

Endeco



MAJOR INDUSTRIAL PROJECTS

The Company

# History

For more than 30 years the present management of Endeco has been active in Italy and abroad in the field of project planning and development, financing, engineering, turn key constructions, operations and management.

Endeco was established as a joint stock company in 1987 by this group of managers and experienced engineers who brought their know-how, their specialised skill and the experience acquired during the previous ten years of activity.

Endeco has carried out projects in Italy and in several European, Asian and African countries.



## The Company

# Activity

Endeco group is specialised in integrated projects. With its multidisciplinary approach and expertise, serves industrial and commercial firms, institutions, municipality and government agencies in the following main fields:

### **Industry**

**Agriculture and water**

**Environment**

**Building**

**Transportation**

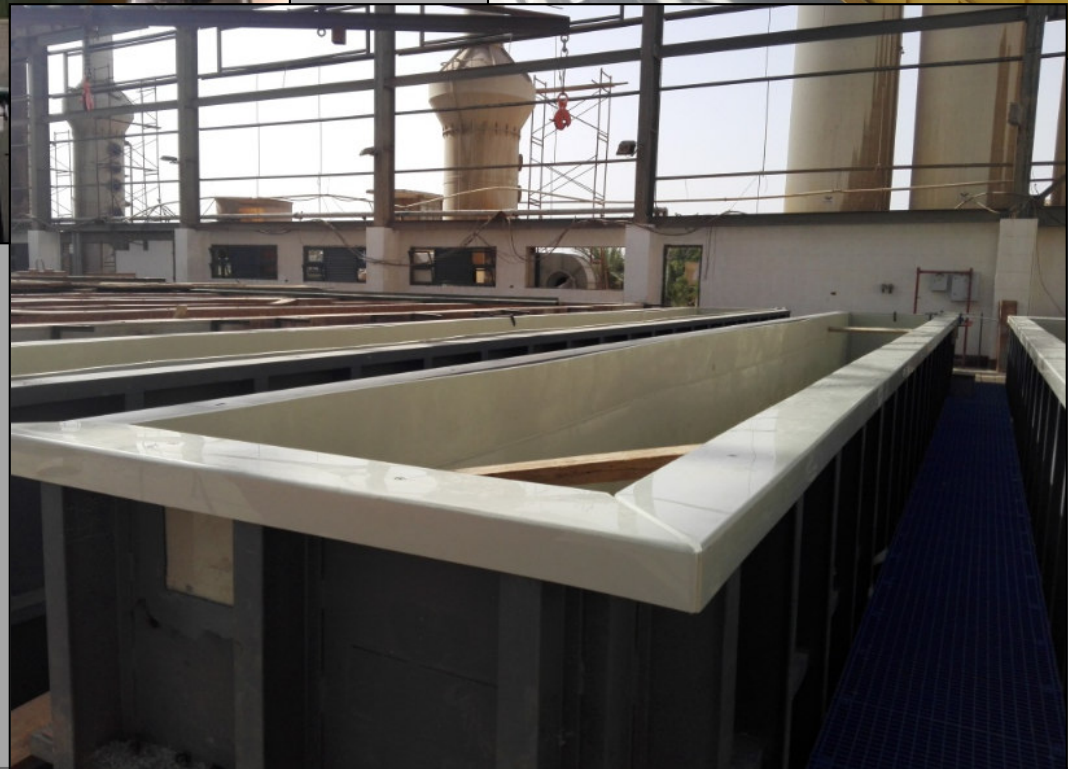
**Oil & Gas**

Endeco is able to undertake projects on a turn key basis or, depending on the Customer's needs, Endeco's experts can also assist the Customer in specific project phases, either on a consultancy basis or under a Management or EPC agreement.

Detail: **Hot Dip Galvanizing Plant**  
Egypt

Scope of work: Engineering, supply and construction, supervision to erection, commissioning, testing and training

Capacity: 45.000 tons/year



Hot Dip Galvanizing Plant

Egypt





Hot Dip Galvanizing Plant

Egypt





Hot Dip Galvanizing Plant

Egypt

Detail: **C**onsultancy Services for NTE

## Cigarette Factory

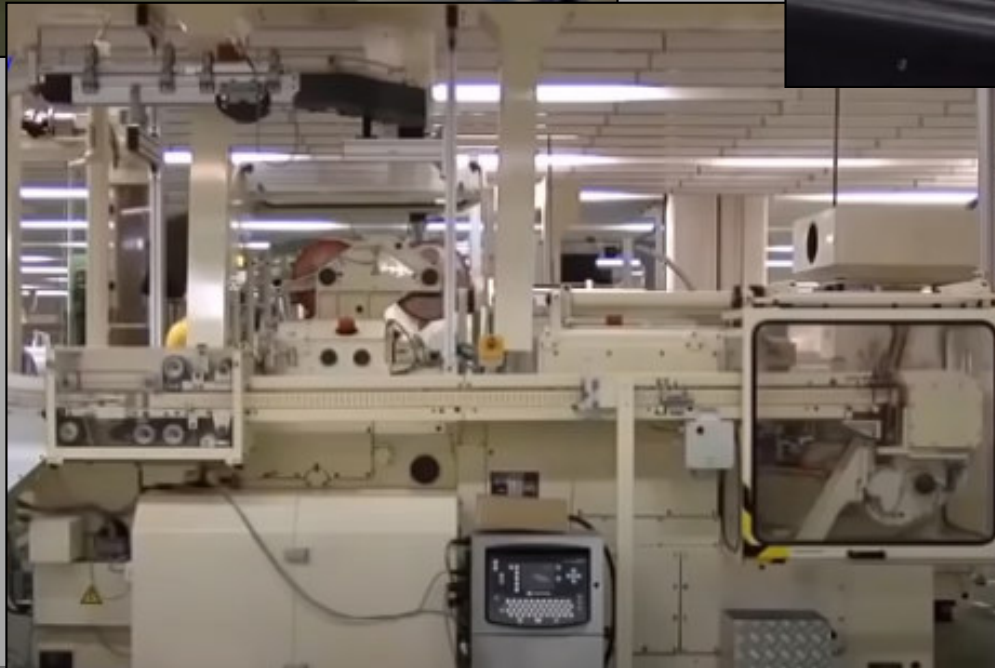
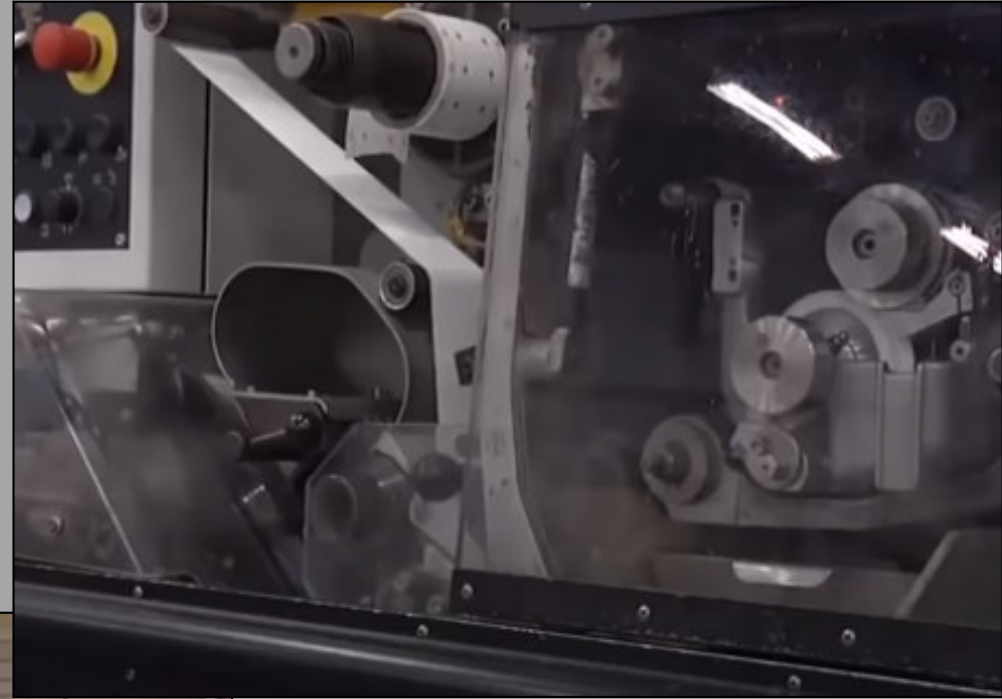
Japan Tobacco International

Ethiopia

Scope of work:

