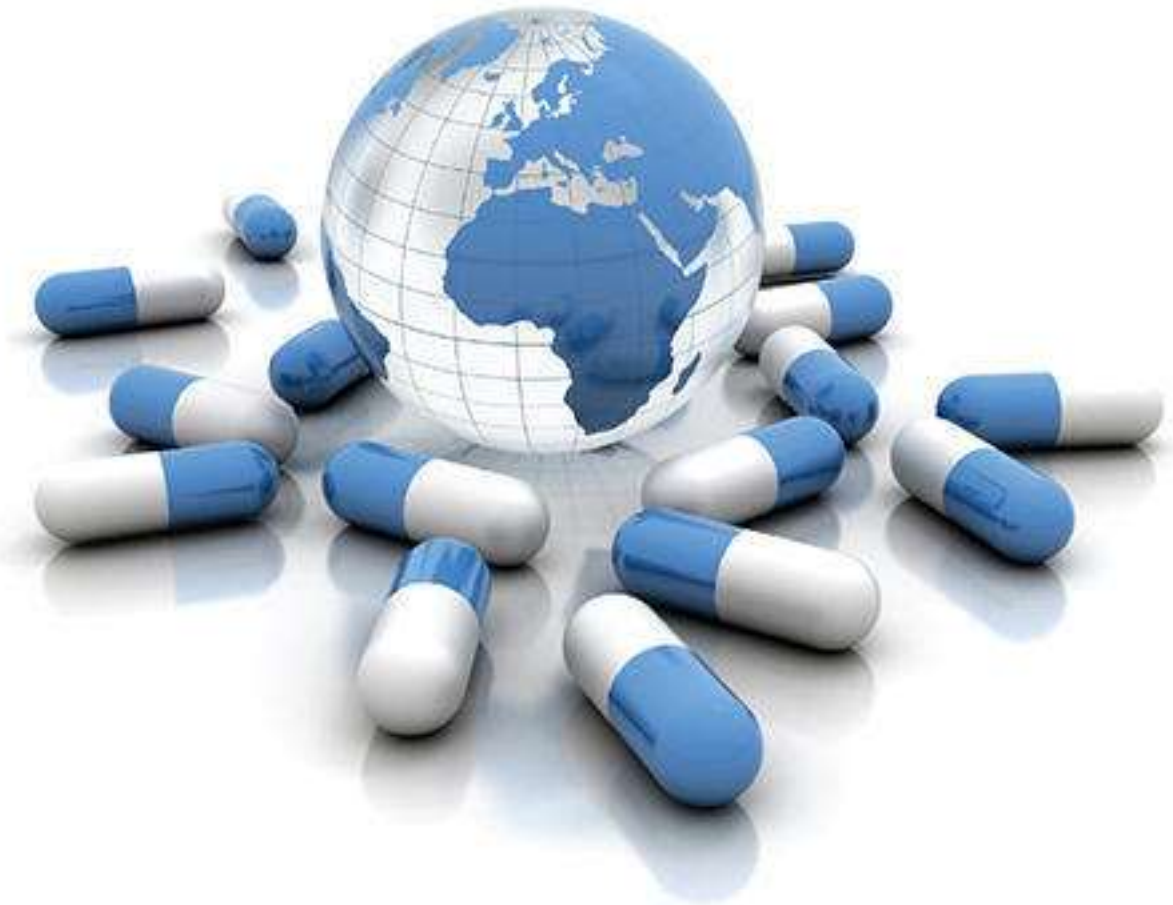

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INTRODUCTION:

XXXXXXXXXXXXX got incorporated to cater to health industry with keeping focus on quality, innovation, fair practices. The plant is being setup to comply to USFDA and EU standards. The Company would formulate and manufacture API Pellets, Sugar Spheres, Tablets, Capsules or desired pharmaceutical product lines and institutionalizing a professional set up for tapping the Domestic /Regulatory Market. We are focusing on solid oral dosage forms (Tablets / capsules) with immediate as well as modified release technology. We will be catering Granules for immediate release, modified release tablets, different range of pellets formulation ready to encapsulate, MUPS ready to compressed along with finished dose formulation of tablets and capsules. We have planning to design the facility / systems to meet all regulatory standards (like WHO, MHRA, USFDA etc.) and will be catering to domestic, ROW and highly regulated market. Our vision is to become a global healthcare organization and to be recognized as domestic and internationally integrated healthcare and pharmaceutical company through Innovation, Quality and Competence. Also, to become the leading pharmaceutical player in the industry by assuring high quality standards and cost effective products at all times.

APPLICANT PROFILE

NAME OF THE APPLICANT	-
NATURE OF PROPOSED PROJECT	-
SOURCES OF FUND	-
PROPOSED LOCATION	-
PROJECT DETAILS	*MANUFACTURING OF PHARMACEUTICAL PRODUCTS.*

BASIC DETAILS

1	**NAME**	-
2	**REGISTERED ADDRESS**	-
3	**CONTACT NUMBER**	-
4	**EMAIL ID**	-
5	**CIN NO**	-
6	**INCORPORATION DATE**	-
7	**PAN NO**	-
8	**GST NO**	-
9	**UDYAM REG. NO**	-
10	**SHOP ACT NO**	-

Prospects of Pharmaceuticals:

Pharmaceuticals are probably second most important need after food. No body can probably survive without food and medicines. As a result of the above fact, the need is ever increasing. The generally available medicines are in the form of Tablets, Capsules, Powders, ointments, injectable, suppositories & Liquids. Tablets, Capsules, Powders & Liquids are oral dosage forms which can be taken or administered to the patient easily. Administration of injectable requires the help of experienced doctor or pharmacist. Ointments are topical application, generally for treatment of pain/skin disorders/infections or for treating burns and spasm. Suppositories are used for rectal or vaginal disorders treatment and they are soft/semi solid medicines which can be used by the patient with some training.

