21) outlet (male) M 18 x 125	(M) G 1/2" (15 x 21)	(M) M 18 x 125	050.070.204
Inlet (male) G 1/2" (15 x 21) outlet (male) de0101G 1/2 (15 x 21)	(M) G 1/2" (15 x 21)	(M) M 18 x 125	050.070.201
Inlet (male) G 3/8" (12 x 17) outlet (male) M 18 x 125	(M) G 3/8" (12 x 17)	(M) M 18 x 125	050.070.212

2 ways female/female valve



Descriptif	Input	Output	Part number
Valve	(F) 1/4" BSP (8 x 13)	(F) 1/4" BSP (8 x 13)	903.090.806
Valve	(F) 3/8" BSP (12 x 17)	(F) 3/8" BSP (12 x 17)	903.090.206

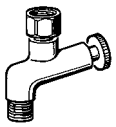
Air bledding valve



Descriptif	Part number
Inlet thread (male) G 1/4" (8 x 13)	903.093.302

Needle valves

2 ways valve

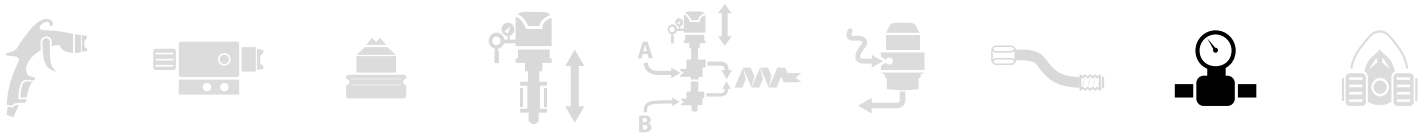


Descriptif	Input	Output	Part number
Female/Male	M 14 x 125	M 14 x 125	050.070.179
Male/Male	G 1/4" (8 x 13)	M 14 x 125	050.070.101

3 ways valve

Descriptif	Part number
Female/male/male M 14 x 125	050.070.401

Notes



Pressure regulators
Air regulators

1/4" (with phosphor or black knob), 1/2" and 3/4" (with phosphor knob) regulators are used on the compressed air lines.

Configuration of pressure regulator

Description	Inlet pressure (bar)	Max output (m3/h)	Inlet	Outlet	Part number
Phosphor knob regulator	3,5	25	F1/4"	F1/4"	016.240.500
Black knob regulator					016.380.500
Phosphor knob regulator	5,5				016.370.500
Black knob regulator					016.390.500
Equipped regulator with isolating valve and pressure gauge - Inlet F 3/8" - Outlet M 1/4"			F3/8"	M1/4"	019.720.000
Phosphor knob regulator	9		F1/4"	F1/4"	016.365.500
Black knob regulator					016.360.500
Bare regulator	4	210	F1/2"	F1/2"	016.200.000
Bare regulator	9				016.280.000
Equipped regulator with pressure gauge and wall bracket					019.780.100
Phosphor ring regulator	10				016.470.000
Phosphor ring regulator		360	F3/4"	F3/4"	016.480.000
Wall bracket	-	-	-	-	016.180.010

DE37 Purifier-regulator

Usually fitted in the paint spray booths. Its twin-body construction ensures completely water and oil free.

Technical characteristics:
- Maximum operating air output: 37 m3/h
- Maximum operating air pressure: 10 bar
- Height: 290 mm
- Air inlet opening: F1/4"G

Standard equipment:
- One regulated pressure gauge
- One F1/4"G
- One tap valve F1/4"G
- Two air outlet taps: M 1/4" NPS

Specifications		DE37
Air output (m³/h)		37
Maximum fluid pressure (bar)		10
Height (cm)		29
Fitting	Air Inlet	F8 x 13G
Set-up		1 regulated pressure gauge 1 valve F 1/4" G 1 ball valve F 1/4" G 2 air outlet taps M 1/4" NPS

Description	Part number
Purifier with DE 37 regulator	015.240.000
Blue cartridge for water	015.230.500
Red cartridge for oil	015.230.200

Regulators, filters and lubricators


Part 1


Part 2

Regulators with pressure gauges, filters and lubricators with polycarbon reservoirs are all modular, allowing you to put together the best air treatment equipment for your needs.

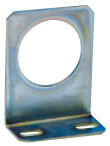
- Filter with trunnion deflector, transparent polycarbon reservoirs (heat resistant up to 50°C), manual bleed and a bronze filter capable of holding all particles larger than 5 microns.
- Regulator with pressure gauge: self-regulating and vibration free, pressure gauges from 0 to 12 bar/180 psi, equipped with automatic decompression system
- Lubricator with transparent polycarbon lid (heat resistant up to 50°C), flush adjustment screw; it lubricates by fine vaporisation
- Maximum operating pressure: 12 bar/180 psi

Regulators, filters, lubricators configuration (part 1)

Type	Inlet diameter	Outlet diameter	Output at 9 bar (l/mn)	Part number
Regulator with gauge				
M 150/2	1/4"		1000	004.601.100
M 250/3	1/2"		5250	004.601.300
Filter with polycarbonate tank				
M 100/2	1/4"		1760	004.603.100
M 200/2	3/8"		7000	004.603.200
Lubricator with polycarbonate tank				
M 110/2	1/4"		2500	004.604.100
M 210/3	1/2"		5250	004.604.300

Regulators, filters, lubricators configuration (part 2)

