

Asset List of IJIRA

Pilot Plant Mechanical Processing Section

Sl. No.	Name of Machine
1	Emulsion Plant with Drip Feed arrangement
2	Softener M/c – Softener with drip feeding arrangement
3	Jute Pilingbox (4 Nos)
4	Steam Explosion Unit with Compressor
5	Crane – Gantry Crane
6	Cycle Spinning – (2 Nos)(Manually operated Spinning)
7	Air Circulator – Conveyor Type
8	Breaker Card (FLCB)
9	Jute Hopper Feeder
10	Breaker Card (JF – 1)
11	Breaker Card (JF – 2)
12	Finisher Card (Mackie)
13	Draw Head
14	Roll former
15	Breaker Card 3 Pair
16	Finisher Card (JF – 3)
17	Fluid Agitator
18	Parafil M/c (Mackie)
19	Parafil M/c – Suessen Parafil 2000
20	Drawing – 1 st Drawing

21	Drawing – 2 nd Drawing
22	Drawing – 3 rd Drawing
23	Drawing – Finisher Drawing (Sacking)
24	High speed Drawing m/c (2 nd Drg)
25	Braiding Machine along with 4 – Spindle Winding M/c
26	Winding M/c – Schweiter Automatic Pirn Winder
27	Beaming Machine – Sectional Warping M/c with Sizing Unit
28	Rope Opener
29	Rope Opener with cover
30	Beaming Machine – Pre-Beaming M/c
31	Spinning – Dref 3 Fehrer AG
32	Cutting M/c – Lap Cutter (Designed & manufactured under the guidance of IJIRA) Cutting M/c – Electronic Cloth Cutting M/c (Straight Blade)
33	Sewing M/c – Interlock Sewing M/c, (3 thread overlock)
34	Sewing M/c – Lock Stitch Sewing M/c (Singer – 132 K 7)
35	Sewing M/c – Hemming Sewing M/c (Singer)
36	Sewing M/c – Sack Sewing M/c (Semi-automatic Overhead)
37	Sewing M/c – Miracle Sewing M/c (Union Special)
38	Sewing M/c – Sack Sewing M/c (Overhead)
39	Sewing M/c – Herakle Sewing M/c (Union Special)
40	Loom – Hand Loom unit and doobby arrangement with winding Unit
41	Loom – Hand Loom with winding Unit
42	Sizing Unit – (Laboratory Model)
43	Carding – Laboratory Model

44	Wrap Reel –
45	Loom – Circular Loom With Creel & Cheese winder
46	Braiding machine (72 Spindles)
47	Winding M/c – Cop Winding M/c
48	Twisting M/c – Mackie Twisting Machine
49	Spinning – Spin Tester developed by IJIRA
50	Winding M/c – Spool Winding M/c
51	Spinning M/c – Slip Draft Spinning Frame (Wet Spinning)
52	Spinning M/c – Slip Draft Spinning Frame
53	Spinning M/c – Ring Spinning Frame
54	Spinning M/c – Vee Draft Spinning Frame
55	Spinning M/c – Slip Draft Spinning Frame
56	Spinning M/c – Ring Spinning Frame
57	Spinning M/c – Apron Draft Spinning Frame
58	Twisting M/c – Heavy Ring Twisting M/c
59	Loom – Rutiaautomatic Loom under pick
60	Loom – Dornier (Shuttle-less Loom)
61	S4A Loom
62	Loom – Flat Bed Loom
63	Loom – Hessian Loom
64	Loom – Shuttleless Loom
65	Loom – Hessian Loom
66	Loom – Hessian Loom
67	Loom – Russian Loom