Tablets, Capsules, Liquids and Powders constitute almost 80 % of the sale and volume of pharmaceutical over the world. The general categories are:

1. Analgesics-Pain Killers
2. Antipyretic- Treatment of fever
3. Vitamins-for general vitality
4. Antacids- Treatment of acidity
5. Antihypertensive- Treatment of blood pressure
6. Antidiabetic- Treatment of hyperglycemia.
7. Antibacterial- Treatment of bacterial infections.
8. Antibiotic- Treatment of higher resistant bacteria.
9. Anthelmentics- Treatment of worms & other stomach disorders.
10. Oral rehydration salts- For treatment of dehydration due to stomach disorders.

11. Sickness or Dry- Weather conditions

The liquids are normally used for the treatment of cough, fever, bacterial infections, stomach disorders or for general vitality in the form of vitamins.

The dosage of medicines depends upon age, sex, and degree of infection. Normally more care is exercised for children and women especially in the child bearing age).

World Health Organization (WHO) with its office in Geneva, Switzerland, has made strict guidelines for the manufacturing of medicines. WHO was established in 1948 and guides more than 200 countries today for the manufacturing of medicines. It has a vast backup and bank of knowledge. Though developed countries like US/UK have their own guidelines for import of medicines, it can be said that WHO guidelines form the basis for medicines all over the world.

WHO has given specific guidelines for plot selection, construction, electrical, painting, air handling, water handling, pollution control, drains, machines, flooring, personnel, stores etc. These guidelines are further strict for injectable. Since the injectable directly enter the blood stream and hence should be manufactured in the best of conditions. Sound documentation also plays a vital role in Quality Management.

PROMOTER'S PROFILE:

Location of Factory & Its Importance:

The plot should be spacious. It should be away from public sewage system or River or Hospital or Slaughter house. The plot should have space for security cabin, vehicle parking, Effluent treatment, scrap yard, underground water tank, utilities, gardening, etc. The plot should be surrounded by brick work or stone work to prevent entry of rodents or animals into the plant. Availability of good water and electricity are of course a must. Water needs to be further purified for pharmaceutical use. Good trained personnel is essence of any organization & continuous training is a must. Keeping all this in mind, ideal place in Maharashtra would be MIDC considering the area has been specially sanctioned for industrial purpose by the Government.

Proposed Technology & Its Details:

Sugar spheres: a versatile excipient for oral pellet medications with modified release kinetics. Sugar spheres are a widely used excipient for sustained-release pellet formulations. Pellets are a multiparticle, solid form of medication. The individual pellets are almost spherical with diameters usually between 100 and 2000 μm. Their history is related to two important development trends in pharmaceutical technology: the hard gelatin capsule as an alternative to tablets, and biopharmacy and its concept of modified release.

The hard gelatin capsule provided a method of oral medication, which made it possible to put powders or granules directly in a patient-friendly form with specific dosage.2 By mixing various components before filling the capsules or

with sequential filling of the capsule with these components, it was possible to combine partial quantities that differ in appearance, are incompatible with each other, or have differing release behavior, in one single dose. Pellets with their almost ideal spherical shape offer optimum mixing and flow behavior, making them ideal for this application.

At the same time, since the 1950s, biopharmacy has developed concepts for optimum control of active pharmaceutical ingredient (API) release in the gastrointestinal tract, in terms of location and time.3,4 In particular, the sustained release from a single application over a longer period of time (during the day) resulted in the development of mixtures whose individual components were given different quantities of a sustained release coating to ensure that the active substances are released accordingly at different points in time. Pellets with their reproducible, smooth surface were again the solution of choice.

These two developments together resulted in numerous pellet preparations. There were suitable pellet solutions for nearly all requirements, with a rapid increase in the market share of corresponding products. Formulas with pellets are still a modern form of medication, which offers an elegant solution even for new requirements.

Pellets are starter beads. They consist of microcrystalline cellulose, tartaric acid, sugar or other materials. The beads have not only a diameter between 100 and 1,400 µm but also show a comparably small size distribution. Subsequently, this allows defined drug layering of API (active pharmaceutical ingredient). Similarly, drug layering of excipients targets modified release times of your

product. Above all, perfect results can be obtained thanks to perfect pellet properties, such as low friability, high degree of sphericity and smooth surfaces.

n this paragraph, we shed some light on the principle of pellet technologies. In pellets technology, the API is fixed to the outside of a pellet by using a binder or by spray technology. To clarify, API contents of 0.1 % up to 80 % are possible. The pellet is also often coated with excipients (single or multiple coating), which take over technical functions. These functions are for example mechanical protection, or adjustment of the drug delivery system. Along with the selection of excipients, different drug release profiles can be achieved, such as delayed, targeted or pulsed release. Different process technologies can be employed for layering and coating. With pellet technologies you are able to create your best choice of oral dosage form for your application.

Pharmaceutical oral solid dosage forms have been used widely for decades mainly due to their convenience of administration and their suitability for delivery for delivery of drugs for systemic effects. The most commonly used pharmaceutical solid dosage forms today include granules, pellets, tablets and capsules. The tablets and capsules can be made directly from powders or from granules pellets, or from film-coated multiple units. Tablets are now the most popular dosage form, accounting for some 70% of all ethical pharmaceutical preparations produced. Tablets may be defined as solid pharmaceutical dosage forms containing drug substances with or without suitable diluents and prepared by either compression or molding methods. Hence, tablets can be broadly classified as compressed tablets and molded tablets. Compressed tablets can be

further classified as directly compressible tablets, chewable tablets and tablet triturates.

Pollution Control Measures:

The unit since involved in manufacturing of pharmaceutical products will be classified under Orange zone as per MPCB Norms. A separate waste discharge treatment setup will be established in the factory premised as per guidelines. Although no harmful effluents are released in the air but other waste released will be discharged as mentioned above and measures to adhere to the guidelines under the norms prescribed will be duly taken. The unit will apply for Consent to establish post allotment of proposed land under priority allotment scheme of MIDC.

