

Ecco Airless Paint Spraying Equipment - for applying thick coats to large areas



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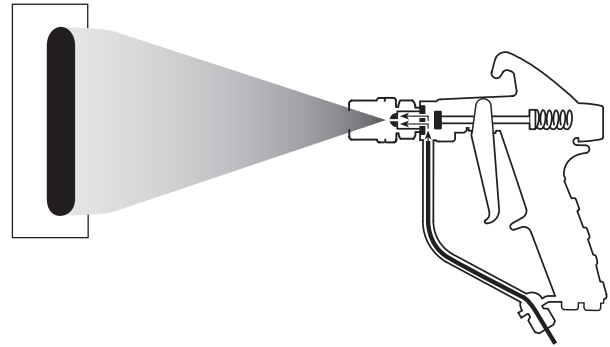
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- ***Airless spray guns with high capacity for industry and contractor use***
- ***Ecco Hydric high pressure pumps - powerful pumps for light or heavy jobs***
- ***Equipment for hot spraying with the paint heater Ecco Thermic***
- ***Accessories for airless spray painting***

What is Airless Spray Painting?

At airless spray painting paint is fed at high pressure from a pump to a 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 to 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.

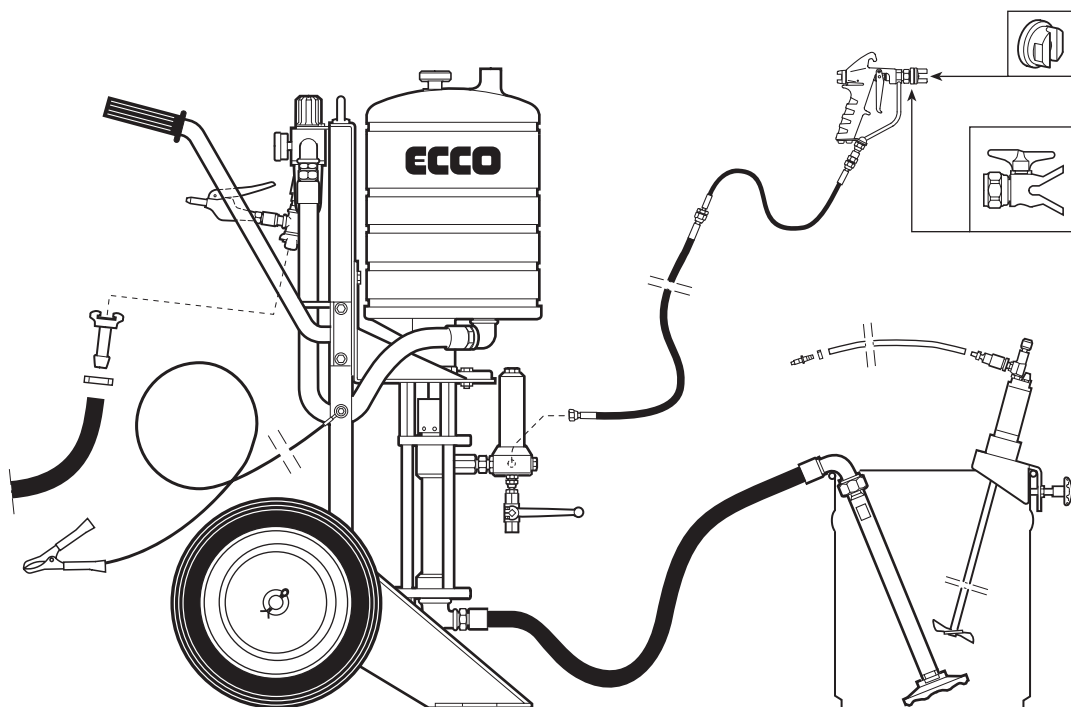


Advantages

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

Ecco Airless Spray Painting Unit

A complete Ecco Airless spray painting unit consists of the following components



Ordering examples on pages 10 - 13.

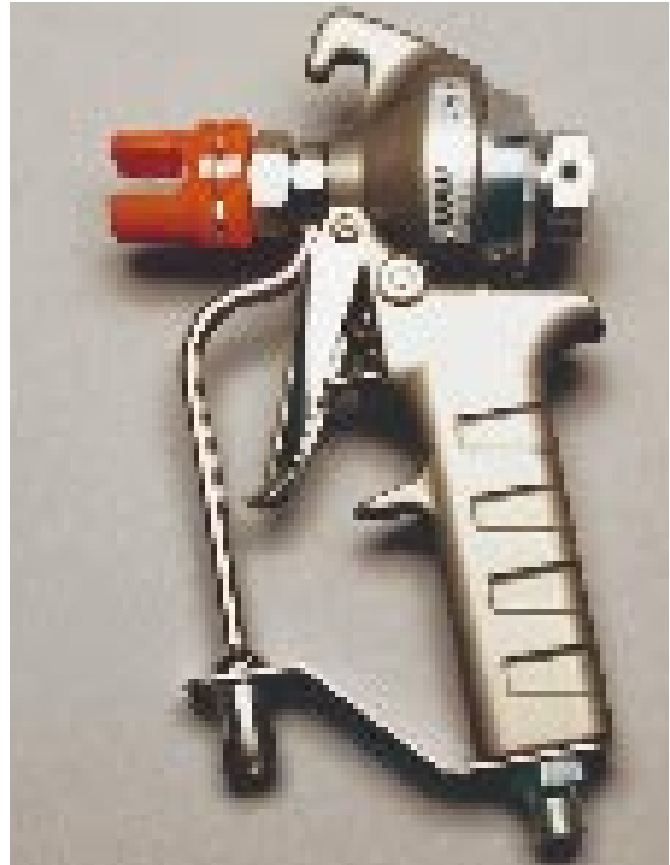
Ecco 370

The servo operated industrial spray gun

Ecco 370

Ecco 370 airless spray gun is suitable for cold as well as hot industrial spraying where high finish is important. The spray guns in the 370 family are 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. When the safety valve is put into secured position the spray gun can also be used as a blow gun for cleaning.

The Ecco 370 spray guns are equipped with external paint pipes 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 which are in contact with the paint are made in stainless material and the sealing parts at paint needle and valve seat are made in tungsten carbide. The Ecco 370 spray guns suits both right- and left handed painters. A spray gun specially designed for corrosion protection - Ecco 370R - is included in the family. For best ergonomics the airless hose Ecco ERGOTUBE™ Hp is recommended.



