

PRP Centrifuges

Model and Name

PRP-500 PRP Centrifuge

Working Principle

The instrument has microcomputer control, DC brushless motor, real-time revert of '**SPEED**' and '**RCF**' and Instantaneous centrifugation.

Feature

1. Micro computer control, brushless motor to ensure a stable running.
2. Digital display, easy operation
3. Lid safety device make sure a safe operation.
4. Rotor with special design for PRP kits
5. Special program for PRP operation
6. CE, FDA, ISO9001 certification

Specification

Table 1

Max Speed	5000r/min
Max Volume	50ml×4
Max RCF	4100×g
Time Setting	1min~99 min
Speed accuracy	± 30r/min

Noise	≤65dB(A)
Power supply	120V 60Hz 10A
Optimum Temperature	20±5°C Relative humidity ≤ 85 %
Dimension	410mm×490mm×310mm
Weight	25 kg

PRP Brief

1. PRP (Platelet-rich Plasma) contains a high density of growth factors, it helps repair cells and fracture healing. It is widely used in beauty lines.

For aesthetic uses, inject the PRP into areas requiring attention. If possible, use the PPP as a topical agent in conjunction with a CRT roller.

For orthopedic treatment, have the physician inject PRP solution into the joint or area requiring treatment.

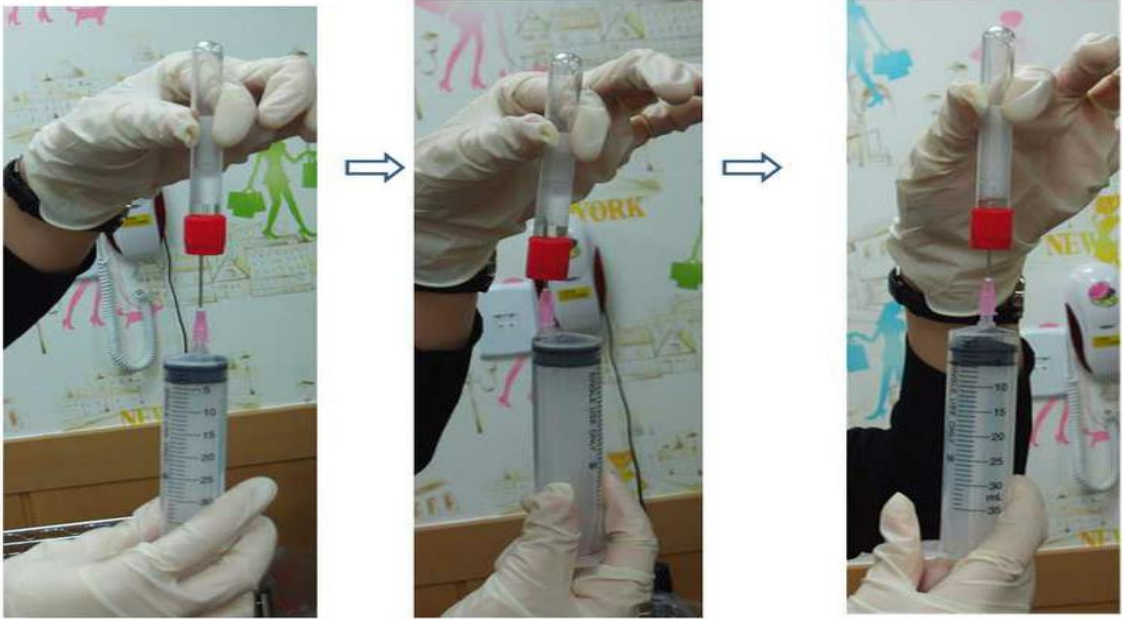
For hair growth, inject the PRP solution into the areas where there is a thinning follicle. Use the PPP as a topical agent after deploying a CRT roller in the same area.