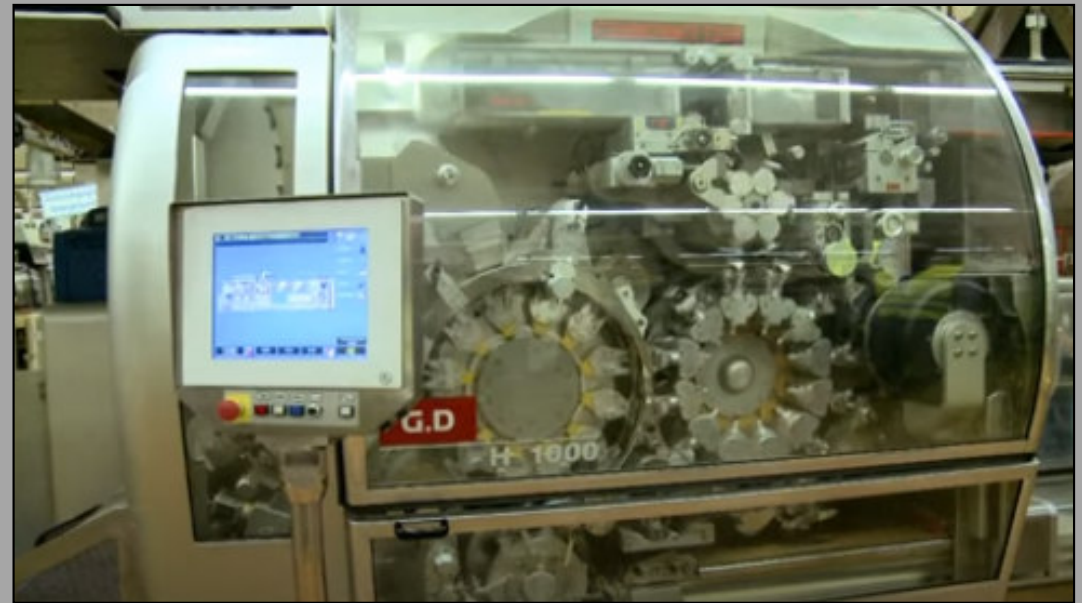
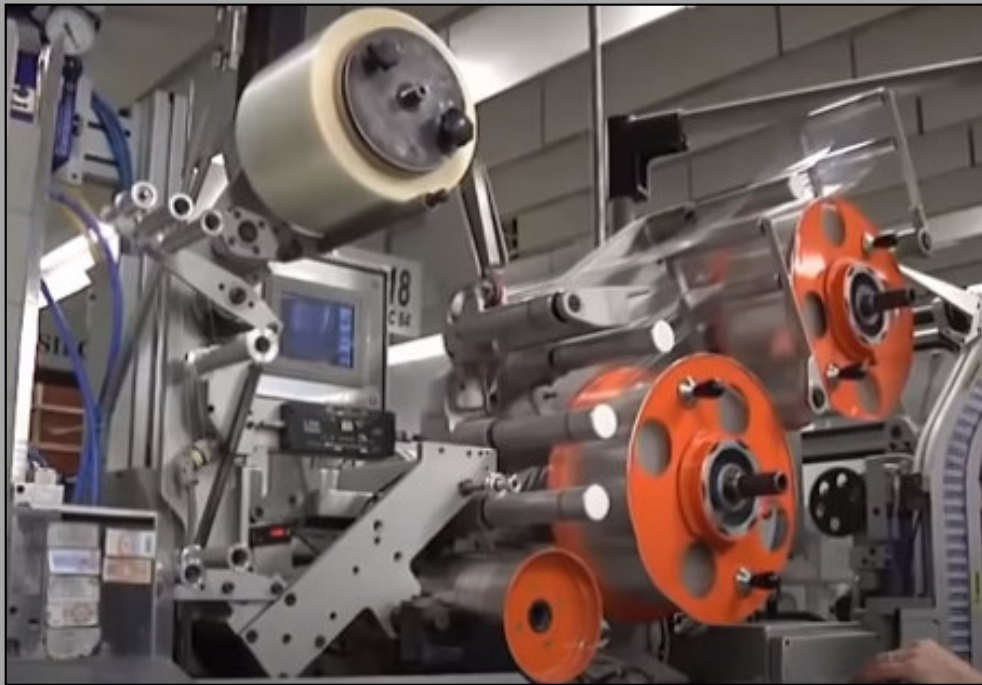
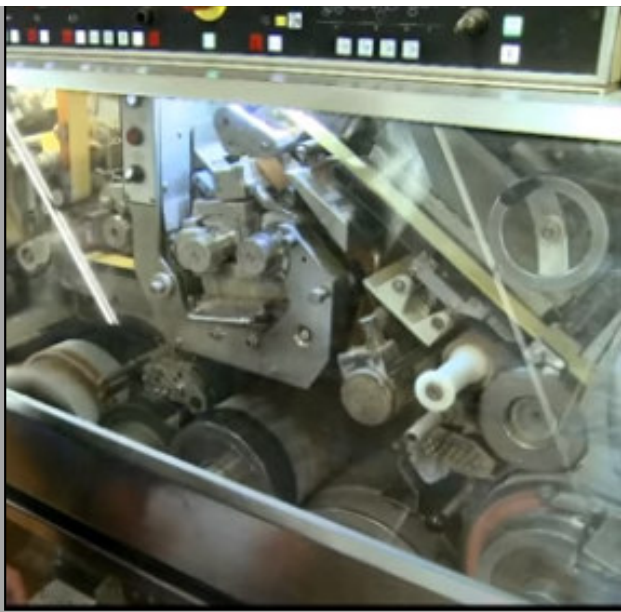
Consultancy and Engineering Services for  
Capacity Upgrading and Relocation of  
NTE (National Tobacco Enterprise)  
Cigarette Factory





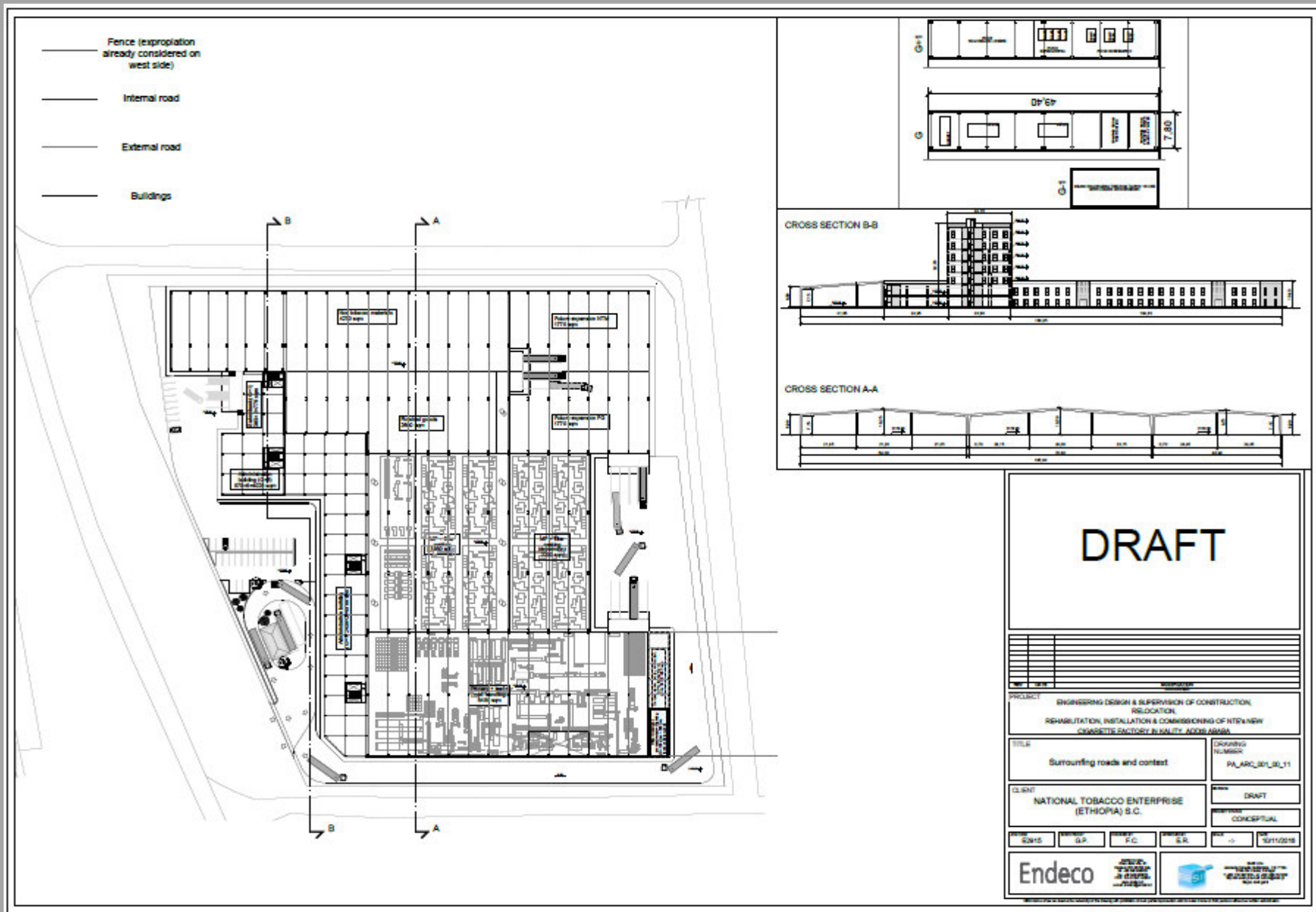
Consultancy Services for NTE Cigarette Factory  
Ethiopia





