

VISECO

GmbH

Hot Wax Spray Gun DUO Line

Art. No. 140 100

Hot Wax Cartridge Spray Gun DUO Line

Art. No. 140 101



Operating instructions

English 01/2007

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Table of contents

Copyright	3
Manufacturer address	3
Validity and technical state of these operating instructions	3
General notes	3
Guarantee and adhesion	3
Safety notes	4
1 Specified use	5
2 Description	6
2.1 Temperature Adjustment DUO Line	6
2.2 Hot Wax Spray Gun DUO Line	7
2.3 Hot Wax Cartridge Spray Gun DUO Line	8
2.4 Technical Data	9
3 Putting into operation	9
3.1 Putting into operation of the Hot Wax Spray Gun DUO Line.....	10
3.2 Putting into operation of the Hot Wax Cartridge Spray Gun DUO Line.....	11
4 Maintenance and cleaning	11
4.1 Cleaning of the Hot Wax Spray Gun DUO Line	12
4.2 Cleaning of the Hot Wax Cartridge Spray Gun DUO Line.....	12
4.3 Cleaning of the strainer (only with the cup version)	12
5 Transport and storage	12
6 Failures and errors	13
6.1 Failures at the Hot Wax Spray Gun DUO Line	13
6.2 Failures at the Hot Wax Cartridge Spray Gun DUO Line	14
6.3 Failures at the Temperature Adjustment DUO Line	14
7 Replacement of components	15
8 Converting Hot Wax Spray Gun into Hot Wax Cartridge Spray Gun	15
9 Spare parts	16
10 Nozzle Table	18
11 Warranty	19
12 Declaration of conformity	20
13 Notes	21

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Manufacturer address

For any information and support concerning technical problems, services and orders please contact us.

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Validity and technical state of these operating instructions

These operating instructions apply to the Hot Wax Spray Gun DUO Line and for the Hot Wax Cartridge Spray Gun DUO Line. It corresponds to the

- European standard EN 60204-1, EN 12100-1 and 12100-2
- Machine directive 2006/42/EC
- Low voltage directive 2006/95/EC
- EMV - directive 2004/108/EC
- Pressure device directive 97/23/EC
- Device use directive 89/655/EC.

The specified descriptions and technical data correspond to the newest conditions at the time of printing. Changes of technical details or data opposite the data and illustrations of this manual are reserved.

General notes

All information given in this manual are collected and checked to the best of one's knowledge and belief.

Read before installation and start-up of the equipment the manual attentively and always keep these in the proximity of the equipment.

VISECO GmbH does not take any liability to any kind of damages resulting from incorrect operation or handling, misuse, unauthorized technical modifications, incorrect connection or from repairs by unauthorized personnel.

If it comes to a sale of the equipment by the customer into the non-European marketing area, no adhesions are taken over by VISECO GmbH. The equipment is conceived, built and documented exclusively for the European marketing area.

Upon resale of the equipment into the non-European area the salesman has the obligation to fulfil all legal editions of the respective marketing area/country.

Guarantee and adhesion

Basis for equipment and construction of mechanics and electrical connection were the machine directive 2006/42/EC, the low-voltage directive 2006/95/EC and the EMV directive 2004/108/EC with their appendices and associated standards. Concerning security in particular the following harmonized standards were applied:

EN 12100	Machine Safety
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Safety notes

Signposting of safety notes



DANGER

Warnings marked with the „Danger“ symbol shown on the left have to be absolutely observed for protection of health and life of personnel working with the device!

Non-observance can lead to mortal danger and/or risk of injury!



CAUTION

Safety notes marked with the „Caution“ symbol shown on the left have to be observed in order to avoid damage or destruction of devices and equipment!

Summary of safety notes

This section summarizes all safety notes of relevance. Read and understand the safety notes before installing and commissioning the device and observe them. Safety notes of particular importance are additionally repeated in the relevant passages throughout this manual.



DANGER

Work on electrical installations and equipment may only be performed by adequately trained qualified personnel and in conformity with the applicable national rules and regulations (in Germany: VDE regulations, among others).

Only connect and install electrical equipment when the device is switched-off and no voltage is applied. Mortal danger by electric shock!

If electric heatings are intended for unsupervised operation (operation at night), the applicable safety regulations and the corresponding regulations of the relevant Employer's Liability Insurance Association (in Germany: regulations of VDE (Sicherheit in Elektro-Wärmeanlagen DIN EN 60619-2 [VDE 0721, Teil 441]) and "Berufsgenossenschaft") have to be observed. These regulations possibly demand thermal monitoring (or thermal limitation) or inherent safety for this kind of use.

Lacquers and solvent-containing colours must not be used. The DUO Line is not explosion-proof. It must not be used within explosion-endangered areas (zones 0 to 2 according to ATEX).

Never direct the Spray Gun toward humans!

While cleaning the Hot Wax Spray Gun with solvents you will not allowed any ignition source within the working area, as easily inflammable gas compounds may be generated. The mains plug of the equipment has to be disconnected.

Bare metal parts heat up during operation. Use protective gloves and thermo-insulation pos. 8 or 18.

Be sure to observe the UW VBG 1 and 23 (German rules for preventions of accidents) when operating the Hot Wax Spray Gun DUO Line.



CAUTION

Pay attention to it that no material arrives at the electrical contacts. Use thermal isolation pos. 8 or 18 and change these, if material deposits are on it.

