

Technical specification for Processing Equipment

1. Air Compressor			
S.No	Items	Units	Specification
1	Working Pressure (High Pressure)	Bar	30-40
2	Capacity	CFM	32 to 140
3	Receiver tank	Ltr	Min. 500 & above
4	Mounting Type	-	Anti Vibration Mounting
5	Connected load	KW	Upto 15KW-lower preferred
6	Machine Dimensions (LxWxH)	-	Please specify
7	Moisture Separator	-	Please specify & Quote
8	Safety	-	Appropriate safety features to be provided like Alarm, pressure relief valve, etc.
9	Essential Machine Spares	-	Intake Filter, Wide and adjustable pressure switch (Auto cut-in cut-off of compressor), pressure gauge, AutoDrain Valve, submicron fine filter, check valve, V-belts, belt guard, Flywheel, Motor Pulley, DOL starter etc.

2. All Electrical Microprocessor Controlled Automatic Injection Moulding machine 180-200T			
Sl. No	Item	Unit	Specification
	Injection Unit		
1	Shot Capacity (In GPPS)	gms	Min. 200 and above
2	Screw Diameter	mm	40-55
3	Screw L/D Ratio	-	20:1 to 22:1
4	Injection Pressure	bar	Min. 1600
5	Injection Speed	mm/sec	Min. 250
6	Injection Rate	cc/sec	Min. 250
7	Plasticizing Rate (Gpps)	gm/sec	Min. 30
8	Max. SCREW SPEED	rpm	Min. 400
9	Heating Capacity	kw	Max. 14 (lower preferred)
	Clamping Unit		
10	Clamp Force	ton	180-200
11	Mould Opening Stroke	mm	Min. 400
12	Maximum Daylight	mm	(1000 and above)
13	Minimum Mould Height	mm	max.200
14	Maximum Mould Height	mm	Min. 550 and above
15	Platen Size	mm	min. 750 x 750 and above
16	Distance Between Tie Rod	mm	Min. 500 X 500 and above
17	Ejector Stroke	mm	Minimum 100 (Multi point and Multi Stage) Specify
18	Ejector Force	ton	Min 3
19	Mould Weight Capacity	kg	Min 1500
20	Power pack unit for Hydraulic Multiple core pulling	-	Minimum 2 core pulling
21	Multi stage Air Ejection	-	Specify (Minimum 5 point)
	General		
22	T Slot Platen	-	Specify and Quote (T Slot is Preferred)
23	Latest Square Platen	-	Specify and Quote
24	Water inlet & outlet manifold for Mould cooling	-	Min. 10/10 Channel
25	Computer connectivity	-	Through Ethernet or HDMI cable
27	Total connected load	-	Max 35 KW - lower preferred
28	Energy meter	-	Specify
29	Max. Power consumption @ full machine capacity	-	lower preferred
30	Electric drive operatrins - servo drive	-	Specify

31	Essential/Standard spares	-	Specify and Quote (Standard Tool Kit, NRV, Thermocouple, Band Heater, Short/Extended Nozzle, SSR, Proximity Switch, Limit Switch, Mould Clamps, T-Nut and Studs.)
32	Safety	-	Specify the Special safety provisions
33	Machine Dimensions (LxWxH)	-	Specify

3. Automatic Thermoforming Machine			
S.NO.	ITEMS	UNITS	SPECIFICATION
Model :			
1	Forming Area (Min.)	mm	650 x 350
2	Forming Depth / Draw (Max.)	mm	0 to 130
3	Sheet Thickness (Min. – Max.)	mm	0.3 to 2
4	Speed (Min. – Max.)	Cycles /Minutes	30-60
5	Material to be formed	-	HIPS, PP, PET,PVC
6	Compressor air requirement		Specify
7	Motor Type		Servo
8	Control Pannel		Microprocessor with Touch screen
9	Safety	-	Appropriate safety features to be provided
10	Heating load	KW	Max. 20 KW
11	Connected load	KW	Specify (lower preferred)
12	Demonstration multicavitymould for products like cup, tray, etc.	-	Please specify and quote suitable Aluminium Alloy Mould - 1 no. for above machine
13	Mould cooling arrangement		specify
14	Machine dimensions		Specify

