

PNEUMATIC POKER MANUAL

Technical Data	
Parts manual	136.1088
Product manual	PM .04
Design File	DF .07

Customs Tariff Codes		
	Product	Spares
Air Pokers	846711900	846792000

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Dealer



PNEUMATIC IMMERSION VIBRATOR MANUAL



Pneumatic Concrete Vibrator

1090

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

PNEUMATIC IMMERSION VIBRATOR MANUAL

EC DECLARATION OF CONFORMITY (STATIC MACHINES)

We Declare under our sole responsibility that the product(s)

VL PNEUMATIC CONCRETE VIBRATORS

To which this certificate relates is in conformity with the following directives

EN292/1, EN292/2, ISO8662/1, PNEURO PN8NTC1
89/39/EEC, 93/68/EEC, 91/368/EEC, 93/44/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

Friday, November 16, 2007

PNEUMATIC IMMERSION VIBRATOR MANUAL

POKER SPECIFICATION

Model	VL28	VL35	VL45	VL55	VL65	VL75	VL85	VL105	VL140
Head Diameter mm	28	35	45	55	65	75	85	105	140
Head Length mm	253	280	320	341	352	391	423	380	628
Total Length mm	2653	2640	2670	2700	2700	2740	2770	2740	3635
Total Weight kg	4.4	6.0	8.0	9.0	10.0	15.0	19.0	23.0	35.0
Frequency VPM	18000	18000	17000	17000	18000	18000	17000	13500	10000
Cent Force Newtons	1440	1924	3500	6050	9301	14851	27730	33309	32460
Radius of effectiveness	16 cm	20 cm	25 cm	38 cm	44 cm	50 cm	55 cm	65 cm	95 cm
Air Consumption L/Min	500	608	736	820	1018	1218	1600	2100	2880
Sound Power dB(A)	101.3	107.2	113	109	113	112.1	109	112.2	115
Vibration M/S ² rms <small>(Triple Axis)</small>	1.28	3.0	2.74	4.5	4.4	2.24	3.1	4.4	4.8

POKER PART NUMBERS

Specification (Shaded items are Standard)	2 mtr	4 mtr	6 mtr
28 mm c/w lubricator	199.1308.2000	199.1308.4000	199.1308.6000
35 mm c/w lubricator	199.1300.2000	199.1300.4000	199.1300.6000
45 mm c/w lubricator	199.1301.2000	199.1301.4000	199.1301.6000
55 mm c/w lubricator	199.1302.2000	199.1302.4000	199.1302.6000
65 mm c/w lubricator	199.1303.2000	199.1303.4000	199.1303.6000
75 mm c/w lubricator	199.1304.2000	199.1304.4000	199.1304.6000
85 mm c/w lubricator	199.1305.2000	199.1305.4000	199.1305.6000
28 mm w/o lubricator	199.1358.2000	199.1358.4000	199.1358.6000
35 mm w/o lubricator	199.1350.2000	199.1350.4000	199.1350.6000
45 mm w/o lubricator	199.1351.2000	199.1351.4000	199.1351.6000
55 mm w/o lubricator	199.1352.2000	199.1352.4000	199.1352.6000
65 mm w/o lubricator	199.1353.2000	199.1353.4000	199.1353.6000
75 mm w/o lubricator	199.1354.2000	199.1354.4000	199.1354.6000
85 mm w/o lubricator	199.1355.2000	199.1355.4000	199.1355.6000
105 mm 1.5 mtr	199.1306		
140 mm Rigid	199.1307		

PNEUMATIC IMMERSION VIBRATOR MANUAL

IMPORTANT SAFETY INFORMATION

READ THIS MANUAL BEFORE OPERATING VIBRATORS. IT IS THE RESPONSIBILITY OF THE EMPLOYER TO PLACE THE INFORMATION IN THIS MANUAL INTO THE HANDS OF THE OPERATOR

- 1 The VL Pneumatic Immersion Vibrators are precision tools manufactured specifically for hand compaction of wet concrete.
- 2 Always wear eye protection when operating this vibrator.
- 3 Always wear ear protection when operating this vibrator.
- 4 The vibrator must be free to vibrate and not become trapped between shuttering and reinforcements.
- 5 Always operate, inspect and maintain this vibrator in accordance with all regulations (local, state, federal and country) which may apply to hand operated pneumatic tools.
- 6 The vibrator head must not be held under any circumstances, when holding the vibrator always hold by the hose at least a meter from the head or the control handle during use. NEVER hold the vibrator head .
- 7) Excessive vibration, repetitive motions or uncomfortable positions are harmful to your hands and arms. Stop using the vibrator if discomfort, tingling feeling or pain occurs. Seek medical advice before resuming use.
- 8 Always read motor manual before using equipment and observe all safety recommendations.