The Hot Wax Spray Guns DUO Line are manufactured in keeping with the latest technological development. Improper use e.g. exceeding operation data (see technical data) may provoke hazards. The user will be liable for operating the equipment in perfect condition only. Therefore, regular checks by expert personnel are indispensable. Transformations or modifications by not-authorized persons are not allowed. We exclusively agree to the use of original spare parts and accessories.

Residual risk and danger protection



Remainder dangers are not always obviously recognizable for the personnel and can be source of a possible injury of the health endangerment. Danger areas must be therefore constantly characterized through:

- CAUTION**
- Warnings
 - or by other clear references.

Warn persons in the work area before lying about cables and hoses.

Restrictions of employment by EMV

A troublefree operation is not ensured, if in direct proximity of the control vibration drives, frequency changers of middle and large achievement or other operational funds, which develop larger magnet or electrical fields, are arranged.

Driving past corridor vehicles with insertable electromagnets can lead likewise to malfunctions. When planning of the traffic routes within or outside of the workshop this criterion is to be considered.

1 Specified use

The DUO Line Hot Wax Spray Gun is a handy hot spray gun with electronic 2-channel-temperature control of the nozzle and cup heating.

This Hot Wax Spray Gun is exclusively certain to

the processing of solvent-free waxes, oils, fats and other solvent-free media, which can be liquified by heating.

All media must have a melting point of at the most 95 °C, because the max. temperature is limitet to 95 °C.

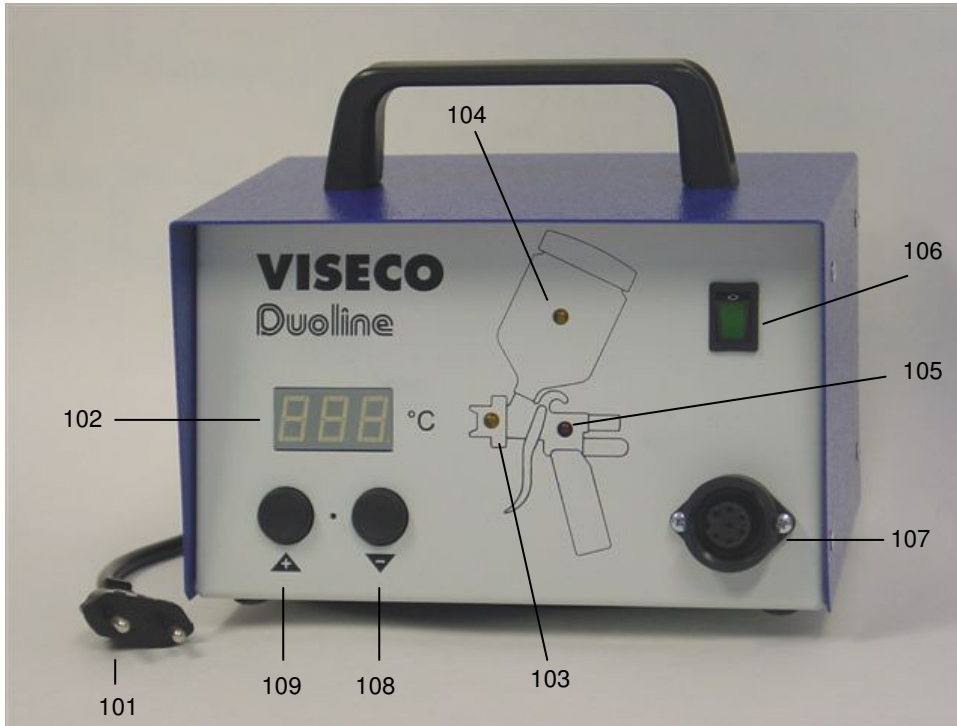
The Hot Wax Spray Gun may only be used for applications described here and only in conformity with the specifications in these operating instructions. Any other application is considered to be improper use and is not permitted.

In case of improper use or misuse of the device VISECO GmbH does not accept any liability. Improper use or misuse furthermore will terminate all and any claims under a warranty.

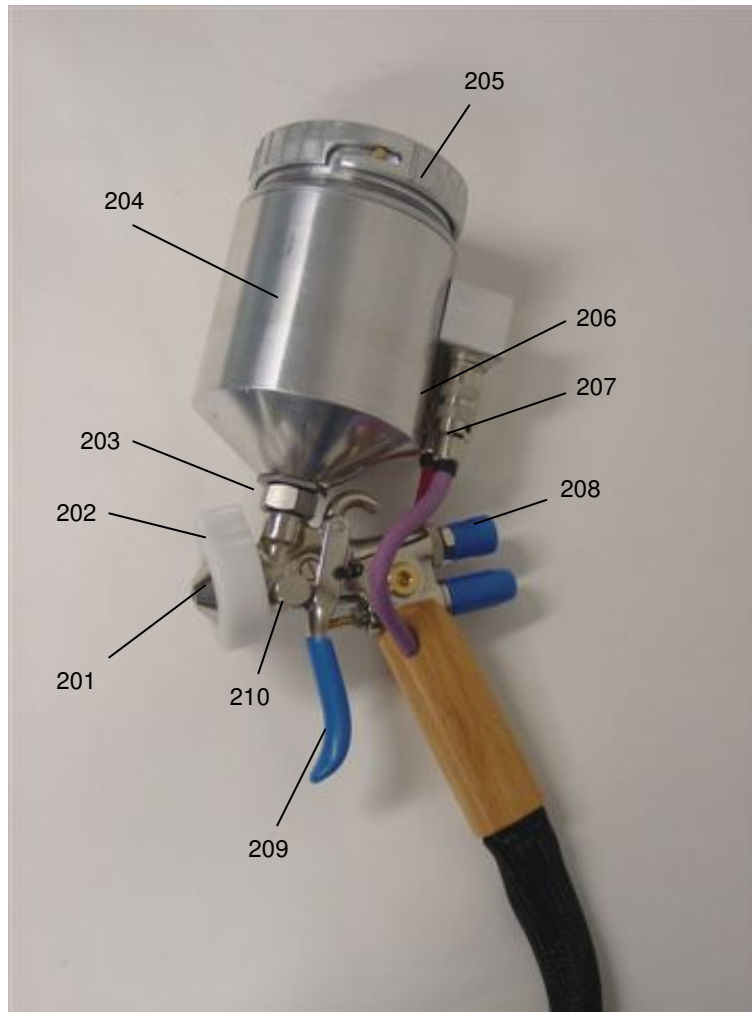
To the intended use belong also the constant attention of the available manual and particularly the observance of the servicing instructions.

