

# HIGH FREQUENCY ELECTRIC IMMERSION VIBRATORS

Technical Data	
Parts manual	136.1043
Product manual	PM
Design File	DF

Customs Tariff Codes		
	Product	Spares
Pokers		
Frequency Convertors		

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## Dealer



# HIGH FREQUENCY ECCENTRIC WEIGHT ELECTRIC POKER

## WARRANTY

We warrant that the product is free from defects in materials and workmanship.

If such a fault is found within six months from date of purchase from an approved dealer, the company will replace free of charge all failed components.

Any failed unit must be returned carriage paid to the factory for inspection.

The warranty does not cover failure attributable to wear and tear, accidental damage, site or operator misuse or lack of maintenance.

We will not accept units under warranty that third parties have attempted to repair or disassembled

# **HIGH FREQUENCY ECCENTRIC WEIGHT ELECTRIC POKER**



## **WARNING**

### **HEALTH HAZARD**

**DO NOT HANDLE OR TOUCH VIBRATING PARTS DURING OPERATION**

### **ELECTRICAL EQUIPMENT**

**ONLY QUALIFIED PERSONNEL TO DISMANTLE OR REPAIR THIS EQUIPMENT**

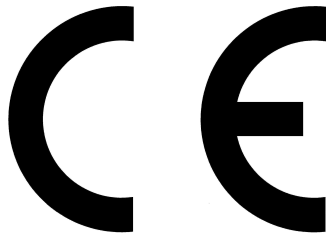
**ALWAYS DISCONNECT EQUIPMENT FROM POWER SUPPLY**

# HIGH FREQUENCY ECCENTRIC WEIGHT ELECTRIC POKER

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# HIGH FREQUENCY ECCENTRIC WEIGHT ELECTRIC POKER



## EC DECLARATION OF CONFORMITY AND INCORPORATION

We Declare under our sole responsibility that the products  
VPI and VPK Electric motor in head internal vibrators

To which this certificate relates are in conformity with the following standards:  
EN 61000-6-2, EN 61000-6-4, CEI EN 60745-1

Following the provisions of Directives:  
73/23/EEC

This equipment must not be put into service until the machinery into  
which it is to be incorporated has been declared in conformity with  
the provisions of the above mentioned directive.

Certified by

*David Aston*

General Manager

Date

Wednesday, December 12, 2007

# HIGH FREQUENCY ECCENTRIC WEIGHT ELECTRIC POKER

## VPK31 ELECTRIC POKER

Before putting into operation, make sure that the equipment does not show any signs of exterior damage. For model VPK 30 with integral Inverter Control: Connect the VPK 31 to a suitable 110v 1ph 50Hz supply. The CEE-type plug is standard for 110v connection. The VPK 30 is fitted with a special version of the VPI 31 using a different stator, otherwise mechanically it is the same and therefore can be serviced as described below.

**The Inverter Control is a sealed unit and no servicing is necessary or possible.**

**NOTE: If the VPK range is being run off a generator the generator must be a regulated type. The electronics of the VPK switch box will only accept +/- 10% voltage variation. Spikes of over 150 volts will damage the switch box. Impact sensitive electronics are used in the switch box. Impacts over 100m/s<sup>2</sup> may damage the unit.**

To ensure proper cooling, all poker heads should be completely immersed in the concrete. Where this does not happen, it increases the risk of integrated thermo-switch automatically cutting down the equipment to protect it from overheating. If this should happen, please allow time for the equipment to cool down before restarting. Immersing in a bucket of cold water would speed up this process.

**Danger: HEALTH HAZARD. Do not handle or touch vibrating part during operation.**

**Dismantling.** The replacement of defective components as well as any subsequent assembly must be carried out by skilled technicians. **Always disconnect equipment from power supply.**

To dismantle the poker, clamp the stator body (9) firmly in pipe vice. Release locking weld points between the steel nosepiece (14) from the stator (9). This thread has been assembled using "Loctite" or similar thread sealant.

