

CRAFT SUCTION PUMP

User manual

Comply to **ISO 9001 et 13485** requirements,
is first aim for customer satisfaction

1 - CRAFT SUCTION PUMPS

1.1 – General Description :

The Craft TM Suction Pumps have been developed to a smooth low volume vacuum at a pre-determined negative pressure. Vacuum is activated by a foot operated switch controlled by the surgeon performing oocyte collection.

The range of vacuum is variable from 0-400 mm Hg and adjustable over this range by a preset control. Vacuum is provided by a quiet diaphragm pump, working from a mains voltage supply and manufactured to BS 5724 Class 1 and CE safety regulations.

An overflow bottle provides a measure of safety to prevent aspirated fluids being drawn into the vacuum power unit. The trap also acts as a reservoir to provide an even vacuum pressure during procedures.

The foot control has an air-operated solenoid, switching the main pump unit. No electrical connections are made to the sealed foot operated control.

A suitable collection test tube for use with oocyte needle sets is B.D. Falcon test tube No. 2001F, 17x100 mm.

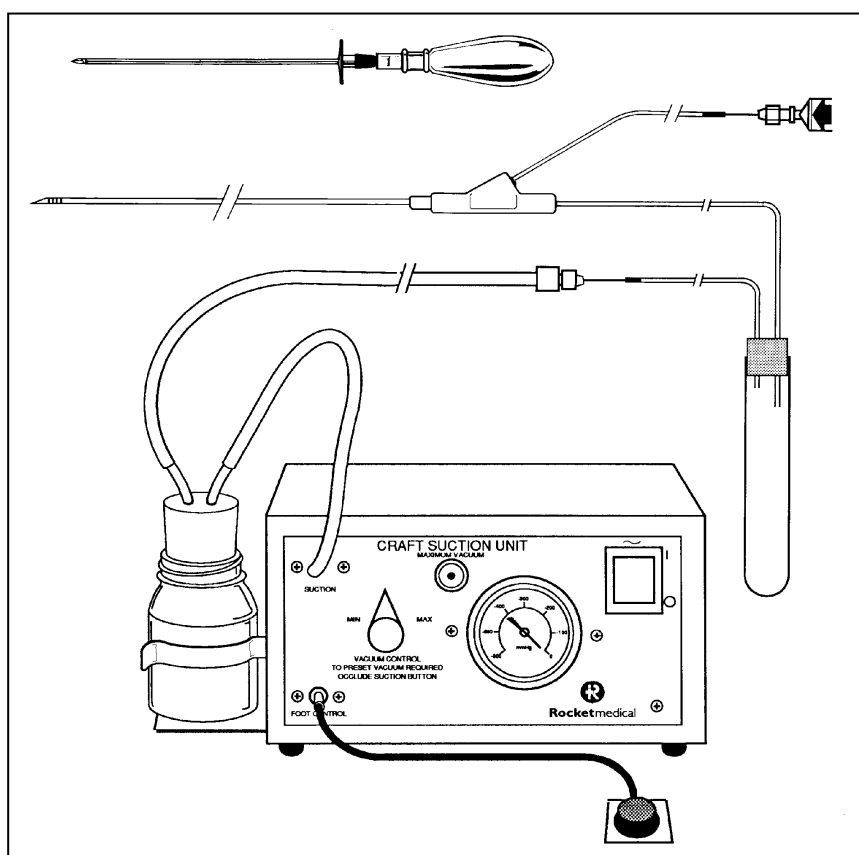
The collection system provides for a smooth transfer of the oocyte from the follicle via a Teflon lined needle directly into the test tube, thus minimising both surface friction and turbulence during transfer. If the initial aspirate does not contain the oocyte, injection double lumen needle such as an EMBRYON[®] needle until the oocyte is retrieved, which removes the need to remove the needle from the follicle.

1.2 – Service and Repairs :

Normally these pumps require relatively little maintenance. However, service should be performed annually by CRYO BIO SYSTEM service facility.