2 Description

2.1 Temperature Adjustment DUO Line

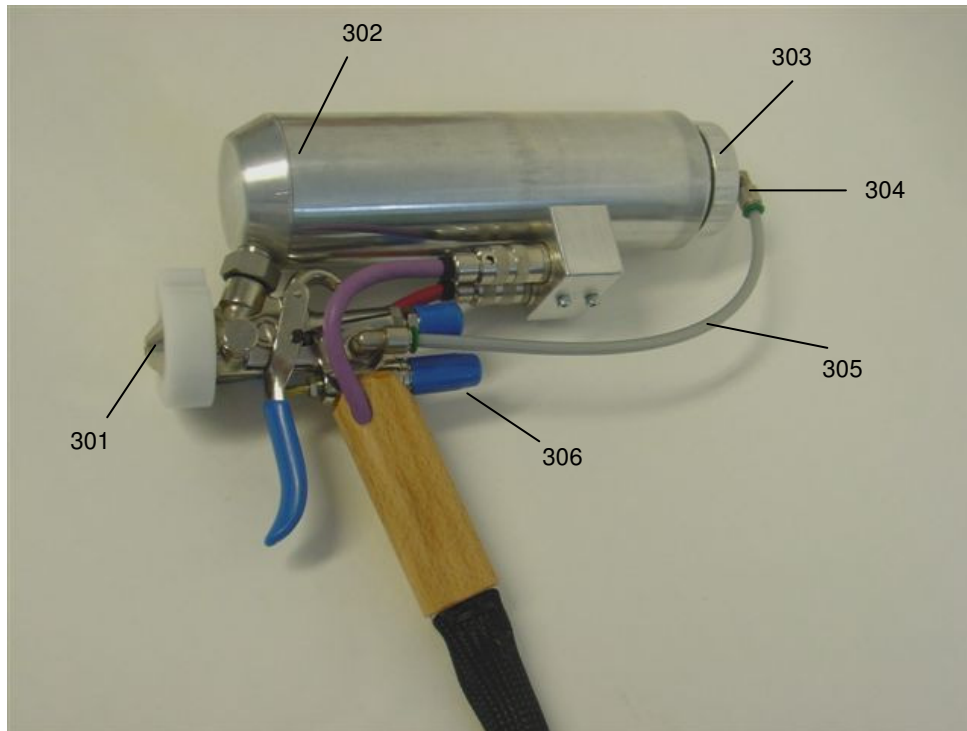


Pos.	Designation
101	Mains plug
102	Temperature display / failure code display
103	LED heating nozzle
104	LED heating cup / cartridge
105	LED collective failure
106	Mains switch ON / OFF
107	Flange socket for link circuit
108	Key button reduce temperature
109	Key button increase temperature

2.2 Hot Wax Spray Gun DUO Line

Pos.	Designation
201	Four bore air head
202	Nozzle cover DUO Line
203	Coupling ring
204	Flow cup DUO Line
205	Bayonet cover
206	Nozzle heating plug
207	Cup heating plug
208	Adjusting screw material needle
209	Trigger
210	Air control valve

2.3 Hot Wax Cartridge Spray Gun DUO Line



Pos.	Designation
301	Movable jet nozzle
302	Cartridge case DUO Line
303	Cartridge lid DUO Line
304	Threaded elbow joint
305	Air hose
306	Threaded elbow joint

2.4 Technical Data

Mains voltage	230 vac-50/60Hz
Fuse protection	10 AT
Power	250 VA
Output voltage	40 VDC max.
Transformer	isolating transformer acc. to VDE 0551
Protective insulation	shockproof
Classification	IP 54
Temperature adjustment	microprocessor control
Max. filling amount flow cup version	0,4 l
Max. filling amount cartridge version	0,3 l
Max. material pressure cartridge system	3 bar
Max. material temperature	95 °C
Max. air pressure of atomizer	6 bar
Hose length	7 m
Temperature	20° to 95 °C

3 Putting into operation



Work on electrical installations and equipment may only be performed by adequately trained qualified personnel and in conformity with the applicable national rules and regulations (in Germany: VDE regulations, among others).

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Lacquers and solvent-containing colours must not be used. The DUO Line is not explosion-proof. It must not be used within explosion-endangered areas (zones 0 to 2 according to ATEX).

Never direct the Spray Gun toward humans!

