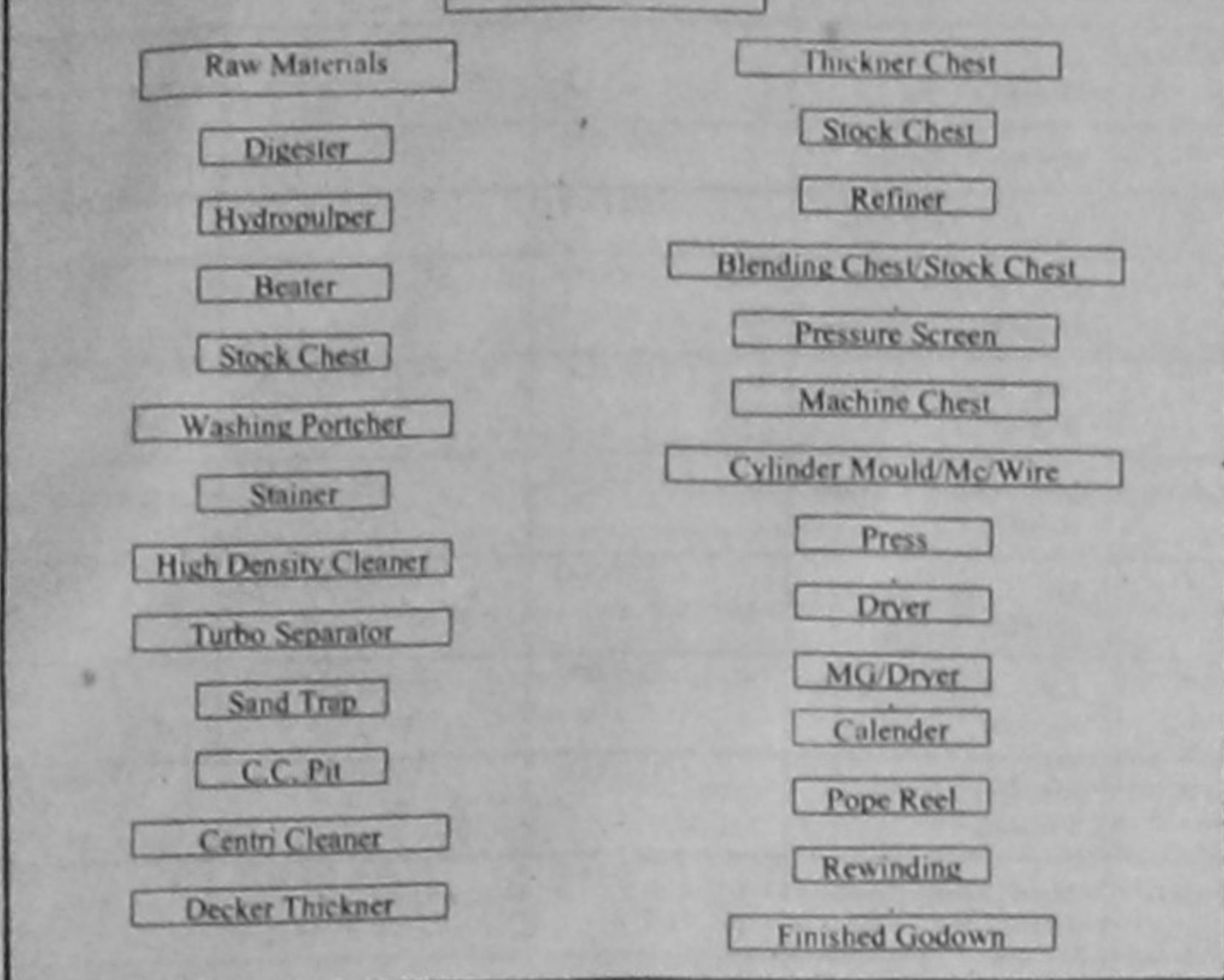


From Page 6

which is widely used in almost every business, non-business, Govt. and non-Govt. organisations. Like other papers demand for offset paper is increasing substantially with the increasing usefulness of photocopiers and computers as well as increasingly decreasing of manual works. In the backdrop of the situation HPPML is considering the project activity.

