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عن
مشروع تصنيع اويل سليل
مقدمة الى
مؤتمر رجال الاعمال والمستثمرين العرب الثالث
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Project Profiles

Oil Seals

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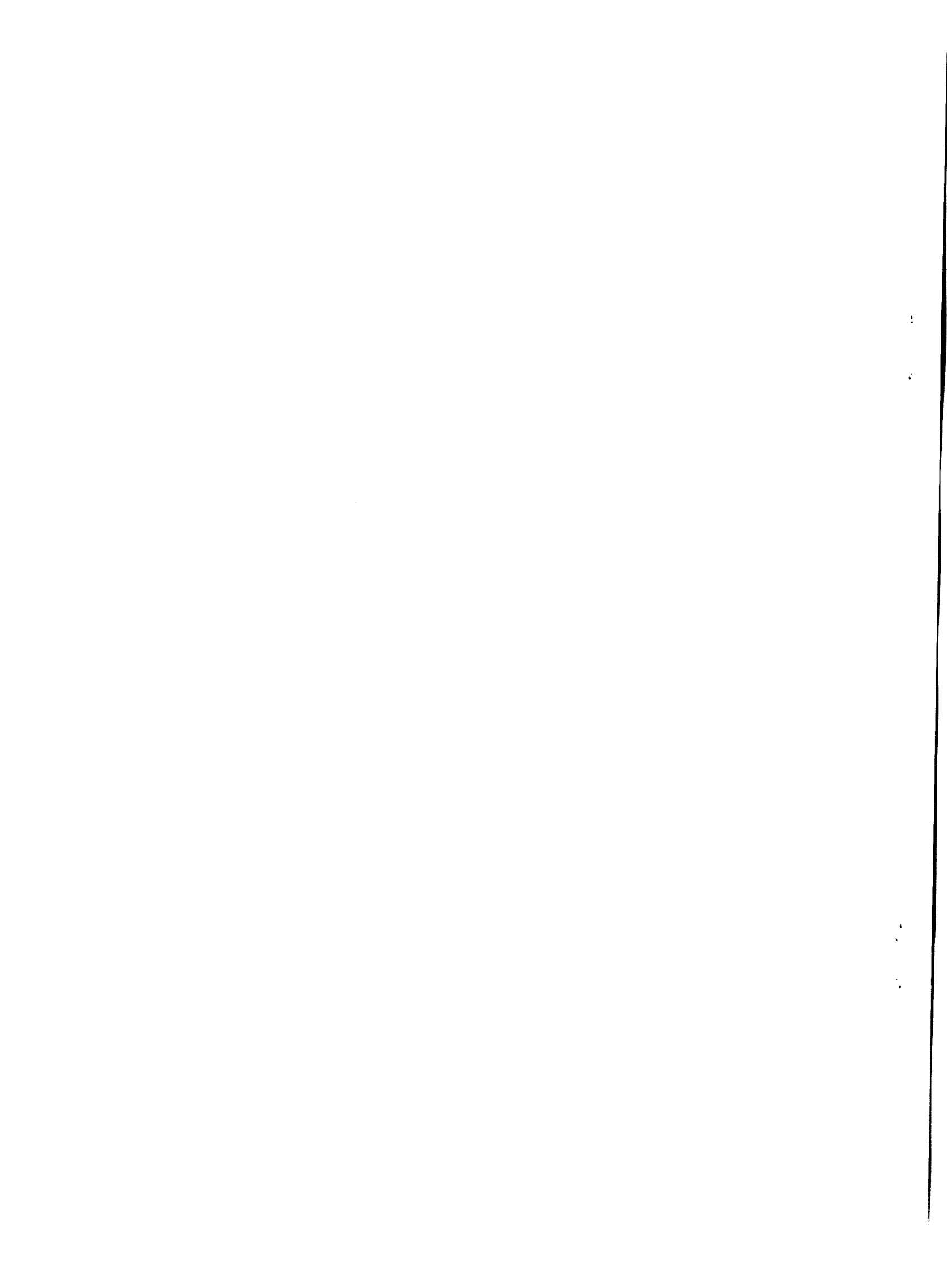
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ملخص مؤشرات المشروع