While cleaning the Hot Wax Spray Gun with solvents you will not allowed any ignition source within the working area, as easily inflammable gas compounds may be generated. The mains plug of the equipment has to be disconnected.

Bare metal parts heat up during operation. Use protective gloves and thermo-insulation pos. 8 or 18.

Be sure to observe the UW VBG 1 and 23 (German rules for preventions of accidents) when operating the Hot Wax Spray Gun DUO Line.



CAUTION

Pay attention to it that no material arrives at the electrical contacts. Use termal isolation pos. 8 or 18 and change these, if material deposits are on it.

The Hot Wax Spray Guns DUO Line are manufactured in keeping with the latest technological development. Improper use e.g. exceeding operation data (see technical data) may provoke hazards. The user will be liable for operating the equipment in perfect condition only. Therefore, regular checks by expert personnel are indispensable. Transformations or modifications by not-authorized persons are not allowed. We exclusively agree to the use of original spare parts and accessories.

3.1 Putting into operation of the Hot Wax Spray Gun DUO Line

1. Install Hot Wax Spray Gun DUO Line at the desired place of work.
 2. Insert plug pos. 101.
 3. Connect cable plug of spray gun to electronic control DUO Line pos. 107.
 4. Fill in hard wax.
 - Minimum filling amount: 0,1 l
 - Maximum filling amount: up to cup marking (0,4 l)
- NOTE** The filled-in wax has to cover the strainer permanently. Otherwise risk of choking as a result of clotting material.
5. Apply bayonet cover pos. 205 and tighten.
 6. Switch on mains switch pos. 106 (ON).
 - Now mains switch display, LED pos. 103 and 104 as well as temperature display pos. 102 are lit up.
 - Temperature adjustment DUO Line is set to 80°C by VISECO.
 - In order to control material temperatures, adjust desired value by means of cursor pos. 108 and 109.
 7. Couple the compressed air hose to air line (cleaned compressed air) and/or an air cleaner and adjust the desired atomizer air pressure (0,5 - 1 bar, max. 3 bar! Air pressure may not be exceeded!) at the pressure-reducing valve. When trigger pos. 209 is actuated, the air valve will be opened first (atomizer air) and the material needle will be taken back afterwards. Reasoning takes place in reverse order. The liquid hot wax is torn with drawn up pistol by the injector effect of atomizer air into the jet spray. Material amounts can be controlled by in or unscrewing of the set screw pos. 208. Air control valve pos. 210 will be used to control width of spray jet. The jet spray becomes by turning left flattened and by turning right it will be round.
 - Heating period about 10 min.
 - Equipment is now ready for operation.

The spraying distance should lie between 15 and 30 cm.

It should be paid attention by small materials requirements to the fact that the surface is only easily sprayed and no wetting must take place.

While spraying, you will have to take care that the hot wax level does not sink under the filling level of the strainer pos. 403. Having finished working the spray gun has to be rinsed with hot non-drying oil and to be cleaned subsequently with appropriate dilution. Regular and preventive cleaning of the appliance helps to increase operational safety. In order to avoid burnings when filling the equipment goggles and protective gloves have always to be worn. Check regularly aeration bore of the bayonet cover pos. 205 to be clean.

3.2 Putting into operation of the Hot Wax Cartridge Spray Gun DUO Line

1. Install the Hot Wax Spray Gun DUO Line at the desired place of work.
2. Insert plug pos. 101.
3. Connect cable plug of spray gun to electronic control DUO Line pos. 107.
4. Remove air hose pos. 305 from threaded elbow joint. Fasten cartridge lid pos. 303.
5. Cut off top of plastic cartridge (maximum excess 10 mm) and slip over o-ring pos. 11. Insert cartridge in cartridge holder and tighten cartridge lid. Fix air hose pos. 305 to threaded elbow joint pos. 304.
6. Switch on mains switch pos. 106 (ON).
 - Now mains switch display, LED pos. 103 and 104 as well as temperature display pos. 102 are lit up.
 - Temperature adjustment DUO Line is set to 80 °C by VISECO.
 - In order to control material temperatures, adjust desired value by means of cursors pos. 108 and 109.
8. Couple the compressed air hose to air line (cleaned compressed air) and/or an air cleaner and adjust the desired atomizer air pressure (0,5 - 1 bar, max. 3 bar! Air pressure may not be exceeded!) at the pressure-reducing valve. When trigger pos. 209 is actuated, the air valve will be opened first (atomizer air) and the material needle will be taken back afterwards. Reasoning takes place in reverse order. The liquid hot wax is torn with drawn up pistol by the injector effect of atomizer air into the jet spray. Material amounts can be controlled by in or unscrewing of the set screw pos. 208.
 - Heating period about 10 min.
 - Equipment is now ready for operation.

4 Maintenance and cleaning



DANGER

Before starting maintenance interrupt air and power supply!

With cleaning the hot wax spray gun with solvent no ignition source may be in the work area, since easy-inflammable mixtures develop. The power supply plug of the controller must be taken off.



CAUTION

When using solvents or detergents on the basis of halogenised hydrocarbon as e.g. 1,1,1-trichloroethane and methylene chloride (dichloromethane) chemical reactions may occur at the aluminium cup, at the gun, as well as at electroplated parts. These parts may become oxidized. VISECO will not be liable for damages resulting from the usage of improper detergents.

NOTE After the cleaning the material-prominent parts may exhibit no more deposits.

