

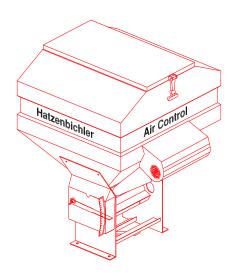
South Road, Bourne, Lincs, PE10 9LG

Tel: 01778 421111 Fax: 01778 425080

email: ask@opico.co.uk
website: http://www.opico.co.uk

Operating Instruction

Preumatic seed box



Quality from OPICO
OUR ADVANTAGES ARE LYING IN THE DETAIL
2004/2005



South Road, Bourne, Lincs, PE10 9LG

Tel: 01778 421111 Fax: 01778 425080

<u>email:</u> <u>ask@opico.co.uk</u> <u>website:</u> <u>http://www.opico.co.uk</u>

2. EU-Declaration of Gonformity

We, Thomas Hatzenbichler & Sohn Fischering 2 A-9433 St. Andrä Austria

Declare that the new machine described hereafter

Make, model: Pneumatic Seed box "Air Control"

Se	rial number:	
		to the relevant essential health and safety requirements of the 39/392/EEC.
>	DIN EN 292-1,	Safety of machines, tools and equipment
>	DIN EN 292-2,	Safety of machines, tools and equipment
>	DIN EN 294,	Safety of machines, tools and equipment
>	DIN EN 708,	Safety of agricultural machinery and soil tillage equipment
>	ÖNORM V 522	3, Safety of agricultural trailers
>		
>		
Da	ate	Thomas HATZENBICHLER Director



South Road, Bourne, Lincs, PE10 9LG

Tel: 01778 421111 Fax: 01778 425080

<u>email:</u> <u>ask@opico.co.uk</u> <u>website:</u> <u>http://www.opico.co.uk</u>

Contents for

Pneumatic seed box AIR Control

- 1. Declaration of EU conformity
- 3. Declaration about seed germination
- 4. Safety instructions
- 5. Fitting instructions for Grass Harrow
 - 5.1 Seed Hopper
 - 5.2 Distributor outlets
 - 5.3 Stabiliser bars
 - 5.4 Fan power
 - Fig. 1. Wiring diagram
- 6. Working instructions AIR 8
 - 6.1 Basic adjustments
 - 6.2 Seed roller protection shield
 - 6.3 Changing of the metering roller
 - 6.4 Seed rate adjustment
 - 6.5 Calibration test
 - 6.6 Work in the field
 - 6.7 Emptying the seed hopper
 - 6.8 Maintenance
 - 6.9 Storage
- 7. Calibration table for pneumatic seed box

Spare parts list for pneumatic seed box



South Road, Bourne, Lincs, PE10 9LG

Tel: 01778 421111 Fax: 01778 425080

<u>email:</u> <u>ask@opico.co.uk</u> <u>website:</u> <u>http://www.opico.co.uk</u>

Hints to the pneumatic Seeders "AIR8"for the germination of the seed:

The company Hatzenbichler does not take any responsibility for the



of seed.

Reason:

We do not know-

- 1. The condition of the seed
- 2. the depth which the seed is planted
- 3. the treatment of the ground before planting
- 4. on which implement the seeder is mounted

Hints for the work and the sowing for the pneumatic seeders "AIR-Control", "AIR8" and "AIR16":

- 1. The calibration test has to be done by the costumer on the field.
- 2. With the pneumatic seeder "AIR Control" with **8 outlets**, oversowing work can be done up to a <u>working width of 7,50m</u>. **Sowing of ploughed land** can be done up to **3,00m**
- 3. With the pneumatic seeder "AIR8" with **8 outlets**, oversowing work can be done up to a <u>working width of 7,50m</u>. **Sowing of ploughed land** can be done up to **3,00m**
- 4. With the pneumatic seeder "AIR16" with **16 outlets**, oversowing work can be done up to a <u>working width of 12m</u>. **Sowing of ploughed land** can be done up to **6m**.

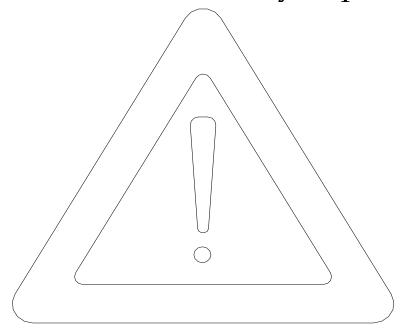


South Road, Bourne, Lincs, PE10 9LG

Tel: 01778 421111 Fax: 01778 425080

<u>email:</u> <u>ask@opico.co.uk</u> <u>website:</u> <u>http://www.opico.co.uk</u>

ATTENTION!!! Very important!!!