To release, heat the area to a temperature of 100°C-120°C at the threaded point and unscrew steel head by using a pipe wrench (right-hand thread). After separation of the two parts, the rotor is secured inside the steel head. Pull out needle bearing (6) by using a suitable internal pull-out tool. Screw an M8 threaded rod into the extraction nut (13) and pull out needle bearing (11). To continue dismantling of rotor, place a suitable guard ring against the end face of the steel head (14) or put on a protective covering, then clamp rotor very firmly between the vice jaws. Finally, push rotor carefully from the steel head by using two assembly levers. After loosening the locking nut (4) and driving out spiral pin (3), the ball bearing (8), the needle bearing (6), the inner raceway of the needle bearing (7) as well as the eccentric weight (2) can be removed ie pulled off. The assembly must be carried out in reverse order. Always pay particular attention to the correct orientation of the spring washers (see exploded view). The needle bearing (11) must be pre-lubricated.

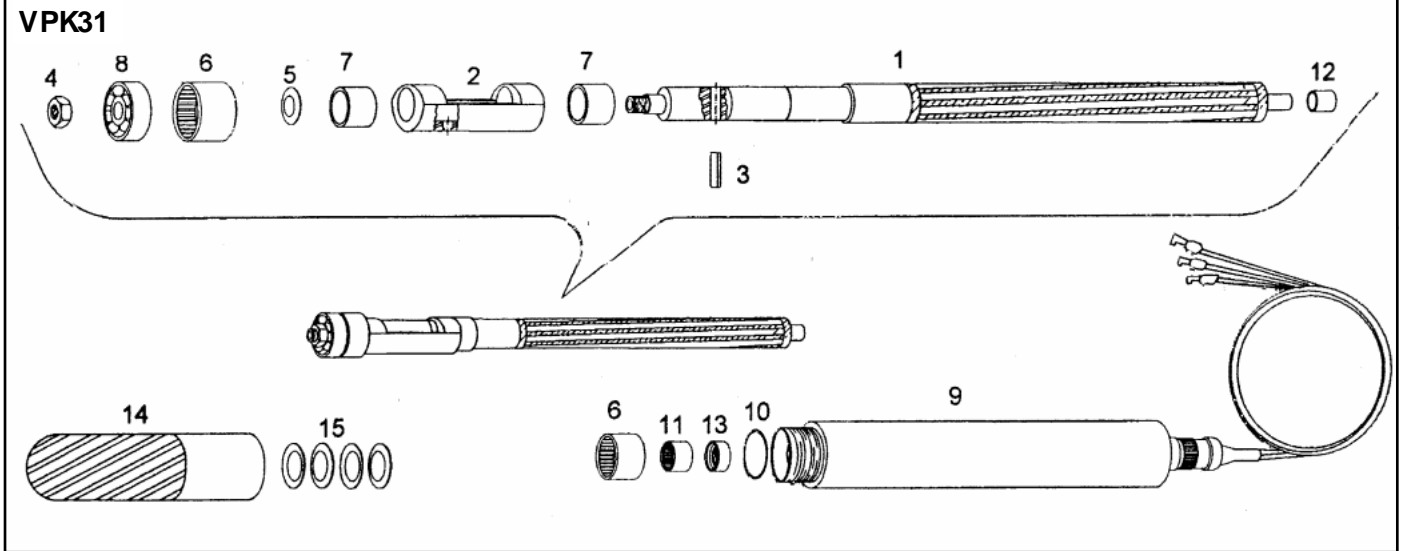
**When re-assembling, threads must be treated with "Loctite" or similar thread sealant. If possible re-weld locking points.**

**Lubrication** The VPK 31 is grease-lubricated.

## VPK31 ELECTRIC TECHNICAL DATA

Model	VPK31 110/1/50	VPK31 240/1/50
Diameter	31mm	31mm
Head Length	320mm	320mm
Weight Head only	4.6 kgs (Head & Control less hose)	4.6 kgs (Head & Control less hose)
Input Voltage	110v 1ph 50Hz	240v 1ph 50Hz
Output Power	0.7 kVA	0.7 kVA
Speed	12.000 RPM	12.000 RPM
Compaction rate	12 m <sup>3</sup> /h	12 m <sup>3</sup> /h
Length / Rubber Hose	5m	5m
Length / Supply Hose	10m	10m