It is advisable to lubricate all sliding parts and bearings with an acidless and a not resin that fat or oil. The mobile interior is to be cleaned at least once weekly. The feathers / springs should be constantly provided with a light fat coat.

Pay attention to it that no material arrives at the electrical contacts. Use Thermal isolation pos. 8 or 18 and change these, if material deposits are on it.

4.1 Cleaning of the Hot Wax Spray Gun DUO Line

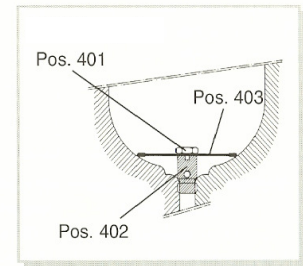
For cleaning the Hot Wax Spray Gun fill the remaining material by a fine-meshed sieve (also a stocking possible) and rinse with hot oil (food oil). Fill the cold Spray Gun with cleaning dilution. Operate the trigger pos. 209 till the cleaning dilution withdraws at the nozzle. Depending upon degree of pollution let the cleaning dilution 1-2 hours influence and remove the wax remainders with a brush. Fill and rinse the Spray Gun with fresh cleaning dilution. Blow out the Spray Gun with compressed air. Conserve the material channel with a neutral oil during longer interruption of work. In the case of strong contamination the material channel can after unscrewing the air head pos. 201 and unscrewing of the material nozzle pos. 28 as well as development of the material needle pos. 34 to be opened. Do not clean precision parts with hard articles.

4.2 Cleaning of the Hot Wax Cartridge Spray Gun DUO Line

Screw on cartridge cover pos. 303 and take material cartridge. Set up the cartridge chamber pos. 302 perpendicularly and fill with cleaning dilution. Operate the trigger pos. 209 till the cleaning dilution withdraws at the nozzle. Depending upon degree of pollution let the cleaning dilution 1-2 hours influence. Fill and rinse the Spray Gun with fresh cleaning dilution. Screw on cartridge cover pos. 303 and stick on air hose pos. 305 at screwed angle fitting pos. 304. Blow out the Spray Gun with compressed air.

4.3 Cleaning of the strainer (only with the cup version)

Turn off screw pos. 401 with box spanner (size 10). Hold strainer fixing pos. 402 with steel pin and dismantle the strainer pos. 403. Clean strainer and strainer fixing with cleaning dilution and a brush and blow them out with compressed air. Please pay attention to it that in the strainer fixing are small openings by which the wax penetrates into the Spray Gun. These openings must be free. Mounting in a general manner reverse order.



CAUTION

Only parts of the pistol body may be insert into solvent cleaner. The cup may be filled with solvents for cleaning purposes. This may take place only in cold condition. All other parts may only be cleaned with a soaked cloth, however not be inserted into any liquids. This destroys the electrical contacts. Because such are also in the connection housing of the cup, a sleeve (see photo right) is always to be pulled over the complete cup during working. Otherwise material can penetrate the housing and destroy the contacts.



5 Transport and storage

After distribution ex factory the Spray Gun may be only transported in packaging which is suitable for electronic devices.



Permissible temperatures for storage and transport: -20 °C to 50 °C

Permissible relative air humidity: max. 90%, non-condensing

6 Failures and errors

It is strongly recommended to test spray patterns on a clean sheet of paper before starting spraying work. All eventual discrepancies will immediately be visible and can be eliminated before you start waxing.

6.1 Failures at the Hot Wax Spray Gun DUO Line

Problem	Possible cause	Solution
No material flowing out.	<ul style="list-style-type: none"> a) No wax in flow cup. b) Strainer pos. 403 blocked. c) Temperature too low. d) Strainer fixing pos. 402 blocked. 	<ul style="list-style-type: none"> a) Fill in wax. b) Dismantle and clean (see chapter 4). c) Working temperature not yet reached or increase temperature (see chapter 6.3). d) Dismantle and clean (see chapter 4).
Gun dropping.	<ul style="list-style-type: none"> a) Material pin or nozzle soiled. b) Material needle or nozzle damaged. c) Foreign matter in material nozzle. d) Gland pos. 28 too much tightened. e) Needle spring pos. 35 out of order; evt. broken. f) Adjustment screw pos. 39 too far back. g) Setting of needle nut pos. 35 misadjusted. 	<ul style="list-style-type: none"> a) Dismantle and clean. b) Replace with spare part. c) Dismantle and clean. d) Loosen gland bolt pos. 30 slightly. e) Dismantle and replace with spare part if necessary. f) Turn in adjustment screw. g) Adjust setting (see chapter 7).
Material leakage at gland.	<ul style="list-style-type: none"> a) Gland not tight enough. b) Needle package pos. 28 worn out. 	<ul style="list-style-type: none"> a) Tighten gland nut slightly. b) Replace with spare part.
Air leakage at gun head, gun blowing at idle.	<ul style="list-style-type: none"> a) Valve cone pos. 48 not tight. b) Valve shaft pos. 47 sluggish. 	<ul style="list-style-type: none"> a) Replace with spare part. b) Replace with spare part.
Spray jet adjustment. (Not for rotary jet nozzle!)	Before mounting the air head, material nozzle outside and contact surface of air head have to be cleaned. Wax remains may sit between nozzle and air head and disturb air supply.	Dismantle and clean.
Pulsating spray jet or no material flowing.	<ul style="list-style-type: none"> a) Not enough material in flow cup. b) Flow cup too much inclined. c) Material nozzle pos. 28 loose. d) Material temperature too low. e) Strainer pos. 4 blocked. 	<ul style="list-style-type: none"> a) Fill in material. b) Keep gun vertically or fill in material. c) Tighten material nozzle. d) Working temperature not yet reached or increase temperature (see chapter 6.3). e) Dismantle and clean.
Spray jet one-sided.	Horn bore at air head pos. 27 soiled.	Dismantle and clean.
Faulty spray jet because of wrong setting.	 <p>When spray jet is split, amount of material may be too low and spray pressure too high at the same time.</p>	 <p>Spray pattern correct. Reduce atomizer pressure or open adjustment screw pos. 39.</p>
Gun does not heat.	Heating or control failure.	See chapter 6.3.