Safety instructions

- Do not remain in the working area of the implement
- It is prohibited to remain in the folding area of the implement during the process of folding danger of being crushed
- Put a mechanical support to prevent the implement from lowering, if you do repair or maintenance work under the implement in the raised position on the tractor
- Riding on the implement is not allowed, either during transport or during work
- Lower the tractor linkage and machine when leaving the tractor seat (either in folded or unfolded position)
- Take extra care when crossing or driving on slopes



South Road, Bourne, Lincs, PE10 9LG

Tel: 01778 421111 Fax: 01778 425080

<u>email:</u> <u>ask@opico.co.uk</u> <u>website:</u> <u>http://www.opico.co.uk</u>

4. Air Control Fitting Instructions for Grass Harrow

(4,5 mtr model)

4.1) Seed box

1. The pneumatic seed box should be fitted onto the rear support arm of the Grass Harrow approx. 750mm from the headstock, using mounting bracket and bolts supplied. Position so that the electric fans and seed metering mechanism is located at the back of the harrow, the seed pipes will run forward to the distributor outlets

NOTE: 4.5m & 5m models require an additional mounting bracket (934825) to allow the seed box to be mounted in the centre of the machine

2. The Grass Harrow rear support arm must be bolted with two M14 x 90 bolts supplied, removing the two pins previously used. This is to prevent vibration and wear which may occur with the added weight of seed box mounted

The optional operator platform should be mounted behind the seed box on the harrow rear

support arm, positioned to suit the operator





South Road, Bourne, Lincs, PE10 9LG

Tel: 01778 421111 Fax: 01778 425080

<u>email:</u> <u>ask@opico.co.uk</u> <u>website:</u> <u>http://www.opico.co.uk</u>

4.2) Distributor outlets

1. Remove the plastic end caps from the front of each harrow bed carrier and fit the expand clamp into the tube and tighten clamp bolt

- 2. Fit the C-section distributor carrier (1.5m section 39101) or (2m section 39102) into the clamp holder and set between 20-40cm above ground level
- 3. Place the distributor outlet onto the C-section carrier bar using bolt supplied, and space evenly to suit the working width e.g. 6m harrow requires 75cm spacing between distributor plates
- 4. Cut and fit the flexible pipe between seed box outlet and distributor plate, route the pipe allowing for folding wings



4.3) Stabiliser bars (6mtr model only)

- 1. Remove the existing stabiliser bar on both left & right wings and discard.
- 2. Mount the new stabilising bracket on the wing box section close to the outer section pivot point, the stabiliser will be on the underside of the wing box section.
- 3. Fit the short stabilising bar and position so that the bed is in the horizontal position.



South Road, Bourne, Lincs, PE10 9LG

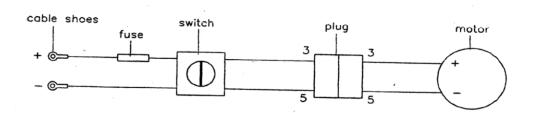
Tel: 01778 421111 Fax: 01778 425080

<u>email:</u> <u>ask@opico.co.uk</u> <u>website:</u> <u>http://www.opico.co.uk</u>

4.5) Fan power supply

The air fan units require a 12v 30amp electric supply direct from the tractor battery. The two fans are wired separately to the battery, when connected ensure the fans are running in the correct direction, fan blades turning clockwise as you look at it

- 1. Connect the power cable supplied Ref. Fig. 1, directly to the tractor battery and locate the on/off switch and male 7-pin plug in the tractor cab
- 2. The seeders unit power cable is supplied with a female 7-pin socket which connects into the tractor fitted power lead
- 3. The power cable supplied has two in-line fuses (16amp) on the positive lead at the battery



Blue = positive (+) Green/yellow = positive (+)

Black = negative (-) Brown = negative (-)

Fig. 1



South Road, Bourne, Lincs, PE10 9LG

Tel: 01778 421111 Fax: 01778 425080

<u>email:</u> <u>ask@opico.co.uk</u> <u>website:</u> <u>http://www.opico.co.uk</u>

5. Working instructions - AIR Control

5.1) Basic adjustments

Before filling the hopper, please observe the following points:

1. Is the correct metering roller fitted?

Attention: Choosing the metering roller according to the size of the seed and the quantity to

broadcast

Seeds, where the rough-toothed metering roller is used:

Grass-seed mixtures, rye, barley, wheat, oats, mixtures with peas etc. (normally for large seed rates; 10 kg/ha ->)

Seeds, where the fine-toothed metering roller is used:

Pure clover seeds, rape seed, phacelia, granules etc. (normally for small seed rates; < 15 kg/ha)

2. Seed retaining brush adjustment:

The distance of the retaining brush from the metering roller can be adjusted by a lever on the right hand side of the hopper. The brush can be adjusted from 1-7mm

The following rules must be observed:

The distance between brush and metering roller is approx. half the seed size

i.e. Oil seed rape, clover 0-1mm
Grass-mixtures 1-2mm
Game cover mixtures 2-3mm

- The gap on the lower side of the roller should never be more than 1mm (Factory set)

5.2) Seed roller protection shield

This is mounted inside the hopper to carry the weight of seed in the hopper. It is designed mainly for heavier seeds ie Oil seed rape, slug pellets, etc. When working with lighter seeds ie grass seed be careful to ensure the plate does not encourage bridging in the hopper. If seed bridging is a problem remove the thumb screws and shield from the hopper and work without it fitted.



