## Industries

We have over 100 years of valuation experience as a team and some of the industries we have valued include:

- **Oil Refineries**
- **Oil/Gas Field Facilities**
- Petrochemical Complexes
- Chemical Plants
- LNG/NGL Facilities
- **Desalination Plants**
- Power Stations and Public Utilities
- **Pipelines and Terminals**
- Offshore Platforms
- Iron and Steel Works
- Aluminium Refining, Rolling and Smelting
- Food Industry
- Pharmaceuticals
- Manufacturing (Heavy & Light)

# Countries

These are some of the countries we have worked in:

- Abu Dhabi Albania Algeria Angola Antigua Argentina
- Australia Austria Azerbaijan Azores Bahrain Belgium
- Belize Benin Bermuda Bonaire Brazil
- British Virgin Islands Brunei Bulgaria Canada
- Canary Islands Cayman Islands China Colombia Costa Rica
- Croatia Curacao Cyprus Czech Republic Denmark
- Djibouti Dominica Dominican Republic Dubai Ecuador
- Egypt El Salvador Ethiopia Finland France FYROM
- Georgia Germany Ghana Gibraltar Greece Grenada
- Guatemala Haiti Honduras Hong Kong Hungary India
- Indonesia Iran Iraq Ireland Italy Ivory Coast Jamaica
- Jordan Kazakhstan Korea Kuwait Kyrgyzstan Laos
- Libya Malaysia Malta Mexico Monaco Montenegro
- Morocco Mozambique Myanmar Nicaragua Netherlands
- New Zealand Nigeria Norway Oman Pakistan
- Papua New Guinea Peru Philippines Poland Portugal
- Oatar Ras Al Khaimer Russia Sabah Sarawak
- Saudi Arabia Sharjah Singapore Slovak Republic
- South Africa Spain Sri Lanka St Vincent Sudan Sweden
- Switzerland Tanzania Thailand Trinidad Turkey
- Turks and Caicos Ukraine United Kingdom
- United States of America Venezuela Vietnam Zambia

# The Core Team

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### **Appraisal & Valuation Consultants Ltd**

	► Modules
A. Boilers	
B. Buildings	► Reports
C. Chimneys	
D. Compressors	► Location
E. Concrete Tanks	- Eocacion
F. Cooling Towers	→ Data Link
G. Generators	• Data Lirik
H. Heat Exchangers Air Coolers	
I. Heat Exchangers Shell and Tube	
J. Heaters & Furnaces	
K. Pumps	
L. Tanks	
M. Transformers	
N. Vessels	
0. Vessel Internals	
P. Miscellaneous	
	► Exit

Current Data File: UNIT 0100 CRUDE DISTILLATION 2004.mdb

Specialists in Insurance Valuations

**Appraisal & Valuation** 



# VALUSOLV® SYSTEM Our solution to your valuation problems

AVC VALUSOLV® is our in-house software application developed to suit our Clients needs.

Our engineers have used AVC VALUSOLV® on many worldwide assignments with great success, and found it has lead to a huge increase in efficiency. This cost saving is real and is being passed onto our Clients directly.

#### The following shots are "actuals" from VALUSOLV®

Tag	A-101	Vertical or Horizont	al 2. Ho	rizontal 🗾
Description	DESALTING UNIT		☐ Sir	nple
		Quantity		1
Tangent Length	12.00 m	Base Cost		138,100
Diameter	3.05 m	Module		3.82
Material	1. Carbon Steel 🗾	Adjustment Factor		1.00
	Material Assumed	Location Adjustmen	t	1.00
Design Pressure	37.00 Kg/cm <sup>2</sup>	Total Cost		527,600
Design Temperature	∞	Comments		
Insulated	1. Yes 💌			
Empty Fabricated Weight	t t			
Tag	Description		uantity	Total Cost
A-101	DESALTING UNIT		1	527,600
C-101	CRUDE TOWER		1	9,954,100
C-102	HEAVY NAPHTHA STRIPPER BO	TTOM	1	190,900
C-102	HEAVY NAPHTHA STRIPPER TO	P	1	196,400

						Location Adjustme						
Tag	Description	Area per Bundle (m²)	Total Area (m²)	Tube Material	Tube Pressure (Kg/cm²)	Tube Length	No. of Bundles	No. of Bundles per Bay	Quantity	Base Cost	Adjust. Factor	Total Cost
E-112	GRUDE TOWER CONDENSER	200	2400	Carbon Steel	22.00	9.14	12.00	2,00	6	223,200	1.00	3,053,400
E-114	TOP FUMPAROUND COCLER	250	500	Carbon Steel	12.00	9.14	2,00	2.00	1	253,100	1.00	577,100
E-115	HEAM NAPHTHA PUMPAROUND CCOLER	40	80	Carbon Steel	23.00	9.14	2.00	2,00	1	68,100	1.00	155,300
E-117	HEAVY NAPHTHA PRODUCT COOLER Comments: WITH E119	40	80	Carbon Steel	15.00	9.14	2,00	2,00	1	66,200	1.00	151,000
E-119	KERCHENE PRODUCT COOLER	125	250	Carbon Steel	19.00	9.14	2,00	2,00	1	156,100	1.00	356,000
E-125	DIESEL PRODUCT COOLER	200	800	Carbon Steel	12.00	9.14	4,00	2,00	2	214,600	1.00	978,600
E-126	ATMOSPHERIC G46 OIL PRODUCT CCOLER	500	1000	Carbon Steel	13.00	9.14	2.00	2.00	1	424,900	1.00	968,800
E-129	TEMPERED WATER COCLER	100	200	Carbon Steel	22.00	9.14	2.00	2.00	1	133,600	1.00	304,700
E-132	STABILISER CONDENSER	140	560	Carbon Steel	12.00	9.14	4.00	2.00	2	164,800	1.00	751,500
E-137	SPLITTER CONDENSER	250	2000	Carbon Steel	12.00	9.14	8.00	2,00	4	253,100	1.00	2,308,300
E-140	SPLITTER BOTTOMS COCLER	60	120	Carbon Steel	24,00	9.14	2,00	1.00	1	55,200	1.00	125,900
E-143	DEISCRENTANISER CONDENSER	200	1200	Carbon Steel	22,00	9.14	6.00	2.00	3	223,200	1.00	1,526,700
E-156	CONDENSATE TOWER CONDENSER	250	2000	Carbon Steel	12.00	9.14	8.00	2.00	4	253,100	1.00	2,308,300
E-163	CONDENSATE STABILISER CONDENSER	120	240	Carbon Steel	22,00	9.14	2.00	2.00	1	152,900	1.00	348,700
										Grand	Test	13,914,300

