ECCO PRODUCTS

Finishing Equipment & Accessories











CUSTOMIZED FINISHING AND SEALING SOLUTIONS

www.eccofinishing.com

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WHY ECCO FINISHING?





The main focus of ECCO Finishing AB is to reduce production costs for its customers, while improving finishing and quality. Thus ECCO Finishing provides products that ensure "More Quality Production Time" to our end users. We offer world class finishing products to answer to the most demanding applications.

We have proven that we can provide:

- Better transfer efficiency with Ecco spray guns leding to significant material savings
- Great atomizing quality and low air consumption at lower pressure
- Higher reliability of our products due to special material and design
- Reduced down time in production
- Reduced maintenance costs
- Fast pay back

LONG EXPERIENCE

In 1931 ECCO started the manufacturing of its own designed ECCO spray gun, which was a high quality product that made a great success in the finishing industry. In 1941 ECCO was incorporated in the Atlas Copco Group and remained a part of Atlas Copco until 1988. Today ECCO is a global company, owned by private investors but still with the headquarters in the Swedish small town Skara.

COMPARISON CHART FOR ECCO LOW PRESSURE AUTOMATIC SPRAY GUNS





















Explanations:

Opt=Optional N/A=Not applicable — = Not available * = serial / installed by default SS=Stainless Steele TC= Tungsten Carbide NPB=Nickle Plated Brass PF = Perfluor

The Automotive robot guns. Top features incl. all o-rings in indestructible Perfluor, certified E75AP is the compact version of E70AS with but more cost efficient. improved atomization performance and easier With a robust SS base

All benefits of Ecco design in a high end/ long lasting affordable plate and circulation to

The compact, low weight and cost efficient formance and perfect repeatability gun to gun. performance as E75AP

F7CAD is the controlling the uniting between air and performance and durability in a light paint injection. Only 2 air connectors needed

Advanced non-bleeding guns with an internal solution for the industry. Proven Ecco solutions valve controlling the timing between air and package. E52AS comes with a POM base plate (fan air control from the gun base). A unique to keep the weight to a minimum while offering variety of base plates offers many possibilities high durability and a good solvent resistance. for integration according to required functions.

Special version of Ecco 68AS, made especially a proven efficiency for use with Zinc dust paint and corrosive chemicals.

for corrosive or sticky
The traditional non-bleeding guns for industry. fluids to AI or SS. Has Widely used for leather (specific leather versions available), ceramic, and general industry. Extremely robust with great performance.

A compact and cost efficient diaphragm operated gun. Perfect for use with highly abrasive media like enamel and ceramic.

The compact, cost efficient and continuous spraying gun with the atomizing performance of an Ecco gun.

V-E = Viton-ETP			the gun.					onermodis.				
	ECCO 75AP	ECCO 70AS	ECCO 72AS	ECCO 52AS	ECCO 51AS	ECCO 68AS	ECCO 68ASH	ECCO 68ASP	ECCO 60AS	ECCO 65AS	ECCO 40DA	ECCO 41FA
Conventional	*	*	*	*	*	*	_	*	*	_	*	*
Ecco High Efficiency	*	*	*	*	*	_	*	_	_	*	_	*
HVLP	*	*	*	*	*	_	*	-	_	*	_	*
Bleeding gun	*	*	*	*	*	_	_	_	_	_	Diaphragm	No needle
Non bleeding gun	_	_	_	_	_	*	*	*	*	*	controlled	No needle
Weight (g)	490	960	450	350	300	460	460	_	830	830	300	310
Weight with base plate	800	1300	600	450	-	800	800	440	_	_	_	_
Materials in contact with paint	SS, TC, PF, UHMW	SS, TC, PF, UHMW	SS, V-E, UHMW, NPB	SS, V-E, UHMW, POM, NPB	SS, UHMW, NPB	SS, V-E, UHMW, NPB	SS, PTFE, UHMW, NPB	POM, UHMW, NBR.	SS, PTFE, NPB	SS, PTFE, NPB	Al, SS, Teflon.	SS, NPB
Air distribution material	SS	SS	Al	Plastic	Plastic	Plastic	Plastic	_	Al	Al	Al	Al
Air cap: Fixed position & certified	*	*	_	_	_	_	_	_	Opt.	Opt.	_	_
Robot	****	****	***	***	**	***	***	**	**	**	**	**
Reciprocator/Carousel	***	***	****	****	****	****	****	****	****	****	***	***
Fixed position	***	***	****	****	****	****	****	****	****	****	****	****
Automotive	****	****	***	**	*	**	**	-	**	**	_	_
General/Heavy industry (metal)	**	***	****	***	***	***	***	****	***	***	**	*
General/Precision ind (glass, plastic)	****	***	****	***	***	***	***	_	***	***	-	-
Ceramic	****	****	***	_	_	****	_	_	****	*	****	****
Leather	***	***	***	_	_	****	****	_	****	****	_	_
Wood	***	***	***	_	_	***	***	_	***	***	_	_
Optional hollow wrist robot adaptor	Opt.	Opt.	_	_	_	_	_	_	_	_	_	_
Compatible with air cap cleaner	*	*	_	_	_	_	_	_	_	_	_	_
Optional remote fan control	N/A	N/A	N/A	N/A	N/A	Opt.	Opt.	N/A	Opt.	Opt.	Opt.	N/A
Click needle stroke control adjustment	_	_	Opt.	Opt.	Opt.	Opt.	Opt.	_	*	*	N/A	N/A
Micrometric needle stroke control adj.	_	_	Opt.	Opt.	Opt.	Opt.	Opt.	_	_	_	N/A	N/A
Nozzle diameter (mm)	0.3 - 2.7	0.3 - 2.7	0.3 - 2.7	0.3 - 2.7	0.3 - 2.7	0.3 - 2.7	0.3 - 2.7	1.4 - 1.8	0.3 - 2.7	0.3 - 2.7	0.5 - 2.7	0.5 - 2.7
Pattern width conventional at 200mm (mm)	290 - 340	290 - 340	290 - 340	290 - 340	290 - 340	290 - 340	-	290 - 340	290 - 340	_	290 - 340	290 - 340
Pattern width HVLP at 200mm (mm)	150 - 220	150 - 220	150 - 220	150 - 220	150 - 220	_	150 - 220	-	_	150 - 220	_	_
Recomm. air pressure at air cap -Conv. (bar)	2 - 4	2 - 4	2 - 4	2 - 4	2 - 4	2 - 4	_	2 - 4	2 - 4	_	2 - 4	2 - 4
Recomm. air pressure at air cap -HVLP (bar)	0.3 - 0.8	0.3 - 0.8	0.3 - 0.8	0.3 - 0.8	0.3 - 0.8	_	0.3 - 0.8	-	_	0.3 - 0.8	-	-
Air consumption Conv. at 4 bar (I/min)	480 - 520	480 - 520	480 - 520	480 - 520	480 - 520	480 - 520	_	480 - 520	480 - 520	_	480 - 520	480 - 520
Air consumption HVLP at 0.7 bar (I/min)	270	270	270	270	270	_	270	-	_	270	_	_
Solvent flow range (dep.on nozzle, ml/min)	50 - 1000	50 - 1000	50 - 1000	50 - 1000	50 - 1000	50 - 1000	50 - 1000	N/A	50 - 1000	50 - 1000	100 - 1000	100 - 1000
Water borne 25s. Din4 cup flow range (ml/min)	15 - 3500	15 - 3500	15 - 3500	15 - 3500	15 - 3500	15 - 3500	15 - 3500	300 - 2500	15 - 3500	15 - 3500	50 - 3500	50 - 3500

ECCO'S GREEN FOCUS

We at ECCO Finishing are dedicated to assist our customers in their ongoing strive to reduce overspray and VOC impact on the environment. By installing ECCO products in the production, multiple gains from both environmental and economic standpoints are achieved. ECCO Finishing is certified according to the environmental standards ISO-14001.

SUSTAINABLE PRODUCTS

ECCO products are made of durable, wear resistant material i.e. stainless steel, for optimal performance and life expectancy. This include the possibility of refurbishing the units to further extend life span. This clearly sets ECCO products apart from the world of low cost "throw away" devices.

SAVING PAINT AND AIR - AND MONEY

By optimizing settings on spray gun and pump, cost savings of both paint and air will be achieved as well as limiting the

environmental impact. ECCO's goal is to assist our customers with this knowledge. Information can be found in our manuals as well as on our web-site. Further assistance can also be had from our world-wide network of distributors..

PRODUCT DEVELOPMENT AND RECYCLING

R&D department focus on high quality sustainable products. Environmental considerations are always taken into account all the way from design, manufacturing, usage through recycling. In ECCO's compact spray gun design the flow optimized channels are designed to prevent fluid build up, to facilitate cleaning and to minimize usage of solvents.

ECCO's products are recyclable in stainless steel, aluminium and plastic, and recycling instructions is indicated in the product manuals.

DESIGNING A FLUID SUPPLY SYSTEM

Designing a good fluid-handling system requires know-how and the right equipment. ECCO have the equipment needed for your fluid supply system:

FEEDING THE FLUID

- Pressure pots for low pressure feeding
- Feeding pumps like diaphragm pumps or piston circulating pumps for low pressure
- Complete feeding units for low pressure
- Feeding pumps for high pressure application
- Transfer pumps from one tank to another

AGITATING

Pneumatic driven stirrers

REGULATING

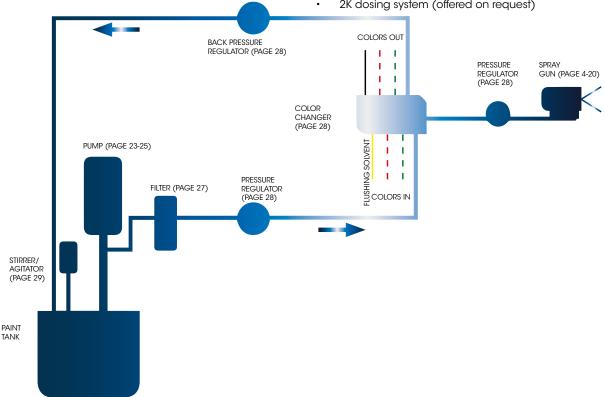
Pressure regulators and Back pressure regulators

HEATING

Heating of the material /paint

DOSING

2K dosing system (offered on request)



ECCO LOW PRESSURE PAINT SPRAYING

- HIGH EFFICIENCY TECHNOLOGY

Our concern is to offer you the best finishing technology for your demand. Therefore we offer three different application methods for different materials and different demands:

- Conventional spraying
- ECCO High Efficiency
- HVLP (High Volume Low Pressure)

Conventional spray painting is using high velocity air jets at high pressure to create high atomization. This is suitable for painting where the result must have the best appearance quality. This is the best method for very high speed paint lines where guns and parts are moving fast. By using the conventional method you will reach high gloss and the best result in colour and DOI (Distinction of Image). However the paint consumption is higher. Operating pressure with Ecco guns is 2 to 4 bars (30 to 60 psi).

HVLP (High Volume Low Pressure) uses more air at lower velocity to atomize the paint, compared to the conventional paint spraying. The lower air pressure creates slower paint particles, which might impact productivity on high speed paint lines. However, it creates less overspray and increases the transfer efficiency, reduces paint consumption, VOC emissions and line maintenance requirements. HVLP operates at 0,7 bar (10 psi) at the air cap and down to 0.4 bar with Ecco guns. while maintaining very low air consumption (below 300 l/min)

ECCO High Efficiency is a combination of both of the above methods, and thus it offers you both high quality of finish, high productivity and high transfer efficiency. Here the air cap pressure is between 1,3 and 3 bars (20 to 45 psi). This is a great combination and offers best advantages of both of the above technologies.

Each method has its justification and will depend on the material you want to apply and the shape and dimension of the painted parts.

ADVANTAGES WITH LOW PRESSURE SPRAYING

- First class finish
- Paint savings and low overspray
- Uniformed coat thickness
- · Easy adjustment of fan pattern and paint flow
- Versatile guns for many different applications

ECCO is proposing a range of different automatic and manual guns for industrial applications. A very large range of air caps, fluid nozzles and needles in sizes and materials (SS, tungsten carbide) allows you to optimize the gun for your application.



APPLICATIONS

- Automotive
- Tier 1 Automotive
- Plastic consumer goods
- Aerospace
- Agriculture equipment
- Wood Furniture/ joinery
- Leather industry
- · Ceramics and enamel
- General Industry
- Truck and Bus
- Glass packings
- Food industry

MATERIAL TYPES

- · Solvent & water based
- Fillers
- · UV curing paint
- · 2K materials
- Lacquers and sealants
- Stain and varnishes
- · Release agent
- Adhesive
- Enamel
- Teflon
- · Liquid foodstuff

ECCO 75AP - the smallest and most reliable robot spray gun

The ECCO 75 AP is designed for applications where the areas are small and narrow. This gun has a 70% reduced inner space for the paint (vs. E70AS), which reduces paint consumption as well as time at frequent colour changes are made. The internal paint channels angles have been optimized for best possible cleaning effect. In ECCO 75AP we use well-known technology in the air caps and nozzles, in combination with optimal design of the gun body. The result is a very compact unit with highest possible core values in performance. TCP and interface is equal to the ECCO 70AS and for other types of spray guns by using an adapter. Same gun can be used as HVLP, EHE or conventional by just changing nozzle and air cap.

	TECHNICAL DATA
Weight	490 g
Size (with air cap)	Length=88mm, Width=50mm
Body	Stainless Steel
Nozzle	Stainless steel or Tungsten carbide
Air cap	Aluminium w. Tufram surface treatment, or Stainless Steel
Needle	4mm Stainless steel or Tungsten carbide
Sealings	Teflon/Perfluor / UHMV
Air caps	"Certified" (extra quality tested)

F= Nozzle with large outside tip diam.

G= Nozzle with smaller outside tip diam

H = Tungsten carbide nozzle.

TC needle for abrasive material, ex. ceramic

Other nozzle / air cap combinations are available.

Normal nozzles with T air caps = Conventional

F or G nozzle with T air caps = Ecco High Efficiency

G nozzle with 65XY air caps = HVLP.

Other nozzles/air caps are available on request.



For Ecco 75AP: Viscosity DIN 4 (sec)	Paint nozzle type/ Ø mm	Air oan	Needle	Ord. No.
	0,3	6509 Fix4	SS	8611 6175 60
	F 0,6C	6509 Fix4	SS	8611 6175 18
	B 0,8C	T297 Fix4	SS	8611 6175 08
	B 0,8C	T278 Fix4	SS	8611 6175 09
	G 0,8C	T278	SS	8611 6175 81
	G 0,8C	6509	SS	8611 6175 82
	F1,1C	T297 Fix4	SS	8611 6175 15
	F1,1C	T278 SS Fix4	TC	8611 6175 53
	F1,2C	T297 Fix4	SS	8611 6175 01
	F 1,4C	T297Fix4	SS	8611 6175 02
	F 1,4C	T297Fix2V	SS	8611 6175 03
	G 1,4C	T274Fix4	SS	8611 6175 14
	F 1,4C	T278	SS	8611 6175 74
	F 1,4C	T297 Fix4	TC	8611 6175 21
	1,8C	T278Fix4	SS	8611 6175 28
	G H1,8	T260 Alu	TC	8611 6175 38
	H 1,8	T272 Fix4	TC	8611 6175 44
	H 1,8	T278 Fix4	TC	8611 6175 45
	H 2,1	T374MSGFix4	TC	8611 6175 43
	H 2,1	T378 Fix4	TC	8611 6175 42
0 10 20 30 40 50 60 70 80 90 1	2,7	T474 Fix4	TC	8611 6175 49

ECCO 70AS - the most versatile spray gun



ECCO70AS is the best choice for use with water or solvent borne materials on all types of robots and reciprocators. ECCO 70AS ensures a uniform spray pattern even after replacement of air cap and fluid nozzle. Due to reduced internal pressure drop of atomizing and fan air, the ECCO 70AS can stabilize the output parameters. Atomizing and fan air is completely separated from the inlet to the air cap. Exterior surfaces are easy to clean and treated to ensure minimum dirt collection. Built in strainer for optimum quality. Same gun can be used as HVLP, EHE or conventional by just changing nozzle and air cap.

TECHNICAL DATA					
Weight	960 g				
Housing	SS				
Cylinder	Alu/Tuf*				
Nozzle	SS or TC * *				
Air cap	Alu/Tuf*				
Needle	4 mm SS or TC**				
Sealings	Teflon/Perfl.***				

 $^{^{\}ast}$ Tuf is a unique process of hardening and reducing friction on aluminum

For Ecco 70AS: Viscosity DIN 4 (sec)	Paint nozzle Ø mm	Air cap 1	Needle	Ord. No.
	0,5	T278 Fix4	TC	8611 6171 06
	F 0,6CSS	6514 Fix4	SS	8611 6171 18
	F 0,6C	6511 Fix4	SS	8611 6171 21
	F 0,6C	6509 Fix4	SS	8611 6171 33
	B 0,8C	T278 Fix4	TC	8611 6171 02
	B 0,8C	T278 Fix4	SS	8611 6171 13
	F 0,8C	6509 Fix4	SS	8611 6171 32
	1,1	T278 Fix4	TC	8611 6171 03
	1,1C	T297 Fix4	TC	8611 6171 10
	F 1,1C	T297 Fix4	TC	8611 6171 24
	F 1,1C	6509 Fix4	SS	8611 6171 34
	1,3C	T278 Fix4	TC	86116171 22
	G 1,4	T278 Fix4	SS	8611 6171 00
	F 1,4C	T297 Fix4	TC	8611 6171 07
	G 1,4C	T278 Fix4	TC	8611 6171 08
	G 1,4C	T278 Fix4	TC	8611 6171 12
	F 1,4C	T297 Fix4	SS	8611 6171 27
	G 1,8	6518 Fix4 SS	SS	8611 6171 82
	H 2,1	T374 Fix4	TC	8611 6171 43
	H 2,7	T474 Fix4	TC	8611 6171 40
0 10 20 30 40 50 60 70 80 90 1	00			

F= Nozzle with large outside tip diam. G= Nozzle with smaller outside tip diam H = Tungsten carbide nozzle

TC=Tungsten carbide needle for abrasive fluids.

Other nozzle / air cap combinations are available. Normal nozzles with T air caps = Conventional

F or G nozzle with T air caps = Ecco High Efficiency

G nozzle with 65XY air caps = HVLP.

Other nozzles/air caps are available on request.