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- اسم المشروع : مشروع تصنيع اويل سيل
- الانتاج : اويل سيل بكافة انواعها
- حجم السوق (منطقة الاسكوا) : ١٢ر٨ مليون وحدة سنة ١٩٩٠ ويزداد الى ١٧٥ مليون وحدة سنة ٢٠٠٠ .
- الطاقة التصميمية للمشروع : ١٠ ملايين وحدة
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Oil Seals

1. Introduction

Oil seal is rubberised metal component used in machinery items, particularly automotive equipment, to prevent oil leakage under high pressed and temperature conditions. The specification of oil seals both in terms of material specifications and dimensional accuracy are very stringent. From a safety angle also oil seal is a critical production and any unexpected failure therefore, could lead to accidents. Oil seals are of different types, sizes and specifications depending upon the type of vehicle they are fitted in. These have regular replacement market.

2. Demand

Oil seals are fast moving components for the replacement market. The frequency of change of oil seals varies from vehicle to vehicle and their operating conditions. The demand is in direct proportion to the population of various vehicles and the replacement frequencies.

Based on the experience of certain developing countries and taking into consideration, operating conditions in ESCWA region*, the following replacement norms have been adopted:

<u>Class of Vehicle</u>	<u>Replacement nos. per year</u>
Passenger cars	1
Light Commercial vehicles (up to 14 tons GVW)	3
Heavy Commercial vehicles	4
Buses	3

The population of vehicles as projected for ESCWA region is shown hereunder.

* ESCWA region incorporates the following member countries: Bahrain, Egypt, Iraq, Jordan, Kuwait, Lebanon, Oman, Qatar, Saudi Arabia, Syria, U.A.E., Yemen Arab Republic (YAR), People's Democratic Republic of Yemen PDRY and PLO.

<u>Class of Vehicle</u>	Population	
	<u>1990</u>	<u>2000</u>
Passenger Cars	6,000,000	8,000,000
Light Commercial vehicles	1,600,000	2,300,000
Heavy Commercial vehicles	400,000	500,000
Buses	130,000	186,000

Accordingly the demand for oil seals is worked out as shown under:

<u>Class of Vehicle</u>	Demand million (nos.)	
	<u>1990</u>	<u>2000</u>
Passenger Cars	6	8
Light Commercial vehicles	4.8	6.9
Heavy Commercial vehicles	1.6	2.0
Buses	.4	.6
Total	12.8	17.5

3. Technology and Process of Manufacture:

As already stated oil seal is essentially a product involving two technologies, namely, rubber technology and metal working technology. The metal components are press formed and machined to give the desired accuracy. They are then bonded with rubber compounds and machined again to required specifications. Considerable advancement has been made in the rubber compounding technology with the varieties of rubber chemicals, synthetic rubber and application of silicons in the manufacture of rubber components. It will therefore be seen that oil seals though relatively a low priced product involves in its manufacture, sophisticated technology embracing more than one discipline.

4. Plant Capacity

The replacement demand estimated is about 13 million in 1990 going up to 18 million in 2000 justifies the establishment of more than one unit for the manufacture of this critical item. It is recommended the unit should have a capacity of 10 million nos. per annum during the first phase.

5. Capacity 10.0 million nos. per year

6. <u>Cost of Project</u>	<u>\$ Million</u>
Land 3000 sqm	0.06
Building 1000 sqm	0.80
Plant and Machinery	1.20
Misc. Expenses	0.20
	<u>2.26</u>

7. Manpower Requirement: As Estimated Below:

Designation	Salary p.m. \$	No.	Amount p.m. \$
Manager	4,000	2	8,000
Engineers	3,000	5	15,000
Foremen, Technicians	1,500	18	27,000
Skilled Workers	1,000	30	30,000
Unskilled Workers	600	50	30,000
Administration	1,000	12	12,000
		<u>117</u>	<u>122,000</u>
Total for a year			<u>1.46 million</u>

8. Turnover \$ 5.0 million

9. <u>Inputs</u>	<u>\$ Million</u>
Raw materials	1.75
Consumables	0.35
Salaries & wages	1.46
Repairs & maintenance	0.08
Power 300 KW	0.06
Misc. Manufacturing expenses	0.10
Sales and Services	0.10
Interest	0.40
Depreciation	0.16
	<u>4.46</u>
10. Net Profit before tax	<u>4.46</u> \$ 0.54 million

10. Net Profit before tax

\$ 0.54 million