Technical data - Ecco 370	
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:	M18x1

Type	Ordering No.
Ecco 370 - the basic servo assisted spray gun	8611 4170 05
Ecco 370C - with double channels for paint circulation	8611 4170 10
Ecco 370F - with exchangeable filter in the trigger guard	8611 4170 25

Ecco 320A

The reliable automatic airless spray gun

Ecco 320A

Ecco 320A is a fully automatic spray gun with air-operated remote control. The needle valve is opened by an air-controlled piston and closed by a powerful coil spring. All components in contact with paint are made in stainless steel. The sealing parts of the paint needle and valve seat are made in tungsten carbide. The gun is prepared for paint circulation when hot spraying. Ecco 320A is also a very good air operated fluid valve, for example in colour changing systems and other applications with high demands for quickness and reliability.



Technical data - 320A	
Net weight:	545 g
Maximum paint pressure:	360 bar
Min/max. operating pressure:	6/8 bar
Paint connection:	1/4" 18NPSM male
Connection for spray tip retaining ring:	M18x1
Operating air connector is designed for nylon hose Ø 6/8 mm	

Type	Ordering No.
Ecco 320A	8611 4114 17

Ecco 360

The spray gun with adjustable trigger force

Ecco 360

The Ecco 360 family are well-ried spray guns which are suitable for most applications. All parts which are in contact with the paint are made in stainless material and the sealing parts at paint needle and valve seat are made in tungsten carbide. The paint channels in stainless steel are designed as a protection guard in front of the trigger. This make 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.

Technical data - Ecco 360	
Max. paint pressure:	360 bar
Paint connection:	1/4" 18NPSM male
Connection for spray tip retaining ring:	M18x1

Type	Ordering No.
Ecco 360 - with 2 finger trigger	8611 4116 05
Ecco 360C - with double paint channels for circulation	8611 4116 10
Ecco 360HS - with 4-finger trigger	8611 4116 15
Ecco 360F - with exchangeable filter	8611 4116 25



Ecco 510 - The contractor spray gun

Ecco 510

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 manoeuvre also when using protection gloves.

Eccoflex airless hose is recommended for the Ecco 510 spray gun.

Technical data - Ecco 510	
Max. paint pressure:	360 bar
Paint connection:	1/4" 18NPSM male
Connection for spray tip retaining ring:	11/16"-16

Type	Ordering No.
Ecco 510	8611 4119 05



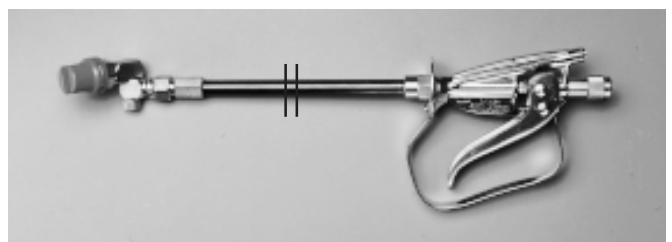
Ecco Pole Gun - When you need a longer arm

Ecco Pole Gun

The Ecco Pole Gun with length 1.2 or 1.8 m is ideal for spraying areas normally inaccessible to normal hand spray guns. The Ecco Pole Gun is easy to operate with a generously dimensioned handle, full hand trigger and trigger guard. It is supplied with a retaining ring and tip guard. The adjustable swivel head makes Ecco Pole Gun easy to adjust for different painting needs.

Eccoflex airless hose is recommended.

Technical data - Ecco Pole Gun	
Max. paint pressure:	210 bar
Paint connection:	1/4" 18NPSM male
Connection for spray tip retaining ring:	11/16"-16
Net weight:	1.2 m = 1 500g, 1.8 m = 1 900g



Type	Ordering No.
Ecco Pole Gun 1.2	8611 4210 04
Ecco Pole Gun 1.8	8611 4210 06

Accessories for Ecco Airless Spray Guns

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 table on page 7 sets out the recommended tips for different types of paint together and the list below shows the standard sizes normally available for off-the-shelf-delivery.



Ecco Quick-TIP - self cleaning spray tip

The spray tip in Ecco Quick-TIP can easily be cleaned by reversing the tip lever 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 life. The holder for Ecco Quick-TIP is available with thread that suits all airless spray guns.



Orifice diameter inch	Fan angle ¹	Capacity ² , litre/minute	Strainer ³ , mesh	Standard spray tip	
				ECCOMANT	Ecco Quick-TIP
0.011	15°	0.54	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	6803 1165 00	6827 0611 00
	80°		200	6803 1180 00	
0.013	15°	0.82	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	6803 1365 00	6827 0613 00
	80°		200	6803 1380 00	6827 0713 00
0.015	15°	1.15	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	6803 1580 00	
0.018	25°	1.64	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	6803 1865 00	6827 0618 00
	80°		100	6803 1880 00	6827 0818 00
0.021	25°	2.14	100	6803 2125 00	6827 0321 00
	40°		100	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
0.026	25°	3.24	60	6803 2625 00	6827 0423 00
	40°		60	6803 2640 00	
	50°		60	6803 2650 00	6827 0526 00
	65°		60	6803 2665 00	6827 0626 00
	80°		60	6803 2680 00	
0.031	40°	5.00	30	6803 3140 00	
	50°		30	6803 3150 00	6827 0531 00
	65°		30	6803 3165 00	6827 0631 00
	80°		30	6803 3180 00	
0.036	40°	6.37	30	6803 3640 00	6827 0436 00
	50°		30	6803 3650 00	
	65°		30	6803 3665 00	6827 0636 00
	80°		30	6803 3680 00	

¹When spraying water, ²Capacity at a fluid pressure of 140 bar, when spraying water, ³Recommended strainer in delivery circuit

Selection of spray tip

Recommended spray tips for different paint types. For other paint types, please contact your local Ecco distributor.

Paint type	Normal spray viscosity (sec. with SIS 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	●	●	●						
Acid hardening	15 - 25	●	●	●						
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 -					●	●	●	●	●

Spray tip holder Ecco Quick-TIP

Holder for spray tip Ecco Quick-TIP.