South Road, Bourne, Lincs, PE10 9LG

Tel: 01778 421111 Fax: 01778 425080

<u>email:</u> <u>ask@opico.co.uk</u> <u>website:</u> <u>http://www.opico.co.uk</u>

5.3) Changing the seed metering roller

Ensure the seed hopper is completely empty of seed. To change the metering roller, remove the end cap bearing holder on the right hand side of the machine. Slide out the roller, by turning anti-clockwise and pulling at the same time

When fitting another roller, observe the following:

- 1. Slide the replacement roller onto the drive axle
- 2. Replace the bearing holder
- 3. The spring loaded discs on the ends of the metering roller should take up any gap when the bearing holder has been fitted, the discs should not be tight
- 4. Check that the roller turns easily

5.4) Seed rate adjustment

Seed output is adjusted at the control unit through a potentiometer. Seed rate is increased / decreased by turning the switch from 1 - 10 the seed rate. See Air Contol calibration data for guide on approx settings (page 13 & 14)

5.5) Calibration

Steps during calibration:

- 1. Remove the seed metering roller cover
- 2. Slide the calibration tray into the roller compartment
- 3. Switch on the control unit and set to the required seed rate (see approx kg/min chart), run the metering roller for a short period to ensure seed is being metered, stop and empty the calibration tray ready for test run
- 4. Operate the metering roller for a set time of 1 minute (60secs)
- 5. Remove the calibration tray and weigh the seed quantity discharged, check this against the target calibration rate kg/min, adjust + or -

6. Air Control Calibration formula:

The following formula is used to determine the output:

Desired seed	l rate kg/ha	x Speed km	ı/hr x	Working wi	
		600			= kg / min
Example:					
5.0 kg/ha	x	12 km/hr	x	12 mtr	- 1.21cg/min
		600			= 1.2 kg/min



South Road, Bourne, Lincs, PE10 9LG

Tel: 01778 421111 Fax: 01778 425080

<u>email:</u> <u>ask@opico.co.uk</u> <u>website:</u> <u>http://www.opico.co.uk</u>

Potentiometer

On the LED you can see the operating state



turtle switch - for slow turns rabbit switch - for fast turns



South Road, Bourne, Lincs, PE10 9LG

Tel: 01778 421111 Fax: 01778 425080

<u>email:</u> <u>ask@opico.co.uk</u> <u>website:</u> <u>http://www.opico.co.uk</u>

Table 1. Seed outputs kg/min for different working widths at 8km/hr forward speed For guidance only, important to test with the seed being used.

Tor guidance only, impo-	realit to test with	the seed being use	
Working width	Outp	ut test weight kg	/ min
3.0 mtr @ 8 km/hr	1.38 kg/min	1.48 kg/min	1.58 kg/min
4.5 mtr @ 8 km/hr	2.08 kg/min	2.23 kg/min	2.37 kg/min
5.0 mtr @ 8 km/hr	2.31 kg/min	2.47 kg/min	2.63 kg/min
6.0 mtr @ 8 km/hr	2.77 kg/min	2.97 kg/min	3.16 kg/min
Seed rate	34.6 kg/ha	37.1 kg/ha	39.5 kg/ha
beed face	14 kg/ac	15 kg/ac	16 kg/ac

5.5) Work in the field

Overseeding:

It is possible to upgrade existing pasture by adding new seed. Harrowing old grass pasture to open up the soil surface before broadcasting new seed is cost effective. The combination of grass harrow and pneumatic seed box will help you get the most from your overseeding programme as it improves weed control, airs the soil and improves conditions for grass seed germination.

Reseeding:

The benefits of increased yield and improved forage quality from reseeding are undoubted. Reseeding into cultivated ground is possible with the harrow and pneumatic seed box, cross drilling in a diamond pattern will ensure good ground cover, but there are several points worth considering to ensure success.

- 1. Always check pH, phosphate and potash levels prior to sowing (aim for pH 6.5, P2, K2)
- 2. Make certain the seed bed is fine and firm
- 3. Roll before as well as after sowing
- 4. Ensure depth of seed is no more than 15mm
- 5. Control weeds after establishment
- 6. Use pesticide control when sowing grass after grass

Before field work check the following:

- Check both fans are working & direction of motion is correct. Run the fan to dry any
 moisture in the distributor pipes before starting work, this will minimise risk of seed
 blockage in the pipes
- There should be a minimum of 10kg of seed in the hopper
- The lid of the seed hopper must close air tight
- Set the distributor outlet between 20-40 cm above ground. Harrow tine setting, crop foliage height and seed type will determine the height required to ensure an even spread pattern
- Check all outlets to ensure even seed coverage across the working width