Type	Inlet diameter	Outlet diameter	Part number
Bare 3/4" regulator	3/4" G	3/4" G	91.530
Bare 3/4" regulator + filter			91.532
3/4" regulator with manometer Ø 62 mm			91.531
3/4" regulator with manometer Ø 62 mm + filter			91.533
Filter 3/4" regulator			91.534
3/4" regulator, filter, lubricator, adjusting valve on wall base	1/2" G	1/2" G	91.398
Bare 1/4" regulator	1/4" G	1/4" G	91.551
Bare 1/4" regulator + filter			91.555
1/4" regulator with manometer Ø 62 mm			91.552
1/4" regulator with manometer Ø 62 mm + filter			91.558
Bare 1/4" fiter			91.553
Ø 62 mm manometer side output - 0 to 10 bar	1/8" G	-	151.080.094
Ø 62 mm manometer rear output - 0 to 10 bar		-	151.080.091
Wall bracket for 3/4" regulators	-	-	210.006
Reatining ring for regulator (mounting on control panel)	-	-	91.540
Locking mechanism for regulators	-	-	91.545
Adjusting valve with lock	-	-	91.544
Lubrication oil (2 liters)	-	-	149.990.017



Allow the easy assembly and fitting of regulators, lubricators and filters to provide the ideal system.

Description	Part number
Regulator support bracket F 171/1 for 1/8" and 1/4"	004.601.002
Regulator support bracket F 176/1 for 3/8" and 1/2"	004.601.201

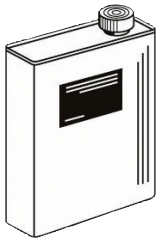
Pressure gauges

Built to last in metal with glass lenses, they are completely impact and solvent resistant.

Description	Internal diameter (mm)	Pressure range (bar)	Part number
Pressure gauge - central inlet	40	0 - 6	910.011.205
		0 - 2,5	910.011.208
Pressure gauge - central inlet	50	0 - 6	910.011.403
Pressure gauge - side inlet		0 - 10	910.011.402
		0 - 4	910.011.404

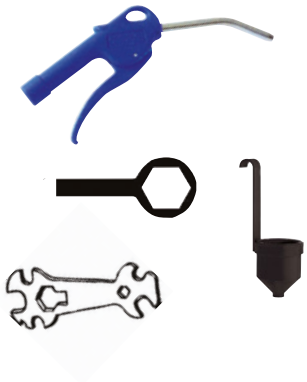
Miscellaneous

Lubricants & greases



Lubricants and greases for pumps

Description	Volume	Material	Part number
Lubricants for pump fittings			
T lubricant can	125ml	For solvent-based paints	149.990.020
T lubricant kit	3x 2L = 6L		151.260.820
P lubricant can	2L	For Polyurethane paint	149.990.022
P lubricant kit	3x 2L = 6L		151.260.823
Grease			
Vaseline	1kg		560.440.002
Box of PTFE grease	450g		560.440.001
Box of grease special air motor seals (Isoflex)	1kg		560.440.005
Box of grease (Isoflex)	1kg		560.440.003
Grease tube special air motor seals	20g		560.440.105
Teflon® grease tube (Technilub)	10ml		560.440.101
Box of white grease	450g		560.420.005
Glue			
Low strength anareobic adhesive tube	50 cc		554.180.010
Retaining Compound - high strength. General purpose. Fast curing.	50 cc		554.180.014
Sealing glue tube	250ml		554.180.015



Miscellaneous

Description	Part number
M22 / Fpro /Xcite™ gun wrench	049.030.042
Large size brush	906.300.101
Small size brush	906.300.102
Wrench for product filters	049.030.018
Large blow gun	129.371.000
Viscosity cup n° 4 CA4	049.221.400
Thickness gauge from 25 to 2000µ	000.790.020
Adhesive-roller with Sames Kremlin logo (75mm x 100m)	571.141.003
Teflon roll 13.5M.X12.7mm	554.600.301

Protection

Protective overalls

Protects the operator. Comfortable to wear, giving protection for dust or plush.
Conforms to European Standards

- Made in non-woven fabric, they come with elasticated wrists and wide trouser legs to protect footwear

Description	Size	Quantity	Part number
Overalls Size S for 5 sets	S	5	564.504.001
Overalls Size M for 5 sets	M	5	564.504.002
Overalls Size L for 5 sets	L	5	564.504.003
Overalls Size XL for 5 sets	XL	5	564.504.004
Overalls Size XXL for 5 sets	XXL	5	564.504.005

Protective hood

Protects the head and hair.

- Non-woven, light and lets the skin breathe
- Conforms to European Standards

Description	Quantity	Part number
Protective hood	5	043.250.001

RC 756 respirators

Lightweight, comfortable respirators efficient for each type of paint and compliant with the latest european norms (Respirator: EN 140, Filters: EN 14393).