Consultancy Services for NTE Cigarette Factory  
Ethiopia



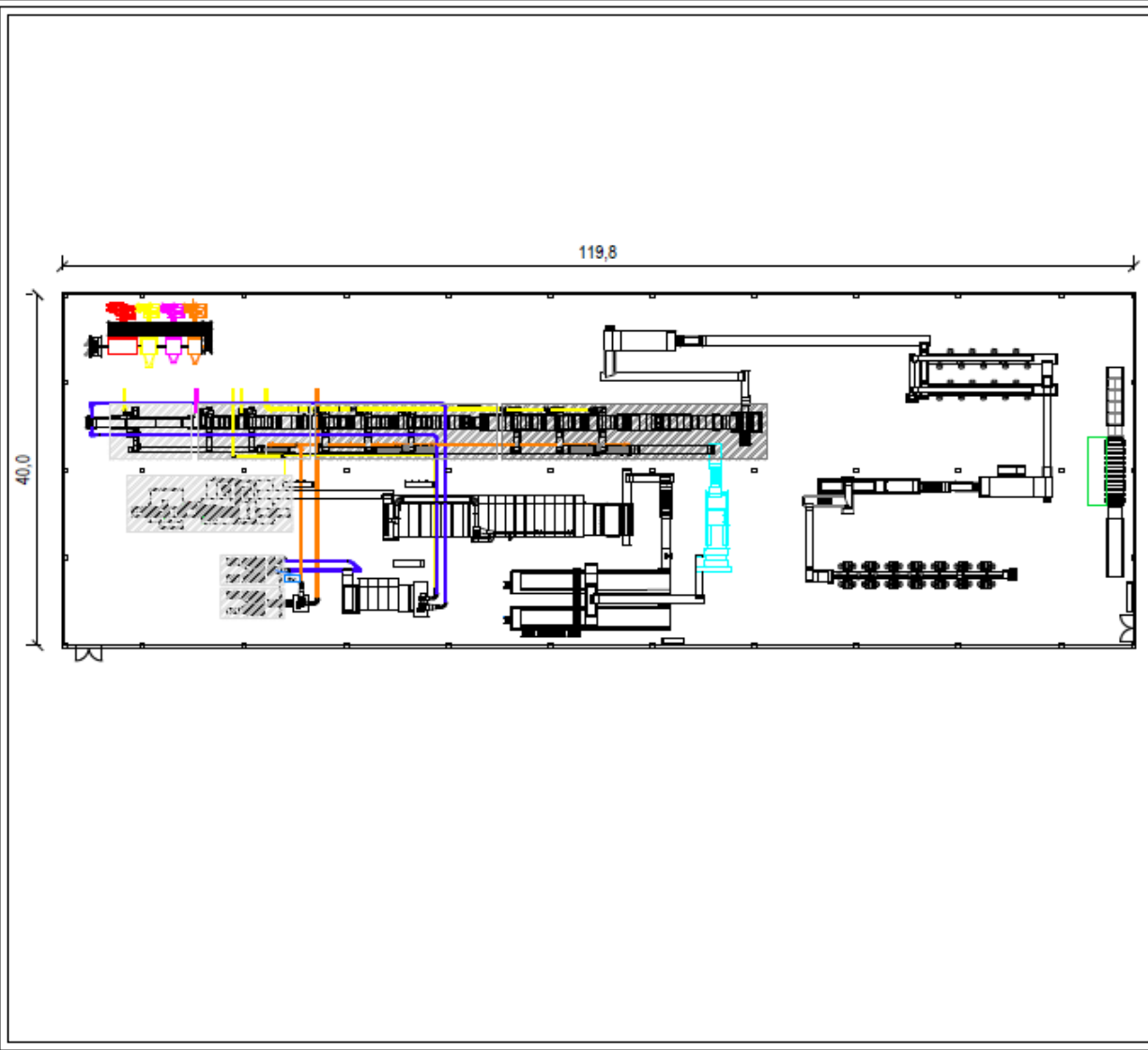


Consultancy Services for NTE Cigarette Factory Ethiopia

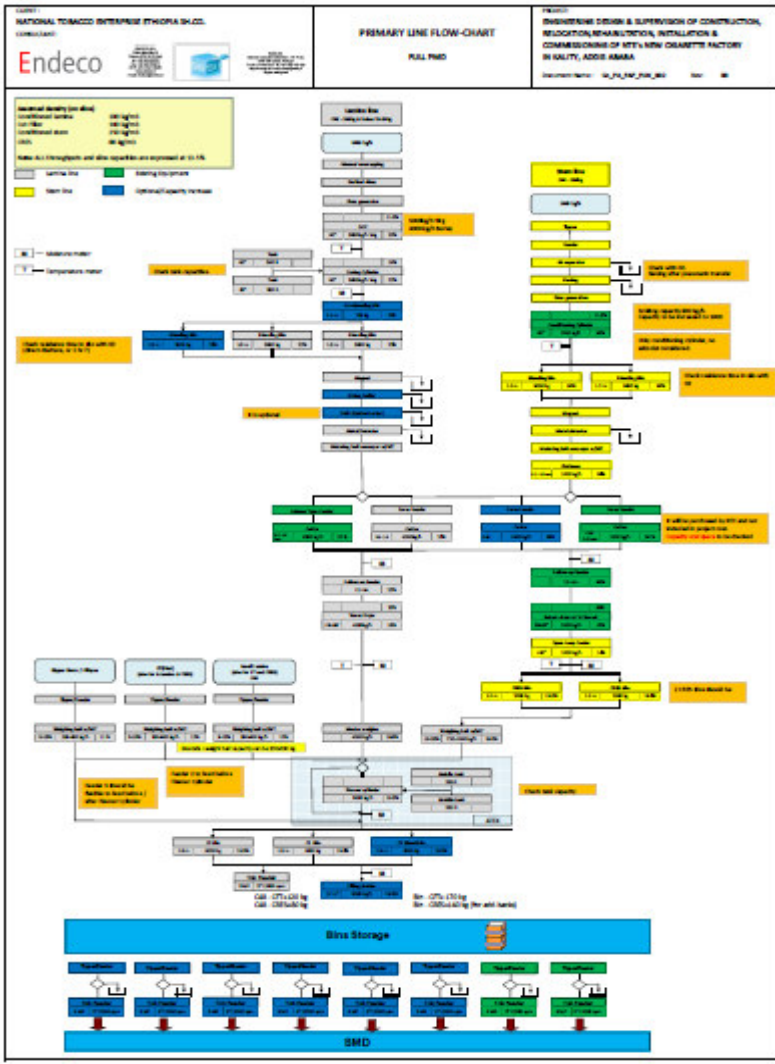


Consultancy Services for NTE Cigarette Factory  
Ethiopia

GLT: 4800 m2 approx.



PROJECT	ENGINEERING CONSULTATION
TITLE	Green L Pro
CLIENT	NATIONAL TC ETI
DATE	2011
SCALE	1:100
<b>Endeco</b>	



Consultancy Services for NTE Cigarette Factory  
Ethiopia



Detail : **EPCM Services for CALZEDONIA**  
**new garment plant**

Location: Makalle - Ethiopia









**EPCM Services for CALZEDONIA**

**Makalle - Ethiopia**





EPCM Services for CALZEDONIA

Makalle - Ethiopia



EPCM Services for CALZEDONIA

Makalle - Ethiopia













**EPCM Services for CALZEDONIA**

**Makalle - Ethiopia**





**EPCM Services for CALZEDONIA**

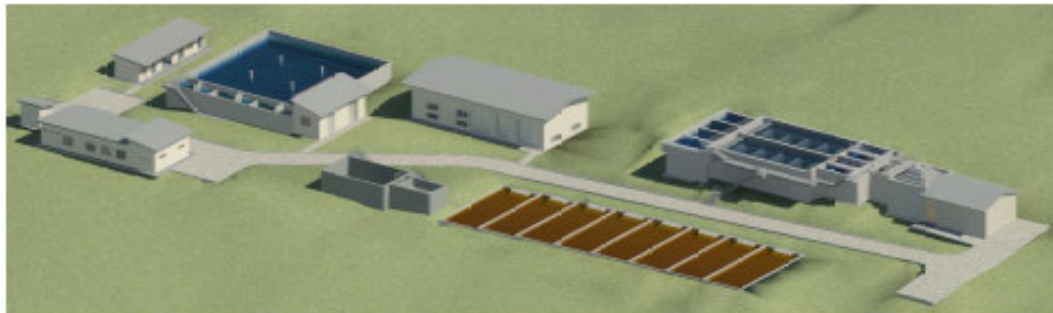
**Makalle - Ethiopia**

Detail: **D**embidollo Water Treatment  
**Plant**

Dembidollo - Ethiopia

**Scope of Work:** Dembidollo Town Water Treatment Plant  
Design, Construction, Supply and Installation  
of Electro-mechanical Equipment





