

SPEEDAIR 300/400/600 L
SUPAIR 400/600 L

385.156-A *English*

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**to be read attentively
and kept for further reference**

Safety, checks, maintenance of the Sprayers: **see manual ref. 82.471**

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GENERAL AND SAFETY

Warning.

Acceptable use of the sprayer.

General safety measures.

Hitching, unhitching.

Maintenance.

Adapting the PTO shaft.

Counter indications.

Meaning of the safety stickers.

"Safety, checks, maintenance of the Sprayers": see manual ref. 82.471.

TECHNICAL SPECIFICATIONS

Mounted pneumatic sprayer equipped with a regulation ensuring constant volume/hectare

- Steel **CHASSIS** protected by U.H.R. polyester paint.
- **VINEYARD HITCH** and standard hitch with 2 mounting heights.
Automatic hitch with male hitch triangle (Option). A hitch triangle (Accord type) may be installed.
- High density polyethylene **TANK** with drain valve.
Nominal capacity 300/400/600 litres.
Wide filling orifice with swing lid. (screwed on 300).
- 44-litres polyethylene **RINSE TANK** (300), 55-litres (400 and 600).
- 20-litres polyethylene **HANDWASH TANK**.
- **FLOAT GAUGE** visible over 360°.
- 2-pistons, BP 60 diaphragm **PUMP** - 60 litres/mn - 20 bar.
- **DPM REGULATION**, constant volume/hectare, proportional to engine speed with high and low pressure circuits.
- Polyethylene **FAN HOUSING** with built-in air distribution.
- High pressure closed propeller **FAN** with external clutch.
 - . 16 Ø 560 mm blades (SPEEDAIR)
 - . 20 Ø 630 mm blades (SUPAIR)
- **TRIPLE FILTRATION**: filling filter (sieve, 8/10° mesh), suction filter (vannofilter 6/10 mesh), and delivery filter (2 filter 6/10 mesh).
- Hydraulic **AGITATION** by return of unsprayed liquid to the tank.
- **CONTROL**:
 - MANUAL: Distributors attached to the tractor fender and control valve installed on the sprayer. (SPEEDAIR)
 - ELECTRIC: (optional on SPEEDAIR) (standard option on SUPAIR) In-cab control of spraying by electric flap valves (VITIELEC)
- **MANOMETER** 0/25 bar Ø 63 or Ø 100 mm (with VITIELEC) (dilated scale 0/6 bar).
- **BERLOGIC** (operation assistance: spraying, equipment rinsing, tank rinsing, chemical hopper (optional on Speedair 400/600).
- Universal **PTO SHAFT**.
- Maximum absorbed power: 25 HP. Speedair, 40 HP. Supair.

- **EQUIPMENTS**
 - . **S.E. bridge** or **SITEX bridge**: 8 outlets (4 canons Ø 75 and 4 "Airmist" diffusors).
 - . **A5 R.H. boom**: Coupled hydraulic folding of arms and manual width adjustment from 1.40 to 2.50 m. Clearance under the arms adjustable from 1925 mm (min.) to 2275 mm (max.). 4 canons Ø 75 and 4 diffusors.
 - . **Adjustable canon**.
 - . **Oscillating canon**.
 - . **Vertical canon** (Supair).

OPTIONS:

- . Tank rinsing.
- . Hydraulic lift control for the A5 boom.
- . Canon with electric control for A5 boom (Sitelec).
- . A.B. Most with 30 HP pulley (Speedair).
- . Pulley for 35 HP drive. (Supair)
- . Rear diffusors for narrow vineyards.
- . Airmist angled diffusor for A.B. Most.
- . 2/3 hydraulic distributors or 5 dual-action functions.
- . Vitiélec 2 sections (Speedair).
- . Chemical hopper, Speedair 400/600.
- . HP regulator.
- . Auto-injector filling with 6 m hose.

SOUND MEASUREMENTS

ATMOSPHERIC NOISE EMITTED BY: The mounted sprayer SPEEDAIR with Bridge equipment.

Sound pressure Driver's environment LPA in dB (A):

- Tractor alone = 69.4
- Tractor + sprayer = 72.5

Sound pressure Peak level:

- Tractor alone = 92.8
- Tractor + sprayer = 96.1

Sound power LWA:

- Tractor alone = 104.35
- Tractor + sprayer = 116.18

ATMOSPHERIC NOISE EMITTED BY: The mounted sprayer SPEEDAIR with A5 boom equipment.

Sound pressure Driver's environment LPA in dB (A):

- Tractor alone = 75.1
- Tractor + sprayer = 81.4

Sound pressure Peak level:

- Tractor alone = 102.2
- Tractor + sprayer = 103.7

Sound power LWA:

- Tractor alone = 106.5
- Tractor + sprayer = 114.9

ATMOSPHERIC NOISE EMITTED BY: The mounted sprayer SPEEDAIR with A.B.MOST boom equipment.

Sound pressure Driver's environment LPA in dB (A):

- Tractor alone = 69.7
- Tractor + sprayer = 73.6

Sound pressure Peak level:

- Tractor alone = 89.1
- Tractor + sprayer = 95.3

Sound power LWA:

- Tractor alone = 101.81
- Tractor + sprayer = 116.55

**Comply with the legislation in force
and use ear-protectors if necessary.**

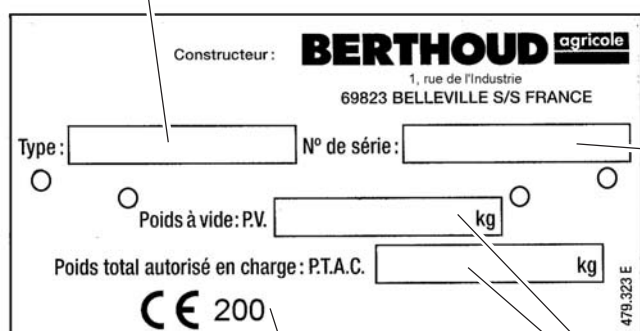
DESCRIPTIVE PLATE

The unit's identification plate is located on the chassis at the front.

The box "Type" is made up of letters and figures.

Example : 5 SP M 04 VT = SPEEDAIR 400 l manual control, equipped with an arch.

- VT** = Bridge - RP = Boom - CA = Canon - 00 = Particular.
- 03** = Tank capacity 300 litres.
- 04** = Tank capacity 400 litres.
- 06** = Tank capacity 600 litres.
- M** = Manual control or E Electric control.
- SP** = SPEEDAIR or SU = SUPAIR (standard model).
- 5** = mounted pneumatic sprayer (product family).



The box "No. of series" is made up of 7 figures
Example: 100 1042 = order number

Year and month of manufacture

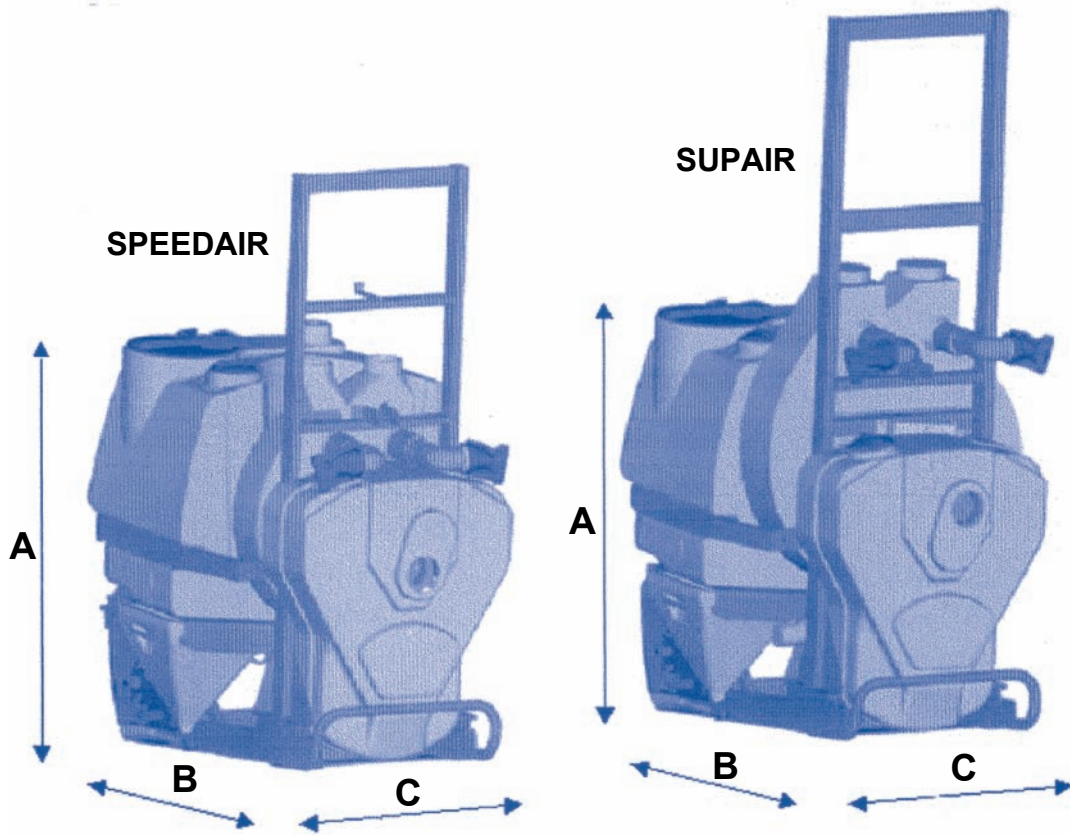
The unladen weight and gross weight blocks indicate the data in the table below.

TABLE OF WEIGHTS

The weights are given indications and may vary according to the equipments.

	SPEEDAIR 300		SPEEDAIR 400		SPEEDAIR 600		SUPAIR 400		SUPAIR 600	
With equipment S.E. bridge	320 kg	712 kg	367 kg	863 kg	450 kg	1157 kg	496 kg	963 kg		
With equipment SITEX bridge					421 kg	1128 kg			611 kg	1318 kg
With equipment RH A5 boom	366 kg	729 kg	400 kg	896 kg						
With equipment A.B. MOST boom	434 kg	797 kg	461 kg	957 kg	555 kg	1245 kg				
With equipment OSCILLATING CANON					393 kg	1100 kg	458 kg	954 kg	490 kg	1197 kg
With equipment ADJUSTABLE CANON					393 kg	1100 kg	458 kg	954 kg	490 kg	1197 kg
With equipment VERTICAL CANON							458 kg	954 kg	490 kg	1197 kg
	Kerb weight	Gross machine weight	Kerb weight	Gross machine weight	Kerb weight	Gross machine weight	Kerb weight	Gross machine weight	Kerb weight	Gross machine weight

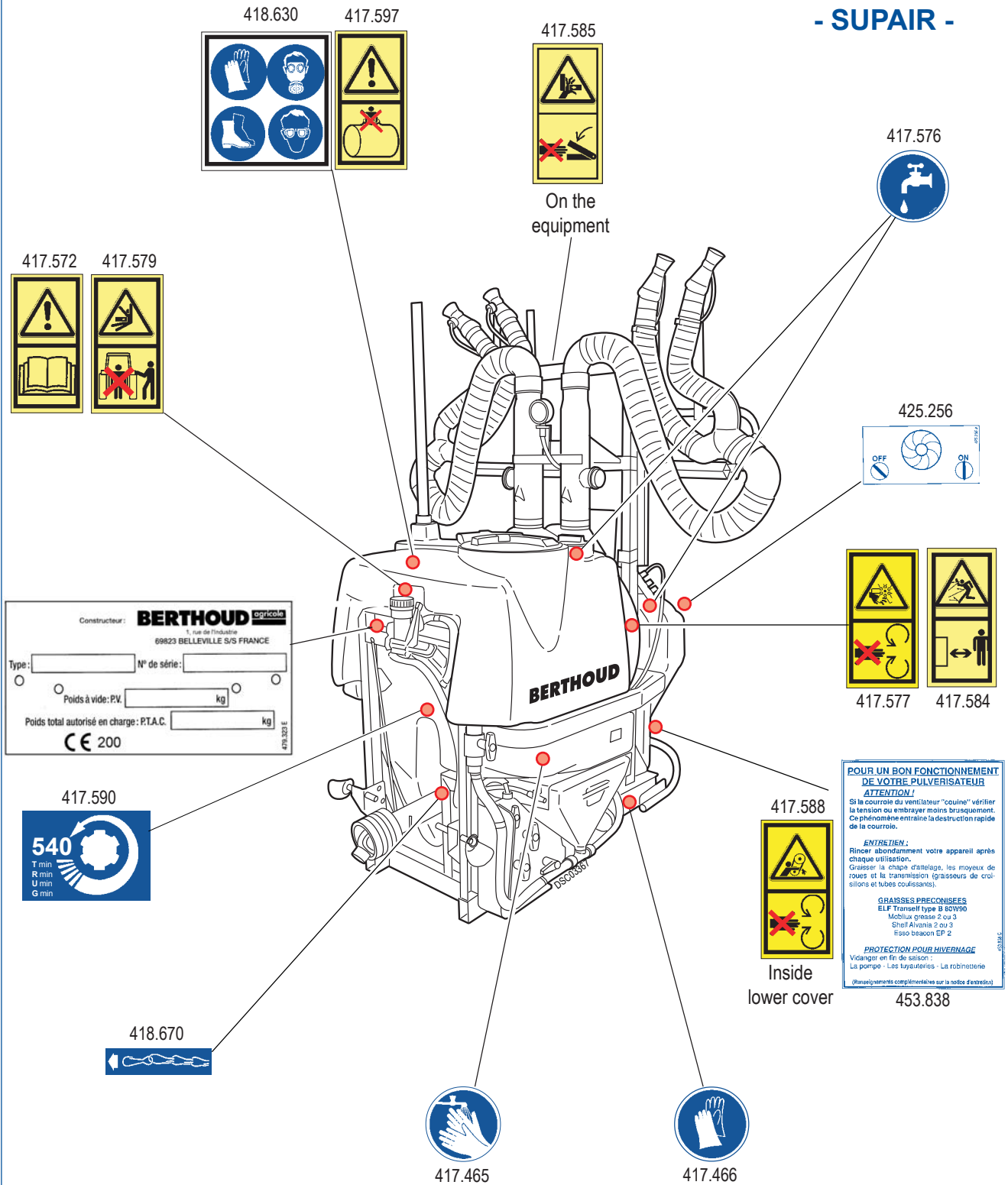
DIMENSIONS



	SPEEDAIR			SUPAIR	
	300	400	600	400	600
A	1275	1370	1370	1370	1370
B	1288	1338	1360	1360	1360
C	920	1100	1350	1100	1350

POSITION OF SAFETY STICKERS

- SPEEDAIR -
- SUPAIR -



It is very important to keep the safety stickers in location and in good condition as they draw your attention to possible dangers and refer to the operator's manual. Check their location on the sprayer and refer to "SAFETY" manual No. 82.471 for their meaning. (sprayer safety, checks, maintenance).

STARTING-UP AND USING THE SPRAYER

Checking power take-off speed.
Checking tractor advance speed.
Checking engine speed.
Checking flow rate/hectare.

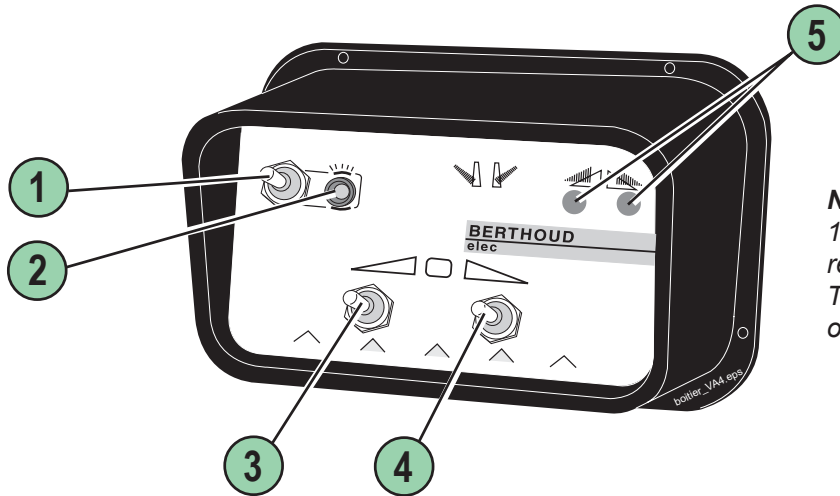
"Safety, checks, maintenance": see manual ref. 82.471.

CHECKS TO BE CARRIED OUT EVERY TIME BEFORE THE MACHINE IS USED

- Check the condition of the protectors on the drive shafts.
- Make sure that there is no foreign matter in the tank.
- Check the condition of the winch and the boom lifting cable or rope.
- Check the oil levels and the greasing of the various elements (see "lubrication and greasing" section).
- Check the cleanness of the filters:
 - . suction,
 - . delivery,
- Check the tension of the belts.

CONTROL BOXES

S.E. BRIDGE - SITEX BRIDGE - A5 R.H. BOOM



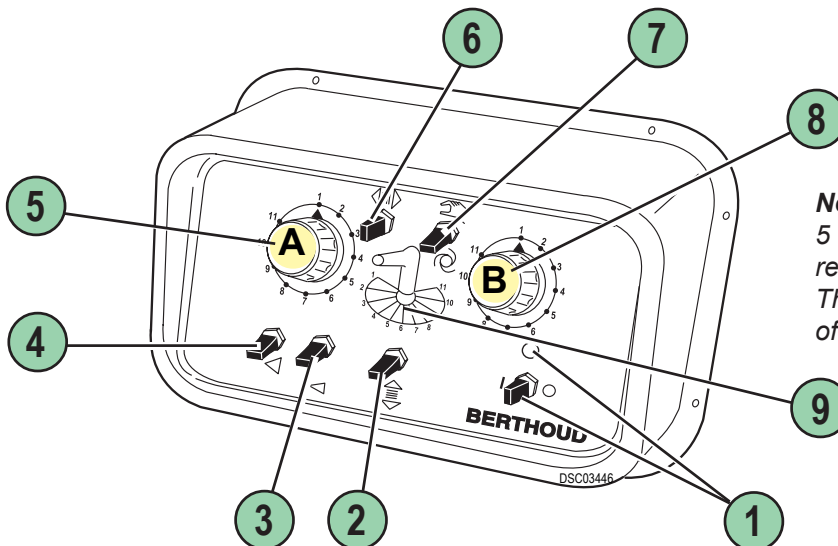
Note: The unit is protected by a 10 amp fuse, BERTHOUD reference 749.519. This fuse is located at the back of the control box.