South Road, Bourne, Lincs, PE10 9LG

Tel: 01778 421111 Fax: 01778 425080

<u>email:</u> <u>ask@opico.co.uk</u> <u>website:</u> <u>http://www.opico.co.uk</u>

5.7) Emptying the seed hopper

1. Place the calibration tray into the output roller compartment

- 2. Set the seed output lever and retaining brush lever at maximum and turn the ground drive wheel clockwise until the hopper is empty.
- 3. To empty completely, remove the metering roller (Ref. to **5.2**))

5.8) Maintenance

Daily

- 1. Clean the fan with compressed air, particularly when working in dusty conditions
- 2. Check electric cables and connections for damage
- 3. Check mounting nuts and bolts are tight
- 4. Check the flexible drive for damage
- Check the seed agitator is clean and working

Weekly

- 1. Lubricate and re-tension the transmission drive chain. The chain and tensioner are located on the l/h side of the seed-box, undo the two thumb nuts and remove cover to access the chain and tensioner
- 2. Lubricate the land drive wheel
- 3. Lubricate the flexible drive cable
- 4. Lubricate the metering roller end cap bearing
- 5. Check all nuts and bolts are tight

NOTE: The transmission gearbox requires no maintenance

5.9) Storage

- 1. Empty seed hopper completely
- 2. Clean the unit thoroughly and paint any bare metal
- 3. Check for any ware or damage and repair as necessary
- 4. Store the pneumatic seed box under cover to prevent any build-up of moisture in the distributor pipes, seed hopper and metering mechanism.



South Road, Bourne, Lincs, PE10 9LG

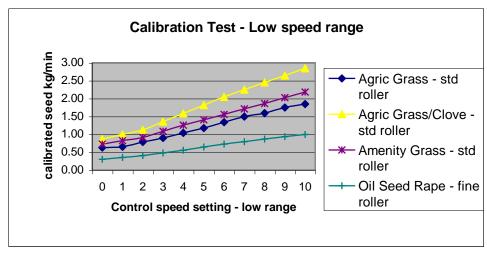
Tel: 01778 421111 Fax: 01778 425080

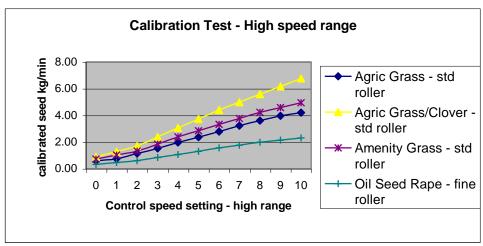
email: ask@opico.co.uk
website: http://www.opico.co.uk

6. Air Control calibration data

For guidance only, important to test with seed / material being used.

J, F								
Agri	c Grass	Agric Gra	ass/Clover	Ameni	ty Grass	OSR		
Std	roller	Std	roller	Std	roller	Fine roller		
	2		2		2	0		
low	high	low	high	low	high	low	high	
0.62	0.61	0.87	0.88	0.72	0.72	0.30	0.32	
0.65	0.74	0.99	1.29	0.82	1.02	0.35	0.47	
0.78	1.13	1.12	1.71	0.91	1.32	0.41	0.61	
0.90	1.52	1.35	2.38	1.08	1.85	0.48	0.84	
1.04	1.96	1.58	3.06	1.25	2.39	0.56	1.07	
1.18	2.36	1.81	3.73	1.40	2.85	0.64	1.31	
1.34	2.79	2.04	4.39	1.55	3.32	0.72	1.55	
1.49	3.22	2.25	4.99	1.71	3.77	0.79	1.76	
1.59	3.61	2.45	5.58	1.86	4.23	0.87	1.98	
1.74	3.95	2.65	6.17	2.02	4.59	0.93	2.14	
1.84	4.20	2.84	6.76	2.18	4.95	0.99	2.30	
	Calibrated seed weights kg/min							
	Std low 0.62 0.65 0.78 0.90 1.04 1.18 1.34 1.49 1.59 1.74	low high 0.62 0.61 0.65 0.74 0.78 1.13 0.90 1.52 1.04 1.96 1.18 2.36 1.34 2.79 1.49 3.22 1.59 3.61 1.74 3.95	Std roller Std 2 low high low 0.62 0.61 0.87 0.65 0.74 0.99 0.78 1.13 1.12 0.90 1.52 1.35 1.04 1.96 1.58 1.18 2.36 1.81 1.34 2.79 2.04 1.49 3.22 2.25 1.59 3.61 2.45 1.74 3.95 2.65 1.84 4.20 2.84	Std roller Std roller 2 2 low high 0.62 0.61 0.87 0.88 0.65 0.74 0.99 1.29 0.78 1.13 1.12 1.71 0.90 1.52 1.35 2.38 1.04 1.96 1.58 3.06 1.18 2.36 1.81 3.73 1.34 2.79 2.04 4.39 1.49 3.22 2.25 4.99 1.59 3.61 2.45 5.58 1.74 3.95 2.65 6.17 1.84 4.20 2.84 6.76	Std roller Std roller Std 2 2 low high low 0.62 0.61 0.87 0.88 0.72 0.65 0.74 0.99 1.29 0.82 0.78 1.13 1.12 1.71 0.91 0.90 1.52 1.35 2.38 1.08 1.04 1.96 1.58 3.06 1.25 1.18 2.36 1.81 3.73 1.40 1.34 2.79 2.04 4.39 1.55 1.49 3.22 2.25 4.99 1.71 1.59 3.61 2.45 5.58 1.86 1.74 3.95 2.65 6.17 2.02 1.84 4.20 2.84 6.76 2.18	Std roller Std roller Std roller 2 2 low high low high 0.62 0.61 0.87 0.88 0.72 0.72 0.65 0.74 0.99 1.29 0.82 1.02 0.78 1.13 1.12 1.71 0.91 1.32 0.90 1.52 1.35 2.38 1.08 1.85 1.04 1.96 1.58 3.06 1.25 2.39 1.18 2.36 1.81 3.73 1.40 2.85 1.34 2.79 2.04 4.39 1.55 3.32 1.49 3.22 2.25 4.99 1.71 3.77 1.59 3.61 2.45 5.58 1.86 4.23 1.74 3.95 2.65 6.17 2.02 4.59 1.84 4.20 2.84 6.76 2.18 4.95	Std roller Std roller Std roller Fine 2 2 2 low high low high low 0.62 0.61 0.87 0.88 0.72 0.72 0.30 0.65 0.74 0.99 1.29 0.82 1.02 0.35 0.78 1.13 1.12 1.71 0.91 1.32 0.41 0.90 1.52 1.35 2.38 1.08 1.85 0.48 1.04 1.96 1.58 3.06 1.25 2.39 0.56 1.18 2.36 1.81 3.73 1.40 2.85 0.64 1.34 2.79 2.04 4.39 1.55 3.32 0.72 1.49 3.22 2.25 4.99 1.71 3.77 0.79 1.59 3.61 2.45 5.58 1.86 4.23 0.87 1.74 3.95 2.65 6.17 2.02 4.59 0.93	