6.2 Failures at the Hot Wax Cartridge Spray Gun DUO Line

Problem	Possible cause	Solution
No material flowing out.	a) Cartridge empty. b) Temperature too low. c) Nozzle is blocked. d) Air hose pos. 305 not attached. e) Cartridge lid pos. 303 loose. f) Cartridge lid sealing pos. 12 soiled or defect.	a) Replace cartridge. b) Working temperature not yet reached or increase temperature (see chapter 6.3). c) Dismantle and clean. d) Attach air hose. e) Tighten cartridge lid. f) Dismantle and clean or replace with spare part.
Gun does not heat.	Heating or control failure.	See chapter 6.3.
For more failures see chapter 5.1.		

6.3 Failures at the Temperature Adjustment DUO Line

The Temperature Adjustment DUO Line is equipped with a diagnostic display. In case of trouble, collective fault pos. 105 will be blinking and the resp. error code will be shown in the digital display pos. 102.

Problem	Possible cause	Solution
Gun does not heat.	a) Mains plug not connected. b) No power supply.	a) Insert plug, switch on supply pos. 106. b) Check mains supply.
Failure code E01	a) Plug pos. 107 not connected. b) Plug pos. 58 not connected. c) Nozzle, cup heating and sensor defect.	a) Plug in pos. 107. b) Plug in pos. 58. c) Replace nozzles and cup heating.
Failure code E02	a) Nozzle heating pos. 6 not plugged in. b) Nozzle heating sensor defect.	a) Plug in. b) Replace nozzle heating.
Failure code E03	Flow cup sensor defect.	Replace flow cup.
Failure code E04	Electronic control circuit 1 defect (control circuit nozzle heating).	Temperature Adjustment DUO Line must be repaired.
Failure code E05	Electronic control circuit 2 defect (control circuit cup heating).	Temperature Adjustment DUO Line must be repaired.
Failure code E06	Nozzle heating defect.	Replace nozzle heating.
Failure code E07	Flow cup heating defect.	Replace flow cup heating.

7 Replacement of components

1. Replacement of the nozzle heating pos. 202:

- a) Loosen plug pos. 206.
- b) Loosen bolt pos. 25 of nozzle heating pos. 202.
- c) Pull off nozzle heating together with nozzle casing.
Mount in reverse order.

2. Replacement of material nozzle:

- a) See par. 1.
- b) Loosen air head nut pos. 26.
- c) Remove air head pos. 27.
- d) Loosen material nozzle pos. 28 with spanner SW 12 from gun body.
Mount in reverse order.

3. Replacement of material needle:

- a) Loosen adjustment screw pos. 208.
- b) Screw off spring bushing pos. 37.
- c) Remove needle spring pos. 36.
- d) Tear out material needle pos. 34.
- e) Setting of material needle for antichamber air has to be 64 mm from needle cup to the first needle nut pos. 35. The second nut is for safety.
Mount in reverse order.

4. Replacement of the flow cup pos. 204

- a) Unscrew plugs pos. 206 and 207.
- b) Loosen union nut pos. 203 with open-end spanner 22.
Mount in reverse order.

5. Replacement of the needle packing:

After dismantling the material needle both the gland bolts pos. 30 have to be screwed off the gun body. Needle packing pos. 29 can now be removed.
Mount in reverse order.