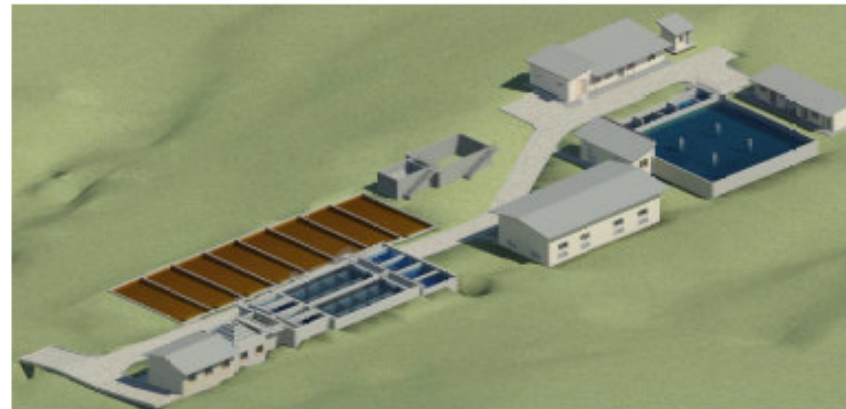
South West View



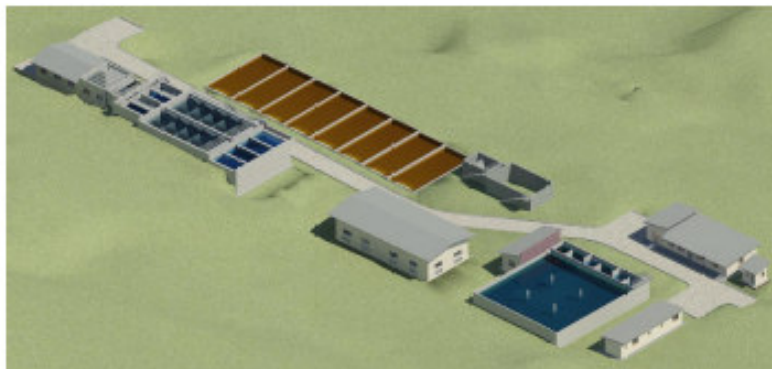
General Top view



South Est Top View



South Est View



North Est View



South West Top View

REF PLAN																							
<table border="1"> <tr> <td>NO.</td> <td>DATE</td> <td>DESCRIPTION</td> <td>BY</td> <td>CHECKED</td> </tr> <tr> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </table>				NO.	DATE	DESCRIPTION	BY	CHECKED															
NO.	DATE	DESCRIPTION	BY	CHECKED																			
PROJECT																							
WTP DEMBIDOLLO - 15 towns water supply & sanitation project																							
CONTENT		DRAWING NO.																					
Hydraulic profile		WTP-RND-001 Rev.0																					
 Ministry of Water, Irrigation and Electricity		PROJECT STATUS																					
 Endeco		 																					

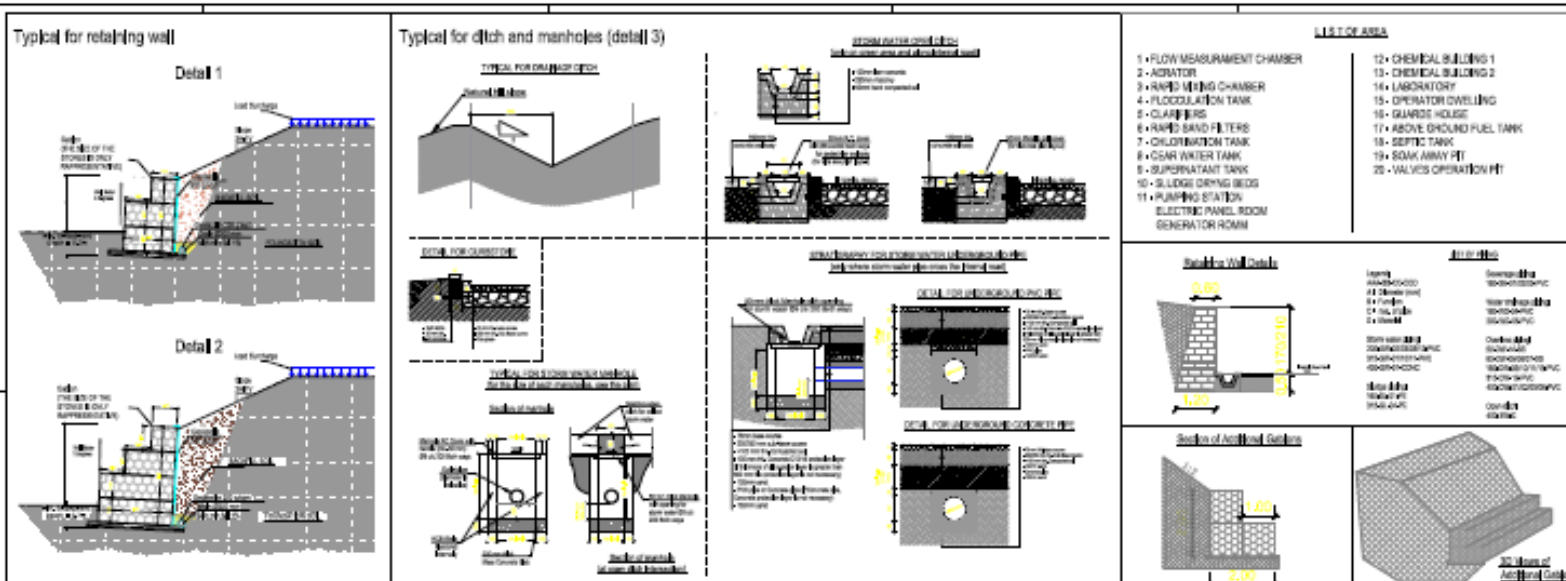




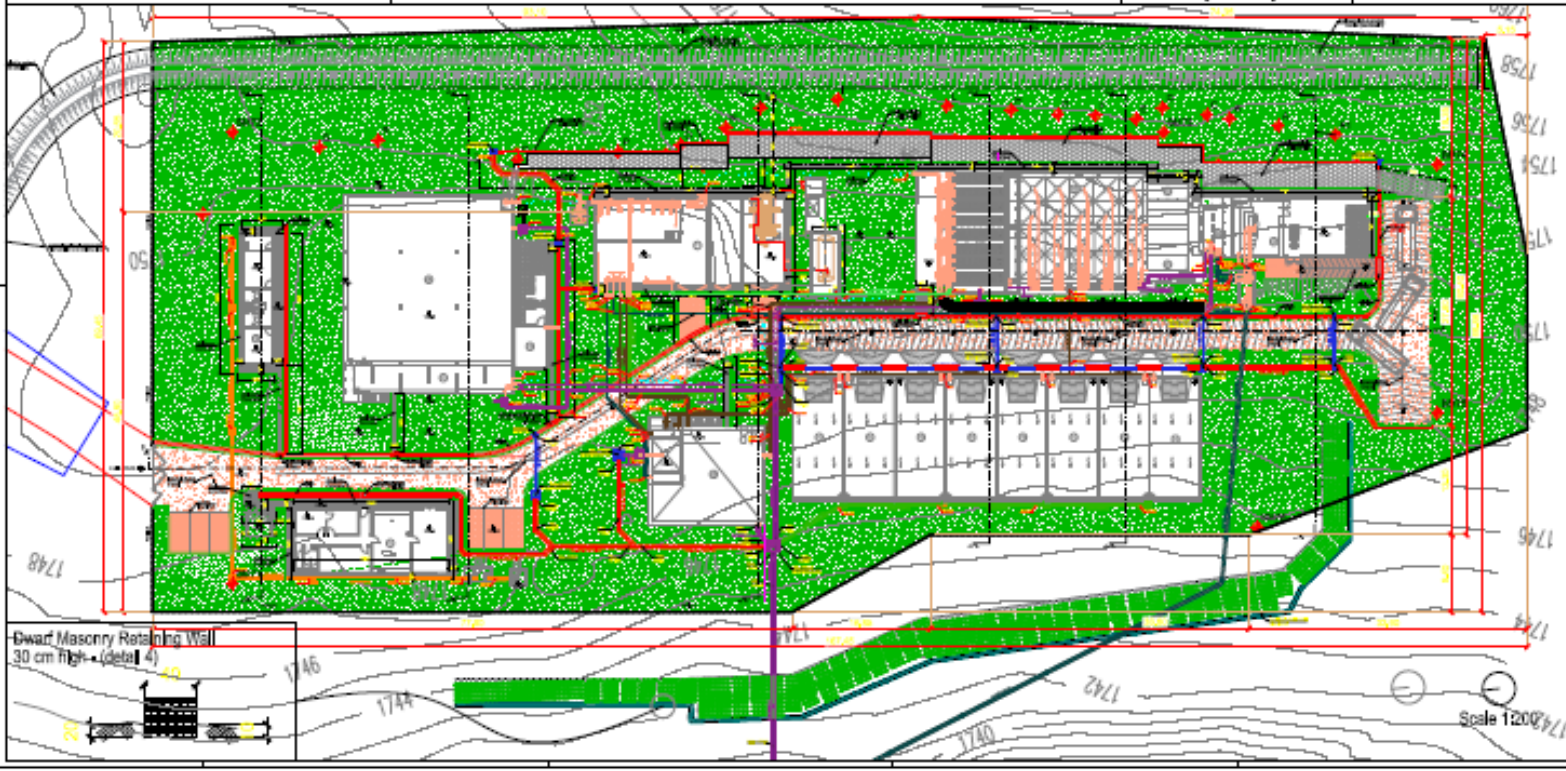
**Dembidollo Water Treatment Plant  
Ethiopia**

Dembidollo-





LEGEND	
	Access road
	Main road
	Fence line
	Green area
	Caston retaining wall
	Masonry retaining wall
	Project elevation
	Overflow piping
	Storm water piping
	Open ditch
	Sludge piping
	Sewerage piping
	Water drainage piping
	Manhole with blind cover
	Manhole with storm water cover
	Road Accesses & Car Parks Natural Stone
	Internal Road Gravel
	Pedestrian Walkway Concrete