South Road, Bourne, Lincs, PE10 9LG

Tel: 01778 421111 Fax: 01778 425080

		l																		
Working									S	Seed	outpu	t test	kg/	min						
width	Speed	0.50	0.75	1.00	1 25	1 50	1 75	2.00	2.25	2.50	2.75	2.00	2.25	2 50	2.75	4.00	4.0E	4.50	4 7E	F 00
mtr	km/hr	0.50	0.75	1.00	1.25	1.50	1./5	2.00	2.25	2.50	2.75	3.00	3.23	3.50	3.75	4.00	4.25	4.50	4.75	5.00
3		12.5	18.8	25.0	31.3	37.5	43.8	50.0	56.3	62.5	68.8	75.0	81.3	87.5	93.8	100.0	106.3	112.5	118.8	125.0
4.5	8	8.3	12.5	16.7	20.8	25.0	29.2	33.3	37.5	41.7	45.8	50.0	54.2	58.3	62.5	66.7	70.8	75.0	79.2	83.3
5	0	7.5	11.3	15.0	18.8	22.5	26.3	30.0	33.8	37.5	41.3	45.0	48.8	52.5	56.3	60.0	63.8	67.5	71.3	75.0
6		6.3	9.4	12.5	15.6	18.8	21.9	25.0	28.1	31.3	34.4	37.5	40.6	43.8	46.9	50.0	53.1	56.3	59.4	62.5
3		10.0	15.0	20.0	25.0	30.0	35.0	40.0	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0	90.0	95.0	100.0
4.5	10	6.7	10.0	13.3	16.7	20.0	23.3	26.7	30.0	33.3	36.7	40.0	43.3	46.7	50.0	53.3	56.7	60.0	63.3	66.7
5	10	6.0	9.0	12.0	15.0	18.0	21.0	24.0	27.0	30.0	33.0	36.0	39.0	42.0	45.0	48.0	51.0	54.0	57.0	60.0
6		5.0	7.5	10.0	12.5	15.0	17.5	20.0	22.5	25.0	27.5	30.0	32.5	35.0	37.5	40.0	42.5	45.0	47.5	50.0
3		8.3	12.5	16.7	20.8	25.0	29.2	33.3	37.5	41.7	45.8	50.0	54.2	58.3	62.5	66.7	70.8	75.0	79.2	83.3
4.5	40	5.6	8.3	11.1	13.9	16.7	19.4	22.2	25.0	27.8	30.6	33.3	36.1	38.9	41.7	44.4	47.2	50.0	52.8	55.6
5	12	5.0	7.5	10.0	12.5	15.0	17.5	20.0	22.5	25.0	27.5	30.0	32.5	35.0	37.5	40.0	42.5	45.0	47.5	50.0
6		4.2	6.3	8.3	10.4	12.5	14.6	16.7	18.8	20.8	22.9	25.0	27.1	29.2	31.3	33.3	35.4	37.5	39.6	41.7
			Seed rate - Kg / ha																	