Production Process

FLOW CHART



DISTRIBUTION CHANNEL

The company will market and sell entire products through its agents. Agents will be employed after successful start of commercial operation.

COMPETITIVE CONDITION IN BUSINESS

A very few number of paper mills are producing Offset paper insignificantly in respect of country's demand. A sizeable quantity of specialty paper like offset paper, bond paper, Kraft paper etc. are imported every year to meet the requirement of the country at the cost of a substantial amount of foreign exchange. Recognizing above scenario, the country needs proper utilization of installed capacity of the existing paper mills and establishment of new paper mills with large production capacity.

It reveals from statistics that the country has 26 Paper and Board Mills in existence, both in the private and public sector.

Sl. No.	Paper Mills in Bangladesh	Installed capacity (in M. Ton)	Maximum attainable capacity 70% (average) (in M. Ton)
1.	Kurmapuhli Paper Mills Ltd.	21,000	14,700
2.	Khulna Newsprint Mills Ltd.	48,000	33,600
3.	North Bengal Paper Mills Ltd.	15,000	10,500
4.	Sylhet Pulp & Paper Mills Ltd.	30,000	21,000
5.	Bashundhara Paper Mills Ltd.	30,000	21,000
6.	T. K Paper Mills Ltd.	30,000	21,000
7.	Magura Paper Mills Ltd.	9,000	6,300
8.	Maq Paper Mills Ltd.	9,000	6,300
9.	Ashraf Paper Mills Ltd.	6,000	4,200
10.	Illash Brothers Paper Mills Ltd.	18,000	12,600
11.	Dhaka Paper Mills Ltd.	3,000	2,100
12.	Supreme Paper Mills Ltd.	1,000	700
13.	O. D Paper Mills Ltd.	9,000	6,300
14.	Universal Paper Mills Ltd.	3,000	2,100
15.	Konola Ushaf Paper Mills Ltd.	15,500	10,850
16.	Sonali Newsprint Mills Ltd.	18,000	12,600
17.	Hossain Pulp & Paper Mills	7,500	5,250
18.	Bangladesh Paper Mills Ltd.	2,400	1,680
Total		2,84,400	1,99,080

Sl. No.	Board Mills in Bangladesh	Installed capacity (in M. Ton)	Maximum attainable capacity 70% (average) (in M. Ton)
1.	Sonali Paper & Board Mills Ltd.	18,000	12,600
2.	Hossain Paper & Board Mills Ltd.	10,000	7,000
3.	Hakkani Paper & Board Mills Ltd.	9,000	6,300
4.	Tongi Board Mills Ltd.	300	210
5.	Eastern Straw Board & Paper Mills Ltd.	200	140
6.	Mufat Board Mills	30	21
7.	Madina Board Mills	450	315
8.	Shanewal Board Mills	180	126
Total		38,160	26,712

Source: Bangladesh Chemical Industries Corporation. Major paper and board mills shown above were established in the decade 1980-1990. A few mills in public sector were established immediately after liberation. Though the sector seems have sufficient capacity to meet the local demand but it was very unfortunate that it could not attain capacity at desired level. Rather a very poor production capacity was performed for different factors. Besides performance are decreasing every year which may be shown in Table-3 below. Some of the existing mills are not at all in operation. In the year 1993-94 it reveals that only 41% of the attainable capacity was produced which was very insignificant against corresponding demand of the respective year.

The use and demand of paper:

There is a very limited number of paper mills those who are producing Offset Paper insignificantly in respect of country's demand.

In recent years, it is also observed that interest is growing day by day among the general public of using computers and as such demands of off-set paper is increasing substantially with the increasing usefulness of photocopiers and computers. The consumption of these types of papers along with fax paper is also a significant quantity.

Bangladesh Chemical Industries Corporation has made a report of projected demand of paper for Third Five-Year Plan (Table-2).

Items	Projected Demand of Paper (Units in M. Ton)				
	1994-95	1995-96	1996-97	1997-98	1998-99
Paper all types except Newsprint	150,000	141,000	152,000	163,000	174,000
Newsprint	22,000	22,000	23,200	23,800	24,400
Paper Board	39,000	45,000	51,000	57,000	63,000
Total	191,000	208,000	226,200	243,800	261,400

The following table shows the local production of different grade papers (Table-3).