<p>WTP DEMBIDOLLO - 15 towns water supply &amp; sanitation project</p> <p>Landscaping work Plan and details</p> <p>Scale: 1:2000</p> <p>Rev: 01</p>	
<p>Client: Ministry of Water, Land and Irrigation</p> <p>As of: 2014</p>	<p>Project No: LND-411-001-003</p> <p>Rev: 01</p>
<p>Endeeco</p>	

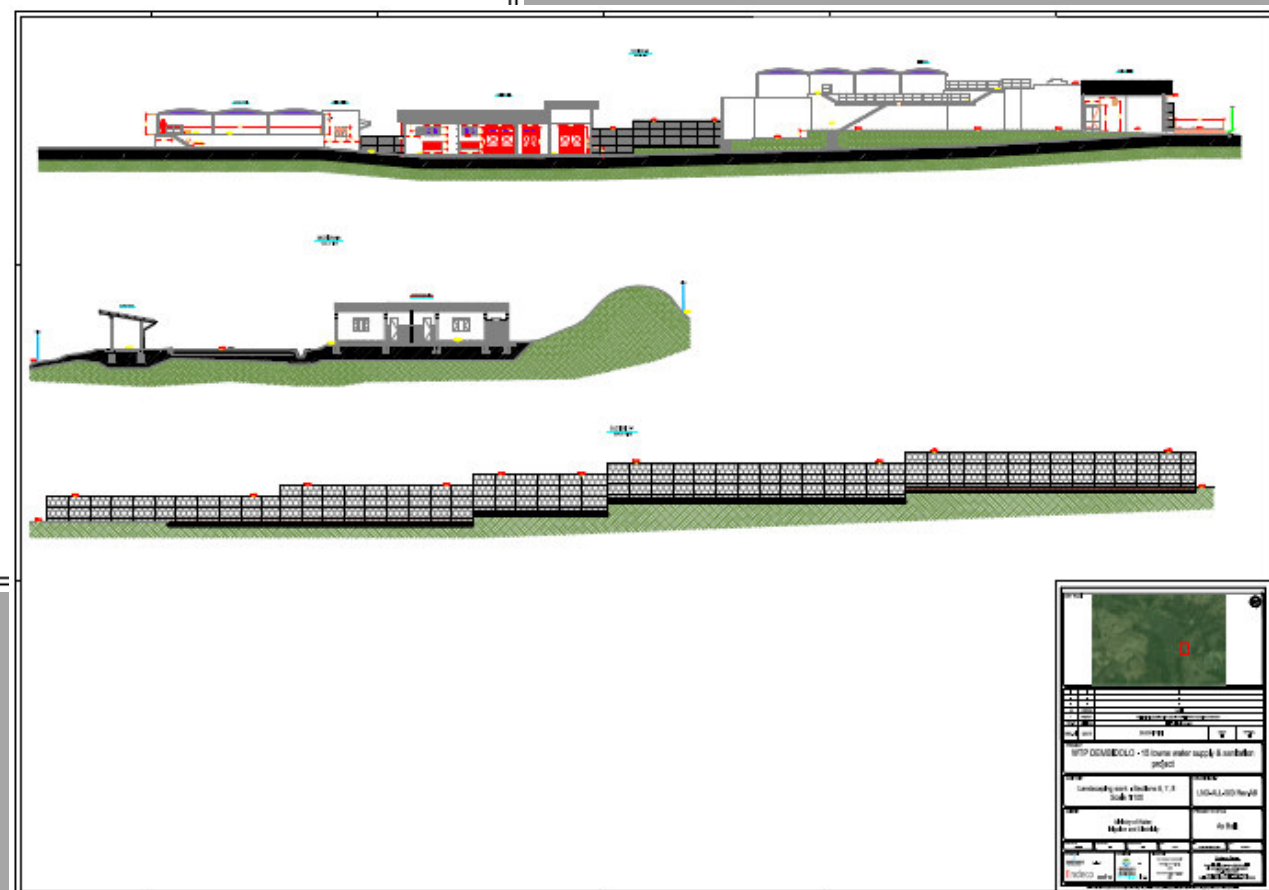
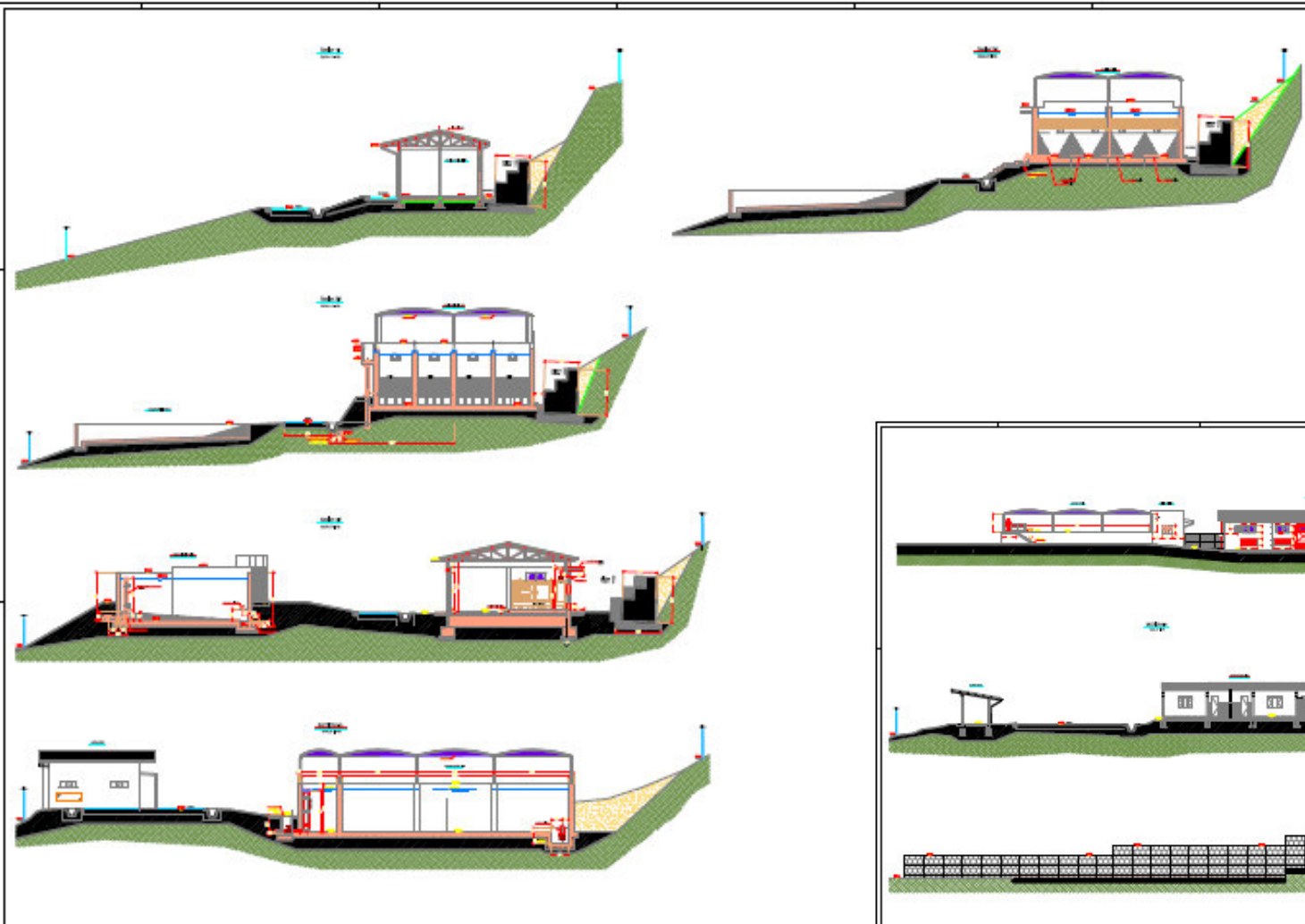