- 1 - On/Off switch.
- 2 - Power On indicator.
- 3 - Control switch: left-hand spraying section.
- 4 - Control switch: right-hand spraying section.
- 5 - Upper canon orientation control switches. (SITELEC option).

IMPORTANT

When connecting the wires to the tractor battery:
The brown wire **MUST** be connected to the + 12 volts DC and the blue wire to the - 0 volt.

CANON 250



Note: The unit is protected by a 5 amp fuse, BERTHOUD reference 765.363. This fuse is located at the back of the control box.

- 1 - Power on switch with indicator light.
- 2 - Elevation cylinder control switch.
- 3 - Diffusor spray control switch.
- 4 - Cannon spray control switch.
- 5 - Coverage angle selector (A).
- 6 - Canon orientation control switch.
- 7 - Canon automatic or manual selector switch.
- 8 - Coverage angle selector (B).
- 9 - Angulation selection range.

SPRAYING

FILLING OF THE MAIN TANK (sprayer without chemical hopper)

Close the drain valve (5) located under the main tank by placing it in position (a), (figure 2).
Fill the main tank from above the tank or using the hydro-injector (optional, see page 18).
When filling with the hopper, refer to the following pages.

ADJUST THE VALVES

Set the valves (1), (3) and (4) at position **1** (figure 1) (sprayer without hopper).

Set the valves (1), (2), (3) and (4) at position **1** (figure 7, page 19) (sprayer with hopper).

CONTROL VALVE ADJUSTMENT

Turn the cap (c) of the control valve (8) (figure 4) so that the number given by the flow rate table is in front of the index on the control valve's body.

OPENING THE ADDITIONAL RETURN SHUT-OFF VALVE (operating in low pressure)

Move the control lever of the shut-off valve (9) (figure 4),
Position (b) = OPEN.

CLUTCHING / DECLUTCHING THE TURBINE (figure 3)



CAUTION:

When clutching and declutching the turbine these operations must be undertaken:
WITH THE TRACTOR POWER TAKE-OFF DISCONNECTED

CLUTCHING THE TURBINE:

Pull the handle (7) towards you and turn it to the right, release the handle, while exerting a force to engage the turbine.
(Check to see if the turbine is engaged. If not, and if the outer ring or the pulley gears have not gone back in, pull and release the handle to engage the turbine).

DECLUTCHING THE TURBINE:

Pull the handle (7) towards you, and turn it to the left, the turbine is disengaged.

Clutch and accelerate at the same time, without excessive force, in order to progressively attain the normal rotation speed of the power take-off (540 revolutions per minute).

OPENING / CLOSING THE SPRAYING

MANUAL VALVES (figure 5)

Move the control levers (10) of the shut-off valves:

- position (a) = opening the spraying.
- position (b) = closing the spraying.

Item (11), pressure gauge, 0/25 bar \varnothing 63 mm.

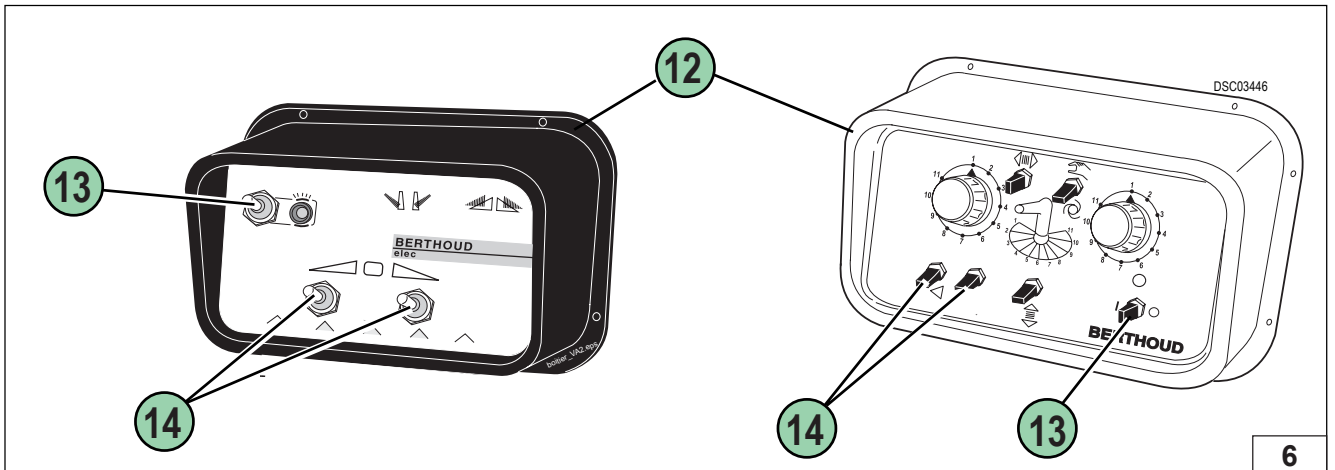
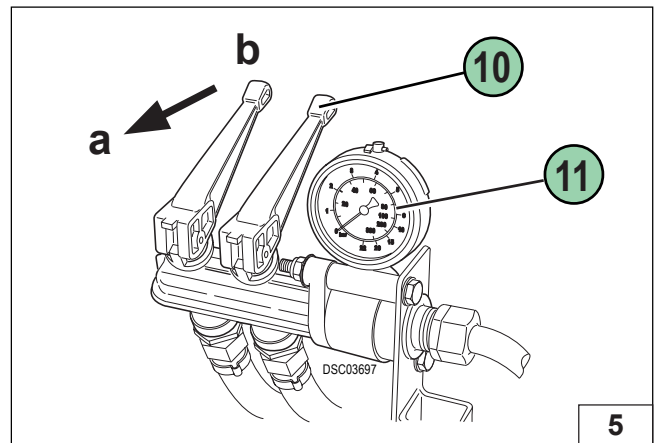
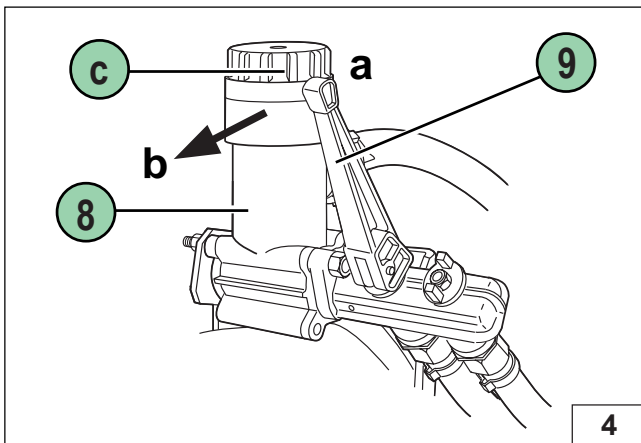
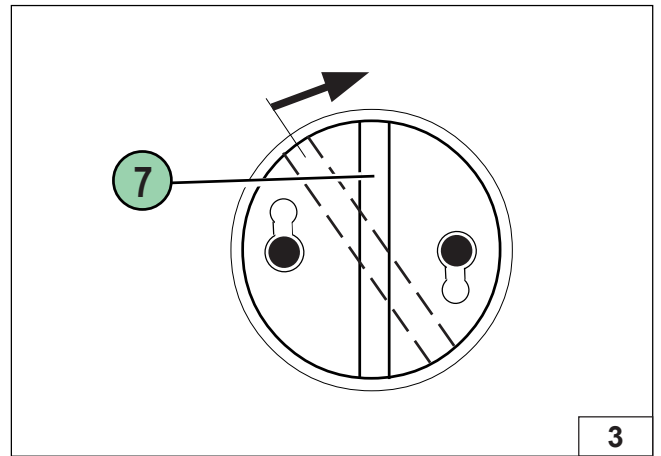
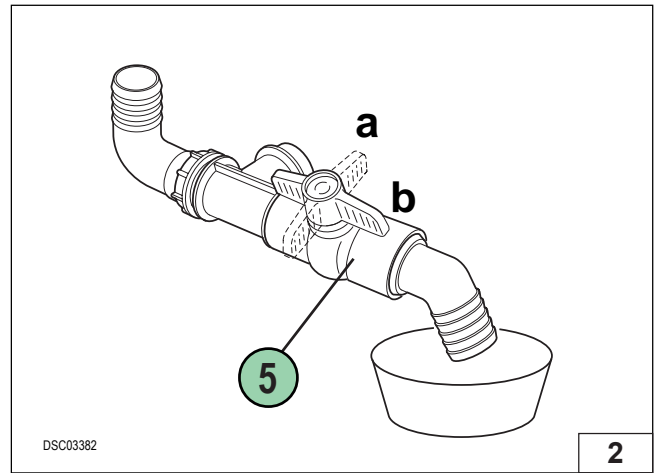
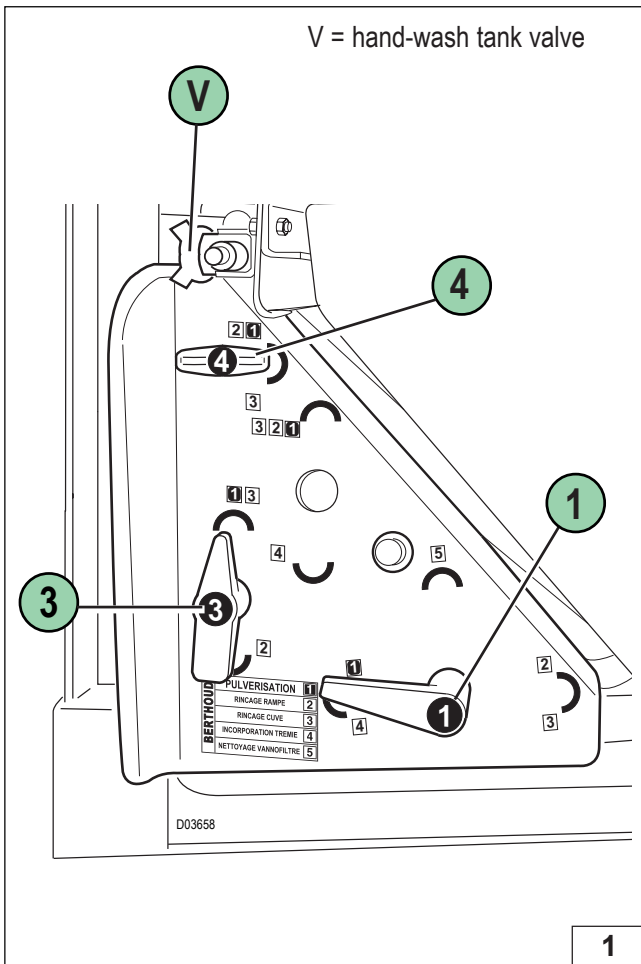
ELECTRIC VALVES (V.E.C) (figure 6)

Raise or push the control box's (12) power on switch (13) (the indicator light comes on).

Place the spraying control switches (14) in down position.

Raise the switches (14) to stop spraying.

The 0/25 bar pressure gauge (\varnothing 100 mm) is located above the tank toward the equipment.



INCORPORATION HOPPER (optional on SPEEDAIR 400 and 600)

- This permits introduction, during water filling of the sprayer, of powders or liquid treatment products. This equipment gives an excellent mixing of the product with the water and makes spraying operations easier.

- Close the drain valve (5) located under the main tank by placing it in position (a), (figure 8).

• Operation:

- Fill the tank partly, (approx. 100 litres).
- Pull the hopper towards you using the handle (P).
- Fill the hopper with phytosanitary products.
- **Put valve (6) in position (b)** (figure 7).
- Engage the tractor power take-off and raise speed to 540 rpm.
- To rapidly drain the hopper:
 - . push back the hopper to prevent the projection of product.
 - . Set the valves (1) and (2) at position **4**, (figure 7).

The chemical product is sucked in the sprayer tank.

• Rinsing the hooper: with clean water

- Open valve (7), in position (a) (figure 9); this valve actuates the rinsing boom (10) (figure 10).

• Rinsing the cans: with clean water

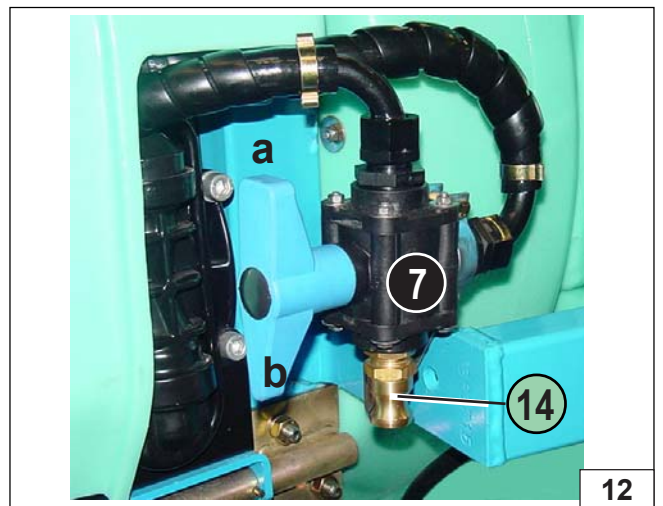
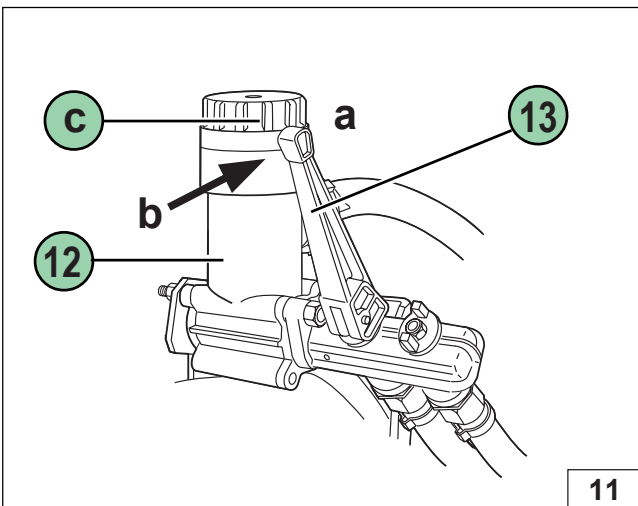
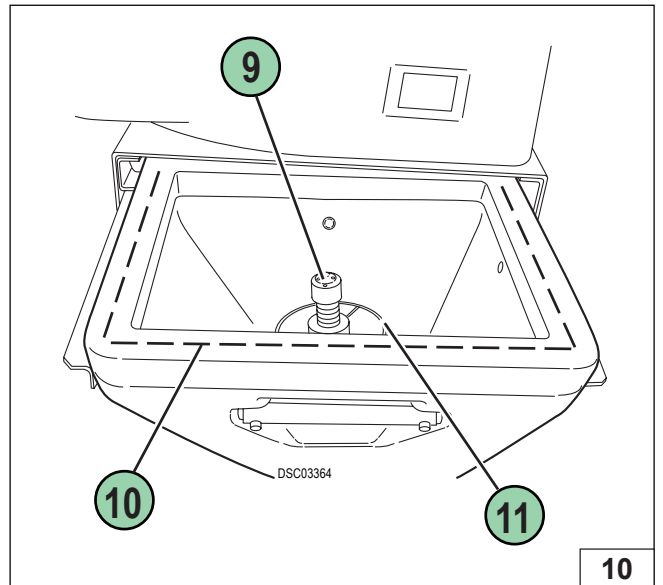
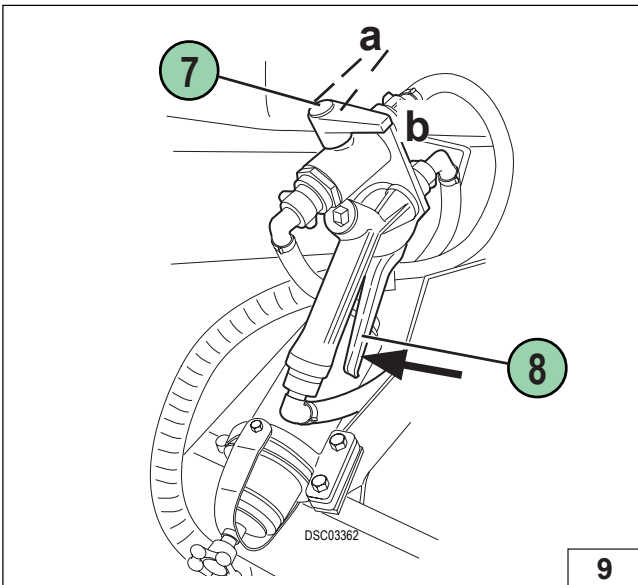
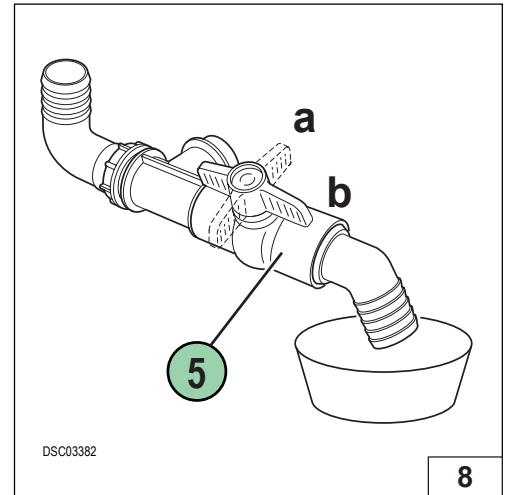
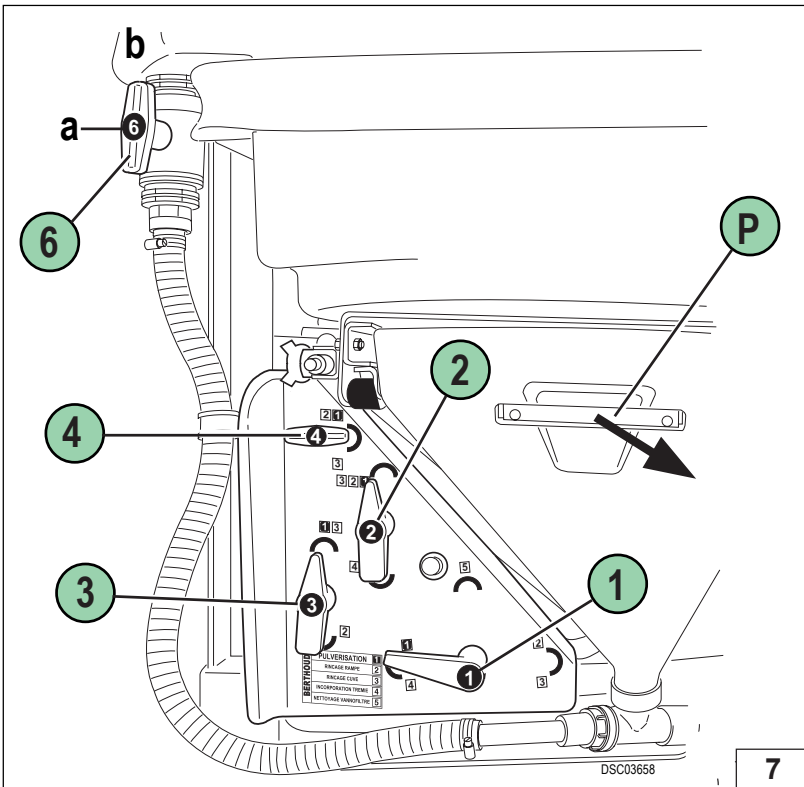
- Position the product can on part (11) (figure 10).
- Raise handle (8) (figure 9) which actuates the cleaning nozzle (9) (figure 10).