❖ Sugar Spheres manufacturing procedure:

1. BMR is issued by QA to production department.
2. The requisite quantity of raw materials like starch and sugar are dispensed on a balance accurately.
3. The dispensed raw materials are used for binder solution preparation and pulverization.
4. Layering on sugar crystals is done in Coating pan.
5. After completion of layering, unload the material and proceed for drying in FBD.
6. After drying, material is sifted through required mesh size.
7. The sifted sugar spheres are sold after QC/QA release or can be used as a key excipient for the manufacturing of API pellets.

❖ Sugar Spheres Manufacturing Flow Chart

Dispensing of RM

↓

Binder Solution preparation

↓

Charge Sugar crystals in Coating Pan

↓

Layering

↓

Drying of in FBD

↓

Sifting of Sugar Spheres in Vibro sifter

↓

Coating in FBP

↓

Sifting of FBP Coated Sugar Spheres in Vibro Sifter

↓

Blending

↓

Sampling of Sugar Spheres

↓

Analysis testing

↓

Released by QA

↓

Packing

↓

Dispatch

❖ API Pellets manufacturing procedure:

1. BMR is issued by QA to production department.
2. The requisite quantity of raw materials like medicine (API) and other RM like L30D, PEG, Ethyl alcohol, etc are dispensed on a balance accurately.
3. The dispensed raw materials are used for drug, Seal coat & Enteric solution preparation and coating.
4. Sugar Spheres are loaded in FBP and drug, Seal coat & Enteric coat solution is sprayed on it stepwise.
5. The sifted API Pellets are sold after QC/QA release or can be used for filling in capsule.

❖ API Pellets Manufacturing Flow Chart

Dispensing of RM

↓

Drug Binder Solution preparation

↓

Preparation of Dry Blend (API and Other Excipient)

↓

Charge Sugar sphere in Coating Pan

↓

Stage -1 Drug Layering (DL) in Coating Pan /Drug Coating in FBP
(Spray Drug binder solution on Sugar spheres & Simultaneously layer the dry blend)

↓

Drying of Drug Pellets in FBP

↓

Sifting of coated DL pellets in Vibro sifter

↓

Stage -2 Seal coating (SC) on sifted DL pellets in FBP (Fluid bed processor)
(Seal coating solution to prepare and spray on Drug Pellets in bottom spray FBP Under specific controlled parameter)

↓

Sifting of coated SC pellets in Vibro Sifter

↓

Stage -3 Enteric Coating (EC) on sifted SC pellets FBP (Fluid bed processor)
[L-30 D polymer along with other excipient to be dissolved in water sprayed on Sifted Seal pellets]
[Coating in bottom spray FBP under specific controlled parameter]

↓

Sifting of EC pellets in Vibro Sifter

↓

Lubrication

↓

Sampling of EC pellets

↓

Analysis testing

↓

Released by QA

↓

Packing

↓

Dispatch

❖ Tablet manufacturing procedure:

1. BMR is issued by QA to production department.
2. The requisite quantity of raw materials like the medicine (API) and other excipients like Ethyl cellulose, HPMC, etc are dispensed on a balance accurately.
3. The dispensed raw materials are sifted on a clean sifter to remove impurities.
4. Size reduction should be carried out for better flow property and easy mixing.
5. The sifted raw materials are mixed in a blender for predetermined time for uniform medicine content.
6. Granulation process is carried out to gather small powder particles into layers and permanent aggregates to render them into free flowing states.
7. Screened wet granules are dried for a particular time period in fluid bed dryer at controlled temperature not exceeding 550 degree C . Dried granules are screened through the appropriate mesh screen.
8. Tablet compression involves the compression of granules into a flat or convex, round, oblong, or unique shaped, scored or unscored tablets; engraved with an identifying symbol and/ or code number using tablet press.
9. Coating of tablets & Granules is achieved by enclosing or covering the core tablet or granules with coating solutions.
10. Compressed tablets are checked for evaluation tests in Quality Control department.
11. The packed tablets are inspected to remove any defect.
12. The inspected tablets are packed into strip sealing or blister packing machine.
13. The strips or blisters are packed into cartons and sold after QC/QA releas

❖ Tablet Manufacturing Flow chart

Dispensing of RM

↓

Sifting

↓

Loading for Granulation & Mixing

↓

Binder Preparation

↓

Wet Granulation

↓

Wet milling if needed

↓

Drying in FBD

↓

Sifting of Lubricants

↓

Blending

↓

Compression

↓

Coating

↓

Inspection

↓

Packing

↓

Analysis testing

↓

Released by QA

↓

Dispatch

❖ Capsule manufacturing procedure:

1. BMR is issued by QA to production department.
2. The requisite quantity of raw materials like the medicine (API) and the diluents like Starch, Talcum, Aerosil are dispensed on a balance accurately.
3. The dispensed raw materials are sifted on a clean sifter to remove impurities.
4. The sifted raw materials are mixed in a blender for predetermined time for uniform medicine content.
5. The mixed material is filled into Hard Gelatin Capsules on a capsules filling machine. The weight is adjusted as per requirement.
6. During filling, the capsules are checked for disintegration time/weight, etc.
7. The filled capsules are inspected to remove any defect.
8. The inspected capsules are packed into strip sealing or blister packing machine.
9. The strips or blisters are packed into cartons and sold after QC/QA release.