OPERATING INSTRUCTIONS

- 1) For safety, top performance and maximum durability of parts, operate this vibrator at 90 psig (6.2 Bar /620 kPa). Maximum air pressure must not exceed 94 psig (6.5 Bar / 650 kPa)
- 2) Always turn off the air supply before installing, removing or performing any repair / maintenance on this vibrator. Failure to do so could result in injury.
- 3) To disconnect hoses always shut off the air supply to the vibrator, then open twist grip to relieve pressure.
- 4) Do not use damaged, frayed or deteriorated air hoses and fittings.
- 5) Ensure all supply hoses are clean internally before connecting the air supply to the vibrator.
- 6) LUBRICANT: use a good quality automotive engine oil as follows. .

S A E No	Temperature	
5	Below 10 ° F	- 12° C
10	10 ° F– 80 ° F	-12° C to 27° C
20	Above 80 ° F	27° C

- 7) After four hours service of operation or daily whichever is most frequent, check contents of lubricator to insure against completely exhausting the supply of oil, refill as necessary
- 8) Storage : After use hang the vibrator head upwards with the control handle open to drain out the accumulated water and dirt.
- 9) Do not lubricate the vibrator with flammable or volatile liquids such as kerosene, diesel or jet fuel.

PNEUMATIC IMMERSION VIBRATOR MANUAL

GENERAL MAINTENANCE

- 1) Vibrators are delivered without lubrication.. When starting vibrator add oil .
- 2) Before connecting vibrator , blow air line clean of any water or dirt it may contain
- 3) Fill lubricator after every four hours use 20/30 SAE non detergent oil.
- 4) To start vibration it may be necessary to tap the vibrator's hardened nose piece

STORAGE

After use hang the vibrator head upwards and leave the control handle open to drain out any water or dirt

DISMANTLING INSTRUCTION

Replacement of Vane, Front Closure Plate or Rotor

Hold housing (4) in a vice and unscrew nosepiece (1) RIGHT HAND THREAD.

Remove from vice and by angling downwards, the closure plate and rotor is free to drop into the hand ensuring not to damage the rotor

The parts should be cleaned and examined.

If the front closure plate or rotor show any signs of excessive wear see note 2D, they should be reversed or replaced. Vanes must be a snug sliding fit in the rotor and fitted so that the vane cutouts face away from the milled slot in the rotor.

Re-assembly is the reverse of the above but the following should be observed

- a) Lightly oil running faces of the rotor and closure plates.
- b) Insert rotor so that the exhaust holes are to the rear.
- c) Fit a new O ring or fibre washer (2) to the nose piece (1).

Removal of Rear Body, Rear Closure Plate and Hoses

Cut hose clip (16), pull off exhaust hose (15) from exhaust body (17)..

Unscrew exhaust body (17) from handle (30,39).

Pull out handle to expose hose clip (10)

Cut hose clip (10) to release inlet hose (11) from handle .

Hold housing (4) in a vice and unscrew rear body (12) LEFT HAND THREAD removing complete exhaust hose (15)

If the hose is to be replaced then unscrew hose sleeve (13) , pull out hose (15) from rear body (12) and remove hose

protection spring (14) where fitted (not fitted to 35/45mm).

Using inlet hose (11) pull out rear closure plate (7), locking ring (8) and inlet hose connector (9).

All parts should be cleaned the rear closure plate examined for signs of wear, see note 2D

REASSEMBLE

Rear closure plate, inlet hose fitting and inlet hose should be inserted into housing as an assembly, ensuring that the plate is kept square to the housing and pushed onto the housing shoulder.

Slide new locking ring (8) over the inlet hose and locate behind rear closure plate.

If necessary fit exhaust hose into rear body (12) insert hose protection spring (14) (not 35/45mm) and clamp clamp with hose sleeve (13).

The assembly can then be screwed onto the housing ensuring that a new O ring or fibre washer is fitted.

Adjust hose lengths so that the inlet hose protrudes approximately 65 mm from the exhaust hose.