4. Colour Blender			
S. NO.	ITEMS	UNITS	SPECIFICATION
Model :			
1	Container capacity (Min. - Max.)	Kg	75 - 100
2	Rotating speed	rpm	80-100
3	Vessel/Container		Rotor blade and Vessel should be made out of SS
4	Total Connected Load	kW	Upto 3 lower preferred
5	Safety	-	Appropriate safety features to be provided
6	Machine dimensions (LxWxH)	mtrs	specify
7	Essential Machine Spares	-	01 set of Mixing Blades

5. Cooling Tower- 50 TR			
ITEMS	UNITS		SPECIFICATION
Model :		Type	FRP Induced draft cross flow type with basin
1	Capacity	TR	50
2	Water flow rate	LPM	Min 500
3	Hot water temperature	°C	35-50
4	Cold water temperature	°C	30-32
5	Wet bulb temperature	°C	27-28
6	Inlet, outlet connection size	mm	75-100
7	Motor Power	KW	Max. 15
8	Material for All fastners, nut, bolts etc.		SS
9	Machine dimensions (LxWxH)	mtrs	specify

6. Dehumidifier			
S. NO.	ITEMS	UNITS	SPECIFICATION
Model :			
1	Drying Bin Capacity (Min.- Max.)	Kg	80-100
2	Dry air quantity (Min.-Max.)	m3/hr	25-40

3	Drying Heater (Max.)	KW	5
4	Regeneration Heater (Max.)	KW	5
5	Temperature range (Min.- Max.)	°C	60-180
6	Connected load	KW	Max. 15 KW
7	Compressed air		Dry air, 6 Bar Max.
8	Control	-	Microprocessor/PLC Controls/Computer Integrated control
9	Safety		Appropriate safety features to be provided, Alarm etc
10	Dimensions (Lx Wx H)	Mtr	Please specify

7. Film Cutting & Sealing Machine (Bag Making Machine)			
S.NO.	ITEMS	UNITS	SPECIFICATION
	Model		
1	Material to be used	mm	HMHDPE, HDPE, LDPE, PP, BOPP
2	Length of Bag (Max.)	mm	1200
3	Length of Bag (Min.)	mm	50
4	Width of Bag (Max.)	mm	400
5	Width of Bag (Min.)	mm	8
6	Speed (Max.)	Bag/Min.	120
7	Power Supply (Max.)	KW	10 KW
8	Operation	---	Automatic
9	Controller Type		Microprocessor control
10	Safety	-	Appropriate safety features to be provided
11	Other features	--	Suitable Timer & buzzer to be incorporated
12	Machine dimensions (LxWxH)	mtr	Please Specify

8. Hopper drier with Automatic loader Unit			
S.NO.	ITEMS	UNITS	SPECIFICATION
	Model		
1	Drying Bin Volume	Ltr	60-80
2	Air Flow Rate (Min. - Max.)	m3/hr	10 to 25
3	Temperature range	°C	60-180
4	Connected load	KW	Please specify and quote
5	Compressed air		Dry air, 6 Bar Max.
6	Control	-	Microprocessor/PLC Controls/Computer Integrated control
7	Safety		Appropriate safety features to be provided, Alarm etc
8	Dimensions (Lx Wx H)	Mtr	Please specify
Loader Specification			
	Model		
9	Hopper Capacity (Min. - Max.)	Ltr	3 to 5
10	Connected load (Max.)	KW	5
11	Conveying Capacity (Min. - Max.)	kg/hr	150-200
12	Type of Blower		Pls Specify
13	Safety	-	Appropriate safety features to be provided, Alarm etc
14	Dimensions Hx Wx D)	Mtr	Please specify

9. Hot Foil Stamping Machine			
S.NO.	ITEMS	UNITS	SPECIFICATION
Model :			
1	Hot Plate Size (Min.)	mm	150 x 200
2	work Table size (Min.)	mm	350 x 450
3	Type		Pneumatic/Hydraulic

4	Maximum Pressure	Kg	800
5	Max. Job Height	mm	150
6	Stamping stroke (Max.)	mm	50
7	Temperature	°C	0°C-300°C
8	Hot Stamping Speed	Pcs/hrs	400 to 800
9	Connected Load	KW	Max. 10 KW
10	Safety	-	Appropriate safety features to be provided
11	Control System		Microprocessor type/PLC
12	Automatic foil feeding system		Please Specify for Automatic only
13	Machine Dimensions	(L x W x H)	Please Specify

