

Covid 19 Rapid Test Kit Manufacturing Unit Set Up
Rapid Test Technique From Uncut Sheet

Feb. 2021

Company: XXX

Location: Brazil

Contact no:

Attention:

Project: Covid 19 Rapid Test Kit Manufacturing Unit Set Up

Method: Immunochromatography (Colloidal Gold)

Production capacity: 1,000,000 tests monthly

Schedule: Feb. 2021

Future Products: Drugs, Hiv, HbsAg, HbsAb, HCG, LH, Covid 19, Influenza, Dengue,... etc.

Cleanroom requirement: Relative humidity <30%, 100,000 class, room temperature control,
build by XXX

Initial stage: Covid-19 rapid test kit

Background:

A new factory set up with technique transfer request. The first proposal with simple description in technique and equipment requirement.

PART ONE

Technique manufacturing flow chart

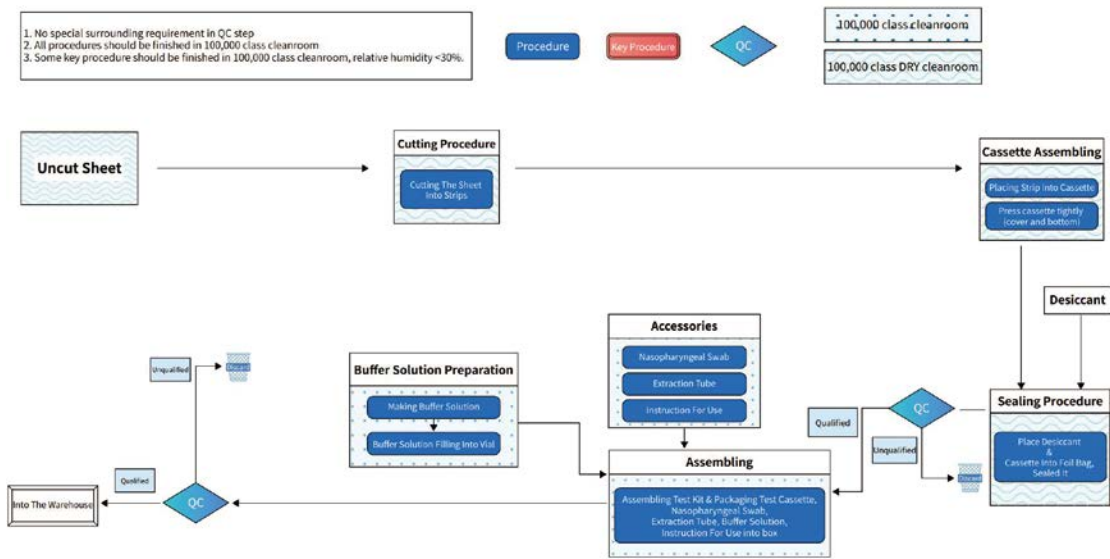
PART TWO

Materials and accessories

PART THREE

Equipment and flow chart

PART ONE Manufacturing flow chart


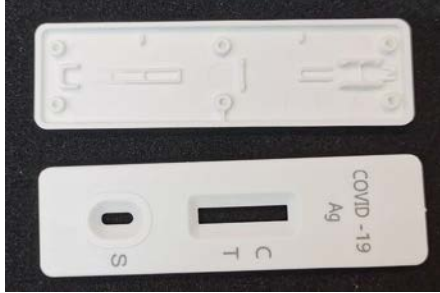


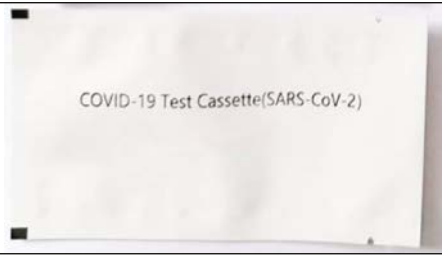

Description as below:

1. Uncut sheet
2. Cut the sheet into strips
3. Cassette assembling: Put strip into cassette, Press tightly the cassette (cover and bottom), Put cassette and desiccant into foil bag
4. Seal the bag
5. Put the accessories in box (Instruction for use, dropper, extraction tube, Urine cup, etc.)

PART TWO




Materials list

No.	Material	Description	QTY
1	Uncut sheet 300 x 60mm		10,600
2	Cassette 70 x 20mm		1,000,000

3	Foil bag 120 x 60mm		1,000,000
4	Desiccant bag (1g)		1,000,000

Remark: the list can be changed according to different product

Accessories List

No.	Material	Description	QTY
1	Buffer Solution		1,000,000
2	Saliva Collection Kit		1,000,000
3	Swab (optional)		1,000,000

PART THREE

Equipment list

No.	Equipment	Description	QTY	EXW Price	Video
1	Lateral Flow Strip cutter	400 - 500 strips per minute	1		https://youtu.be/7r44QulRgrA
2	Lateral Flow Cassette Presser	Press tightly cassette (optional)	1		https://youtu.be/Dj8VT33IHml
3	Sealing and printing machine	Seal the foil bag	1		https://youtu.be/wNKF_bv1v4M
4	Buffer Solution Filling Machine	Semi-automated filling	1		https://youtu.be/liH3j-uSfLs
5	Semi-Automated assembly machine	Assembly from strip to finish product	1		https://youtu.be/Q4TkkZF53Qw