2 needles cover the full range of nozzle diameter (Ø 0.3-1.1mm and Ø 1.2-2.7mm)

^{**} Tungsten Carbide *** Perfluor 128 is equal to Kalrez 4079

6003 9770 43 - Mounting plate with guide pin







6004 0093 00 Flow control unit

6004 0099 50 - Gun adapter for robot with dump valve

6003 9770 00/-20 - Mounting plate

Ecco 75AP with gun adapter for ABB robot 6004 0099 00

ADDITIONAL EQUIPMENT FOR ECCO 75AP

Designation	Ordering Number
Service set, internal parts, for Ecco75AP	6004 0176 20
Service set for Ecco 75AP	6004 0176 21
Gasket set for E75AP/70AS (3 o-rings 1 sealing ring, 2 pins)	6004 0019 20
Gun adapter ABB-3HNM 60° without dump valve	6004 0099 00
Gun adapter ABB-3HNM 60° with dump valve (flush valve) for robot	6004 0099 50
Gun adapter ABB-HWN 60° without dump valve	6004 0097 00
Gun adapter ABB-HWN 60° with dump valve (flush valve)	6004 0097 50
Mounting plate with guide pin - for robot/reciprocator	6003 9770 00
Mounting plate with screw - for robot / reciprocator (in Stainless Steel for water based materials)	6003 9770 20
Mounting plate with screw - for robot / reciprocator (In Aluminium for lower weight)	6003 9770 25
Larger paint connections for mounting plate 6003 9770 20/-25	6003 9770 51
Mounting plate with 13mm guide pin - for robot/reciprocator	6003 9770 43
Adapter for Ecco75AP to AGMD	6004 0177 50
Flow control unit for paint circulation/return	6004 0093 00
Packing screw - increases lifetime when spraying UV paint	6004 0176 16
Needle stroke adjustment kit	6004 0176 45

ADDITIONAL EQUIPMENT FOR ECCO 70AS

Designation	Ordering Number
Service set, internal parts, for Ecco70AS	6004 0018 10
Gasket set for E70AS (4 o-rings, 2 pins)	6004 0019 00
Gasket set for E75AP/70AS (3 o-rings 1 sealing ring, 2 pins)	6004 0019 20
Gun adapter ABB-3HNM 60° without dump valve	6004 0099 00
Gun adapter ABB-3HNM 60° with dump valve (flush valve) for robot	6004 0099 50
Gun adapter ABB-HWN 60° without dump valve	6004 0097 00
Gun adapter ABB-HWN 60° with dump valve (flush valve)	6004 0097 50
Mounting plate with guide pin - for robot/reciprocator	6003 9770 00
Mounting plate with screw - for robot / reciprocator (in SS)	6003 9770 20
Mounting plate with screw - for robot / reciprocator (in Alu)	6003 9770 25
Mounting plate with SS paint coupling compl. for robot	6003 9770 35
Larger paint connections for mounting plate 6003 9770 20/-25	6003 9770 51
Mounting plate with 13mm guide pin - for robot/reciprocator	6003 9770 43
Flow control unit for paint circulation/return	6004 0093 00

ECCO 72AS - the top class industrial spray gun

Duplicating the performance of E75AP but in a more cost effective package. The Ecco 72AS feature exceptional robustness, performance and durability for heavy industrial use. It comes with a sturdy stainless-steel base plate and optional fluid circulation to the nozzle. All the benefits of Ecco's design experience in a high end but still affordable industrial spray gun.

Features

- * Stainless Steel gun body and mounting plate
- * Compact gun in a light weight design
- * Ecco's advanced industrial air caps and fluid nozzle design
- * Exchangeable aluminum air distributor
- * Easy to flush and to keep clean
- * Easy to install on fixed positions or reciprocators
- * Fast and repeatable opening and closing time
- * Easy and reliable with one screw gun-to-base assembly
- * Fluid circulation available up to nozzle
- * Extended lifetime and low spare part consumption
- * Minimal number of components reduce parts inventory
- * Options: Click needle stroke control or Micrometric needle stroke control





Click Needle stroke Control (CNC) for an easy flow adjustment by step-assisted fluid flow regulation through needle travel with 24 steps for a full 360° turn of the knob. Micrometric Needle stroke Control (MNC) for an accurate fluid flow regulation through needle travel, where each 360° rotation corresponds to 1mm needle travel and each mark on the knob is 10 $\,\mu m$. With MNC extreme precision can be reached for the exact required flow.

	Ord. No.
Click needle stroke control (CNC) for E51AS/52AS/72AS	6003 0176 45
Micrometric needle stroke control (MNC) for E51AS/52AS/72AS	6004 0355 15





	Ord. No.
Spray gun E72AS (select air cap, fluid nozzle, nedle stroke control	8611 7260 XX
Base plate for Ecco 72AS (non-circulation)	6004 0358 61
Base plate for Ecco 72AFC (circulation)	6004 0358 62
Service set (packing screw, o-ring, glydering)	6004 0358 90
O-ring set (non-circulation)	6004 0358 91
O-ring set (circulation)	6004 0358 92
Coupling set (non-circulation)	6004 0358 93
Coupling set (circulation)	6004 0358 94
Click needle stroke control (CNC)	6003 0176 45
Micrometric needle stroke control (MNC)	6004 0355 15

TECHNICAL	DATA - ECCO 72AS
Paint nozzles	Ø=0.3 - 2.7mm
Paint connection	Ø=8/6
Max size ('std/click/microm)	*L =96/109/114 mm, H=65 mm, Ø=41 mm
Air connection atom. air, control air	Ø=8/6,Ø=6
Air consumption	Depending on air cap
Weight gun + base plate	380+230g

ECCO 52AS - when every gram and cent counts

Optimizing weight and capacity to its best, while maintaining performance, durability and reliability was the great challenge that lead to the new Ecco 52AS. All Stainless Steel Ecco 52AS comes mounted on a high durability solvent resistent plastic base plate allowing quick connection and easy versatile line mounting. With a total weight of only 465g and a length of 10 cm, it's truly a compact high performance gun, at a compact price. The outstanding performance and value is a further sign of Ecco's innovative approach. Examples of applications: Precision Industry (plastics) and general industry.

Features

- * Extremely compact and light weight
- * Ecco's advanced air caps and fluid nozzle design
- * Easy to flush and to keep clean
- * Easy to install on fixed positions or reciprocators
- * Fast and repeatable opening/closing time
- * Easy and reliable one screw gun-to-base assembly
- * Base-integrated fluid circulation
- * Extended lifetime and lowest spare part consumption in this segment
- * Minimal number of components reduce parts inventory
- * Options: Click needle stroke control or Micrometric needle stroke control

TECHNICAL DATA -	ECCO 52AS
Paint nozzles	Ø=0.3 - 2.7mm
Paint connection	Ø= 8/6
Gun diam. (excl. plate)	L=96mm, H=60.5mm , Ø=41mm
Gun length (std/click/micrometric)	L= 96/109/114 mm
Air connection	Ø 8/6
Air consumption	Depending on air cap
Weight gun + base plate	355g + 110g





	Ord. No.
Spray gun E52AS (select air cap, fluid nozzle, needle stroke control)	8611 6152 XX
Service set for E51AS/52AS (needle packing, air distributor, o-rings)	6004 0355 70
Service set couplings (4 pcs)	6004 0356 82
O-ring set (4 pcs)	6004 0356 82
Click needle stroke control (CNC)	6003 0176 45
Micrometric needle stroke control (MNC)	6004 0355 15

ECCO 51AS - the lightest and most cost efficient spray gun

In continuation of Ecco Finishing's tradition of highest material and design standards, we are proud to introduce the low weight, all stainless steel automatic spray gun Ecco 51 AS! With a weight of around 300g and a length of 10 cm, it's truly a compact gun. Besides being the most compact and lightest needle operated stainless steel gun ever designed by Ecco, it is also the most cost effective! The outstanding performance/value ratio is a further sign of Ecco's innovative approach. Examples of applications: Precision Industry (plastics) and general industry.

Features:

- * Extremely compact and lightweight
- · Ecco's advanced air caps and fluid nozzle design
- · Easy to flush and to keep clean
- Easy to install on fixed positions or reciprocators
- $\boldsymbol{\cdot}$ Fast and repeatable opening/closing time
- Extended lifetime and lowest spare part consumption in this segment
- Minimal number of components reduce parts inventory

Ecco 51AS in standard version, with Click Needle stroke Control and with Micrometric Needle stroke Control







TECHNICAL DATA - ECCO 51AS	
Paint nozzles	0.3-2.7mm
Paint connection	Ø 8/6
Gun size	W=84mm Ø 41mm
Gun length (sta/click/micrometric)	L=96/110/114mm
Air connection	Ø 8/6
Weight std/click/precision	435 g

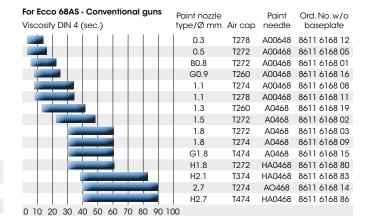
	Ord. No.
Spray gun ECCO 51AS (several combinations available)	8611 6151 XX
Spare gun E51AS (fluid nozzle 1.8/ air cap T272)	8611 6151 11
Spare gun E51AS (fluid nozzle G 0.9/ air cap 6509)	8611 6151 12
Service set for E51AS/52AS (needle packing, air distributor, o-rings)	6004 0355 70
Click Needle stroke Control (CNC)	6003 0176 45
Micrometric Needle stroke Control (MNC)	6004 0355 15

ECCO 68AS - general industry spray gun with settings in the base plate

ECCO 68AS is a new gun designed by Ecco to give highest durability and shortest possible down time in production. All settings are placed in the base plate (manifold) in order to change gun easily without additional adjustments. ECCO 68AS can be ordered with 4 various types of base plates, all with different features and adjustments to control the spraying process. This gives flexibility to choose the suitable control level for each unique application or line configuration and it reduces maintenance and stock level. Stainless Steel is used for all areas in contact with the fluid, and Tungsten Carbide needles and nozzles are also available as option for highly abrasive materials. Ecco 68AS uses the same proven high quality and durable nozzles and air caps as other Ecco Low Pressure spray guns.



	TECHNICAL DATA	
Paint nozzles	0.3 - 2.7 mm	
Paint connection	Ø 8/6	
Max size (w x h x l)	75 x 75 x 130mm	
Air connection	Ø 10/8mm and 8/6mm	
Weight gun + base plate	<800 g	
Weight gun (excl. plate)	460 g	



ECCO 68ASH - HVLP gun gun with settings in the base plate

ECCO 68ASH - HVLP allows to significantly reduce fluid and atomizing pressure down to HVLP specifications, maintaining excellent atomizing capacity for best finishing with significant fluid saving. Ecco 68ASH technology also maintains low air volume consumption. Same manifolds can be used as for Ecco 68AS conventional. Ecco 68ASH can be mounted for Ecco High Efficiency spraying mode - giving best finishing, high productivity and low material and air consumption. Ecco 68As is available with "standard", "Click" or "Micrometric" needle stroke control.



Ecco 68AS/ASH spray gun with base plate

	TECHNICAL DATA
Paint nozzles	0.3 - 2.7 mm
Paint connection	Ø 8/6
Max size (w x h x l)	75 x 75 x 130mm
Air connection	Ø 10/8mm and 8/6mm
Weight gun + base plate	<800 g
Weight gun (excl. plate)	460 g



Ecco 68AS/ASH spray gun

For Ecco 68AS - HVLP spray guns Viscosity DIN 4 (sec.)	Paint nozzle type/Ø mm	Air cap	Paint needle	Ord. No. w/o baseplate
	0.6	6509	A00468	8611 6168 40
	G0.8	6509	A00468	8611 6168 43
	G0.9	6509	A00468	8611 6168 44
	G1.1	6511	A00468	8611 6168 47
	G1.4	6514	A0468	8611 6168 52
	G1.8	6518	A0468	8611 6168 56
	G2.1	6521	A0468	8611 6168 60
	G2.7	6527	A0468	8611 6168 64
0 10 20 30 40 50 60 70 80 90 10	00			

BASE PLATE FOR ECCO 68AS

ECCO BASE is available in several versions, all with different features and adjustments to control the spraying process. This gives a flexibility to choose the correct control level for each unique application. The same gun type is used for all manifolds, therefore spare guns can easy be kept on stock. The gun itself is robust and simple, and all settings are placed in the base plate. Once you have optimized the settings you can keep those, also after changing the gun for maintenance. You get a stable and precise spraying result every time.





	Ord. No.
ECCO BASE B "BASIC" - without control	6004 0348 61
ECCO BASE A "AIR" - with fan air control	6004 0348 62
ECCO BASE F "FLUID" - with fluid flow control	6004 0348 63
ECCO BASE AF "AIR+FLUID" - with fluid and air control	6004 0348 64
ECCO BASE AFC - with air- and paint control, and circulation	6004 0348 65
ECCO BASE AC "AIR+CIRC" - with fan air control and circulation	6004 0348 66
ECCO BASE "3C" - for 3C Industry	6004 0349 02
Above standard base plates have a rings made in DTEE in the fluid	channels Special

Above standard base plates have o-rings made in PTFE in the fluid channels. Special versions with o-rings in NBR for water based fluid are available on request.

SPARE PARTS FOR ECCO 68AS

Click Needle stroke Control (CNC) for an easy flow adjustment by step-assisted fluid flow regulation through needle travel with 24 steps for a full 360° turn of the knob. Micrometric Needle stroke Control (MNC) for an accurate fluid flow regulation through needle travel, where each 360° rotation corresponds to 1mm needle travel and each mark on the knob is 10 $\,\mu$ m. With MNC extreme precision can be reached for the exact required flow.





Click Needle stroke Control (CNC) and Micrometric Needle stroke Control (MNC)

	Ord. No.
Click Needle stroke Control (CNC)	6004 0348 50
Micrometric Needle stroke Control (MNC)	6004 0349 10
Service set for spray gun E68AS	6004 0348 90
Service set for Base Plates "Base B" (Basic) and "Base A" Air	6004 0348 91
Service set for Base Plates "Base F" (Fluid) and "Base AF" (Air+Fluid)	6004 0348 92
Fluid restrictor 6/8 "screw"	6004 0348 21
Fluid restrictor for 6mm hose (knob)	6004 0348 22

ECCO 68 AS SPECIAL VERSIONS

ECCO 68AS ASP - Plastic gun for sticking or corrosive materials

Ecco 68ASP is especially developed for spraying of zinc dust coatings, and to solve all issues generated by the adhesion of the material to the spray gun parts. In this spray gun, the sprayed material never comes in contact with the metallic parts. Ecco 68ASP is therefore suitable for all corrosive material which normally is damaging the metal body and reducing production time and spray gun life time.

Features

- · All wet parts in plastic material to prevent the fluid from adhering to the surface or corrode it
- Retaining ring in plastic to make cleaning possible
- Stable, accurate and highly durable
- · Proven long life time on all components
- · Low weight

1	TECHNICAL DATA - ECCO 68ASP
Paint nozzles	0.3 - 2.7 mm
Paint connection	1/4″
Max size (w x h x l)	75 x 75 x 130mm
Air connection	Ø 10/8mm and 8/6mm
Weight gun + base plate	250 x 185 g



	Ord. No.
Spray gun E68ASP (fluid nozzle P1.3, air cap P6527) incl. base plate	8611 6169 90
Spare gun E68ASP (fluid nozzle P1.3, air cap P6527) excl. base plate	6004 0347 60
Base plate for E68ASP	6004 0347 80
Service set for E68AS (with NBR o-rings)	6004 0347 95

ECCO 68AS/ASH PRO LEATHER

Special versions of Ecco 68AS and ASH adapted for the leather industry, well suited for easy installation and maintenance on reciprocators or carousels. Ecco 68 Pro-Leather spray guns benefit from all key characteristics that made the previous generations 60AS and 65AS Pro-Leather so successful, incorporating the new 68 revolutionary design. The simple baseplate mounting solution for easy maintenance is now combined with Tungsten Carbide needle for highest durability. Also the new accurate fluid flow control with reproducible setup on the line, fixed air cap position and more. Compatible with all Ecco 68AS base plates (see page 9)



	TECHNICAL DATA	
Paint nozzles	0.3 - 2.7 mm	
Paint connection	Ø 8/6	
Max size (w x h x l)	75 x 75 x 130mm	
Air connection	Ø 10/8mm and 8/6mm	
Weight gun + base plate	<800 g	
Weight gun (excl. plate)	460 g	



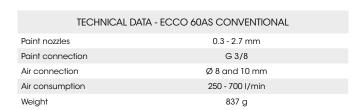
For Ecco 68AS Pro Leather Viscosity DIN 4 (sec.)	Paint nozzle type/Ø mm	Air cap	Paint needle	Ord. No. w/o baseplate
	1.1	T272	HA00468	8611 6169 02
	1.3	T260	A0468	8611 6169 01
	1.3	T272	HA0468	8611 6169 03
	G1.2	6514	HA0468	8611 6169 30
	G1.3	6514	HA0468	8611 6169 31
	G1.4	6514	HA0468	8611 6169 32
0 10 20 30 40 50 60 70 80 90 1	00			

G=Nozzle with smaller outside tip diam. HA needle= tungsten carbide

	Ord. No.
SPRAY GUN ECCO 68AS (Conventional) Pro Leather	8611 6169 0X
SPRAY GUN ECCO 68ASH (HVLP) ProLeather	8611 6169 3x
Needle stroke adjustment for ECCO 68AS	6004 0348 50
Service set for ECCO 68AS	6004 0348 90
Base plate "B" (basic) - without control	6004 0348 61
Base plate AFC - with air and fluid control	6004 0348 65

ECCO 60AS CONV. / ECCO 65AS HVLP - GENERAL INDUSTRY SPRAY GUN

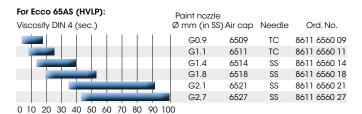
The ECCO 60AS and ECCO 65AS are compact and well suited for mounting on robot arms. The paint needle has air operated opening and closing by spring action. The short reaction time ensures a perfect spraying result and low paint consumption. The needle seal is adjustable during operation. Simple and rigid mounting. Precise alignment by locating pin. Large paint supply control with exact setting with stepped positions. ECCO 60AS/65AS are stainless steel versions for abrasive and corrosive fluids. The guns are service friendly, requiring only standard tools.



	TECHNICAL DATA - ECCO 65AS HVLP
Paint nozzles	0.6 - 2.7 mm
Paint connection	G 3/8
Air connection	Ø 8 and 10 mm
Air pressure	recommended 3 bar
Air consumption	approx. 260 I/min
Weight	828 g



For Ecco 60 AS (CONV): Viscosity DIN 4 (sec)	Needle Ø mm	nozzle Ø mm	Air cap	Needle	e Ord. No.
	3mm	1.1	T278AI	TC	8611 6160 62
	3mm	1.3	T272	SS	8611 6160 63
	3mm	1.5	T272	SS	8611 6160 67
	3mm	1.8	T272	SS	8611 6160 68
	3mm	2.1	T374	SS	8611 6160 69
	3mm	2.7	T474	SS	8611 6160 70
	4mm	H1.3	T272	TC	8611 6063 13
	4mm	H1.8	T272	TC	8611 6063 18
	4mm	H2.1	T374	TC	8611 6063 21
0 10 20 30 40 50 60 70 80 90	100				



ECCO 60AS AND 65AS PRO LEATHER



These are special versions adapted for and developed together with the leather industry. The gun is well suited for easy installation and maintenance on reciprocators or carousels. All the leather versions have the tungsten carbide

paint needle for highest durability always the Fix4 air cap type.