FEATURES	BENEFITS
Respirator body made of silicone	Hypoallergenic and high comfort
Equipped with large inlet and outlet valves	Easy breathing
Double fixing straps	Comfortable
Double filters	Performance (large diameter), visibility and high level of safety
Three high performance filters type available (solvented, water-based or multi with isocyante materials)	For an optimal protection whatever the type of paint used

Configuration of the RC756 respirator

Description	Part number
RC 756 respirator	143.380.100
RC 756 respirator for SOLVENT-BASED PAINTS - A1 filters	143.380.200
RC 756 respirator for WATER-BASED PAINTS - A1B1P3 filters	143.380.300
RC 756 respirator for PLURAL COMPONENT PAINTS - ISOCYANATES - A1B1E1K1P3 filters	143.380.400

Filters and pre-filters

Description	Type	Quantity	Part number
Filters for solvented paints	A1	10	143.380.210
Filters for water-based paints	A1B1P3	5	143.380.310
Filters for plural-components-isocyanates	A1B1E1K1P3	5	143.380.410
Pre-filters for A1 filters	-	25	143.380.110

Accessories

Description	Quantity	Part number
Attach strap	1	143.380.120
Spare inlet/outlet valves	3	143.380.130

General informations

Paint

Decoration and protection are often two associated functions. To achieve these aims, and to re-finish products, we have at our disposal a tremendous number of surface treatments, (for example nickel or chrome plating etc).

Paint is also perfect for both of these functions. In addition, paint is universally used, and can be applied on any surface, such as wood, metal, stone, leather, plastic and elastomers. Paint does not come as a finished product, and hence the quality of application will depend on all its stages of preparation, which we will call the "Painting System".

In general, the stages are as follows :

- Surface preparation
- Application of the coating (paints, stains, varnishes, etc)
- Drying

Paint

Surfaces preparation

There is a wide range of physical and chemical treatments to which the surface to be coated can be subjected, before receiving the first coat. Good surface preparation is the essential base for long-lasting protection and a good visual finish on any material.

The surface preparation is often the longest, and therefore the most important task involved in coating a part.

Material	Physical preparation	Chemical preparation
Steel:	stripping, shotblasting, brushing	acid
Aluminum:	Brushing	Vapor blast
Wood:	Sanding	
Plastic:	heating	plasma torch, acid

Once treated, the surfaces should be free from :

- particulate or non-adherent substances
- oil, grease and moisture

To obtain the best protection against corrosion (mainly for metal), we coat with either :

- a wash primer or
- an anti-corrosion paint

A **wash primer** is a liquid product of around 16s Zahn#2, which should be sprayed in a thin coat, to get into all the imperfections in the surface of the metal. The phosphoric acid which it contains attacks the surface of the metal and forms an isolating and impenetrable layer of phosphate. The wash primer is highly valued for its adhesion to the metal. Importantly, it should then be coated with a layer of paint, which plays the role of a protective shield.

An **anti-corrosion** paint is a product which should be sprayed in a thicker layer than the wash primers. Containing anti-corrosive elements, it has the advantage of protecting the metal both physically and chemically at the same time. Also, it saves time, as a single coat applies both the anti-corrosive chemicals and the protective shield to the metal.

These paints are used very frequently on metal framework, as the coating can be left as it is, or covered subsequently with the desired paint finish.

16s CA_4

40s CA_4

Paint

Looking at a painted object will tell us that paint is hard. However, the paint which we spray is a liquid.

This transformation is due in the main part to several components of paint whose functions are described below.

Components of paint

Paint contains one or more substances which are generally dissolved in a solvent (or in water) and which regain their solid consistency after drying on the surface.

Amongst these substances, we find :

- Binders
- Pigments
- Fillers

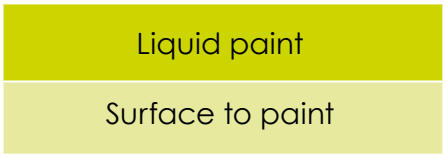
The binder is generally a more or less transparent body which resembles a resin. Dissolved on its own in a solvent it produces a lacquer:

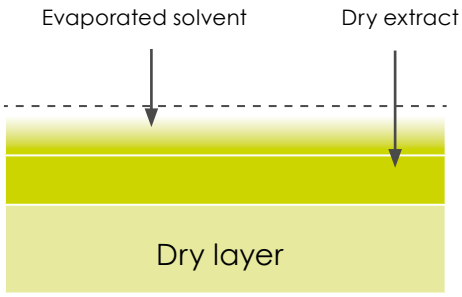
Binder + Solvent = Lacquer

Paint often bears the name of the type of solvent on which it is based (cellulose paint is based on a cellulose solvent). To darken the finish, we add highly colored and very fine powders, which we call pigments:

Binder + Solvent + Pigments = Paint

Dry and wet layer





GLOSSARY

- **Sticky film** :
we say that a film is sticky when we put a finger on it and it feels like adhesive tape

- **Dust-free film :**
we say that the film is dust-free, when any dust which lands on iot can be removed by blowing

- **Film that is dry to the touch** : we say that the film is dry to the touch when a finger does not leave a mark on the surface.

- **Finger-nail hard** : we say that the film is finger-nail hard when we cannot mark it. In this state, it can be polished or sanded.

Finally, to give the finish specific characteristics, we use a whole range of fillers and additives. Solvents make it possible to dissolve the other components of the paint, and can be classed into the following three groups:

- **Fast solvents** : they evaporate extremely quickly, to such an extent that the paint can dry too quickly, not allowing it enough time to adhere correctly to the surface.
These solvents are never used on their own.
- **Slow solvents** : they evaporate very slowly, allowing the paint to adhere properly. They leave a soft and smooth finish. Slow solvents are not very widely used because they significantly increase the drying time.
- **Medium solvents** : they evaporate in a few seconds ; this is enough to ensure good adhesion, while giving a satisfactory drying time.