# HIGH FREQUENCY ECCENTRIC WEIGHT ELECTRIC POKER



## VPK31 ELECTRIC POKERS

Item	Description	Qty	Part Number 110/150	Part Number 240/150
0	Poker Head		156.2001	156.2011
1	Rotor/30H	1	VE.001000	VE.001000
2	Eccentric Weight/30H	1	VE.001001	VE.001001
3	Spiral Pin/30H	1	VE.001002	VE.001002
4	Locking Nut/30H	1	VE.001003	VE.001003
5	Belleville Spring Washer (Small)/30H	1	VE.001004	VE.001004
6	Needle Bearing Rotor/30H	1	VE.001005	VE.001005
7	Inner Race of Needle Bearing/30H	1	VE.001006	VE.001006
8	Ball Bearing/30H	1	VE.001007	VE.001007
9	Stator 42v/30H	1	-	-
9a	Stator 115v/30H	1	VE.001009	-
9b	Stator 250v/30H	1	-	VE.001010
10	"O" Ring Stator/30H	1	VE.001011	VE.001011
11	Needle Bearing/30H	1	VE.001012	VE.001012
12	Inner Race of Needle Bearing/30H	1	VE.001013	VE.001013
13	Extraction Nut/30H	1	VE.001014	VE.001014
14	High Resistance Treated Head (Coated)	1	VE.001015	VE.001015
15	Belleville Spring Washer (Large)/30H	4	VE.001016	VE.001016

# HIGH FREQUENCY ECCENTRIC WEIGHT ELECTRIC POKER

## VPK39 ELECTRIC POKER

Before putting into operation, make sure that the equipment does not show any signs of exterior damage.

**For model VPK 39 with integral Inverter Control:** Connect the VPK39 to a suitable 110v 1ph 50Hz supply. The CEE type plug is standard for 110v connection. The VPK 39 is fitted with a special version of the VPI 39, using a different stator, otherwise mechanically it is the same and can be serviced as described below.

**The Inverter Control is a sealed unit and no servicing is necessary or possible.**

**NOTE: If the VPK range is being run off a generator the generator must be a regulated type. The electronics of the VPK switch box will only accept +/- 10% voltage variation. Spikes of over 150 volts will damage the switch box. Impact sensitive electronics are used in the switch box. Impacts over 100m/s<sup>2</sup> may damage the unit**

**To ensure proper cooling, all poker heads should be completely immersed in the concrete.**

Where this does not happen, it increases the risk of the integrated thermo-switch automatically cutting down the equipment to protect it from overheating. If this should happen, please allow time for the equipment to cool down before restarting. Immersing in a bucket of cold water would speed up this process.

**Danger: HEALTH HAZARD Do not handle or touch vibrating part during operation**

### **Dismantling.**

The replacement of defective components as well as any subsequent assembly must be carried out by skilled technicians.

### **Always disconnect equipment from power supply.**

To open vibratory poker, clamp the stator body (9) firmly in a pipe vice.

Release locking weld points between nosepiece (17/18) and vibrator housing (13). This thread has been assembled using "Loctite" or similar thread sealant. To release, heat the area to a temperature of 100° C-120°C, at the threaded point and unscrew steel head by using a pipe wrench (right-hand thread).

Remove spring washers (15) and distance washer (14) then gently tap side of housing with block of wood to release interior components (rotor complete, needle bearing sleeve and stator). Screw M8 threaded studding into the extraction nut (8) and withdraw needle bearing (9) out of stator (11).

To continue dismantling the rotor, remove circlip (4), draw off bearing (3) and slide off distance sleeve (2). Both the needle bearing (6) and the inner raceways (10, 7) can now be drawn off the rotor (1).

The assembly must be carried out in reverse order. Always pay particular attention to the correct orientation of the spring washers (see exploded view).