10. Hot Plate Welding Equipment			
S.No	ITEMS	UNITS	SPECIFICATION
1	Type	--	Portable
2	Material		HDPE, PP, etc.
3	Working temperature	°C	180 to 300°C
4	Time to reach welding temperature	Sec	0-60
5	Jigs & fixtures for holding pipes etc.	-	Please specify and quote
6	Welding Plate Size (Diameter) (Min. -Max.)	mm	90 to 500
7	Safety	-	Appropriate safety features to be provided
8	Essential Machine Spares	-	Thermo Regulator & Plate Heater
9	Machine dimensions (LxWxH)	mtr	Please specify

11. Injection Stretch Blow Moulding Machine			
S.No	Items	Units	Specification
1	Bottle Capacity	ml	30 - 2500
2	Injection Capacity	cm3	150 - 180
3	Screw Dia	mm	40 - 50
4	Injection Clamping Force	KN	60 - 80
5	Blow Clamping Force	KN	75 - 110
6	Neck Dia	mm	50 to 70
7	Body Dia	mm	100 to 130
8	Weight of Bottle	gm	120 to 140
9	Injection Capacity	gm	140 to 180
10	Injection Pressure	Kgf / Cm2	Min 1100
11	Injection Speed	mm / sec	Please specify
12	Motor & Drive	-	Servo Type
13	No. of Mould Cavity	-	upto 6
14	Mould	-	100 ml mould with 5 or 6 cavity suitable with the machine to be supplied. (product design will be provided)
15	Spares	-	Standard Blowing Pin
16	Total connected load	kW	Max 30 (lower preferred)

High pressure Oil Free Air Compressor

Model :

1	Working Pressure	Bar	15 to 25
2	Capacity	CFM	25 to 80
3	Receiver tank	Ltr	Min. 300 & above
4	Motor Power	KW	Please specify
5	Safety	-	Appropriate safety features to be provided like Alarm, pressure relief valve, etc.
6	Machine Dimensions (LxWxH)	-	Please specify

Chiller system

Model :

16	Nominal cooling capacity in TR	TR	10
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17	Min. Temperature achieved	°C	8 to 12
18	Max. Flow rate to process	LPM	25 to 30
19	Max. Water pressure	Bar	4
20	Water reservoir capacity	ltr	Min. 30
21	Connected load	KW	Max. 15 KW- Lower Preferred
22	Control	-	Microprocessor control
23	Safety		Appropriate safety features to be provided, Alarm etc
24	Machine Dimensions	-	specify

Moisture seperator

1	Working Pressure	Bar	15 to 80
2	Capacity	CFM	25 to 60

Refrigerated Air Drier

1	Working Pressure	Bar	15 to 80
2	Capacity	CFM	25 to 60
3	connected Load	KW	Please specify
4	Machine Dimensions (LxWxH)	-	Please specify

Hopper drier with Automatic loader Unit

	Model		
1	Drying Bin Volume	Ltr	60-80
2	Air Flow Rate (Min. - Max.)	m3/hr	10 to 25
3	Temperature range	°C	60-180
4	Connected load	KW	Please specify and quote
5	Compressed air		Dry air, 6 Bar Max.
6	Control	-	Microprocessor/PLC Controls/Computer Integrated control
7	Safety		Appropriate safety features to be provided, Alarm etc
8	Dimensions (Lx Wx H)	Mtr	Please specify

12. Microprocessor Controlled Automatic Extrusion Blow Moulding Machine - 1/2 Litre			
S.NO.	ITEMS	UNITS	SPECIFICATION
MODEL :			
1	Container Capacity	ml	Upto 500
2	Screw Diameter	mm	Min. 30 and above
3	L/D ratio	-	20:1 - 22:1
4	Output	Kg/Hrs	Min. 10 and above
5	Max. Screw Speed	RPM	Min. 75
6	Die Diameter	mm	Min 40
7	Mould Opening Stroke	mm	min.150
8	Mould Thickness	mm	Min. 170 and above
9	Mould Height	mm	Min. 200
10	Mould Width	mm	Min. 150
11	Plattern Size	mm	Min 150 X 200 mm
12	Connected load	KW	Max 20 lower preferred
13	Parison control System	Points	10-50 points
14	Hot knife/ wire cutter	-	specify & quote
15	No. OF Stations and Heads	-	Single head and single station
16	Moulds to be supplied along with machine	Each one no.	200 ML-1, 500ML-1
17	De-flashing system	-	Please specify & quote
18	Control System	-	Microprocessor/PLC Controls
19	Oil pump motor power	KW	Max. 5
20	Compressed air pressure requirement	bar	Max 10