PRP Rotor



Instruction for use

1. Draw 3cc of anticoagulant into syringe.



2. Draw blood from the patient filling the 20cc syringe, which already contains the 3.5ml anticoagulant.

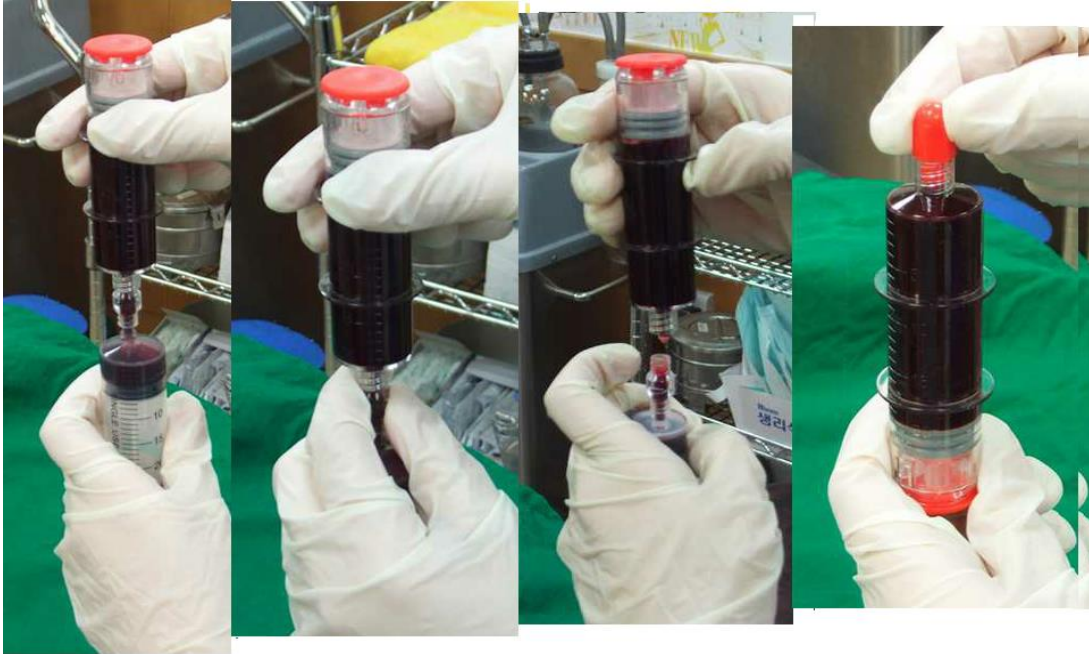


After drawing blood, remove the needle, put the cap on 20cc syringe, and shake to mix the blood and anticoagulant thoroughly.

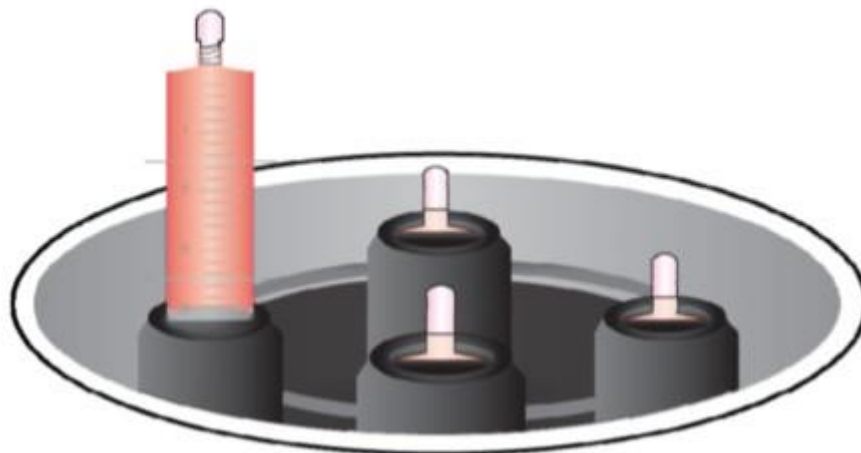
3. Remove the cap from syringe and PRP tubes, and connect the Transfer to syringe and PRP tubes, and remove the blood from 20cc syringe to PRP tubes. (If the blood volume is less than 20cc, we can push the blood to PRP tubes first, and the less will be substituted by physiological saline).



4. Separate PRP tubes from 20cc syringe. Replace cap on PRP tubes.



5. Place PRP tubes into centrifuge



To make sure the balance of machine, firstly place the tubes symmetrically.

Secondly, the balance of tubes should be less than 0.1g.

6. PRP Setting

Rotor No.: 1 (Very important, because different rotor NO., different programs. No.1 program is especially for PRP kits.)