68	Tufting M/c – Singer Plain Cut Pile Yardage Tufting M/c
69	Loom – Russian Loom (STB Projectile Loom)
70	Loom – ATPR Pneumatic Rapier Loom
71	Loom – Sacking Loom
72	Balancing Machine – Avery Dormat Platform Weighing M/c (Capacity – 1000 Kg)
73	Balancing Machine – Avery weighing M/c (Capacity – 300 Kg)
74	Balancing Machine – Self-indicating Bench Platform Scale (Capacity – 50 Kg)
75	Balance – Avery (Capacity – 10 Kg)
76	Balancing Machine – Self-indicating Counter Scale (Capacity – 2 Kg)
77	Balancing Machine – Electronic Balance (Capacity – 220gm)
78	Ladder – Platform Type Ladder – 6 Feet (Portable)
79	Mixing M/c – Jet Mixture (Capacity – 300 Litre)
80	Mixing M/c – Fluid Agitator
81	Moisture Meter –
82	Moisture Meter
83	Moisture Meter –
84	Moisture Meter –
85	Precession Winding M\C (02 spindles)
86	Lap cutter
87	Juki lock stich
88	Juki 05 threader
89	Table top Roller Drafting Machine

90	Pilot Scale Roller drafting machine
91	Braiding machine (48 spindles)
92	Damping, Calendering and cutting machine
93	Spinning frame
94	Sewing (Manual)
95	Singeing A/14
96	Roller drafting (3 rd drawing)
97	Narrow Loom

Soil Testing Laboratory

Sr. No	Designation
1	Liquid Limit Apparatus
2.	Shrinkage Limit Apparatus
3.	Hydrometer Apparatus
4.	Compaction Test Apparatus(Light & Heavy)
5	CBR Test Apparatus
5A	CBR Moulds with Surcharge
5B	Curing Tank for Six CBR Moulds Soaking
6	Electronic Balance 220gm Capacity
7	Electronic Balance 10 Kg Capacity
8	Electric Oven (Aimil & Heico)
9	Gradient Ratio Tester (Permeameter System)
10	Portable Skid Resistance Tester

11	Benkelman Beam Apparatus
12	Stereo Microscope LEICA-M205C
13	Consolidometer (3 Gang Type)
14	Cyclic Pneumatic Loading Test Apparatus
15	MERLIN
16	Laboratory Vane Shear Apparatus(Motorised) Aimil & Heico
17	Direct Shear Apparatus
18	Aggregate Impact Test Machine
19	Los Angeles Abrasion Testing Machine
20	Sand Pouring Cylinder Apparatus
21	Moisture Analyzer MS-70
22	Rapid Moisture Content Meter
23	Sieve Shaker
24	Triaxial Testing Apparatus (Aimil)
24A	Universal Triaxial Cell (Heico)

Pilot Plant chemical processing Section

Sr. No	Designation
01	Pyrolyser (IJIRA/EVOLIRA)
02	High Speed Stirrer(Remi)
03	Horizontal Autoclave
04	Hallander Beater
05	Sizing Machine Laboratory
06	Hot Air Dryer
07	Fibre (Row Jute) Chopper
08	Jute Stick Cutter
09	Hammer Mill
10	Row Jute Cutting Machine
11	Hydro Extractor
12	Vertical Autoclave
13	Rotary Digestor
14	Hand made paper making machine

15	Laboratory Hallender Beater
16	Hydro Extractor
17	Weighing Balance 500kg Capacity
18	Laboratory Universal Padding Mangle
19	Pad Dry Catting Machine
20	Calendering Machine
21	Compressore
22	Hot Air Cabinet Dryer
23	Laboratory Size Padding Mangle
24	Lab Scale Dryer
25	Saw Tooth Rotary Cutter Machine
26	Hot Air Stenter
27	Vaccum Dryer
28	Laboratory Jigger
29	Industrial Padding Mangle
30	Laboratory Type Padding Mangle Stenter

31	Beaker Dyeing Machine (Open bath)
32	Boiler (Small)
33	Industrial Jigger Machine
34	Wash Wheel Machine
35	Laboratory Winch Machine
36	Laboratory Scale Wet Laid Non Woven Machine (3 Part)
37	Vertical Autoclave
38	Laboratory Jigger
39	Hot Air dryer