21	Air Requirement	CFM	Min. 4 and above
22	Safety	-	Appropriate safety features to be provided
23	Machine Dimension (LxWxH)	mtr.	specify
24	Essential spares	-	Thermocouple, Hot knife Cutter & Grease Gun
25	Double head and double station	-	specify

13. Microprocessor Controlled Automatic PET Preform Stretch Blow Moulding Machine 2-5 Litre

S. NO.	ITEMS	UNITS	SPECIFICATION
	Model:		
1	Bottle volume Max.	ml	5000
2	Output (bottle per hour) (Min.-Max.)	Nos.	600-1800
3	No. of cavities	Nos.	Upto 5 Nos.
	Bottle Specifications		
4	Max. Bottle height	mm	Max.400
5	Max. Bottle Diameter	mm	Max. 220
6	Max. Neck Diameter	mm	Max. 70
7	Max. Preform Height including neck	mm	Max. 200
	OTHER FEATURES	mm	
8	Microprocessor Control System	-	Touch screen display with B&R or Siemens Controller
9	Preform preheating system load	-	Max. 20 KW
10	Safety	-	Appropriate safety features to be provided
11	Total connected load	KW	Max. 50 KW
12	M/c dimensions L x W x H	mtr	specify
13	Dimensions with preform feeder L x W x H (mtr)	mtr	specify

Chiller system

Model :			
1	Nominal cooling capacity in TR	TR	10
2	Min. Temperature achieved	°C	8 to 12
3	Max. Flow rate to process	LPM	25 to 30
4	Max. Water pressure	Bar	4
5	Water reservoir capacity	ltr	Min. 30
7	Connected load	KW	Max. 20 KW
9	Control	-	Microprocessor control
10	Safety		Appropriate safety features to be provided, Alarm etc
11	Machine Dimensions	-	specify

High pressure Oil Free Air Compressor

Model :			
1	Working Pressure	Bar	30 to 40
2	Capacity	CFM	32 to 140
3	Receiver tank	Ltr	Min. 500 & above
4	Total Connected Load	KW	Upto 15KW-lower preferred
5	Machine Dimensions (LxWxH)	-	specify
6	Safety	-	Appropriate safety features to be provided like Alarm, pressure relief valve, etc.
7	Essential Machine Spares	-	Intake Filter, Wide and adjustable pressure switch (Auto cut-in cut-off of compressor), pressure gauge, Auto Drain Valve, submicron fine filter, check valve, V – belts, belt guard, Flywheel, Motor Pulley, DOL starter etc.

Moisture separator

1	Working Pressure	Bar	20 to 80
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2	Capacity	CFM	35 to 60
Refrigerated Air Drier			
1	Working Pressure	Bar	20 to 80
2	Capacity	CFM	35 to 60
3	connected Load	KW	Max. 15
4	Machine Dimensions (LxWxH)	-	specify

14. MICROPROCESSOR CONTROLLED BLOW MOULDING MACHINE-5 LTR			
S. no.	ITEMS	UNITS	SPECIFICATION
1	Container Capacity	ltr	5
2	Screw Diameter	mm	70 to 90
3	Screw Speed	RPM	0 to 75
4	Plasticizing capacity	kh/hr	70 to 100
5	Mould Opening Stroke	mm	Min. 350
6	Min. Mould Thickness	mm	150
7	Parison control System	Points	Min. 50 Points
8	Hot knife/ wire cutter		specify & quote
9	Clamping force	Ton	specify
10	No. of Station		2
11	Heating Load	KW	specify
12	Total Connected Load	KW	specify (Low Power Consumption preferred)
13	De-flashing system	-	specify & quote for Auto deflashing
14	Control System	-	Microprocessor/ PLC /PID Controller
15	Safety	-	Appropriate safety features to be provided
16	M/C Dimension (LXWXH)	mtr.	specify