**When re-assembling threads must be treated with "Loctite" or similar thread sealant. If possible re-weld locking points.**

**Lubrication** The VPK 39 is oil-lubricated.

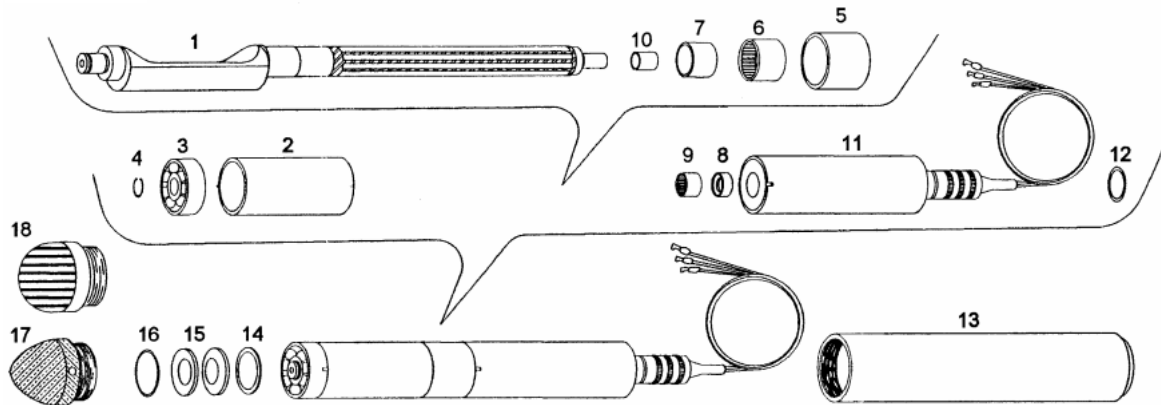
## VPK39 ELECTRIC TECHNICAL DATA

Model	VPK39 110/1/50	VPK39 240/1/50
Diameter	39mm	39mm
Head Length	360mm	360mm
Weight Head only	5.7 kgs (Head & Control Less Hose)	5.7 kgs (Head & Control Less Hose)
Input Voltage	110v 1ph 50Hz	110v 1ph 50Hz
Output Power	0.85 kVA	0.85 kVA
Speed	12.000 RPM	12.000 RPM
Compaction rate	15 m <sup>3</sup> /h	15 m <sup>3</sup> /h
Length / Rubber Hose	5m	5m
Length / Supply Hose	10m	10m



# HIGH FREQUENCY ECCENTRIC WEIGHT ELECTRIC POKER

## VPK39



### VPK39 ELECTRIC POKERS

Item	Description	Qty	Part Number 110/150	Part Number 240/150
0	Poker Head		156.2002	156.2012
1	Rotor/37H	1	VE.001050	VE.001050
2	Distance Sleeve/37	1	VE.001051	VE.001051
3	Ball Bearing/37	1	VE.001052	VE.001052
4	Circlip/37	1	VE.001053	VE.001053
5	Needle Bearing Sleeve/37	1	VE.001054	VE.001054
6	Needle Bearing/37	1	VE.001055	VE.001055
7	Inner Raceway of Needle Bearing/37	1	VE.001056	VE.001056
8	Extraction Nut	1	VE.001014	VE.001014
9	Needle Bearing/37	1	VE.001012	VE.001012
10	Inner Raceway of Needle Bearing/37	1	VE.001013	VE.001013
11	Stator 42v/37	1	VE.001057	
11a	Stator 115v/37	1	VE.001058	
11b	Stator 250v/37	1	-	VE.001059
12	Outer "O" Ring Stator/37	1	VE.001060	VE.001060
13	Vibrator Housing/37	1	VE.001061	VE.001061
14	Distance Washer 0.5mm/37	1	VE.001062	VE.001062
15	Belleville Spring Washer/	2	VE.001063	VE.001063
16	"O" Ring of Nosepiece/37	1	VE.001064	VE.001064
17	Steel Nosepiece/37	1	VE.001065	VE.001065
18	Rubber Nosepiece (Vulcan)/37	1	VE.001066	VE.001066
19	Oil R9031	5 cc		

# HIGH FREQUENCY ECCENTRIC WEIGHT ELECTRIC POKER

## VPK50 ELECTRIC POKER

Before putting into operation, make sure that the equipment does not show any signs of exterior damage.

### For model VPK50 with integral Inverter Control:

Connect the VPK50 to a suitable 110v 1ph 50Hz supply. The CEE-type plug is standard for 110v connection. The VPK is fitted with a special version of the VPI50 using a different stator, otherwise mechanically it is the same and therefore can be serviced as described below.