Thread	For spray gun	Ordering No.
7/8" - 14	Ecco 400/500, Graco	8611 4150 07
11/16" -16	Ecco Pole Gun/510, Spraying Systems, Graco, Binks, Wagner	8611 4150 11
M18x1	Ecco 320/360/370, Deicke & Kopperschmidt	8611 4150 18

Adjustable airless spray tips

Max. paint pressure 250 bar. Is mounted on the spray guns Ecco 320A, 360 and 370 with spray tip holder ord. No. 6803 1600 00 (M18x1)



Orifice diam., adjustable inch	Fan width min./max.	Stamped size	Ordering No.
0.007 - 0.020	50/500	20	6803 2120 00
0.011 - 0.026	80/550	28	6803 2128 00
0.017 - 0.035	100/600	41	6803 2141 00

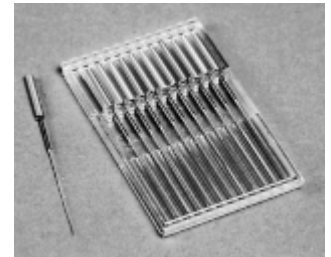
Pre-orifices for high-pressure spraying

To be placed before the standard tip for extra fine atomization.

Orifice diameter inch	Suitable for spray tip with orifice diameter inch	Ordering No.
0.011	0.009 - 0.011	6802 4311 00
0.013	0.011 - 0.013	6802 4313 00
0.016	0.013 - 0.015	6802 4316 00
0.020	0.018 - 0.021	6802 4320 00

Airless tip cleaning broaches

Easy way to clean blocked airless tips. 12 pieces included.



Type	Ordering No.
Airless tip cleaning broaches	6003 8001 00

Wet film gauge

Measuring rang:
25 - 300 µm in steps of 25 µm
350 - 750 µm in steps of 50 µm
900 - 2 000 µm in steps of 150 µm



Type	Ordering No.
Wet film gauge	6802 3558 00

Paint strainers

Paint strainers for Ecco 510, 370F and 360F.



Mesh aperture mesh	Suitable for tips with equivalent orifice diam.	Ordering No.
60	≥ 0.019	6803 3516 00
100	0.015 - 0.018	6803 3575 00
200	0.011 - 0.013	6803 3517 00

Airless hoses

Connections

Eccoflex airless hose

- Properties:**
- Excellent resistance to paints, solvents and chemicals
 - Excellent flexibility
 - Extreme abrasion resistance
 - Static freed - 100% conductivity
 - Light weight
 - UV and ozone resistant
- Inner tube: Polyamide
 Reinforcement: Carbon steel wire brass plated
 Cover: Polyurethane
 Temp. range: -40°C to +80°C

Diam. inside mm	inch	Max. working pressure, bar	Standard length m	Connection thread female - female	Ordering No.
3	1/8	350	8	1/4" 18NPSM	6803 4921 08
4.6	3/16	350	8	1/4" 18NPSM	6803 1742 08
6.3	1/4	325	8	1/4" 18NPSM	6803 0745 08
9.5	3/8	400	10	1/4" 18NPSM	6803 2082 10
9.5	3/8	400	10	3/8" NPT	6803 5669 10

Other lengths are available. Add two-digit designation for desired hose length to the actual ordering number.
Example: 6803 4921 04 (for 4 m hose).

Whip end hoses

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

Diameter inside mm	inch	Ordering No.
3.2	1/8	6803 4920 00
4.6	3/16	6803 1741 00

Teflon hose

Airless hose resistant for particularly aggressive fluids. Couplings and braid in stainless steel. Material inside hose wall: Teflon. Connection thread: 1/4" 18NPSM female.

Diam. inside mm	inch	Max. working pressure, bar	Length m	Max. bending radius, mm	Ordering No.
3	1/8	240	7.5 m	50 mm	6802 3180 00
6.3	1/4	175	7.5 m	60 mm	6201 9264 00

Other lengths are available.

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. Patented.

- 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

Type	Ordering No.
Ecco ERGOTUBE™ Hp	6003 9870 XX

When ordering please state ordering No. and add the number for desired length. **Example: 6003 9870 05 (for 5 m hose).**

T-piece for paint circulation up to the gun

For paint circulation up to the spray gun or for connection of two airless spray guns to the same high pressure pump. Connection thread to gun: 1/4" 18NPSM female. Connection thread to hose: 1/4" 18NPSM male.



Type	Ordering No.
T-piece	6102 3057 00

Nipples

Joining and connection nipples for high pressure hoses.



Connection thread	Bore mm	Material	Ordering No.
1/4" 18NPSM 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	Steel	6202 2197 00
G 3/8 male - 3/8" 18NPSM male	7	Steel	6003 6446 00
1/4" 18NPT male - 3/8" NPT male	7	Steel	6803 5666 00
G 1/4 male - 3/8" 18NPT male	7	Steel	6803 5667 00
3/8" 18NPT male - 3/8" 18NPT male	7	Steel	6803 5665 00

Couplings

Couplings with cap nut in plated steel.



Connection thread male	female	Bore mm	Remarks	Ordering No.
G 1/4	G 1/4	7	Straight	6803 1037 00
G 1/4	1/4" 18NPSM	5.9	Straight	6203 3039 00
G 3/8	G 3/8	7.5	Straight	6803 1341 00
G 3/8	G 3/8	7	Elbow	6803 6359 00
G 1/4	G 1/4	12.3	Straight	6802 3232 00
1/4" 18NPSM	1/4" 18NPSM	5.9	Elbow	6103 1008 00

Swivel couplings for high pressure hoses

To be mounted between the gun and the hose for increased mobility. (Not intended for Ecco 510 or Ecco ERGOTUBE™ Hp.)



Connection thread female - male	Mesh aperture mesh	Working press. max.	Ordering No.
1/4" 18NPSM - 1/4" 18NPSM	100	0.15	360 bar 6802 3228 00
Strainer for above	50	0.30	6802 4141 00
Strainer for above	100	0.15	6802 4142 00
Strainer for above	200	0.07	6802 4143 00
1/4" 18NPSM - 1/4" 18NPSM without strainer		400 bar	6803 5292 00
1/4" 18NPSM - 3/8" NPT without strainer		400 bar	6803 5664 00

Ecco Hydric High Pressure Pumps

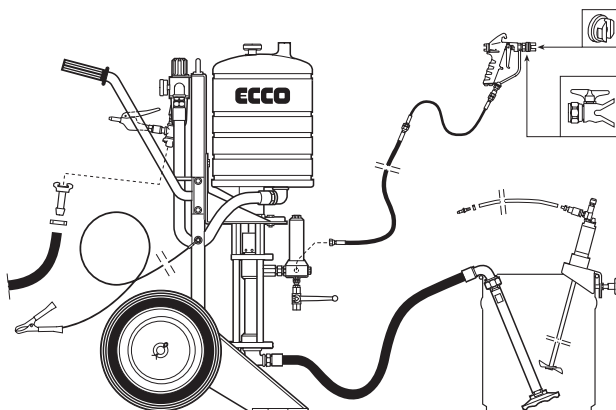
Powerful, double action, air-operated pumps are used to supply the high pressure needed for airless spray painting. Ecco offers a complete range of pumps, for light to heavy jobs, featuring a combination of standardized air motors and wetted parts for a variety of applications. The pumps are intended for hard industrial use. Most of the pumps are also available in stainless steel for abrasive and water based paint.