In order to make the correct paint, the manufacturer first of all makes a list of the solvents capable of dissolving all the binders he wishes to include, and then chooses those with a volatility suitable for the planned method of drying(whether at room-temperature or in an oven). Before application, paint is often reduced to give a consistency which is ideal for the task.

Paint consistency

Viscosity

The consistency of the paint should be adapted for the type of application. It is identified by the extent of its viscosity, which is expressed in centipoises or by measuring the time in seconds that it takes for a certain amount of paint to run through a calibrated viscosity cup. There are different viscosity cups used for measuring the viscosity of paints. The table below shows the relationship between cup size sand viscosities in Centipoises.

AFNOR 4 (CA4)	ISO 4	mPas.s	Centipoises	Ford 4 (CF4)	DIN 4 (D°)	CH (Fr)	ZAHN (n°2)
12	-	20	20	10	11	6	18
14	17	25	25	12	12	7	19
16	23	30	30	14	14	-	20
20	34	40	40	18	16	8	22
25	51	50	50	22	20	9	24
29	60	60	60	25	23	10	27
32	68	70	70	28	25	-	30
34	74	80	80	30	26	11	34
37	82	90	90	33	28	12	37
40	93	100	100	35	30	13	41
45	-	120	120	40	34	14	49
50	-	140	140	44	38	15	58
56	-	160	160	50	42	16	66
61	-	180	180	54	45	17	74
66	-	200	200	58	49	18	82
70	-	220	220	62	52	19	-

Nota: 1 poise = 100 centipoises and 1 mPas.s = 1 centipoise (If the density of the paint is equal as 1 and if it is a fluid Newtonien, that is to say no thixotrope).

The effect of temperature on viscosity

Viscosity of paint changes with variations in temperature; basically, the resins are far more fluid when they are hot.

The table below shows the changes in viscosity of a glycerophthalic paint as the temperature varies. It is worth noting that a paint which has a viscosity of 22s at 68°F will have a viscosity of 28s at 54°F and of 17s at 90°F.

viscosity in seconds CF#4	Temperatures (°C)																			
	2	4	6	8	10	12	14	16	18	20	22	24	26	28	30	32	34	36	38	40
	27	26	24	23	22	21	21	20	19	18	18	17	17	16	15	15	14	14	14	14
	33	31	29	27	26	25	23	22	21	20	19	18	18	17	16	16	15	15	14	14
	39	36	34	32	30	28	26	24	23	22	21	20	19	18	17	17	16	15	15	14
	46	42	39	36	34	31	29	27	26	24	23	22	21	19	18	17	17	16	15	15
	54	49	45	41	38	35	32	30	28	26	24	23	21	20	19	18	17	17	16	15
	56	51	47	43	40	36	33	31	29	27	25	23	21	20	20	19	18	17	16	16
	61	55	50	46	42	38	35	32	30	28	26	24	22	21	20	19	18	17	16	16
	69	63	56	52	46	42	39	35	32	30	28	25	24	23	21	20	19	18	17	16
	77	69	62	55	50	46	41	38	35	32	29	27	25	24	22	21	19	18	17	16
	84	74	67	61	54	50	44	40	36	34	30	28	26	25	23	22	20	18	17	16
	95	84	75	66	60	54	48	44	40	36	33	30	28	26	24	22	20	19	18	17
	104	92	81	73	65	58	52	46	42	38	35	31	29	27	24	23	21	20	19	18
	112	100	88	76	69	62	54	49	44	40	36	32	30	27	25	23	21	20	19	18
	122	108	90	85	75	66	59	53	47	42	38	35	31	28	26	24	22	21	19	18
	132	120	102	90	80	70	63	55	50	44	40	36	33	30	27	25	23	22	20	18
	142	124	108	95	84	74	65	58	52	46	41	37	34	31	27	25	23	22	20	18
	152	132	119	101	90	80	69	61	54	48	43	38	35	31	28	26	24	23	21	18
	164	140	123	106	94	83	73	64	56	50	45	40	36	32	29	27	24	23	21	18

Example : at a temperature de 20°C for an announced viscosity of 22s, you should be ready for the following results:

- at 12°C, a viscosity of 28s,
- at 32°C, a viscosity of 17s.

Paint

Quality problems tend to arise when the temperature of the paint changes during the course of the day. For example : During the course of this day, the viscosity of the paint has moved from 23 to 17 seconds, which leads to a 22 % increase in the output of the spray guns, leading to over-coloring and excessive product consumption.

	Temperatures (°C)	Viscosity - CA4 (seconds)	Spray gun output (cm3/mm)
morning, cool workshops	15	23	460
Later - workshop heats up	20	20	520
An oven switched on	25	17	560

Worse still, paint prepared in a hot workshop at 20 seconds can be at 28 seconds the following morning, before the workshop has got up to full working temperature: this would lead to a less fine spray and a much greater drying time.

Drying of paints

he component of paint can be classed in two groups :

- **Dry extracts**
- **VOC** (Volatile organic compounds), or water in case of water-based paints

Drying paint is all about allowing the volatile products to evaporate and the film to harden. We must distinguish between hardening and drying.

Drying gives us the dry film purely by the evaporation of the volatile products. This happens at two stages: during spraying and within the film. Depending on the temperature, the density of the spray, the type of spray gun and the distance of the spray, the paint can arrive on the surface more or less dry. That means that the majority of the solvent has evaporated before the paint reaches the surface. The drying of the wet film is accelerated when the surface is in a well-ventilated area which has dry air and is dust-free.