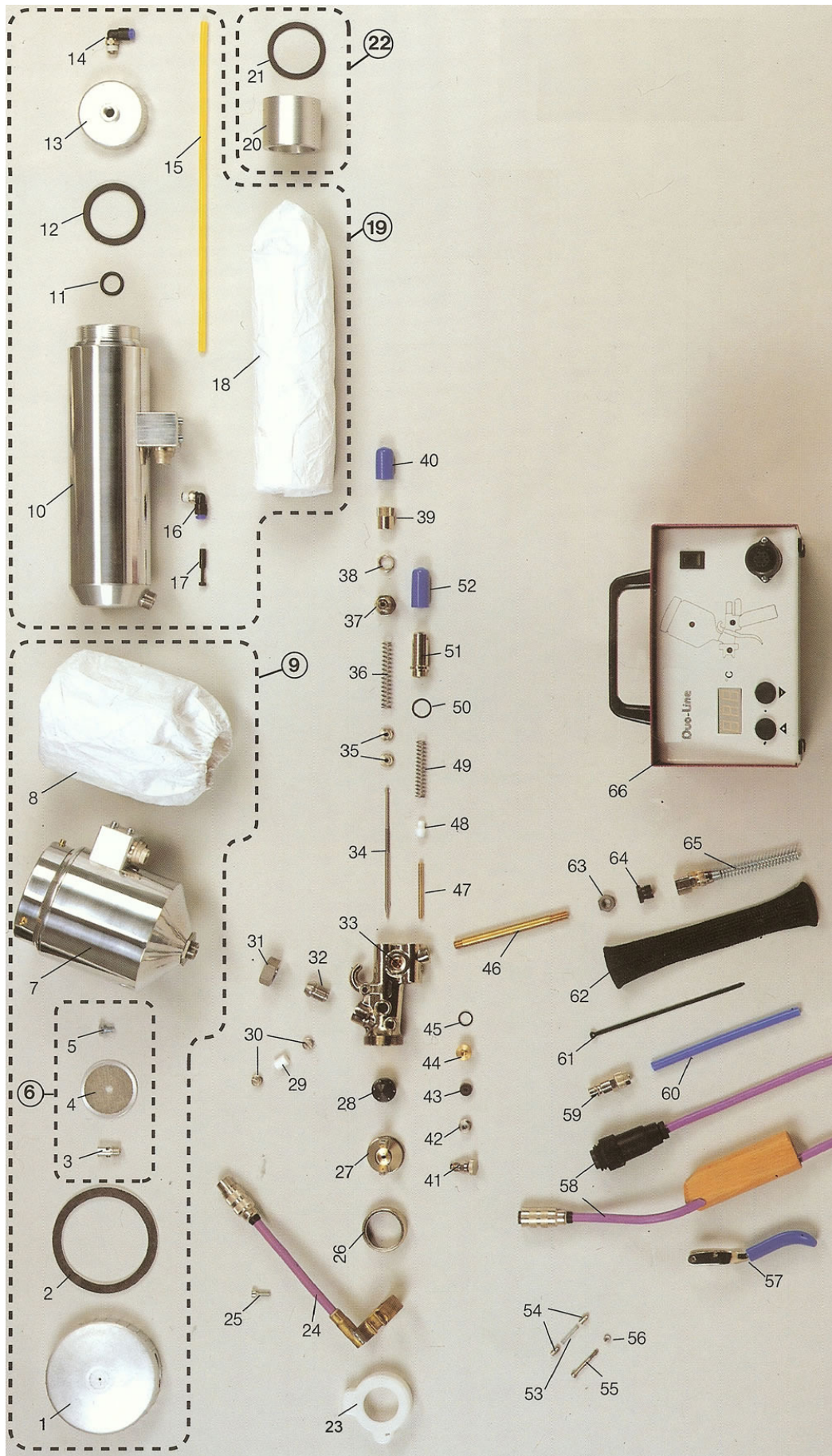
8 Converting Hot Wax Spray Gun into Hot Wax Cartridge Spray Gun

The Hot Wax Spray Gun DUO Line can easily be converted into a Hot Wax Cartridge Spray Gun. In order to do this you will need retrofit kit art. no. 101.270042.

1. Dismantle flow cup (see chapter 7).
2. Unscrew blind plug pos. 44.
3. Insert threaded elbow joints pos. 16 into gun body pos. 33.
4. Tighten cartridge holder DUO Line by means of union nut pos. 31.
5. Screw down plug pos. 206 and 207.
6. Attach air hose pos. 305 to threaded elbow joint pos. 16.

For putting into operation of Hot Wax Cartridge Spray Gun see chapter 3.2.

9 Spare parts



Pos.	Disignation	Art. No.
1	Bayonet cover with sealing	100.270030S
2	Flow cup sealing	100.270031
3	Strainer fixing with screw	103.10.018
4	Strainer II	103.50.068
5	Bolt	103.50.071
6	Complete strainer (pos. 3+4)	
7	Flow cup DUO Line	100.270032
8	Thermocoating flow cup (5 pieces)	100.270033
9	Flow cup retrofit kit pos. 1-8 + 17	100.270034
10	Cartridge casing DUO Line	101.270046
11	Cartridge sealing (2 pieces)	101.270036
12	Cartridge cover sealing	101.270037
13	Cartridge cover complete	101.270025
14	Threaded elbow joint G1/8"	101.270038
15	Air hose 6/4	101.270039
16	Threaded elbow joint G1/8"	101.270038
17	Sealing plug	101.270040
18	Thermocoating cartridge (5 pieces)	101.270041
19	Cartridge retrofit kit pos. 10-18	101.270042
23	Nozzle cover DUO Line	100.270027
24	Nozzle heating DUO Line	100.270026o
25	Bolt for nozzle heating	100.270052
26	Air head nut	V 01 101 03 000
27	Air head	V 01 101 02 124
28	Material nozzle	V 01 101 10 121
29	Needle packing	V 09 101 74 000
30	Glandbolt (2 pieces)	V 10 441 03 000
31	Union nut 3/8"	100.27009
32	Male thread end nipple	100.27008
33	Gun body G 1/8	100.270054
34	Material needle	V 10 406 01 123
35	Needle nut (2 pieces)	V 10 206 02 000
36	Needle spring	V 10 206 04 000
37	Spring bushing	V 10 206 06 000
38	Locknut	V 11 506 07 000
39	Adjusting screw	V 10 206 05 000
40	Adjusting screw insulation	100.270047
41	Complete air control valve	V 00 101 74 750
42	Valve bushing	V 10 201 06 000
43	Packing ever 4 discs	V 09 101 15 000
44	Blind plug 1/8"	100.270048
45	Sealing 1/8"	100.270049
46	Air pipe	V 00 101 09 000
47	Valve shaft	V 10 444 01 000
48	Valve cone	V 10 904 02 000