Hard chrome piston rods are standard equipment on all Ecco high-pressure pumps. Tungsten carbide seats are standard for the "heavy-duty pumps" (HD). The pumps in stainless steel (S) are equipped with a hard chrome plated cylinder (except the 3" pump). All pumps designated LF have a silenced, lubrication free air motor. Maximum stroke frequency is 60 cycles/min.

Technical Data - High Pressure Pumps										
Pump model	Pressure ratio	Max. recomm. spray tip	Capacity at 60 strokes/min lit.	Air consump. at 30 strokes/min		Max theor. paint pressure bar	Recomm. frequency strokes/min	Capacity per cycle ml	Max. working pressure, bar	Free paint flow l/min
				l/sec	l/min					
A314B	14:1	0.015"	3.6	2.8	170	140	30	58	10	10
A328 /-S	28:1	0.015"	1.7	2.8	170	280	30	29	10	6
LF423 /-S	23:1	0.021"	7.5	10.8	650	230	25	125	6	20
LF430 /-S	30:1	0.021"	5.7	10.8	650	300	25	95	6	15
LF647HD/-S	47:1	0.026"	7.5	22.5	1 350	282	20	125	6	20
LF660 /-S	60:1	0.026"	5.7	22.5	1 350	360	20	95	6	15
LF610	10:1	0.026"	34.8	22.5	1 350	60	20	580	6	80
LF1057HD/-S	57:1	0.031"	15.3	37.0	2 250	342	15	255	6	32

Connection thread			
Pump model	Air	Paint outlet	Paint inlet
A314B	G 3/8 female	G 3/8 female	G 1/2 male
A328 /-S	G 3/8 female	1/4" 18NPSM male	G 1 1/4 male
LF423 /-S	G 3/4 male	G 1/2 female	G 1 1/4 male
LF430 /-S	G 3/4 male	G 1/2 female	G 1 1/4 male
LF647HD/-S	G 3/4 male	G 1/2 female	G 1 1/4 female
LF660 /-S	G 3/4 male	G 1/2 female	G 1 1/4 male
LF610	G 3/4 male	G 1 1/2 female	G 1 1/4 female
LF1057HD/-S	G 1 male	G 1 female	G 1 1/4 male

When ordering a complete airless spray painting unit, please order:



- Pump unit
- Spray gun
- Spray tip
- Spray tip holder (if it is not included in the spray gun)
- Airless hose
- Whip end hose
- Swivel coupling (if it is not included in the spray gun)
- Stirrer (if needed)

Ordering examples on pages 10 - 13.

Ecco Hydric 3" pumps - for small flow

Ecco Hydric 3"

The high pressure pumps Ecco Hydric A314B, A328 and A328S are intended for industrial paint spraying.

Recommended spray tip: up to diameter 0.015".

Ecco Hydric 3" pump units includes:

- High pressure pump A328 or A328S mounted on a lid (-L), a bracket (-B) or on a trolley (-T)
- Pressure regulator with lubricator
- Paint outlet filter (100 mesh)
- High pressure relief valve
- Paint outlet connection thread: 1/4" 18NPSM male
- Grounding clamp with 6 m wire
- Suction arrangement
- Extra air outlet for air blow gun or stirrer



Pumps	Type	Pressure ratio	Air connection	Ordering No.
Ecco Hydric A314B	Bare 3" pump	14:1	G 3/8 female	8621 0716 10
Ecco Hydric A328	Bare 3" pump	28:1	G 3/8 female	8621 0716 07
Ecco Hydric A328S	Bare 3" pump in stainless steel	28:1	G 3/8 female	8621 0716 46

Pump units	Type	Pressure ratio	Air connection	Diam. mm	Width mm	Height mm	Depth mm	Ordering No.
Ecco Hydric A328-L	A328 on a lid for paint container	28:1	quick coupling	330		710		8613 2323 30
Ecco Hydric A328S-L	A328S on a lid for paint container	28:1	quick coupling	330		710		8613 2346 30
Ecco Hydric A328-T	A328 on a trolley	28:1	quick coupling		450	1 020	550	8613 2323 39
Ecco Hydric A328S-T	A328S on a trolley	28:1	quick coupling		450	1 020	550	8613 2346 39
Ecco Hydric A328-B	A328 on a bracket	28:1	G 1/2 female		225	500		8613 2323 34
Ecco Hydric A328S-B	A328S on a bracket	28:1	G 1/2 female		225	500		8613 2346 34

Option:

Type		Ordering No.
Stirrer ELM 33F	- for pump units on a lid (-L)	8610 0110 63
Stirrer ELM 33F-GS1	- for pump units on a trolley (-T) or on a bracket (-B)	8610 0110 65

Ordering example - complete 3" high pressure equipment:

		Ordering No.
Pump unit	Ecco Hydric A328-L	8613 2323 30
Spray gun	Ecco 370	8611 7170 05
Spray tip	Ecco Quick-TIP 0.015", 50°	6827 0515 00
Spray tip holder (if not incl. in the spray gun)	Quick-TIP holder M18x1	8611 4150 18
Airless hose	Ecco ERGOTUBE™ Hp, L= 6 m	6003 9870 06
Whip end hose	Not recommended	
Swivel coupling (if not incl. in the spray gun)	Not recommended	
Stirrer (if needed)	Ecco ELM 33F	8610 0110 63

Ecco Hydric 4" pumps - for medium paint flow

Ecco Hydric 4"

The high pressure pumps Ecco Hydric LF423, LF423S, LF430 and LF430S are intended for industrial paint spraying.

Recommended spray tip: up to diameter 0.021".