PRACTICAL PAGES

Choosing a pump

To optimize

- For the best pump capacity, first work out the output you are going to require. This will include the sprayguns themselves, and any circulation you plan to have within this system. Once you have this figure, multiply by 1.2, and then choose the pump of which output at 30 cycles per minute is the nearest.

- The compression ratio you will need is defined by the pressure losses due to the length and diameter of the hosing of your system. To calculate these pressure losses, see page 99.

Example
let say you want to feed 3 conventional guns with an output of 500 cc/mn each, plus a circulation of 0,5 l/mn.
The total output will thus be 2 l/mn. The optimal pump capacity would be: (2 000 x 1,2) ÷ 30 = 80 cc/cycle.
The best-suited pumps will be :

- the PMP 150 (output of 100 cc/cycle and pressure ratio of 1:1) for low viscosity materials and a small circulating (pressure loss < 3 bar).
- the 02.75 (output of 85 cc/cycle and pressure ratio of 2:1) for thicker materials and a normal circulating (pressure loss < 6 bar).
- the 04.120 (output of 240 cc/cycle and pressure ratio 4:1) for large pressure loss in circulating (up to 15 bar).

Pump Material Feeding

To guarantee the right delivery of product, we offer the following range of equipment for various product viscosity :

- 0 - 300 cps
  - suction rod.
- 300 to 8 000 cps
  - top outlet pressure pots,
  - pumps (gravity or suction rod),
  - pump with base intake valve.
- 8 000 to 15 000 cps
  - bottom outlet pressure pots,
  - pumps with suction rods,
  - compressor.
- 15 000 to 30 000 cps
  - no more pressure pot,
  - no more suction rod,
  - submerged hydraulic pump,
  - compressor,
  - pump with single action elevator.
- 30 000 à 1 000 000 cps and +
  - pumps with peak feeder and double action elevator.

Filtration equivalence

Mesh (number of holes in 25,4 mm)	Micron	N° filtre (mesh opening in µm)
10	1480	–
16	975	–
20	750	30
25	630	25
30	500	20
40	375	–
45	360	15
50	300	12
60	238	–
70	210	8
80	175	6
100	149	–
140	100	4
170	90	3
200	74	–
250	60	–
270	50	2
325	40	1
400	35	–

Pressure loss in fluid hoses

Pressure drop is the resistance that prevents material from moving forward in the pipe. Two pipe variables influence this resistance : the (inside/internal) diameter and the pipe length. The pump will generate a pressure, strong enough to move the fluid material through the pipe (or hose) to the material pipe outlet. This pressure must be enough to overcome the original pressure drop.
While it is hard to reduce the pipe length, it is relatively easy to select an appropriate internal pipe diameter.

PRESSURE DROP CALCULATION

$$\text{Pressure loss (bar/m)} = \frac{6.9 \times \text{Flow (l/min)} \times \text{Viscosity (cps)}}{D^4 \text{ (int dia in mm)}}$$

$$\text{Pressure loss (psi/Ft)} = \frac{2.73 \times \text{Flow (gpm)} \times \text{Vicosity (cps)}}{D^4 \text{ (int dia in inches)}}$$

FLOW RATE CALCULATION

$$\text{Flow (l/min)} = \frac{\text{Pressure loss (bar/m)} \times D^4 \text{ (int dia in mm)}}{6.9 \times \text{Viscosity (cps)}}$$

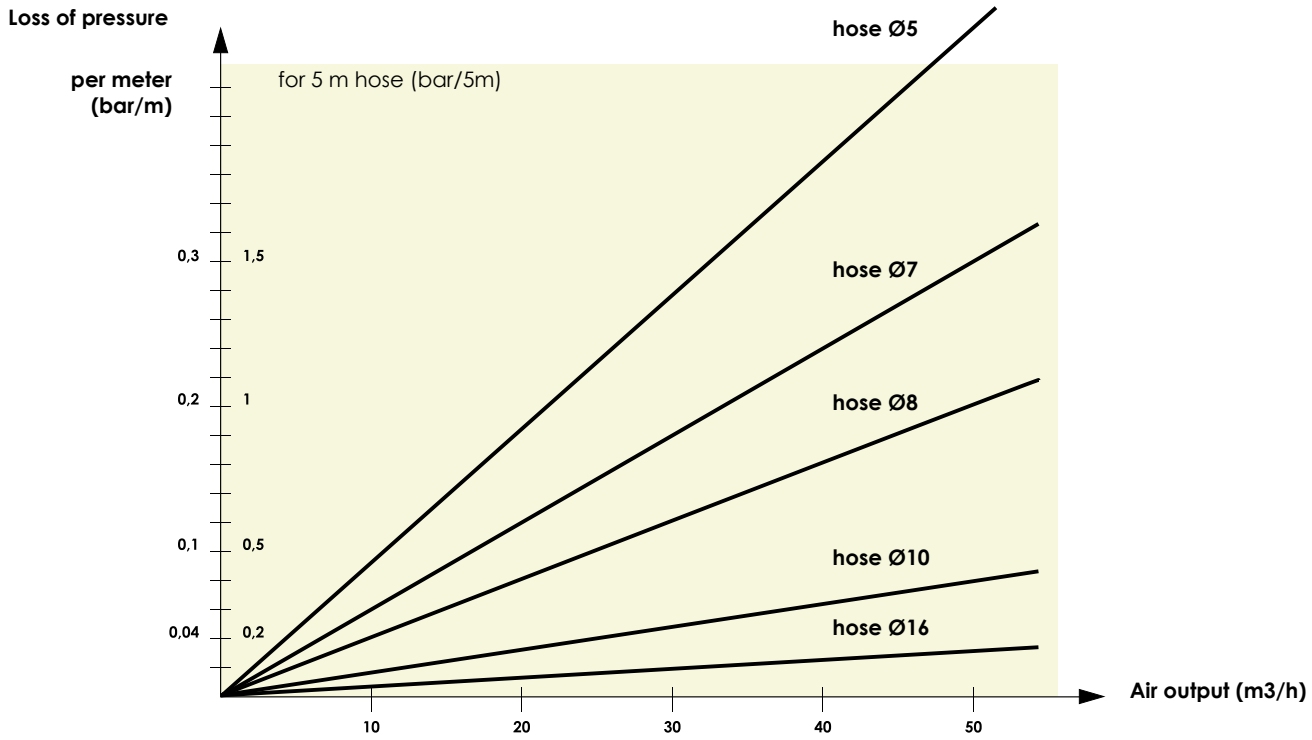
$$\text{Flow (gpm)} = \frac{\text{Pressure loss (psi/Ft)} \times D^4 \text{ (int dia in inches)}}{2.73 \times \text{Viscosity (cps)}}$$