After pouring product into the spayer's tank and rinsing the hopper, place valves (2), (3) and (4) in position **1** and valve (6) in position (a) (figure 7).

FILLING WITH THE HYDRO-INJECTOR (optional)

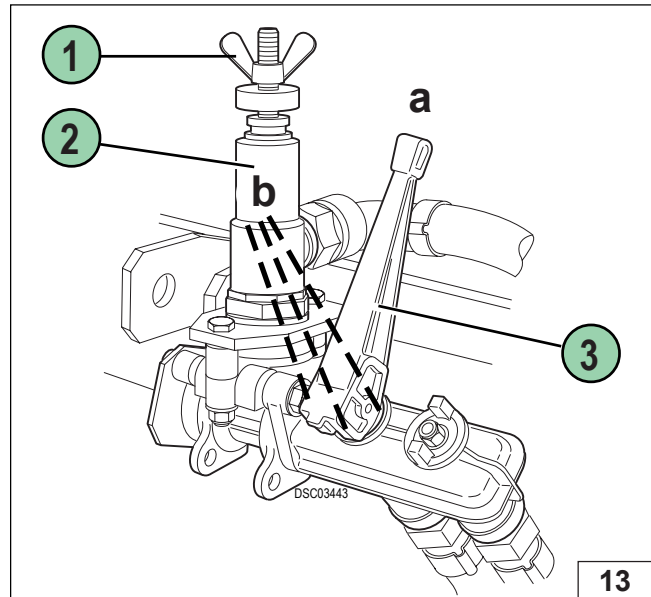
- Connect the hydro-injector's small tube to fitting (14) (figure 12).
- Put the large hose in the tank opening.
- Fill the tank with 20 litres of water in order to prime the pump.

- Turn the handle of valve (7) to position (b).
- Engage the PTO and bring it up to 540 rpm.
- When the tank is full, stop the PTO and remove the hydro-injector.
- Turn the handle of valve (7) to position (a).



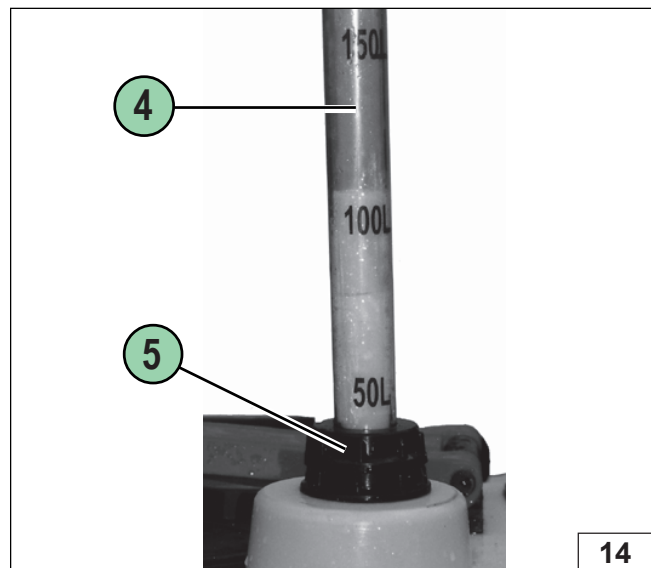
LOW PRESSURE OPERATION WITH THE PRESSURE CONTROLLER

- Put the handles of valves (1), (2), (3) and (4) in SPRAY position **0** (figure 7, page 19).
- Open the additional return shut-off valve (3) to position (b), (figure 13).
- Shut-off valves closed or electric control box off.
- Engage the turbine (figure 3, page 17).
- Engage the PTO and bring it up to 540 rpm.
- Check the pressure on the pressure gauge by adjusting the butterfly nut (1) on the controller (2), (figure 13) (see the flow tables).
- Open the spray (figures 5 or 6, page 17).



FLOAT GAUGE

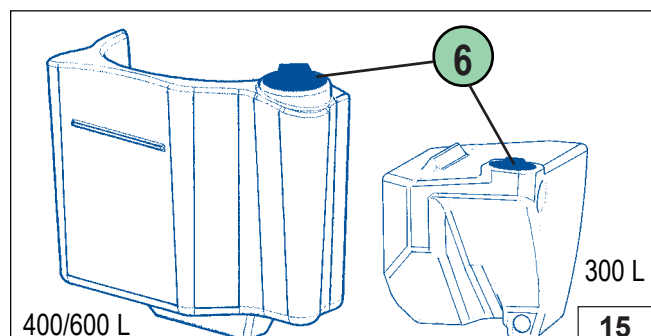
- A float gauge (4) (figure 14) on the top of the machine's tank, clearly legible from the tractor cab.
- **Calibration gauge:**
 - . fill the tank with 200 litres of water,
 - . loosen the nut (5),
 - . slide the graduated tube so that the 200 litres mark coincides with the height of the inside floater,
 - . tighten the nut (5).



RINSING TANK



- The rinsing tank **MUST** be filled with clean water, through the lid (6) (figure 15), and without pressure.



EQUIPMENT OUTPUT TABLES AND "MULTIFLO" ADJUSTMENT

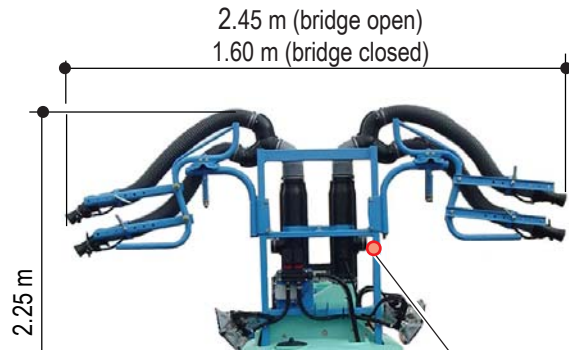
- The indications in the flow tables are the result of tests done with water at a power take-off speed of 540 rpm. They do not necessarily correspond to the machine's maximum performances.
- The concentration and density of the powders used may considerably vary the flow rates given in the tables.
- For the wide-angle "AIRMIST" option, the flow/minute will be modified and may require adjustment to maintain the volume/hectare values.

FORMULA:

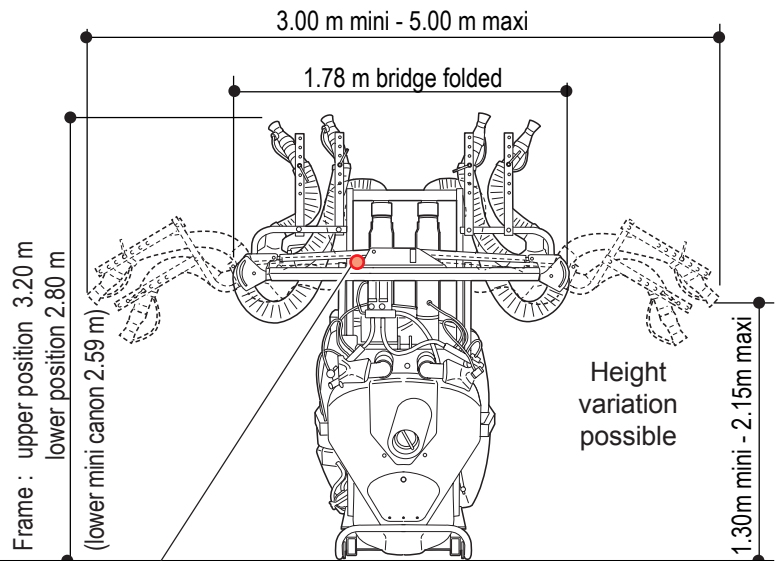
$$\text{Flow rate/hectare} = \frac{600 \times \text{Flow rate in litres/min.}}{\text{Speed in km/h} \times \text{Width treated}}$$

S.E. BRIDGE OR SITEX BRIDGE EQUIPMENTS (8 or 10 OUTLETS)

S.E. BRIDGE



SITEX BRIDGE



OPTION
2 AIRMIST
diffusers

ADJUSTING THE SPRAYING

Definition of the adjustment parameters.

Example,

Bridge, 8-outlet:

Required application rate: **110 litres/hectare.**

Required speed: **5 km/h.**

Width treated: **7 metres.**

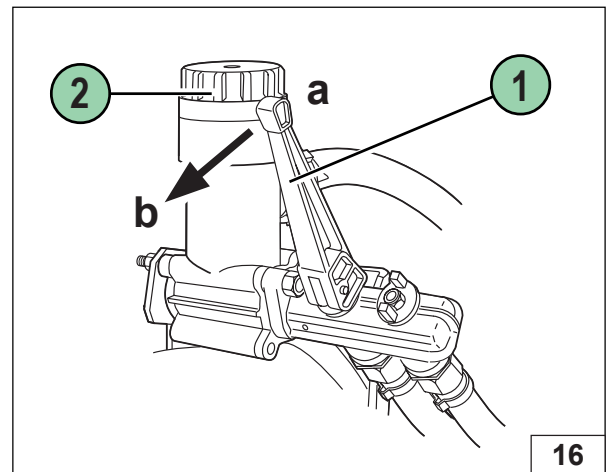
The flow table indicates in the 5 km/h speed column, for a treated width of 7 metres, a flow per hectare of **110 litres.**

For this flow rate:

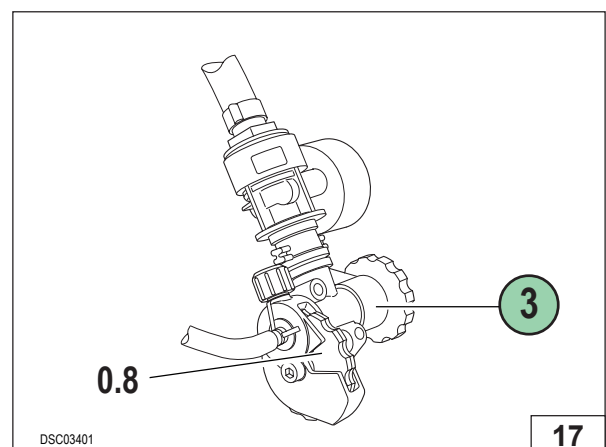
- Set the control valve (2) in position **8** (pressure 3.00 bar), (figure 16).

(figure 17) :

- Set the 8 "Multiflo" (3) to position **0.8**.
- With the **additional return valve (1) "OPEN"**, position (b) (figure 16).



16



17

FLOW TABLE, LITRES PER HECTARE S.E. BRIDGE or SITEX BRIDGE (8 or 10 outlets)

B.P. 60 pump - 25/10° and ø 4.0 discs on additional return

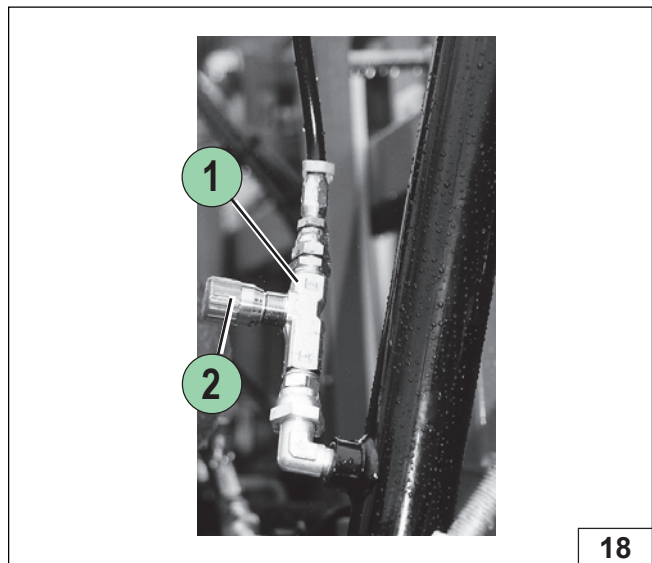
	Adjusting the "MULTIFLO"	Control valve position	Pressure gauge reading (in bar)	Flow rate in litres/minute	ADVANCE SPEED																	
					4 KM/H						5 KM/H						6 KM/H					
					WIDTH TREATED. IN METRES																	
					5.0	6.0	7.0	8.0	9.0	10.0	5.0	6.0	7.0	8.0	9.0	10.0	5.0	6.0	7.0	8.0	9.0	10.0
10 OUTLETS	6 x 0.8 on the Airmist diffusers + 4 x 1.0 on the canons	3	1.30	6.30	189	158	135	118	105	95	151	126	108	95	84	76	126	105	90	79	70	63
		4	1.40	6.50	195	163	139	122	108	98	156	130	111	98	87	78	130	108	93	81	72	65
		5	1.55	6.90	207	173	148	129	115	104	166	138	118	104	92	83	138	115	99	86	77	69
		6	1.80	7.50	225	188	161	141	125	113	180	150	129	113	100	90	150	125	107	94	83	75
		7	2.15	8.00	240	200	171	150	133	120	192	160	137	120	107	96	160	133	114	100	89	80
		8	2.60	8.70	261	218	186	163	145	131	209	174	149	131	116	104	174	145	124	109	97	87
		9	3.40	10.00	300	250	214	188	167	150	240	200	171	150	133	120	200	167	143	125	111	100
		10	4.50	11.40	342	285	244	214	190	171	274	228	195	171	152	137	228	190	163	143	127	114
		11	5.10	11.90	357	298	255	223	198	179	286	238	204	179	159	143	238	198	170	149	132	119
12	5.80	12.60	378	315	270	236	210	189	302	252	216	189	168	151	252	210	180	158	140	126		

8 OUTLETS	8 x 0.8 4 canons 4 AIRMIST diffusers	3	1.40	4.40	132	110	94	83	73	66	106	88	75	66	59	53	88	73	63	55	49	44
		4	1.55	4.60	138	115	99	86	77	69	110	92	79	69	61	55	92	77	66	58	51	46
		5	1.80	4.90	147	123	105	92	82	74	118	98	84	74	65	59	98	82	70	61	54	49
		6	2.10	5.40	162	135	116	101	90	81	130	108	93	81	72	65	108	90	77	68	60	54
		7	2.60	5.80	174	145	124	109	97	87	139	116	99	87	77	70	116	97	83	73	64	58
		8	3.00	6.40	192	160	137	120	107	96	154	128	110	96	85	77	128	107	91	80	71	64
		9	4.00	7.20	216	180	154	135	120	108	173	144	123	108	96	86	144	120	103	90	80	72
		10	5.35	8.20	246	205	176	154	137	123	197	164	141	123	109	98	164	137	117	103	91	82
		11	5.95	8.60	258	215	184	161	143	129	206	172	147	129	115	103	172	143	123	108	96	86
12	6.20	9.10	273	228	195	171	152	137	218	182	156	137	121	109	182	152	130	114	101	91		
8 OUTLETS	8 x 1.0 4 canons 4 AIRMIST diffusers	3	1.30	6.20	186	155	133	116	103	93	149	124	106	93	83	74	124	103	89	78	69	62
		4	1.40	6.40	192	160	137	120	107	96	154	128	110	96	85	77	128	107	91	80	71	64
		5	1.60	6.80	204	170	146	128	113	102	163	136	117	102	91	82	136	113	97	85	76	68
		6	1.85	7.20	216	180	154	135	120	108	173	144	123	108	96	86	144	120	103	90	80	72
		7	2.85	8.60	258	215	184	161	143	129	206	172	147	129	115	103	172	143	123	108	96	86
		8	3.00	9.20	276	230	197	173	153	138	221	184	158	138	123	110	184	153	131	115	102	92
		9	3.40	9.90	297	248	212	186	165	149	238	198	170	149	132	119	198	165	141	124	110	99
		10	4.65	11.30	339	283	242	212	188	170	271	226	194	170	151	136	226	188	161	141	126	113
		11	5.05	11.70	351	293	251	219	195	176	281	234	201	176	156	140	234	195	167	146	130	117
12	5.80	12.50	375	313	268	234	208	188	300	250	214	188	167	150	250	208	179	156	139	125		

To obtain regular flow, it is preferable to set the control valve (2) in the medium range between 3 and 10.