❖ Capsule Manufacturing Flow Chart

Dispensing of RM

↓

Raw Material Sifting

↓

Sifting of Lubricants

↓

Blending

↓

Weighing

↓

Capsule Filling/Sealing

↓

Inspection

↓

Packing

↓

Analysis testing

↓

Released by QA

↓

Dispatch

Various Licenses Needed for Setting up a Pharma Unit:

Sr. No.	Name of Government Agency
1	Food and Drug Administration
2	State Industrial Development Corporation- MIDC
3	State Pollution Control Board- MPCB
4	State Electricity Board- MSEB
5	Labour Welfare Officer
6	Factory Inspectorate
7	Department of Legal Metrology (Weights & Measures)
8	Central Excise
9	Income Tax
10	Customs and State Excise
11	Sales Tax
12	Registrar of Companies
13	Provident Fund
14	Employees State Insurance Scheme
15	Corporate Tax
16	District Industry Centre- DIC
17	Local Body (Corporation, Grampanchayat, etc)
18	Foreign Exchange Regulation Act (FERA)
19	Bank or Financial Institution Audit

Time spam for getting these Licenses can vary from two to three months after filling the necessary forms and paying the fees.

Sugar Spheres, API Pellets, and Tablets & Capsules:

Proposed Assumed Capacity (Nos):

Products	**Per month No. of working Days: 25**	**Per day on Two Shifts basis of 8.00 Hrs**
Sugar Spheres	NA	NA
API Pellets	NA	NA
Tablets	2.50 Crore	10.00 Lac
Capsules	50.00 Lac	2.00 Lac

Proposed Assumed Capacity (Weight):

Products	**Per month No. of working Days: 25**	**Per day on Two Shifts basis of 8.00 Hrs**
Sugar Spheres	25000 Kg	1000 Kg
API Pellets	5625 Kg	225 Kg
Tablets (Avg. Wt. 400 mg)	10000 Kg	400 Kg
Capsules (Size 0)	3000 Kg	120 Kg

Assumption: Tablet-Weight-400 mg

Capsule-600 mg Filling

Implementation Schedule:

Particulars	Tentative Implementation Schedule
Environment Clearance from MPCB Consent to establish	Jan-2025
Registration in FDA	Jan-2025
Preparation and approval of plan from FDA.	Feb-2025
Start work of civil construction.	Feb-2025
Machines installation	Jun-2025
Factory Ready	Sep-2025
Application for issuance of Manufacturing License to FDA.	Sep-2025
Inspection of factory by FDA.	Oct-2025
Issuance of License by FDA.	Oct-2025
Start of manufacturing of products.	Nov-2025

Potential List of Customers:

1. Inventia Healthcare Ltd.
2. RA Chem Pharma Ltd.
3. Credo Lifesciences Pvt. Ltd.
4. Precise Chemipharma Pvt. Ltd.
5. Steller Formulations Industries Pvt. Ltd.
6. Sidmak Laboratories Ltd.
7. Pellets Pharma Ltd.
8. Ravoos Laboratories Ltd.
9. Murli Krishna Pharma Pvt. Ltd.
10. Sushen Medicamentos Pvt. Ltd.
11. Hetero Drugs Pvt. Ltd.
12. Biocon Limited
13. Eram Pharmed Iran
14. Square Pharmaceuticals Ltd., Dhaka, Bangladesh.
15. Eskayef Pharmaceuticals Ltd., Dhaka, Bangladesh.
16. KPT, Korea
17. Zim Laboratories.
18. Pratapa Nirmala, Indonesia
19. Athos Chemicals
20. Galpha Laboratories
21. Far East Century, Singapore

PROJECT OF
PHARMACEUTICALS MANUFACTURING

PROJECT COST & MEANS OF FINANCE	
Particulars	***Total***
Cost of Project	***(Rs. In Lakhs)***
Land	*Leased*
Building & Civil Construction	180.00
Plant & Machinery- List Attached	1,361.29
Miscellaneous Assets- Other Glass & Aluminium Assets	55.00
Working Capital	45.49
TOTAL	1,641.78
Means of Finance	
Promoters Contribution & Internal Sources	416.78
Term Loan	1,195.00
Cash Credit	30.00
TOTAL	1,641.78

PROJECT OF
PHARMACEUTICALS MANUFACTURING

Building & Construction

Sr.No	Description	Size (In Sq.Feet)	Cost / Sq. Feet	Amount (In Lakhs)
A	**Manufacturing Building**			
1	Ground Floor	12000	725	87.00
2	First Floor	10000	725	72.50
B	**Civil Infrastructure & Surrounding:**			
1	Parking			1.50
2	Surrounding wall			3.50
3	Security Cabin			1.40
4	Pavement			2.30
5	Gates			1.50
6	Rain Water Drains/ Plumbing			3.50
7	Fencing/Painting			4.00
8	Scrap Store			2.80
	Total			**180.00**

Note:- Civil cost includes Kotah stone, Epoxy, Aluminum fixtures, Composite Panel Doors, Windows & Painting.

PROJECT OF
PHARMACEUTICALS MANUFACTURING

Sugar Spheres Section:
Machines & Equipments for Sugar Spheres (1000.00 Kg Daily)

Sr.No	Machines	Nos.	Cost	Manufacturer
1	Coating Pan 48" (180 Kg)	10	50,00,000	xxx
2	Fluid Bed Dryer (FBD) 250 Kg	4	70,00,000	xxx
3	Vibro Sifter	10	12,00,000	xxx
4	Pulverizer	1	10,00,000	xxx
5	Octagonal Blender 750 Lit.	1	6,50,000	xxx
6	Sifter Sieves	30	90,000	xxx
7	SS Solution Tank 100 Liter	2	3,60,000	xxx
8	SS Solution Tank 50 Liter	2	2,40,000	xxx
9	SS Solution Tank 10 Liter	2	80,000	xxx
10	SS Solution Tank 5 Liter	2	50,000	xxx
Total			**1,56,70,000**	

API Pellets Section:
Machines & Equipments for API Pellets (225.00 Kg Daily)

Sr.No	Machines	Nos.	Cost	Manufacturer
1	**Fluid Bed Processor (FBP) 250 Kg**	**1**	**1,75,00,000**	xxx

Tablet/Packing Section:
Machines & Equipment for Tablet Dept. (For One Granulation Line): 10.00 Lac Tablets Daily