Paper & Paper Product	Grade wise local production of paper				
	1993-94	1994-95	1995-96	1996-97	1997-98
Writing	12,920	10,598	8,435	10,128	9,408
Printing	25,083	21,915	24,897	22,422	22,400
Packing & Others	6,285	7,223	8,497	7,290	6,400
Newsprint	46,527	43,062	43,972	27,675	7,673
Total	90,815	82,798	85,801	67,515	45,881

It reveals from Table-2 that the projected demand for the year 1997-98 was 243,800 M.Ton as against the production achieved at only 45,881 M. Ton. It indicates that there is an unbelievable supply gap of 197,919 M.Ton. Only a considerable part of the supply gap can be met by import of particular items.

Following table shows import value of paper items.

Items	Import (Taka in '000)				
	1993-94	1994-95	1995-96	1996-97	1997-98
Paper, Newsprint, Kraft paper,	1,215,923	2,182,327	3,094,881	6,932,513	4,314,525
Paper Board, Paper like paper					
Total					

From the scenario shown above it is obvious that the project HPPML will not face any problem to market its product in Bangladesh.

SOURCES AND AVAILABILITY OF RAW MATERIALS

The main raw materials of pulp are green and waste jute, jute yarn, cane caddies, paddy straw, rags and waste paper, which are locally available. The other raw materials are chemicals for pulp and paper those are available at local and foreign sources. Initially, the pulp will be procured from local market and also from foreign origin.

RELATIVE CONTRIBUTION TO SALES AND INCOME (PROJECTED)

Particulars	1 st year	2 nd year	3 rd year	4 th year	5 th year
Offset Paper	193,380	224,421	254,253	267,411	280,782
Writing & Printing Paper	126,576	147,155	166,420	175,033	183,785
Total Sales	319,956	371,576	420,673	442,444	464,566
VAT @ 15%	47,993	55,796	63,101	66,367	69,685
Net Sales	271,963	316,180	357,572	376,077	394,881
Net Profit	37,958	46,429	58,015	64,977	72,581
Net Profit/Net Sales	13.96%	14.68%	16.22%	17.28%	18.38%

The financials shown above are extracts from calculation of Techno-economic Feasibility Report of the project.

SOURCES AND REQUIREMENT OF POWER, GAS AND WATER

Power
The project requires a connected load of 2000 KW, which will be supplied by the HPPML distribution of power. The project also requires electrical substation (capacity of 2500 KVA) to be installed in the factory site.

Gas
To operate boiler, the project requires about 2.00 million cubic meter of gas annually at 100% capacity. The required gas will be supplied by the Titas Gas Transmission & Distribution Co. Ltd.

Water
A huge quantum of water is required for producing pulp and paper. The required water has to be obtained by installing two deep tube wells. The project also requires an underground water reservoir, overhead water tank and motor pump.

MANPOWER

The requirement of technical, managerial and other staffs of the project are as follows.

Sl. No.	Particulars	No. of Employee
01.	Secretary	1
02.	Manager	2
03.	Officers & Engineers	26
04.	Other staff	46
05.	Workers	101
06.	Total	176

DESCRIPTION OF PROPERTY

LOCATION OF THE PROJECT AND PROPERTY

PROJECT LOCATION
The project is located at Mouza - Halim Khanarchar, P.S. Potta, Dist. Chittagong on Chittagong - Cox's Bazar Highway where all infrastructural facilities like water, power, gas and internal roads are arranged. The project is set up on 5.71 acres of land.

REGISTERED OFFICE HEAD OFFICE
Hakkani is a prominent group in Chittagong. Group head office and registered office of HPPML is at their own 3 storied building on the main road of Paharshi, bearing holding no. 2, North Paharshi, Chittagong.