BOOM MOVEMENT SPEED ADJUSTMENT

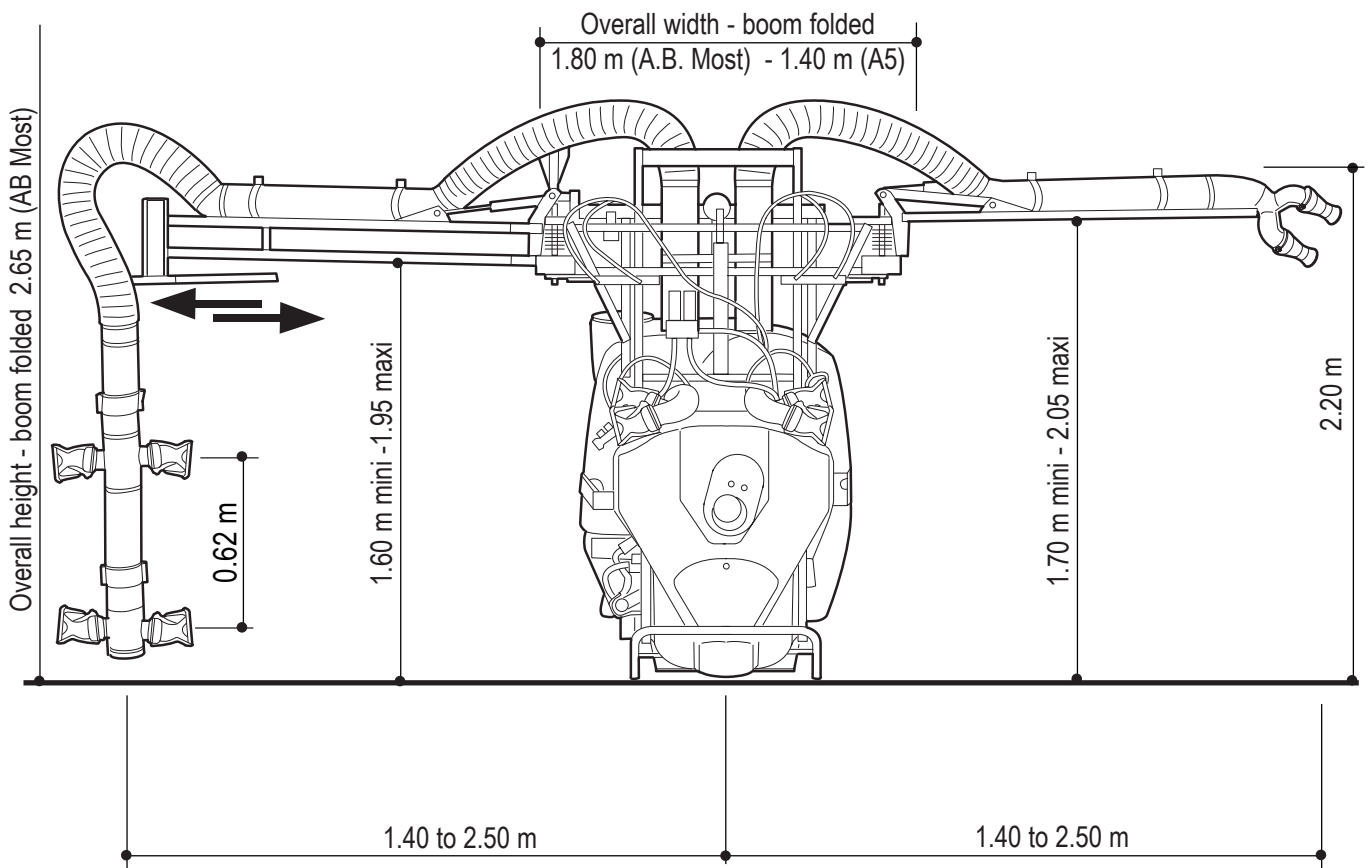
- Adjust the speed of boom movements using the flow limiters (1) (figure 18) installed on the cylinders.
- Turn the flow limiter's knob (2).
- Once the arm or raising speed is set, lock the knob using the small Allen-head set screw.



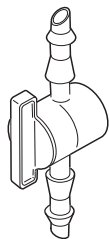
A5 R.H. BOOM AND A.B. MOST DROP PIPE DIMENSIONS

A.B. MOST DROP PIPE OPTION

A5 BOOM



External row shut-off valve for
A.B. MOST boom.



Kit No. 107.400

A5 R.H. BOOM EQUIPMENT (8 outlets)

ADJUSTING THE SPRAYING

Definition of the adjustment parameters

Example,

A5 boom:

- Required application rate : **110 litres/hectare.**
- Required speed : **5 km/h.**
- Width treated : **7 metres.**

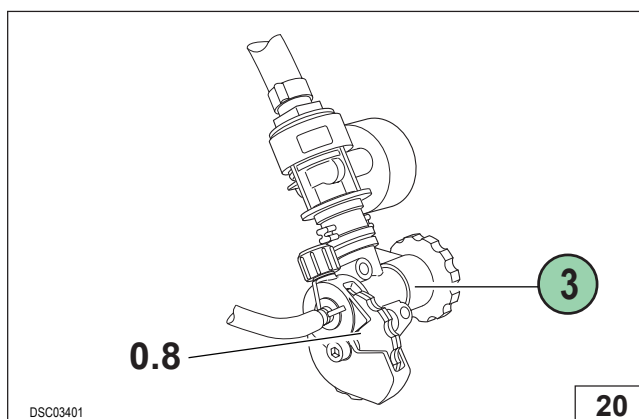
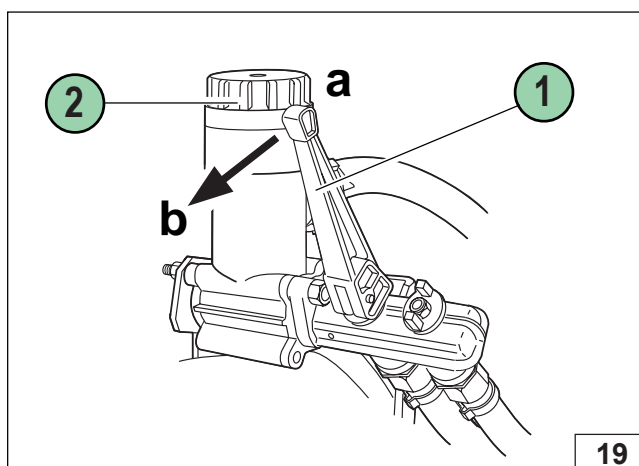
The flow table indicates in the 5 km/h speed column, for a treated width of 7 metres, a flow per hectare of **110 litres.**

For this flow rate:

- Set the control valve (2) in position **8** (pressure 3.00 bar), (figure 19).

(figure 20):

- Set the 8 "Multiflo" (3) to position **0.8**.
- With the **additional return valve (1) "OPEN"**, position (b) (figure 19).



A5 ELECTRIC CANON (optional)

An optional accessory is available for the A5 device to electrically control the orientation of the canons (2) (figure 21).

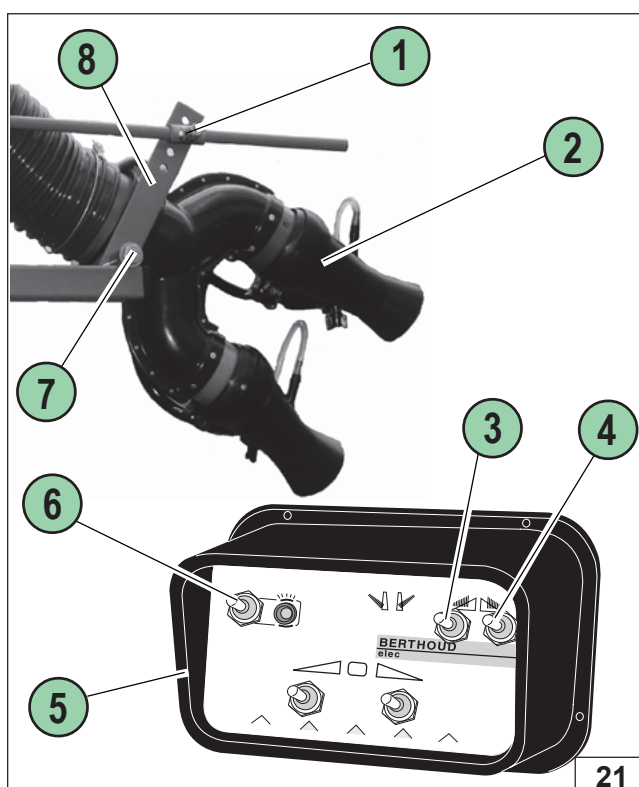
The electric drive is controlled via the spraying control box (5).

- Turn on the control box, switch (6).
- Switch (3), control canons on the left.
- Switch (4), control canons on the right.

The canons' spray angle can be preset by adjusting piece (1).

Adjustment is possible according to vine widths, move bolt (7), (cut sleeve or PVC tube).

The speed can be increased or lowered by adjusting the lever arm (8).



FLOW TABLE, LITRES PER HECTARE A5 R.H. BOOM (8 OUTLETS)

B.P. 60 pump - 25/10° and ø 4.0 discs on additional return

	Adjusting the "MULTIFLO"	Control valve position	Pressure gauge reading (in bar)	Flow rate in litres/minute	ADVANCE SPEED																	
					4 KM/H						5 KM/H				6 KM/H							
					WIDTH TREATED. IN METRES																	
					5.0	6.0	7.0	8.0	9.0	10.0	5.0	6.0	7.0	8.0	9.0	10.0	5.0	6.0	7.0	8.0	9.0	10.0
8 O U T L E T S	8 x 0.8 4 canons 4 diffuseurs Airmist	3	1.40	4.40	132	110	94	83	73	66	106	88	75	66	59	53	88	73	63	55	49	44
		4	1.55	4.60	138	115	99	86	77	69	110	92	79	69	61	55	92	77	66	58	51	46
		5	1.80	4.90	147	123	105	92	82	74	118	98	84	74	65	59	98	82	70	61	54	49
		6	2.10	5.40	162	135	116	101	90	81	130	108	93	81	72	65	108	90	77	68	60	54
		7	2.60	5.80	174	145	124	109	97	87	139	116	99	87	77	70	116	97	83	73	64	58
		8	3.00	6.40	192	160	137	120	107	96	154	128	110	96	85	77	128	107	91	80	71	64
		9	4.00	7.20	216	180	154	135	120	108	173	144	123	108	96	86	144	120	103	90	80	72
		10	5.35	8.20	246	205	176	154	137	123	197	164	141	123	109	98	164	137	117	103	91	82
		11	5.95	8.60	258	215	184	161	143	129	206	172	147	129	115	103	172	143	123	108	96	86
12	6.20	9.10	273	228	195	171	152	137	218	182	156	137	121	109	182	152	130	114	101	91		
8 O U T L E T S	8 x 1.0 4 canons 4 diffuseurs Airmist	3	1.30	6.20	186	155	133	116	103	93	149	124	106	93	83	74	124	103	89	78	69	62
		4	1.40	6.40	192	160	137	120	107	96	154	128	110	96	85	77	128	107	91	80	71	64
		5	1.60	6.80	204	170	146	128	113	102	163	136	117	102	91	82	136	113	97	85	76	68
		6	1.85	7.20	216	180	154	135	120	108	173	144	123	108	96	86	144	120	103	90	80	72
		7	2.85	8.60	258	215	184	161	143	129	206	172	147	129	115	103	172	143	123	108	96	86
		8	3.00	9.20	276	230	197	173	153	138	221	184	158	138	123	110	184	153	131	115	102	92
		9	3.40	9.90	297	248	212	186	165	149	238	198	170	149	132	119	198	165	141	124	110	99
		10	4.65	11.30	339	283	242	212	188	170	271	226	194	170	151	136	226	188	161	141	126	113
		11	5.05	11.70	351	293	251	219	195	176	281	234	201	176	156	140	234	195	167	146	130	117
12	5.80	12.50	375	313	268	234	208	188	300	250	214	188	167	150	250	208	179	156	139	125		

To obtain regular flow, it is preferable to set the control valve (2) in the medium range between 3 and 10.

A5 BOOM EQUIPMENT WITH A.B. MOST OPTION

ADJUSTING THE SPRAYING

Definition of the adjustment parameters.

Example,

A.B. MOST boom

Local treatment (6 diffusors).

- Required application rate : **110 litres/hectare.**
- Required speed : **4 km/h.**
- Width treated : **6 metres.**

The flow table indicates in the 4 km/h speed column, for a treated width of 6 metres, a flow per hectare of **110 litres.**

For this flow rate:

- Set the control valve (2) in position 5 (pressure 1.70 bar) (figure 22).

(figure 23) :

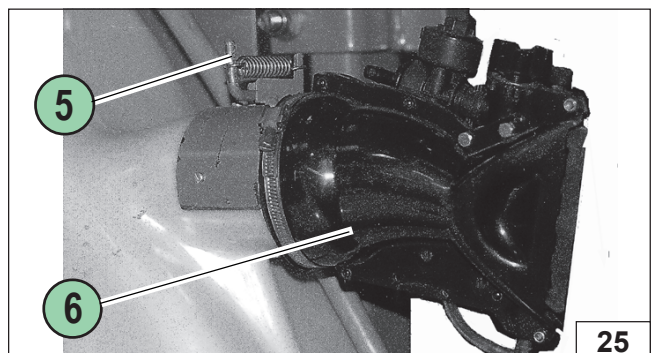
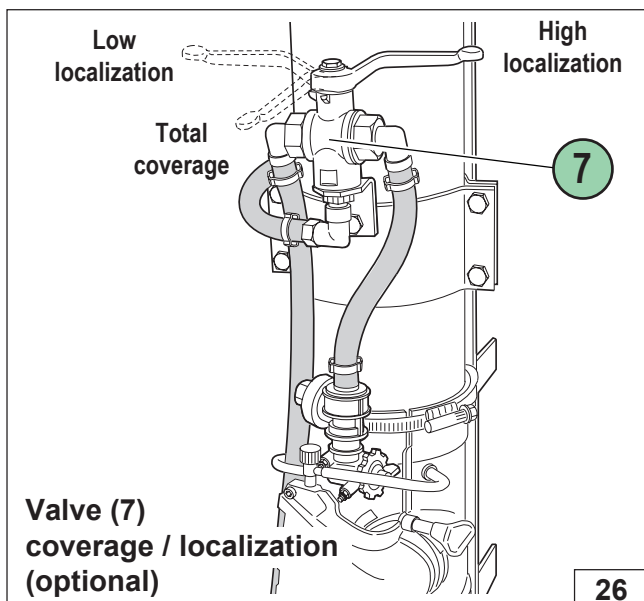
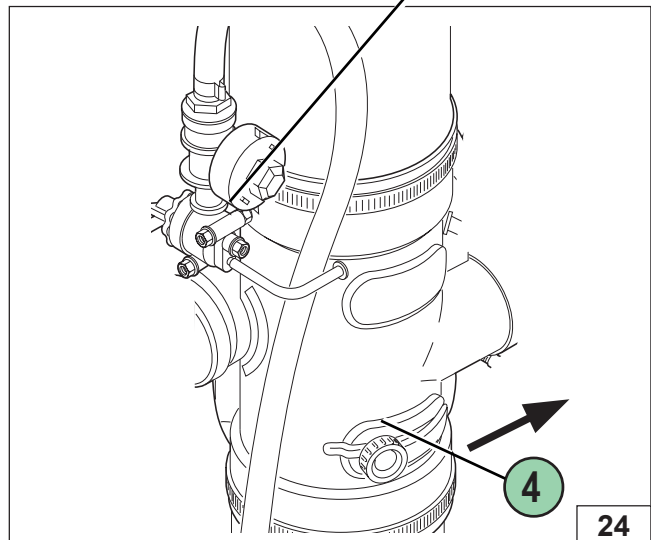
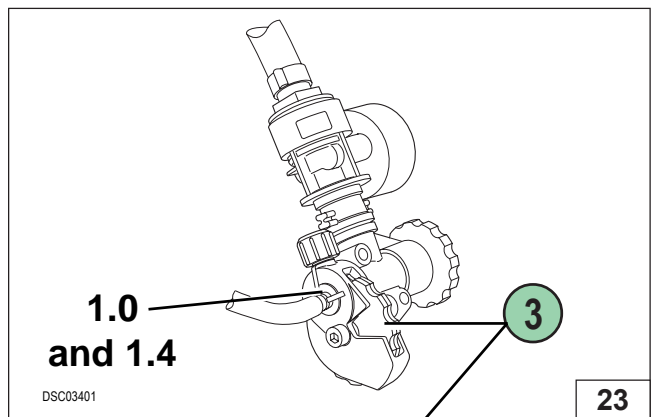
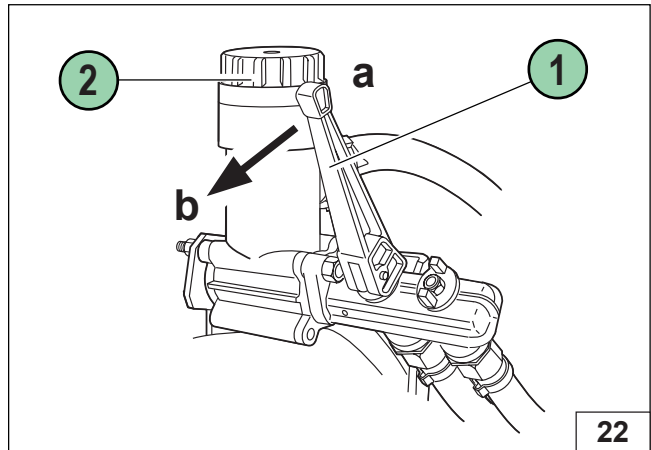
- Set the "multiflo" (3):
in position **1.0** at (2) and (3) on the sprayer,
in position **1.4** at (1) and (4) on the drop pipes.
(if disk on the discharge filter, see page 43)

- With the **additional return valve (1) "OPEN"**, position (b) (figure 22).