Sr.No	Machines	Nos.	Cost	Manufacturer
1	Electronic Balances 6.00 Kg & 300 Kg	02 Each	40,000	xxx
2	Fluid Bed Dryer (FBD) 120 Kg	1	30,00,000	xxx
3	Vibro Sifter	2	6,00,000	xxx
4	Multi Mill	2	7,00,000	xxx
5	Octagonal Blender 1200 Lit. 600 Kg	1	14,00,000	xxx
6	Sifter Sieves	6	38,000	xxx
7	Tablet Compression	1	35,00,000	xxx
8	De-dusters	2	5,00,000	xxx
9	Dust Extractor	1	5,00,000	xxx
	Goods Shifting Trolleys	3	6,00,000	xxx
	Drums	50	5,00,000	xxx
10	Pallets	50	2,50,000	xxx
	Scoops	20	30,000	xxx
	Chairs	50	3,00,000	xxx
Total			**1,19,58,000**	

Machines & Equipments for Packing Dept.

Sr.No	Machines	Nos.	Cost	Manufacturer
1	Blister Packing Machine with camera	1	80,00,000	xxx
2	Strip sealing machine	2	24,00,000	xxx
3	SS Conveyor Belts	3	10,00,000	xxx
4	Over Printing	3	8,50,000	xxx
Total			**1,22,50,000**	

Machines & Equipments needed in capsules (2.00 Lac Capsules Daily)

Sr.No	Machines	Nos.	Cost	Manufacturer
1	Electronic Balances 6.00 Kg & 300 Kg & 100 Gms	3	3,00,000	xxx
2	Sifter	1	3,00,000	xxx
3	Capsule Filling Machine	1	38,00,000	xxx
4	Capsule Polishing & Inspection Belt	1	3,50,000	xxx
5	Accessories / Size Zero, 1,2,3 change Parts	4	6,00,000	xxx
Total			**53,50,000**	

Machines & Equipments Needed in Stores:

Sr.No	Machines	Nos.	Cost	Manufacturer
1	Reverse Laminar Air Flow Sampling 7' x 4' x 3' One for Active & One for Inactive each		1500000	xxx
2	RLAF Dispensing (Active & Inactive)		1500000	xxx
3	Weighing Balances 6 Kg, 150 Kg,300 Kg	01 Each	1,00,000	xxx
4	Goods shifting Trolley (1 ton capacity)	1	2,00,000	xxx
5	Sampling rods 02	1 Set	1,00,000	xxx
6	Metallic pallets / HDPE	50	3,00,000	xxx
Total			**37,00,000**	

Other Ancillary Machines / Misc. Items:

Sr.No	Machines	Nos.	Cost	Manufacturer
1	Split A/C for Office 1.5 ton Each	15	9,00,000	xxx
2	Office furniture Table / Chair/ Computers	Lot	35,00,000	xxx
3	Chairs for workers & Canteen & Office	80	5,00,000	xxx
4	6 Air Curtain / Insect Killer	10	6,00,000	xxx
5	SS cross over benches/SS Lockers	Lumpsum	6,00,000	xxx
Total			**61,00,000**	

Engineering Services & Utilities:

Sr.No	Machines	Capacity	Quantity	Cost
1	Transformer Substation Items Power distribution records Power distribution cables Lighting distribution network	750 KVA	1	1,90,00,000
2	Air compressor	60 CFM	4	40,00,000
3	Water pre treatment & RO Plant & Water pumps	500 Litre/Hr	3	70,00,000
4	Emergency DG Set & Cables	500 KVA	1	15,00,000
5	Air Handling units with instrumentation			1,80,00,000
6	Misc. Exhaust / Blower (Toilet etc.)		20	20,00,000
Total				**5,15,00,000**

Note: The norms for water & ETP are very strict in WHO & Hence the costing is higher.

Instrument List for QC Department:

Sr. No.	Instrument of Instrument	Req. Qty.	Make	Cost (Rs.)
1	Karl fischer titrator	1	xxx	65,000.00
2	Ultrasonic cleaning bath (sonicator)	1	xxx	23,000.00
3	UV cabinet	1	xxx	6,000.00
4	Ph/conductivity/tds multiparameter	1	xxx	28,500.00
5	Tap/bulk density	1	xxx	62,500.00
6	Hot water bath	1	xxx	15,000.00
7	Hardness tester =monsanto type quote/ low cost	1	xxx	25,000.00
8	Cyclomixture	1	xxx	8,000.00
9	Vacuum pump for mobile phase filtration 22psi	1	xxx	9,500.00
10	Dissolution tester	1	xxx	1,50,000.00
11	Disintegration tester	1	xxx	38,000.00
12	Analytical balance	1	xxx	45,000.00
13	Precision balance (0.001g / 1mg)	1	xxx	55,000.00
14	High precision balance (0.01g / 10mg)	1	xxx	9,500.00
15	Microprocessor based sieve shaker	1	xxx	1,10,000.00
16	Friability tester	1	xxx	15,000.00
17	Validation kit	1	xxx	65,000.00
18	HPLC	1	xxx	20,00,000.00
19	Stability Chambers	3	xxx	45,00,000.00
20	UV-spectrophotometer	1	xxx	9,25,000.00
21	FTIR-Spectrophotometer	1	xxx	19,50,000.00
22	Autoclave	2	xxx	9,00,000.00
23	Laminar Air Flow Unit	1	xxx	2,00,000.00
24	Incubator	4	xxx	4,00,000.00
25	Microbiology Instruments		xxx	5,00,000.00
Total				**1,21,05,000.00**