TECHNICAL DA	TA - ECCO 60/65AS PRO LEATHER
Paint nozzles	0.8 - 1.4 mm
Paint connection	G 3/8
Air connection	Ø 6 and 10 mm
Air pressure	recommended 3 bar
Air consumption	approx. 260 I/min
Weight	828 g



For Ecco 60/65AS ProLeather): Viscosity DIN 4 (sec)	Paint nozzle Ø mm	Air cap	Needle	Ord. No.
	1.1	T272MSGFix4	TC	8611 6161 11
	1.3	T272	TC	8611 6161 13
	1.3	T274	TC	8611 6161 14
	1.3	T272MSGFix4	TC	8611 6161 20
	H1.3	T260	TC	8611 6161 22
	G0.8	6509Fix4	TC	8611 6561 08
	G0.9	6509Fix4	TC	8611 6561 09
	G1.1	6511Fix4	TC	8611 6561 11
	G1.2	6514Fix4	TC	8611 6561 12
	G1.3	6514Fix4	TC	8611 6561 13
	G1.4	6514Fix4	TC	8611 6561 14
0 10 20 30 40 50 60 70 80 90	100			

ACCCESSORIES FOR ECCO 60AS/65AS



The kit remote fan width control makes it possible to control the atomizing air and the fan width air separate. The internal air valve is then bypassed and does not have any function.

	Ord. No.
Kit for remote fan width control for ECCO 60AS	6003 6691 80
Kit for remote fan width control for ECCO 65AS	6003 9697 80
Service set for gun E60AS/65AS (with 3mm needle), E65AS ProL	6003 6572 00
Service set for Ecco60AS-4 (with 4mm needle)	6003 6572 04

MOUNTING PLATE FOR ECCO 60AS/65AS

Complete mounting plate for automatic spray guns ECCO 60AS and ECCO 65AS, complete with connecting nipples, for all types of reciprocators.





 Ord. No.

 Mounting plate for ECCO 60AS/65AS
 6004 0085 00

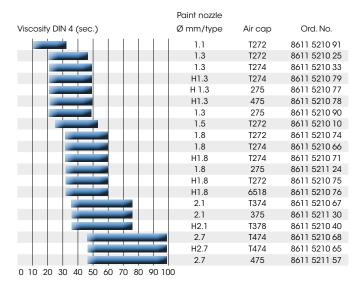
SPRAY GUNS WITHOUT FLUID NEEDLE

ECCO 40DA



The ECCO 40DA is an automatic spray gun for spraying abrasive and other similar material (i.e. vitreous enamel). The gun has no paint needle. The material flow is accuratly controlled by a diaphragm, sealing against a tungsten carbide seat. ECCO 40DA is small and easy to install. Remote control set for monitoring atomizing air and fan air externally is avalable as an accessory. (Ord.No. 6101 5627 90)

	TECHNICAL DATA ECCO 40DA
Paint nozzle diam.	0,3 - 2.7 mm
Paint connection	G 3/8
Air connection	G 1/4
Air consumption	250 - 700 I/min
Weight	305 g



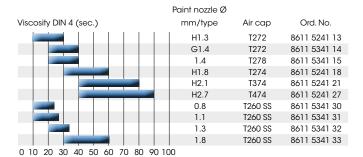
ECCO 41FA



The ECCO 41FA is an automatic spray gun without internal needle or diaphragm, particularly suitable for spraying abrasive materials such as glaze, enamel etc. We recommend Ecco FlowCol external valves in order to control function and material flow.

- Very compact, small and light weight gun
- High performance with ECCO nozzles and aircaps
- Easy maintenance
- Low investment cost
- Low maintenance cost due to long lifetime
- All material- and air connectors are included.
- Wide variety of nozzle/aircap combinations, incl. tungsten carbide nozzles.
- Several connection possibilities for robots and reciprocators.

	TECHNICAL DATA ECCO 41FA
Paint nozzle diam.	0.3 - 2.7 mm
Paint connection	G 1/4
Air connection	G 1/8
Air consumption	250 - 700 I/min
Weight	310 g



ECCO 81V



Ecco 81V is an automatic spray gun, especially designed for spraying objects inside confined areas. Both control valve for opening/closing, and all connectors, are placed externally - only the air cap is placed inside the spray booth. Ecco 81V has very few moving parts and fluid circulation through the valve and gun body. A sealing ring behind the air cap will prevent any leakage of spray mist or liquid. This gun has separate connectors for atomizing air and shaping air. External air regulators control the spray pattern and separate valves control opening and closing of the fluid. E81V is easy to replace and repair.

	TECHNICAL DATA ECCO 81V
Paint nozzle diam.	0.3 - 2.7 mm
Paint connection	G 1/8
Air connection	G 1/4
Air consumption	215-585 I/min
Weight	825 g

	Ord. No.
Spray gun Ecco 81V (with air cap T260 and fluid nozzle B0,8*)	8611 8500 08
* other air cap/fluid nozzle combinations available on request	

BEHIND THE ECCO NOZZLE TECHNOLOGY

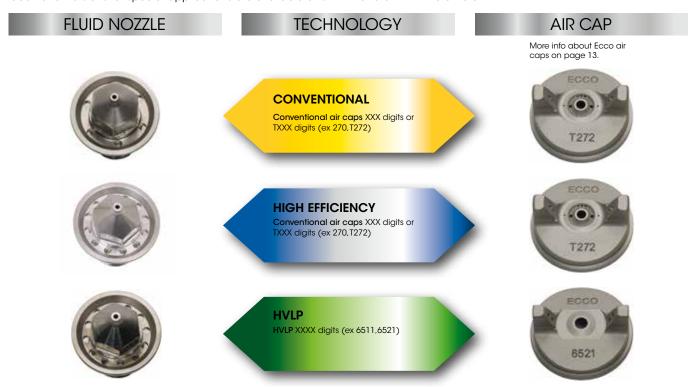
FLUID NOZZLES FOR LOW PRESSURE SPRAY GUNS

Ecco offers a wide range of fluid nozzles and air caps which are compatible with all Ecco spray guns, both manual and automatic. Those nozzles are available in stainless steel, tungsten carbide and even plastic.

Three main types of nozzles are available:

- Conventional
- High Efficiency « F » type
- HVLP « G » type

The different fluid nozzles allow to use the spray guns in Conventional, Ecco High Efficiency or HVLP mode. G nozzles present a narrower exterior diameter at tip for more atomizing air volume. The fluid nozzle diameter varies from 0.3mm up to 2.7mm. Two specific additional versions for special applications are available at 3.7mm and 6.7mm in diameter.



FLUID NEEDLES

Fluid needles are specific for most Ecco guns, only Ecco 51AS, 52AS and 72AS use the same needle design. There are two different needle types for each gun, so you use the same needle from 0.3 up to 1.1mm nozzles, and another for nozzles from 1.2mm up to 2.7mm. This allows very quick gun configuration change since the gun must not open for needle change. All needles are available in stainless steel (SS) and tungsten carbide (TC). Plastic needle (P) is available for manual spray guns.

ECCO AIR TWISTER

The "Ecco swirl nozzle", in combination with Ecco air cap, will make the air flow spinning outside the nozzle. This has proven to significantly improve the atomization making it possible to spray the materials at even lower pressure, and reducing both overspray and material consumption. The spinning air is forming a curtain, maintaining the paint particles closer to the object and helping to paint without masking, especially when spraying high viscosity materials.



Twister insert for flat spray air cap

6101 3298 52

AIR CAP SELECTION GUIDE

AIR CAP SELECTION GUIDE

Pattern width measured at 20cm, 3 bar air cap pressure for conventional, optimal nozzle. 2 bar for EHE, 0,7 bar for HVLP.

Air consumption at 3 bar air cap pressure for conventional, 2 bar for EHE, 0.7 bar for HVLP.

Recommended air cap pressures: Conventional: 2.5 - 4 bar / Ecco High Efficiency: 1 - 2.5 bar / HVLP: 0.4 - 1 bar

"Fix 4" means air cap has 2 set positions: Horizontal and Vertical (can only be tilted 90°). "Fix 2" means air cap can only be set in vertical position (tilted 180°).

This table shows the main air cap range. Other specific versions are available. Various air cap rings also available to suit all requirements.

CONVENTIONAL	Nozle range compability (mm)	Pattern width (mm)	Air comnsumpt. (I/min) -50-100 in EHE	Inner diameter ØA [mm]	Note	Automotive	General ind. (Heavy Industry)	General Industry (Precision ind.)	Ceramic	Leather	Wood
T260	0.6 - 1.8	300	430	3,2	Hornless	*	****	*	****	****	****
T272	0.5 - 1.8	320	480	3,1		* *	****	***	***	****	****
T278	0.5 - 1.8	325	480	3,1		****	****	***	***	***	* * *
T274	0.5 - 1.8	300	480	3,3		***	***	*	****	***	* * *
T297	0.3 - 1.8	330	440	3,2	Finest atomization, metallic colors	****	* *	****	*	*	*
T374	1.4 - 2.7	290	500	3,7			**		****		
T378	1.4 - 2.7	340	500	3,5			****		****		
T474	1.8 - 2.7	300	510	4,2			***		****		
T576	3.7	300	540	5,2	Glue applications						
T676	6.5	300	580	8,0	Glue applications						
HVLP											
6509	0.3 - 0.9	220	270	3,2				****		****	
6511	0.9 - 1.1	220	270	3,5			* * *	****		****	
6514	1.2 - 1.4	220	270	3,7		****	****	****		****	
6518	1.5 - 1.8	220	270	3,9			****	****			
6521	2.1	220	270	4,2			****				
6527	2.7	220	270	4,6			****				
3503	1.1 - 1.6	250	270	3,0		****					
GRAVITY OR SU	CTION										
170	0.8	180	220	2,8		****	* *	* * *			
270	0.8 - 1.8	240	260	3,1		****	* * *	**			
271	0.8 - 1.8	270	380	3,2			****	**		***	****
273	0.8 - 1.8	240	370	3,3			****				****
275	1.8	230	380	3,2			****		****		
375	2.1	240	390	3,6			* * *		****		
475	2.7	240	390	4,0			* * *		****		
3503	1.1 - 1.4	250	270	3,0	HVLP type	****	* *	****		***	
ROUND SPRAY											
M070G	G0.6-G1.1	150	110	2,2				****			
M170G	0.3 - 1.1	150	125	2,7	All aircaps		**	****			
M270G	M1.5	150	155	3,4	require lock ring		* * *	* * *			
M370G	M2.1	150	265	4,0	6101 3298 00		****				
M470G	M2.7	150	305	4,5	for pattern adjustment		****				
M570G	M3.7	150	500	8,1			****				



Conventional air cap for pressure feed



Air cap for round spra



Conventional air cap in brass for gravity or suction feed



HVLP air cap



Plastic air cap for Ecco 68ASP



Pressure feed air cap without horns for easy cleaning

ECCO NOZZLE EXTENSIONS - FOR INTERNAL COATING

Ecco nozzle extensions makes it possible to achieve the same finishing result for internal coating as for external coating. We have developed this new complete extension program to meet the most common but demanding requirements from the market. The extensions fit directly on the latest Ecco spray gun models, both om Ecco 75AP, Ecco 68AS and Ecco 51AS. The most perfect fit is when the sprayed object is installed on a spinning jig. For all Ecco extensions, the needle closes at the tip to get a sharp and precise open/close response. Choose the correct extensions nozzle depending on the shapesize and depth of the object to spray and on the fluid viscosity.













	Lenght (mm)	Nozzle diameter (mm)	Ext. diameter (mm)	For viscosity
Ecco LP Ext. Straight (0°) XS	280	Ø 0,3 / Ø 0,5 / Ø 1,4	Ø 8	Low
Ecco LP Ext. 90° XS	290	Ø 0,3 / Ø 0,5 / Ø 1,4	Ø 8	Low
Ecco LP Ext. 360° XS	300	N/A	Ø 8	Low
Ecco LP Ext. Straight (0°) XL	280	Ø 1,2	Ø 15	Medium
Ecco LP Ext. 360° XL	300	N/A	Ø 15	Medium

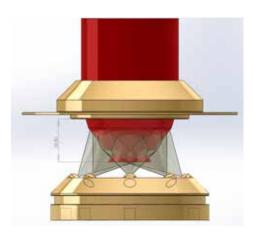
ECCO CAP CLEANER AND BELL CLEANER

The ECCO cap cleaner is the perfect choice to be used with the automatic spray guns ECCO 70AS and ECCO 75AP. With this device you are securing production quality by knowing that the air cap is always clean. The 4+4 nozzles inside the cap cleaner will clean and dry the air caps in just a few seconds. Solvent and dumped paint material can also easily be collected which will reduce waste handling in the booth. The ECCO cap cleaner is especially gentle on the air cap since no brushes are used. Can be adapted to other gun models, contact Ecco for information. Various models of high speed Bell cleaners are available. Ecco will customize the bell cleaner according to your specification.

	Ord. No.
ECCO cap cleaner - for one automatic spray gun	6004 0101 00
ECCO cap cleaner twin - for 2 automatic spray guns	6004 0101 40
ECCO cap cleaner triple - for 3 automatic spray gun	6004 0101 50
NEW! Ecco Bell cleaner (90mm opening for bell)	6004 0101 54

TECHNICAL DATA	- ECCO BELL CLEANER
Weight	21 kg
Depth/width/height	356mm / 307mm/402mm
Horizontal tolerance for gun position	+/- 1.5mm
Air consumption	15 dm3/sec at 6 bar fully opened valves
Solvent pressure	15 bar
Pneumatic pressure	6-10 bar
Control air pressure	6 bar
Standard spraying time/drying time	5 sec. / 5 sec.
Permitted solvents	All normal solvents unsed with painting





LOW PRESSURE MANUAL SPRAY GUNS

To give the best finishing technology we offer three different application methods as our robust and high performance spray guns comes in three different versions:

- Pressure feed
- · Suction feed
- · Gravity feed

All guns can be equipped with Conventional, HVLP and Ecco High Efficient technology. Stainless steel tips and needles for use with water based materials are standard on all guns, but plastic and tungsten carbide needles are also available.

VERSATILE GUN FOR DIFFERENT APPLICATIONS

The manual low pressure spray guns can be adapted according to different customer's needs by various combinations of components. Fan width control can in addition to adjustable control be lockable, preset, quick- or max/min-adjustable. The gun can be used with or without control on the needle, with different sizes of connection nipples, and with different types and materials for the fluid needle, ie tungsten carbide, plastic or stainless steel.

BUILD IN FILTER FOR OPTIMUM QUALITY

The manual low pressure spray guns Ecco 40S/65S can be equipped with a replaceable strainer inside the fluid nozzle which is filtering the paint just before leaving the gun. The strainer will reduce the risk that any contamination caused by the fluid pipes or hoses reaches the surface. The main advantage is that the strainer will homogenize the paint, especially when metallic base coat is applied.

SAME NOZZLES FOR MANUAL AND AUTOMATIC GUNS

For the Ecco manual spray guns we are using the same nozzles and air caps as for the automatic spray guns. This provides best reproductivity of effects for lines using both technologies, and offers the same benefits for durability, material saving and life time as for the automatic guns. In addition it will reduce the stock of spare fluid nozzles and air caps.



ECCO 35/351/352 - CONVENTIONAL

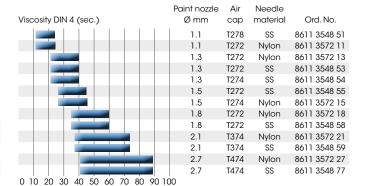
-THE LIGHT GUN FOR EVERYDAY USE

PRESSURE FEED - ECCO 35



Pressure feed spray gun with gun body in anodized aluminium. Paint supplied from pressure pots, pumps or circulation

For technical	data, see	page	18.
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	Ord. No.
Service set for ECCO 35 (gaskets, seals, other wear parts)	6003 9095 35
Quick fan width control for right handed	6004 0276 81
Fan width control for left handed	6004 0276 80

SUCTION FEED - ECCO 351



Suction feed spray gun with 1,0 lit suction cup and gun body in anodized

Viscosity DIN 4 (sec.)	Paint nozzle Ø mm	Air cap	Ord. No.
<u></u>	1.2	170	8611 3541 12
	1.5	273	8611 3541 15
	1.8	275	8611 3541 17
	1.8	271	8611 3541 18
	2.1	375	8611 3541 21
	2.7	475	8611 3541 27
0 10 20 30 40 50 60 70 80 90 10	00		

	Ord. No.
Service set for ECCO 351 (gaskets, seals, other wear parts)	6003 9095 35
SD10 suction cup in aluminium 1.0 lit (Ø=120mm/h=200mm)	6803 4867 00
SD15 suction cup in aluminium 1.0 lit (Ø=117mm/h=207mm)	6003 9714 00
Drop-free diaphragm for SD 15 (set of 5 pcs)	6003 9684 00
Quick fan width control for right handed	6004 0276 81
Fan width control for left handed	6004 0276 80

GRAVITY FEED - ECCO 352



Gravity feed conventional spray gun with 0,6 lit paint cup

				0.11	
				Ord. No.	
Service set for ECCO 352 (gaskets, se	Service set for ECCO 352 (gaskets, seals, other wear parts)				
Plastic gravity cup G6, 0.6 lit			6	101 5560 86	
Adapter for 3M cup			6004 0065 35		
Quick fan width control for right hand	led		6	004 0276 81	
Fan width control for left handed			6	004 0276 80	
Viscosity DIN 4 (sec.)	Paint nozzle Ø mm	Air cap	Needle material	Ord. No.	
	1.2	170	Nylon	8611 3573 12	
	1.2	170	SS	8611 3546 12	
	1.3	273	Nylon	8611 3573 13	
	1.3	273	SS	8611 3544 53	
	1.3	3503	SS	8611 3560 13	
	1.5	275	Nylon	8611 3573 15	
	1.5	270	SS	8611 3546 15	
	1.8	270	SS	8611 3546 18	
	1.8	271	Nylon	8611 3544 48	
	1.8	275	Nylon	8611 3573 18	
	1.8	275	SS	8611 3544 55	
	2.1	375	Nylon	8611 3573 21	
	2.1	375	SS	8611 3546 21	
	2.7	475	Nylon	8611 3573 27	
0 10 20 30 40 50 60 70 80 90 1	2.7	475	SS	8611 3546 27	
0 10 20 00 40 00 00 70 100					

ECCO 35/351/352 HVLP

-THE LIGHT GUN FOR EVERYDAY USE

PRESSURE FEED - ECCO 35 HVLP



Paint nozzles

Air connection

Pressure feed HVLP spray gun with gun body in anodized aluminium. Paint supplied from pressure pots, pumps or circulation systems.

Viscosity DIN 4 (sec.)	(
0 10 20 30 40 50 60 70 80 90 10	00

Paint			
nozzle		Needle	
Ø mm	Air cap	material	Ord. No.
G0.9	6509	Nylon	8611 3540 09
G0.9	6509	SS	8611 3548 09
G1.1	6511	Nylon	8611 3540 11
G 1.1	6511	SS	8611 3548 11
G1.4	6514	Nylon	8611 3540 14
G1.4	6514	SS	8611 3548 14
G1.8	6518	Nylon	8611 3540 18
G1.8	6518	SS	8611 3548 18
G2.1	6521	Nylon	8611 3540 21
G2.1	6521	SS	8611 3548 21
G2.7	6527	Nylon	8611 3540 27
G2.7	6527	SS	8611 3548 27

	Ord. No.
Service set for ECCO 35 (gaskets, seals, other wear parts)	6003 9095 35
Quick fan width control for right handed	6004 0276 81
Fan width control for left handed	6004 0276 80

0.2 - 2.7 mm Paint connection G 3/8 G 1/4 rec. 3 bar

TECHNICAL DATA - ECCO 35/351/352 (HVLP)

Air pressure Air consumption 250 - 700 I/min Weight E35/ E351 / E352 530 g / 860g / 600g

SUCTION FEED - ECCO 351HVLP



Suction feed HVLP spray gun with 1,0 lit suction cup and gun body in anodized aluminium.