TOTAL OR LOCAL COVERAGE

To switch from total coverage (4 diffusors on drop pipe equipment) to local coverage (local treatment with the 2 diffusors), simply block the air intake to the upper diffusors by sliding the knob (4) (figure 24). Also close the liquid intake by placing "Multiflo" (3) (figure 28) in the OFF position or place the valve (7) (**optional**) in the high or low LOCALIZATION (figure 26).

Also close the flap (5) of the upper diffusors (6) located on the sprayer (figure 25).



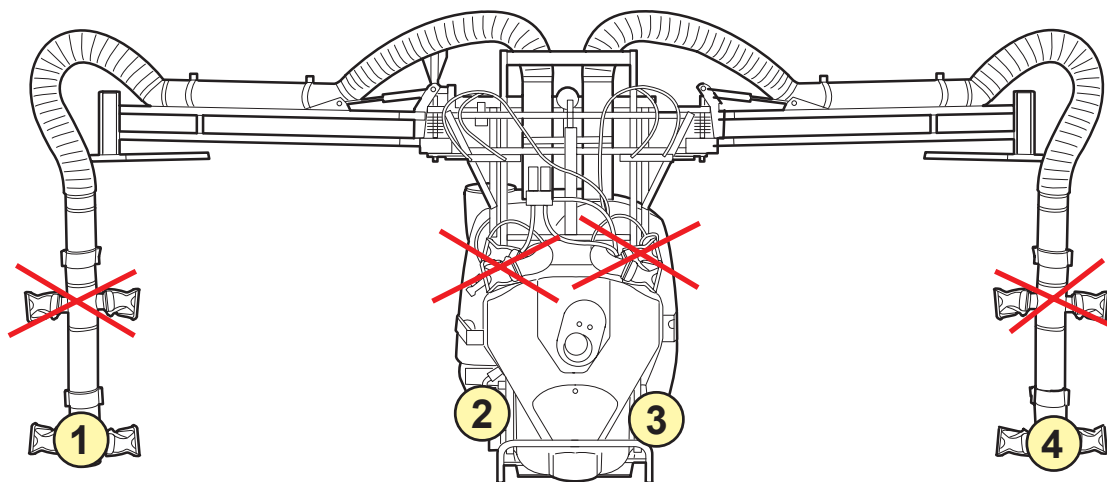
FLOW TABLE, LITRES PER HECTARE 3-ROWS A.B. MOST BOOM (1.40 to 2.50 m)

B.P. 60 pump - 25/10° and ø 4.0 discs on additional return

LOCAL TREATMENT - 6 diffusors

Adjusting the "MULTIFLO"	Control valve position	Pressure gauge reading (in bar)	Flow rate in litres/minute	ADVANCE SPEED																											
				4 KM/H								5 KM/H								6 KM/H											
				WIDTH TREATED, IN METRES																											
				4.2	4.5	5.0	5.5	6.0	6.5	7.0	7.5	4.2	4.5	5.0	5.5	6.0	6.5	7.0	7.5	4.2	4.5	5.0	5.5	6.0	6.5	7.0	7.5				
Position 0.8 at 2 and 3	1	1.50	2.95	105	98	89	80	74	68	63	59	84	79	71	64	59	54	51	47	70	66	59	54	49	45	42	39				
	3	1.60	3.05	109	102	92	83	76	70	65	61	87	81	73	67	61	56	52	49	73	68	61	55	51	47	44	41				
	4	1.70	3.20	114	107	96	87	80	74	69	64	91	85	77	70	64	59	55	51	76	71	64	58	53	49	46	43				
	5	1.90	3.35	120	112	101	91	84	77	72	67	96	89	80	73	67	62	57	54	80	74	67	61	56	52	48	45				
	6	2.10	3.50	125	117	105	95	88	81	75	70	100	93	84	76	70	65	60	56	83	78	70	64	58	54	50	47				
Position 1.1 at 1 and 4	7	2.50	3.85	138	128	116	105	96	89	83	77	110	103	92	84	77	71	66	62	92	86	77	70	64	59	55	51				
	8	2.90	4.10	146	137	123	112	103	95	88	82	117	109	98	89	82	76	70	66	98	91	82	75	68	63	59	55				
	9	3.60	4.55	163	152	137	124	114	105	98	91	130	121	109	99	91	84	78	73	108	101	91	83	76	70	65	61				
	10	5.00	5.30	189	177	159	145	133	122	114	106	151	141	127	116	106	98	91	85	126	118	106	96	88	82	76	71				
	11	6.50	5.90	211	197	177	161	148	136	126	118	169	157	142	129	118	109	101	94	140	131	118	107	98	91	84	79				
	12	7.50	6.30	225	210	189	172	158	145	135	126	180	168	151	137	126	116	108	101	150	140	126	115	105	97	90	84				
Position 1.0 at 2 and 3	3	1.40	4.10	146	137	123	112	103	95	88	82	117	109	98	89	82	76	70	66	98	91	82	75	68	63	59	55				
	4	1.60	4.30	154	143	129	117	108	99	92	86	123	115	103	94	86	79	74	69	102	96	86	78	72	66	61	57				
	5	1.70	4.40	157	147	132	120	110	102	94	88	126	117	106	96	88	81	75	70	105	98	88	80	73	68	63	59				
	6	2.00	4.80	171	160	144	131	120	111	103	96	137	128	115	105	96	89	82	77	114	107	96	87	80	74	69	64				
Position 1.4 at 1 and 4	7	2.30	5.10	182	170	153	139	128	118	109	102	146	136	122	111	102	94	87	82	121	113	102	93	85	78	73	68				
	8	2.70	5.50	196	183	165	150	138	127	118	110	157	147	132	120	110	102	94	88	131	122	110	100	92	85	79	73				
	9	3.30	6.10	218	203	183	166	153	141	131	122	174	163	146	133	122	113	105	98	145	136	122	111	102	94	87	81				
	10	4.50	7.10	254	237	213	194	178	164	152	142	203	189	170	155	142	131	122	114	169	158	142	129	118	109	101	95				
	11	5.80	8.00	286	267	240	218	200	185	171	160	229	213	192	175	160	148	137	128	190	178	160	145	133	123	114	107				
	12	6.50	8.40	300	280	252	229	210	194	180	168	240	224	202	183	168	155	144	134	200	187	168	153	140	129	120	112				

To obtain regular flow, it is preferable to set the control valve (2) in the medium range between 3 and 10.



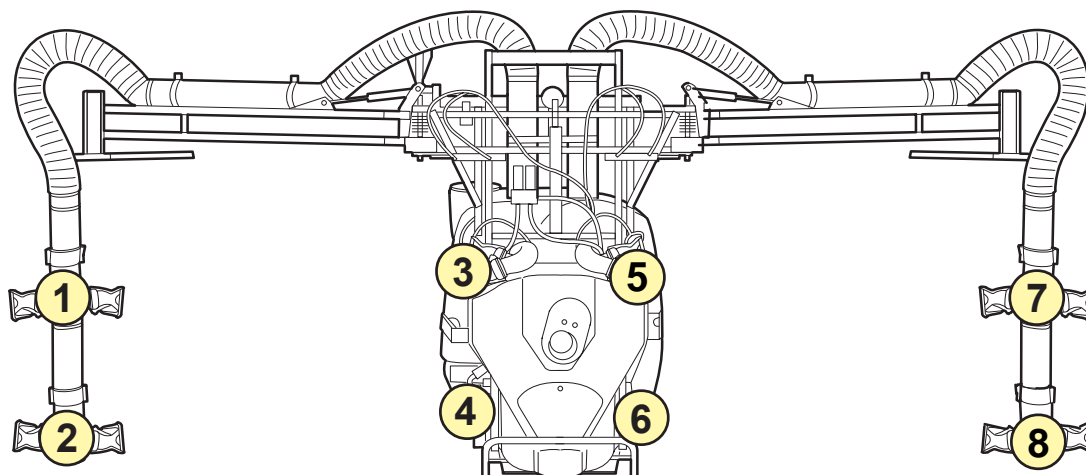
FLOW TABLE, LITRES PER HECTARE 3-ROWS A.B. MOST BOOM (1.40 to 2.50 m)

B.P. 60 pump - 25/10° and ø 4.0 discs on additional return

COVERAGE TREATMENT - 12 diffusors

Adjusting the "MULTIFLO"	Control valve position	Pressure gauge reading (in bar)	Flow rate in litres/minute	ADVANCE SPEED																											
				4 KM/H								5 KM/H								6 KM/H											
				WIDTH TREATED. IN METRES																											
4.2	4.5	5.0	5.5	6.0	6.5	7.0	7.5	4.2	4.5	5.0	5.5	6.0	6.5	7.0	7.5	4.2	4.5	5.0	5.5	6.0	6.5	7.0	7.5								
25/10° disk on the 2 discharge filters + Position 1.1 en 1, 2, 7, 8 + Position 0.8 en 3, 4, 5, 6	3	1.40	4.50	161	150	135	123	113	104	96	90	129	120	108	98	90	83	77	72	107	100	90	82	75	69	64	60				
	4	1.50	4.70	168	157	141	128	118	108	101	94	134	125	113	103	94	87	81	75	112	104	94	85	78	72	67	63				
	5	1.70	5.00	179	167	150	136	125	115	107	100	143	133	120	109	100	92	86	80	119	111	100	91	83	77	71	67				
	6	1.90	5.20	186	173	156	142	130	120	111	104	149	139	125	113	104	96	89	83	124	116	104	95	87	80	74	69				
	7	2.30	5.60	200	187	168	153	140	129	120	112	160	149	134	122	112	103	96	90	133	124	112	102	93	86	80	75				
	8	2.70	6.20	221	207	186	169	155	143	133	124	177	165	149	135	124	114	106	99	148	138	124	113	103	95	89	83				
	9	3.40	6.70	239	223	201	183	168	155	144	134	191	179	161	146	134	124	115	107	160	149	134	122	112	103	96	89				
	10	4.70	8.20	293	273	246	224	205	189	176	164	234	219	197	179	164	151	141	131	195	182	164	149	137	126	117	109				
	11	5.90	9.20	329	307	276	251	230	212	197	184	263	245	221	201	184	170	158	147	219	204	184	167	153	142	131	123				
	12	6.70	9.90	354	330	297	270	248	228	212	198	283	264	238	216	198	183	170	158	236	220	198	180	165	152	141	132				
	Position 1.1 en 1, 2, 7, 8 + Position 0.8 en 3, 4, 5, 6	3	1.30	5.40	193	180	162	147	135	125	116	108	154	144	130	118	108	100	93	86	129	120	108	98	90	83	77	72			
		4	1.40	5.60	200	187	168	153	140	129	120	112	160	149	134	122	112	103	96	90	133	124	112	102	93	86	80	75			
5		1.60	6.00	214	200	180	164	150	138	129	120	171	160	144	131	120	111	103	96	143	133	120	109	100	92	86	80				
6		1.80	6.40	229	213	192	175	160	148	137	128	183	171	154	140	128	118	110	102	152	142	128	116	107	98	91	85				
7		2.10	6.90	246	230	207	188	173	159	148	138	197	184	166	151	138	127	118	110	164	153	138	125	115	106	99	92				
8		2.50	7.60	271	253	228	207	190	175	163	152	217	203	182	166	152	140	130	122	181	169	152	138	127	117	109	101				
9		2.80	8.00	286	267	240	218	200	185	171	160	229	213	192	175	160	148	137	128	190	178	160	145	133	123	114	107				
10		3.80	9.20	329	307	276	251	230	212	197	184	263	245	221	201	184	170	158	147	219	204	184	167	153	142	131	123				
11		5.10	10.50	375	350	315	286	263	242	225	210	300	280	252	229	210	194	180	168	250	233	210	191	175	162	150	140				
12		5.80	11.10	396	370	333	303	278	256	238	222	317	296	266	242	222	205	190	178	264	247	222	202	185	171	159	148				

To obtain regular flow,
it is preferable to set the control valve (2) in the medium range between 3 and 10.



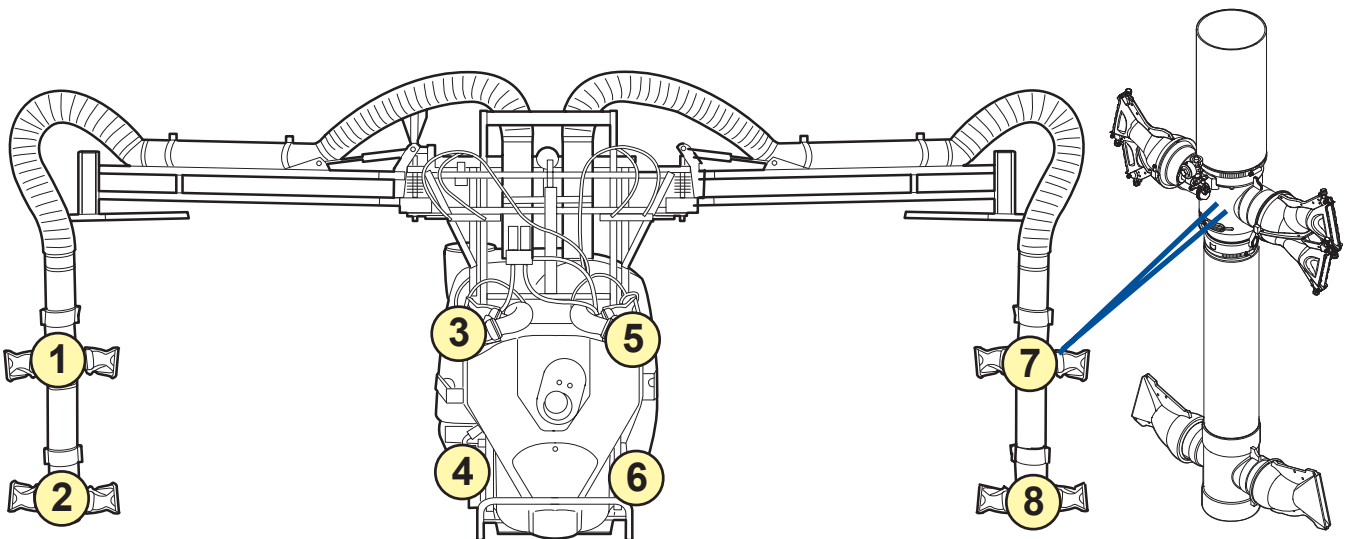
FLOW TABLE, LITRES PER HECTARE 3-ROWS A.B. MOST BOOM (1.40 to 2.50 m)

B.P. 60 pump - 25/10° and ø 4.0 discs on additional return

COVERAGE TREATMENT - 18 diffusors

Adjusting the "MULTIFLO"	Control valve position	Pressure gauge reading (in bar)	Flow rate in litres/minute	ADVANCE SPEED																							
				4 KM/H								5 KM/H								6 KM/H							
				WIDTH TREATED. IN METRES																							
				4.2	4.5	5.0	5.5	6.0	6.5	7.0	7.5	4.2	4.5	5.0	5.5	6.0	6.5	7.0	7.5	4.2	4.5	5.0	5.5	6.0	6.5	7.0	7.5
Position 0.8 at 4 and 6 +	3	1.40	4.50	161	150	135	123	113	104	96	90	129	120	108	98	90	83	77	72	107	100	90	82	75	69	64	60
	4	1.50	4.70	168	157	141	128	118	108	101	94	134	125	113	103	94	87	81	75	112	104	94	85	78	72	67	63
	5	1.70	5.00	179	167	150	136	125	115	107	100	143	133	120	109	100	92	86	80	119	111	100	91	83	77	71	67
	6	1.90	5.20	186	173	156	142	130	120	111	104	149	139	125	113	104	96	89	83	124	116	104	95	87	80	74	69
Position 1.1 at 2, 3, 5, 8 +	7	2.30	5.60	200	187	168	153	140	129	120	112	160	149	134	122	112	103	96	90	133	124	112	102	93	86	80	75
	8	2.70	6.20	221	207	186	169	155	143	133	124	177	165	149	135	124	114	106	99	148	138	124	113	103	95	89	83
	9	3.40	6.70	239	223	201	183	168	155	144	134	191	179	161	146	134	124	115	107	160	149	134	122	112	103	96	89
Position 1.6 at 1 and 7	10	4.70	8.20	293	273	246	224	205	189	176	164	234	219	197	179	164	151	141	131	195	182	164	149	137	126	117	109
	11	5.90	9.20	329	307	276	251	230	212	197	184	263	245	221	201	184	170	158	147	219	204	184	167	153	142	131	123
	12	6.70	9.90	354	330	297	270	248	228	212	198	283	264	238	216	198	183	170	158	236	220	198	180	165	152	141	132

To obtain regular flow,
it is preferable to set the control valve (2) in the medium range between 3 and 10.



OSCILLATING CANON 250 EQUIPMENT

Electromagnetic or adjustable control



SPRAY ADJUSTMENT

Definition of adjustment parameters.