Ecco Hydric 4" pump units includes:

- High pressure pump LF423, LF423S, LF430 or LF430S mounted on a bracket (-B) or on a trolley (-T).
- Pressure regulator with filter
- Paint outlet filter (60 mesh)
- High pressure relief valve
- Grounding clamp with 6 m wire
- 1 m suction hose with 0.5 m suction pipe
- Extra air outlet for air blow gun or stirrer



Pumps	Type	Pressure ratio	Air connection	Ordering No.
Ecco Hydric LF423	Bare 4" pump	23:1	G 3/4 female	8621 0717 63
Ecco Hydric LF423S	Bare 4" pump in stainless steel	23:1	G 3/4 female	8621 0717 46
Ecco Hydric LF430	Bare 4" pump	30:1	G 3/4 female	8621 0717 48
Ecco Hydric LF430S	Bare 4" pump in stainless steel	30:1	G 3/4 female	8621 0717 55

Pump unit	Type	Pressure ratio	Air connection	Width mm	Height mm	Depth mm	Ordering No.
Ecco Hydric LF423-T	LF423 on a trolley	23:1	claw coupling	560	1 350	810	8613 2323 48
Ecco Hydric LF423S-T	LF423S on a trolley	23:1	claw coupling	560	1 350	810	8613 2346 48
Ecco Hydric LF423-B	LF423 on a bracket	23:1	G 1/2 female	470	870		8613 2323 45
Ecco Hydric LF423S-B	LF423S on a bracket	23:1	G 1/2 female	470	870		8613 2346 45
Ecco Hydric LF430-T	LF430 on a trolley	30:1	claw coupling	560	1 350	810	8613 2323 49
Ecco Hydric LF430S-T	LF430S on a trolley	30:1	claw coupling	560	1 350	810	8613 2346 49
Ecco Hydric LF430-B	LF430 on a bracket	30:1	G 1/2 female	470	870		8613 2323 44
Ecco Hydric LF430S-B	LF430S on a bracket	30:1	G 1/2 female	470	870		8613 2346 44

Option:

Type	Ordering No.
Stirrer ELM 33F-GS1	8610 0110 65

Ordering example - complete 4" high pressure equipment

	Ordering No.
Pump unit	Ecco Hydric LF430S-T 8613 2346 39
Spray gun	Ecco 510 8611 4119 05
Sprayer tip	Eccomant 0.018", 50° 6803 1850 00
Spray tip holder (if not incl. in the spray gun)	Included
Airless hose	Eccoflex 1/4", L= 10 m 6803 0745 10
Whip end hose	1/8", L= 1 m 6803 4920 00
Swivel coupling (if not incl. in the spray gun)	Included
Stirrer (if needed)	Ecco ELM 33F-GS1 8610 0110 65

Ecco Hydric 6" pumps

- for corrosion protection and medium flow

Ecco Hydric 6"

The high pressure pumps Ecco Hydric LF610, LF647HD, LF647HDS , LF660 and LF660S are intended for corrosion protection and industrial paint spraying with medium to heavy viscosity materials.

Recommended spray tip: up to diameter 0.026".

Ecco Hydric 6" pump units includes:

- High pressure pump LF647HD, LF647HDS, LF660 or LF660S mounted on a bracket (-B) or on a trolley (-T).
- Pressure regulator with filter
- Blow gun for the unit mounted on a trolley
- Paint outlet filter (60 mesh)
- High pressure relief valve
- Grounding clamp with 6 m wire
- 1 m suction hose with 0.5 m suction pipe
- Extra air outlet with quick coupling for air blow gun or stirrer



Pumps	Type	Pressure ratio	Air connection	Ordering No.
Ecco Hydric LF647HD	Bare 6" pump	47:1	G 3/4 male	8621 0718 47
Ecco Hydric LF647HDS	Bare 6" pump in stainless steel	47:1	G 3/4 male	8621 0718 46
Ecco Hydric LF660	Bare 6" pump	60:1	G 3/4 male	8621 0722 58
Ecco Hydric LF660S	Bare 6" pump in stainless steel	60:1	G 3/4 male	8621 0722 66
Ecco Hydric LF610	Bare 6" pump	10:1	G 3/4 male	8621 0720 27

Pump unit	Type	Pressure ratio	Air connection	Width mm	Height mm	Depth mm	Ordering No.
Ecco Hydric LF647HD-T	LF647HD on a trolley	47:1	claw coupling	560	1 350	810	8613 2323 69
Ecco Hydric LF647HDS-T	LF647HDS on a trolley	47:1	claw coupling	560	1 350	810	8613 2346 69
Ecco Hydric LF647HD-B	LF647HD on a bracket	47:1	G 3/4 female	470	870		8613 2323 64
Ecco Hydric LF647HDS-B	LF647HDS on a bracket	47:1	G 3/4 female	470	870		8613 2346 64
Ecco Hydric LF660-T	LF660 on a trolley	60:1	claw coupling	560	1 350	810	8613 2323 68
Ecco Hydric LF660S-T	LF660S on a trolley	60:1	claw coupling	560	1 350	810	8613 2346 68
Ecco Hydric LF660-B	LF660 on a bracket	60:1	G 3/4 female	470	870		8613 2323 65
Ecco Hydric LF660S-B	LF660S on a bracket	60:1	G 3/4 female	470	870		8613 2346 65

Option:

Type	Ordering No.
Stirrer ELM 33F-GS1	8610 0110 65

Ordering example - complete 6" high pressure equipment:

	Ordering No.
Pump unit	Ecco Hydric LF647HD-B 8613 2323 64
Spray gun	Ecco 360 8611 4116 05
Spray tip	Eccomant 0.021", 50° 6803 2150 00
Spray tip holder (if not included in the spray gun)	Included
Airless hose	Eccoflex 1/4", L= 8 m 6803 0745 08
Whip end hose	1/8", L= 1 m 6803 4920 00
Swivel coupling (if not included in the spray gun)	Swivel without strainer 6803 5292 00
Stirrer (if needed)	Ecco ELM 33F-GS1 8610 0110 65

Ecco Hydric 10" pumps - for corrosion protection and big flow

Ecco Hydric 10"

The high pressure pumps Ecco Hydric LF1057 and LF1057S are intended for corrosion protection and industrial paint spraying with heavy viscosity materials and thick coats.

Recommended spray tip: up to diameter 0.031".