PROJECT OF
PHARMACEUTICALS MANUFACTURING

PROFITABILITY PROJECTIONS FOR 5 YEARS

Particulars	1st Year	2nd Year	3rd Year	4th Year	5th Year
(A) Sales	967.32	1354.25	1692.81	2031.37	2336.08
(B) Raw Material Cost	498.42	706.19	882.74	1059.28	1218.17
(C) Total Cost of Production	66.67	90.76	111.89	120.85	130.59
(D) Gross Profit	402.23	557.30	698.18	851.24	987.32
(E) Interest					
On Term Loan	118.31	92.02	65.73	39.44	13.15
On Working Capital Loan	2.70	2.70	2.70	2.70	2.70
(F) Depreciation	230.44	196.78	168.07	143.59	122.71
(G) Operating Profit	50.78	265.80	461.69	665.52	848.77
(H) Provision for Tax	15.23	69.11	152.36	219.62	280.09
(I) Net Profit After Tax	35.55	196.70	309.33	445.90	568.67
D.S.C.R.					
Net Profit After Tax	35.55	196.70	309.33	445.90	568.67
Add : Depreciation	230.44	196.78	168.07	143.59	122.71
Interest on Term Loan	118.31	92.02	65.73	39.44	13.15
TOTAL	384.30	485.49	543.13	628.92	704.53
Yearly Repayment Obligation :					
Bank Term Loan	239.00	239.00	239.00	239.00	239.00
Interest on Term Loan	118.31	92.02	65.73	39.44	13.15
TOTAL	357.31	331.02	304.73	278.44	252.15
D.S.C.R.	1.08	1.47	1.78	2.26	2.79
Average D.S.C.R.	1.88				
Weighted D.S.C.R	1.80				

PROJECT OF
PHARMACEUTICALS MANUFACTURING

Total Sales

Particulars	Own				Contract Basis					
	Sugar Spheres (In Kg)	API Pellets (In Kg)	Tablets (Nos)	Capsule (Nos)	Sugar Spheres (In Kg)	API Pellets (In Kg)	Tablets (Nos)		Capsule (Nos)	
							With RM/PM	Only Filling	With RM/PM	Only Filling
Capacity / Day	1000.00	500.00	2650000.00	1120000.00	1000.00	500.00	2650000.00	1120000.00	2650000.00	1120000.00
Capacity / Month	25000	12500	66250000	28000000	25000	12500	66250000	28000000	66250000	28000000
Selling Price	130	500	-	-	-	325	0.1	0.01278	0.15	0.0629
Monthly Sales	3250000	6250000	-	-	-	4062500	6625000	357840	9937500	1761200
Yearly Sales at 100% Capacity	39000000.00	75000000.00	-	-	-	48750000.00	79500000.00	4294080.00	119250000.00	21134400.00
Total Sales (In Lakhs)	3869.28									

Raw Material & Processing Cost

Particulars	Own				Contract Basis					
	Sugar Spheres (In Kg)	API Pellets (In Kg)	Tablets (Nos)	Capsule (Nos)	Sugar Spheres (In Kg)	API Pellets (In Kg)	Tablets (Nos)		Capsule (Nos)	
							With RM/PM	Only Filling	With RM/PM	Only Filling
Capacity / Day	1000.00	500.00	2650000.00	1120000.00	1000.00	500.00	2650000.00	1120000.00	2650000.00	1120000.00
Capacity / Month	25000	12500	66250000	28000000	25000	12500	66250000	28000000	66250000	28000000
Raw Material & Processing Cost	50.00	400.00					0.06		0.10	
Cost at 100% Capacity	15000000	60000000					47700000		79500000	
Total Cost (In Lakhs)	2022.00									

PROJECT OF
PHARMACEUTICALS MANUFACTURING

Cost of Production

Sr.No	*Expenses*	*1st Year*	*2nd Year*	*3rd Year*	*4th Year*	*5th Year*
1	*Electricity Consumption*	38.40	53.76	67.20	73.92	81.31
2	*Direct Labour*	12.94	18.11	22.64	23.77	24.96
3	*Repairs & Maintenance*	5.20	6.56	7.76	8.14	8.55
4	*Salary*	2.24	2.36	2.47	2.60	2.73
5	*Administrative Expenses*	3.05	3.20	3.36	3.53	3.71
6	*Selling Expenses*	4.84	6.77	8.46	8.89	9.33
	Total Expenses	66.67	90.76	111.89	120.85	130.59

PROJECT OF
PHARMACEUTICALS MANUFACTURING

DIRECT EXPENSES

Particulars				Year 1	Year 2	Year 3
Electricity Consumption						
Particulars			**Unit**			
i) Total Connected Load (HP)			600			
ii) Total Connected load (KW)			480			
iii) Hours Worked			16			
iv) Load Factor			0.8			
v) Tariff Rate (Rs)			8			
vi) Working Days			250			
Total Cost at 100% Capacity (In Lakhs)			**153.60**	**38.40**	**53.76**	**67.20**
Direct Labour						
Labour Type	**Nos**	**Wages/Month**	**Cost/Annum (In Lakhs)**			
i) Superviser	2	15000.00	3.60			
ii) Operator	2	10000.00	2.40			
iii) Helper	6	8000.00	5.76			
Total			**11.76**			
Add: Fringe Benefits - 10%			1.176			
Total Cost for 1st Year			**12.94**	**12.94**	**18.11**	**22.64**
Repairs & Maintenance						
Assets		**Value**	**Cost (In Lakhs)**			
i) Building (Fixed)		180.00	1.80	1.80	1.80	1.80
ii) Plant & Machinery (Variable)		1361.29	13.61	3.40	4.76	5.96
Total Cost at 100% Capacity			15.41	**5.20**	**6.56**	**7.76**
TOTAL				**56.54**	**78.43**	**97.59**