15. Microprocessor Controlled Single Layer Double Station Extrusion Blow Moulding Machine with Parison Programming - 1 Litre			
S.NO.	ITEMS	UNITS	SPECIFICATION
MODEL :			
1	Container Capacity	ml	upto1000
2	Die Diameter	mm	20-80
3	Screw Diameter	mm	40-50
4	Screw L/D	--	20:1 - 22: 1
5	Output (Plasticizing Capacity)	Kg/Hr.	25 - 35
6	Mould Height	mm	Min. 200 and above
7	Mould Width	mm	Min. 180 and above
8	Mould Thickness	mm	170 and above
9	Mould opening Stroke	mm	150 and above
10	Clamping Force (Desirable)	Ton	Min 5 Tonne
11	Extruder Drive Motor	KW(HP)	Upto 10 H.P
12	Servo Hydraulic Motor	KW(HP)	Min 5 H.P
13	Heating Load	KW(HP)	Max. 12 KW
14	Total Connected load	KW(HP)	22 KW- lower preferred
15	Parison control System	Points	Multi Point parison control system for Minimum 100 points
16	Hot knife/ wire cutter		specify & quote
17	Double Station with Single Head		specify & quote
18	Moulds to be supplied for 1000ml & 500 ml along with machine	Each one	specify & quote
19	Control System	-	Microprocessor/Computer Integrated control
20	Angular Blowing Attachment		specify & quote
21	De-flashing system	-	specify & quote
22	Safety	-	Appropriate safety features to be provided

23	Machine Dimension (LxWxH)	mtr.	specify & quote
24	Essential spares	-	Thermocouple, Hot Cutter & Grease Gun

16. Mould Temperature Controller (MTC)			
S.NO.	ITEMS	UNITS	SPECIFICATION
Model :			
1	Capacity (Max. Temperature)	°C	Ambient to 150°C
2	Fluid		Oil
3	Flow rate (Max.)	LPM	60
4	Heating capacity (Max.)	KW	10
5	Pressure (Max.)	Bar	6
6	Tank Capacity (Max.)	Ltr	10
7	Heating Pipe		Stainless Steel
8	Safety	-	Appropriate safety features to be provided like Pump Reversal, Oil Shortage, overheating/Pump overload etc
9	Machine dimensions (LxWxH)	mtr	Specify

17. Plastic Lumps Cutting Machine			
S.No	Items	Units	Specification
	Model		
1	Material Lumps to be cut		PP, HDPE, LDPE, PS
2	Output	kg/hour	100-150
3	Roter OD	mm	Specify
4	Fix Blade (Min.)	Nos.	2
5	Mesh Size	mm	50
6	Reducer Box		Hard surface gears box
7	Rotor Blade Quantity		Please specify
8	Blade Material		Special Tool Material(HCHC /HDS)
9	Hardness of Blade		Hrc58-60
10	Connected Power	KW	specify
11	Machine dimensions (LxWxH)	mtr	specify

18. Rotational moulding Machine with Pulveriser			
S.No	Items	Units	Specification
	Model		
	Rotational Moulding		
1	Station /Arm	Nos.	Single
2	The maximum volume of manufactured container	liter	500 ltr
3	Processing material		PE/ PP/ PVC
4	Arm drive		AC Drive
5	Heating Type		LPG Burner type
6	Max. Temperature	Deg. Celcius	250
7	Fuel consumption	Ltr /Cycle	Max. 4
8	Cooling process		Air cooling
9	Power required		Specify
7	Major Arm Speed	rpm	0-8
8	Minor Arm Speed	rpm	0-8
9	Control system		Microprocessor or PLC based
10	Dimensions of the machine	L x W x H (mtr)	Please specify
	PULVERISER		
11	Pulveriser type	-	Disc Mill
12	Disc diameter	mm	Max. 500
13	Raw Material Used	-	LLDPE / HDPE
14	Output	kg/Hr	Max. 60 - 80

15	Particle size	US Mesh	35 - 45
16	Vibro sieve	mm	Max. 1000
17	Blower Motor	HP	Please specify
18	Water Cooling at		Starter ,Rotar ,Main Shaft
19	Main Mill motor	HP	Specify
20	Connected load	KW	Specify
21	Machine Dimensions	-	Specify
22	Control Pannel	-	PLC control
23	Safety		Appropriate safety features to be provided, Alarm etc