LAND AND LAND DEVELOPMENT
The land is situated at Mouza - Halim Khanarchar, P.S. Potta, Dist. Chittagong, measuring area of about 5.71 acres, where all infrastructural facilities like water, power, gas, electricity and internal roads are available. The cost of land is amounting to Tk.8.00 million including land development. The details of land and land development is as follows:

Details of Land and Land Development:		Tk.	
1. Value of land		5,000,000.00	
2. Value of stamp		500,000.00	
3. Registration charge		275,000.00*	
4. Soil & sand for land development including labour expenses		1,846,450.00	
5. Earth cutting for Road & labeling		7,000,000.00	
6. 2.10.000 cft. X 1.55 per cft.		3,255,000.00	
7. Labour & Suppression		53,050.00	
Total		8,000,000.00	

BUILDING AND OTHER CIVIL WORKS

The total construction cost of Factory Building including boundary wall, water reservoir, electrification and sanitation has been estimated at Tk. 325.51 lac. Factory building is designed by Union Technical Consult Ltd., House#G/22, Pallabi Extension, Dhaka-1221. There is no relationship between directors and Union Technical Consult Ltd.

Details of Building & Other Civil Works:

1. Machine House, R.C.C. Framed structure with R.C.C. roof. Area: 261'4" x 51'0" = 13,327.83 sq.ft.	@ Tk. 750/- sq.ft.	Tk. 99.96 lacs
2. Workshop, R.C.C. Framed structure with R.C.C. Roof. Area: 70'2" X 51'8" = 5,625.17 sq.ft.	@ Tk. 550/- sq.ft.	Tk. 42.07 lacs
3. Laboratory, Office and Store Building (One storied) R.C.C. framed structure. Area: 255'0" X 30'0" = 7,650 sq.ft.	@ Tk. 500/- sq.ft.	Tk. 11.30 lacs
4. Boiler House, R.C.C. Framed structure. Area: 61'8" X 36'8" = 2,264.44 sq.ft.	@ Tk. 550/- sq.ft.	Tk. 28.89 lacs
5. Finished Godown Building, R.C.C. Framed structures. Area: 101'8" X 51'8" = 5,253.28 sq.ft.	@ Tk. 550/- sq.ft.	Tk. 4.13 lacs
6. Power House Building, R.C.C. Framed Structure. Area: 25'0" x 30'0" = 750 sq.ft.	@ Tk. 550/- sq.ft.	Tk. 5.92 lacs
7. Chemical Storage Building, R.C.C. Framed. Area: 51'8" X 20'10" = 1,076.29 sq.ft.	@ Tk. 550/- sq.ft.	Tk. 8.76 lacs
8. Hydro Pulp Building, R.C.C. Framed structures. Area: 51'8" X 30'10" = 1,593 sq.ft.	@ Tk. 550/- sq.ft.	Tk. 23.11 lacs
9. Bitter Building, R.C.C. Framed structures. Area: 45'10" X 91'8" = 4,201.24 sq.ft.	@ Tk. 550/- sq.ft.	Tk. 12.61 lacs
10. Construction of Digester House, R.C.C. Framed structure (single storied). Area: 91'8" X 25'0" = 2,291.75 sq.ft.	@ Tk. 550/- sq.ft.	Tk. 18.07 lacs
11. Washing Powerhouse, R.C.C. Framed structures. Area: 91'8" X 35'10" = 3,284.53 sq.ft.	@ Tk. 550/- sq.ft.	Tk. 1.53 lacs
12. Construction of Pump House, R.C.C. Framed structure with R.C.C. roof (single storied) Area: 16'8" X 16'8" = 277.88 sq.ft.	@ Tk. 550/- sq.ft.	Tk. 24.86 lacs
13. Construction of Raw Materials Godown, R.C.C. Framed structure (one storied). Area: 101'8" X 44'8" = 4,519.92 sq.ft.	@ Tk. 440/- sq.ft.	Tk. 2.42 lacs
14. Construction of labour Toilet (one storied). Area: 36'X 15'0" = 549 sq.ft.	@ Tk. 400/- sq.ft.	Tk. 2.13 lacs
15. Construction of Guard Room, security Office, Labour Office, Guest Room and Toilet Area: 44'6" X 12' = 534 sq.ft.	@ Tk. 80/- cft.	Tk. 11.44 lacs
16. Brick Work	@ Tk. 75/- cft.	Tk. 0.61 lacs
17. Plain C. Work	@ Tk. 15/- sq.ft.	Tk. 0.49 lacs
18. Brick Siding		Tk. 0.49 lacs
19. Overhead Tank 20,000 Gallon		Tk. 5.00 lacs
20. Capacity		Tk. 80 lacs
21. (consultancy & Design Charges (Architectural, Structural, Electrical etc.)		Tk. 325.51 lacs