Example,

CANON equipment:

Desired volume/hectare: **80 litres/hectare.**

Desired speed: **3 km/hour.**

Width treated: **20 metres.**

In the 3km/hour column for a treatment width of 20 metres, the flow table indicates: an output/hectare of **80 litres.**

This output corresponds to:

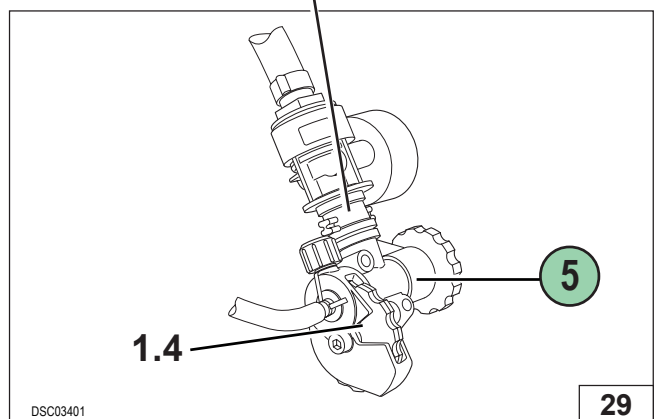
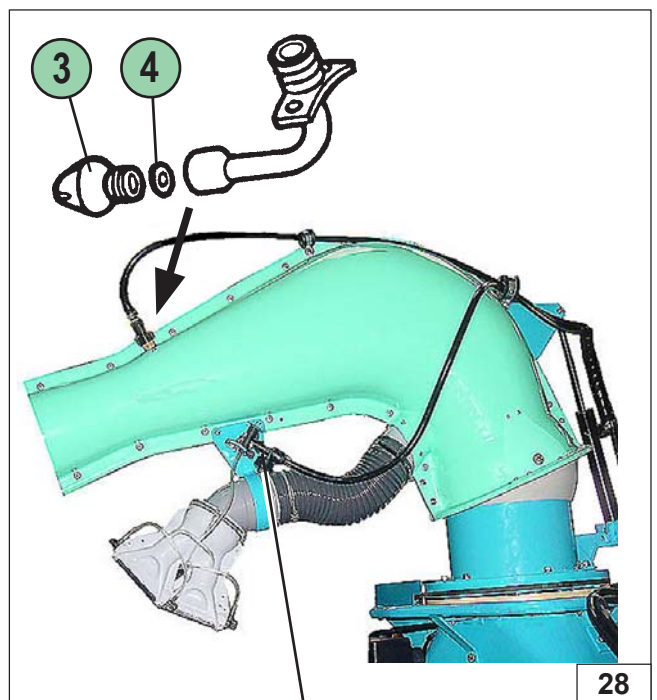
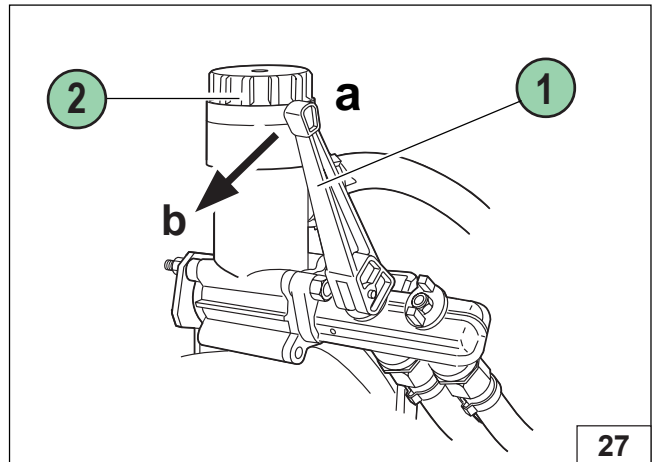
- A control valve (2) set in position **8** (3.00 bar) (figure 27).

(figure 28):

- Disk **30/10** on **large canon**,
- Unscrew the nozzle (3) with a screwdriver (Be careful so as not to damage the ogive) and insert the calibrated disk (4).

(figure 29):

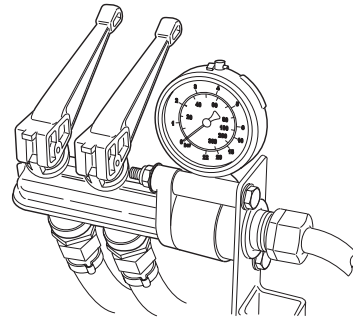
- A "multiflo" setting (5) at position **1.4**.
- With the **additional return valve** (1) in "**OPEN**" position (b), (figure 27).



1- BASIC CANON

Adjustable with spray control using manual valves

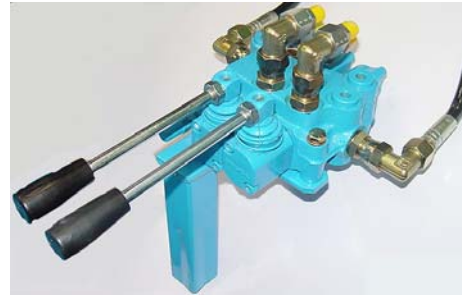
- Connection of the 4 hydraulic lines on the tractor's 2 dual-action valves.



With OPTION 1

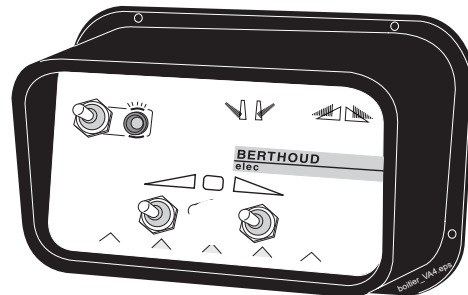
Control by dual-action 2-function hydraulic unit.

- Connection of the 2 hydraulic lines on the tractor's 2 dual-action valves.



With OPTION 2

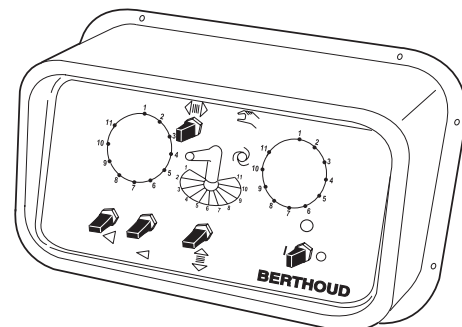
Spray control by electric flap valves (V.E.C.).



With OPTION 3

Adjustable cannon and electric elevation.

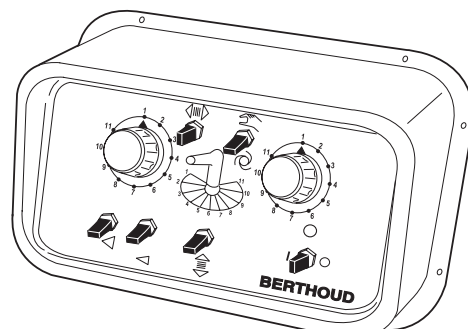
- Connection of the 2 hydraulic lines on the tractor's 2 dual-action valves.
- Spray control by V.E.C.



2- BASIC CANON (SPEEDAIR and SUPAIR)

Adjustable cannon and electric elevation.

- Connection of the 2 hydraulic lines on the tractor's 2 dual-action valves.
- Spray control by V.E.C.



OSCILLATING CANON

SWEEP ANGLE ADJUSTMENT

(Figure 30)

FOR SWEEP SELECTION:

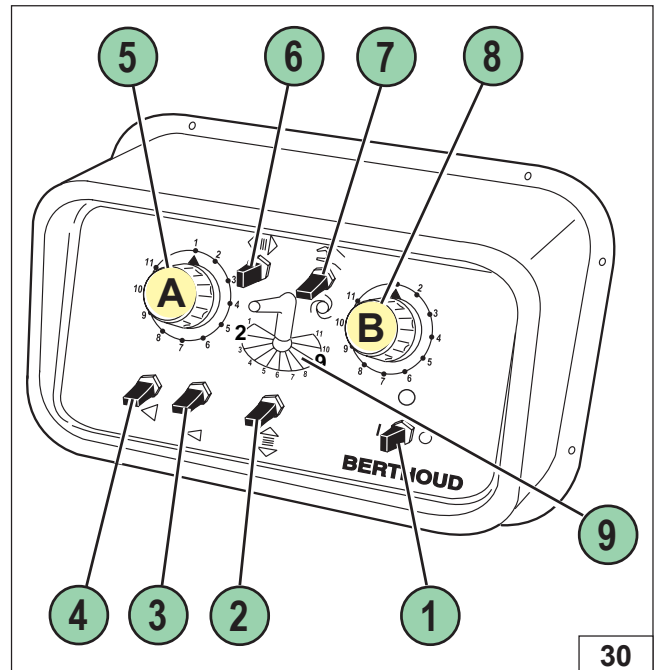
- Turn the unit on, switch (1).
- Lower switch (7) (*automatic position*).
- Select the desired angle from the range (9) (ex.: 2 and 9).
- Select the angle chosen using the selectors (5) and (8). (Ex.: display (2) with selector (A), then display (9) with selector (B)).

NOTE:

- The smaller number must always be selected on selector (5) and the larger number on selector (8).
- Open the spray: switches (3) and (4).

ELEVATION CYLINDER ADJUSTMENT

- Actuate switch (2).



ADJUSTABLE CANON

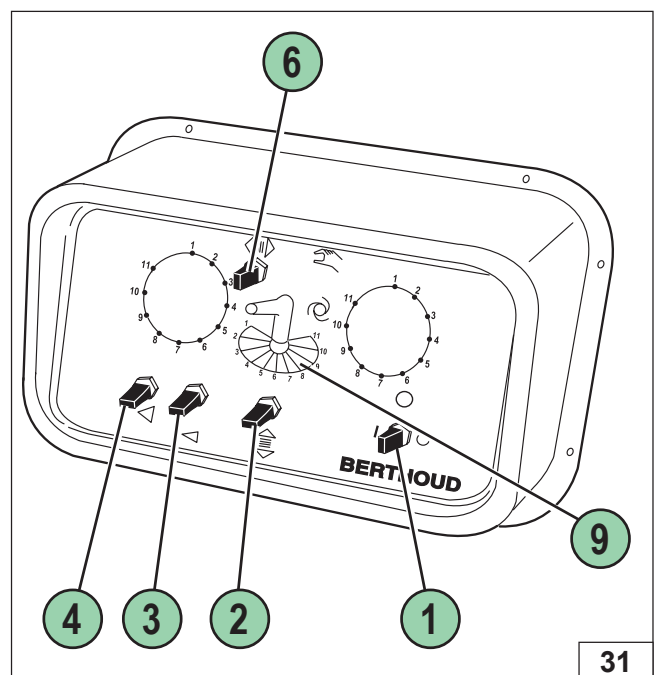
CANON ANGLE ADJUSTMENT

(Figure 31)

- Turn the unit on, switch (1).
- Select the desired angle from the range (9).
- Turn switch (6) right or left to adjust the angle.
- Open the spray with switches (3) and (4).

ELEVATION CYLINDER ADJUSTMENT

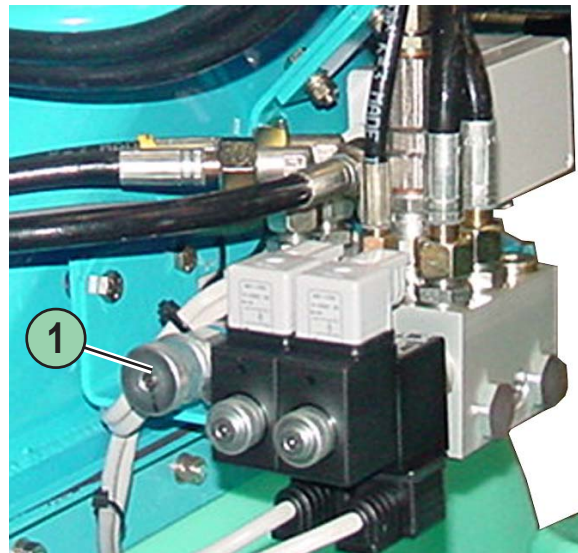
- Actuate switch (2).



CANON OSCILLATION SPEED ADJUSTMENT

TO LIMIT THE OSCILLATION SPEEDS

- Use the knob (1) (figure 32) on the flow divider.
- Screw the knob to increase the number of oscillations. (Suggested setting to avoid "sporadic coverage", 12 to 14 oscillations per minute, one out and back cycle)

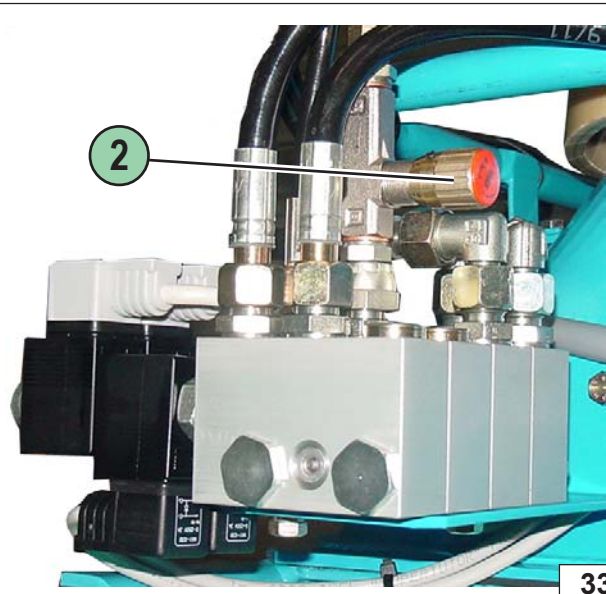


32

ELEVATION CYLINDER SPEED ADJUSTMENT

TO INCREASE OR DECREASE THE ELEVATION CYLINDER SPEED:

- Turn the knob (2) (figure 33) on the limiter.



33

MAINTENANCE

LUBRICATION

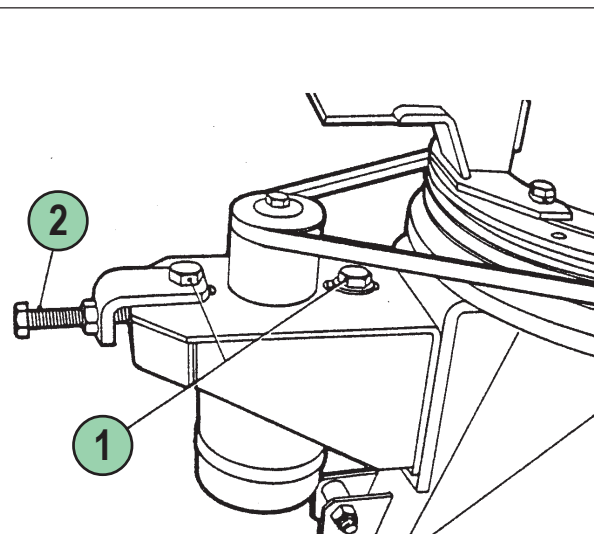
- Of the ring and upper bearing.

CANON DRIVE BELT

- Move the working zone on the small pulley to increase the belt's service life.

BELT TENSION (Figure 34)

- Remove the belt guard.
- Loosen the motor mounting bolts (1), turn the tensioning screw (2) and then retighten the bolts.



34

MAINTENANCE OF THE SPRAYER

Counter indications.

Checks before the treatment season.

Precautions to be taken against frost.

Protection against oxidising agents.

"Safety, checks, maintenance of the Sprayers": see manual ref. 82.471.

PRACTICAL RECOMMENDATIONS FOR THE SERVICING OF YOUR SPRAYER

By cleaning your sprayer regularly during and at the end of treatment campaigns:

- you will avoid spreading phytosanitary residues on the crops,
- you will ensure a good distribution of the product, while eliminating total or partial blockage of the discs,
- you will increase your sprayer's life.



Carry out the sprayer's maintenance operations with the engine switched off, the ignition off and the power take-off disconnected.

RINSING THE SPRAYER WITH RINSING TANK

Rinsing the equipment only,

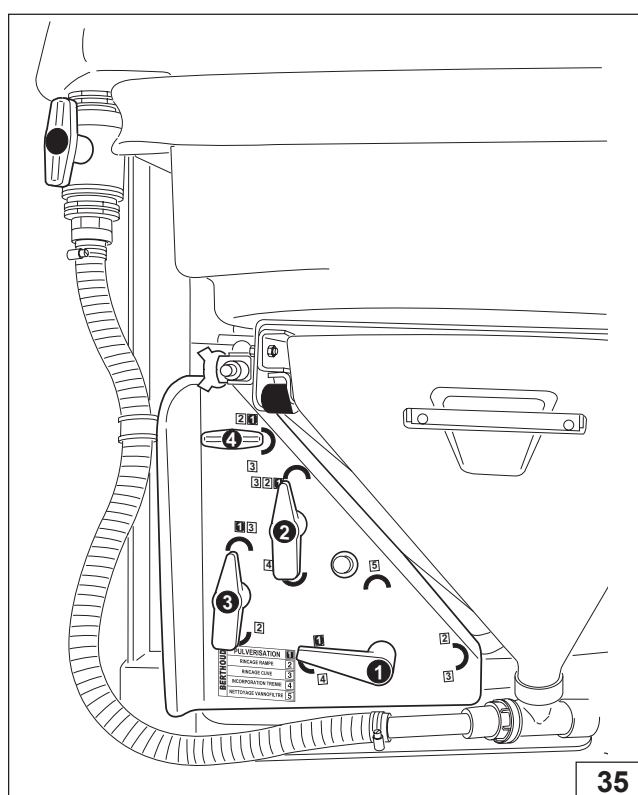
- Disengage the power take-off of tractor:
 - . Set the valves (1), (2), (3) and (4) at position 2. (figure 35).
- Declutch the fan, (figure 3, page 17).
- Open the spraying:

MANUAL VERSION

- Shut-off valves (9) at position (a) (figure 5, page 17).

ELECTRIC VERSION

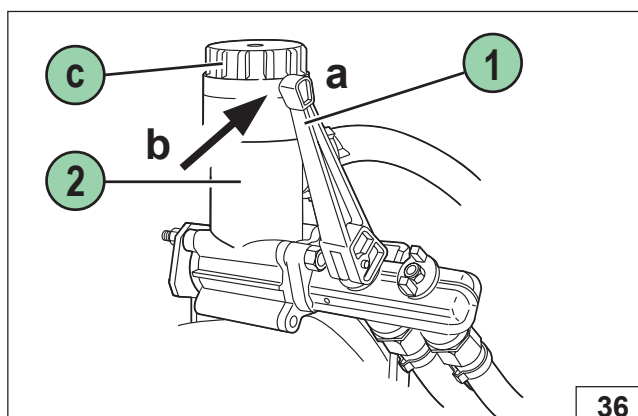
- Power up the control unit (10) by raising switch (13) (figure 6, page 17).
- Lower switches (14) (figure 6, page 17).
- In both cases, engage the tractor power take-off and raise speed to 540 RPM.