Slide new clips (10) and (16) onto respective hoses.

Pass inlet hose (11) through exhaust body (17) and fit onto inlet hose connector (18) using hose clips (10).

Screw exhaust body (17) onto control handle.

Push exhaust hose (15) onto exhaust body (17) and fit hose clip (16).

WEAR CRITERION

The optimum condition of the vibrator turbine assembly to produce maximum speed and therefore power is determined by total air gap between the closure plates and the rotor. Ideally this should be between 0.06 mm and 0.13 mm, and a gap greater than 0.20 mm greatly impairs performance.

PNEUMATIC IMMERSION VIBRATOR MANUAL

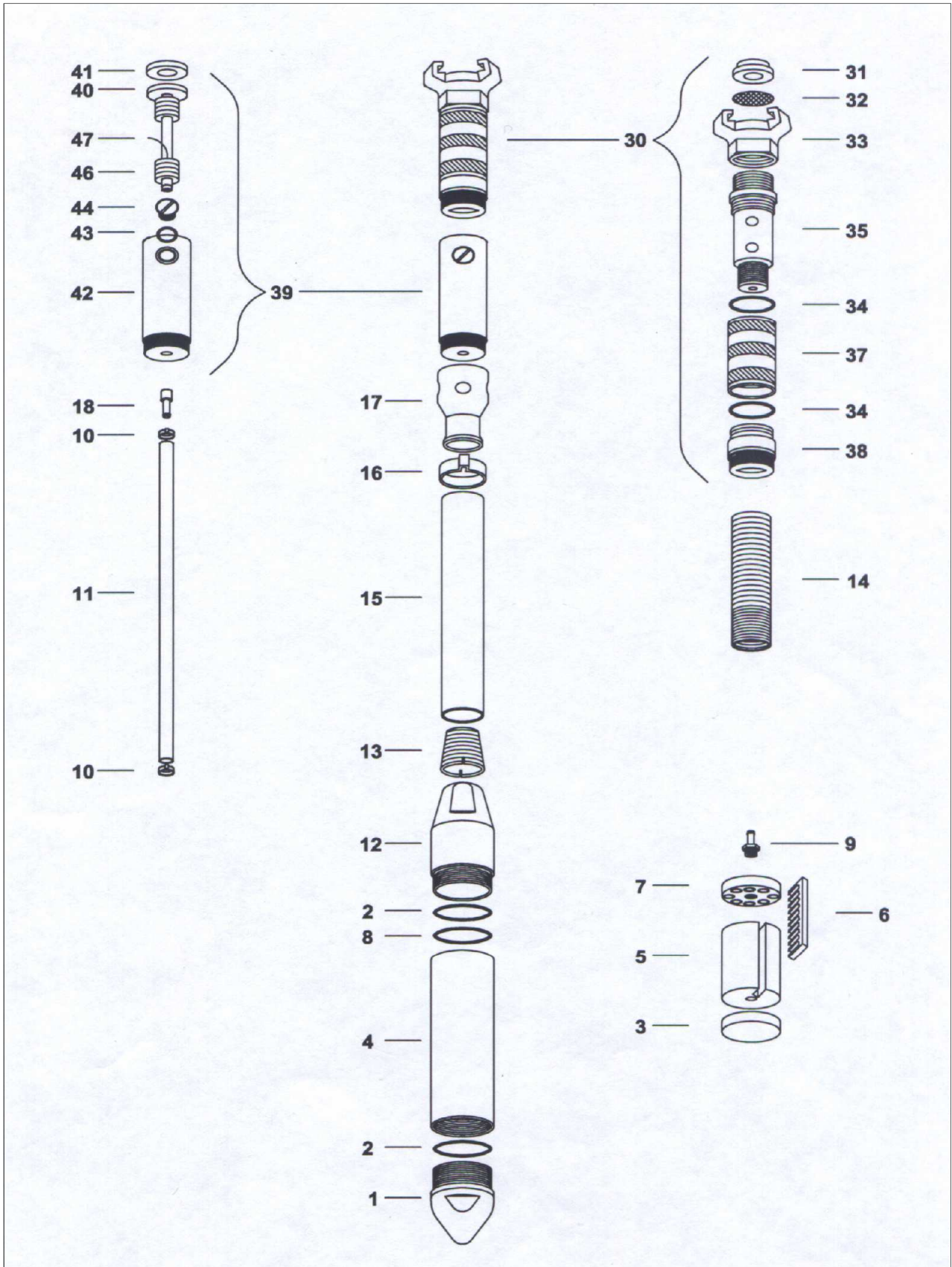
PARTS LIST STANDARD SERIES

Item		Qty	28 mm	35 mm	45 mm	55 mm	65 mm	75 mm	85 mm	105 mm
1	Nosepiece	1	VC016305	VC002631	VC005551	VC001463	VC016265	VC003551	VC001602	VC016246
1a	Nosepiece & Plate		VC016310	VC016206	VC011621 6	VC016227	-	-	-	-
1b	Rubber Nosepiece	1	N/A	VC005994	VC005550	VC001577	VC019145	VC003611	N/A	N/A
1c	Rubber nose & Plate		N/A	VC016208	VC016218	VC016229	-	-	-	-
2	O Ring	2	VC016314	VC000779	VC001808	VC002126	VC016288	VC002330	-	VC016251
2a	Fibre Washer	2	-	-	-	-	-	-	VC001600	-
3	Front Closure Plate	1	VC016300	VC016200	VC016210	VC016220	VC016260	VC016230	VC016380	VC016240
4	Housing	1	VC016301	VC016201	VC016211	VC016221	VC016261	VC016231	VC016381	VC016421
5	Rotor	1	VC016302	VC016202	VC016212	VC016222	VC016262	VC016232	VC016382	VC016242
6	Vane	1	VC016303	VC016203	VC016213	VC016223	VC016263	VC016233	VC016233	VC016243
7	Rear Closure Plate	1	VC016304	VC016204	VC016214	VC016224	VC016264	VC016234	VC016384	VC016244
8	Locking Ring	1	VC016307	VC016134	VC007704	VC007663	VC016267	VC007688	VC016384	VC016252
9	Inlet Hose Connector	1	-	-	VC005521	VC016225	VC016225	VC016235	VC016245	VC016245
10	Inlet Hose Clip	2	VC016313	VC000137	VC000137	VC005456	VC005456	VC005211	VC005211	VC005211
11	Inlet Hose (Per Metre)		VC046073	VC000788	VC000788	VC001583	VC001583	VC000540	VC000540	VC000540
12	Rear Body	1	VC016306	VC002622	VC007701	VC001576	VC016266	VC003553	VC001601	VC016247
13	Hose Sleeve	1	-	VC002623	VC001730	VC001582	VC001582	VC001604	VC001604	VC001604
