

ASSEMBLY LINES								
ITEM	DISCRPTION	GUARDING	MANUFACTURER	QUANTITY	SUPPLY	ELECTRICAL VOLTAGE	CURRENT (A)	APPROX WT Kgs
F1	TABBING MACHINE CONSISTING OF:- GLASS DISPENSER 3 STRING SOLDER TABBING MACHINE STRING TRANSFER UNIT WITH 2 STOCK BUFFER STATIONS	YES YES YES	TOYAMA	1 SET 1 4 1 SET	3P+N	200V		3000
F2	2M ROLLER CONVEYOR WITH 90DEG TRANSFER	NO	AIM	1	3PH	415V	1.5	300
F3	90 DEG ROTATING TABLE WITH PNUEMATIC LIFT & ROTATE	YES	AIM	1	3PH	415V	1.2	400
F4	BUFFER STORE APPROX 10 SHEETS MAX	YES	AIM	1	3PH	415V	1.2	400
F5~F10	SECTIONS OF ROLLER CONVEYOR AUTOMATIC TRANSFER TO NEXT EMPTY STATION	NO	AIM	5	3PH	415V	1.2	300
F11~12	SECTION OF ROLLER CONVEYOR WITH AUTO/ MANUAL CONTROL	NO	AIM	2	3PH	415V	1.2	300
F13,15,17,19	SECTIONS OF ROLLER CONVEYOR WITH 90 DEG TRANSFER WITH AUTOMATIC CONTROL	NO	AIM	4	3PH	415V	1.5	400
F14,16,18	SECTIONS OF ROLLER CONVEYOR AUTOMATIC CONTROL	NO	AIM	3	3PH	415V	1.5	300
F20	TABBING MACHINE CONSISTING OF:- GLASS DISPENSER 3 STRING SOLDER TABBING MACHINE STRING TRANSFER UNIT WITH 2 STOCK BUFFER STATIONS	YES YES YES	TOYAMA	1 SET 1 4 1 SET	3P+N	200V		3000
F21	2M ROLLER CONVEYOR WITH 90DEG TRANSFER	NO	AIM	1	3PH	415V	1.5	300
F22	90 DEG ROTATING TABLE WITH PNUEMATIC LIFT & ROTATE	YES	AIM	1	3PH	415V	1.2	400
F23	BUFFER STORE APPROX 10 SHEETS MAX	YES	AIM	1	3PH	415V	1.2	400
F24	SECTIONS OF ROLLER CONVEYOR AUTOMATIC TRANSFER TO NEXT EMPTY STATION	NO	AIM	1	3PH	415V	1.2	300
F25~28	SECTIONSO F ROLLER CONVEYOR USED FOR FIRST STAGE OF LAYING UP	NO	AIM	4	3PH	415V	1.2	300
F29~32	LAYUP STATIONS WITH ADJUSTABLE VACUUM PICK UP ARRAY UK LIGHT GUARDS ON 3 SIDES	YES	NOMORA UNISAN	4	3PH + N	200V	3	600
F33,35,36,37, F39	SECTIONS OF ROLLER CONVEYOR WITH 90 DEG TRANSFER WITH AUTOMATIC CONTROL	NO	AIM	5	3PH	415V	1.5	400