RINSING THE TANK WITH RINSING TANK

Rinsing the tank,

- Disengage the power take-off of tractor,
 - . Set the handle valves at position:
 - . valves (1), (2), (3) and (4) at position 3. (figure 35).
- Spraying closed.
- Turn the cap (c) on the control valve (2), position 12, (figure 36).
- Close the additional return shut-off valve (1) position (a) (figure 36).
- Declutch the turbine, (figure 3, page 17).
- Engage the tractor power take-off and raise speed to 540 RPM.



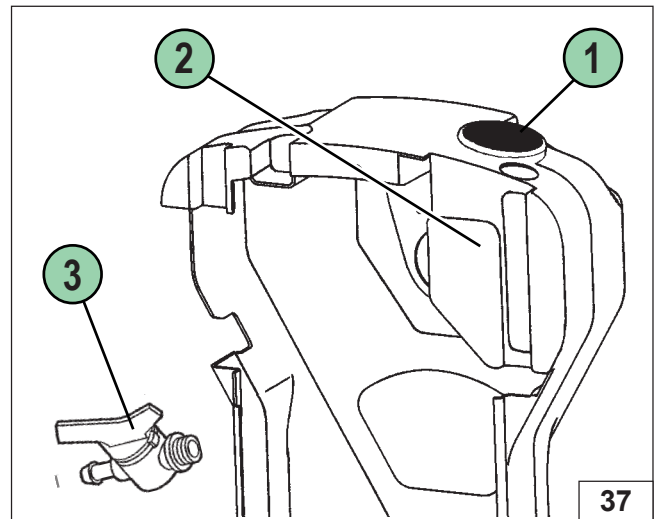
HANDWASH TANK (figure 37)

For hygiene and convenience: a 20 litres water tank (2), independent of the rinse tank, can be fitted; this allows washing of hands and all body parts (face, eyes,...) than can be affected by spray product splashes.

The tank is located to the rear of the sprayer, under the main cover. The tap (3) is easily accessible at the rear, left-hand side of the sprayer. When washing, open the valve more or less to adjust the flow.



IT IS ESSENTIAL to fill the rinsing tank with clear water through the cover (1), without any pressure.



CHECK TENSION OF THE BELTS

To do this: (figure 38)

- Remove the lower rear cover to gain access to the belts.

Fan belt:

- . **Diagram (A)** : Position the pulley (1) and slacken the 4 nuts (2).
- . **Diagram (B)** : Shift the pulley (1) by 45°, slacken nut (3) and then adjust bolt (4).
- . **Diagram (C)** : When the belt is correctly tensioned retighten (3).
- . **Diagram (D)** : Again shift pulley (1) by 45°, then fully tighten nuts (2).

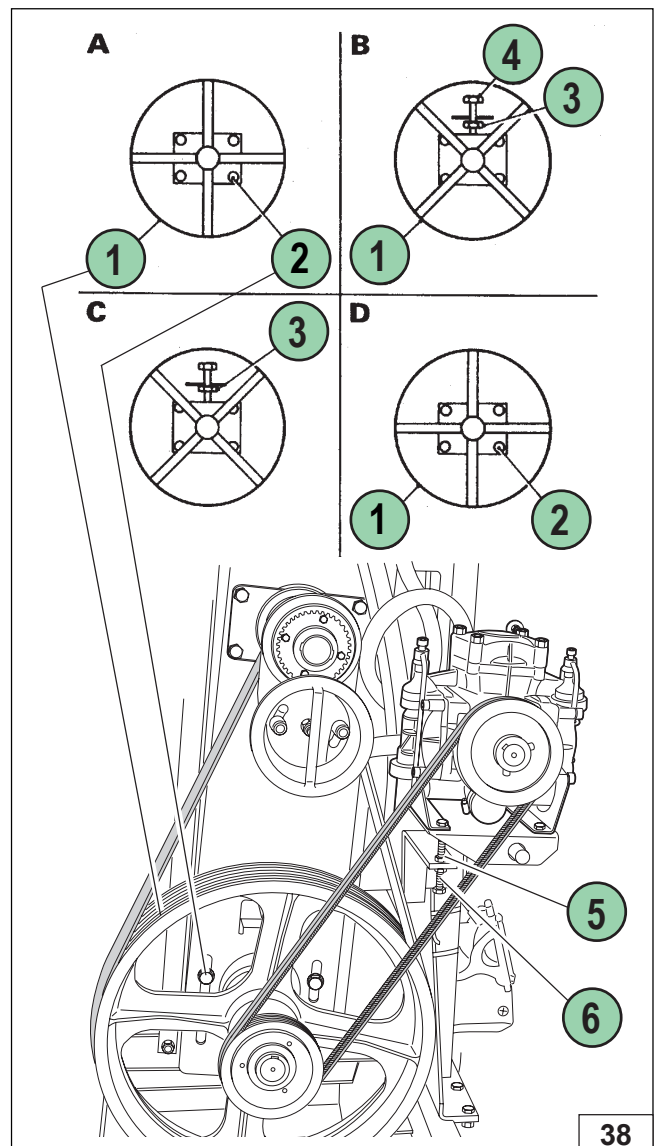
Pump belt:

- . Loosen the counter-nut (5).
- . Tighten the belt using the screw (6).
- . Tighten the counter nut (5).

NOTE: To make sure that tension of belts is correct, press with forefinger between driven pulley and driving pulley. These should form a hollow by a distance equal to their thickness.

IMPORTANT If the fan belt "whines", there is insufficient tension, or the clutching has been too forceful.

WARNING:
THIS CAN BE DESTRUCTIVE



MAINTENANCE AFTER OPERATION

It is also important to rinse the sprayer on the outside as well as the tractor. This cleaning is also essential on the same day between two applications of different products.

PROCEDURE:

- Rinse the sprayer with water at the edge of the field.
- Remove the filters.
- Fill the tank to 20 % full with water and add detergent (Allclear, reference 771.053, 1 litre can or 778.886, 5 litres can).
- Operate the sprayer for a short period.
- Rock the sprayer by moving tractor forward and backward with a view to agitation water in the tank.
- Leave mixture to act for 12 - 24 hours.
- Start the agitation and advance and reverse the tractor several times, then use the drain valve to empty the tank at the edge of the field.
- Put some clean water in tank.
- Rinse with clean water.
- Remove and clean the "Multiflo" units and the filters.
- Remove the caps (1) from the distributors and allow to flow.
- Replace the caps.



PRECAUTIONS AGAINST FROST

- **Drain the tank.**
- **Drain the sprayer liquid circuit:**
 - . Disconnect all lower ends of piperuns and leave to drip dry.
 - . At the same time, move control levers of distributor valves and control lever for supplementary return valve.
- **Drain the pump or fill it with antifreeze.**

WINTER STORAGE

- The sprayer should be wintered in a clean condition (see above).
- Completely drain the liquid circuit, making sure that the pump is not operated too long without water (2 minutes maximum).
- Grease all mechanical parts that can rust.
- Deoxidize the contacts on the power plugs (BERTHOUD reference 765.065 the KF F2 aerosol).
- Clean the outside of the machine. Paint the mechanical parts exposed (BERTHOUD reference 769.077 for the blue paint aerosol or 778.890 for the green paint aerosol).
- Garage the machine out of the sunlight and protected against inclement weather and on flat, load-bearing ground.

"MULTIFLO" OR FILTERS DIRTY

- Clean and rinse dirty filters or "Multiflo" using a brush and water.
- To do this, use the brush/wrench (BERTHOUD reference 779.354).

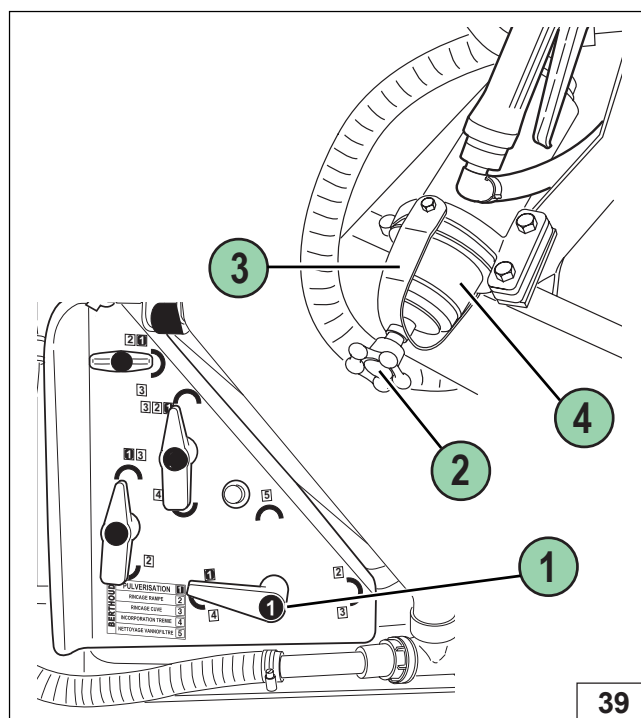
CLEANING THE VANNOFILTER (figure 39)

The circuit must be isolated before opening the vannofilter and removing the filter. To do this, set valve (1) in position **5**.

To clean the filter:

- . undo the star knob (2),
- . tilt the part (3),
- . remove the cap (4),
- . push the filter down.

If leaking should occur around the cap after the filter has been replaced, tighten the star knob (2) slightly.



DELIVERY FILTERS

DELIVERY FILTERS (figure 40)

Unscrew the nut (1) on the end of the filter (3). The filter (2) is accessible.

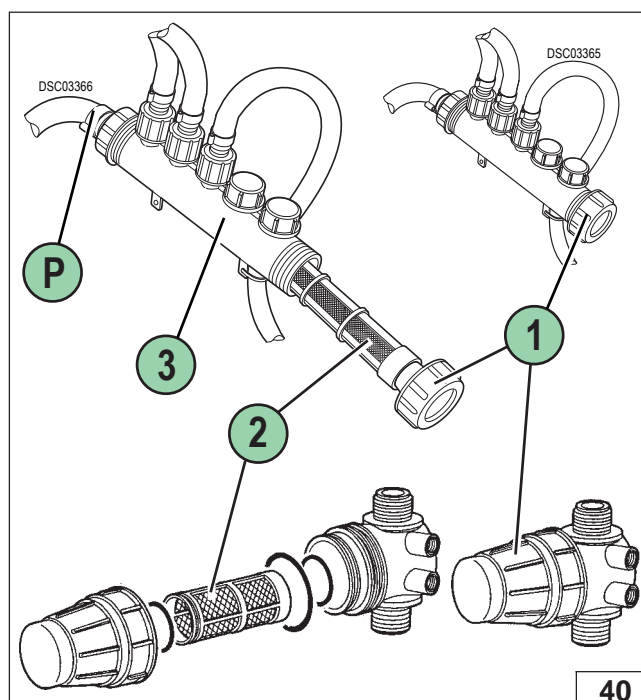
Hand-tighten nut (1).

(P) = A disk is mounted in certain cases.

- See flow tables:

. AB Most boom: page 30.

Remove the collar; the disc is located on the end of the tube.

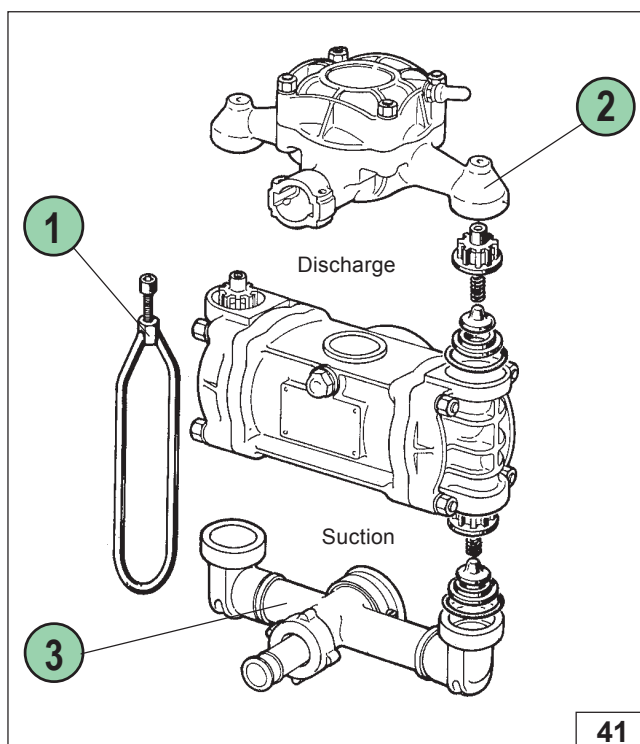


PUMP MAINTENANCE

- Check oil level every 50 hours.
- Drain the pump every 200 hours.

- Check condition of diagrams:
 - . of operation,
 - . of air reservoir,
 - . of valves,
 - . of seats,
 - . of cages.

- Check pump valves (figure 41) :
 - . Unscrew the bolts of clamps (1).
 - . Remove the suction manifold (3) and the delivery manifold/underside of air reservoir (2) and check status.
 - . Remove all the valves and check status:
 1. Sticking of valve on its seat - free and then oil.
 2. Possible presence of foreign matters.
 3. Deterioration of valves, valve seats or cage: replace the defective component.



The inspection operation and the replacement of diaphragms should only be performed by qualified personnel (see your BERTHOUD dealer).

LUBRICATION AND GREASING

Pump:

Every 50 hours, check:

- . oil level.

Every 200 hours:

- . drain the pump.

Transmission:

- . Lubricate the tubes and PTO joints.
- . See manufacturer's documentation.

Oil of type SAE 30 BERTHOUD
reference 769.286, 2-litre recipient

TOTAL reference LICAL EP 2 grease

OPERATING INCIDENTS

THE PIPES VIBRATE AND LIQUID "PULSES" OUT OF THE NOZZLES

- The bell air pressure is insufficient or excessive (*2 bar for use from 2 to 5 bar, 2 to 5 bar for use from 5 to 10 bar, 5 to 7 bar for use from 10 to 20 bar*).
- The bell membrane is damaged:
To change the membrane:
 - . undo the 4 nuts.
 - . remove the top of the bell.
 - . change the membrane.
 - . check the condition of the cup.
 - . reassemble and inflate.

THE LIQUID MIXED WITH THE OIL COMES OUT OF THE SAFETY MEMBRANE.

- One of the operating membranes is damaged.
- Stop the pump and replace the membrane(s) IMMEDIATELY. (Before refitting, rinse the inside of the mechanism very carefully with diesel oil).
- Refit and top up with oil.

ABNORMAL NOISE IN THE MECHANISM

Pump or multiplier.
Consult your repairer dealer who will dismantle and check the mechanism's bearings and the condition of the crankshaft.

ZERO FLOW

POSSIBLE CAUSES

REMEDIES

Suction vannofilter closed	Open.
Suction vannofilter obstructed	Remove filter cartridge and clean.
Air is aspired	Check condition of piperuns (cracks, poor sealing at clamps).
Pump suction valves are dirty or attach to valve seats ...	Remove and clean.

INSUFFICIENT FLOW

POSSIBLE CAUSES

REMEDIES

Suction vannofilter is partly blocked	Remove filter cartridge and clean.
Suction pipe tends to crumple	Replace.
Air is aspired	Check condition of piperuns (cracks, poor sealing at clamps).
Power take-off speed too low	Check and correct.
Pump VALVES/SEAT in poor condition	Check and replace.

PRESSURE DROP

POSSIBLE CAUSES

REMEDIES

Air is aspired	Check piperun. Vannofilter. Pipe crumples. Vannofilter is dirty.
At pump	Check condition of springs and valves. Check that power take-off speed is correct.
At discharge	Leakage in circuit (e.g. parasitic return to tank).