14	Hose Protection Sleeve	1	-	-	-	VC001478	VC001478	VC001479	VC001479	VC001479
15	Exhaust Hose (Per Metre)		VC000171	VC002021	VC007985	VC001584	VC001584	VC00541	VC00541	VC00541
16	Exhaust Hose Clip	1	VC016313	VC003679	VC002392	VC000075	VC000075	VC000076	VC000076	VC000076
17	Exhaust Body	1	VC016040	VC010225	VC010224	VC010223	VC010223	VC010222	VC010222	VC010222
18	Inlet Hose Connector	1	VC000171	VC010588	VC010588	VC010221	VC010221	VC010219	VC010219	VC010219
30	Steel Handle Complete	1	VC016120	VC016120	VC016120	VC016120	VC016120	VC016120	VC016120	VC016120
31	Rubber Gland	1	VC000081	VC000081	VC000081	VC000081	VC000081	VC000081	VC000081	VC000081
32	Gauze Filter	1	VC000156	VC000156	VC000156	VC000156	VC000156	VC000156	VC000156	VC000156
33	Q/R Coupling	1	VC002512	VC002512	VC002512	VC002512	VC002512	VC002512	VC002512	VC002512
34	O Ring	2	VC002273	VC002273	VC002273	VC002273	VC002273	VC002273	VC002273	VC002273
35	Handle Shaft	1	VC002261	VC002261	VC002261	VC002261	VC002261	VC002261	VC002261	VC002261
37	Twist Grip	1	VC002260	VC002260	VC002260	VC002260	VC002260	VC002260	VC002260	VC002260
38	Adaptor	1	VC016042	VC016042	VC016042	VC016042	VC016042	VC016042	VC016042	VC016042
39	Lubricator	1	VC010270	VC010270	VC010270	VC010270	VC010270	VC010270	VC010270	VC010270
40	Lubricator Tube	1	VC010289	VC010289	VC010289	VC010289	VC010289	VC010289	VC010289	VC010289
41	Rubber Ring	1	VC010273	VC010273	VC010273	VC010273	VC010273	VC010273	VC010273	VC010273
42	Lubricator Body	1	VC010271	VC010271	VC010271	VC010271	VC010271	VC010271	VC010271	VC010271
43	O Ring	1	VC002524	VC002524	VC002524	VC002524	VC002524	VC002524	VC002524	VC002524
44	Oil Filter Screw	1	VC002265	VC002265	VC002265	VC002265	VC002265	VC002265	VC002265	VC002265
45	O Ring	1	VC002525	VC002525	VC002525	VC002525	VC002525	VC002525	VC002525	VC002525
46	Felt	9	VC002520	VC002520	VC002520	VC002520	VC002520	VC002520	VC002520	VC002520
47	Bleed Wire	1	VC002521	VC002521	VC002521	VC002521	VC002521	VC002521	VC002521	VC002521
	Spares Kit	1	199.1017.2 8	199.1017.3 5	199.1017.4 5	199.1017.5 5	199.1017.6 5	199.1017.7 5	199.1017.8 5	199.1017.10 5