2 – OPERATING INSTRUCTIONS CRAFT VACUUM UNIT R29.654 & R29.655

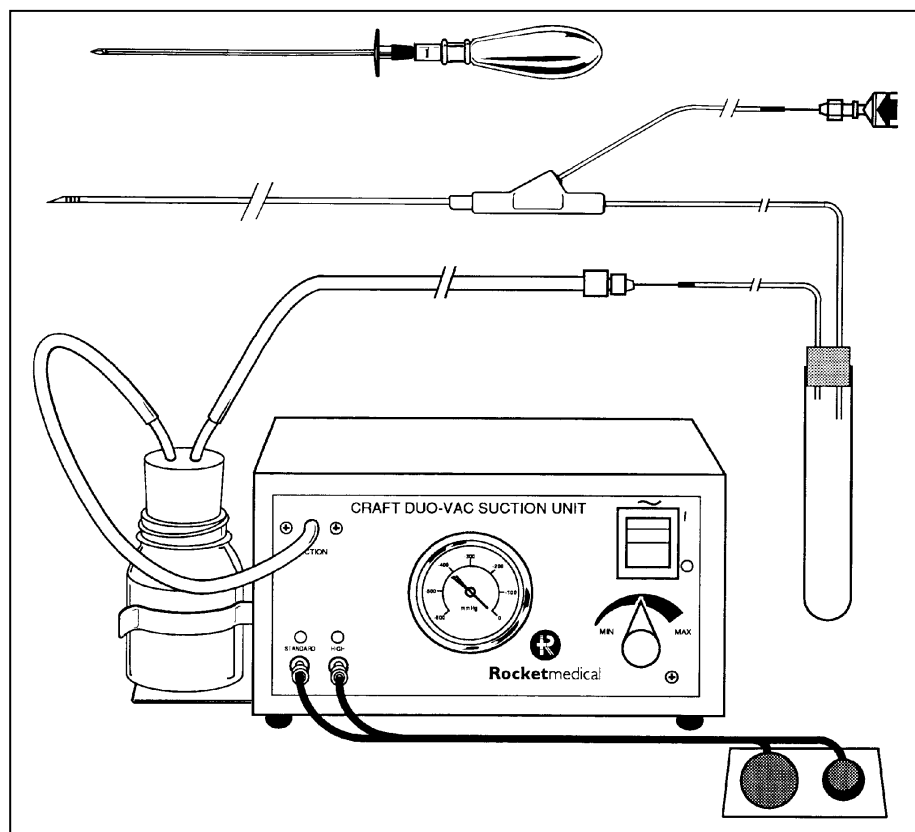
- ✓ Connect main lead to electrical supply 230/240 volt 50 Hz (R29.655) or 110/120 volt 60 Hz. (R29.654)
- ✓ Connect collection system to tubing from overflow bottle and secondary tubing to connector on the front panel marked 'SUCTION'.
- ✓ Connect foot switch tube to connector on front panel.
- ✓ Activate vacuum by depressing foot switch. The pump will stop when the foot is lifted from the pad.
- ✓ Set the required vacuum required by occluding the vacuum line between the pump and the collection system, and adjusting the control to the desired level as shown by the needle on the gauge. Alternatively, assemble the oocyte collection needle tubing and test tube and aspirate sterile fluid (i.e. buffer solution) through the complete system. During the aspiration of the fluid the control knob may be adjusted to the precise vacuum require under load, approximately 100 mm Hg.
- ✓ The unit is then ready for use.
- ✓ If vacuum lines become blocked due to debris or viscous fluids, a temporary high vacuum can be obtained to unblock the needle and tubing by occluding the finger bleed hole on the front panel, marked "OCCLUDE FOR MAXIMUM VACUUM".
- ✓ Placing a finger on the red disc for a few seconds will clear the tubing lines at 300mm Hg temporary high vacuum
- ✓ On completion depress font panel switch at "O"



3 – OPERATING INSTRUCTIONS CRAFT VACUUM UNIT R29.660 & R29.661

- ✓ Connect main lead to electrical supply 230/240 volt 50 Hz (R29.660) or 110/120 volt 60 Hz. (R29.661)
- ✓ Connect collection system to tubing from overflow bottle and secondary tubing to connector on the front panel marked 'SUCTION'.
- ✓ Connect the dual foot switch tubes to the push connectors on front panel.
- ✓ Activate vacuum by depressing LOW VACUUM (Larger) foot switch. The pump will stop when the foot is lifted from the pad.

- ✓ Set the required vacuum required by occluding the vacuum line between the pump and the collection system, and adjusting the control to the desired level as shown by the needle on the gauge. Alternatively, assemble the oocyte collection needle tubing and test tube and aspirate sterile fluid (i.e. buffer solution) through the complete system. During the aspiration of the fluid the control knob may be adjusted to the precise vacuum require under load, approximately 100 mm Hg.
- ✓ The unit is then ready for use.
- ✓ If vacuum lines become blocked due to debris or viscous fluids, a temporary high vacuum can be obtained to unblock the needle and tubing by depressing the HIGH VACUUM Pedal on the footswitch
- ✓ On completion depress front panel switch at « O »