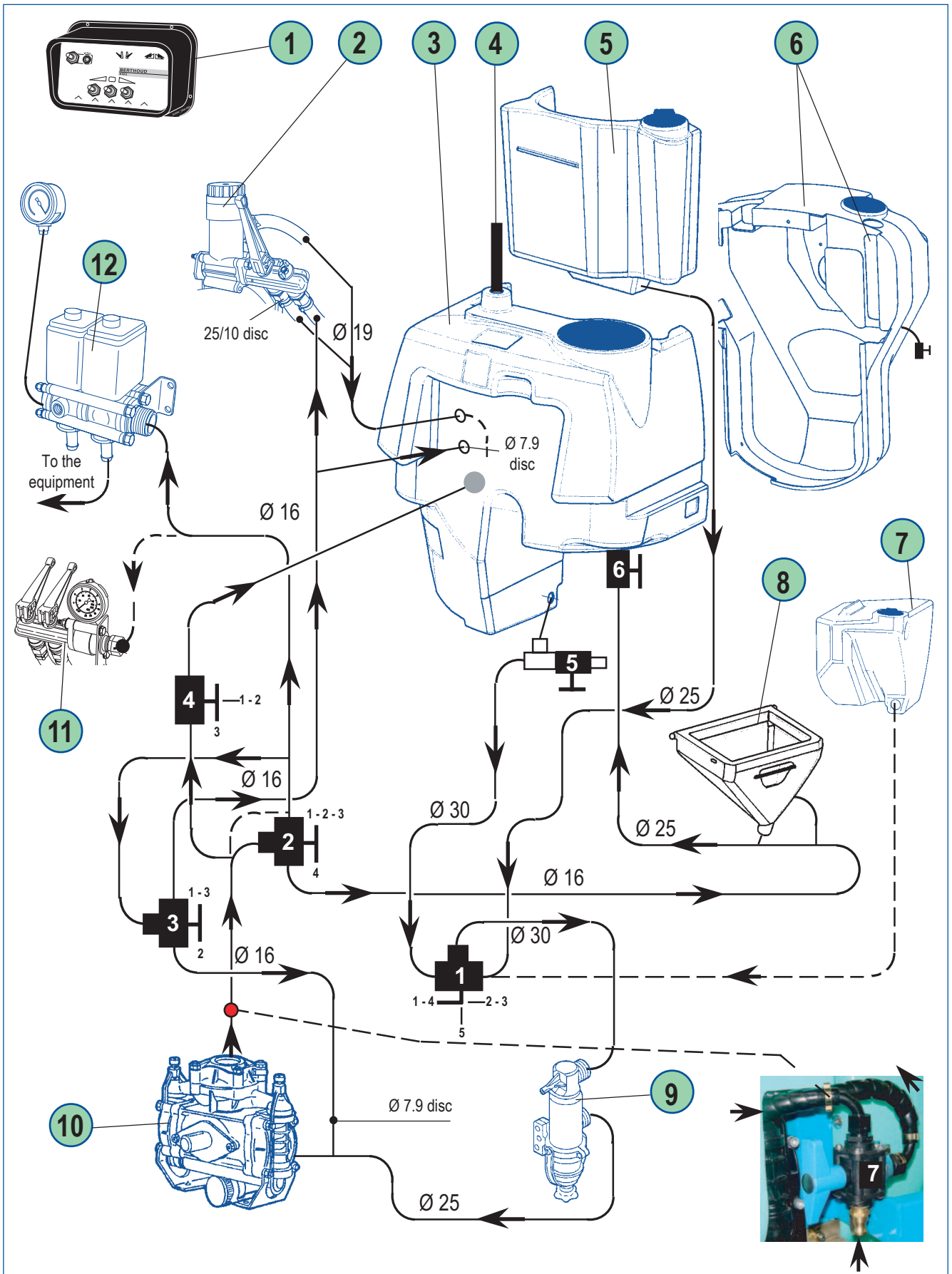
MAINTENANCE DIAGRAMS

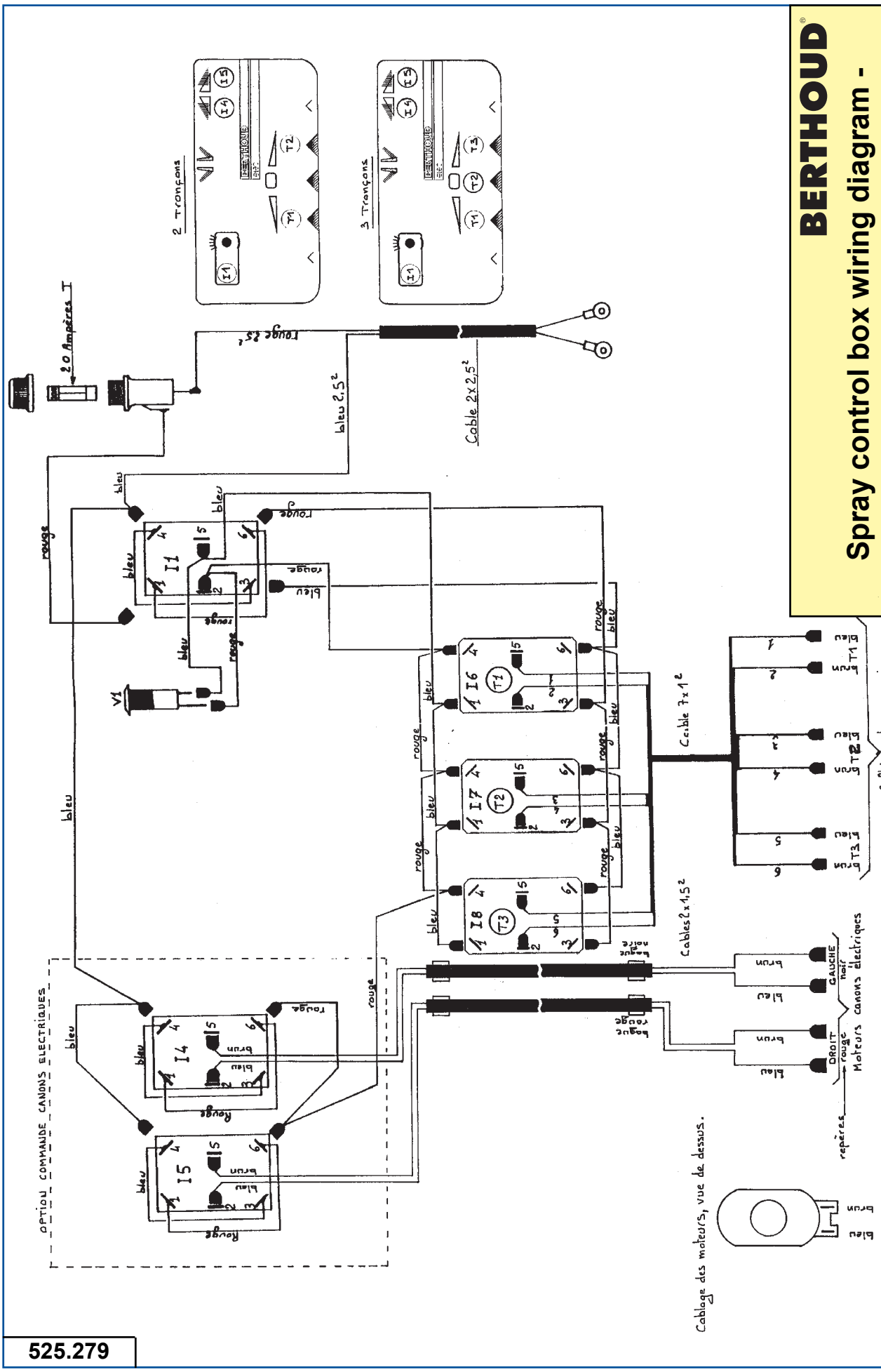
HYDRAULIC CIRCUIT

KEY TO FIGURES of pages 49

- 1 - Electric spraying control.
 - 2 - Control valve with return shut-off.
 - 3 - Main tank 300, 400 or 600 litres capacity.
 - 4 - Float gauge.
 - 5 - Rinse tank 55 litres capacity. (400/600 L)
 - 6 - Rear cover with built-in 20-litre hand-wash tank.
 - 7 - Rinse tank 44 litres capacity. (300 L)
 - 8 - Hopper. (*optional on Speedair 400/600 L*)
 - 9 - Suction filter.
 - 10 - B.P. 60 pump (60 litres, 20 bar).
 - 11 - Shut-off valves for manual spray control with 0/25 bar pressure gauge.
 - 12 - Electric flap valves (V.E.C) for electric spray control with 0/25 bar pressure gauge.
-
- ① - Selection valve: main tank or rinsing tank intake.
 - ② - Selection valve: spraying or powder incorporation (hopper).
 - ③ - Selection valve: spraying or rinsing.
 - ④ - Selection valve: washing of the main tank (optional).
 - ⑤ - Drain valve.
 - ⑥ - Hopper valve.
 - ⑦ - Optional valve for hydro-injector filling.

HYDRAULIC CIRCUITS FOR A SPEEDAIR / SUPAIR MOUNTED SPRAYER - B.P. 60 PUMP





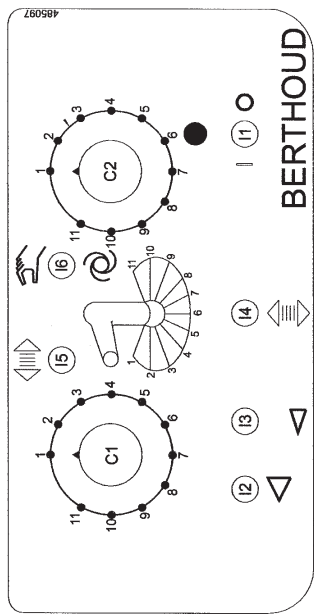
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BERTHOUD®
 Spray control box wiring diagram -
 electric canon option

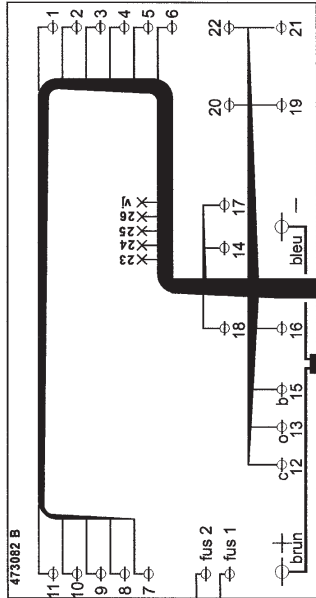
Cablage des moteurs, vue de dessus.



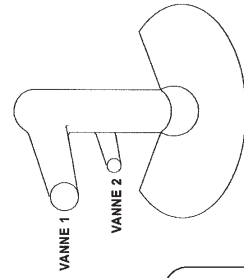
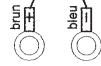
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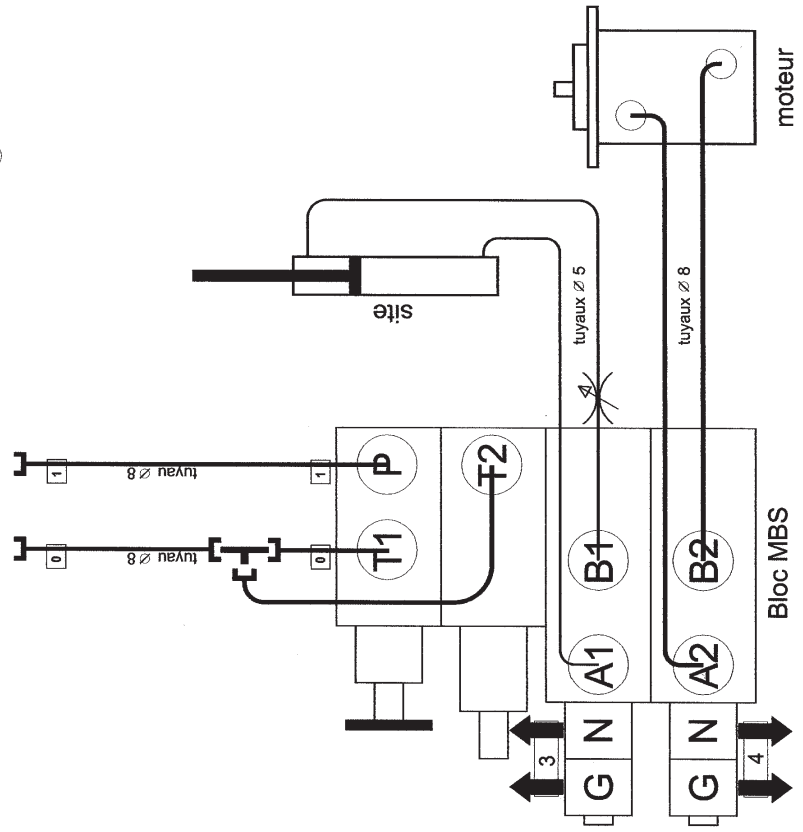
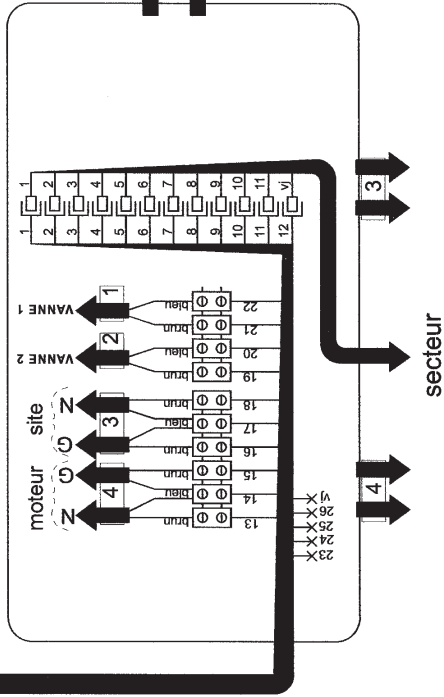
Boîtier de commande



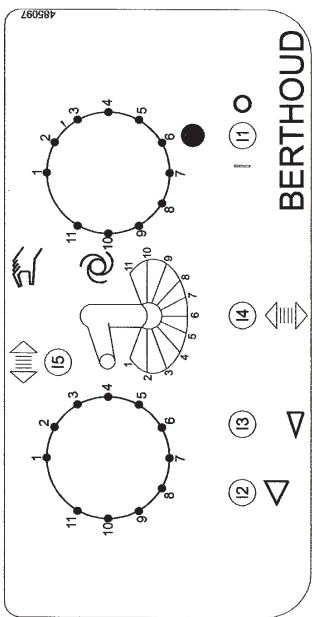
câble 2 x 2.5



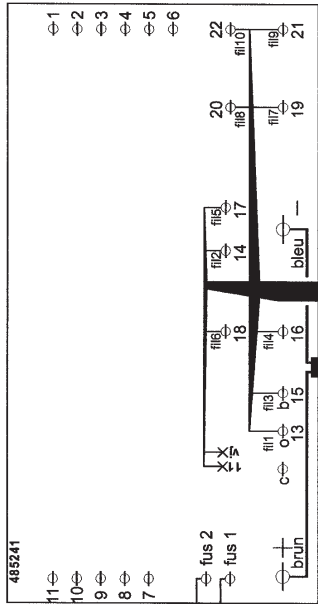
Boîtier de connexion



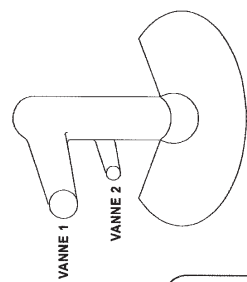
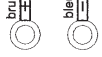
BERTHOUD®
Oscillating canon wiring diagram



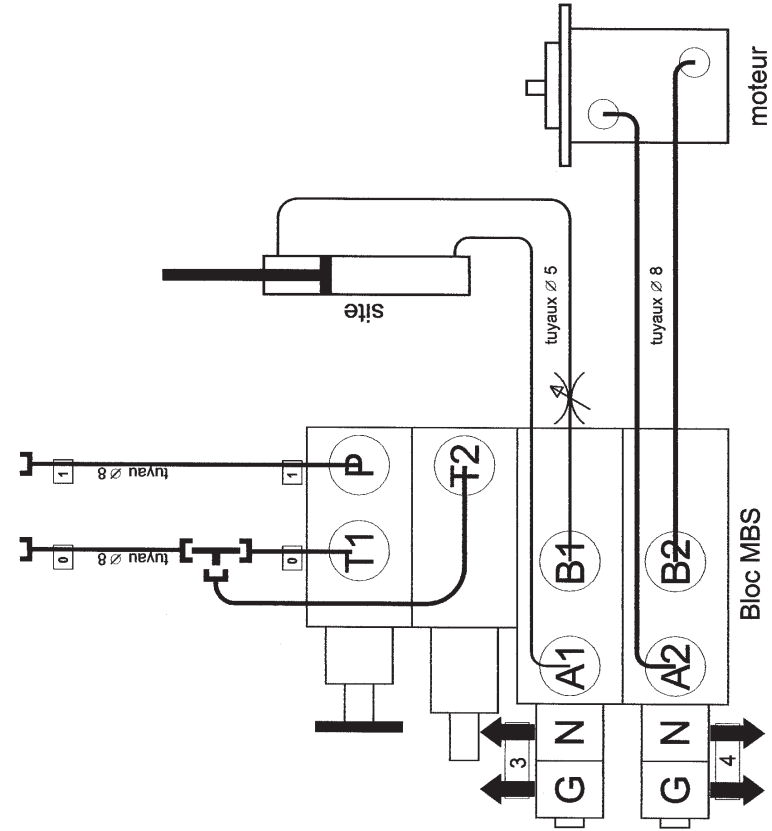
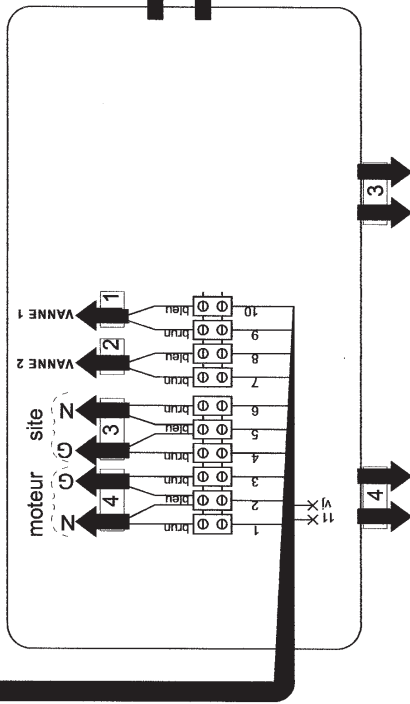
Boîtier de commande



câble 2 x 2.5



Boîtier de connexion



BERTHOUD
 Adjustable canon wiring diagram

KEY FOR WIRING DIAGRAMS

(pages 50 to 52)

20 ampères	<i>20 amperes</i>
bague rouge	<i>red ring</i>
bague noire	<i>black ring</i>
bleu	<i>blue</i>
bleu 2,5 ²	<i>blue 2,5²</i>
bloc MBS	<i>bloc MBS</i>
Boîtier de connexion	<i>Terminal strip</i>
Boîtier de commande	<i>Control unit</i>
brun	<i>brown</i>
Câble 2 x 1,5 ²	<i>2 conductors x 1,5 mm² cable</i>
Câble 7 x 1 ²	<i>7 conductors x 1 mm² cable</i>
Câblage des moteurs, vue de dessus	<i>Motor wiring, top view</i>
Droit	<i>Right</i>
Gauche	<i>Left</i>
Moteur	<i>Motor</i>
Moteurs canons électriques	<i>Electric canon motors</i>
Option commande canons électriques	<i>Electric canon control option</i>
Repères	<i>Marks</i>
rouge	<i>red</i>
rouge 2,5 ²	<i>red 2.5²</i>
Secteur	<i>Sector</i>
Site	<i>Elevation</i>
2 tronçons	<i>2 sections</i>
3 tronçons	<i>3 sections</i>
tuyau Ø 8	<i>Ø 8 hose</i>
Vanne 1	<i>Valve 1</i>
Vanne 2	<i>Valve 2</i>

**NOTES
ON TREATMENTS CARRIED OUT DURING**

Date	Field	Treatment	Product	Dose	Volume l/ha	Nozzle	Speed km/h

*Because of our policy of constant product improvement,
we reserve the right to modify product specifications or design without prior notice.*

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