**Dembidollo Water Treatment Plant  
Ethiopia**

Dembidollo-





Dembidollo Water Treatment Plant  
Ethiopia

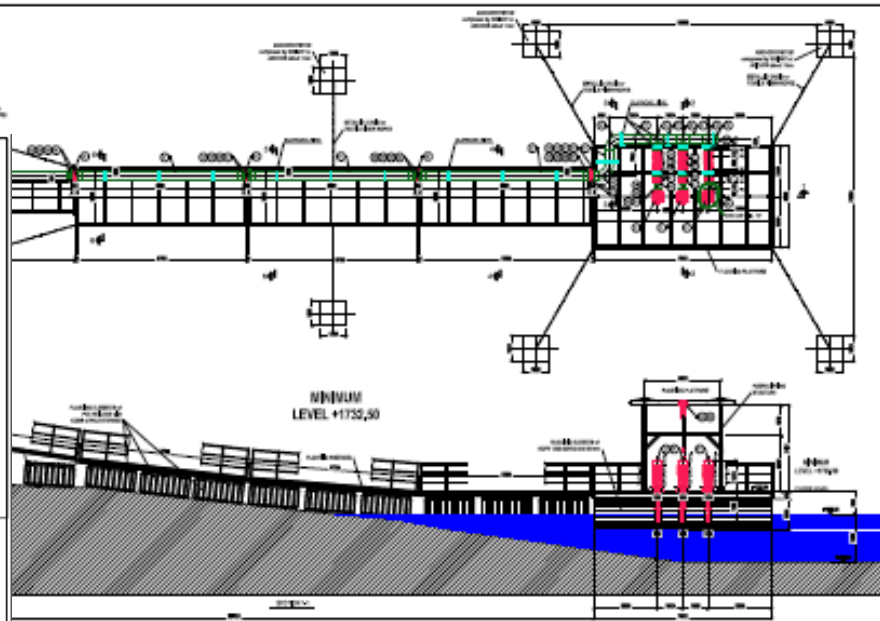
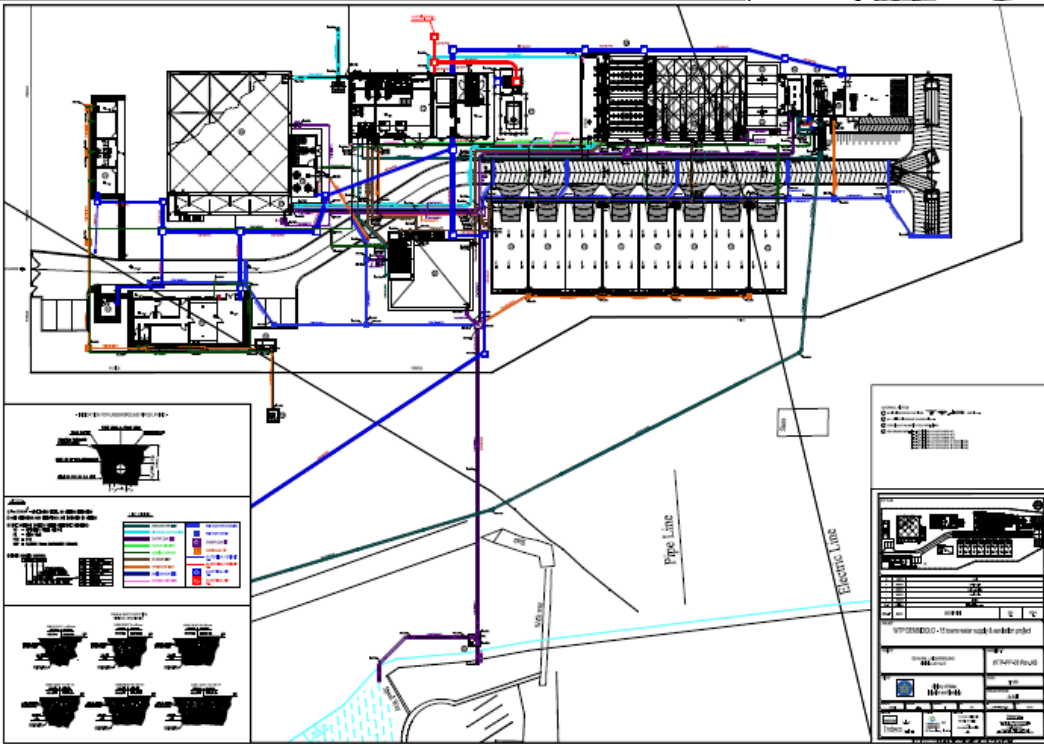
Dembidollo-



**Dembidollo Water Treatment Plant  
Ethiopia**

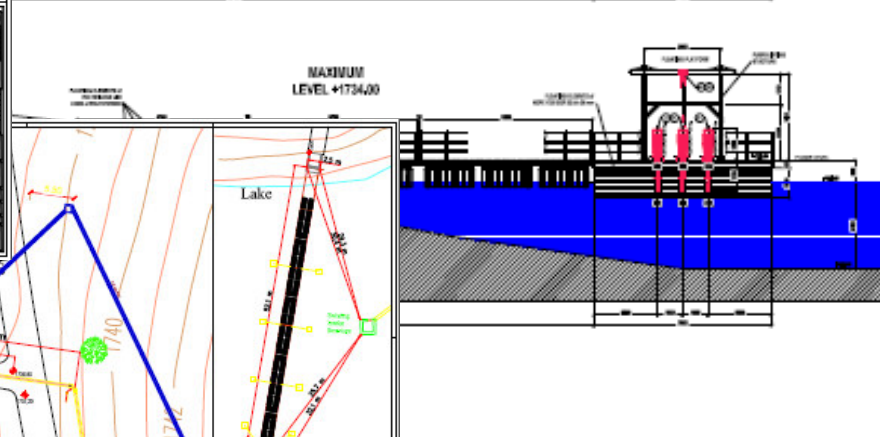
Dembidollo-





LIST OF QUANTITY

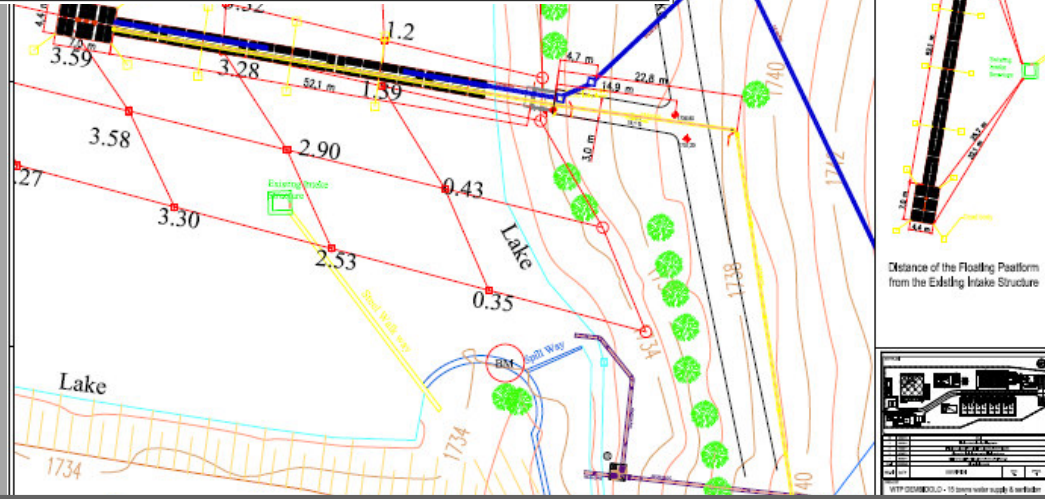
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- GENERAL NOTES
- 1. ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SPECIFIED.
  - 2. ALL MATERIALS SHALL BE AS PER THE SPECIFICATIONS.
  - 3. ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE DRAWINGS AND SPECIFICATIONS.
  - 4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS.

PROJECT INFORMATION

PROJECT NAME	DEM BIDOLLO - 11 bars water supply & water treatment plant
CLIENT	...
DESIGNER	...
DATE	...
SCALE	...
PROJECT NO.	...
DESIGNER'S SIGNATURE	...
DATE	...