Max speed: 2650 rpm

Time: 7 minutes (Female); 8 minutes (Male)



Female: 2650rpm (1020g) 7minutes

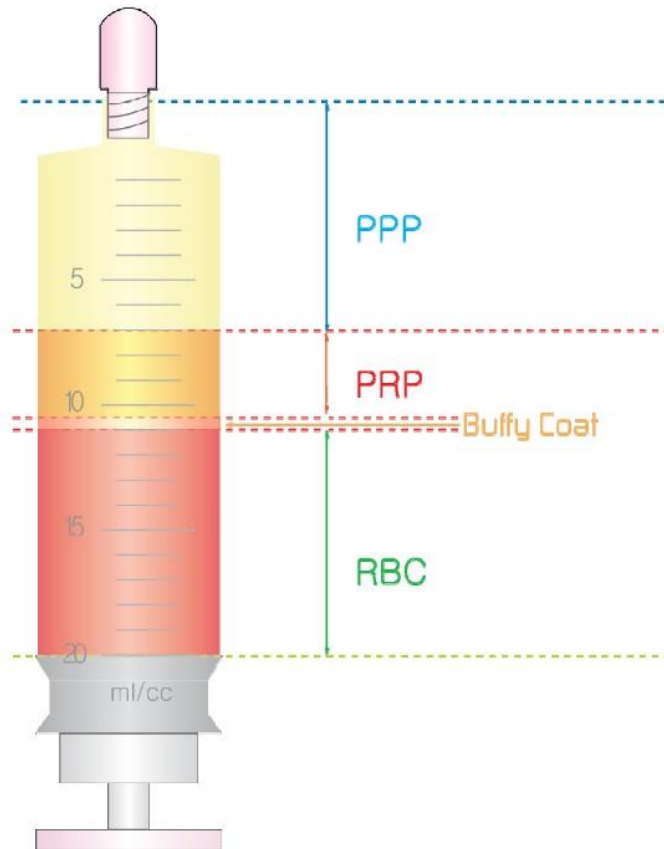


Male: 2650rpm (1020g) 8 minute

* There are two programs. No.1 program is specialized for PRP tubes. No.2 program is for normal tubes, like vacuum tubes, etc. Because PRP program has high demands on deceleration time. The two programs have a little difference in acceleration and deceleration time. Please make the right rotor number setting on the basis of experiment purpose.

* For No.2 program setting, please refer to Chapter IX. 5a.

7. After PRP centrifugation, you will see PPP at the top, PRP in the middle, Buffy coat just below PRP, and RBC is at the bottom.



8. Attach 5cc syringe to PRP tubes, insert screw rod into the bottom of PRP tubes, gently turn screw rod upward forcing PPP into 5cc syringe.

9. Attach 10cc syringe to PRP tubes, gently turn screw rod pushing PRP and buffy coat into 10 cc syringe. Place cap onto 10cc syringe, shake it to mix PRP and buffy coat.

Depending on the total yield add an amount of CACI equal to 5% to the syringe and then add 50cc of 2% lidocaine. Mix all contents together by shaking the syringe.

Requirement of the installment

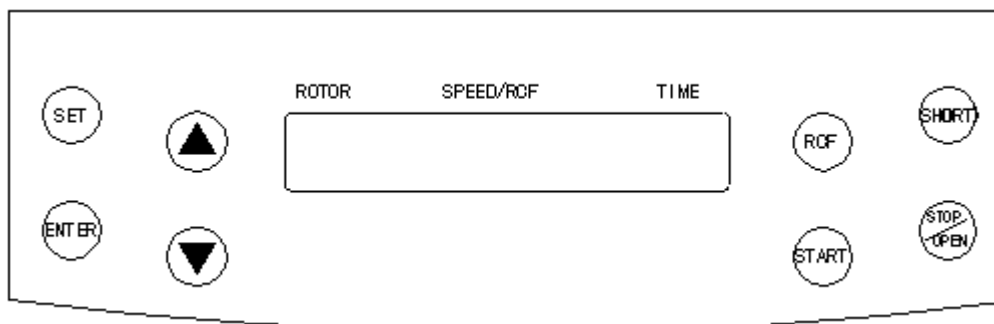
1. The lab table shall be stable. The four rubber feet of the instrument should touch the table completely.
2. Single phase alternating current, with earth wire. Don't use Zero line replace earth wire. Use the attached power line.
3. There shouldn't be electric dust and caustic air. Please note that the humidity should be no more than 85%.
4. There should be more than 300mm distance between the instrument and its surroundings.

Normal operation

Before your use, please check the power supply and surrounding. You must familiarize with the right operation. Check the right program.

1.Keypad

Table 2



2.Function:

SET:	Setup
SHORT:	Instantaneous centrifugation
STOP/OPEN:	Stop machine / Lid Open
START:	Start
▲:	Up
▼:	Down
Enter:	OK

Description of Display window

ROTOR:	Rotor No.
SPEED/RCF:	Speed or RCF value
TIME:	Time

a、Rotor no.: 1 refer to PRP program, 2 refer to other programs, expect for PRP.

b、 The display of Speed: four bits display. This window shows two kinds of figures. ⚠ Normally it displays the speed figure. If you press the “RCF” and “ENTER” key, it displays the Centrifugal force volume. There is a dot at the right bottom with RCF, but no dot with Speed.

c、 The display of time: Two bits display. The time will count down when the machine reach the speed you set.