Pos.	Designation	Art. No.
49	Valve spring	V 10 204 03 000
50	Sealing	V 09 101 14 000
51	Valve casing	V 10 204 14 000
52	Insulation cap	103.50.059
53	Spring for trigger fixing	V 10 101 19 000
54	Trigger bolt (2 pieces)	V 10 101 18 000
55	U-bolt	V 00 103 07 000
56	Nut for U-bolt	V 00 103 04 000
57	Insulated trigger	V 00 103 06 000
58	Complete hose and cable set	100.270060
59	Coupler plug NG 8	103.50.062
60	Compressed air hose 8/6	103.50.063
61	Cable binder black (2 pieces)	100.270051
62	Tissue coating	103.50.061
63	Air pipe nut	V 00 101 08 000
64	Reducer	V 00 101 05 000
65	Screw joint	103.50.075
66	Temperature Adjustment DUO Line	100.270024
67	Repair kit (pos. 4, 27-29, 34-36, 43, 48, 49)	103.50.073

10 Nozzle table

The standard nozzle kit will be appropriate for most applications. Moreover, the following nozzle kits are available as rotary spray jet kit.

For mounting and dismounting see chapter 7.

Nozzle Size	Flat-round Jet Nozzle	Rotary Jet Nozzle
0,8 mm Ø	V 15 004 02 081	V 15 044 21 081
1,0 mm Ø	V 15 004 02 101	V 15 044 21 101***
1,2 mm Ø	V 15 004 02 121***	V 15 044 21 121
1,5 mm Ø	V 15 004 02 151	V 15 044 21 151
1,8 mm Ø	V 15 004 02 181	V 15 044 21 181
2,0 mm Ø	V 15 004 02 201	V 15 044 21 201
2,5 mm Ø	V 15 004 02 251	V 15 044 21 251

The nozzle kit marked with *** is standard.

11 Warranty

WISECO guarantees that all devices made by WISECO and wearing the name WISECO are free of material and production faults at the time they are sold by authorized sales representatives to the original buyer.

WISECO will repair or replace all parts of the device which have been accepted by WISECO to be faulty within a period of 12 months after the date of sale.

This warranty is only valid if the device has been installed, operated and maintained according to the written instructions issued by WISECO.

This warranty does not include general wear or any kind of malfunction or damage caused by incorrect installation or operation, abrasion, corrosion, inadequate or incorrect maintenance, negligence, unauthorized modifications or fitting of parts that are not original WISECO parts. Moreover, WISECO will not be liable for any malfunctions, damages or wear causes this way.

Furthermore, WISECO will not be responsible for malfunctions, damages or wear resulting from incompatibility of WISECO devices with structures, spare parts, devices or materials not supplied by WISECO or those resulting from improper design, production, installation, operation or maintenance or which are caused by structures, spare parts, devices or materials not supplied by WISECO.

This warranty will be valid under the condition that the device to be guaranteed is sent free of charge to WISECO to repair the indicated fault. If the indicated fault is confirmed, WISECO will repair or replace any kind of faulty part free of charge. The device will be sent back to the sender not free. If no material or production defect should be found during testing we will repair the device according to our valid prices which include the costs for spare parts, work and transport.

WISECO's sole liability as well as the purchaser's only appeal in case of lacking warranty result from the above said. The purchaser agrees to the fact that no other appeal will be admitted (inclusively but not exclusively claims for damages following profit losses, not concluded sales, personal and material damages or other). Any kind of lacking warranty has to be claimed within two (2) years after date of sale.

WISECO's warranty does not include any accessory parts, materials or components delivered by WISECO but not produced by WISECO. Those parts delivered by WISECO but not produced by WISECO are subject of guarantee bonds of the respective producers, as far as available. Should such a producer not fulfil his warranty, WISECO will support the purchaser with any kind of adequate assistance.

LIMITATION OF LIABILITY

WISECO will not be liable in any case for indirect damages following or for particular damages resulting from the delivery of devices by WISECO, neither for damages resulting from the breach of a contract or from the lacking of warranty nor for damages due to negligence by WISECO or other circumstances. This also applies to damages possibly resulting from the design, the product features or the use of WISECO devices or other devices delivered by WISECO but not produced by WISECO.

12

**CE Declaration of Conformity
According to EU-machine directive 2006/42/EC
appendix II A**

Hereby the manufacturer VISECO GmbH
Flurstr. 11b
D-86551 Aichach

declares that the following device
Designation: **DUO Line Hot Wax Spray Gun**
Article Number: **140-100 (140-101)**
Serial Number: **starting from 06103430**

is manufactured according to the following regulations:

2006/42/EC EU-machine directive
2006/95/EC Low voltage directive
2004/108/EC EMV-directive
97/23/EC Pressure device directive
89/655/EC Device use directive

with their change directives.

Applied harmonized European standards*

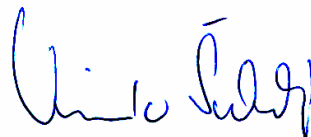
EN 12100-1/2 Machine Safety
EN 60204-1 Machine Safety

* A complete listing is present the manufacturer.

In the case of not authorized modifications of the machine this declaration loses its validity.
The manual in the available version is a component of this declaration.

VISECO GmbH
Heißwachstechnik und mehr...
Flurstr. 11 b
D-86551 Aichach

Aichach, 19th January 2007



Vinko Sebalj (Managing Director)