PIPE DIAMETER CALCULATION

$$\text{Interior Dia (mm)} = \sqrt[4]{\frac{6.9 \times \text{Flow (l/min)} \times \text{Viscosity (cps)}}{\text{Pressure Loss (bar/m)}}}$$

$$\text{Interior Dia (in)} = \sqrt[4]{\frac{2.73 \times \text{Flow (gpm)} \times \text{Viscosity (cps)}}{\text{Pressure loss (psi/Ft)}}}$$

Pressure loss in air hoses



Electrostatic spraying : suitability of the equipment depending on the resistivity of the paints

- The wrap-around affect is optimized with paints of resistivity range of 5 - 50 MΩ.cm.
- Specific hoses allows for wrap-around effects for resistivity range higher than 2MΩcm.
- For water-based materials (0 MΩ.cm), a special ISObubble enclosure allows to benefit from all the advantages of electrostatic spraying in complete safety.

List showing the compressed air consumption of normal air tools

We generally multiply the instant consumption by a coefficient of 0,5 to 0,9 to allow for the time the tool is not in use.

The average air volume delivered by a compressor of 1 CV is of 8 m^3/h.

Tool	Consumption	
	l/mn	m^3/h
Projection equipment	800 at 1 800	48 at 108
Riveter	450 at 1 500	27 at 90
Pneumatic drill	600 at 1 200	36 at 72
Linisher Ø 230	1 200 at 4 000	72 at 240
Drill 13 mm	600	36
Rotating sander	200 at 400	12 at 24

Tool	Consumption	
	l/mn	m^3/h
Conventional gun	160 at 500	10 at 30
AIRMIX® gun	67 at 134	4 at 8
Pumps	160 at 1 350	10 at 80
Blower	200 at 400	12 at 24
Screwdriver	200 at 400	12 at 24

Calculate exactly the maximum air consumption of pump in l/mn : Q

The formula is :

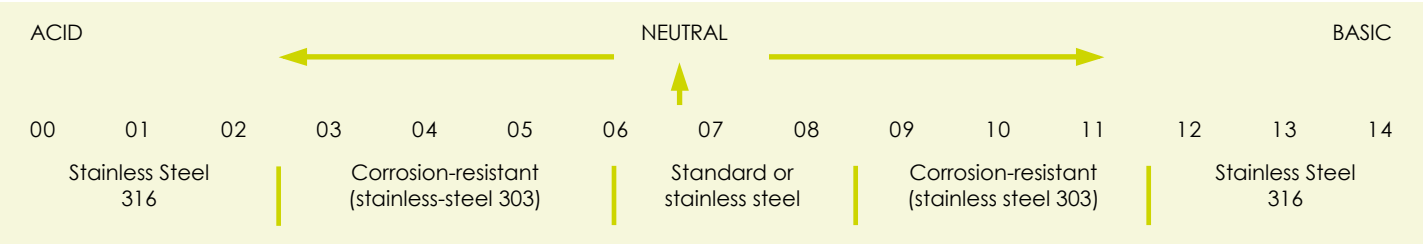
Q = 1.2 x fluid output x pressure ratio x (air motor feeding pressure in bar + 1 bar for atmosphere)

Example for a pump 16.120 : Q = 1.2 x 4,8 x 16 x (6 + 1) = 645.12 l/mn or (645.12 x 60) : 1000 = 38.7 m^3/h

PRACTICAL PAGES

Value of « PH »

The pH value of a liquid or a solution quantifies its concentration of hydrogen ions and tells us the extend to which it is acidic or alkaline. The PH value dictates the best materials to be used in construction of major paint handling and spraying equipment.