**The Inverter Control is a sealed unit and no servicing is necessary or possible.**

**Note: If the VPK range is being run off a generator the generator must be a regulated type. The electronics of the VPK switch box will only accept +/- 10% voltage variation. Spikes of over 150 volts will damage the switch box. Impact sensitive electronics are used in the switch box. Impacts over 100m/s<sup>2</sup> may damage the unit.**

**To ensure proper cooling, all pokers heads should be completely immersed in concrete.** Where this does not happen, it increases the risk of the integrated thermo-switch automatically cutting down the equipment to protect it from overheating. If this should happen, please allow time for the equipment to cool down before restarting. Immersing in a bucket of cold water would speed up this process.

**Danger: HEALTH HAZARD Do not handle or touch vibrating part during operation**

**Dismantling:** The replacement of defective components as well as any subsequent assembly must be carried out by skilled technicians. **Always disconnect equipment from power supply.**

To open vibratory poker, clamp the stator body (8) firmly in a pipe vice. Release locking weld points between nosepiece (13/15), vibrator housing (14) and the stator (8). This thread has been assembled using "Loctite" or similar thread sealant. To release, heat the area to a temperature of 100° to 120°C, at the threaded point and unscrew steel head by using a pipe wrench (right-hand thread). The rotor is secured inside the vibrator housing (14). Clamp the eccentric weight part of the rotor assembly in vice using suitable jaw protection. Carefully lever the vibrator housing away using two suitable screwdrivers or levers to release the rotor assembly. Screw an M8 studding into extraction nut (12) and pull needle bearing (10) out of stator. Repeating these steps, screw the studding into the extraction nut (6) and pull out second roller bearing (4) from the vibrator housing (14). To continue dismantling the rotor assembly, draw inner raceway of needle bearing (11) of the rotor (1), remove bearing and inner raceway (4, 5) drive out spiral pin (3) slide off eccentric weight (2) remove other bearing and inner Raceway (4, 5). The assembly must be carried out in reverse order. The needle bearing (12) must be pre-lubricated.

**When re-assembling, threads must be treated with "Loctite" or similar thread sealant. If possible re-weld locking points.**

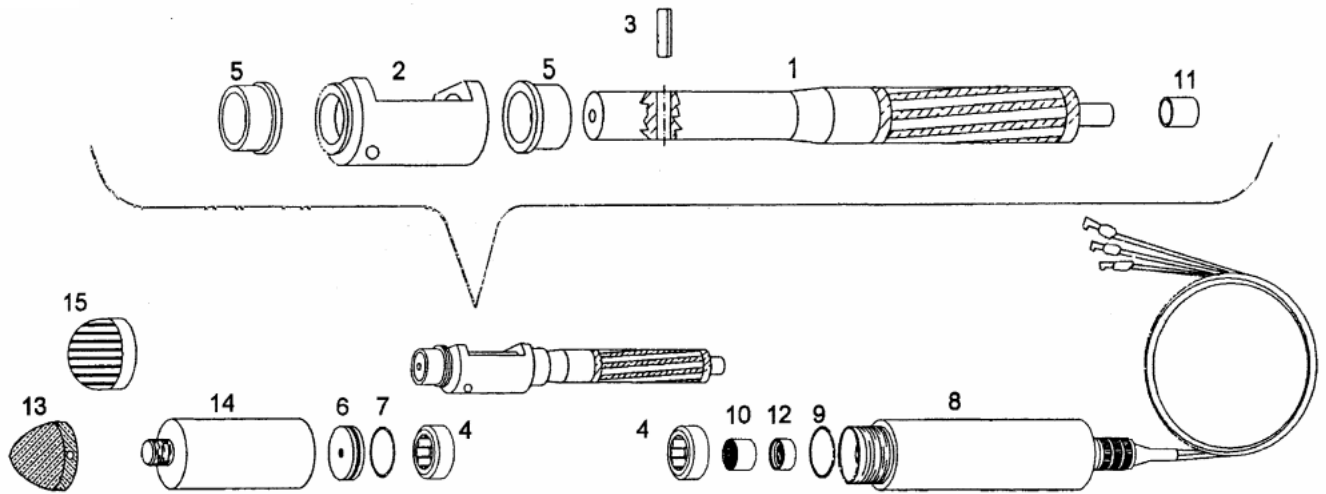
**Lubrication** The VPK 50 is oil-lubricated.