PROJECT OF
PHARMACEUTICALS MANUFACTURING

INDIRECT EXPENSES

Particulars				Year 1	Year 2	Year 3
Salary						
The expenses will increase by 5% in the next year.						
Particulars	**Nos**	**Wages/Month**	**Cost/Annum (In Lakhs)**			
i) Watchman	1	7000.00	0.84			
ii) Accountant	1	10000.00	1.20			
Total			**2.04**			
Add: Contingency - 10%			0.20			
Total Cost for 1st Year			**2.24**	**2.24**	**2.36**	**2.47**
Administrative Expenses						
The expenses will increase by 5% in the next year.						
Particulars			**Cost (In Lakhs)**			
i) Office expenses			0.60			
ii) Insurance			0.25			
iii) Bank charges			0.15			
iv) Audit & Legal expenses			0.30			
v) Stationary & Printing			0.50			
vi) Travelling & Conveyance			0.25			
vii) Postage, Telegram & Telephone			0.50			
viii) Other Misc. Expenses			0.50			
Total Cost for 1st Year			**3.05**	**3.05**	**3.20**	**3.36**
Selling Expenses						
Includes Trade & turnover discount and other selling expenses						
Particulars			**Cost (In Lakhs)**			
i) Turnover in 1st Year (In Lakhs)			967.32			
Total Cost (In Lakhs)			**4.84**	**4.84**	**6.77**	**8.46**
TOTAL				**10.13**	**12.33**	**14.30**

PROJECT OF
PHARMACEUTICALS MANUFACTURING

Working Capital Requirement					
Particulars	***I Year***	***II Year***	***III Year***	***IV Year***	***V Year***
Stock of Finished Goods *(10 Days cost of Sale)*	14.54	20.60	25.75	30.90	35.53
Debtors *(1 Week of sales)*	30.95	43.34	54.17	65.00	74.75
Total	45.49	63.93	79.92	95.90	110.28
Net Working Capital Required	45.49	63.93	79.92	95.90	110.28
Bank Limit 75%	34.12	47.95	59.94	71.92	82.71
Say Rs.	30.00	30.00	30.00	30.00	30.00
Margin For WC	15.49	33.93	49.92	65.90	80.28
Interest on Bank Limit 12% for 9 months	2.70	2.70	2.70	2.70	2.70

PROJECT OF
PHARMACEUTICALS MANUFACTURING

SCHEDULE FOR INTEREST & REPAYMENT OF TERM LOAN

Term loan amount (in lakhs)	**1195.00**
Loan Tenure (in Months)	**60**
Moratorium Period (in Months)	**-**
No. of installments for Repayment (in Months)	**60**
Installment amount (in lakhs)	**19.92**
Rate of Interest	**11%**

Year	*Principal*	*Installment*	*Interest*	*Total Intt.*	*Balance*
Year 1	1195.00	239.00	118.31	118.31	956.00
Year 2	956.00	239.00	92.02	92.02	717.00
Year 3	717.00	239.00	65.73	65.73	478.00
Year 4	478.00	239.00	39.44	39.44	239.00
Year 5	239.00	239.00	13.15	13.15	-

PROJECT OF
PHARMACEUTICALS MANUFACTURING

DEPRECIATION CHART

(Rs. In Lakhs)

Year	Cost	Building 10%	P & M 15%	Total
1	Full Value	180.00	1416.29	1596.29
	Less: Depreciation	18.00	212.44	230.44
2	W.D.Value	162.00	1203.85	1365.85
	Less: Depreciation	16.20	180.58	196.78
3	W.D.Value	145.80	1023.27	1169.07
	Less: Depreciation	14.58	153.49	168.07
4	W.D.Value	131.22	869.78	1001.00
	Less: Depreciation	13.12	130.47	143.59
5	W.D.Value	118.10	739.31	857.41
	Less: Depreciation	11.81	110.90	122.71
6	W.D.Value	106.29	628.42	734.70

PROJECT OF
PHARMACEUTICALS MANUFACTURING

FUNDS FLOW ANALYSIS

	I	II	III	IV	V
SOURCES OF FUNDS					
Net Profit Before Tax	50.78	265.80	461.69	665.52	848.77
Add. Back Dep.	230.44	196.78	168.07	143.59	122.71
Capital Introduced	416.78	-	-	-	-
Term Loan from Bank	1195.00	-	-	-	-
Cash Credit	30.00	-	-	-	-
	1923.01	462.58	629.76	809.11	971.47
DISPOSITION					
Capital Exp	1596.29	-	-	-	-
Decrease in Term Loan (proposed)	239.00	239.00	239.00	239.00	239.00
Increase in C. Assets.	45.49	18.44	15.98	20.98	24.98
Income Tax	15.23	69.11	152.36	219.62	280.09
Withdawal / Drawings	24.00	36.00	48.00	72.00	96.00
	1920.02	362.55	455.34	551.60	640.08
(A) Surplus / Deficit	2.99	100.03	174.42	257.50	331.40
(B) Opening Balance	-	2.99	103.02	277.44	534.94
(C) Closing Balance (A+B)	2.99	103.02	277.44	534.94	866.34

PROJECT OF
PHARMACEUTICALS MANUFACTURING

PROJECTED BALANCE SHEET

	I	II	III	IV	V
Promoters Fund					
Opening Balance/Introduced	416.78	428.33	589.03	850.36	1224.25
Net Profit	50.78	265.80	461.69	665.52	848.77
	467.56	694.13	1050.71	1515.88	2073.02
Less : Income Tax	15.23	69.11	152.36	219.62	280.09
Withdrawal	24.00	36.00	48.00	72.00	96.00
Total - A	428.33	589.03	850.36	1224.25	1696.93
Loans & Advances					
Term Loan (proposed)	956.00	717.00	478.00	239.00	-
Total - B	956.00	717.00	478.00	239.00	0.00
Current Liabilities					
Cash Credit	30.00	30.00	30.00	30.00	30.00
Total - C	30.00	30.00	30.00	30.00	30.00
Total - A+B+C	1414.33	1336.03	1358.36	1493.25	1726.93
Fixed Assets					
Gross Block	1596.29	1365.85	1169.07	1001.00	857.41
Less : Depreciation	230.44	196.78	168.07	143.59	122.71
Total - A	1365.85	1169.07	1001.00	857.41	734.70
Net Current Assets	45.49	63.93	79.92	100.90	125.88
Cash	2.99	103.02	277.44	534.94	866.34
Total - B	48.48	166.96	357.36	635.84	992.22
Total - A+B	1414.33	1336.03	1358.36	1493.25	1726.93