Working width	Forward Speed								S	Seed	outpu	t test	kg/	min						
mtr		0.50	0.75	1.00	1.25	1.50	1.75	2.00	2.25	2.50	2.75	3.00	3.25	3.50	3.75	4.00	4.25	4.50	4.75	5.00
3		5.1	7.6	10.1	12.6	15.2	17.7	20.2	22.8	25.3	27.8	30.4	32.9	35.4	37.9	40.5	43.0	45.5	48.1	50.6
4.5	0	3.4	5.1	6.7	8.4	10.1	11.8	13.5	15.2	16.9	18.5	20.2	21.9	23.6	25.3	27.0	28.7	30.4	32.0	33.7
5	8	3.0	4.6	6.1	7.6	9.1	10.6	12.1	13.7	15.2	16.7	18.2	19.7	21.2	22.8	24.3	25.8	27.3	28.8	30.4
6		2.5	3.8	5.1	6.3	7.6	8.9	10.1	11.4	12.6	13.9	15.2	16.4	17.7	19.0	20.2	21.5	22.8	24.0	25.3
3		4.0	6.1	8.1	10.1	12.1	14.2	16.2	18.2	20.2	22.3	24.3	26.3	28.3	30.4	32.4	34.4	36.4	38.4	40.5
4.5	10	2.7	4.0	5.4	6.7	8.1	9.4	10.8	12.1	13.5	14.8	16.2	17.5	18.9	20.2	21.6	22.9	24.3	25.6	27.0
5	10	2.4	3.6	4.9	6.1	7.3	8.5	9.7	10.9	12.1	13.4	14.6	15.8	17.0	18.2	19.4	20.6	21.9	23.1	24.3
6		2.0	3.0	4.0	5.1	6.1	7.1	8.1	9.1	10.1	11.1	12.1	13.2	14.2	15.2	16.2	17.2	18.2	19.2	20.2
3		3.4	5.1	6.7	8.4	10.1	11.8	13.5	15.2	16.9	18.5	20.2	21.9	23.6	25.3	27.0	28.7	30.4	32.0	33.7
4.5	12	2.2	3.4	4.5	5.6	6.7	7.9	9.0	10.1	11.2	12.4	13.5	14.6	15.7	16.9	18.0	19.1	20.2	21.4	22.5
5		2.0	3.0	4.0	5.1	6.1	7.1	8.1	9.1	10.1	11.1	12.1	13.2	14.2	15.2	16.2	17.2	18.2	19.2	20.2
6		1.7	2.5	3.4	4.2	5.1	5.9	6.7	7.6	8.4	9.3	10.1	11.0	11.8	12.6	13.5	14.3	15.2	16.0	16.9
			Seed rate - Kg / ac																	

NOTE: Maximum seed rate is determined by the air flow and the position of seeder pipe work. The electric fan will carry seed upto approx. $40 \, \text{kg/ha}$ on $6 \, \text{mtr}$ working width.