Practical information: Metric - english conversion

CONVERT FROM	TO	MULTIPLY BY
Centimeters	feet	0.03280
Centimeters	inches	0.3937
Centimeters/min.	feet/min.	1.9684
Centimeters/sec.	feet/sec.	0.03281
Cubic centimeters.	cubic feet	3.5314×10^{-5}

CONVERT FROM	TO	MULTIPLY BY
Cubic centimeters	ounces	0.033
Cubic centimeters	liquid gallons	0.0002642
Cubic feet	liquid gallons	7.4805
Cubic feet	cubic inches	1.728
Cubic feet/min.	gallons/min.	7.4805

CONVERT FROM	TO	MULTIPLY BY
Cubic inches	gallons	0.004329
Cubic inches	cubic centimeters	16.387
Cubic inches	cubic feet	0.0005787
Cubic meters	liquid U.S. gallons	264.17
Cubic meters	cubic centimeters	1×10^6

CONVERT FROM	TO	MULTIPLY BY
Cubic meters	cubic feet	35.31
Cubic meters	cubic inches	61,023.38
Feet	centimeters	30.48006
Feet	meters	0.3048006
Feet of water	atmosphère	0.02949

CONVERT FROM	TO	MULTIPLY BY
Feet of water	psi	0.443
Feet/hour	miles/hour	0.00018933
Feet/min.	meters/min.	0.3048
Feet/min.	miles/hour	0.01136
Feet/sec.	miles/hour	0.681818

CONVERT FROM	TO	MULTIPLY BY
Gallons	cubic cm	3 785,43
Gallons	cubic inches	231
Gallons	imperial gallons	0,83268
Gallons	cubic feet	0,13368
Gallons/min.	cubic feet/min.	0,13368

CONVERT FROM	TO	MULTIPLY BY
Inches	feet	0,083333
Inches	meters	0,254
Inches	millimeters	25,40005
Inches	mils	1 000
Kilograms	pounds	2,2046

CONVERT FROM	TO	MULTIPLY BY
Kilogrammes/cm²	psi	14,2233
Kilogrammes/mm²	psi	1 422,33
Liters	gallons	0,264178
Meters	feet	3,2808
Meters	inches	39,37

CONVERT FROM	TO	MULTIPLY BY
Poise	centipoise	100,0
Pints of water	gallons	0,11985
PSI	atmosphère (bar)	0,06804
Inches²	cm²	6,4516
Inches²	feet²	0,006944
Inches²	mm²	645,163
Millimètres²	inches²	0,0015499
daN	Kilograms	1.0

- For the diameter of a circle, multiply the circumference by 0.31831.
- For the circumference of a circle, multiply the diameter by 3.1416.
- For the surface of a circle, multiply the diameter² by 0.7854.
- For the surface of a sphere, multiply the diameter² by 3.1416.
- To find the side of a square that has the same surface area of a circle, multiply the diameter by 0.8862.
- To find the number of cubic inches in a sphere, multiply the diameter by 0.5236.
- To find the number of gallons inside a pipe or cylinder, divide the volume in liters by 231.
- To find the cubic volume of a cylinder or pipe, multiply the section area by the length.

PRACTICAL INFORMATION

Chemical compatibility charts

MATERIAL IN CONTACT (Wetted Parts)

	Carbon steel	Aluminium	Brass	Stainless steel	Nylon	Nitrile	Vitton	Leather	P.U.
Butyl acetate	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	N	N		N
Ethyl acetate	● ●	● ●	● ●	● ●	● ● ●	N			
Acetal aldehyde	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	N	N	● ●	N
Amonium acetate				● ● ●					
Acedic acid	● ● ●			● ● ●	● ● ●	N	N	N	N
Boric acid	● ● ●	● ● ●		● ● ●	● ● ●		● ● ●	● ● ●	● ● ●
Hydrobromic acid					● ● ●	N	● ● ●		
Chloridic acid	N	N		N	● ● ●	N	● ● ●		
Chromic acid	N	N	N	●	● ● ●	N			
Citric acid				● ● ●	● ● ●		● ● ●		
Fluorohydric acid						N	● ● ●		
Fluosilicic acid			● ● ●		● ● ●	N	N		
Formic acid	N	● ●	N	●	● ● ●	N	●		
Nitric acid	N	N	N	● ● ●	● ● ●	N	● ● ●		
Oxylic acid	N	N	N	N	● ● ●		● ● ●	● ● ●	● ● ●
Phosphoric acid	N	N		● ● ●	● ● ●	N	● ● ●		
Ethylalcohol						● ● ●	N		
Methylalcohol	● ● ●						N	● ● ●	N
Acetic aldehyde	● ● ●	● ● ●		● ● ●	● ● ●	N	N		N
Formic aldehyde	N	● ●	N	N	● ● ●	N	● ● ●		N
Sodium algenate					● ● ●		N		
Starch						● ● ●	● ● ●		
Amines					● ● ●	N	N	N	
Acetone	● ● ●	● ● ●		● ●	● ● ●	N	N		N
Liquid ammonia	● ● ●	● ● ●		● ● ●	● ●	● ●	N	N	
Benzene	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	N	● ● ●	● ●	●
Sodium bicarbonate		N	N	● ● ●	● ● ●	● ● ●	● ● ●		
Chlorine dioxide						N	● ● ●		
Sodium bisulphate	N	N		N	● ● ●	N	● ● ●		
Brominate						N			
Calcium carbonate	● ● ●			● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	
Sodium carbonate					● ● ●		● ● ●		
Chlorinate, gas						● ● ●	● ● ●		
Sodium chlorite							● ● ●		● ● ●
Aluminum chlorosulfate					● ● ●	● ● ●	● ● ●	● ● ●	
Calcium chloride	● ● ●			● ● ●	● ● ●		● ● ●		● ● ●
Magnesium chloride	● ●	N		N	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●
Potassium chloride	N	N		● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●
Sodium chloride					● ● ●	● ● ●	● ● ●		● ● ●
Zinc chloride	N	N		N	● ● ●	● ● ●	● ● ●		● ● ●
Ferrous chloride	N	N	N	N	● ● ●		● ● ●		
Ferric chloride	N	N	N	N	● ● ●		● ● ●		● ● ●
Cyclohexane	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●	● ● ●		
Chlorobenzene	● ● ●			● ● ●	●	N	● ● ●		N
Ethylene chloride		● ●			● ●	N	● ●		N
Methylene chloride	● ●	N	● ●	● ●	N	N	● ●		N
Diatoms						● ● ●	● ● ●		
Dichloroethylene					● ● ●				
Diethylene glycol	● ● ●	● ●		● ● ●	● ● ●	● ● ●	● ● ●		N
Bleach	N	● ●		● ● ●	● ● ●				●
Distilled water	N	● ● ●	● ● ●	● ● ●	● ● ●		● ● ●	● ● ●	● ● ●
Oxygenated water	N		N	● ●	N		● ●		● ● ●
EDTA						● ● ●	N		
Fertilizer						● ● ●	N		