Ecco Hydric 10" pump units includes:

- High pressure pump LF1057HD or LF1057HDS mounted on a bracket (-B) or on a trolley (-T).
- Pressure regulator with filter
- Blow gun for the unit mounted on a trolley
- Paint outlet filter (60 mesh)
- High pressure relief valve
- Grounding clamp with 6 m wire
- 1 m suction hose with 0.5 m suction pipe
- Extra air outlet with quick coupling for air blow gun or stirrer



Pumps	Type	Pressure ratio	Air connection	Ordering No.
Ecco Hydric LF1057HD	Bare 10" pump	57:1	G 1 male	8621 0725 06
Ecco Hydric LF1057HDS	Bare 10" pump in stainless steel	57:1	G 1 male	8621 0725 46

Pump unit	Type	Pressure ratio	Air connection	Width mm	Height mm	Depth mm	Ordering No.
Ecco Hydric LF1057HD-T	LF1057HD on a trolley	57:1	claw coupling	560	1 400	850	8613 2323 09
Ecco Hydric LF1057HDS-T	LF1057HDS on a trolley	57:1	claw coupling	560	1 400	850	8613 2346 09
Ecco Hydric LF1057HD-B	LF1057HD on a bracket	57:1	G 1 female	720	1 400		8613 2323 04
Ecco Hydric LF1057HDS-B	LF1057HDS on a bracket	57:1	G 1 female	720	1 400		8613 2346 04

Option:

Type	Ordering No.
Stirrer ELM 33F-GS1	8610 0110 65

Ordering example - complete 10" high pressure equipment:

		Ordering No.
Pump unit	Ecco Hydric LF1057HD-T	8613 2323 09
Spray gun	Ecco 360HS	8611 4116 15
Spray tip	Ecco Quick-TIP 0.026", 65°	6827 0626 00
Spray tip holder (if not incl. in the spray gun)	Quick-TIP holder M18x1	8611 4150 18
Airless hose	Eccoflex 3/8", L= 15 m	6803 5669 15
Whip end hose	3/16", L= 1 m	6803 1741 00
Swivel coupling (if not incl. in the spray gun)	Swivel without strainer	6803 5664 00
Stirrer (if needed)	Ecco ELM 33F-GS1	8610 0110 65

Accessories for Ecco Hydric pumps

Hydric Col 10 return regulator

For throttling of the returning flow in circulation when hot spraying. The special design of Hydric Col 10 makes it also suitable for throttling of small paint amounts reducing the risk for clogging in the throttling action to a minimum. The regulator has no internal pockets where loose particles can build up. This makes flushing of the equipment easier. Hydric Col 10 is made in stainless steel with throttling details in tungsten carbide to ensure a longer life time.

Max. working pressure: 360 bar
 Connection thread: 1/4" 18NPSM male



Type	Ordering No.
Hydric Col 10 return regulator	8623 0140 01

For mounting of Hydric Col 10 on pump

Holder	6203 1391 00
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High pressure filter HPM 100

Housing in stainless steel complete with insert strainer and ball valves. Can be mounted on the paint outlet on all Ecco Hydric pumps.

Weight: 1.1 kg
 Filter: 100 mesh
 Max. working pressure: 400 bar
 Paint inlet connection: 1/4" 18NPSM female
 Paint outlet connection: 1/4" 18NPSM male



Type	Ordering No.
High pressure filter HPM 100	8613 2260 15

Replacement filters for HPM 100

For ordering of strainer see table for spray tips, page 6.

Filter		Ordering No.
mesh	mm	
67	0.22	6802 4430 00
100	0.15	6802 4430 01
200	0.07	6802 4430 02

High pressure filter HP 60

Housing in stainless steel complete with strainer. Can be mounted on the paint outlet on all Ecco Hydric pumps.

Weight: 2.0 kg
 Filter: 60 mesh
 Material: Stainless steel
 Max working pressure: 400 bar (5 800 psi)
 Paint inlets: G 1/4, 3/8 or G 1/2 female
 G 1/2 normally for pump connection
 G 3/8 bottom inlet (plugged)
 G 1/4 normally for pressure relief
 Paint outlets: 2 x G 3/8 female (one is plugged)



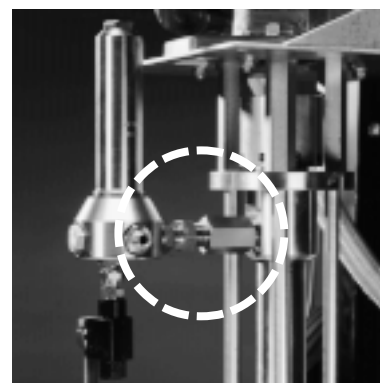
Type	Ordering No.
High pressure filter HP 60	8613 2260 11

Replacement filters for HP 60

For ordering of strainer see table for spray tips, page 6.

Filter		Ordering No.
mesh	mm	
30	0.59	6803 5866 00
60	0.20	6803 5858 00
100	0.15	6803 5867 00
200	0.07	6803 5868 00

Adapter HP 60 to pump



Connection	Length	Ordering No.
G 3/8 male x G 1/2 male	100 mm	6003 6136 00
KR 1/2 male x G 1/2 male	85 mm	6003 6496 00
G 1/2 female x G 1/2 male	50 mm	6802 3232 00

Accessories for Ecco Hydric pumps

Ball valves

For pressure relief on all Ecco Hydric pumps.



Working Pressure	Connection	Ordering No.
400 bar	G 1/4 female	6802 9786 00
500 bar	G 3/8 female	6803 1251 00

Siphon kits

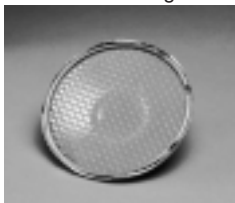
Suction hose with 0.5 meter suction pipe.



Diam. inside	Length	For use with	Ordering No.
20 mm	1 m	20 l pail, 4" or 6" pump	6003 6354 00
25 mm	1 m	20 l pail or 10" pump	6003 6355 00
20 mm	2 m	200 l fat	6003 6700 00
13 mm	1 m	Ecco Hydric 314	6003 9749 15
20 mm	1 m	Siphon hose only	6803 6145 00
25 mm	1 m	Siphon hose only	6803 6144 00
20 mm	2 m	Siphon hose only	6803 6699 00

Siphon strainers

For mounting on paint inlet/suction arrangement for Ecco Hydric pumps.



Size	mm	mesh	Connection	For use with	Ordering No.
0.50	35	G 1 1/4 female	Ecco Hydric Pumps (not 314B)	6203 0295 00	
0.50	35	G 1 female	Siphon hose 6003 6355 00	6003 6137 00	
0.50	35	G 3/4 female	Siphon hose 6003 6354 00	6003 6138 00	

Brackets for pumps

For wall mounting of Ecco Hydric pumps. The brackets features attachment holes for securing the Hydric Col 10 return regulator.