South Road, Bourne, Lincs, PE10 9LG

Tel: 01778 421111 Fax: 01778 425080

email: ask@opico.co.uk
website: http://www.opico.co.uk

Conversion chart

kg lb	ac ha	lb/ac kg/ha	kg/ac kg/ha	kg/ha g/m ²
0.5 1 2.2	2.5 1 0.4	0.9 1 1.1	0.4 1 2.5	10 1
0.9 2 4.4	4.9 2 0.8	1.8 2 2.2	0.8 2 4.9	20 2
1.4 3 6.6	7.4 3 1.2	2.7 3 3.4	1.2 3 7.4	30 3
1.8 4 8.8 2.3 5 11.0	9.9 4 1.6 12.4 5 2.0	3.6 4 4.5 4.5 5 5.6	1.6 4 9.9 2.0 5 12.4	40 4 50 5
2.7 6 13.2	14.8 6 2.4	5.4 6 6.7	2.4 6 14.8	60 6
3.2 7 15.4	17.3 7 2.8	6.2 7 7.8	2.8 7 17.3	70 7
3.6 8 17.6	19.8 8 3.2	7.1 8 9.0	3.2 8 19.8	80 8
4.1 9 19.8	22.2 9 3.6	8.0 9 10.1	3.6 9 22.2	90 9
4.5 10 22.0	24.7 10 4.0	8.9 10 11.2	4.0 10 24.7	100 10
5.0 11 24.3	27.2 11 4.5	9.8 11 12.3	4.5 11 27.2	110 11
5.4 12 26.5	29.7 12 4.9	10.7 12 13.5	4.9 12 29.7	120 12
5.9 13 28.7	32.1 13 5.3	11.6 13 14.6	5.3 13 32.1	130 13
6.4 14 30.9	34.6 14 5.7	12.5 14 15.7	5.7 14 34.6	140 14
6.8 15 33.1 7.3 16 35.3	37.1 15 6.1 39.5 16 6.5	13.4 15 16.8 14.3 16 17.9	6.1 15 37.1 6.5 16 39.5	150 15 160 16
7.7 17 37.5	42.0 17 6.9	15.2 17 19.1	6.9 17 42.0	170 17
8.2 18 39.7	44.5 18 7.3	16.1 18 20.2	7.3 18 44.5	180 18
8.6 19 41.9	47.0 19 7.7	17.0 19 21.3	7.7 19 47.0	190 19
9.1 20 44.1	49.4 20 8.1	17.8 20 22.4	8.1 20 49.4	200 20
9.5 21 46.3	51.9 21 8.5	18.7 21 23.5	8.5 21 51.9	210 21
10.0 22 48.5	54.4 22 8.9	19.6 22 24.7	8.9 22 54.4	220 22
10.4 23 50.7	56.8 23 9.3	20.5 23 25.8	9.3 23 56.8	230 23
10.9 24 52.9	59.3 24 9.7	21.4 24 26.9	9.7 24 59.3	240 24
11.3 25 55.1 11.8 26 57.3	61.8 25 10.1 64.2 26 10.5	22.3 25 28.0 23.2 26 29.1	10.1 25 61.8 10.5 26 64.2	250 25 260 26
12.2 27 59.5	66.7 27 10.9	24.1 27 30.3	10.9 27 66.7	270 27
12.7 28 61.7	69.2 28 11.3	25.0 28 31.4	11.3 28 69.2	280 28
13.2 29 63.9	71.7 29 11.7	25.9 29 32.5	11.7 29 71.7	290 29
13.6 30 66.1	74.1 30 12.1	26.8 30 33.6	12.1 30 74.1	300 30
14.1 31 68.3	76.6 31 12.5	27.7 31 34.7	12.5 31 76.6	310 31
14.5 32 70.5	79.1 32 12.9	28.5 32 35.9	12.9 32 79.1	320 32
15.0 33 72.8	81.5 33 13.4	29.4 33 37.0	13.4 33 81.5	330 33
15.4 34 75.0	84.0 34 13.8	30.3 34 38.1	13.8 34 84.0	340 34
15.9 35 77.2 16.3 36 79.4	86.5 35 14.2	31.2 35 39.2	14.2 35 86.5	350 35
16.3 36 79.4 16.8 37 81.6	89.0 36 14.6 91.4 37 15.0	32.1 36 40.4 33.0 37 41.5	14.6 36 89.0 15.0 37 91.4	360 36 370 37
17.2 38 83.8	93.9 38 15.4	33.9 38 42.6	15.4 38 93.9	380 38
17.7 39 86.0	96.4 39 15.8	34.8 39 43.7	15.8 39 96.4	390 39
18.1 40 88.2	98.8 40 16.2	35.7 40 44.8	16.2 40 98.8	400 40
18.6 41 90.4	101.3 41 16.6	36.6 41 46.0	16.6 41 101.3	
19.1 42 92.6	103.8 42 17.0	37.5 42 47.1	17.0 42 103.8	
19.5 43 94.8	106.3 43 17.4	38.4 43 48.2	17.4 43 106.3	
20.0 44 97.0	108.7 44 17.8	39.3 44 49.3	17.8 44 108.7	
20.4 45 99.2	111.2 45 18.2	40.1 45 50.4	18.2 45 111.2	
20.9 46 101.4 21.3 47 103.6	113.7 46 18.6 116.1 47 19.0	41.0 46 51.6 41.9 47 52.7	18.6 46 113.7 19.0 47 116.1	
21.8 48 105.8	118.6 48 19.4	42.8 48 53.8	19.4 48 118.6	
22.2 49 108.0	121.1 49 19.8	43.7 49 54.9	19.8 49 121.1	
22.7 50 110.2	123.6 50 20.2	44.6 50 56.0	20.2 50 123.6	
		- 16 -		