PROJECT OF
PHARMACEUTICALS MANUFACTURING

Break Even Point (BEP)

Calculation of Break Even Point (BEP)

Year	***1st***	***2nd***	***3rd***	***4th***	***5th***
(A) Sales	967.32	1354.25	1692.81	2031.37	2336.08
(B) Variable Cost					
Raw Material Cost	498.42	706.19	882.74	1059.28	1218.17
Power Cost -80%	30.72	43.01	53.76	59.14	65.05
Labour	12.94	18.11	22.64	23.77	24.96
Repair & Maintaince	5.20	6.56	7.76	8.14	8.55
Admin Exp -40%	1.22	1.28	1.35	1.41	1.48
Selling Exp	4.84	6.77	8.46	8.89	9.33
Interest On W/c	2.70	2.70	2.70	2.70	2.70
Total (B)	556.04	784.62	979.40	1163.33	1330.25
(C) Contribution (A-B)	411.29	569.63	713.41	868.04	1005.83
(D) Fixed Cost					
Power Cost -20%	7.68	10.75	13.44	14.78	16.26
Admin Cost - 60%	1.83	1.92	2.02	2.12	2.22
Interest on Term Loan	118.31	92.02	65.73	39.44	13.15
Depreciation	230.44	196.78	168.07	143.59	122.71
Total (D)	358.26	301.47	249.25	199.93	154.34
(E) P/V Ratio (C/A)	***42.52%***	***42.06%***	***42.14%***	***42.73%***	***43.06%***
(F) BEP In Sales Value - INR (D/E)	***842.60***	***716.71***	***591.44***	***467.86***	***358.46***

PROJECT OF
PHARMACEUTICALS MANUFACTURING

Calculation of Internal Rate of Return

Year	***0***	***1***	***2***	***3***	***4***	***5***
Cash Inflow						
Net Profit After Tax	-	50.78	265.80	461.69	665.52	848.77
Add: Depreciation	-	230.44	196.78	168.07	143.59	122.71
Add: Interest on WC		2.70	2.70	2.70	2.70	2.70
	-	*283.93*	*465.28*	*632.46*	*811.81*	*974.17*
Cash Outflow						
Initial Investment	***1596.29***	-	-	-	-	-
Working Capital	***-***	*45.49*	*18.44*	*15.98*	*20.98*	*24.98*
	1596.29	*45.49*	*18.44*	*15.98*	*20.98*	*24.98*
Net Flow (A-B)	*-1596.29*	*238.43*	*446.84*	*616.47*	*790.83*	*949.19*
IRR = 20.74%						

PROJECT OF
PHARMACEUTICALS MANUFACTURING

Pay-back Period

Year	*Cash Outflow*	*Cash Inflow*	*Cumulative Cash Flows*
	A	***B***	
1	416.78	2.99	-413.79
2	-	100.03	-313.76
3	-	174.42	-139.34
4	-	257.50	118.16
5	-	331.40	449.56

The Payback Period for recovering Initial Investment is: 3.54 years

PROJECT OF
PHARMACEUTICALS MANUFACTURING

PROFITABILITY PROJECTIONS FOR 7 YEARS CONSIDERING FALL IN SALES BY 5%

Particulars	*1st Year*	*2nd Year*	*3rd Year*	*4th Year*	*5th Year*
(A) Sales	918.96	1286.54	1608.17	1929.81	2219.28
(B) Raw Material Cost	498.42	706.19	882.74	1059.28	1218.17
(C) Total Cost of Production	66.67	90.76	111.89	120.85	130.59
(D) Gross Profit	353.87	489.58	613.54	749.67	870.51
(E) Interest					
On Term Loan	118.31	92.02	65.73	39.44	13.15
On Working Capital Loan	2.70	2.70	2.70	2.70	2.70
(F) Depreciation	230.44	196.78	168.07	143.59	122.71
(G) Operating Profit	2.42	198.09	377.05	563.95	731.96
(H) Provision for Tax	-	59.43	113.11	169.19	219.59
(I) Net Profit After Tax	2.42	138.66	263.93	394.77	512.37
D.S.C.R.					
Net Profit After Tax	2.42	138.66	263.93	394.77	512.37
Add : Depreciation	230.44	196.78	168.07	143.59	122.71
Interest on Term Loan	118.31	92.02	65.73	39.44	13.15
TOTAL	351.17	427.46	497.73	577.79	648.23
Yearly Repayment Obligation :					
Bank Term Loan	239.00	239.00	239.00	239.00	239.00
Interest on Term Loan	118.31	92.02	65.73	39.44	13.15
TOTAL	357.31	331.02	304.73	278.44	252.15
D.S.C.R.	0.98	1.29	1.63	2.08	2.57
Average D.S.C.R.	1.71				

PROJECT OF
PHARMACEUTICALS MANUFACTURING

Ratio Analysis

Sr.No	***Ratios***	***1st Year***	***2nd Year***	***3rd Year***	***4th Year***	***5th Year***
1	*Debt Equity Ratio (in Times)*	2.30	1.27	0.60	0.22	0.02
2	*Current Ratio (in Times)*	1.62	5.57	11.91	21.19	33.07
3	*Quick Ratio (in Times)*	1.13	4.88	11.05	20.00	31.37
4	*Gross Margin (In %)*	41.58%	41.15%	41.24%	41.90%	42.26%
5	*Net Margin (In %)*	3.67%	14.52%	18.27%	21.95%	24.34%
6	*Return on Equity (In %)*	8.53%	47.19%	74.22%	106.99%	136.44%
7	*Return on Assets (In %)*	3.59%	19.90%	33.99%	44.57%	49.15%