

**Annex 10.3: Examples of Profit Calculations**

**Negotiated Contracts with total costs between \$50,000 and \$249,999**

**Example 1 - Assumptions:**

1. The contract is for the investigation of certain phenomena and the preparation and delivery of a report.
2. The basis of payment is cost reimbursable with a fixed fee.
3. The contractor performance period is 10 months.
4. The Estimated Contract Costs are:

Direct Materials	\$500
Subcontracts	\$20,000
Direct Labour	\$40,000
Overhead	\$40,000
<b>Total</b>	<u>\$100,500</u>

5. No machinery or equipment owned by the contractor is used in performance of the contract.
6. No advance, progress or milestone payments are to be made to the contractor.
7. The contractor has little familiarity with the work to be performed from past experience and the fixed fee was agreed before the work on the contract commenced, therefore the maximum of 1% for Contractual Risk has been given.
8. No research and general development nor product development costs are applicable and allowable to the contract.

Profit Factor	Measurement Base			
	Details	Amount \$	Profit Rate %	Profit \$
Return on Capital Employed	Fixed Capital Employed	N/A		--
	Working Capital Employed (No advance, progress or milestone payments)	100,500	3	3,015
General Business Risk	Direct Materials	500	1.5	8
	Subcontracts	20,000	2	400
	Direct Labour	40,000	4	1,600
	Overhead	40,000	4	1,600
	<b>Total Allowable Costs</b>	100,500		3,608
Contractual Risk	<b>Total Allowable Costs</b>	100,500	1	1,005
<b>Total Profit = 7.6% of Total Costs</b>				<u>\$7,628</u>
Amount of Fixed Fee				\$7,628

**Example 2 - Assumptions:**

1. Contract is for Repair and Overhaul in Plant.
2. Basis of Payment are:

Repair and Overhaul in Plant	— Fixed Time Rate
Company Furnished Materials	— Actual Costs plus Mark Up
Accountable Advance Spares Embodied	— Mark Up Only

3. Contract Period is 12 months.
4. Total Negotiated Contract Costs are:

Company Furnished Materials		\$50,000
A.A. Spares Embodied	\$100,000	
<b>In Plant Repair and Overhaul:</b>		
Direct Labour	5,000 hours @ \$8 per hour	40,000
Overhead	5,000 hours @ \$16 per hour	80,000
<b>Material Handling</b>		
On Company Furnished Materials	\$50,000 @ 6%	3,000
On A.A. Spares Embodied	\$100,000 @ 6%	6,000
<b>G &amp; A</b>		
On Company Furnished Materials	\$50,000 @ 9%	4,500
On A.A. Spares Embodied	\$100,000 @ 9%	9,000
On In Plant Repair and Overhaul	\$120,000 @ 9%	10,800
On Material Handling Costs	\$9,000 @ 9%	<u>810</u>
<b>Total Contract Costs</b>		<u>\$204,110</u>

5.	Summary of Contract Costs:	\$	\$	\$
	(a) Company Furnished Materials:			
	Laid Down Costs		50,000	
	Plus 6% Material Handling		<u>3,000</u>	
			53,000	
	Plus 9% G & A		<u>4,770</u>	57,770
	(b) Accountable Advance Spares Embodied:			
	Laid Down Costs (LDC)	100,000		
	Plus 6% Material Handling (MH) on LDC		6,000	
	Plus 9% G & A on LDC plus MH		<u>9,540</u>	15,540
	(c) Repair and Overhaul:			
	Labour 5,000 hours @ \$24 per hour		120,000	

Plus 9% G & A		<u>10,800</u>	<u>130,800</u>
	<b>Total</b>		<u>204,110</u>
Company Furnished Materials			50,000
Direct Labour			40,000
Plant Overhead			80,000
Material Handling Overhead			<u>9,000</u>
			179,000
G & A			<u>25,110</u>
	<b>Total</b>		<u>204,110</u>

6. Machinery and equipment owned by the contractor is used in performance of the contract.
7. Progress payments are to be made on the contract.
8. The duration of the contract is twelve months and no difficulty has been experienced in predicting labour and overhead rates. Furthermore, the fixed time rate was only negotiated and agreed two months after work commenced. Therefore the rate of profit for Contractual Risk is assessed at 2½%.
9. No research and development costs are applicable and allowable on the contract.