For use with	Ordering No.
Ecco Hydric A328	6203 1408 00
Ecco Hydric A314B	6003 7096 00
Ecco Hydric 4" and 6" pumps	6003 6131 00

Service kits

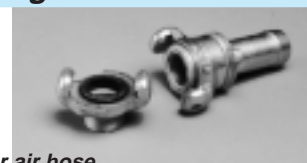
A service kit includes important wear parts for each pump circuit. It also includes gaskets normally damaged when disassembling the pump. Installation instructions in the form of exploded drawings are provided.



For use with	Ordering No.
10" air motors	6003 6150 00
6" air motors	6003 6479 00
4" air motors	6003 6151 00
3" air motors	6202 8630 00
Paint circuit in Ecco Hydric A328 Teflon	6202 9208 00
Paint circuit in Ecco Hydric A314B Teflon	6003 7000 00
Paint circuit in Ecco Hydric LF647HD Leather	6003 6155 00
Paint circuit in Ecco Hydric LF423 Teflon	6003 6154 00
Paint circuit in Ecco Hydric LF430, LF660 Teflon	6003 6153 00
Paint circuit in Ecco Hydric LF610 Teflon	6003 6156 00
Paint circuit in Ecco Hydric LF1057HD Leather	6003 6152 00

For other Ecco Hydric pumps see actual spare part list ESL 12/05 - - .

Claw couplings



Claw couplings for air hose

For hose with inside diam. mm	Bore diam. inch	Bore diam. mm	Weight	Suitable hose clamps	Ordering No.
12.4	1/2	10.5	140 g	9000 0194	9000 0261 00
25.0	1	22	170 g	9000 0197	9000 0264 00

Claw couplings with male thread

Connection thread	Bore diam. mm	Weight	Ordering No.
G 3/8 male	11.2 mm	110 g	9000 0300 00
G 3/4 male	19 mm	130 g	9000 0302 00

Hose clamps

For hoses with inside diam. mm	For hoses with outside diam. mm	Ordering No.
12.4 1/2	22 - 25	9000 0194 00
25.0 1	36 - 40	9000 0197 00

Hot spraying

The hot-spraying method involves heating of the paint to a suitable temperature (appr. 50-70°C) where the paint gets a lower viscosity. The quantity of solvent can then be reduced radically and in many cases the paint can be applied at a lower pressure.

When spraying water based paint on wood, hot spraying can help prevent the wood fibres expanding.

Advantages with hot spraying

- Better surface/layer quality
- More efficient use of paint
- Improved productivity
- Improved operating economy
- Improved working environment
- Less solvent emission
- Shorter drying times
- Lower viscosity
- Less paint dust

Ecco Thermic

The serviceable heater



The Ecco Thermic is a flow through type paint heater. It can be used for both low and high pressure spray painting. Heat is transferred to the paint from an electric heating cartridge through an aluminium body. There is a little risk of burning the paint because the heat transmission area is generously over dimensioned. If cleaning of the paint channels should ever be needed this can easily be done by removing the outer tubing over the aluminium heater body making it particularly suitable for polyester application.

The heating output of the cartridge is controlled electronically. The preset temperature of the paint, downstream the heater, is maintained very accurately to ensure a consistently high standard of the paint coat. The heater features a separate overheating safety fuse. The design configuration permits the heater to be used for intermittent paint flow (where the paint is not moving the whole time) without any danger of overheating. Paint and electrical connections are placed to permit several heaters to be easily connected in series in order to increase the heating capacity.

Ecco Thermic can be used at paint pressure up to 350 bar which makes it suitable also for high viscosity paints. The Ecco Thermic H2E EX is explosion proof according to EN 50014-019 as EEX de IIB T3 and can therefore be installed in explosion hazard areas. The heater can be set for two different temperature areas, 20-60°C or 20-80°C which means that it can also be used for polyester and gelcoat. The heater is also available in one corrosion protected version for water based or corrosive paint.

Technical Data - Ecco Thermic	
Max. working pressure:	350 bar
Fluid volume:	320 ml
Rated voltage:	220/240 V, 50 Hz
Rated current:	10 A
Rated output:	2 200 W
Heating capacity:	60° increase at 1 l/min
Temperature range:	20-60°C or 20-80°C
Temperature accuracy:	±1.5° at 0.5 l/min, 70°C
Connections: High pressure:	1/4" 18NPSM male
Low pressure:	G 3/8 male
Net weight:	20 kg
Height x Width x Depth:	740 x 160 x 165 mm

Type	Ordering No.
Ecco Thermic H2E EX	8613 6114 02
Ecco Thermic H2E EXS Corrosion protected	8613 6114 46

Pump unit Ecco Hydric for airless hot spraying



Pump unit Ecco Hydric for airless hot spraying includes:

- Pump Ecco Hydric LF423 or LF423S on a trolley (-T) or on a bracket (-B)
- Paint heater Ecco Thermic H2E EX or H2E EXS
- Paint regulator Ecco Hydric Col 10
- Air preparation unit, size 1/2"
- Paint filter HP 60 (100 mesh)
- Suction arrangement
- Set of other necessary couplings and nipples

Pump unit for hot spraying	Type	Width mm	Height mm	Depth mm	Ordering No.
Ecco Hydric LF423/H2E-T	LF423 with Ecco Thermic on a trolley	560	1 400	850	8613 2323 47
Ecco Hydric LF423S/H2ES-T	LF423S with Ecco Thermic on a trolley	560	1 400	850	8613 2346 47
Ecco Hydric LF423/H2E-B	LF423 with Ecco Thermic on a bracket	720	870		8613 2323 46
Ecco Hydric LF423S/H2ES-B	LF423S with Ecco Thermic on a bracket	720	870		8613 2346 46

Option:

Type	Ordering No.
Stirrer ELM 33F-GS1	8610 0110 65

Ordering example - complete equipment for hot spraying

		Ordering No.
Pump unit	Ecco Hydric LF423/H2E-B	8613 2323 46
Spray gun	Ecco 360C	8611 4116 10
Spray tip	Eccomant 0,015", 50°	6803 1550 00
Spray tip holder (if not incl. in the spray gun)	Included	
Airless hose	Eccoflex 1/8", L= 8 m, 2 pcs.	6803 4921 08
Stirrer (if needed)	Ecco ELM 33F-GS1	8610 0110 65

Personal protection

Fresh air hood Junior

Junior 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

The Fresh air hood Junior includes innerhood and protecting foil (10 pcs.).