Lateral Flow Strip Cutter

Technical parameter

Power	90-250VAC 50/60HZ
Weight	30KG
Size	430*370*230mm
Precision	±0.05mm
Cutting size	0.5-99.9mm
Speed	450-550 strips/min
Width of uncut sheet	0-100mm



Lateral Flow Cassette Presser



Power	250VAC 50/60HZ
Size	1000*470*420 mm
Weight	40KG
Speed	0.5-10 m/min
Thickness	1.5-10 mm
Belt Width	90 cm

Sealing & Printing Machine

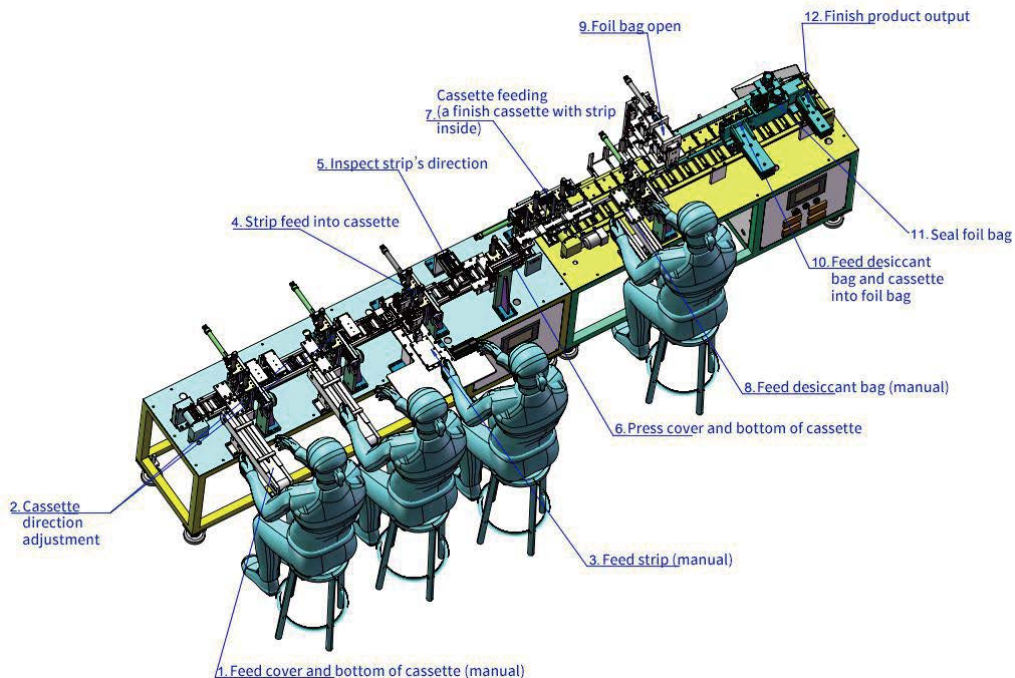
Power	960W
Power supply	220v/50Hz
Motor	24v/120W/18k
Speed	0 - 25m/min
Temperature	0-260 °C
Thermal tube	400w/180mm*2
Height of sealing	10mm
Sealing belt spec.	1,210*18*0.22mm
Conveyor spec.	2,030*180*2mm
Bag max. Size	350*260*10c
Height	700 -900 mm
Conveyance load	10kg
Weight	65kg
Dimension	1,120*480*1,060mm



Buffer Solution Filling Machine (Semi-Automated)

	Materials	Stainless steel
	Production capacity	2,500 cassette/hour
	Power	1,000 W
	Power supply	220V/50Hz
	Weight	200 kg
	Dimension	1,500*1,450*1,550mm

Test Kit Assembly Machine



Total 12 procedures

1. Feed cover and bottom of cassette **(manual)**
2. Cassette direction adjustment
3. Feed strip **(manual)**
4. Strip feed into cassette
5. Inspect strip's direction
6. Press cover and bottom of cassette
7. Cassette feeding (a finish cassette with strip inside)
8. Feed desiccant bag **(manual)**
9. Foil bag open
10. Feed desiccant bag and cassette into foil bag
11. Seal foil bag
12. Finish product output

Parameters

Rapid Test Assembly Machine	
Production Output	3000 pcs/hour
Power	3500 W
Power supply	220V / 50Hz
Weight	270 kg
Dimension (two part)	4,050mm * 1,000mm * 1,350mm (L * W * H)
Cassette Assembling	2,300mm * 1,000mm * 1,350mm (L * W * H)
Sealing Part	1,750mm * 1,000mm * 1,350mm (L * W * H)

Price list

No.	Project	EXW Price
1	Supply main equipment (refer equipment list)	
2	Transfer technique	

Remark:

The proposal is customized according to different product. For further information, please contact with our sale representative. (info@antiteck.com/)

Resources:

[How To Start Manufacturing Covid 19 Test Kit?](#)

[How to develop rapid test based on immuno-chromatography?](#)

[How To Develop Lateral Flow Assay Rapid Test?](#)

[Covid 19 Antigen Test Kit \(OEM\)](#)

[Covid-19 Test Kit](#)