Profit Factor	Measurement Base			
	Details	Amount \$	Profit Rate %	Profit \$
Return on Capital Employed	Fixed Capital Employed	57,770	1	578
	Working Capital Employed (Progress Payments to be made)	57,770	1.5	867
	<b>Total</b>			1,445
General Business Risk	Direct Materials	50,000	1.5	750
	Material Handling Overhead	3,000	4	120
	G & A	<u>4,770</u>	4	<u>191</u>
	<b>Total Allowable Costs</b>	57,770		1,061
Contractual Risk	Material ➤ Cost Reimbursable No Ceiling	50,000	0	--
	Material Handling Overhead and G & A ➤ Fixed Rates	<u>7,770</u>	2.5	<u>194</u>
	<b>Total Costs</b>	57,770		194
<b>Total Profit= 4.7% of Total Costs</b>				<u><u>\$2,700</u></u>
<b>Mark Up to CF Materials</b>				
Laid Down Cost				\$100.00
Material Handling @ 6%				<u>6.00</u>
				106.00

Profit Factor	Measurement Base
G & A @ 9%	<u>9.54</u>
	115.54
Profit @ 4.7%	<u>5.43</u>
Mark Up 21%	\$120.97

**Profit on A.A. Spares Embodied**

Profit Factor	Measurement Base			
	Details	Amount \$	Profit Rate %	Profit Amount \$
Return on Capital Employed	Fixed Capital Employed	N/A	--	--
	Working Capital Employed	N/A	--	--
General Business Risk	A.A. Spares	100,000	2	2,000
	Material Handling Overhead	6,000	4	240
	G & A	9,540	4	<u>382</u>
	<b>Total Allowable Costs</b>	115,540	--	2,622
Contractual Risk	Cost Reimbursable - No Ceiling Basis of Payment	--	--	--
<b>Total Profit= 2.3% of Total Costs</b>				<u><u>\$2,622</u></u>

**Mark Up for A.A. Spares Embodied**

Laid Down Cost	\$100.00
Material Handling @ 6%	<u>6.00</u>
	106.00
G & A @ 9%	<u>9.54</u>
	115.54
Profit @ 2.3%	<u>2.66</u>
Mark Up 18.2%	\$118.20

**Profit on Repair and Overhaul**

Profit Factor	Measurement base			
	Details	Amount \$	Profit Rate %	Profit Amount \$
Return on Capital Employed	Fixed Capital Employed	130,800	1	1,308
	Working Capital Employed (Progress Payments to be made)	130,800	1.5	1,962
	<b>Total</b>			3,270
General Business Risk	Direct Labour	40,000	4	1,600

	Plant Overhead	80,000	4	3,200
	G & A	<u>10,800</u>	4	<u>432</u>
	<b>Total Costs</b>	130,800		<u>5,232</u>
Contractual Risk	Fixed Time Rate Basis of Payment	130,800	2.5	3,270
<b>Total Profit = 9.0 % of Total Costs</b>				<u>\$11,772</u>
<b>Fixed Time Rate for Repair and Overhaul</b>				
Direct Labour				\$8.00 per hour
Plant Overhead				<u>16.00</u> per hour
				24.00 per hour
G & A @ 9 %				<u>2.16</u> per hour
Costing Rate				26.16 per hour
Profit @ 9.0 %				<u>2.35</u> per hour
Selling Rate				\$28.51 per hour

**Profit Summary**

	Company Furnished Material\$	AA Spares Embodied \$	Repair and Overhaul \$	Total \$
Total Costs	57,770	15,540	130,800	204,110
Return on Capital Employed	1,445	➤	3,270	4,715
% of Total Costs	2.5%	➤	2.5%	2.3%
General Business Risk	1,061	2,622	5,232	8,915
% of Total Costs	1.8%	16.9%	4.0%	4.4%
Contractual Risk	194	➤	3,270	3,464
% of Total Costs	3.4%	➤	2.5%	1.7%
Total all Factors	2,700	2,622	11,772	17,094
% of Total Costs	4.7%	16.9%	9.0%	8.4%

**Example 3 - Assumptions:**

- The contract is for the manufacture and supply of 180 widgets.
- The basis of payment is a firm unit price per widget.
- The contract performance period is 9 months.
- The Negotiated Contracts Costs are:

Direct Materials	\$15,000
Direct Labour	20,000
Overhead	45,000

G & A	<u>10,000</u>
<b>Subtotal</b>	90,000
Royalties	<u>3,000</u>
<b>Total</b>	<u><u>\$93,000</u></u>

5. Machinery and equipment owned by the contractor is used in performance of the contract.
6. No advance, progress or milestone payments are to be made to the contractor.
7. The contractor has manufactured these particular widgets, which are to his own specifications, for a number of years. As a result a reasonable rate contractual risk is considered to be 5.5%.

Profit Factor	Measurement Base			
	Details	Amount \$	Profit Rate %	Profit \$
Return on Capital Employed	Fixed Capital Employed	90,000	1	900
	Working Capital Employed (No advance, progress or milestone payments)	90,000	3	2,700
	<b>Total</b>			<u>3,600</u>
General Business Risk	Direct Materials	15,000	1.5	225
	Direct Labour	20,000	4	800
	Overhead	45,000	4	1,800
	G & A	10,000	4	400
	Royalties	<u>3,000</u>	—	_____
	<b>Total Costs</b>	93,000		3,225
Contractual Risk	Total Allowable Costs less Royalties	90,000	5.5	4,950
<b>Total Profit = 12.7% of Total Costs</b>				\$11,775
<b>Total Cost</b>				\$93,000
Profit				<u>11,775</u>
				\$104,775
				= \$582.08 per widget