## VPK50 ELECTRIC TECHNICAL DATA

Model	VPK50 110/1/50	VPK50 240/1/50
Diameter	50mm	50mm
Head Length	360mm	360mm
Weight Head only	7.4 kgs	7.4 kgs
Input Voltage	110v 1ph 50 Hz	240v 1ph 50 Hz
Output Power	1.1 kVA	1.1 kVA
Speed	12000 rpm	12000 rpm
Compaction rate	21 m <sup>3</sup> /h	21 m <sup>3</sup> /h
Length / Rubber Hose	5m	5m
Length / Supply Hose	10m	10m

# HIGH FREQUENCY ECCENTRIC WEIGHT ELECTRIC POKER

VPK50



## VPK50 ELECTRIC POKERS

Item	Description	Qty	Part Number 110/150	Part Number 240/150
0	Poker Head		156.2004	156.2014
1	Rotor/47	1	VE.001100	VE.001100
2	Eccentric Weight/47	1	VE.001101	VE.001101
3	Spiral Pin/47	1	VE.001102	VE.001102
4 /5	Roller Bearing Complete/47	1	VE.001103	VE.001103
6	Extraction Nut/47	1	VE.001104	VE.001104
7	"O" Ring of Extraction Nut	1	VE.001105	VE.001105
8	Stator 42v/47	1	-	-
8a	Stator 115v/47	1	VE.001107	-
8b	Stator 250v/47	1	-	VE.001108
9	Inner "O" Ring Stator/47	1	VE.001109	VE.001109
10	Needle Bearing/47	1	VE.001110	VE.001110
11	Inner Raceway for Needle Bearing/47	1	VE.001111	VE.001111
12	Extraction Nut/47	1	VE.001112	VE.001112
13	Steel Nosepiece/47	1	VE.001113	VE.001113
14	Vibrator Housing/47	1	VE.001114	VE.001114
15	Rubber Nosepiece (Vulcan)/47	1	VE.001115	VE.001115
16	Oil R9031	7 cc		

# HIGH FREQUENCY ECCENTRIC WEIGHT ELECTRIC POKER

## VPK59 ELECTRIC POKER

Before putting into operation, make sure that the equipment does not show any signs of exterior damage.

### For Model VPK59 with integral Inverter Control:

Connect the VPK59 to a suitable 240v 1ph 50Hz supply. The CEE-type plug is standard for 240v connection. The VPK is fitted with a special version of the VPI59 using a different stator, otherwise mechanically it is the same and therefore can be serviced as described below.

**The Inverter Control is a sealed unit and no servicing is necessary or possible.**

**To ensure proper cooling, all poker heads should be completely immersed in the concrete.** Where this doesn't happen, it increases the risk of the integrated thermo-switch automatically cutting down the equipment to protect it from overheating. If this should happen, please allow time for the equipment to cool down before restarting. Immersing in a bucket of cold water would speed up this process.

**Danger: HEALTH HAZARD Do not handle or touch vibrating part during operation**

**Dismantling.** The replacement of defective components as well as any subsequent assembly must be carried out by skilled technicians. **Always disconnect equipment from power supply.**

To open vibratory poker, clamp the stator body (8) firmly in a pipe vice. Release locking weld points between nosepiece (13/15), vibrator housing (14) and the stator (8). This thread has been assembled using "Loctite" or similar thread sealant. To release, heat the area to a temperature of 100°C-120°C, at the threaded point and unscrew steel head by using a pipe wrench (right-hand thread). The rotor is secured inside the vibrator housing (14). Clamp the eccentric weight part of the rotor assembly in vice using suitable jaw protection. Carefully lever the vibrator housing away using two suitable screwdrivers or levers to release the rotor assembly.

Screw an M8 studding into extraction nut (12) and pull needle bearing (10) out of stator. Repeating these steps, screw the studding into the extraction nut (6) and pull out second roller bearing (4) from the vibrator housing (14). To continue dismantling the rotor assembly, draw inner raceway of needle bearing (11) off the rotor (1), remove bearing and inner raceway (4, 5) drive out spiral pin (3) slide off eccentric weight (2) remove other bearing and inner raceway (4, 5).