South Road, Bourne, Lincs, PE10 9LG

Tel: 01778 421111 Fax: 01778 425080

email: ask@opico.co.uk
website: http://www.opico.co.uk

Spare part list

SOF

Pneumatic seeder

AIR Gontrol



South Road, Bourne, Lincs, PE10 9LG

Tel: 01778 421111 Fax: 01778 425080

email: ask@opico.co.uk
website: http://www.opico.co.uk

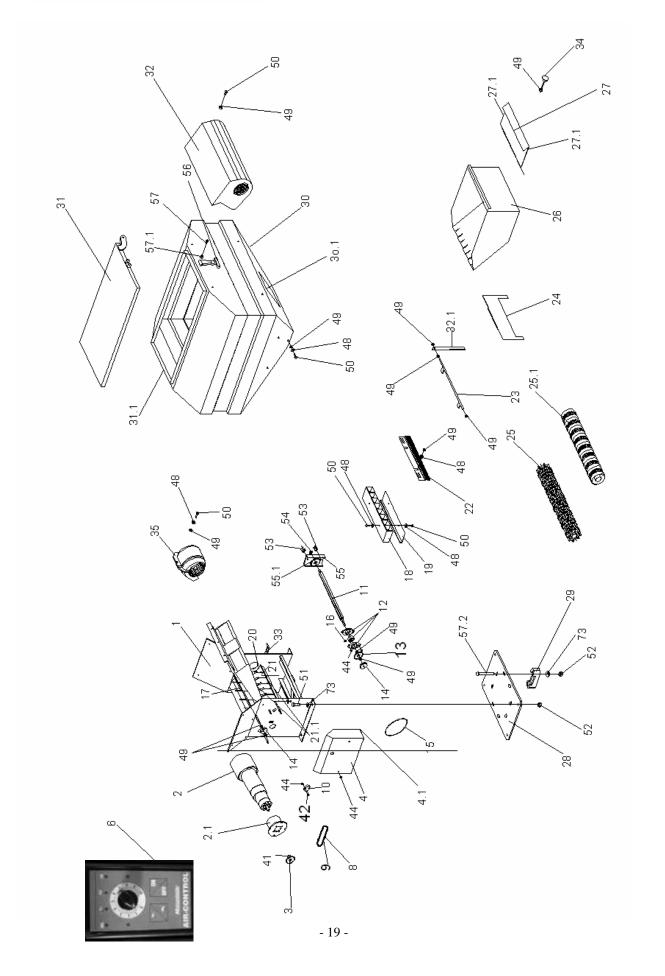
Spare parts list for pneumatic seeder "AIR Control"

Pos.no.:	Order nr.:	
1	931001	seeder base "Air Control"
2	931198	E-Motor
2.1	931199	adapter E-Motor
3	930003	gear wheel for E-Motor
4	930004	transmission protection
4.1	9300041	rubber gasket f. transm. protection, straight 700mm
5	930005	output regulation
6	931197	Potentiometer (fuse 5amp - 679311970)
8	930008	chain
9	930009	chain lock
10	930010	chain tensioner
11	930011	hex. axle
12	930012	bearing
13	930013	gear wheel big for hex. axle
14	930014	belt bulley
15	930015	belt
16	930016	distance washer
17	930017	agitator
18	930018	PVC piece with 8 holes
19	930019	hose clamp
20	930020	compartment A8
21	930021	cleaner rubber seal (5x20x300mm)
21.1	9300211	Lid rubber seal, 90° 300mm long
22	930022	brush "Air Control"
23	930023	rods for brush adjustment
24	94984	flat iron piece "Air Control"
25	930025	dosage roller rough "Air Control"
25.1	934822	dosage roller fine "Air Control"
26	39475	calibration tray "Air Control"
27	930027	cover
27.1	9300271	rubber seal for cover, straight 160mm long
28	930028	mounting plate "Air Control"
29	94937	mounting clamp
30	930030	seed hopper, "Air Control" 150lt.
30.1	9300301	plexiglas screen and seal
31	39005	hopper lid "Air Control"
32	930032	blower protection
32.1	9300320	lever short "Air Control"



South Road, Bourne, Lincs, PE10 9LG

Tel: 01778 421111 Fax: 01778 425080





South Road, Bourne, Lincs, PE10 9LG

Tel: 01778 421111 Fax: 01778 425080

email: ask@opico.co.uk
website: http://www.opico.co.uk

Pos.no.:	Order nr.:	
33	930033	adjusting notches small
34	930034	lock complete for cover (bolt with handle) M8x50
35	94985	blower
39	930039	socket screw, M8x40
41	930041	threaded pin
42	930042	hex bolt M6x20
43	930043	washer M6
44	930044	stop nut M6
49	70012	stop nut M8
50	930050	hex bolt M8x16
51	930051	hex bolt M12x30
52	70013	stop nut M12
53	930053	nut M6
54	930054	bearing
55	930055	bearing zinc coated
55.1	9300551	plastic disc for bearing zinc coated
56	9300561	lid lock galvanised
57	9300570	bold M5x10
57.1	9300571	nut M5
59	930059	hose
60	949832	distributer
61	9300611	cable part 1 (from battery, with switch to the plug)
62	930062	cable part 2 (from the plug to the electric motor)
73	412124	washer M12
81	949831	bracket 25x70x6
82	39111	c-profile / m
82.1	391011	c-profile l=1,50m
82.2	391022	c-profile 1=2,00m
83	80272	holder for c-profile;V6
84	930214	hex bolt M12x20
87	93935	expand bracket 1
88	93934	expand bracket 2
89	930220	allen screw M12x20
90	930219	hex bolt M12x130
91	9316S	hex bolt M8x30 with nut
92	949833	bracket 90x25x6
93	949834	bracket to fit distributor in bed, part 1
94	949835	bracket for distributor in bed
95	70017	stop nut M10
96	930230	washer M8



South Road, Bourne, Lincs, PE10 9LG

Tel: 01778 421111 Fax: 01778 425080

<u>email:</u> <u>ask@opico.co.uk</u> <u>website:</u> <u>http://www.opico.co.uk</u>