Physical Testing Department

Sl.No.	Equipments Name
1	Good Brand Fabric Strength Tester of capacity (0~455)Kg (2 nos)
2	Good Brand Fabric Strength Tester of capacity (0~500) (0~250)
3	Scott Fabric Strength Tester of Capacity (0~300) (0~250)
4	Good Brand Paper core Cylinder strength Tester of Capacity ((0~1000)Lbs
5	Universal Testing Machine (UTM) (0-100 KN)
6	Tenso Jute - IJIRA Design Microprocessor yarn Strength Testing Machine (0-50 kgf)
7	Yarn & Sliver Evenness Tester
8	Uster Tensorapid 3 - Yarn strength Tester (0-5 kN)
9	Vibroskop -Fibre Fineness Tester (0.45 – 221 den)
10	Almeter (Al100)- Fibre Length Analyser
11	Good Brand Yarn Strength Tester of capacity (0~5) Lbs (0~15)
12	Good Brand Yarn Strength Tester of capacity (0~10) Lbs (0~50)
13	Good Brand Yarn Strength Tester of capacity (0~10) Lbs (0~50)
14	Water Rrepellency Tester
15	Bursting Tester (50 Kgf))
16	IJIRA Impact Tester 0-700 gmf m
17	IJIRA Impact Tester 0-200, 0-400, 0-800 gmf m
18	IJIRA Impact Tester 0-175, 0-350, 0-700 gmf- m
19	Drop Testing Machine (Max 100kg)
20	IJIRA Fabric Fibre Shedding Tester Capacity -0-99999 cycles
21	Yarn Abrasion Tester 0 - 10000 Strokes
22	Standard Abrasion Tester Capacity- 0- 9999 cycles
23	"Gurley" make Permeometer - Air Permeability Testing machine, Capacity-

	0-15 cft/ sec.
24	Air Permeability Tester 0-20,000 litre/sq. dm/min
25	IJIRA Designed Jute Fabric Tensile Strength Tester , Capacity- 0- 200 kgf.
26	The Mullen Tester -Bursting Strength Capacity- 0-400 lbf / sq. in.
27	IJIRA Designed Jute Fabric Brightness/Cover Factor Meter For Percentage Cover - 0- 100 %. For Brightness- 0 – 100 % (where 0 indicates perfect Black Surface and 100 indicates perfect White surface).
28	IJIRA Designed Jute Yarn Twist Tester (0- 99 turns / inch.)
29	Heavy Duty Elmendorf-Tear Strength Tester
30	Fibre Fineness Tester
31	IJIRA Designed Motorised Digital Jute Fibre Bundle Strength Tester Capacity- 0 – 60 kg
32	Good Brand Yarn Twist Tester
33	IJIRA Fabric Stiffness Tester Capacity-0- 50 mg-cm
34	Jute Fibre Bundle Strength Tester Capacity- 0-100 kgf
35	BTRA Water Permeability Tester 0.0- 4.0 L/ min (water flow rate)
36	IJIRA Fabric Thickness Tester 0.01-12 mm
37	Cusick Drapage Tester 0-100 % (Drapage Coefficient)
38	Microscope (Wild M10)
39	Microscope Axiolab
40	Projectina
41	Good Brand Ballistic Strength Tester (0-150 inch-lb)
42	Sieve Shaker for AOS testing of Jute Geotextile Sieve size- 38 to 425 micron
43	Sasmira Crease Recovery Tester 0-180 degree
44	Bulk Density Meter 0.13 – 1g / cc

45	Shirley Crimp Tester 0 -30 % Crimp.
46	Digital Weighing Sacle- (Capacity 500g)
47	Digital Weighing Sacle- (Capacity 310g)
48	Digital Weighing Sacle- (Capacity 50 g)
49	Digital Weighing Sacle- (Capacity 2 kg)
50	Pilling Tester
51	Weighing Sacle (Capacity 20 kg)
52	Weighing Sacle (Capacity 20 lb)
53	Weighing Sacle (Capacity 1 kg)
54	Weighing Sacle (Capacity 300 kg)
55	GSM Cutter
56	GSM Cutter
57	GSM Cutter
58	GSM Cutter
59	GSM Cutter
60	GSM Cutter
61	Drop Testing Machine (for Drop test of Filled Sacks)
62	Water Permeability tester
63	Wrap reel (1 m girth)
64	Wrap Reel (1.5 yds girth)
65	Lea Strength Tester (500 lbf)
66	Lea Strength Tester (350 lbf)
67	Moisture Analyzer
68	Thickness Tester (Baker)