	Paint nozzle		
Viscosity DIN 4 (sec.)	Ø mm	Air cap	Ord. No.
	G1.2	6511	8611 3510 12
	G1.5	6514	8611 3510 15
	G1.8	6518	8611 3510 18
	G2.1	6521	8611 3510 21
	G2.7	6527	8611 3510 27
0 10 20 30 40 50 60 70 80 90 1	00		

	Ord. No.
Service set for ECCO 351 (gaskets, seals, other wear parts)	6003 9095 35
SD10 suction cup in aluminium 1.0 lit ("Ø=120mm/h=200mm)	6803 4867 00
SD15 suction cup in aluminium 1.0 lit ("Ø=117mm/h=207mm)	6003 9714 00
Drop-free diaphragm for SD 15 (set of 5 pcs)	6003 9684 00
Quick fan width control for right handed	6004 0276 81
Fan width control for left handed	6004 0276 80

GRAVITY FEED - ECCO 352 HVLP



Gravity feed HVLP spray gun with 0,6 lit paint cup.

Viscosity DIN 4 (sec.)	Paint nozzle Ø mm	Air cap	Needle material	Ord. No.
	G0.9	6509	Nylon	8611 3542 09
	G1.1	6511	Nylon	8611 3542 11
	G1.1	6511	SS	8611 3544 11
	G1.4	6514	Nylon	8611 3542 14
	G1.4	6514	SS	8611 3544 14
	G1.6	6514	Nylon	8611 3542 16
	G1.8	6518	Nylon	8611 3542 18
	G1.8	6518	SS	8611 3544 18
	G2.1	6521	Nylon	8611 3542 21
	G2.1	6521	SS	8611 3544 21
	G2.7	6527	Nylon	8611 3542 27
	G2.7	6527	SS	8611 3544 27
0 10 20 30 40 50 60 70 80 90 10	00			

	Ord. No.
Service set for ECCO 352 (gaskets, seals, other wear parts)	6003 9095 35
Plastic gravity cup G6, 0.6 lit	6101 5560 86
Adapter for 3M cup	6004 0065 35
Quick fan width control for right handed	6004 0276 81
Fan width control for left handed	6004 0276 80

ECCO 40S/401S/402S CONVENTIONAL

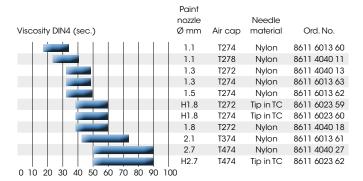
- THE HEAVY DUTY GUN FOR TOUGH CONDITIONS

PRESSURE FEED - ECCO 40S



Pressure feed spray gun with paint channels in stainless steel. Fluid supplied from pressure pots, pumps or circulation systems.

TECHNICA	L DATA - ECCO 40S / 401S / 402S
Paint nozzles	0.3 - 6.5 mm
Paint connection	G 3/8
Air connection	G 1/4
Air pressure	max. 7 bar
Air consumption	250 - 700 I/min
Weight E40S/ 401S / 402S	568 g / 949g / 654g



	Ord. No.
Service set for ECCO 40S (gaskets, seals, wear parts)	6003 9095 00
Quick fan width control for right handed	6003 9602 00
Fan width control for left handed	6101 9230 00

SUCTION FEED - ECCO 401S



Suction feed spray gun ECCO 4018 with 1.0 lift suction cup,

Paint channels in stainless steel for water and solvent based paint types.

	FUILII HOZZI C		Needie	
Viscosity DIN4 (sec.)	Ø mm	Air cap	material	Ord. No.
	1.2	170	Nylon	8611 4010 12
	1,3	273	Nylon	8611 4010 13
	1.5	273	Nylon	8611 4010 15
	1.8	271	Nylon	8611 4010 18
	2,1	375	Nylon	8611 4010 21
	2,7	475	Nylon	8611 4010 27
0 10 20 30 40 50 60 70 80 90 10	00			

	Ord. No.
Service set for ECCO 401S (gaskets, seals, wear parts)	6003 9095 00
SD 10 suction cup in aluminium 1.0 lit (Ø=120mm / h=200mm)	6803 4867 00
SD 15 suction cup in aluminium 1.0 lit (Ø=117mm / h=207mm)	6003 9714 00
Drop-free diaphragm for SD 15 (set of 5 pcs)	6003 9684 00
Quick fan width control for right handed	6003 9602 00
Fan width control for left handed	6101 9230 00

GRAVITY FEED - ECCO 402S



Gravity feed spray gun with 0.5 lit cup with drip guard. Paint channels in stainless steel for water- or solvent based materials. Paint needle in nylon.

	Paint nozzle		Needle	
Viscosity DIN4 (sec.)	Ø mm	Air cap	material	Ord. No.
	1.1	271	Nylon	8611 4020 11
	1.2	170	Nylon	8611 4020 12
	1.3	273	Nylon	8611 4020 13
	1.5	271	Nylon	8611 4020 14
	1.5	273	Nylon	8611 4020 15
	1.8	271	Nylon	8611 4020 18
	1.8	275	Nylon	8611 4020 38
	2.1	375	Nylon	8611 4020 21
	2.7	475	Nylon	8611 4020 27
0 10 20 30 40 50 60 70 80 90 1	00			

	Ord. No.
Service set for ECCO 402S (gaskets, seals, other wear parts)	6003 9095 00
Plastic gravity cup G5 (0.5 lit.)	6101 5560 00
Paint filter 100 mesh - only for gravity cup G5	6003 9752 05
Plastic gravity cup G1.25 (0,125 lit.)	6101 5560 95
Adapter for 3M Cup on Ecco 402S/652S	6004 0065 00
Quick fan width control for right handed	6003 9602 00
Fan width control for left handed	6101 9230 00

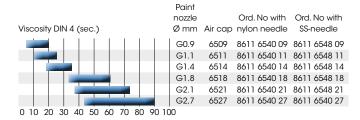
ECCO 65S/651S/652S HVLP

-THE HEAVY DUTY GUN FOR TOUGH CONDITIONS

PRESSURE FEED - ECCO 65S



Pressure feed HVLP-spray gun with paint channels in stainless steel for waterand solvent based paint types. Fluid supplied from pressure pots, pumps or circulation system.



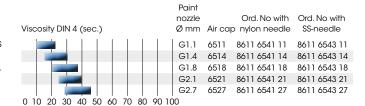
TECHNI	CAL DATA - ECCO 65S / 651S / 652S
Paint nozzles	0.6 - 2.7 mm
Paint connection	G 3/8
Air connection	G 1/4
Air pressure	rec. 3 bar
Air consumption	approx. 260 I/min
Weight E65S/651S/652S	565 g / 947g / 653g

	Ord. No.
Service set for 65S, 651S, 652S (gaskets, seals, other wear parts)	6003 9095 00
Quick fan width control for right handed	6003 9602 00
Fan width control for left handed	6101 9230 00

SUCTION FEED - ECCO 651S



Suction feed HVLP-spray gun ECCO 651S with 1.0 lit. suction cup Fluid channels in stainless steel for water based paint types.

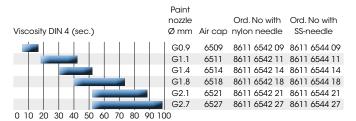


	Ord. No.
Service set for ECCO 651S (gaskets, seals, other wear parts)	6003 9095 00
SD 10 suction cup in aluminium 1.0 lit (*Ø=120mm /h=200mm)	6803 4867 00
SD 15 suction cup in aluminium 1.0 lit (*Ø=117mm /h=207mm)	6003 9714 00
Drop-free diaphragm for SD 15 (set of 5 pcs)	6003 9684 00
Quick fan width control for right handed	6003 9602 00
Fan width control for left handed	6101 9230 00

GRAVITY FEED - ECCO 652S



Gravity feed HVLP-spray gun with 0.5 lit cup with drip guard. Fluid channels in stainless steel for water- and solvent based paint types.



	Ord. No.
Service set for ECCO 652S (gaskets, seals, other wear parts)	6003 9095 00
Plastic gravity cup G5, (0.5 lit.)	6101 5560 00
Paint filter 100 mesh - only for gravity cup G5	6003 9752 05
Plastic gravity cup G1.25 (0,125 lit.)	6101 5560 95
Adapter for 3M Cup on Ecco 402S/652S	6004 0065 00
Quick fan width control for right handed	6003 9602 00
Fan width control for left handed	6101 9230 00

ECCO FLUID DISPENSER



ECCO MD 10 is an efficient dispensing solution to be used for extruding of material in low pressure supply system. The mechanical part are all of Ecco standard design, while the nozzle and needle are redesigned to optimize application of high viscosity materials, i.e. glue. The 150mm versions have a unique needle tip design to minimize the risk for threads. Additional nozzle diameters and connection lengths are available on request.

	Paint nozzle	
Туре	Ømm	Ord. No.
ECCO MD10 Micro Dispenser, L=50mm	0,3 mm	8611 1003 05
ECCO MD10 Micro Dispenser, L=50mm	0,4 mm	8611 1004 05
ECCO MD10 Micro Dispenser, L=50mm	0,5 mm	8611 1005 05
ECCO MD10 Micro Dispenser, L=50mm	0,6 mm	8611 1006 05
ECCO MD10 Micro Dispenser, L=50mm	0,8 mm	8611 1008 05
ECCO MD10 Micro Dispenser, L=150mm	0,8 mm	8611 1008 15

ACCESSORIES

FOR MANUAL LOW PRESSURE SPRAY GUNS

STRAINER INSERT

Strainer made of nylon. Fits behind the paint nozzle.
For manual ECCO 40S, ECCO 65S models and for ECCO 70AS .



Mesh mesh		Colour	Qty per set	Ord. No.
60	250	White	10	6103 3200 00
100	150	Yellow	10	6103 3201 00
200	70	Black	10	6103 3202 00

VISCOSITY CUP DIN 4

Cup made of plastic or aluminum for measuring the viscosity.



	Ord. No.
Plastic viscosity cup DIN4	6803 3567 00
Aluminium viscosity cup DIN4	6003 7582 00

MANOMETER FOR LOW PRESSURE



Manometer for low pressure paint system, with connector on the back or below. Housing diameter 50mm, connection 1/4°, window in glass material.

Туре	Ord. No.
Manometer 0-10 bar, connection on the back side G $1/4$ $^{\circ}$	6804 0192 15
Manometer 0-10 bar, connection on the bottom G 1/4"	6804 0192 16
Pressure gauge pipe in stainless steele (protection to paint)	6001 6023 91

WET FILM GAUGE

Measuring range: 25 - 300 μm in steps of 25 μm 350 - 750 μm in steps of 50 μm





Туре	Ord. No.
Wet film gauge	6802 3558 00

CLEANING BRUSH

For cleaning nozzles and the paint channels in the spray guns.



Diameter, mm	Ord. No.
10	6000 8004 00
17	6000 8001 00

LOW PRESSURE HOSES AND CONNECTORS

ECCO ERGOTUBE - THE MOST ERGONOMIC WAY OF SUPPLYING PAINT

ECCO Ergotube is a unique system to supply both air and paint to the spray gun through a special hose, where the paint hose is placed inside the air hose. The ECCO Ergotube solution reduces the total weight and twist torque, making the handling of the gun much easier for the painter. It can be used for most types of paint (primer, base-, top- and clear coat). The paint hose in teflon (FEP as standard for \emptyset 4/6mm) makes flushing easier and reduces the use of solvent. The special finish on the outer surface of the air hose prevents paint from adhering to it, making cleaning easier.



Length	Rec fluid viscosity, sec. DIN 4	Dimension air hose/paint hose	Ord. No.
2 m	0-30	Ø 10 mm (3/8") / Ø 6/4 mm	6003 9796 02
2 m	0-50	Ø 10 mm (3/8") / Ø 8/6 mm	6003 9798 02
3 m	0-30	Ø 10 mm (3/8") / Ø 6/4 mm	6003 9796 03
4 m	0-45	Ø 10 mm (3/8") / Ø 8/6 mm	6003 9798 04
5 m	0-30	Ø 10 mm (3/8") / Ø 6/4 mm	6003 9796 05
6 m	0-27	Ø 10 mm (3/8") / Ø 6/4 mm	6003 9796 06
6 m	0-40	Ø 10 mm (3/8") / Ø 8/6 mm	6003 9798 06
7 m	0-25	Ø 10 mm (3/8") / Ø 6/4 mm	6003 9796 07
8 m	0-30	Ø 10 mm (3/8") / Ø 8/6 mm	6003 9798 08
10 m	0-25	Ø 10 mm (3/8") / Ø 8/6 mm	6003 9798 10

Other sizes available on request.

Spare parts for Ecco Ergotube (hoses per meter)	Ord. No.
Paint connection SS nipple for Ecco Ergotube \emptyset 4/6 mm	6101 5021 91
Paint connection SS nipple for Ecco Ergotube Ø 6/8 mm	6101 5021 92
Paint hose for Ecco Ergotube Ø 4/6 mm	6003 9786 00
Paint hose for Ecco Ergotube Ø 6/8 mm	6003 9788 00
Conductive air hose for Ergotube Ø 4/6 mm and 6/8 mmm	6003 9790 51
Hose clamp for Ecco Ergotube Ø 4/6mm and 6/8 mm	0347 0107 00
Service set for Ecco Ergotube Ø 4/6 mm and 6/8 mm	6003 9769 00

THROTTLE VALVE

To be mounted on the air inlet of the gun. Connection threads: G 1/4 female



Ord. No. For ECCO spray guns 40\$, 401\$, 402\$, 65\$, 651\$, 652\$, 35, 351, 352 6003 8002 00

AIR HOSE / COUPLING

Despite its strength it is flexible enough to accompany the gun movements.

Per metre or in standard 8 m lengths incl. couplings G 1/4 female with cap



	de Ø 'inch	Ord. No. per metre	Ord. No. coupling G 1/4	Ord. No. compl. 8 m
6.3	1/4	6803 6686 00	6001 1235 00	
8.0*	5/16	6003 7346 00	6003 7338 00	6003 7363 08
9.5	3/8	6803 6687 00	6001 1239 00	6203 1460 08
* Recommende	d.			

PAINT HOSE/COUPLING

ECCOflex is resistant to paints solvents, weak acids or water at temperatures of up to +100°C. Outer sheating of reinforced polyester and the inner hose of nylon. Per metre or L= 8 m, incl. coupling G 3/8 female with retaining nut.



	Inside Ø mm/inch	Ord. No. per metre	Ord. No. coupling G 3/8	Ord. No. compl. 8 m
6.3	1/4	6803 6684 00	6003 5629 00	6003 7366 08
9.5	3/8	6803 6685 00	6001 1241 00	6003 7369 08

^{*} Recommended.

Other hoses and connectors are available, please ask your local Ecco dealer.

BALL VALVES



Connection thread	Hole Ø mm	Max. working pressure, bar	Ord. No.
G 1/4 male	6	40	6803 0300 00
G 3/8 male	9	40	6803 0301 00
G 1/4 female	7	40	6003 7774 00

CONNECTING NIPPLE

Jointing nipples with cone for hose coupling.







Thread male	Hole Ø mm	Material	Ord. No.
G 1/4 - G 1/2	7	Stainless Steel	6002 0236 46
G 3/8 - G 1/4	7	Stainless Steel	6002 0238 46
M 14x1 - G 1/4	8	Stainless Steel	6102 9314 46

LOW PRESSURE DIAPHRAGM PUMPS

COMPACT PUMPS FOR MATERIAL CIRCULATION AND SUPPLY

ECCO FLOW SS10 / AL10

Diaphragm pump SS10 (in stainless steel) and AL10 (in Aluminium) are perfect for those who don't need the highest capacity pumps, and are looking for a price efficient solution. This reliable pump with a flow rate of 17 litre per minute can still feed several guns in a circulating system. The SS10-pump is perfect for



water based paint, has efficient design for easy maintenance and low price. AL10 is the lighter aluminium version for solvent based paint and an even better price.

	Ord. No.
TRANSFER PUMP ECCO FLOW SS10	8621 0341 01
TRANSFER PUMP ECCO FLOW AL10	8621 0341 02
SERVICE SET FOR AIR UNIT - ECCO FLOW SS 10 / AL10	6004 0275 92
SERVICE SET FOR FLUID UNIT - ECCO FLOW SS 10/ AL10	6004 0275 93
SERVICE SET - DIAPHRAGM KIT (SET OF 6 PCS)	6004 0275 94

ECCO FLOW AL15 / SS15

Ecco Flow AL 15 and SS15 are metallic diaphragm pumps with very high performance, flow capacity, proven reliability and durability. The pump hous-



ing is made in aluminium or stainless steel. All components in direct contact with the fluid, such as valves, diaphragms, covers and manifolds are manufactured in materials which are highly resistant to physical and chemical wear, thus allow you to handle most existing fluids.

	Ord. No.
TRANSFER PUMP ECCO FLOW AL15 - PUMP HOUSING IN ALUMINIUM	8621 0520 01
TRANSFER PUMP ECCO FLOW SS15 - PUMP HOUSING IN STAINLESS STEEL	8621 0510 01
COMPLETE PUMP PANEL - PUMP AL15, BRACKET, PRESSURE GAUGE, REGULATORS	8613 2311 65
SERVICE SET FOR FLUID PARTS - FOR ECCO FLOW AL 15	6804 0141 30
SERVICE SET FOR FLUID PARTS - FOR ECCO FLOW SS15	6804 0141 20
O-RING SET (4 PCS) - FOR ECCO FLOW AL 15 AND ECCO FLOW SS15	6804 0141 40
REVERSING VALVE SET FOR ECCO FLOW AL15 AND ECCO FLOW SS15	6804 0141 10

ECCO FLOW PN15 / - PT15 / -CT15

Ecco Flow PN15, PT15 and CT15 are lubrication free diaphragm pumps with non-freeze and non-stalling air system. The pumps have a modular design, is easy to maintain and has high air efficiency. The PN15 is a light polypropylene pump (only 4.1 kg) with PTFE diaphragms, suitable for fluids in temperaure range 0-66°C.

CT15 is a conductive plastic pump with diaphragms in PTFE, suitable for many pumpable fluids in temperature range 0-66°C.