4 – SPARE PARTS : CRAFT SUCTION PUMP :

Item	Part No.	Description
	R29.655	CRAFT SUCTION PUMP, 240 V
	R29.654	CRAFT SUCTION PUMP, 110 V
1	B14-011	Box, lower half
3	B02-009	Bracket
4	C07-016	Clip
10	F06-006	Front Panel Fin
11	R06-027	Rear Panel 240V
12	C09-023	Cable Tidy, white
17	C12-030	Chassis bare
19	F04-027	Filter assembly
20	F04-023	Filter assembly (Silencer)
		Filter Element
22	S20-007	Air Switch
24	N05-016	Needle Valve assembly
25	K01-001	Knob Pointer
26	O04-000	Vacuum Control Orifice assembly
27	G03-004	Vacuum Gauge 0-600 mm HG
28	C01-035	Connector
29	I08-004	IEC Connector
32	S10-027	Switch 240v
33	C01-034	Flanged Connector
	R29-656	Foot control switch
	R28-135	Spare lengths of silicone tubing for connection from Vacuum Pump to Double lumen needle or from Vacuum Pump to reservoir
	R29.658	Spare leuc lock to tubing adaptor
	R28.406	Spare glass reservoir 3oz
	R28.408	Spare Neoprene rubber bung with two holes for reservoir bottle
	R28.410	Tubing mounts angled Stainless steel

Item	Part No.	Description
	R29.660	CRAFT DUO-VAC SUCTION 240V
	R29.661	CRAFT DUO-VAC SUCTION PUMP 110 V
1	B14-009	Case Upper Half
2	B14.011	Case Lower Half
3	C12-044	Chassis
4	F06-022	Front Panel
5	R06-045	Rear Panel
6	B02-009	Bottle Bracket
7	C07-016	Terry Clip
13	S10-007	Pressure Switch
17	S18-004	Solenoid Valve
28	I08-004	IEC Connector
35	C09-009	Cable Tidy
36	S10-001	Switch / Indicator
38	N05-014	Stop Pin / Nut
39	K01-001	Knob
40	G03-004	Vacuum Gauge & Retainer
41	B20-010	Ventilator blanks
42	N06-002	Neon Indicateur Green
43	N06-003	Neon Indicateur Red
44	C01-034	Flanged connector
61	T01-012	Silicon tubing ¼" i.d. x 30 mm
67	B05-004	Footswitch, Dual Vacuum (cat. No. R29.662)
75	F04-004	Filter Assembly
	R29.656	Foot control switch
	R28.135	Spare lengths of silicone tubing for connection from Vacuum Pump to Double lumen needle or from Vacuum Pump to reservoir
	R29.658	Spare leur lock to tubing adaptor
	R28.406	Spare glass reservoir 3 oz
	R28.408	Spare Neoprene rubber bung with two holes for reservoir bottle
	R28.410	Tubing mounts angled Stainless steel

Item	Part. No.	Description	Qtè
1	SO1-214	Screw 4BA x 3x4" pan pozi b'zinc	4
-	WO1-000	Washer for the above (flat) 6BA b'zinc	4
-	SO1-138	Head Screw (centre) no. 4 x 1/4" pan pozi	1
2	HO1-001	Head 800111	1
3	VO1-002	Valve diaphragm 800109B EPDM	1
4	VO2-001	Valve plate 800110	1
5	SO1-203	Screw 6BA x 5/6" csk S/S	1
6	DO2-001	Diaphragm plate upper 700172	1
7	GO1-001	Gasket 690260 Grey Poly	1
8	DO1-053	Diaphragm 700190C EPDM	1
9	CO2-031	Crankcase 770137	1
10	BO2-035	Bracket 820170 blk. Anodis	1
11	SO1-104	Screw no. 4 x 3/16" pan pozi 'B' b'zinc	4
12	WO1-051	Washers S/P int. M4 bzn	2
13	SO1-018	Screws M4 x 10 pan pozi bzn	2
14	EO1-041	Eccentric 800117) only available complete	1
15	BO1-001	Bearing R3AZZ) as conrod assy. Top diaphragm	1
16	CO3-042	Conrod 830182) plate incl. In assembly	1
17	SO1-205	Screw 4BA x 1/8")	1
18	MO1-311	Motor 770139 220/240 V	1
	MO1-312	Motor 730190 100/120 V 50 Hz	1
19	FO1-104	Cooling Fan (with adaptor) only for DA1 SE	1
	BO2-035	Bracket 820170	1
	S02-012	Service Kits (EPDM) includes items 3 and 8 plus a washer	1

* Price includes motor, crank case and valves