

Infrastructure Sector



ESTABLISHING A METAL WORKSHOP

Introduction

This is a business idea premised on setting up a metal workshop to fabricate different items for stocking for any buyer to pick at will and also to fabricate on order. The establishment of a modern workshop would require an estimated fixed capital of US\$ 3,016 and operating costs of US\$ 119,612 generating revenue of US\$ 164,786 in the first year of operation. The workshop would be able to fabricate a variety of items as demand dictates and among others doors, windows, beds, chairs, and gates would be produced and stocked.

Production Capacity, Technology and Process

The process involves the cutting of the plates, tube pipes, angle lines, hollow sections and bars for a particular item, assemble them into an article, weld and grind them. Then, filler paste is applied where necessary and thereafter the article is sprayed.

Capital Investment Requirements in US\$

Capital Investment Item	Units	Qty	@	Total
Welding Machine	No	1	500	500
Vice	No	2	130	260
Welding Machine	No	1	240	240
Grinding Machine	No	2	100	200
Hack Saw blade	No	2	10	20
Drilling Machine	No	2	100	200

Compressor/Spraying	No	1	500	500
Welding Torch	No	2	25	50
Welding Guards	No	2	8	16
Cutters	No	2	300	600
Bending Kit	No	1	300	300
Rivet Gun	No	1	30	30
Tool Kit	No	1	100	100
Total				3,016

Production and Operating Costs in US\$

(a)Direct Materials, Supplies and Costs

Cost Item	Units	@	Qty/day	Pdn Cost/day	Pdn Cost/mth	Pdn Cost/yr
Direct Costs						
Angle Lines	Pcs	23	0.3	6.75	175.5	2,106
Hollow Sections	Pcs	20	7	140	3640	43,680
Tube Pipes	Pcs	7	3.6	25.2	655.2	7,862
Mild Steel Plates	Pcs	53	0.2	10.5	273	3,276
Welding Rods	Pkts	2.5	2.8	7	182	2,184
Grilling Discs	Pcs	3	5.6	16.8	436.8	5,242
Locks	Pcs	40	0.4	16	416	4,992
Filler Paste	Pkts	5	0.4	2	52	624
Hinges	Pairs	1	16.3	16.3	423.8	5,086
U-Channel	Pcs	43	0.1	4.25	110.5	1,326
Other materials		-	-	104	2704	32,448
Sub-total			36.7	348.8	9,069	108,826

General Costs (Overheads)

Rent	250	3,000
Labour	300	3,600
Protective ware	73	876
Power	150	1,800

Miscellaneous	63	756
Depreciation	63	754
Sub-total	899	10,786
Total Operating Costs	9,968	119,612

1) Production costs assumed 312 days per year with daily capacity of producing 5pieces of metal products.

2) Depreciation (fixed asset write off) assumes 4-years life of assets written off at 25% per year for all assets.

3) Direct costs include materials, supplies and other costs that directly go into production of the product.

4) Total monthly days assumed are 26-days.

5) The valuation currency used is United States Dollars.

Project Product Costs and Price Structure

Item	Qty/day	Qty/yr	@	Pdn Cost/yr	UPx	Total Rve
Gates	0.19	59.28	600	35,568	750	44,460
Front doors	0.38	118.56	205.00	24,305	300	35,568
Rear Doors	0.38	118.56	51.33	6,086	70	8,299
Windows	1.92	599.04	74.00	44,329	82	49,121
Chairs	1.92	599.04	21.00	12,580	30	17,971
Beds	0.19	59.28	127.01	7,529	158	9,366
Total		1,554		130,396		164,786

Profitability Analysis Table

Profitability Item	Per day	Per Mnth	Per year
Revenue	528.16	13,732	164,786
Less: Production and Operating Costs	383	9,968	119,612
Profit	144.78949	3,765	45,174

Marketing

The market potential is great because the construction industry is among the fastest growing sectors of our economy. There is a lot of demand for doors, gates, windows and burglar proofing etc.

Government Facilities and Incentives

There is a lot of encouragement by the government to whoever is setting up any production unit more so if it is to create some form of employment. The Trade and Commerce policies are all attuned to support any form of investment