PLANT, MACHINERY AND EQUIPMENTS

The capital machinery of Japan origin worth at Tk.1,198.25 lac have already been procured locally and transferred to company vide vendors agreement dated 30 December 1996, and machinery of EEC origin for an amount of Tk.339.19 lac have been imported. According to IPO Rules 1998 of Securities and Exchange Commission a survey was performed by SGS Bangladesh Limited. According to survey report the machinery of Japan origin are unused/new and apparently in sound condition. The machineries are likely to have an estimated economic working life of 20/25 years. The machinery of EEC origin are procured in second hand condition. A boiler amount to Tk. 17.89 lac was also procured locally in second hand condition. In addition to the above, an amount of Tk. 180.99 lac is estimated to be incurred for local machinery and installation purpose.

Details of Plant, Machinery and Equipment:

Sl.#	Description of Machinery/G	Value/Price
1.	GLOBE DIGESTER Type: Globe Rotary Type Motor: 11 Kw X 4P-2 Diameter: 4267 mm Capacity: 40 m Rotaryspeed: 0.5 rpm Body: Welded mild steel, pressure limit 9Kg/CM Cast Iron Gun metal plain type Drive system: Major gear pinion, Intermediate gear pinion, Shaft bearing Complete with: safety valve, Pressure Gauge, Steam joint.	Tk. 8,311,125.00
2.	GLOBE DIGESTER Type: Rotary Globe Type Motor: 3.7 Kw X 4P-1 Diameter: 2438 mm Capacity: 7.5 m Rotaryspeed: 0.5 rpm Body: Welded mild steel, pressure limit 9Kg/CM Cast Iron Gun metal plain type Drive system: Major gear pinion, Intermediate gear pinion, Shaft bearing Complete with: safety valve, Pressure Gauge, Steam joint.	Tk. 5,376,007.00
3.	DISC REFINER Type: Disc Type Motor: 37 Kw X 4P-2 Disc: 610 m dia. Special Cast Iron. Reg: 1450 rpm Drive: Directly connected Bearing: Spherical Roller Bearing Complete with: Casting, Shaft, Shaft bearing, Gun Metal	Tk. 1,661,586.75
4.	DISC REFINER Type: Disc Type Motor: 75 Kw X 6P-1 Disc: 700 m dia. Special Cast Iron. Reg: 1000 rpm Drive: Directly connected Bearing: Spherical Roller Bearing Complete with: Casting, Shaft, Shaft bearing, Gun Metal	Tk. 1,054,904.25
5.	SCREEN PLATE CYLINDER BEARING Type: Centrifugal Type Bore: 100mm Rev: 1,450 rpm Head: 10 metres Capacity with: 1.1 m3/min Complete with: Sole Plate, Casting, Shaft, Shaft bearing, Gun Metal	Tk. 1,172,937.00
6.	CONVEYER PUMP Motor: 5.5 Kw X 4P-1 Type: Centrifugal Type Bore: 100 mm Rev: 1,450 rpm Head: 10 metres Capacity with: 0.5m3/min Bearing: Ball Bearing Complete with: Sole Plate, Casting	Tk. 152,625.00
