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ملاح اساسية عن
مشروع تصنيع الكاسكيت
مقدمة الى
مؤتمر رجال الاعمال والمستثمرين العرب الثالث
٢٨ - ٣٠ نيسان ١٩٨٦
الكويت

Project Profiles

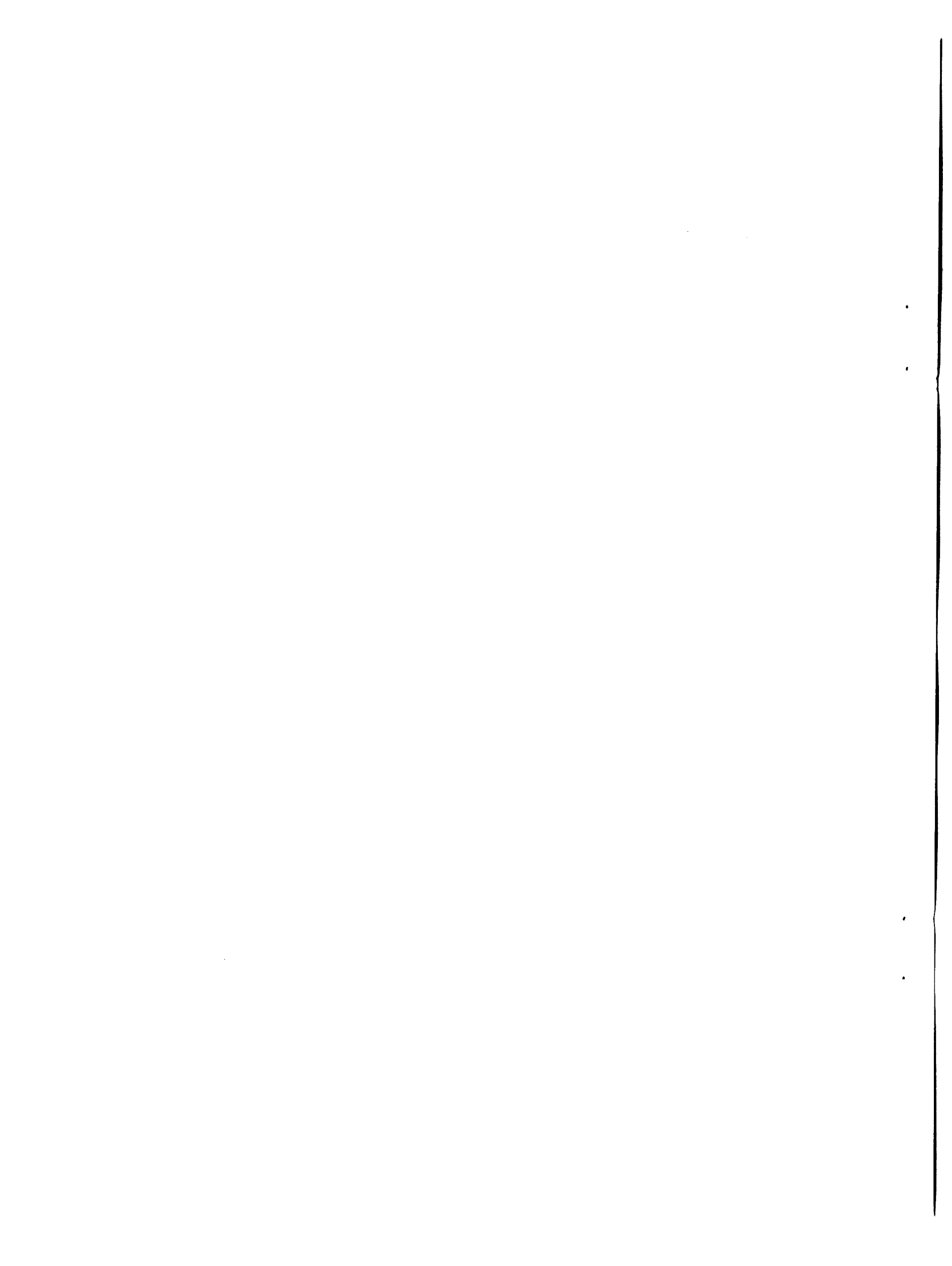
G A S K E T S

Presented to

Third Arab Entrepreneurs Conference

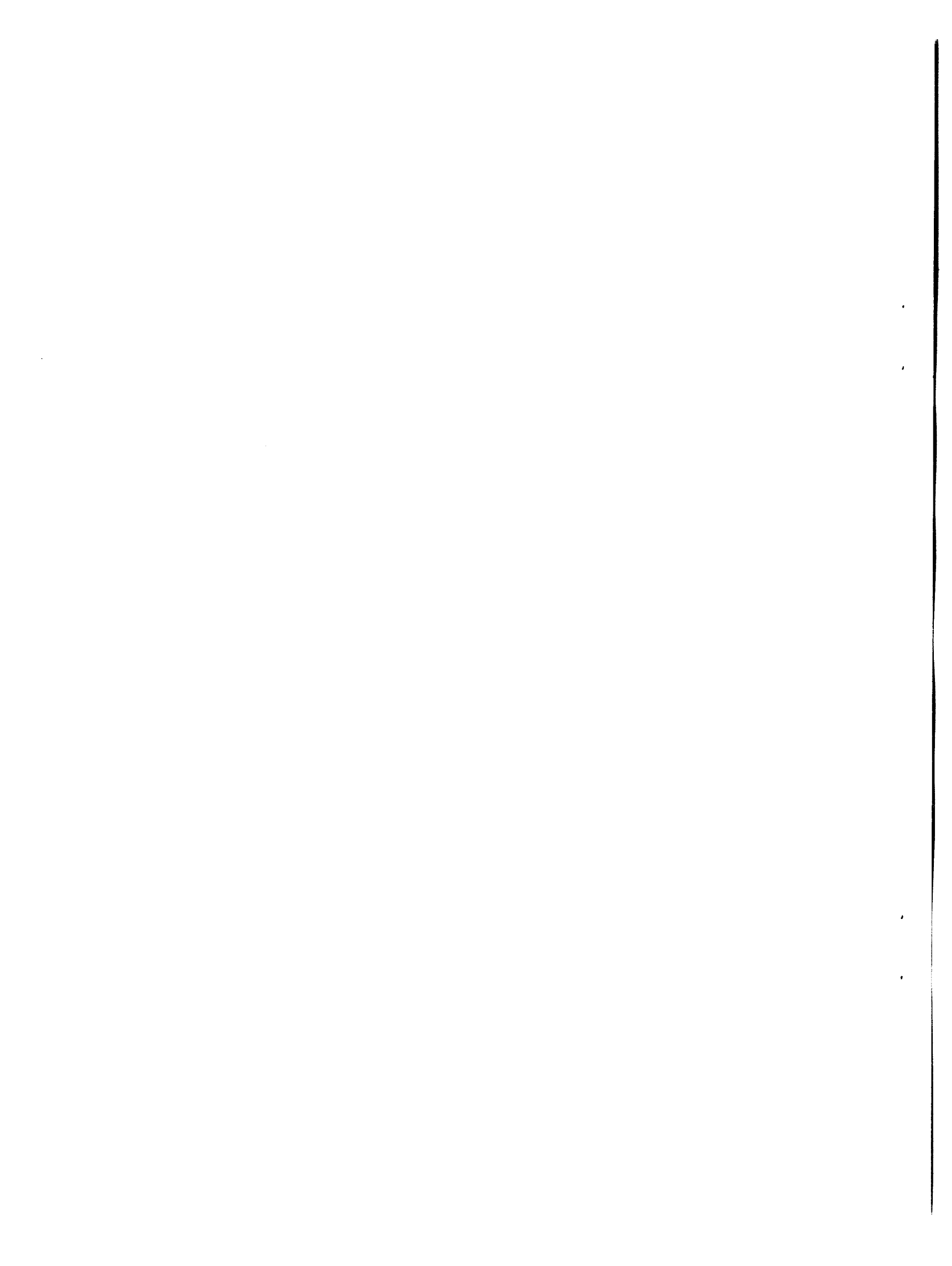
28-30 April 1986

K u w a i t



ملخص مؤشرات المشروع

- اسم المشروع : مشروع تصنيع الكاسكيت
- الانتاج : الكاسكيت بكافة انواعه
- حجم السوق (منطقة الاسكوا) : ١٣٩ مليون وحدة في سنة ١٩٩٠ ويزداد الى ١٩٢ مليون وحدة في سنة ٢٠٠٠ .
- الطاقة التصميمية للمشروع : ٥٠ مليون وحدة
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GASKETS

1. Introduction

Gasket is a static sealing media used between 2 machined or formed surfaces to prevent leakages of the fluids within. Gaskets can generally be classified into two general types:

(a) Metallic gaskets such as cylinder head gaskets where a thin metal such as copper or tin plate is used to prevent burning of the soft material such as asbestos.