19. Screen Printing Machine			
S.No	Items	Units	Specification
1	Print Area (Max.)	mm	300mm X 500 mm
2	Max. Sheet size	mm x mm	500 mm x 700 mm
3	Max. Speed	Impression/Hr	1400
4	Material type		silk screen
5	Power Consumption (Max.)	KW	5
6	Machine dimensions (LxWxH)	mtr	Please specify

20. Semi Automatic Horizontal Injection Moulding Machine 30-40T			
Sl. No	Item	Unit	Specication
Injection Unit			
1	Shot Capacity (in GPPS)	gms	Min. 35 and above
2	SCREW DIAMETER	mm	20-30
3	SCREW L/D RATIO	-	18:1 - 21:1
4	INJECTION PRESSURE	bar	Min.1600
5	INJECTION Speed	mm/sec	Specify
6	INJECTION RATE	cc/sec	Min. 20
7	PLASTICIZING RATE (GPPS)	gm/sec	Specify (higher will be preferred)
8	Max. SCREW SPEED	rpm	Min. 170
9	Heating Capacity	kw	Specify
Clamping Unit			
11	CLAMP FORCE	ton	30-40
12	Mould Opening Stroke	mm	Min. 180
13	MAXIMUM DAYLIGHT	mm	Min.350
14	MINIMUM MOULD HEIGHT	mm	Specify
15	Maximum Mould Height	mm	Min. 155 and above
16	PLATEN SIZE	mm	Specify
17	DISTANCE BETWEEN TIE ROD	mm	Min. 210 x 210 above
18	EJECTOR STROKE	mm	Min. 13
19	EJECTOR FORCE	ton	Min. 4
20	MOULD WEIGHT CAPACITY	kg	Specify
21	Clamping Mechanism	-	Specify
General			
22	Control System	-	Specify and Quote
23	T Slot Platen	-	Specify and Quote (T Slot is Preferred)
24	Water inlet & outlet manifold for Mould cooling	-	Min. 4/4 Channel
25	Hopper Capacity	Kg	Specify and Quote for suitable capacity
26	Essential/Standard spares	-	Specify and Quote (Standard Tool Kit, NRV, Thermocouple, Band Heater, Short/Extended Nozzle, SSR, Proximity Switch, Limit Switch, Mould Clamps, T-Nut and Studs, Etc.,)

27	MTC (Oil Type)	-	Specify and Quote
28	Safety	-	Specify the Special safety provisions
29	Motor load	-	Specify
30	Machine Dimensions (LxWxH)	-	Specify
31	Total connected load	-	Specify
32	Max. Power consumption @ full machine capacity	-	Specify (lower power consumption will be preferred)

21. Semi Automatic Vertical Injection Moulding Machine 20-25T			
Sl. No	Item	Unit	Specication
Injection Unit			
1	Shot Capacity (in GPPS)	g	Min. 30 and above
2	INJECTION PRESSURE	bar	Specify
3	INJECTION Speed	mm/sec	Specify
4	INJECTION RATE	cc/sec	Specify
5	Plasticizing capacity	Kg/Hour	Min. 8 and above
6	Heating Capacity	kw	Specify
Clamping Unit			
7	CLAMP FORCE	ton	20-25
8	Mould Opening Stroke	mm	Min. 150 and above
9	DISTANCE BETWEEN TIE ROD	mm	Min. 180 x 180 and above
10	Option for ejection	-	Specify
11	Clamping Mechanism	-	Specify
12	MOULD WEIGHT CAPACITY	kg	Specify
General			
13	Control System	-	Specify and Quote
14	T Slot Platen	-	Specify and Quote (T Slot is Preferred)
15	Water inlet & outlet manifold for Mould cooling	-	Min. 4/4 Channel
16	Hopper Capacity	Kg	Specify and Quote for suitable capacity
17	Essential/Standard spares	-	Specify and Quote
18	MTC (Oil Type)	-	Specify and Quote
19	Safety	-	Specify the Special safety provisions
20	Motor load	-	Specify
21	Machine Dimensions (LxWxH)	-	Specify
22	Total connected load	-	Specify
23	Max. Power consumption @ full machine capacity	-	Specify (lower power consumption will be preferred)