F34~38	SECTIONS OF ROLLER CONVEYOR AUTOMATIC CONTROL	NO	AIM	2	3PH	415V	1.5	300
F40	SECTIONS OF ROLLER CONVEYOR AUTOMATIC CONTROL	NO	AIM	2	3PH	415V	1.5	300
F41	BUFFER STORE APPROX 10 SHEETS MAX	YES	AIM	1	3PH	415V	1.2	400
F42,45,48	SECTIONS OF ROLLER CONVEYOR WITH 90 DEG TRANSFER WITH AUTOMATIC CONTROL	NO	AIM	3	3PH	415V	1.5	400
F43,44,46,47	SECTIONS OF ROLLER CONVEYOR AUTOMATIC CONTROL	NO	AIM	4	3PH	415V	1.5	300
F49,F53,F57	LAMINATOR SYSTEM COMPRIZING OF :- PRE-HEAT CONVAYOR BELT CAPABLE OF TAKING 3 X 1000MM WIDE GLASS PANELS SIDE BY SIDE .	NO	NISSIMBO	3	3PH+ N	200V	TBA	12000
F50,F54,F58	LAMINATOR WITH BOTTOM HEATERS AND STAGEABLE VACUUM SYSTEM	YES	NISSIMBO	3	3PH+N	200V	TBA	INC
F51,F55,F59	EXIT CONVAYOR WITH SMALL BOBBINS TO REDUCE EVA TRANSFERANCE ( COOLING FANS TRANSFERRE TO F51,55,59)	NO	NISSIMBO	3	3PH+N	200V	TBA	INC
F52,F56,F60	ROLLER CONVEYOR WITH SMALL BOBBINS & GATES FOR OPERATOR ACCESS	NO	AIM	3	3PH	415V	1.5	600
F61,F64,F67	SECTIONS OF ROLLER CONVEYOR WITH 90 DEG TRANSFER WITH AUTOMATIC CONTROL	NO	AIM	5	3PH	415V	1.5	400
F62,F63,F65,F66	SECTIONS OF ROLLER CONVEYOR AUTOMATIC CONTROL	NO	AIM	4	3PH	415V	1.5	300
F68	ROLLER CONVAYOR WITH EVA SIDE TRIMMER USING HOT KNIVES AUTOMATIC	YES	AIM	1	3PH+ 1PH	415V/240V	8	600
F69	BUFFER STORE APPROX 10 SHEETS MAX	YES	AIM	1	3PH	415V	1.2	400
F70	ROLLER CONVAYER WITH 90 DEG TRANSFER	NO	AIM	1	3PH	415V	1.2	400
F71	VISUAL AND CAMERA INSPECTION STATION COMPRISING OF 3 STAGES :- ENTRY WITH LIFT TO NEAR VERTICAL VISUAL INSPECTION EXIT WITH CAMERA BLACK OUT CHAMBER AND LIFT TO HORIZOTAL	YES LIGHT GUARD YES	TBA	1	3PH+N	200V	3	2000
F72	AUTOMATIC CART LOADER AND REJECT RACK SUBJECT TO SIGNALS FROM VISUAL INSPECTION EITHER MODULE IS LOADED INTO CART FOR OVEN OR RACK FOR TECHNITION TO REPAIR	YES	AIM	1	3PH	415V	3	2000