The assembly must be carried out in reverse order. The needle bearing (12) must be pre-lubricated.

**When re-assembling, threads must be treated with "Loctite" or similar thread sealant.**

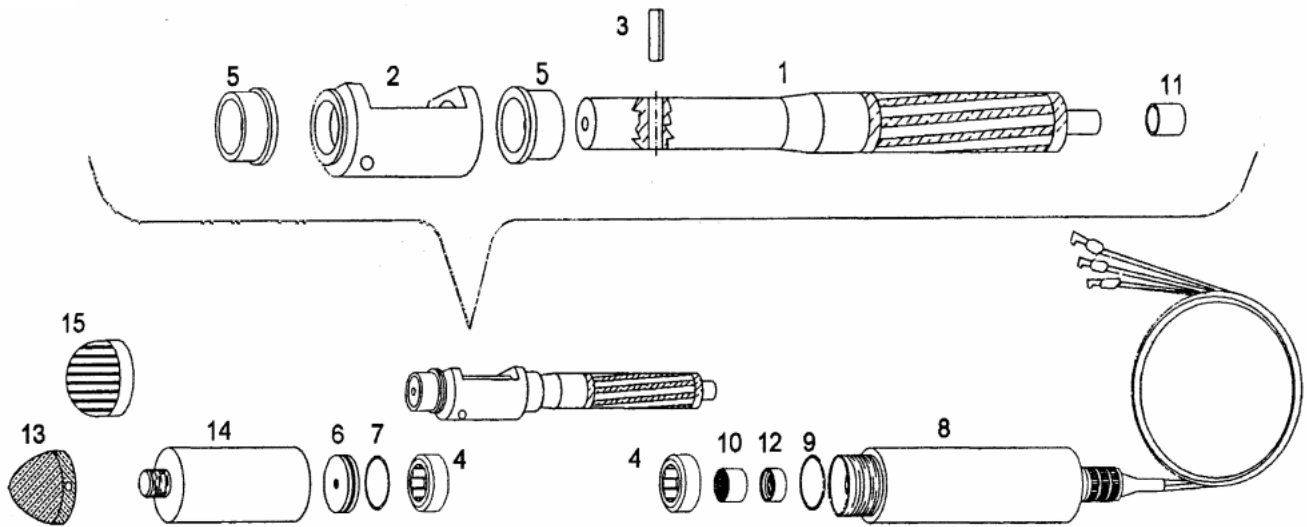
**If possible re-weld locking points.**

**Lubrication** The VPK 59 is oil-lubricated.

VPK59 ELECTRIC TECHNICAL DATA	
Model	VPK59 240/1/50
Diameter	59mm
Head Length	360mm
Weight Head only	6.0 kgs
Input Voltage	240/1/50hz
Output Power	2.1kVA
Speed	12.000 RPM
Compaction rate	36 m <sup>3</sup> /h
Length / Rubber Hose	5m
Length / Supply Hose	10m

# HIGH FREQUENCY ECCENTRIC WEIGHT ELECTRIC POKER

VPK59



VPK59 ELECTRIC POKERS			
Item	Description	Qty	Part Number 240/1/50
0	Poker Head		156.2015
1	Rotor/57	1	VE.001150
2	Eccentric Weight	1	VE.001151
3	Spiral Pin/57	1	VE.001152
4/5	Roller Bearing Complete/57	1	VE.001153
6	Withdrawing Nut/57	1	VE.001154
7	"O" Ring of Withdrawing Nut/57	1	VE.001155
8	Stator 42v/57	1	-
8a	Stator 250v/57	1	VE.001158
9	Stator	1	VE.001159
10	Needle Bearing/57	1	VE.001110
11	Inner Raceway for Needle Bearing/57	1	VE.001111
12	Withdrawing Nut/57	1	VE.001112
13	Steel Nosepiece/57	1	VE.001160
14	Vibrator Housing/57	1	VE.001161
15	Rubber Nosepiece	1	VE.001162
16	Oil R9031	9 cc	



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**Dealer**

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