	Ora. No.
TRANSFER PUMP ECCO FLOW PN15 (POLYPROPYLENE / NITRILE)	8621 0310 01
TRANSFER PUMP ECCO FLOW PT 15 (POLYPROPYLENE/ TEFLON)	8621 0310 03
TRANSFER PUMP ECCO FLOW CT 15 (CONDUCTIVE NYLON / TEFLON)	8621 0312 09
SERVICE SET FOR ECCO FLOW PN 15	6003 9580 50
SERVICE SET FOR ECCO FLOW PT 15	6003 9581 50

					1		
	EF-SS10	EF-AL10	EF-AL15	EF-SS15	EF-CT15	EF-PN15	EF-PT15
(Pump type EF=Ecco Flow)	8621 0341 01	8621 0341 02	8621 0520 01	8621 0510 01	8621 0312 09	8621 0310 01	8621 0310 03
Pressure Ratio	1:1	1:1	1:1	1:1	1:1	1:1	1:1
Capacity I/min*	0-17	0-17	0-52	0-52	0-64	0-64	0-64
Inlet Air Pressure bar min - max	1-6	1-6	1-8	1-8	1,3 - 8,2	1,3 - 8,2	1,3 - 8,2
Air consumption at 8 bar, I/min	0-approx.100	0-approx.100	0-approx.375	0-approx.375	0-approx.565	0-approx.565	0-approx.565
Self-Priming	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Dry lift capacity at 6.8 bar	2,6	2,6	4,9	4,9	3,2	4,5	4,5
Air inlet	G 1/4 int.	G 1/4 int.	G 1/4 ext.	G 1/4 ext.	G 1/4 ext.	G 1/4 ext.	G 1/4 ext.
Liquid inlet	G 3/4 int.	G 3/4 int.	G 1/2" int.	G 1/2" int.	G 1/2" int.	G 1/2" int.	G 1/2" int.
Liquid outlet	G 3/8 int.	G 3/8 int.	G 1/2" int.	G 1/2" int.	G 1/2" int.	G 1/2" int.	G 1/2" int.
Weight, kg	8,0	6,0	3,8	6,1	5,4	4,1	4,1
Housing material	Stainless Steel	Aluminium	Aluminium	Stainless Steel	Conductive nylon	PP	PP
Diaphragm material, wet/dry site	PTFE	PTFE	PTFE	PTFE	PTFE/Santopren	PTFE/Geolast	PTFE/Geolast
Sealing rings	PTFE	PTFE	PTFE	PTFE	PTFE	Nitril	Nitril
Valve seat / ball	SS/Plastic	SS/Plastic	SS/SS	SS/SS	SS/PTFE	PP/Nitril	PP/PTFE
* at tests with water							

LOW PRESSURE TRANS FLOW PUMPS

- ROBUST PISTON PUMPS FOR FLUID SUPPLY & CIRCULATION

Ecco Transfer pumps include a wide range of capacities for all kinds of industrial needs. The pumps ensure feeding of several spray guns in a paint circulation system with a minimum of pulsation. And since the parts are made in stainless steel they are well suited for pumping water borne as well as solvent based fluids.

FEATURES FOR ECCO TRANSFER PUMPS:

- · Air motor with quick change over pneumatic mechanism, sensing valves, control block and slides,
- Fluid section in stainless steel: both the piston rod, the cylinder and the balls,
- Compact and easy assembly,
- · Little and easy maintenance,
- · Long lifetime piston seals, quick and easy to replace,
- · High output even at low frequency, causing small shear forces on the paint,
- Pneumatic change over mechanism ensures stable flow and non stalling
- · Low wear and low maintenance costs,
- · Small and easy to install in limited spaces,
- · Suitable for sensitive paint types.



ECCOTRANS FLOW PUMP RANGE

					Ord No Duran with	Ord. No.	Ord. No.
Hydr.part cc/cycle	Pressure ratio	Flow rate @10 cycles /min.	Pump name	Ord. No Pump w.wall bracket	Ord. No - Pump with wall bracket & control panel	Service set pump parts	Service set Air motor parts
400	3:1	4 lit	Trans Flow 33S	8621 0800 00	8621 0800 01	6004 0270 92	6004 0265 90
400	6:1	4 lit	Trans Flow 56S	8621 0801 00	8621 0801 01	6004 0270 92	6004 0272 90
400	12:1	4 lit	Trans Flow 612S	8621 0802 00	8621 0802 01	6004 0270 92	6004 0266 90
400	16:1	4 lit	Trans Flow 816S	8621 0803 00	8621 0803 01	6004 0270 92	6004 0273 90
900	3:1	9 lit	Trans Flow 53S	8621 0812 00	8621 0812 01	6004 0271 92	6004 0272 90
900	5:1	9 lit	Trans Flow 65S	8621 0813 00	8621 0813 01	6004 0271 92	6004 0266 90
900	7:1	9 lit	Trans Flow 87S	8621 0814 00	8621 0814 01	6004 0271 92	6004 0273 90

LOW PRESSURE PISTON PUMPS

- COMPACT PISTON PUMPS FOR FLUID TRANSFER

WIDE RANGE OF APPLICATIONS

ECCO Flow M2P are small, handy pumps designed for transferring fluids. The applications are for all fluids that needs to be transferred. Suitable for all industries.

SMALL SIZE AND HIGH VERSATILITY

A M2P pump has low weight and small dimensions which makes it easy to handle and easy to install. The wide range of accessories makes it easy to alternate between different jobs.

DESIGNED FOR SAFETY

ECCO Flow M2P can be driven against closed valve to a standstill without damage. This feature can also be utilized as a remote control as it makes the pump stop and start without manual attention when the valve is opened or closed.

EXTREME DURABILITY

The proven high durability of these pumps make them the best choice for minimal maintenance in continuous use.

	MATERIAL - ECCO M2P 18B/2	ОВ
	M2P 18B	M2P 20B
Piston rod	Hard-chromed plated stainless steel	Brass
Piston rod packing	Teflon	Teflon
Piston packing	Glas-fibre reinforced teflon	Glas-fibre reinforced teflon
Cylinder	Nitride hardened stainless steel	Brass
Pump hosing	Glass-fibre reinforced polyamide	Glas-fibre reinforced polyamide

TECHNICAL DATA				
Pressure ratio:		1:2		
Max fluid pressure:		3.7 bar		
Capacity	- water - 35 sec viscosity	40 I/min 25 I/min (Free outlet)		
Fluid intake:		G 1 int.		
Fluid outlet:		G 1/2 int.		
Max working pressure for air:		7.5 bar		
Air consumption at air pressur	re 6 bar	0 - approx. 200 I/min		
Air connection	- M2P 18B - M2P 20B	G 1/4 ext. Quick coupling/air hose 3/8" int.		
Sound level		60 dB(A)		

ECCO FLOW M2P 18B



ECCO Flow M2P 18B can handle all materials which can be pumped with M2P 20B and abrasive materials. Suitable for paints and solvents. To manage the strains the piston rod is manufactured from hard-chromed plated stainless steel and the cylinder from nitride hardened stainless steel. The pump is equipped with non-return valve.

Туре	Ord. No.
ECCO FLOW M2P 18B	8621 0111 57

ECCO FLOW M2P 20B



ECCO Flow M2P 20B is suitable for non-abrasive materials like alcohol, butanol, cleaning fluid and soap solution, petrol and diesel oil, ethanol, ether, glycerine, glycol, methanol, mineral-, synthetic and vegetable oil, paraffi and water. Pumping of food is not recommended. It is equipped with a valve for air and quick-coupling.

Туре	Ord. No.
ECCO FLOW M2P 20B	8621 0110 09

ECCO FLOW M2P TRANSFER PACK

Ecco Flow M2P Transfer Pack is a complete package consisting of pump M2P 18B or M2P 20B, a suction tube for a 200 litre standard barrel, air valve, 5m air hose, 3m outlet hose. Eathing device and throttle valve are accessories. Transfer Pack M2P 18B is mainly intended for pumping of abrasive materials, paints and solvents.

Туре	Ord. No.
ECCOTRANSFER PACK M2P 18B	8621 0110 54
ECCO TRANSFER PACK M2P 20B	8621 0110 58



PRESSURE FEED TANKS AND CUPS

CLOSED AND SAFE HANDLING

The ECCO pressure feed tanks are suitable for all sprayable material and provide safe storage. Having almost no wearing parts they are first choice for paints with abrasive pigments. To prevent the build up static charge all of the tanks have an grounding device.

COMPLETE, READY FOR START UP

The tanks are made of galvanized or stainless steel and as standard equipped with regulator, pressure gauge, safety relief valve, refilling port and ball valves for air and paint.

PNEUMATIC STIRRER

For continous stirring ECCO pressure feed tanks can be equipped with an oil free air motor.

TOP OR BOTTOM FEED

For more viscous materials ECCO pressure feed tanks with bottom outlet should be used.

PRESSURE FEED TANKS

TOP FEED TANKS IN GALVANIZED STEEL

- FOR LOW VISCOUS FLUIDS

	Volume	Air pressure	Height	Inner	Width	Weight	
Туре	litre	max., bar	mm	Ø mm	mm	kg	Ord. No.
P10R(S)-2.4	9	2.4	520	210	330	8	8622 0216 09
P12R-6	12	6	545	245	350	25	8622 0116 12
P12RA-6*	12	6	695	245	350	27	8622 0116 13
P24R-6*	24	6	945	245	350	32	8622 0116 24
P45R-4*	45	4	885	360	470	46	8622 0116 45
P45R-6*	45	6	885	360	470	46	8622 0116 46
P90R-6*	90	6	1165	360/440	470	63	8622 0116 90

^{*} With manual stirrer.

BOTTOM FEED TANKS IN GALVANIZED STEEL

- FOR HIGHLY VISCOUS FLUIDS

		Air					
	Volume	pressure	Height	Inner	Width	Weight	
Туре	litre	max., bar	mm	Ø mm	mm	kg	Ord. No.
P24RP-6	24	6	795	245	525	30	8622 0116 25
P45RP-4	45	4	735	360	645	44	8622 0116 47
P45RP-6	45	6	735	360	645	44	8622 0116 48

PRESSURE FEED TANKS IN STAINLESS STEEL

Туре	Stirrer	Vol. litre	Air pressure max., bar	incl.	Height excl. stirrer	Width mm	Weight kg	Ord. No.
PRC-20S-M	manual	20	6,2	840	765	430	29	8622 0217 20
PRC-20S-A	w. airmotor	20	6,2	880	765	430	31	8622 0217 21
PRC-40S-M	manual	40	6,0	880	785	500	36	8622 0217 40
PRC-40S-A	w. airmotor	40	6,0	900	785	500	38	8622 0217 41

PAINT CUP PRC MINI



Pressure cup for ECCO Manual Low Pressure spray guns.

	Ord. No.
PRC Mini, 2.0 lit.	8622 0200 00



FILTERS FOR PAINT SUPPLY

CASSETTE FILTER ECCO LPCF 60



Low pressure stainless steel cartridge filter.

Particularly suitable for light and compact
diaphragm pump spray packs thanks to
its pulsation damping effect. LPCF 60 is a
good choice for price efficient solutions.

	TECHNICAL DATA
Max operating pressure	120 bar
Filtration area	120 cm3
Inlet connection thread	G 3/8 int.
Outlet connection thread	G 3/8 int.
Weight	1.6 kg

	Ord. No.
ECCO LPCF 60	8613 2260 70
Filter insert 30 mesh / 595 µm	6803 5866 00
Filter insert 60 mesh / 250 µm	6803 5858 00
Filter insert 100 mesh / 149 µm	6803 5867 00
Filter insert 200 mesh / 74 μm	6803 5868 00

CARTRIDGE FILTER 1B1S

The cartridge filter is perfectly compatible with the Ecco Trans
Flow pumps. A high quality Stainless Steel filter housings with a
cartridge filter is perfect for medium size circulating system
such as automotive OEM, Tier 1 or consumer electronic
paint lines. A range or filters with suitable mesh size in
various materials are available on request.

	TECHNICAL DATA
Fluid inlet	G 3/4 int.
Fluid outlet	G 3/4 int.
Max operating pressure	10 bar
Max paint flow	1 m3 per hour
Internal volume	0.5 lit
Weight	3.8 kg
Filter size	10"
Total lenath	400 mm

	Ord. No.
ECCO 1B1S COMPL. FILTER SET INCL. 5 µm CARTRIDGE FILTER	8613 2261 05
ECCO 1B1S COMPL. FILTER SET INCL. 10 µm CARTRIDGE FILTER	8613 2261 10
EXTRA CARTRIDGE FILTER 5 µm - FOR 1B1S	6802 9774 05
EXTRA CARTRIDGE FILTER 10 µm - FOR 1B1S	6802 9774 10

CASSETTE FILTER ECCO HP60

Universal filter for paint lines or small circulating systems. Works as well for low and for high pressure.

Solid full stainless steel construction and efficient pulsation dampening effect. Available with a variety of filter cartridges. Provides a perfect pulsation free circulating when used in combination with Ecco Flow Col regulators.

	TECHNICAL DATA
Filter size	60 mesh / 250 μm
Max operating pressure	400 bar
Filtration area	120 cm3
Inlet connection thread	G 3/8 int.
Outlet connection thread	G 3/8 int.
Weight	1.7 kg

	Ord. No.
ECCO HP 60 (60 Mesh / 250 μm)	8613 2260 11
ECCO HP 60 (100 Mesh / 149 µm)	8613 2260 12
ECCO HP 60 (200 Mesh / 74 µm)	8613 2260 13
Filter insert 30 mesh / 595 µm	6803 5866 00
Filter insert 60 mesh / 250 µm	6803 5858 00
Filter insert 100 mesh / 149 µm	6803 5867 00
Filter insert 200 mesh / 74 µm	6803 5868 00

BAG FILTER BFS-101

Reliable, high quality stainless steel filter housing with filter bag system. The circulating filter BFS-101, delivered with a 100 micrometer NMO filter bag, is a perfect fit for a medium size circulating system. A range of filters with suitable mesh sizes is available.

TECHNICAL DATA			
Fluid inlet	G1 int.		
Fluid outlet	G1 int.		
Max operating pressure	16 bar		
Max paint flow	6 m3 per hour		
Internal volume	3.0 lit		
Weight	8 kg		
Filter area	0.09 m2		
Total length	345 mm		

	Ord. No.
COMPLETE BAG FILTER SET BFS-101 INCL. 100 µm BAG FILTER	8613 2260 30
EXTRA BAG FILTER 1 µm - FOR BFS-101	6802 9720 01
EXTRA BAG FILTER 5 µm - FOR BFS-101	6802 9720 05
EXTRA BAG FILTER 10 µm - FOR BFS-101	6802 9720 10
EXTRA BAG FILTER 25 µm - FOR BFS-101	6802 9720 25
EXTRA BAG FILTER 100 µm - FOR BFS-101	6802 9721 00

REGULATORS AND COLOUR CHANGERS

PAINT PRESSURE REGULATORS

Paint pressure regulator with pneumatic or spring controlled regulation of the paint pressure. This new generation of paint pressure regulators will give you high accuracy on the paint pressure and will reduce the pulsations in your system to a minimum. The compact interior design minimizes waste and makes cleaning and flushing easier. All parts in contact with paint are in stainless steel which makes it suitable for waterborne paint.



ECCO Flow Col 10A-SS (pneumatic controlled pressure)



ECCO Flow Col 10S-SS (Spring controlled pressure)



ECCO Flow Col 06 AP (Air controlled pressure)



ECCO Flow Col 06 SP SS (Spring controlled pressure)

	Ord. No.
ECCO Flow Col 06 AP (including manometer)	8623 0136 45
ECCO Flow Col 06 AP (without manometer)	8623 0136 46
ECCO Flow Col 06 SP (without manometer)	8623 0136 47
Ecco Flow Col 06 SP (including manometer)	8623 0136 50
Wall bracket for Ecco Flow Col 06	6004 0225 15
Ecco Flow Col 10A-SS	8623 0130 46
Ecco Flow Col 10S - SS	8623 0130 47
Ecco Flow Col 10BA - SS	8623 0132 47
Ecco Fow Col 15 BS-SS (without pressure gauge)	8623 0132 46
Ecco Flow Col 15 BS-SS (with pressure gauge)	8623 0132 45

TECHNICAL DATA				
	FlowCol06	FlowCol10A	FlowCol10S	FlowCol15
Max fluid inlet pressure	10 bar	15 bar	30 bar	20 bar
Max regulated outlet pressure	8 bar	10 bar	25 bar	20 bar
Min. regulated outlet pressure	0,5 bar	0,5 bar	0,5 bar	0,5 bar
Max paint flow	Depend on viscosity, system pressure, hose size etc.			

COLOUR CHANGING MODULES - ECCO CCM



Ecco CCM-4 (8611 4710 40)

ECCO LP CCM are pneumatically operated colour change systems, in a modular system to be built according to customer needs. Ecco LP CCM-EVO is the light weight version for easier installation on robot arms. All material in contact with liquid are produced in high grade stainless steel. Sealings and o-ring are from UHMW and Perfluor 128 to withstand all known paints and solvents. ECCO LP CCM can be equipped with a free number of colour changing valves (CCV) and the modules are pre-

	Ord.No. Ecco CCM (SS)	Ord.No. ECCO CCM-EVO
ECCO LP CCM - 4 valves, no circulation	8611 4710 40	8611 4810 40
ECCO LP CCM - 4 valves, with circulation	8611 4710 41	8611 4810 41
ECCO LP CCM - 5 valves, no circulation	8611 4710 50	8611 4810 50
ECCO LP CCM - 5 valves, with circulation	8611 4710 51	8611 4810 51
ECCO LP CCM - 6 valves, no circulation	8611 4710 60	8611 4810 60
ECCO LP CCM - 6 valves, with circulation	8611 4710 61	8611 4810 61

	Ord.No.
ECCO CCV - COLOUR CHANGING VALVE	6004 0250 00
SERVICE SET FOR VALVES BEFORE 2008	6004 0250 85
SERVICE SET FOR VALVED FROM 2008	6004 0250 86



Ecco CCM4-EVO (8611 4810 40)

pared for circulation. The use of specially designed fittings obtain a dead end free connection all the way from the plastic hose to the valve. This will give trouble free operation and optimum conditions for the circulated materials. Both the standard and Evo versions share the same high quality and long lasting color valves. They also share the same internal design, developed for best reliability and fastest and easiest cleaning capabilities. In the EVO-version a 60% weight saving has been reached thanks to the use of high grade light and solvent resistant materials.

TECHNICAL DATA ECCO CCM / ECCO CCM-EVO		
Max paint pressure	20 bar	
Recommended paint pressure	2-6 bar	
Max paint flow	Depends on viscosity, system pressure, etc.	
Recommended pilot air pressure	5-9 bar	
Max air pressure, for flushing/purging	20 bar	
Max solvent pressure, for flushing/purging	20 bar	
Max operating frequency	60 cycles/minute inter- mittent	

STIRRERS

Ecco stirrers are designed for use with the most advanced Atlas Copco air motors for maintenance free solutions, and the lowest air consumption available on the market. These will give you decades of trouble-free and low cost stirring.

PROPELLER STIRRERS FOR OPEN PAILS



Stirrers with edge bracket for open standard pails of 12, 20 or 200 litre. The Ecco ELM stirrers have a shaft and a propeller of stainless steel. The complete stirrer includes a lubrication-free air motor, silencer, speed control valve and a quick coupling for 3/8" air hose.

PROPELLER STIRRERS FOR PAIL COVERS



	Ord. No.
ECCO ELM 33F-GS12 for 12 litre pails	8610 0110 68
ECCO ELM 33F-GS1 for 20 litre pails	8610 0110 65
Ecco ELM 33F-GS2 for 200 litle pails	8610 0110 66
- Quick coupling for ELM 33FS	8610 0110 73

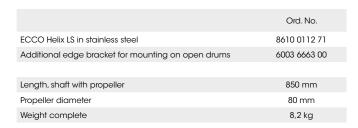
Ecco ELM type:	33F-G\$12	33FGS1	33F-GS2
Length of shaft incl. propeller	210 mm	320 mm	860 mm
Propeller diameter:	80 mm	w80mm	160 mm
Weight complete:	2.4 ka	2.4 kg	4.6 ka

	Ord. No.
ECCO ELM 33F-S	8610 0110 63
Length, shaft with propeller	335 mm
Propeller diameter	80 mm
Weight complete	1,8 kg

HELIX SCREW STIRRERS FOR DRUMS



This stirrer has a unique helix-shaped stirrer blade to screw down through the 2° hole of a 200 litre drum. The stirrer is then fastened by its threading. The ECCO Helix has shaft and propeller in stainless steel for abrasive fluids. It is highly effective and can also be used in other containers with the same depth. Both silencer, speed control valve and quick coupling is included. The stirrer can also be mounted on an open 200 litre container using the extra edge bracket.