69	Dehumidifier
70	Humidifier system (for Mechanical testing room)
71	Humidifier system (for Calibration testing room)
72	Room Heater
73	Room Heater
74	Water Cooler
75	Sliver Irregularity Tester
76	Sliver Irregularity Tester
77	Sliver Irregularity Tester
78	Cone Drop Tester
79	Martindale Fabric Abrasion Resistance Tester
80	Sliver Wrap Reel
81	Hounsfield Tensometer
82	Hot Air Oven
83	Twist Tester
84	Pick Counter (Big Size)
85	Analog Moisture Meter
86	Analog Moisture Meter
87	Analog Moisture Meter
88	Friction Tester
89	Digital Moisture Meter
90	Digital Moisture Meter
91	Digital Moisture Meter

92	Bag Closer Sewing Machine (Single Stitching)
93	Bag Closer Sewing Machine (Double Stitching)
94	Ballistic Jute Strength Tester
95	Digital Weighing Scale (Capacity 500 gm)
96	Microscope CITOVAL 2
97	Microscope
98	Microscope

Composite Cell

Sr. No	Designation
01	Hydraulic Press (2'x2')
02	Circular Fibre Chopper
03	Z-dow Blender
04	Grinder
05	Electronic Weighing Balance
06	Table mounted circular power saw
07	Hand circular power saw
08	Sliver cutting machine
09	Stirrer
10	Delux PH Meter
11	Heater
12	Instron Universal Testing Machine
13	Dynamic mechanical analyser
14	Photo microscope

15	Oil bath
16	Complete Kneader System, 7Kg Capacity
17	Complete Kneader System, 50Kg Capacity
18	Oven
19	Digital thermometer With “K” type probe
20	IR Pyrometer (Infrared thermometer)
21	Refrigerators
22	Incubator BOD
23	Lamination Machine

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Chemical and Biochemical processing Division

Sr. No.	Name of Instrument
1	BOD Incubator(Double Door)
2	Refrigerated Centrifuge (Remi) CPR-30
3	Vacuum Dryer
4	Electronic balance (Mettler) AE-160
5	Refrigerator (LG)
6	Microwave Oven (Godrej)
7	Vertical autoclave
8	Visible Spectrophotometer SP VIS-200
9	High Pressure Autoclave (125 lt)
10	Pyrolyser
11	Pulverizer
12	Centrifuge(Remi R-23)
13	Thermostatic water bath shaker
14	Fume Hood
15	Table Top Centrifuge (ThermoFisher)
16	Rotary Vacuum Evaporator
17	Redwood Viscometer
18	Probe Sonicator

19	Lyophilizer (CREATRUST)
20	Vivro Viscometer SV-10
21	Electric Stirrer
22	Pensky Martens Flask Point Tester
23	Distilled water Preparation apparatus
24	Refrigerator
25	Magnetic Stirrer with Temperature Controller
26	Heating Mantle (5 lt. flask size)
27	Distillation Range Tester
28	Muffle Furnace
29	Heating Mantle (1 set of six 250 ml flask size Heating Mantle)
30	Gas Cylinder
31	Magnetic Stirrer
32	Heating Mantle (1 set of three 2-3 lt. flask size Heating Mantle)
33	UV-VIS Spectrophotometer (2450, Table top)
34	Atomic Absorption Spectrophotometer (GBC,A 7816,Table top)
35	Gas Chromatograph-Mass Spectrometer (GC-MS), Fisons Instruments (MD800 GC 8000 Series)
36	HPLC, 1260 Infinity
37	Centrifuge (R 24)
38	Voltage Stabiliser (1 pc.)
39	Infrared Spectrophotometer IR Prestige -21 (Shimadzu)
40	Dying machine
41	Padding Mangle

42	Incubator
43	Digital pH meter
44	Incubator BOD Shaker (Modern)
45	Distilled Water Plant
46	Balance (Mettler Toledo)
47	Balance (Mettler Toledo)
48	Hot Air Oven (Baird & Tatlock Ltd. (London))
49	Suction Pump (Tarson Rockyvac)
50	Digital PH Meter
51	Thermometer
52	Heating Mantle
53	Lauderometer (Digital Timer)
54	Lauderometer (Digital Temperature Controller)
55	Crock Meter
56	Weatherometer
57	Colourscan Spectrophotometer SS 5100A
58	Color Matching Cabinet