(b) Soft gaskets used in cylinder head cover, oil pan, gear boxes, water pump etc.

2. Demand

Gaskets are fast moving components for the replacement market. The frequency of change of gaskets 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:

Class of vehicle	No.of gaskets/ vehicle (Nos)	Replacement frequency (years)	Replacement requirement per year (Nos)
Passenger cars	50	4	12.5
Light commercial vehicles (up to 14 tonnes GVW)	50	2	25.0
Heavy commercial vehicles	70	2	35.0
Buses	70	2	35.0
Tractors	70	2	35.0

* 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), Yemen People's Democratic Republic (PDRY) and PLO.

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The population of vehicles, as projected, for ESCWA region is shown below:^{1/}

Class of vehicle	Population	
	1990	2000
Passenger cars	6,000,000	8,000,000
Light commercial vehicle	1,600,000	2,300,000
Heavy commercial vehicle	400,000	500,000
Buses	130,000	186,000
Tractors	150,000	213,000

Accordingly the demand for gaskets is marked out as shown under:

Class of vehicle	Demand yearly (million)	
	1990	2000
Passenger cars	75	100
Light commercial vehicles	40	59
Heavy commercial vehicles	14	18
Buses	5	7
Tractors	5	8
Total	139	192

3. Manufacturing Process

Soft gaskets are usually punched out. In the case of hard gaskets the operations involved are punching separate layers, forming, assembly and closing and fitment of eyelets to mention the more important operations. Relatively the technology involved is low to medium technology. Particularly in the case of cylinders head gaskets, the product has to withstand high

^{1/} For more details refer to "Study on the Integrated Development of Manufacturing Facilities for Automotives. Framework for Regional Cooperation" Joint ESCWA/UNIDO Industry Division - Baghdad 1986.

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temperature and pressure measuring perfect sealing between cylinder head and cylinder block. Raw material selection and appropriate forming technology, therefore, play an important role in the manufacture of these gaskets.

4. Plant Capacity

The demand as worked out earlier for all types of gaskets is of the order of 140 million pcs in 1990 and going upto 190 million pcs in 2,000. This large volume of demand justifies establishment of more than one manufacturing facilities in ESCWA region. Moreover, the product does not call for heavy investment, and as such is an ideal project for the entrepreneurs in the private sector. A unit with annual capacity of 50 million gaskets is considered a viable unit.

5. <u>Capacity</u>	50 million pcs per annum
6. <u>Cost of project</u>	<u>\$ Million</u>
Land 10,000 sq.m.	0.2
Building	0.80
Plant and machinery	0.4
Miscellaneous expenses	<u>0.2</u>
	<u>1.6</u>

7. Manpower Requirement: As estimated below:

Designation	Salary p.m. \$	No.	Amount (\$)
Manager	4,000	1	4,000
Engineer	3,000	1	3,000
Forman	1,500	2	3,000
Skilled worker	1,000	10	10,000
Unskilled workers	600	20	12,000
		<u>34</u>	<u>32,000</u>
Total per year			\$ 0.384 million

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8. <u>Turnover</u>	\$ 7.5 million
9. <u>Inputs</u>	<u>\$ (million)</u>
Raw materials	4.88
(Cold rolled copper strips, cold rolled steel strips, tin plate, asbestos/paper sheets, cork rubberised cork. compressed asbestos fibre jointing beater treated asbestos).	
Consumables	0.22
Power 200 KW	0.05
Labour	0.38
Misc. manufacturing expenses	0.05
Repairs and maintenance expenses	0.05
Interest	0.30
Depreciation	0.10
Total	<u>6.03</u>
10. <u>Net profit before tax</u>	1.47 million