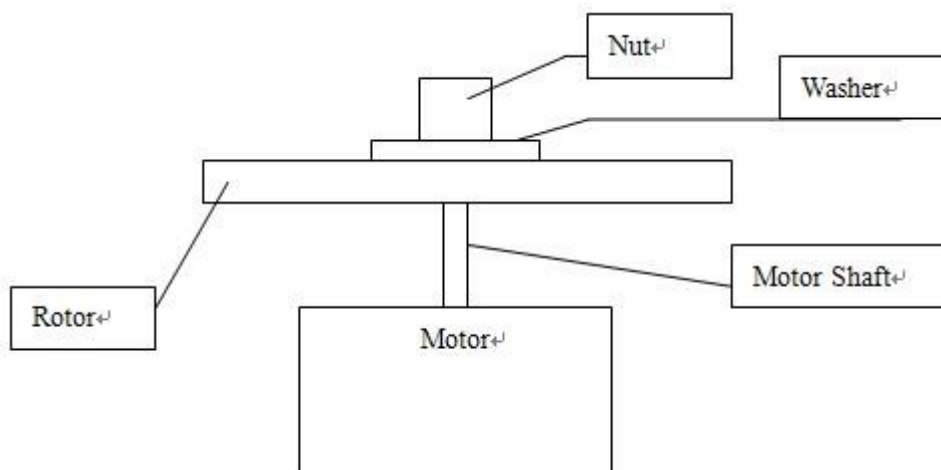
3. Rotor Install

a、 Check the rotor, if it have any flaw or eroded spot.

b、 Put some lubricating oil on spindle, install the rotor, screw the nut.

c、 The tubes shall be place in symmetry with balance. The error must be less than 1.5g.

d、 Screw up the nut cap.



4.Lock the lid

5.Plug in

Before plug in, check the machine carefully. Please refer to Table II The explanation of keypad. When power is “On”, the machine starts to work.

Pleas setup the parameter. For example:

Rotor	Speed	Time
1	2650	8min

a、 Set up rotor no.:

Press SET key, the cursor shall be blinked in the digital displayer where under “ROTOR”, press “▲” or “▼”, when it shows 1, it is for PRP program. No.2 program is for other programs except for PRP. You can make your choice of No. 1 or No.2, and then press Enter key.

No.	Max speed (r/min)	Max RCF(xg)
1	4000	2325
2	4000	2860

b、 Set up SPEED:

Press Enter key, the cursor will blink under SPEED/RCF, press “▲” or “▼”, set the speed you need and press Enter key.

c、 Set up TIME:

Press Enter key, set the time you need, and press Enter key.

6. If press the “START”, machine is working.

7. Stop working

When the time gets down to “0”, the machine will stop automatically.

Please open the door and put out the tubes.

Function

Normally it displays the speed figure. If you press the “RCF” and “ENTER” key, it displays the Centrifugal force volume. Press the SPEED and ENTER key, it shows the speed again.

Error code

Table 3

Error	Imbalance	Over speed	Lid safety	Motor	Communication error	System failure
Display	E1	E2	E3	E7	E8	E9

E1. Imbalance:

- (1) The weight of sample in each tubes have great difference; weight error is more than 1.5g.
- (2) Rotor is out of shape.
- (3) The spindle of motor bend.

E2. Over speed

- (1) Rotor number is wrong.
- (2) The real voltage don't meet the demands of machine. Power supply isn't stabilized.
- (3) Speed sensor is in trouble

E3. Lid Safety

- (1) Gate isn't closed completely.
- (2) The gate lid protection devices don't work.

E7. Motor failure

(1) Motor breaks down.

(2) The wire between the motor and control panel is loosen.

E8. Communicate failure

The wire between Electronic board and control panel is loosen.

E9. Systems failure

Contact us

Maintenance

- 1、 Spread some butter or Vaseline on the spindle.
- 2、 Clean the rotor's hole, if the solution drop into the hole of rotor.
- 3、 Check the rotor before use.
- 4、 Replace the tube in time.
- 5、 Clean the rotor and locate it in drafty room if it is not use for a long time.
- 6、 Please plug off if machine does not work for a long time.

Guarantee

Manufacturer's 1 year guarantee.

Note

Centrifuge has electronic lock. If electricity supply fails when Centrifuge is working, or for any other reasons, the lid cannot be opened, please insert the attached pole (in the package) into the hole on the side and open the lid.