Inlet Hose and Exhaust hose state length required 2mtr 4mtr or 6 mtr,
Shaded items discontinued replaced by combined nose and closure plate

PNEUMATIC IMMERSION VIBRATOR MANUAL

STANDARD SERIES ILLUSTRATION



PNEUMATIC IMMERSION VIBRATOR MANUAL

MAINTENANCE VL140

To remove rotor

Remove nosepiece (1) RIGHT HAND THREAD

Remove Front Plate (3) using 16mm extractor.

This allows Rotor (6) to be removed for vane inspection and wear inspection

Minimum length of Rotor and Vane allowing for wear is 109.7 mm.

Fit new Vane (5).

Slots in Vane are in opposite side to the slot of the Rotor.

Vane must be a good slide fit in shaft groove.

It may be necessary to rub vane down with emery cloth to ensure correct fit.

Fit new O ring (2) on re-assembly

To remove Rear Body (17)

Remove Nut (16), Adaptor (11) and Clips (26)

Unscrew Rear Body (17) LEFT HAND THREAD, unscrew adaptor (8) LEFT HAND THREAD

Parts will now separate

To remove mounting (22)

Hold Handle Tube (24) and unscrew Nut (20) RIGHT HAND THREAD

Unscrew Locking Cap (19) LEFT HAND THREAD, tube will now separate.

Fit new Mounting (22). A new Nut (20) may be necessary.

Punch slots to secure.