Type	Ordering No.
Fresh air hood Junior	8615 0133 35
Innerhood, set of 5 pcs.	6803 6678 00
Protecting foil, set of 100 pcs.	6803 6679 00

Air filter

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

Normal working pressure to safety helmet: 3 bar.



Type	Ordering No.
Air filter AFR 13	8202 0216 26
Bracket for wall-mounting	6003 6764 00
Ceramic filter	1202 6257 01
Chemical filter	1202 6281 01

Air thermostat Vortex

For air conditioning of fresh air helmets and hoods. The temperature of breathing air (warm/cold) is adjustable. To be installed between air filter and helmet.



Type	Ordering No.
Air thermostat Vortex	8615 0133 36

Hose for breathing air

Air hose made of wear resistant PVC. Approved by Swedish Authorities. Delivered per metre. Outer diam. 11 mm. Inner diam. 1/4".

Type	Ordering No.
Air hose	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 preparation units

Air filter

For removal of dirt and moisture in air supply.

Separation: 15 µm



Type	Connection thread	Capacity at 6 bar primary pressure	Ordering No.
MINI FIL 08A-D	G 1/4 female	700 l/min	8202 0101 80
MIDI FIL 15-D	G 1/2 female	1 500 l/min	8202 0104 38
MAXI FIL 25A-C	G 1 female	3 000 l/min	8202 0105 78

Air filter/regulator

Combined air filter and regulator.

Capacity at 6 bar primary pressure: 1 800 l/min

Connection thread: G 1/2 female



Type	Ordering No.
MIDI F/R 15B-DS	8202 0823 20

Compressed air regulator

For setting of air pressure to pump.



Type	Connection thread	Capacity at 6 bar primary pressure	Ordering No.
MINI REG 08A	G 1/4 female	700 l/min	8202 7201 68
MIDI REG 15-S	G 1/2 female	1 500 l/min	8202 7204 32
MAXI REG 25A	G 1 female	3 000 l/min	8202 7205 56

Oil-fog lubricator

For lubrication of piston pumps.



Type	Connection thread	Capacity at 6 bar primary pressure	Ordering No.
MINI DIM 08A-D	G 1/4 female	700 l/min	8202 5201 70
MIDI DIM 15-D	G 1/2 female	1 500 l/min	8202 5204 10
MAXI DIM 25A	G 1 female	3 000 l/min	8202 5205 50

Accessories for air preparation units

Type	Ordering No.
Pressure gauge for MINI/MIDI units. Range: 0-16 bar	9090 1657 00
Pressure gauge for MAXI units. Range: 0-16 bar	6803 1393 00
Wall bracket for MIDI units	9090 1655 80
Wall bracket for MAXI units	9090 1852 90

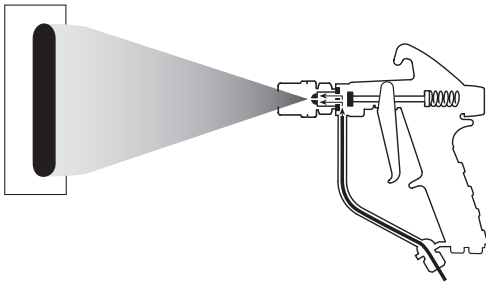
Basic Spraying Technique

To obtain the best possible finishing result it is important that the correct spraying technique is used. The spray tip and the paint used are factors that will affect the result. The size and shape of the work piece to be sprayed will of course have an influence on the finishing result.

A correct balance between paint pressure, the size of the spray tip and the fan width is essential to the result.

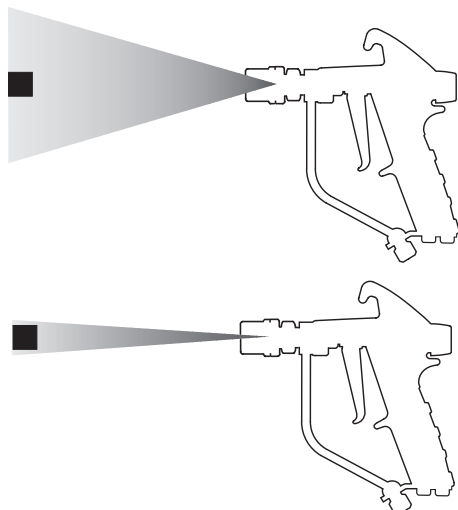
Paint pressure

The paint pressure shall be set as low as possible with respect to required paint output and finish. If the paint pressure is set too low it could lead to a bad atomization of the paint and a striped spray pattern. If the paint pressure is set too high this will lead to a lot of overspray. Recommended paint pressure in the spray gun directly before the spray tip is 120 to 150 bar. The required pressure from the pump depends on how much the pressure falls from pump to spray gun.



Fan width

All paint that does not reach the work piece will effect the environment and your paint economy. Spray tip shall be chosen according to the size of the work piece and to required capacity.

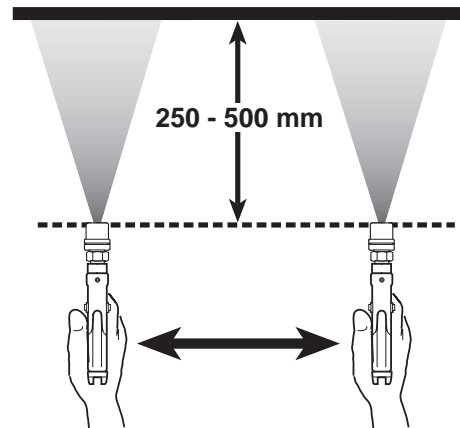


The setting of the paint pressure depends on:

- **The spray tip**
- **The desired fan width**
- **The viscosity and the nature of the material being sprayed**
- **The length and dimension of the high pressure hose**
- **The required production capacity**

Distance to the work piece

Regardless of the equipment chosen the distance to the work piece should be maintained as short as possible. This is a factor that will greatly influence your transfer efficiency. Spraying distance shall be chosen so the sharp edges of the spraying pattern (near the spray gun) is not used. This makes overlapping of the different paint layers easier. Recommended distance between spray gun and work piece is 250 - 500 mm depending on the size and fan width of the spray tip.



Cleaning of the spray gun

At shorter stops, for instance during the night, it is enough that the spray tip is removed and put into solvent and that the outside of the spray gun is cleaned with a soft brush or a rag with solvent.

At longer stops or storage always flush the gun through with solvent. Never immerse the gun in solvent since it will dissolve the lubrication oil inside the gun.