STIRRER MOTOR FOR PRESSURE FEED TANKS



Lubrication-free motor with silencer, speed control valve, quick coupling for 3/8" air hose and mounting adapter for ECCO pressure feed tanks with a manual stirrer. Weight: 2,4 kg. For pressure feed tank B.D.M. there is an adapter as necessary.

	Ord. No.
ECCO ELM 33P STIRRER MOTOR	8610 0110 60
Adapter for pressure feed tank B.D.M.	6003 3902 80

ECCO PSU-20 PAINT SUPPLY UNIT

This is a plug-and-spray unit, ready to run in the line in no time. The paint supply unit PSU-20 has all its functions located in the panel. This gives a clear overview of settings in a minimum of time. All functions are located and prepared for production or cleaning/flushing settings. All parts have been designed to reduce trapped paint pigments internally, and to reduce paint volume. One pump for all needs in low pressure systems for paint feeding, local or central. Suitable for all type of primer, base-, clear coat and catalysts. The unit is user friendly, easy to install and service and the operator has all information clearly displayed.

	Ord. No.
Ecco PSU-20 for base/clear coat system (w. propeller stirrer)	6004 0163 70
Ecco PSU-20 for base/clear coat system (w. disc stirrer)	6004 0163 71
Ecco PSU for solvent system (w. disc stirrer)	6004 0163 80



LOW PRESSURE SPRAY PACKS

- WITH FLUID SUPPLY FROM PRESSURE TANK

Ecco Spray Packs consist of:

- · A Pressure feed tank made in aluminium or in steel with a stainless steel liner inside
- · Paint pressure regulator with gauge for precise settings of the paint pressure and pulsation damping
- · Safety release valve, re-filling port and ball valves for air and paint
- ECCO 35 spray gun including a paint nozzle and air cap that can handle the most common fluids
- All necessary valves, hoses and couplings
- · Grounding device

SPRAY PACK 313E



	Ord. No.
Spray Pack 313E - complete unit	8613 2311 50
Spray gun ECCO 35	8611 3548 14
Pressure Cup PRC mini 2,0 I	8622 0200 00
ECCO Ergotube 1,5m	6003 9900 61

SPRAY PACK 314B



	Ord. No.
Spray Pack 314B - complete unit	8613 2311 51
Spray gun ECCO 35	8611 3548 14
Pressure Tank P10R	8622 0216 09
ECCO Ergotube 5 m	6003 9796 05

LOW PRESSURE SPRAY PACKS

WITH FLUID SUPPLY FROM PISTON- OR DIAPHRAGM PUMP

ECCO Feed Spray Packs are using air powered piston or diaphragm pumps. This is a compact and light equipment, ready-to-use and easy to clean.

ECCO FEED SPRAY PACK WITH PUMP CONSISTS OF:

- Paint feeding pump with silencer and strainer
- · Paint pressure regulator with gauge for precise settings of the paint pressure and for pulsation damping
- · Reduction valve with gauge for precise settings of the air pressure
- · ECCO spray gun including a paint nozzle and air cap that can handle the most common fluids
- All necessary valves, hoses and couplings
- · Grounding device

SPRAY PACK SS10B



For all types of paint. Mounted on a bracket for wall mounting. Max. air pressure 8 bar.

The Spray Pack consists of:

- Paint feeding unit: ECCO FLOW SS10
- ECCO Flow Col 06
- Spray gun: ECCO 40S
- ECCO Ergotube: 8m

All spray packs are available with E35 Spray gun.



SPRAY PACK 317



For all types of paint. Mounted on a tubular steel frame, bracket for wall mounting or on a lid for 20 lit. container. Max. air pressure 8 bar. Max paint pressure 4 bar.

The Spray Pack consists of:

- Paint feeding unit: ECCO PSU A2
- Spray gun: ECCO 35
- Paint hose 8 m
- · Air hose: 8 m
- ECCO Flow Col 06

	Ord. No.
Spray Pack 317 (steel frame)	8613 2311 70
Spray Pack 317L (lid for container 20 lit.)	8613 2311 71
Spray Pack 317B (for wall mounting)	8613 2311 72
Extra: Wheels for SP317 (to be mounted on the steel frame)	6004 0169 70

HIGH PRESSURE SPRAY PAINTING

AIRLESS SPRAY PAINTING

At airless spray painting, paint is fed at high pressure from a pump to spray gun. Due to the high paint pressure, the paint is atomised as it passes the spray tip of the spray gun. The airless spray painting method is particularly suitable for applying thick coats on large areas. It is by far the most popular method for the anti-corrosion treatment of steel structures and for painting the insides and outsides of buildings. It is also used by the manufacturing industry to paint furniture, machines etc. sometimes in combination with hot spray painting.

ADVANTAGES

- High production capacity
- Good coverage of surface depressions
- Thick coat of paint in a single pass
- High viscous paints can be sprayed

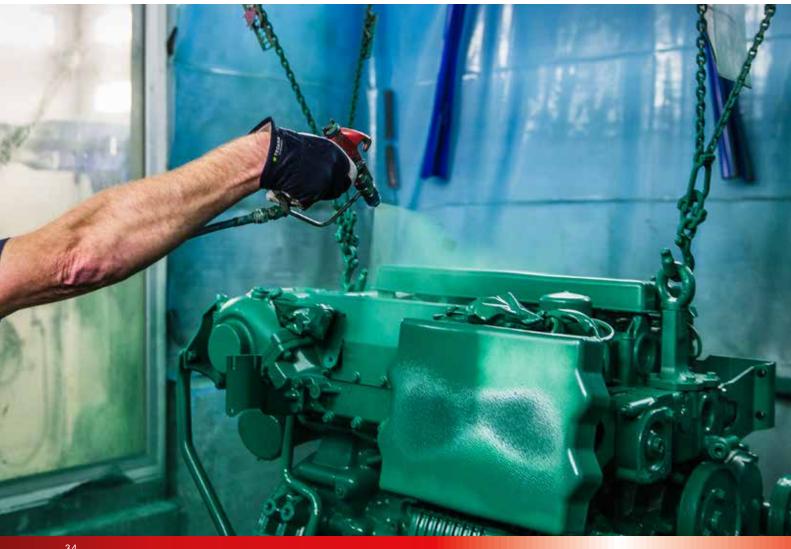
APPLICATIONS

- Ship building
- Corrosion protection
- Train / Railways
- Truck industry

MATERIAL

- Water- and solvent borne materials
- High solid coatings
- Anti corrosive coatings





AUTOMATIC AIRLESS GUNS

ECCO 380A - AUTOMATIC AIRLESS GUN FOR ROBOTS

TECHNICAL DATA	
Net weight	0,7 kg
Maximum paint pressure	250 Bar
Min/max. operating pressure	4/7 bar
Connection for spray tip retaining ring	M 18x1
Packina / seals	Viton / Perflour 128

	Ord. No.
ECCO 380 A - nozzle fix*, no circulation, PF sealing	8611 4115 01
ECCO 380A - nozzle fix*, no circulation, FPM sealing	8611 4115 02
ECCO 380A - nozzle fix* FPM UV-paint	8611 4115 71
ECCO 380AC - nozzle fix* PF material circulation	8611 4115 61
ECCO 380AC - nozzle fix* FPM material circulation	8611 4115 62
ECCO 380AC - nozzle fix* FPM material circulation UV-paint	8611 4115 76
Service set for E380A	6004 0159 87
Service set for E380A with FPM sealing	6004 0159 88
Service set for E380A with PF sealing	6004 0159 89
Sealing element for abrasive paint	6004 0159 71
Sealing element for UV-paint	6004 0159 70

Ecco 380A is especially designed for robot use and therefore suitable for most high-pressure applications in automated production lines. Valve seat and needle tips are made of tungsten carbide for long durability. The gun can be changed in a few minutes without any loss in mechanical precision or performance. Material circulation is provided through the manifold even if the gun is closed. Special extension nozzle see next page. Spray tip not included.

*For fixed nozzle use special fix spray tip (page 40).



SINGLE/TWIN MANIFOLD ECCO 380A

Mounting manifold for single ECCO 380A, also available for side by side - mounting. Side by side mounting gives possibility to feed and circulate two different materials to the guns. Mounting manifold for twin mounted ECCO 380A. Air connectors for opening and closing the guns. Material circulates through both the guns.



	TECHNICAL DATA	
	Single manifold	Twin manifold
Material inlet/return Pilot air 6/4 push in couplings	1/4″ - 18 / 1/4″ - 18 1/8″	3/8″ * 3/8″ 1/8″

	Ord. No
Single gun manifold w/o sensor	6004 0159 98
Double gun manifold w/o sensor, for 2 guns side by side	6004 0159 99
Twin gun manifold with temp/pressure sensor	6004 0159 82
Twin aun manifold w/o temp/pressure sensor	6004 0159 83

GUN ADAPTER FOR ECCO 380A

Gun bracket for ECCO 380A, designed for paint robots with hollow wrist. Detachable cover for easy access to the hose couplings. Paint hoses well protected all the way from the gun and through the inside of the robot arm. All parts are made in stainless steel high gloss polished gives a surface easy to clean. Complete with push in couplings for pilot air and swivelling couplings for the material, and prepared for material circulation.



	Ord. No
Single gun adapter for robot Fanuc P-50i	6004 0104 33
Single gun adapter for robot Motoman PX2850 hollow wrist	6004 0104 49
Single gun adapter for robot ABB enhanced hollow wrist	6004 0104 53

ECCO 320A - THE RELIABLE AND COMPACT AUTOMATIC SPRAY GUN



ECCO 320A is a automatic spray gun with air-operated remote control. The needle valve is opened by an air operated piston and closed by a powerful coil spring. All components in contact with paint are made in stainless steel. Valve seat and needle tip are made in tungsten carbide for long durability. The gun is prepared for paint circulation when hot spraying. ECCO 320A can also be used as a qualified fluid valve, for example in colour changing systems and other applications with high demands for short reaction time and reliability. Spray tip not included.

TECHNICAL DATA	
Net weight	545 g
Maximum paint pressure	360 bar
Min/max. air pressure	6/8 bar
Paint connection	1/4" 18NPSM male
Connection for spray tip retaining ring	M 18x1
Operating air connector is designed for nylon hose	Ø 6/8 mm
	Ord. No.
ECCO 320A	8611 4114 17
Service set for E320A	6103 1078 00

SPECIAL VERSIONS OF AUTOMATIC AIRLESS GUNS

ECCO QUADRAX- ALL-IN-ONE SOLUTION FOR 4 COLOURS

Ecco Quadrax offers all benefits to our Ecco 380A combined into a very compact solution for spraying up to 4 different coatings with extremely fast changing. The 4 valves work independently and are opened by robot PLC one after another. Ideal for fast colour changing and highest productivity, without the use of an additional colour changing module.

TECHNICAL DAT	ГА
Net weight	5635g
Maximum paint pressure	200 bar
Min/max. operating pressure	4/7 bar
Connection for spray tip retaining ring	M 18x1
Packing / seals	Viton / Perflour 128



Ord. No
ECCO QUADRAX 8611 4314 00

ECCO HEXAGON- ALL-IN-ONE SOLUTUION FOR 6 COLOURS

Ecco Hexagon brings up to 6 coatings (or colours) to the same nozzle for very fast colour changing sequence, without an additional colour changing module. Reducing the distance between valve and nozzle provides the fastest solution for colour changing. The Hexagon can also be used as colour changing module.

TECHNICAL DATA	
Net weight	4,4 kg
Maximum paint pressure	250 Bar
Min/max. operating pressure	4/7 bar
Connection for spray tip retaining ring	M 18x1
Packing / seals	Viton / Perflour 128
	Ord. No
ECCO HEXAGON	8611 4360 01



ECCO 380 x 45 EXTENSION NOZZLE

Ecco 380 Ex45 provides the easiest way to bring the airless tip as close as needed to the object requiring application of paint, sealant or other, even in cramp spaces. The 45 ° angle gives universal capability to the gun. Other lengths and angles can be designed according to unique customer needs.



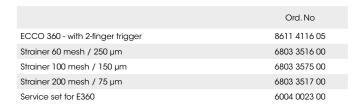
TECHNICAL D	DATA
Net weight E380 gun + extension	1,1kg
Extension length	200mm
Extension Spray tip angle	45°
Maximum paint pressure	250 Bar
Min/max. operating pressure	4/7 bar
Connection for spray tip retaining ring	M 18x1
Packing / seals	Viton / Perflour 128

	Ord. No
ECCO 380 x 45 including gun (excl. spray tip.)	8611 4115 95
Extension nozzle 200mm/45° (excl. gun and spray tip)	6004 0160 50

MANUAL AIRLESS GUNS

ECCO 360 AIRLESS SPRAY GUN

The ECCO 360 is a proven spray gun which is suitable for most applications. All parts in contact with paint are made in stainless steel. The valve seat and needle tip are made in tungsten carbide for long durability. The paint channels in stainless steel are designed as a protection guard in front of the trigger. This makes this gun also suitable for hot spraying. The trigger force is low and can be adjusted to match the actual paint pressure. The ECCOflex airless hose is recommended for the 360 spray guns. Note! No spray tip included (see page 39-40).





TECHNICAL DATA	
Maximum paint pressure	360 bar
Paint connection	1/4" 18NPSM male
Connection for spray tip retaining ring	M 18x1

ECCO 510 - THE CONTRACTOR SPRAY GUN

The ECCO 510 is a multi-purpose manual high-pressure spray gun with exchangeable paint filter in the spray gun handle. The gun features an integrated swivel coupling for connection to the paint hose to provide optimum freedom of movement when spraying in confined spaces. The 4-finger trigger makes the gun easy to operate also when using protection gloves. ECCOflex airless hose is recommended for the ECCO 510 spray gun.

Note! No spray tip included, for alternative spray tips see page 39-40.





TECHNICAL DATA	A
Maximum paint pressure	350 bar
Paint connection	1/4" 18NPSM male
Connection for spray tip retaining ring	11/16″-16

MANUAL AIRLESS GUNS

ECCO 370 - THE SERVO OPERATED AIRLESS SPRAY GUN



ECCO 370 airless spray gun is suitable for cold as well as hot spraying of all fluids. The spray gun is extremely easy to operate thanks to the servo operated paint needle which is activated by the trigger. The fast shut off action of the paint needle also decreases the risk of drip in the beginning and in the end of the painting cycle. The ECCO 370R spray gun is equipped with external paint pipe which also serves as trigger guard. The gun body is short and is therefore useful in confined spaces where other spray guns have difficulties working. All parts in contact with paint are made in stainless steel. Valve seat and needle tip are made in tungsten carbide for long durability. ECCO 370 suits both right- and left handed painters. The spray gun is specially designed for car body cavity spraying, such a s cavity waxing. It is also a great

solution for material saving, as the spraying time can be accurately controlled by sequence, for spraying the exact quantity required, and not more. For best ergonomics the airless hose ECCO ERGOTUBE Hp is recommended.

Note! No spray tip is included, for Eccomant spray tips see page 39-40.

TECHNICAL DAT	Α
Maximum paint pressure	360 bar
Min/max. operating pressure	6/8 bar
Paint connection	1/4" 18NPSM male
Operating air connector	G 1/4
Connection for spray tip retaining ring	M 18x1

	Ord. No
ECCO 370 - basic servo assisted spray gun	8611 4170 05
ECCO 370R - suits control system requiring 3/2 valve	8611 4170 50
ECCO 370R - suits the ECCO timer P requiring 2/2 valve	8611 4170 51

ECCO ERGOTUBE HP AIRLESS HOSE

ECCO ERGOTUBE HP for use with all servo assisted spray guns 370. The high pressure paint hose is placed inside the air hose which leads the operating air to



the spray gun. The gun is as easy to use as when using only one hose to the spray gun. For ECCO hoses; other lengths are available. Add two-digit designation for desired hose length to the actual ordering number. Example: 6803 0745 04 (for 4 m hose).

	TECHNICAL DATA
Paint pressure	max. 400 bar
Inside diameter paint hose:	4 mm
Inner hose:	Polyamide airless hose
Reinforcement:	Braided synthetic fibres
Cover:	Polyurethane
Temp.range:	-40°C to +80°
Length:	2-10 meter

	Ord. No
ECCO ERGOTUBE Hp	6003 9870 xx

ECCOTIMER P

ECCO Timer P is perfect in combination with ECCO 370R for accurate spraying time control and flushing sequences. Timer P controls both fluid and flushing air time sequences. Min working pressure=1.5 bar / Max working pressure=1.0 bar.



	Ord. No
Ecco Timer P	8615 0312 42

ECCO MIXING CHAMBER



Ecco mixing chamber is used for an improved pre-atomizing effect and better material distribution at application. The mixing chamber mixes fluid and air according to actual needs.

	Ord. No
ECCO Mixing chamber	6103 0202 00

AIRLESS SPRAY TIPS

ECCOMANT STANDARD SPRAY TIP



The ECCOMANT tungsten carbide airless tips are manufactured to high standards of accuracy to ensure an accurate spray fan and promote long service life. The tips can be used with all ECCO airless spray guns as well as other spray guns. The tip is held by the retaining ring of the gun. The ECCOMANT spray tips have proven to be extra wear resistant compared to normal industry standard tips The table below sets out the recommended tips for different types of paint and the table on page 40 shows the standard sizes normally available for off-the-shelf delivery.

ECCO QUICK-TIP - SELF CLEANING SPRAY TIP



The ECCO Quick-TIP can easily be cleaned by turning the tip 180° and a short paint blast will clear the spray tip orifice. The spray tip handle has an arrow, showing the spraying direction. ECCO Quick-TIP is manufactured from the highest quality tungsten carbide and stainless steel to ensure long lifetime in production. The holder for ECCO Quick-TIP is available with thread that suits all airless spray guns. All article numbers are listed in the table on the next page.

CLEANING NEEDLE SET FOR AIRLESS SPRAY TIP



Spray tip cleaning broaches to clean blocked spray tips. 12 pcs per set, length 21mm and diam 0.10mm with spiral handles.

	Ord. No
Self cleaning needles for airless spray tips	6003 8001 00

SPRAY TIP HOLDER ECCO QUICK-TIP



Holder for spray tip ECCO Quick TIP.

		Ord. No
Thread	For spray gun	
7/8″ - 14	Graco	8611 4150 07
11/16″ - 16	ECCO 510, spraying systems, Graco, Binks, Wagner	8611 4150 11
M18x1	ECCO 320A / 360 / 370, Deicke & Kopperschmidt	8611 4150 18

WET FILM GAUGE



Measuring range: 25 - 300 μ m in steps of 25 μ m 350 - 750 μ m in steps of 50 μ m 900 - 2000 μ m in steps of 150 μ m

	Ord. No
Wet film gauge	6802 3558 00

SELECTION OF AIRLESS SPRAY TIP

Recommend spray tips for different paint types. For other paint types, please contact your nearest retailer of ECCO Products.