OVENS								
ITEM	DISCRPTION	GUARDING		QUANTITY	SUPPLY	ELECTRICAL VOLTAGE	ESTIMATE OF	APPROX WIGHT Kg
OVEN 1,2,3	AUTOMATIC TRANSFERING OVENS WITH 4 STAGES OF PROCESS:- MANUAL LOADING AREA - CART IS PUSHED IN TO STOP AND SAFETY BAR IS DROPPED TO START PROCESS  OVEN 1 "PRE HEAT "DOOR AUTOMATICALLY OPENS AND CART IS DRIVEN IN BY CHAIN DRIVE ON FLOOR CONNECTING TO DOG ON CART. ONCE IN DOOR SHUTS AND PROCESS STARTS  WHEN "PRE HEAT " PROCESS IS OVER MIDDLE DOOR OPENS AND CART IS DRIVEN TO OVEN 2 DOOR, DOOR SHUTS AND "CURE" PROCESS STARTS  WHEN 2ND PROCESS FINISHED EXIT DOOR OPENS AND CART IS DRIVEN TO COOLING CHAMBER .	YES	DELTA OVENS		3 3P+N	415V	TBA	5000

AS LONG AS A CART IS ALWAYS WAITING AT START OF OVENS  
THEN EACH CART WILL FOLLOW THE ONE IN-FRONT

# FINISHING LINES

ITEM	DISCRPTION	GUARDING		QUANTITY	SUPPLY	ELECTRICAL VOLTAGE	ESTIMATE OF	APPROX WIGHT Kg
F73	CART UNLOADER TRANSFER ARM TAKES MODULE FROM CART AND PLACES IT ON CROLLER CONVEYOR	YES	AIM	1	3PH	415V	3	2000
F74	CONVEYOR WITH END TRIMMING HOT KNIVES	YES	AIM	1	3PH/1PH	415V/240V	8	600
F75	BUFFER STORE APPROX 10 SHEETS MAX	YES	AIM	1	3PH	415V	1.2	400
F76	ROLLER CONVEYOR USED FOR JUNCTION BOX FITTING	NO						
F77	AUTOMATIC SOLDERING STATION CONVEYOR OVER LINE AUTOMATIC SOLDERING MACHINE	NO PARTLY	AIM HASEC CO LTD	1 1	3PH 2PH	415V 200V	1.2 3	400 400
F78	ROLLER CONVEYOR WITH RAISABLE ROTATING ARMS FOR GASGET FITTING	NO	AIM	1	3PH	415V	1.2	400
F79	ROLLER CONVEYOR AS SPARE WORK STATION	NO	AIM	1	3PH	415V	1.2	400
F80	FRAMING STATION WITH MANUAL LOAD OF FRAMES AND AUTOMATIC FITTING OF FRAME . MANUAL SCREW FIXING	YES	AIM	1	3PH	415V	1.2	800
F81	HOTSPOT CAMERA STATION INTELIGENT CAMERA USED TO DETECT RISE IN TEMPERATURE ABOVE ALLOWED TOLERANCE WITH ALARM SYSTEM IF FAIL.	NO	AIM	1	3PH	415V	1.2	500
F82	ROLLER CONVEYOR SPARE WORK STATION	NO	AIM	1	3PH	415V	1.2	400
F83	ROLLER CONVEYOR WITH SIDE MOVEMENT OF PANEL TO DATUM FOR JUNCTION BOX RESIN SEALING . WITH BULK RESIN VACUUMED CONDITIONING SYSTEM	NO	AIM	1	3PH	415V	1.2	500
F84	RESIN CURE AGING AREA WITH 12 UP -1 ACROSS AND 12 DOWN "WALKING BEAM " SYSTEM PNUEMATIC LIFT SYSTEM	YES	AIM	1	3PH	415V	1.2	1500
F85	ROLLER CONVEROR WITH TURNTABLE FOR "SNOWBAR" FITTING	YES	AIM	1	3PH	415V	1.2	1500
F86	NON POWERED FLOP OVER STATION FOR CLEANING	NO	AIM	1	N/A			300
F87	NON POWERED ELECTRO-LUMINECENTS CAMERA STATION	BLACKED OLAIM		1	1PH	240V	0.5	200
F88	AUTOMATIC WITHSTAND -INSULATION TEST	YES	NISSIMBO/SPIRE	1SET	2PH	200V	TBA	1000
F89	AUTOMATIC SOLAR SIMULATION WITH PRINTOUT OF I-V CURVE	YES	NISSIMBO/SPIRE	1SET	2PH	200V	TBA	1000
F90	NON POWERED TURNOVER STATION FOR CLEAN AND RATING LABEL PLACEMENT	NO	AIM	1	N/A			
F91	FRONT CLEANING STATION	NO	AIM	1	N/A			
F92	PACKAGING CONVEYOR NON POWERED #2	NO	AIM	1	N/A			
F93	AUTOMATIC STRAPPING MACHINE FOR PLACEMENT OF UPTO 4 STRAPS HEAT WELDING	NO	AGENT GORDIAN STRAPPING	1	3PH+N	415V	5	400
F94	AUTOMATIC PALLETIZER	YES		1	3PH+N	415V	10	2000