AVC VALUSOLV® is a sophisticated cost estimating and reporting tool which calculates values to a standard that is suitable for insurance/ asset management purposes using the basic design data. It totals by unit, area or location and for entire facilities. It also provides reports of varying detail.



Location Adjustment Factor: 1.00

Туре	No. of Items	Base Cost	Module	Total Cost
A. Boilers	0	0	1.1	0
B. Buildings	1	234,000	n/a	234,000
C. Chimneys	0	0	1	0
D. Compressors	8	1,320,000	1.8	2,376,000
E. Concrete Tanks	0	0	1.1	0
F. Cooling Towers	0	0	1	0
G. Generators	0	0	1.6	0
H. Heat Exchangers Air Coolers	29	6,102,500	2.28	13,914,300
I. Heat Exchangers Shell And Tube	74	4,831,300	4.36	21,066,500
J. Heaters	1	1,229,700	2.11	2,594,700
J. Furnaces	1	3,646,100	2.41	8,787,200
K. Pumps	74	2,806,600	4.29	12,447,500
L. Tanks	0	0	0.87	0
M. Transformers	0	0	1.1	0
N. Vessels - Vertical	31	4,534,200	5.5	25,758,000
N. Vessels - Horizontal	10	625,000	3.82	2,387,900
O. Vessel Internals	15	5,503,200	1.1	6,265,400
P. Miscellaneous	7	11,120,000	n/a	11,120,000
	251	41,952,600		106,951,500



Location	Cost
UNIT 100 CRUDE DISTILLATION	106,951,500
UNIT 200 NAPTHA HYDROTREATING	27,549,400
UNIT 300 PLATFORMING	47,333,100
UNIT 400 ISOMERISATION	35,666,300
UNIT 500 LPG TREATING	3,718,700
UNIT 600 HYDROCRACKER	124,391,900
UNIT 700 SULPHUR RECOVERY	23,015,800
UNIT 1000 STEAM & BOILER FEED WATER	60,819,700
UNIT 1100 WATER SUPPLY	3,732,500
UNIT 1200 COOLING WATER	13,487,200
UNIT 1300 COMPRESSED AIR	13,656,400
UNIT 1400 NITROGEN	2,047,500
UNIT 1500 FLARE	7,984,400
UNIT 1600 FIRE FIGHTING	7,021,400
UNIT 1700 EFFLUENT TREATMENT	28,870,600
UNIT 2000 TANKER TRUCK LOADING	18,522,700
UNIT 3000 TANK FARM	163,679,700
UNIT 4000 JETTY	295,994,700
	984,443,500

A major advantage of AVC VALUSOLV® is that it is tailored to suit our Clients individual needs and the following are examples of some of our speciality software packages: AVC VALUSOLV® - PROCESS AVC VALUSOLV® - POWER AVC VALUSOLV® - OFFSHORE AVC VALUSOLV® - METALS AVC VALUSOLV® - BATCH

For further information please go to www.VALUSOLV.com

Location :	UNIT 100 CRUDE DISTILLATION	
Tag	Description	Replacement as New US
E-142A/B	DEISOPENT ANISER FEED BOTTOMS EX CHANGERS	335,800
E-143	DEISOPENTANISER CONDENSER	1,526,700
E-144	IS OPENT ANE COOLER	229,800
E-145A/B	DEIS OPENT ANISER REBOILERS	.530,200
E-146 A/B	DEISOPENTANISER BOTTOMS COOLERS	288,200
E-147 A/B	SLOP OIL COOLERS	417,700
E-151	CONDENSATE FEED PUMPAROUND EX CHANGER	229,400
E-152	CONDENSATE FEED/SIDE STRIPPER BOTTOMS EXCHANGERS	186,200
E-13	CONDENSATE FEED/BOTTOMS EXCHANGER	322,300
E-154	LP STEAM FEED HEATER	328,800
E-155	MP STEAM FEED HEATER	297,800
E-156	CONDENSATE TOWER CONDENSER	2,308,300
E-157 A/B	CONDENSATE TOWER TRIM COOLERS	469,200
E-158	CONDENSATE TOWER SIDE STRIPPER REBOILER	333,200
E-160 A/B	CONDESATE NAPHTHA TRIM COOLERS	474,400
E-161	CONDESATE TOWER BOTTOMS COOLER	257,700
E-162A/B	CONDENSATE STABILISER FEED EX CHANGERS	489,200
E-163	CONDENSATE STABILISER CONDENSER	348,700
E-164	CONDENSATE STABILISER REBOILER	225,500
F-101	CRUDE HEATER	8,787,200
F-103	COMBUSTION AIR PREHEATER	100,000
F-111	CONDENSATE REBOILER HEATER	2,594,700
K-101 A/B	CRUDE COLUMN OVERHEAD COMPRESSORS	1,800,000
K-102 A/B	COMBUSTION AIR FANS	216,000