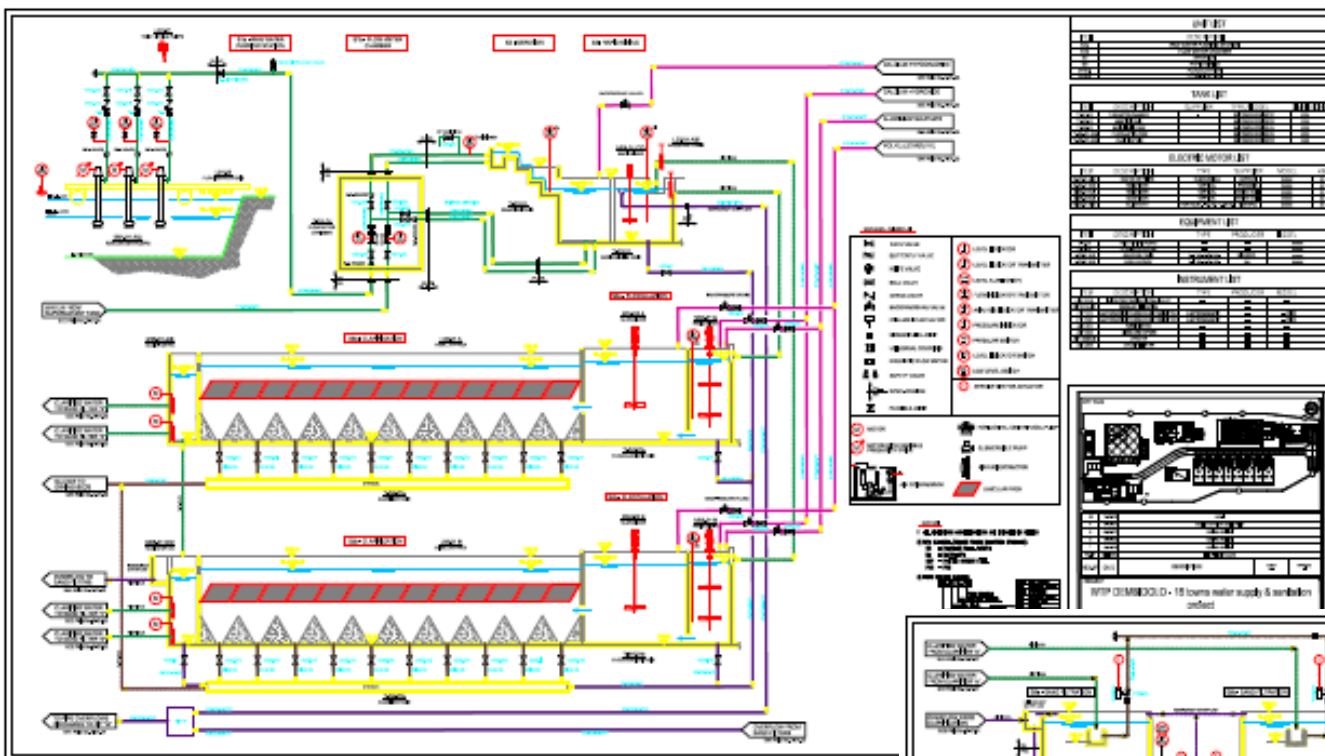




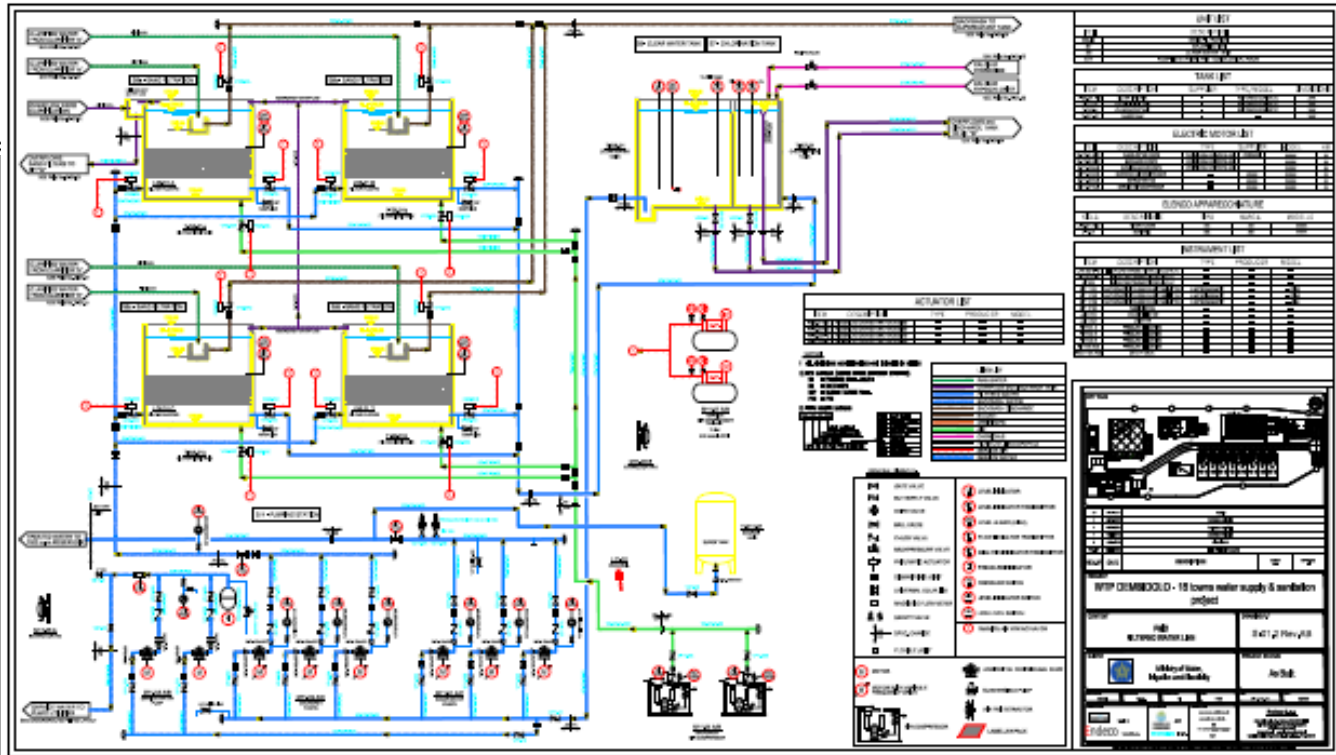


**Dembidollo Water Treatment Plant**  
Ethiopia

Dembidollo-



EQUIPMENT LIST	
NO.	DESCRIPTION
1	RAW WATER INTAKE
2	RAW WATER STORAGE TANK
3	RAW WATER PUMP
4	RAW WATER DISTRIBUTION NETWORK
5	RAW WATER FILTERS
6	RAW WATER STORAGE TANK
7	RAW WATER PUMP
8	RAW WATER DISTRIBUTION NETWORK
9	RAW WATER FILTERS
10	RAW WATER STORAGE TANK
11	RAW WATER PUMP
12	RAW WATER DISTRIBUTION NETWORK
13	RAW WATER FILTERS
14	RAW WATER STORAGE TANK
15	RAW WATER PUMP
16	RAW WATER DISTRIBUTION NETWORK
17	RAW WATER FILTERS
18	RAW WATER STORAGE TANK
19	RAW WATER PUMP
20	RAW WATER DISTRIBUTION NETWORK



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16	RAW WATER DISTRIBUTION NETWORK
17	RAW WATER FILTERS
18	RAW WATER STORAGE TANK
19	RAW WATER PUMP
20	RAW WATER DISTRIBUTION NETWORK