7.	BEATER Type: Ordinary type Capacity: 800 lbs. Dia Bar: 120 rpm Dia metre: 1220 m dia X 122 m long Washing Drum: 1220m X 1400m long wooden make Tube: Concrete to be made Fly Bar Roll shaft: Steel Fly Bar: Carbon Steel Bed Bar: Carbon Steel Fly Bar Roll: Carbon Steel Moving Device: Hand Type Washing Drum: Steel Motor: 22 Kw X 8P-2 DRYPART = 1 SET 1 st Dry Part: 1524mm X 2400mm X 8 Pcs. 2 nd Dry Part: 1524mm X 2400mm X 8 Pcs. Pressure: 4 Kg/cm-1 set Cell-Semi Steel, Grind Finished Drain Device Cyphone type Dryer Bearing: Spherical Roller-32 Pcs. Bearing: Cast Iron Blade-16 Pcs. Rotary Joint - 16 Pcs. Canvas Stretcher: Cast Iron-4 sets Doctor: Steel Plate Blade Carrier Ventilator: Welded Steel Plate-Hood Motor: 7.5 Kw X 4P-1 Wind volume: 500m3/Min. Revolution: 1450 rpm Bore: 900mm dia CALENDER (8 SECTION) Chilled: 1 Pc Roll(Over75) Bottom Roll-407mm X 2140mm2 2 nd Bottom Roll-336mmQ X 2140mm2 Middle Roll-252mmQ X 2140mm2 Top Roll-356mmQ X 2140mm2 Sole Plate: Cast Iron Frame: Welded Mild Steel Steel Plate: 1 set Upper Frame: 1 set Roll moving device: 1 set Motor: 3.7 Kw X 6P-1 Warm Gear Drive: 8 sets Doctor Cast Iron Body Steel plate blade Pressure Drive Lever Type: 1 set POPE REEL = Drum Type: Semi-Steel Grind finished 916mm dia X 2140mm3-Pc Bearing: Spherical Roller Bearing Sole Plate: Cast Iron made - 1 set Frame: Cast Iron made - 1 set Primary Arm: Cast Iron made - 1 set Air pressure type - 1 set Secondary Arm: Cast Iron made - 1 set Air pressure type - 1 set Grinding Roll: 105mm dia X 2140mm2-10 Pc Roll Shell: Steel Pipe Bearing: Gun metal made, plain type SCREEN = 1 SET Type: Vertical Centrifugal type Motor: 11 Kw X 6P-1 Screen Cylinder: 610mm dia X 610mm long X 300 rpm Rev: 5.5 mm plate with hole Scraper: Hand Chromed Cast Iron Rotar: Steel Shaft, Cast Iron Rotar Sole Plate: Cast Iron HIGH DENSITY MILLER = 5 SET Capacity: 15 T/day Motor: 3.7 Kw X 4P-1 Intel Consistency: 0.8-1.2% Motor-1.5 KW X 1 Outlet Consistency: 10-12% Drum: 2000mm dia 1500 mm long Welded Mild Steel 5/5 with hole Screen Plate Cylinder Bearing: Spherical Roller Bearing Vat: Mild Steel with ew coat Inner painting Welded with steel Brass Pipe Screw Conveyer: Brass Pipe Shower pipe: Brass Pipe 125 MM CONVEYER PUMP = (Motor: 5.5 Kw X 4P-1) Type: Centrifugal Type Bore: 100 mm Rev: 1,450 rpm Head: 10 metres Capacity with: 1.1 m3/min Complete with: Sole Plate, Casting, Shaft, Shaft bearing, Gun Metal 100 MM CONVEYER PUMP = (Motor: 5.5 Kw X 4P-1) Type: Centrifugal Type Bore: 100 mm Rev: 1,450 rpm Head: 10 metres Capacity with: 0.5m3/min Bearing: Ball Bearing Complete with: Sole Plate, Casting	Tk. 499,500.00
8.	HYDRO PULPER Type: Vertical Batch type Capacity: 2.6 m Runner: 480 rpm Carbon Steel for Uredium structural use Collapsible type Tube: 1800 mm dia. Steel Plate Stand Frame: Steel Pipe 4 Pcs. Bearing: Spherical Roller Bearing Shaft: Steel Plate Strainer: Steel Plate with hole Motor: 6.7 Kw X 6P-1 BEATER = 2 SETS Type: Ordinary type Capacity: 800 lbs. Dia Bar: 120 rpm Dia metre: 1220 m dia X 122 m long Washing Drum: 1220m X 1400m long wooden make Tube: Concrete to be made Fly Bar Roll shaft: Steel Fly Bar: Carbon Steel Bed Bar: Carbon Steel Fly Bar Roll: Carbon Steel Moving Device: Hand Type Washing Drum: Steel Motor: 22 Kw X 8P-2 DRYPART = 1 SET 1 st Dry Part: 1524mm X 2400mm X 8 Pcs. 2 nd Dry Part: 1524mm X 2400mm X 8 Pcs. Pressure: 4 Kg/cm-1 set Cell-Semi Steel, Grind Finished Drain Device Cyphone type Dryer Bearing: Spherical Roller-32 Pcs. Bearing: Cast Iron Blade-16 Pcs. Rotary Joint - 16 Pcs. Canvas Stretcher: Cast Iron-4 sets Doctor: Steel Plate Blade Carrier Ventilator: Welded Steel Plate-Hood Motor: 7.5 Kw X 4P-1 Wind volume: 500m3/Min. Revolution: 1450 rpm Bore: 900mm dia CALENDER (8 SECTION) Chilled: 1 Pc Roll(Over75) Bottom Roll-407mm X 2140mm2 2 nd Bottom Roll-336mmQ X 2140mm2 Middle Roll-252mmQ X 2140mm2 Top Roll-356mmQ X 2140mm2 Sole Plate: Cast Iron Frame: Welded Mild Steel Steel Plate: 1 set Upper Frame: 1 set Roll moving device: 1 set Motor: 3.7 Kw X 6P-1 Warm Gear Drive: 8 sets Doctor Cast Iron Body Steel plate blade Pressure Drive Lever Type: 1 set POPE REEL = Drum Type: Semi-Steel Grind finished 916mm dia X 2140mm3-Pc Bearing: Spherical Roller Bearing Sole Plate: Cast Iron made - 1 set Frame: Cast Iron made - 1 set Primary Arm: Cast Iron made - 1 set Air pressure type - 1 set Secondary Arm: Cast Iron made - 1 set Air pressure type - 1 set Grinding Roll: 105mm dia X 2140mm2-10 Pc Roll Shell: Steel Pipe Bearing: Gun metal made, plain type SCREEN = 1 SET Type: Vertical Centrifugal type Motor: 11 Kw X 6P-1 Screen Cylinder: 610mm dia X 610mm long X 300 rpm Rev: 5.5 mm plate with hole Scraper: Hand Chromed Cast Iron Rotar: Steel Shaft, Cast Iron Rotar Sole Plate: Cast Iron HIGH DENSITY MILLER = 5 SET Capacity: 15 T/day Motor: 3.7 Kw X 4P-1 Intel Consistency: 0.8-1.2% Motor-1.5 KW X 1 Outlet Consistency: 10-12% Drum: 2000mm dia 1500 mm long Welded Mild Steel 5/5 with hole Screen Plate Cylinder Bearing: Spherical Roller Bearing Vat: Mild Steel with ew coat Inner painting Welded with steel Brass Pipe Screw Conveyer: Brass Pipe Shower pipe: Brass Pipe 125 MM CONVEYER PUMP = (Motor: 5.5 Kw X 4P-1) Type: Centrifugal Type Bore: 100 mm Rev: 1,450 rpm Head: 10 metres Capacity with: 1.1 m3/min Complete with: Sole Plate, Casting, Shaft, Shaft bearing, Gun Metal 100 MM CONVEYER PUMP = (Motor: 5.5 Kw X 4P-1) Type: Centrifugal Type Bore: 100 mm Rev: 1,450 rpm Head: 10 metres Capacity with: 0.5m3/min Bearing: Ball Bearing Complete with: Sole Plate, Casting	Tk. 654,900.00
9.	HYDRO PULPER Type: Vertical Batch type Capacity: 2.6 m Runner: 480 rpm Carbon Steel for Uredium structural use Collapsible type Tube: 1800 mm dia. Steel Plate Stand Frame: Steel Pipe 4 Pcs. Bearing: Spherical Roller Bearing Shaft: Steel Plate Strainer: Steel Plate with hole Motor: 6.7 Kw X 6P-1 BEATER = 2 SETS Type: Ordinary type Capacity: 800 lbs. Dia Bar: 120 rpm Dia metre: 1220 m dia X	