Paint type	Normal spray viscosity (sec. with DIN cup 4)	Recommended tips, inch								
		0,009	0,011	0,013	0,015	0,018	0,021	0,026	0,031	0,036
Lacquer	15 – 20	•	•	•						
Shop primer	13-25			•						
Polyurethane	25-60		•	•	•					
Alkyd lacquer	30-60		•	•	•					
Zinc epoxy	25-60				•					
Modified vegetable oil	60-100			•						
Epoxy tar	30 - 100							•	•	•
Latex paint	NORMALLY UNTHINNED							•	•	•
Solvent free epoxy	40 -					•	•	•	•	•

AIRLESS SPRAY TIPS

SELECTION GUIDE FOR ECCOMANT, FIX AND QUICK-TIP







							3	00
ORIFICE I	DIAMETER		CAPACITY ²	CAPACITY ²	STRAINER 3,	FIX SPRAY TIP	STANDARD SPRAY TIP	ECCO QUICK-TIP
INCH	MM	FAN ANGLE 1	LITRE/MIN	GALLONS/MIN	MESH	FOR E380A	ECCOMANT	SELF CLEANING
0.011	0,28	15°	0.54	0,14	200		6803 1115 00	6827 0211 00
		25°			200		6803 1125 00	6827 0311 00
		40°			200		6803 1140 00	6827 0411 00
		50°			200		6803 1150 00	6827 0511 00
		65°			200	6825 1165 00	6803 1165 00	6827 0611 00
		80°			200		6803 1180 00	
		95°			200		6803 1195 00	
0.013	0,33	15°	0.82	0,22	200		6803 1315 00	6827 0213 00
		25°			200		6803 1325 00	6827 0313 00
		40°			200		6803 1340 00	6827 0413 00
		50°			200		6803 1350 00	6827 0513 00
		65°			200	6825 1365 00	6803 1365 00	6827 0613 00
		80°			200	6825 1380 00	6803 1380 00	
		95°			200		6803 1395 00	
		110°			200		6803 1311 00	
0.015	0,38	15°	1.15	0,30	100		6803 1515 00	
		25°		.,	100		6803 1525 00	6827 0315 00
		40°			100		6803 1540 00	6827 0415 00
		50°			100		6803 1550 00	6827 0515 00
		65°			100		6803 1565 00	6827 0615 00
		80°			100	6825 1580 00	6803 1580 00	6827 0815 00
		95°			100		6803 1595 00	
		110°			100		6803 1511 00	
0.018	0,46	25°	1.64	0,43	100		6803 1825 00	6827 0318 00
		40°			100		6803 1840 00	6827 0418 00
		50°			100		6803 1850 00	6827 0518 00
		65°			100	6825 1865 00	6803 1865 00	6827 0618 00
		80°			100	6825 1880 00	6803 1880 00	6827 0818 00
		95°			100		6803 1895 00	
		110°			100		6803 1811 00	
0.021	0,53	25°	2.14	0,56	60		6803 2125 00	6827 0321 00
		40°			60		6803 2140 00	6827 0421 00
		50°			60		6803 2150 00	6827 0521 00
		65°			60		6803 2165 00	6827 0621 00
		80°			60		6803 2180 00	6827 0821 00
		95°			60		6803 2195 00	
		110°			60		6803 2111 00	
0.023	0,58	25°	2.40	0,63	60			6827 0323 00
		40°			60			6827 0423 00
		50°			60		6803 2350 00	6827 0523 00
		65°			60		6803 2365 00	
		80°			60		6803 2380 05	
		95°			60		6803 2395 00	
		110°			60		6803 2311 00	
0.026	0,66	25°	3.24	0,86	60		6803 2625 00	6827 0326 00
		40°			60	6825 2640 00	6803 2640 00	6827 0426 00
		50°			60	6825 2650 00	6803 2650 00	6827 0526 00
		65°			60	6825 2665 00	6803 2665 00	
		80°			60		6803 2680 00	6827 0826 00
		95°			60		6803 2695 00	
		110°			60		6803 2611 00	

^{1.} When spraying water

^{2.} Capacity at a fluid pressure of 140 bar, when spraying water

^{3.} Recommended strainer in delivery circuit.

Other sizes are avaiable, please contact your nearest retailer of ECCO Products.

HIGH PRESSURE SPRAY PAINTING

AIR ASSISTED SPRAY PAINTING

Air Assisted spray painting first partially atomizes the fluid with a special fluid nozzle tip similar to a standard airless tip. The atomization is improved thanks to small amounts of compressed air from the face and/or the horns of the air cap. The result is a finely atomized spray pattern closely resembling that of a low pressure compressed air system.

ADVANTAGES

- Easy to adjust spray pattern with high paint pressure
- Soft spray pattern with high finish
- High capacity and compatible with high viscosity materials.

APPLICATIONS

- Wood
- Steel
- Train and trucks

MATERIAL

- Water- and solvent borne materials
- High solid coatings
- Mono and 2-component coatings
- Polyurethane finishes
- UV-hardening finishes





AIR ASSISTED AIRLESS GUNS

ECCO 380AA - AUTOMATIC SPRAY GUN, AIR ASSISTED

TECHNICAL DATA	
Net weight	0,7 kg
Maximum paint pressure	250 Bar
Min/max. operating pressure	4/7 bar
Connection for spray tip retaining ring	M 36x1
Packing / seals	Viton / Perflour 128

	Ord. No
ECCO 380AA - nozzle fix2 PF	8611 4138 01
ECCO 380AA - nozzle fix2 FPM	8611 4138 02
ECCO 380AA - nozzle fix2 FPM UV-paint	8611 4138 22
ECCO 380AA - nozzle fix2 material circulation (PF seal)	8611 4138 11
ECCO 380AA - nozzle fix2 material circulation (FPM seal)	8611 4138 12
ECCO 380AA - nozzle fix2 material circulation UV-paint (FPM seal)	8611 4138 13
Service set - needle and piston	6004 0159 87
Service set - Flour Rubber Viton (FPM)	6004 0159 88
Service set - Perfluor 120 (PF)	6004 0159 89
Sealing element for abrasive paint	6004 0159 71
Sealing element for UV-paint	6004 0159 70

Ecco 380A is especially designed for robot use and therefore suitable for most high-pressure applications in automated production lines. Valve seat and needle tip is made in tungsten carbide for long durability. The gun can be changed in a few minutes without any loss in mechanical precision or performance. Material circulation is provided through the manifold even if the gun is closed. A wide variety of spray tips are available for all types of applications, with a perfect finish on the treated surface. Selection guide for spray tips see page 43. Spray tip is not included.



SINGLE MANIFOLD ECCO 380AA

Prepared for material circulation.



TECHNICAL DATA	
Material inlet/return	1/4″ - 18 / 1/4″ - 18
Pilot air 6/4 push in couplings	1/8″
Atomization / Fan air 8/6 Push in couplings	1/8″
	Ord. No
Gun manifold single	6004 0158 31

GUN ADAPTER ECCO 380AA

Gun bracket for the ECCO 380AA, designed for paint robots with hollow wrist. Detachable cover for easy access to the hose couplings. Paint hoses well protected all the way from the gun and through the inside of the robot arm. All parts are made in stainless steel high gloss polished gives a surface easy to clean. Complete with push in couplings for pilot air and swivelling couplings for the material, and prepared for material circulation.



	Ord. No
Gun adapter for robot ABB hollow wrist	6004 0104 22
Gun adapter for Fanuc p-50i hollow wrist	6004 0104 32
Gun bracket for Motoman PX2850 hollow wrist	6004 0104 48
Gun bracket for ABB enhanced hollow wrist	6004 0104 52
Gun bracket for B&M Kobelco hollow wrist	6004 0104 62

ECCO 110 - MANUAL SPRAY GUN, AIR ASSISTED

The Ecco 110 spray gun is using Air Assisted Airless technique; the air cap is designed to create excellent atomization and high surface finish.

Fan width control knob at the back of the gun, trigger lock for personal safety. Exchangeable filter strainer inside the hose connector prevents the spray tip from clogging. Needle tip and seat made of tungsten carbide for long lifetime. The gun is ready to use, delivered with spray tip in size 0.013* (0.33mm) and 40 degree angle. Swivel couplings are available as option (see page 46).

TECHNICAL DATA	
Max paint pressure	240 bar
Max atomizing air pressure	8 bar
Capacity @ 100bar	0,57 lit/min
Paint connection	1/4" 18NPSM male
Air connection	G 1/4"
	Ord. No
ECCO 110 AIR ASSISTED AIRLESS GUN	8611 4117 05
TIP FILTER 60 mesh/250 µm	6803 3078 00
TIP FILTER 100 mesh/149 µm	6803 3077 00
TIP FILTER 200 mesh/74 µm	6803 3076 00
SERVICE SET FOR ECCO 110	6004 0095 01



SPRAY TIPS FOR ECCO 380AA AUTOMATIC GUN

Tungsten carbide nozzle designed for the ECCO 380AA, manufactured to high standards of accuracy for long lifetime and a precise spray pattern. The tip is held in correct position by the air cap and the retaining ring. Use the table below $% \left\{ 1,2,\ldots ,n\right\} =0$ for selection of the right tip, different paint and viscosity demands different nozzle



Air assist spray tip 6814 1360 00

	Orifice diameter		Fan angle ¹	Capacity ²	Capacity ²	Strainer ³ , mesh	Air Assist Spray tip
inch		mm	•	lit/min	gallons/min		ord. no
0.011		0,28	20°	0.54	0,14	200	6814 1120 00
			30°			200	6814 1130 00
			40°			200	6814 1140 00
			50°			200	6814 1150 00
			60°			200	6814 1160 00
0.013		0,33	20°	0.82	0,22	200	6814 1320 00
			30°			200	6814 1330 00
			40°			200	6814 1340 00
			50°			200	6814 1350 00
			60°			200	6814 1360 00
			80°			200	6814 1380 00
0.015		0,38	20°	1.15	0,30	100	6814 1520 00
			30°			100	6814 1530 00
			40°			100	6814 1540 00
			50°			100	6814 1550 00
			60°			100	6814 1560 00
			80°			100	6814 1580 00
0.017		0,43	40°	1.50	0,40	100	6814 1740 00
			50°			100	6814 1750 00
			60°			100	6814 1760 00
			80°			100	6814 1780 00
0.019		0,48	40°	1.91	0,54	100	6814 1940 00
			50°			100	6814 1950 00
			60°			100	6814 1960 00
			80°			100	6814 1980 00

SPRAY TIPS FOR ECCO 110 MANUAL SPRAY GUN

Spray tip 6813 1140 00



Spray angle* ECCO Order No.
25° 6813 0925 00
40° 6813 0940 00
65° 6813 0965 00
25° 6813 1125 00
40° 6813 1140 00
65° 6813 1165 00
25° 6813 1325 00
40° 6813 1340 00
65° 6813 1365 00
25° 6813 1525 00
40° 6813 1540 00
65° 6813 1565 00

*	When	spraying	water

Recomme	Recommended spray tips for different paint types				
Paint type	Paint viscosity sec (DIN cup 4)	Recommended tip diam. (inch)			
Laquer	15-20	0.09-0.013			
Acid-hardening	15-25	0.09-0.013			
Shop primer	13-25	0.011-0.015			
Polyeurethane	25-60	0.011-0.021			
Alkyd laquer	25-60	0.011-0.018			
Zinc Epoxy	25-60	0.015-0.021			
Modified veg. oil	60-100	0.011-0.021			

When spraying water
 Capacity at a fluid pressure of 140 bar, when spraying water
 Recommended strainer in delivery circuit
 For other sizes, please contact your nearest retailer of ECCO Products.

HIGH PRESSURE PUMPS - ECCO POWER FLOW

ECCO Power Flow pump series are the perfect choice for a large variety of industries such as general industry, wood, protective coatings, marine/offshore and more. The pump series range is suitable for liquids from low to very high viscosities, primers, finish paints and paints containing varied particle size. The high paint pressure required for airless paint is generated by strong, double acting air operated pumps. The pumps have high performance air motors that ensures a faster change over. This makes the pulsation disappear and the lacquer processing more stable, versus a conventional mechanical change over which has a high pulsation. The pumps are produced to reach the highest standard of quality and life time and they are available in a range of fluid and pressure ratios: 14:1, 22:1, 28:1, 40:1.60:1 and 75:1.

ADVANTAGES

- · Unique design of air motor
- · All wetted parts are in stainless steel, thus usable with water borne and solvent borne materials
- Quick pneumatic changeover mechanism, giving no pulsation and ensures a perfect finish
- Easy maintenance due to few parts and simple construction
- Change over mechanism ensures no stalling
- · Ice free air motor

APPLICATION MATERIALS

- Solvent- or water borne coatings
- Primers and catalysed laquers
- Enamels and polyurethane's
- UV-paint



HIGH PRESSURE PUMPS - ECCO POWER FLOW

ECCO Power Flow 214S, 328S and 522S are particularly suitable for craftsmen as an additional unit and industrial painting jobs. These pumps qualifies for the machine building, wood, furniture, steel and vehicle industries. It is suitable for anyone who uses a variety of painting materials. These pumps are also perfect for manual and automated installations feeding one or more spray guns. The ECCO Power Flow pumps can be delivered bare, on a tripod, on a trolley or on a wall bracket, and they can easily be adjusted into an Air Assist model (AA).

The even more robust pump models ECCO Power Flow 640S and 860S are suitable for medium and high viscosity materials. These powerful pumps are designed for high performance purposes and will feed large type nozzles or several spray guns at the same time. The use of solvents is cut to a minimum as highly viscous materials can be applied directly. There is hardly any overspray or spray mist with the environment remaining clean. The Ecco Power Flow equipment stands for superb performance quality and meets all technical requirements. The advanced design and conception correspond to all applicable safety specifications and regulations. Sophisticated engineering, functional dependability and easy handling are only few of the outstanding features of these equipment. The pump can be delivered bare, on a trolley for easy mobility painting big parts or on a wall bracket.

The biggest air powered airless model ECCO Power Flow 1275S is designed to withstand the toughest working conditions as can be found at shipyards, steel construction plants, freight car manufacturing plants or bridge building sites. ECCO Power Flow 1275S gives a hydraulic pressure up to 450 bar corresponding to a relative transfer volume up to 210 cc /cycle, and therefore several spray guns with long material hoses can get a considerably high spray pressures. ECCO Power Flow 1275S A is made in stainless steel 410. The pump is available as a stationary unit for wall mounting.



Ecco Power Flow 328S on a trolley

POWER FLOW (PF) PUMP RANGE - TECHNICAL DATA

	ECCO PF328S	ECCO PF522S	ECCO PF640S	ECCO PF860S	ECCO PF1275S
Pressure ratio	28:1	22:1	40:1	60:1	75:1
cc/cycle	40	110	110	110	210
Output @60 cycles/min*	2.4 lit/min	6.6 lit/min	6.6 lit/min	6.6 lit/min	12.6 lit/min
Stroke length	120mm	120mm	120mm	120mm	120mm
Air motor Ø	80mm	125mm	160mm	200mm	300mm
Max air consumption	400 N I/min	900 N I/min	2000N I/min	2300 N I/min	2600 N I/min
Max inlet air press.	8 bar	8 bar	8 bar	6 bar	6 bar
Max outlet pressure	224 bar	176 bar	320 bar	360 bar	450 bar
Weight (bare)	16 kg	22 kg	23 kg	25 kg	73 kg
Pump version / Ord. Number:					
Pump "B"	8621 0715 00	8621 0716 00	8621 0723 00	8621 0724 00	8621 0726 00
Pump "B-A"	8621 0715 46	8621 0716 01	8621 0723 46	8621 0724 01	N/A
Pump "B-AA"	8613 2346 25	8621 0716 02	8621 0723 50	N/A	N/A
Pump "T-A"	8613 2346 29	8621 0716 03	8613 2346 59	8621 0724 03	8621 0726 15
Pump "T-AA"	8613 2346 26	8621 0716 04	8613 2346 60	N/A	N/A
Pump "TP-A"	8621 0715 05	N/A	N/A	N/A	N/A
Pump "TP-AA"	8621 0715 10	N/A	N/A	N/A	N/A

 $^{^{\}ast}$ = 10 strokes/min recommended speed for continuous operation B = Naked pump on wall bracket

T-AA = On a trolley with double air prep. and suction hose TP-A = On tripod with single air prep. and filter on inlet TP-AA = On tripod with double air prep. and filter on inlet A versions are prepared for Airless applications AA versions are prepared for Air Assisted Airless applications

B-A= On wall bracket with single air prep. and suction hose B-AA= On wall bracket with double air prep. and suction hose T-A= On 2-wheel trolley with single air prep. and suction hose

AIRLESS HOSES AND CONNECTIONS

ECCOFLEX AIRLESS HOSE

- Excellent resistance to paints, solvents and chemicals.
- · Excellent flexibility
- Extreme abrasion resistance
- · Static freed 100% conductivity
- · Liaht weight
- · UV and ozone resistant

Inner tube: Polyamide

Reinforcement: Carbon steel wire brass plated

Cover: Polyurethane Temp. range: -40°C to +80°C



Diam mm	inside inch	Max working pressure, bar.	Stand. length m	Connection thread, mm	Ord. No.
6,3	1/4	325	8	1/4" 18NPSM	6803 0745 08
9,5	3/8	400	10	1/4" 18NPSM	6803 2082 10

WHIP END HOSES

Whip end for connection immediately before the gun for increased mobility. Length: 1 m. Connection thread: 1/4" 18NPSM female - male.



Diam.mm	Inside.inch	Ord. No.
3,2	1/8	6803 4920 00
4,6	3/16	6803 1741 00

TEFLON HOSE

Airless hose resistent for particularly aggressive fluids. Couplings and braid in stainless steel. Material inside hose wall: Teflon. Connection thread: $1/4^{\circ}$ 18NPSM female.

Diam. mm	Diam. Inside. inch	Max working pressure, bar.	Length m	Max. bending radius, mm	Ord. No.
6,3	3/16	175	7,5	60	6201 9264 00

RETURN FLOW PIPE

Return flow pipe, for connection to the ball valve of the high pressure filter. Render possibility to circulate flushing solvent through the suction pipe into the pump, high pressure filter and back to the solvent container. Delivered with pipe and connectors made in stainless steel connected with 1/2*- hose. Fits all ECCO Power Flow pumps.



Ord. No.

RETURN FLOW PIPE AND HOSE 6004 0264 09

TWIN HOSE PAINT/AIR

Twin hose for use with Air Assisted spray guns. Inner tube: Polyamide Cover: Polyurethane



	m	inside nm ch	Max working pressure, bar.	Stand. length m	Connection thread, mm	Ord. No.
Paint	4,6	3/16	235	10	1/4" 18NPSM	6003 7092 10
Air	6,4	1/4	10	10	G1/4"	

SWIVEL COUPLINGS FOR HIGH PRESSURE HOSE

To be mounted between the gun and the hose for increased mobility. (Not intended for ECCO 510 or ECCO ERGOTUB Hp.)



Connecti male	on thread female	Working press. max	Ord. No.
1/4" -18 NPS	1/4" -18NPS	517 bar	6803 5292 00
1/4" -18 NPS	3/8" NPS	517 bar	6803 5664 00
1/4"-19 BSP	1/4"-19 BSP	550 bar	6803 5292 14
1/4" -18 NPS	1/4" -18NPS	550 bar	6803 5292 18

NIPPLES

Jointing and connection nipples for high pressure hoses.