PRACTICAL INFORMATION

Chemical compatibility charts

MATERIAL IN CONTACT (Wetted Parts)

	Carbon steel	Aluminium	Brass	Stainless steel	Nylon	Nitrile	Vitton	Leather	P.U.
Ethanol					● ● ●	● ● ●	N		
Ethyl ether	● ●	● ●		● ●	● ● ●	N	N		●
Ethylene glycol	● ●	● ●	● ● ●	● ●	● ● ●	● ● ●	● ● ●		N
Ethyl-mercapan						N	● ● ●		
Fuel						N	● ● ●		
Fluosilicate			● ● ●		● ● ●	● ● ●	● ● ●		
Formaldehyde	N	● ●		N	● ●	● ● ●	● ● ●		N
Glycol	● ●	● ●		● ●	● ● ●	● ● ●	● ● ●		N
Gelatine	N	● ●		● ● ●	● ● ●	N	N		N
Sodium hydroxide					● ● ●	N	N		N
Ammonium hydroxide				● ● ●	● ● ●	N	N	● ●	N
Potassium hydroxide	●	N		● ●	● ● ●	N	N		N
Calcium hypochlorite				●	● ● ●	N	● ● ●	N	
Sodium hypochlorite					● ● ●	N	● ● ●		N
Sodium hyposulfite					● ● ●	N	● ● ●		
Fruit juice						● ● ●	● ● ●		
Methanol	N	● ● ●		● ● ●			N		●
Morpholine	● ● ●	● ● ●				N	N		
Methylethylcetone	● ● ●	● ●		● ● ●	● ● ●	N	N		N
Sodium nitrite					N	N	● ● ●		
Perchlorethylene (tetrachloret.)	● ● ●	● ●		● ● ●	N	● ●	● ● ●		N
Permanganate de potassium	● ●	● ●		● ●	● ● ●	N	● ● ●		
Hydrogen peroxide	N	● ● ●	N	● ●		N	● ●		
Chlorohated Peroxyde						N	● ● ●		
Phenol	N	N			● ● ●	N	● ● ●		
Ammonium phosphate			● ● ●	● ● ●	● ● ●	● ● ●	● ● ●		
Tridsodium phosphate	● ● ●	N		● ● ●	● ● ●	● ● ●	● ● ●		
Aluminium polychlorite						● ● ●	● ● ●		
Polyelectrolytes						● ● ●	● ● ●		
Caustic potash		N		● ● ●		N	● ● ●		
Sodium silicate					● ● ●	● ● ●	● ● ●		
Soda						N	N		
Aluminium sulfate					● ● ●	● ● ●	● ● ●	● ● ●	N
Ammonium sulfate					● ● ●				● ● ●
Calcium sulfate	● ● ●	● ● ●		● ● ●	● ● ●		● ● ●		
Copper sulfate				● ● ●	● ● ●	● ● ●	● ● ●		● ● ●
Ferrous sulfate		N		● ●	● ● ●	● ● ●	● ● ●		
Ferric sulfate	N	N		N	● ● ●	● ● ●	● ● ●		● ● ●
Sodium sulfate	N				● ● ●	● ● ●	● ● ●		
Hydrogen sulfur	● ● ●				● ● ●	● ● ●	N		
Carbon tetrachloride	● ●		● ● ●	● ● ●	● ● ●	N	● ● ●		
Toluene	● ● ●	● ● ●		● ● ●	N	N	● ● ●		N
Trichlorethane	● ●	N		● ●	N	N	● ● ●		N
Trichlorethylene	● ●	● ● ●		● ●	N	N			N
Triethyleneglycol				● ●	● ● ●		● ● ●		
Urea	● ●	● ●		● ●	● ● ●		● ● ●		
Xylenes	● ●	● ●		● ●	● ● ●	N	● ● ●		N

● ● ● = High Compatibility

● ● = Good Compatibility

● = Low Compatibility

N = Not Compatible

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