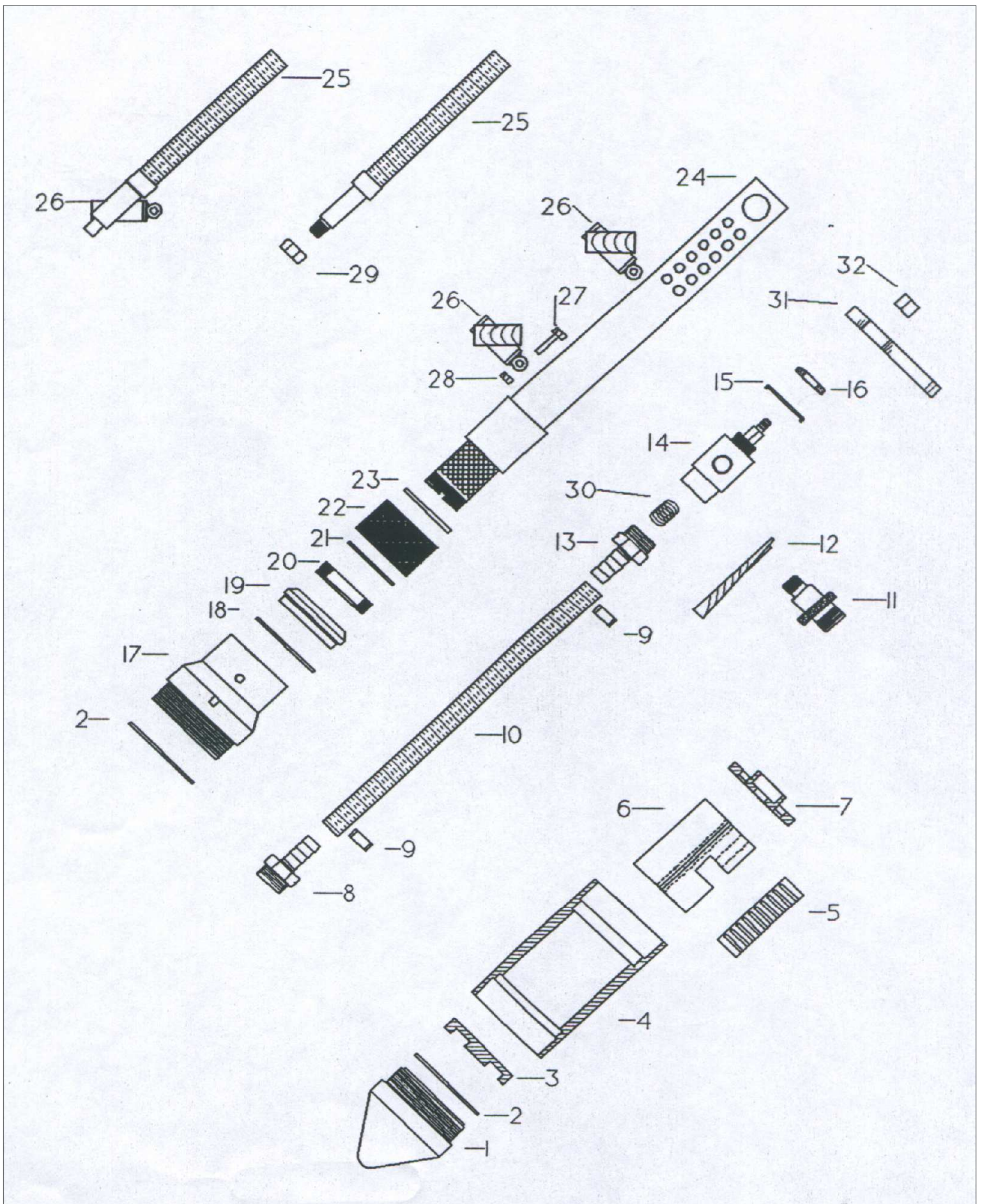
PNEUMATIC IMMERSION VIBRATOR MANUAL

PARTS LIST VL140

Item	Description	Qty	Part Number
1	Nosepiece	1	VC007500
2	O Ring	2	VC001534
3	Front Plate	1	VC007502
4	Body	1	VC007501
5	Vane	1	VC007505
6	Rotor	1	VC007503
7	Rear Plate	1	VC007504
8	Hose Fitting	1	VC001528
9	Clip	2	VC001392
10	Hose	1	VC001545
11	Adaptor	1	VC01552
12	Deflector	1	VC001646
13	Hose Fitting	1	VC001636
14	Control Valve	1	VC003288
15	Cover	1	VC007042
16	Locknut	1	VC001564
17	Rear Body	1	VC001533
18	Washer	1	VC001541
19	Cap Rear Body	1	VC001538
20	Nut	1	VC001539
21	Washer	1	VC001542
22	Mounting	1	VC001540
23	Washer	1	VC001544
24	Handle Tube	1	VC007506
25	Flexible Handle	2	VC007043
26	Handle Clip	2	VC007041
27	Bolt	2	VC001218
28	Nut M8	2	VC000380
29	Nut M14	4	VC001559
30	Spring	1	VC001642
31	Handle	1	VC001548
32	Nut	1	VC001649

PNEUMATIC IMMERSION VIBRATOR MANUAL

ILLUSTRATION VL 140



PNEUMATIC IMMERSION VIBRATOR MANUAL

Spanner required

Model	Nosepiece	Across flats	Rear Body	Across flats
VL28 Pneumatic Poker	VC016305	21mm	VC016306	21mm
VL35 Pneumatic Poker	VC.005994	24mm	VC002622	24mm
VL45 Pneumatic Poker	VC005551	30mm	VC007701	41mm
VL55 Pneumatic Poker	VC001463	36mm	VC001576	36mm
VL65 Pneumatic Poker	VC016265	46mm	VC016266	46mm
VL75 Pneumatic Poker	VC003551	55mm	VC003553	55mm
VL85 Pneumatic Poker	VC001602	63mm	VC001601	63mm
VL105 Pneumatic Poker	VC016246	70mm	VC016247	70mm



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