Connection thread	Bore mm	Material	Ord. No.
1/4" 18 NPSM male - 1/4" 18NPSM male	5	Stainless	6002 0234 00
G 1/4 male - 1/4" 18NPSM male	5	Stainless	6002 0233 00
G 3/8 male - 1/4" 18NPSM male	7	Stainless	6202 2197 00
1/4" 18NPT male - 3/8" NPT male	7	Steel	6803 5666 00
G 1/4 male - G1/2 male	7	Stainless	6002 0236 46

Other hoses and connections are available, please contact your local Ecco dealer.

HIGH PRESSURE REGULATORS AND COLOUR CHANGERS

ECCO POWER COL 20SG

Fluid pressure regulators are used to reduce main line pressure, remove pulsations and maintain the desired fluid pressure to the spray guns. ECCO PowerCol 20S has a compact design and high regulation accuracy. It causes very little shear of the paint, is very reliable and requires little maintenance. Wetted parts in stainless steel, seat and needle in tungsten carbide. Thanks to accurate tungsten carbide needle, Ecco HydricCol 20S allows consistent flow control for high pressure lines.



	Ord. No.
Power Col 20SG high pressure regulator in SS (max.100 bar)	8623 0141 20
Power Col 20SG hp regulator (SS) with manometer (max.100 bar)	8623 0141 30
Power Col 20SG high pressure regulator in SS- max 400 bar	8623 0141 50

TECHNICAL DATA	
Max inlet pressure	345 bar
Regulated pressure	30-290 bar
Maximum flow rate	6 lit/min
Fluid inlet	3/8" BSP
Fluid outlet	3/8 BSP
Gauge port inlet	1/4" BSP
Length	300 mm / 12 inch
Diameter	160 mm / 6 1/3 inch
Net weight	4,6 kg

ECCO HYDRIC COL 10S

Ecco Hydric Col 10S is a paint flow regulator used to control main line paint flow. This regulator doesn't control the pressure, only the flow. It has a compact design and high regulation accuracy.



	Ord. No.
Ecco Hydric Col 10S Paint flow regulator	8623 0140 01
TECHNICAL DATA	

TECHNICAL DATA	
Max inlet pressure	345 bar
Regulated pressure	30-290 bar
Maximum flow rate	6 lit/min
Fluid inlet	3/8" BSP
Fluid outlet	3/8 BSP
Gauge port inlet	1/4" BSP
Length	300 mm / 12 inch
Diameter	160 mm / 6 1/3 inch

ECCO POWER COL 15BS SS

The spring controlled back pressure regulator Ecco Power Col 15 BS provides a simple and reliable method for controlling pressure inside high pressure circulating lines. Power Col 15BS gives a better line stability and enhanced spraying control.



	Ord. No.
Ecco Power Col 15BS SS Back pressure regulator	8623 0142 10

TECHNIC	CAL DATA
Max inlet pressure	300 bar
Regulated pressure	30-300 bar
Maximum flow rate	7,5 lit/min
Fluid inlet	3/8″ BSP
Fluid outlet	3/8 BSP
Length	174 mm
Diameter	60 mm
Net weight	1,4 kg

COLOUR CHANGING MODULES HPCCM

ECCO HP CCM is a pneumatically operated colour change system, a modular system which can be built according to customer needs. All material in contact

with liquid are produced in high grade stainless steel. Sealings and o-rings are from perfluor 128 to withstand all known paints and solvents. Seat made of tungsten carbide ensures long life time. ECCO HP CCM can be equipped with a free number of colour changing valves (CCV). The modules are prepared for circulation. The use of specially designed fittings obtain a dead end free connec-



tion all the way from the high pressure hose to the valve. This will give trouble free operation and optimum conditions for the circulated materials. Recommended pilot air pressure 4-9 bar.

	Max paint pressure	Ord. No.
Ecco HP CCM2 / E320	250 bar	8611 4320 00
Ecco HP CCM3 / E320	250 bar	8611 4320 01
Ecco HP CCM4 / E320	250 bar	8611 4320 02
Ecco HP CCM-3	200 bar	8611 4310 30
Ecco HP CCM-3 (incl. circulation)	200 bar	8611 4310 31
Ecco HP CCM-4	200 bar	8611 4310 40
Ecco HP CCM-4 (incl. circulation)	200 bar	8611 4310 41

For versions with more valves ask Ecco Finishing.

ACCESSORIES FOR HIGH PRESSURE PUMPS

SERVICE KITS

A service kit includes important wear parts for each pump. It also includes gaskets normally damaged when disassembling the pump. Installation instructions in the form of exploded drawings are provided.



	Ord. No.
SERVICE KIT ECCO POWER FLOW AIR MOTOR 214S	6004 0264 90
SERVICE KIT ECCO POWER FLOW AIR MOTOR 328S	6004 0265 90
SERVICE KIT ECCO POWER FLOW 214S/328S PTFE	6004 0265 91
SERVICE KIT ECCO POWER FLOW 214S/328S UHMW	6004 0265 92
SERVICE KIT ECCO POWER FLOW 214S/328S PTFE+LEATHER	6004 0265 93
SERVICE KIT ECCO POWER FLOW 214S/328S UHMW+PU	6004 0265 94
SERVICE KIT ECCO POWER FLOW AIR MOTOR 640S	6004 0266 90
SERVICE KIT ECCO POWER FLOW 522S/640S/860S PTFE	6004 0266 91
SERVICE KIT ECCO POWER FLOW 522S/640S/860S UHMW	6004 0266 92
SERVICE KIT ECCO POWER FLOW 522S/640S/860S PTFE+LEATHER	6004 0266 93
SERVICE KIT ECCO POWER FLOW 522S/640S/860S UHMW+PU	6004 0266 94
SERVICE KIT ECCO POWER FLOW AIR MOTOR 1275S	6004 0268 90
SERVICE KIT ECCO POWER FLOW 1275S PTFE	6004 0268 91
SERVICE KIT ECCO POWER FLOW 1275S PTFE+LEATHER	6004 0268 93
SERVICE KIT ECCO POWER FLOW CONTROL BLOCK (Not for 1275S)	6004 0265 95
SERVICE KIT ECCO POWER FLOW CONTROL BLOCK 1275S	6004 0268 95

CASSETTE FILTER ECCO HP60

Universal filter for paint lines or small circulating systems.

Works as well for low and for high pressure. Solid full stainless steel construction and efficient pulsation dampening effect. Available with a variety of filter cartridges. Provides a perfect pulsation free circulating when used in combination with Ecco Flow Col regulators.

TECHNICAL DATA		
Filter size	60 mesh / 250 μm	
Max operating pressure	400 bar	
Filtration area	120 cm3	
Inlet connection thread	G 3/8 int.	
Outlet connection thread	G 3/8 int.	
Weight	1.7 kg	

	Ord. No.
ECCO HP 60 (60 Mesh / 250 μm)	8613 2260 11
ECCO HP 60 (100 Mesh / 149 µm)	8613 2260 12
ECCO HP 60 (200 Mesh / 74 µm)	8613 2260 13
Filter insert 30 mesh / 595 µm	6803 5866 00
Filter insert 60 mesh / 250 µm	6803 5858 00
Filter insert 100 mesh / 149 µm	6803 5867 00
Filter insert 200 mesh / 74 µm	6803 5868 00

PAINT HEATER H3000

The paint heater Ecco H3000 is a high performance heater for most types of fluids. The heater work at a pressure up to 400 bars, has a compact and robust design and is easy for maintenance.



	1100	
	TECHNICAL DATA	
Length	630 mm / 25 inch	
Width	280 mm / 11 inch	
Depth	140 mm / 5,5 inch	
Max inlet pressure	400 bar	
Power	3000 W	
Power supply	220 V AC- 50 Hz	
Temperature range	100 degrees C	
Flame proof as per	IS 2148	
Weather proof as per	IP 55	
Fluid inlet	3/8" BSP	
Fluid outlet	3/8" BSP	
		Ord. No.

ECCO PAINT HEATER H3000 8613 6114 60

MANOMETER 0-160 BAR



Pressure gauge with pipe in stainless steel. Connection in bottom. Filled with liquid glycerine to stand vibrations. Connection thread G1/4*, housing diameter 63mm.

Ord. No.

MANOMETER 0-160 BAR 8699 9100 11

HIGH PRESSURE FILTER HPM100



Max working pressure: 400 bar Inlet connection: ¼" 18 NPSM female Outlet connection: ¼" 18 NPSM male

Ord. No.
HIGH PRESSURE FILTER HPM 100 8613 2260 15

ECCO POWER FLOW SPRAY PACKS

READY-TO-USE SPRAYING UNITS

SPRAY PACK ECCO POWER FLOW 328S-A (AIRLESS)



A ready to use unit complete with regulators hose and spray gun. Spray Pack ECCO Power Flow 328S A includes a high pressure spray gun ECCO 360 with standard nozzle, swivelling coupling and whip end hose for good ergonomics.

TECHNICAL DATA	
Ord. No.	8613 2321 38
Pump Unit	ECCO POWER FLOW 328S-T-A
Spray Gun	ECCO 360
Spray Tip	0,015" / 50°
Airless hose	1/4″ 10M
Twin hose paint/air	
Whip-end hose	1/8″ 1M
Swivel coupling	1/4" 18 NPSM - 1/4" 18 NPSM
Weight (Kg)	26,5
For other combinations, please contact your nearest retailer of ECCO Products.	



ECCO 360 Airless Spray Gun included in Spray Pack Power Flow 320S-A and in Spray Pack Power Flow 640S-A

SPRAY PACK ECCO POWER FLOW 328S-A (AIR ASSISTED)

A ready to use unit complete with regulators, hose and spray gun. Spray Pack ECCO Power Flow 328S AA includes high pressure spray gun Ecco 110 with standard nozzle, swivelling coupling and whip end hose for good ergonomics.

	TECHNICAL DATA
Ord. No.	8613 2321 39
Pump Unit	ECCO POWER FLOW 328S-T-AA
Spray Gun	ECCO 110
SprayTip	0,013" / 40°
Airless hose	
Twin hose paint/air	3/16" / 1/4" 10m
Whip-end hose	
Swivel coupling	
Weight (kg)	28,5
For other combinations, please	contact your nearest retailer of ECCO Products.

SPRAY PACK ECCO POWER FLOW 640S-A (AIRLESS)

Spray Pack ECCO Power Flow 640S A is a complete set containing all required parts for quick and easy start-up. The high pressure hose is delivered in standard length but can be adapted to customer's demands. The high pressure spray gun is delivered with standard nozzle, swivelling coupling and whip-end hose for good ergonomics.

TECHNICAL DATA	
Ord. No.	8613 2322 78
Pump unit	ECCO POWER FLOW 640S-T-A
Spray gun	ECCO 360
Spray tip	0,015" / 50°
Airless hose	1/4″ 10M
Whip-end hose	1/8″ 1M
Swivel coupling	1/4" 18 NPSM - 1/4" 18 NPSM
Weight (kg)	31,5
For other combinations please contact your nearest retailer of ECCO products.	

ECCO DYNAMIC FLOW - 2K DOSING AND MIXING UNIT

Selecting the best available components on the market, Ecco assembles its 2K-Mixing systems to provide the absolute best reliability. While Coriolis mass flow meters are ensuring the best results with no maintenance (Ecco's preferred solution), Ecco can adapt its equipments on demand to meet most specific requirements. Dynamic Flow units are first designed to be User Friendly, Accurate, Reliable. Ecco Dynamic Flow solutions are available both in low and high pressure. Please contact your local sales representative to design together the solution that suits your needs.

Example of an Ecco 2K mixing unit







SEALING APPLICATIONS

APPLICATIONS WHERE ECCO SEALING APPLICATORS ARE USED

- underbody sealing
- seam sealing
- cosmetic sealing
- sound deadening
- acoustic and structural foams

The Ecco 400 range of swivelling automatic high-pressure applicators are primarily used for application of high viscosity materials on car bodies. The most common applications are underbody coating of PVC for wear protection, seam sealing and cosmetic (hem) sealing. In addition, the applicators can be used for spraying liquid sound deadening material.

The Ecco 400 range includes the following applicator types Ecco 415 – Applicator for seam sealing, under body sealing/spray (UBS) and liquid applied sound deadening (LASD). Ecco 415SS - Applicator in stainless steel suitable for water based sound deadening material (LASD)

Ecco 475 – Applicator for cosmetic (hem) sealing. Fixed nozzle or with an option for automatic nozzle exchange.

Ecco 415 has, apart from the swivelling function, three individual nozzles giving unsurpassed spraying capability in all directions.

The material flow to each nozzle is controlled by a material valve integrated into the nozzle head. The material valves are operated by pneumatic solenoid valves thus minimizing reaction times.



Market leading low weight for the aluminium version (3.7 kg) in combination with compact design ensure optimal reach and control

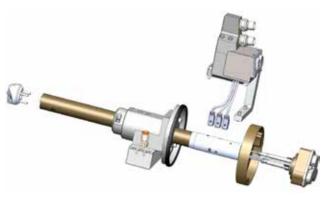
Ecco 475 is used for cosmetic (hem) sealing with a fixed nozzle, or as an option, with automatic nozzle exchange.

Material circulation is integrated and options include temperature and pressure sensors.

Material beads are placed with high accuracy to give a clean look on all exposed areas.

ECCO 415 FEATURES:

- Single or dual material can be applied with the same unit
- · Material circulation to the nozzle head
- Integrated temperature sensor
- Integrated pressure sensor
- · Nozzle head with a wide range of nozzle and slot angles
- Aluminium or stainless-steel versions (SS for water based material)
- Optional heating elements for temperature control
- · Easy adaptation to different robots
- Maintenance friendly with no internal electronics
- Plug and play replacement of previous generation Ecco applicators (400/410)



Ecco 415 has a simplified design giving longer service interval and simplified maintenance.



ECCO BLASTING EQUIPMENT

ECCO BRC BLAST UNITS for open-air work are safe and one of the most efficient units on the market. The units are approved for work at 10.5 bar working pressure, giving a 20% higher working capacity than at a working pressure of 7 bar.

ECCO BRC BLAST UNITS are available in 120 litre version and in the bigger 200 litre version. All units have a remote-control device with dead-man's handle and a twin-hose as standard equipment. Both the BRC-120 and the BRC-200 are equipped with adjustable abrasive metering valves for all common types of abrasive. The units are easy to move, making them perfect for most tough worksites like i.e. road-work, bridges, and on large steel constructions.

ECCO BRC-120 AND BRC-200 BLASTING UNITS

TECHNICAL DATA	
Max working pressure	10.5 bar
Volume	127 lit / 205 lit
Weight	146 kg / 194 kg
Height incl. strainer BRC120/ BRC200	1100mm / 1430mm
Width excl. removable handle	710mm x 830mm

	Ord. No.
BRC 120 - COMPLETE BLASTING UNIT (120 LIT.)	8615 0132 20
BRC 200 - COMPLETE BLASTING UNIT (200 LIT.)	8615 0132 21

Description	Inner diam.	Length	Air consumption @ 8 bar (lit/min)	Ord. No.
Eccoloy V5S	4.8 mm	118 mm	1700	6003 7017 00
Eccoloy V6S	6.4 mm	146mm	2500	6003 7018 00
Eccoloy V8S	8.0 mm	155 mm	4500	6003 7019 00
Eccoloy LV9.5S	9.5 mm	183 mm	6500	6003 7023 00
Eccoloy LV11S	11.0 mm	215 mm	10000	6003 7024 00





Strainer 6202 2454 10

SPARE PARTS AND ACCESSORIES

Designation	Ord. No.
Service set for BRC units	6003 2400 05
Wet blast set	6003 4861 00
Dead man's handle	6003 9655 00
Abrasive valve	6203 0963 00
Diaphragm valve	6003 6732 02
Strainer	6202 2454 10
Air connection for 1-2 air supply hoses bore 25mm	6003 9800 00
Blast hose compl. di=25mm, length=10m	6003 6740 05
Blast hose compl. di=25mm, length=20m	6003 6739 05
Blast hose compl. di=32mm, length=20m	6003 6738 05
Blasting helmet Xtreme	8615 0133 32



Wetblast set 6003 4861 00 Dead man's handle

Dead man's handle 6003 9655 00



Service set 6003 2400 05



PERSONAL SAFETY

FRESH AIR HOOD MINIATURA

Miniatura is recommended for spray painting. The hood will protect the wearer against dust and fumes. The large window which can be raised is covered by protective foil. This fresh air hood includes innerhood, protecting foil (10 pcs.), air hose and belt with throttle valve with nipple for connection to air hose \emptyset 6.3 mm (1/4") female. Air consumption: 150 - 200 l/min.



	Ord. No.
Fresh air hood Miniatura	8615 0133 33
Innerhood, set of 10 pcs.	6803 6678 00
Protecting foil, set of 100 pcs	6803 6660 00
Sweatband, set of 10	6803 6678 20

BLASTING HELMET XTREME

The blasting helmet "Ecco Xtreme" provides excellent protection against spatter and dust when blasting. The window assures good visibility and is easy to change. The helmet is delivered complete with adjustable head strap, internal cotton neck ruff, PVC-nylon cape, belt, air hose, throttle valve and a nipple for the air hose.



	Ord. No.
Blasting helmet Xtreme	8615 0133 32
Screen / net	6803 6125 01
Glass window	6803 6125 02
Acrylate window	6803 6125 03
Gasket (rubber)	6803 6125 04

HOSE FOR BREATHING AIR

Air hose made of wear resistant PVC. Delivered per metre. Outer diam. 11 mm.

	Ord. No.
Air hose, inner diam. 1/4"	6003 9598 00
Coupling G 1/4 with cap nut and hose clamp	6001 1235 00
Quick coupling QIC 10A H06	8202 1302 02
Nipple NIP 10A H06	8202 1202 11
Hose clamp	0347 0122 07

AIR FILTER AFR-6

Air filter for breathing air, can be connected directly to the air supply. The filter will remove particles larger than 0.01 μ m, oil fumes and odours. The filter will not remove methane, carbon monoxide or other toxic gases.



TECHNICAL DATA	
Working pressure	max. 6 bar
Normal working pressure to safety helmet	3 bar
Air capacity	360 I/min
Air connections	G 1/4 female
Weight	2.5 kg

	Ord. No.
Air filter AFR 6	8202 0217 60
Bracket for wall-mounting	6003 6764 00
Ceramic filter, AFR13 before 2007-10	1202 6257 01
Ceramic filter, AFR13 after 2007-10	1202 6257 02
Ceramic filter, AFR6	1202 6257 06
Ceramic filter, AFR13 before 2007-10	1202 6281 01
Ceramic filter, AFR13 after 2007-10	1202 6281 02
Ceramic filter, AFR6	1202 6281 06

AIR THERMOSTAT VORTEX

For air conditioning of fresh air helmets and hoods. The temperature of the breathing air is heated or cooled depending on type.. An air thermostat Vortex includes hose nipple \emptyset 1/4° female. To be installed between air filter and helmet.



	Ord. No.
Air thermostat Vortex - Air Cooler	8615 0133 71
Air thermostat Vortex - Air Heater	8615 0133 72



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