Dembidollo Water Treatment Plant  
Ethiopia

Dembidollo-

Detail: **F**easibility Study for Spinning  
and Denim Plant

Location: Bishkek - Kyrgyzstan

Production Capacity: 20 million  
sqm/year of denim  
fabric













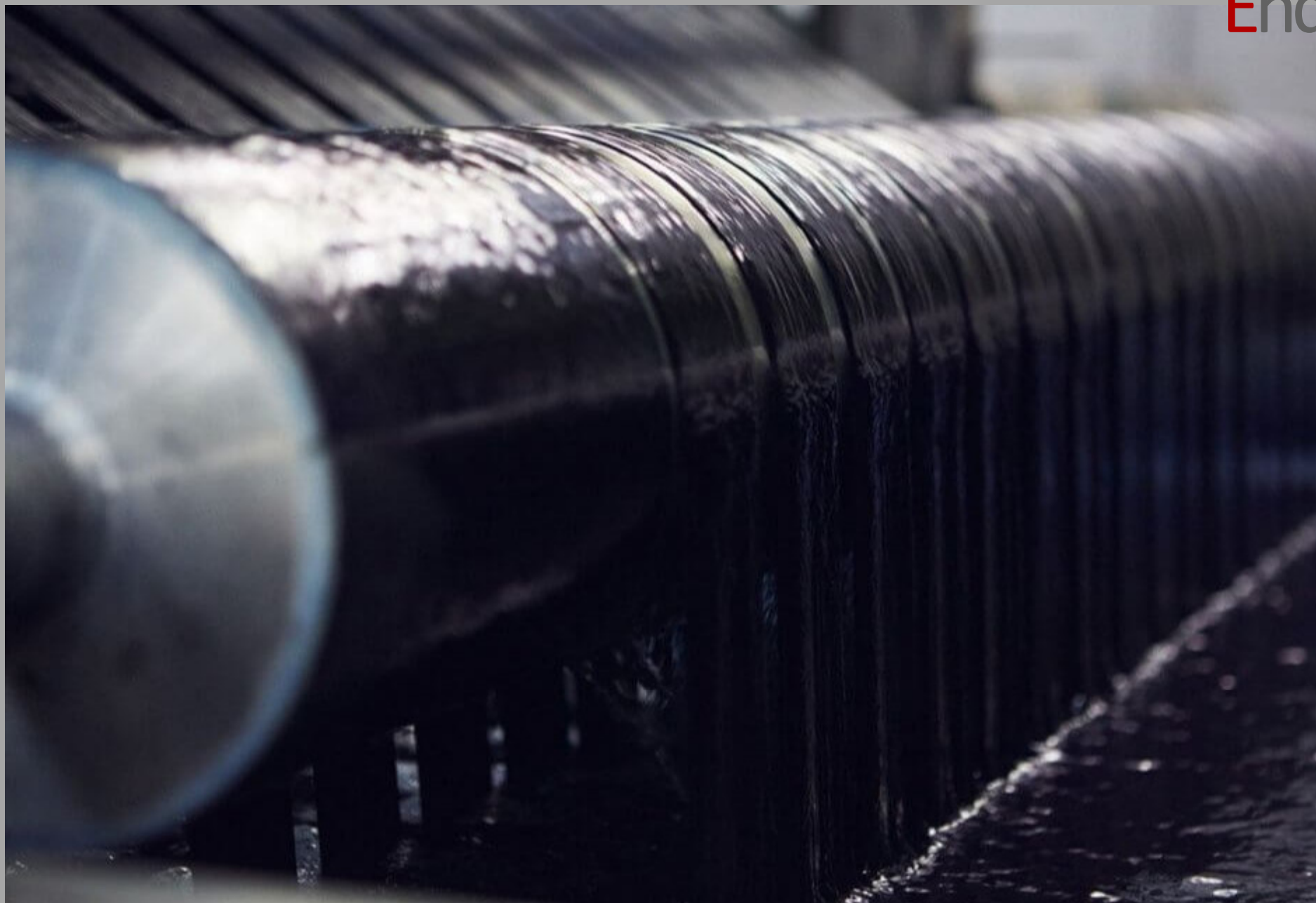










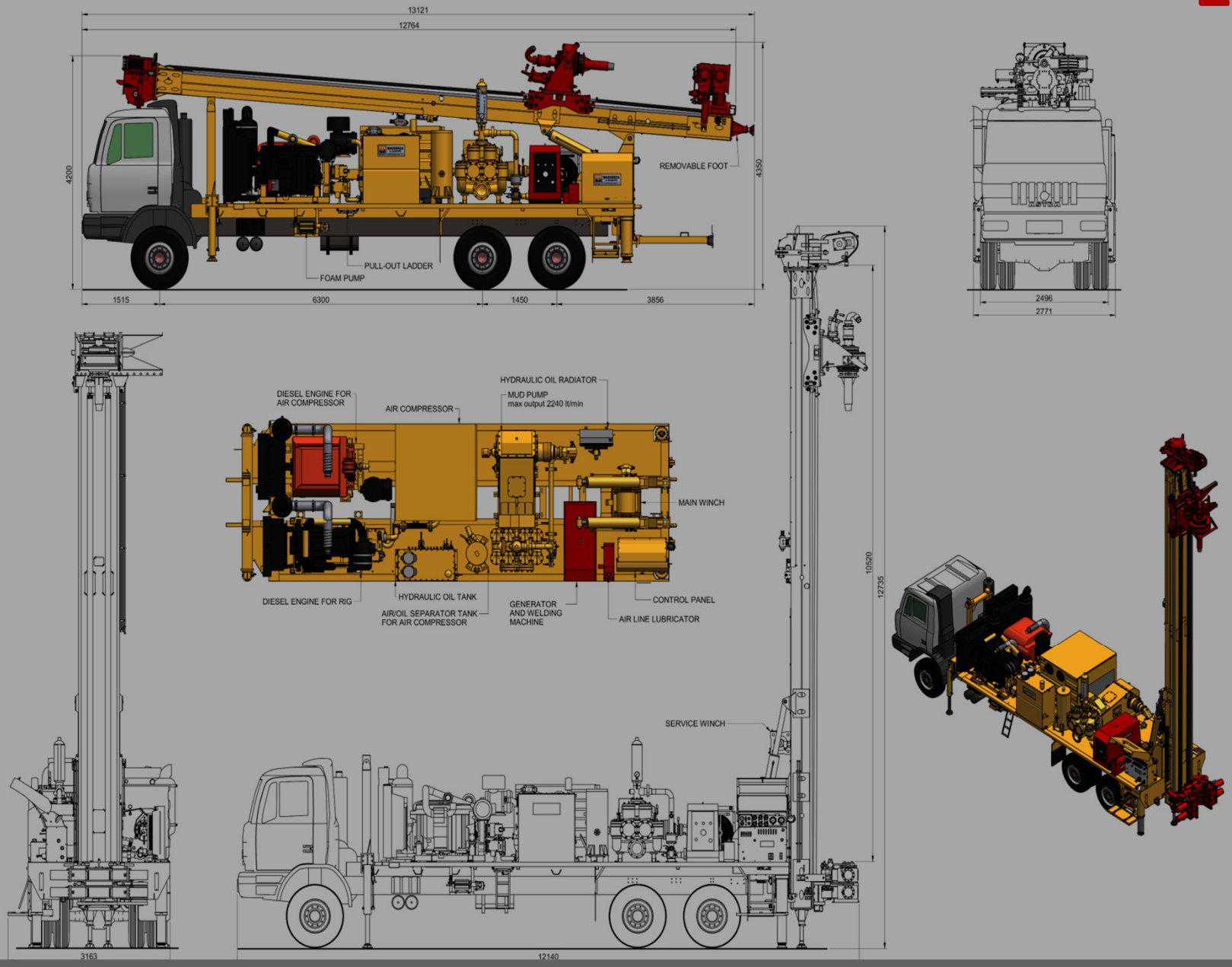


Detail: **Water wells drilling rigs**  
Ethiopia

Capacity: 7 rigs, depth up to 300 m with  $\phi$ 17 "half w / truck  
7 drills, depth up to 600 m with  $\phi$ 22 "w / truck  
6 rigs for maintenance

Scope of work: Design and supply of equipment







Drilling Rigs



Ethiopia





Drilling Rigs

Ethiopia





Drilling Rigs

Ethiopia





Drilling Rigs

Ethiopia

Detail: **Fragmented Scrap Factory**

Iraq

Capacity: 100 Ton/hr

Scope of work: Supply, installation and operation of a  
Fragmented Scrap Factory





Fragmented Scrap Factory

Iraq



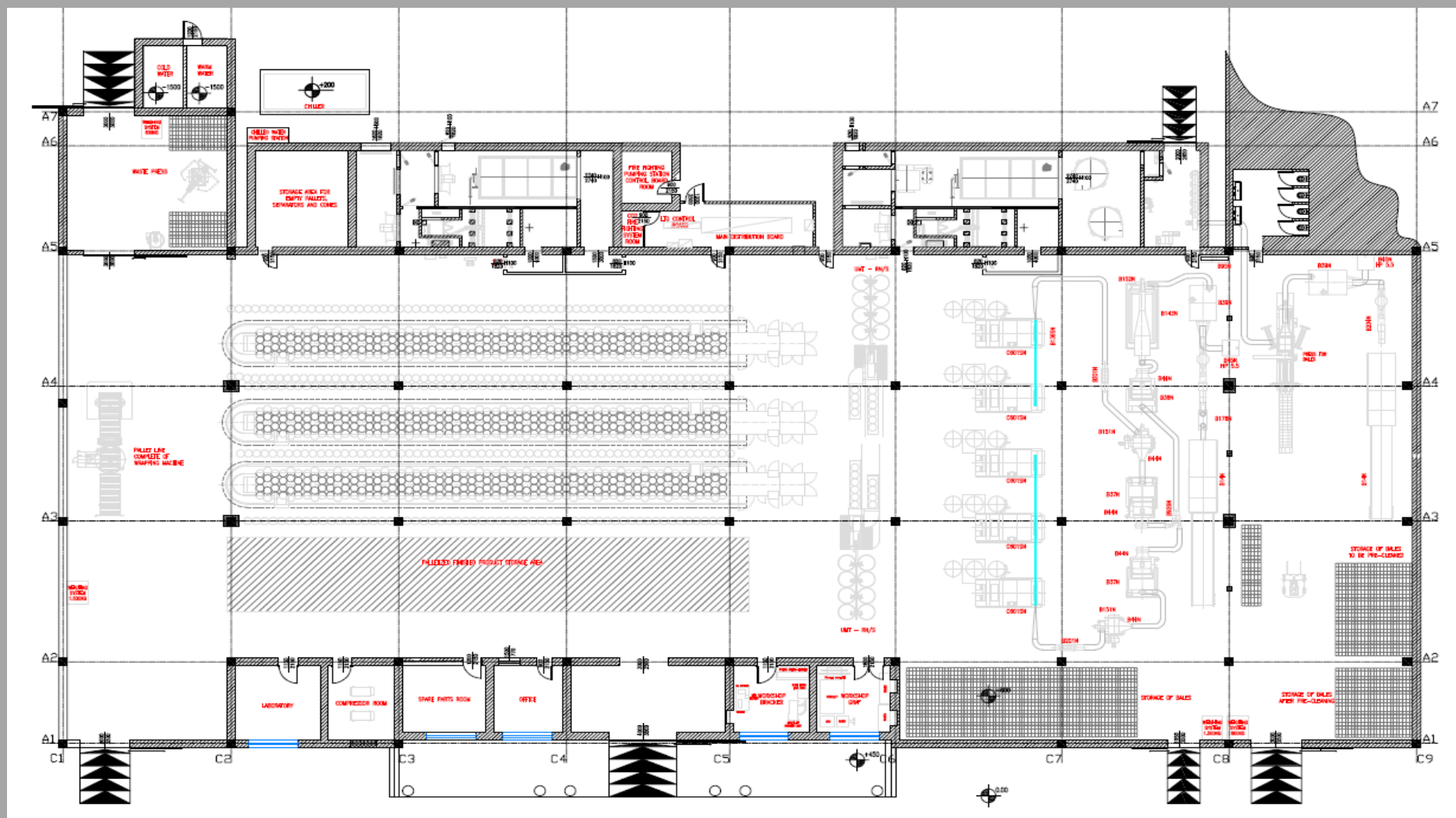
Fragmented Scrap Factory

Iraq



Detail: **EPC Contract for Cotton Waste Spinning  
Plant in Al Ahlia**

Location:	Aleppo - Syria
Capacity:	3.000 tons / year of cotton yarn – 8 Ne
Production Time:	345 days / year- 4 shifts per day



Cotton Waste Spinning Plant

Aleppo- Syria





Cotton Waste Spinning Plant

Aleppo- Syria



**Cotton Waste Spinning Plant**

**Aleppo- Syria**





**Cotton Waste Spinning Plant**

**Aleppo- Syria**



**Cotton Waste Spinning Plant**

**Aleppo- Syria**





Cotton Waste Spinning Plant

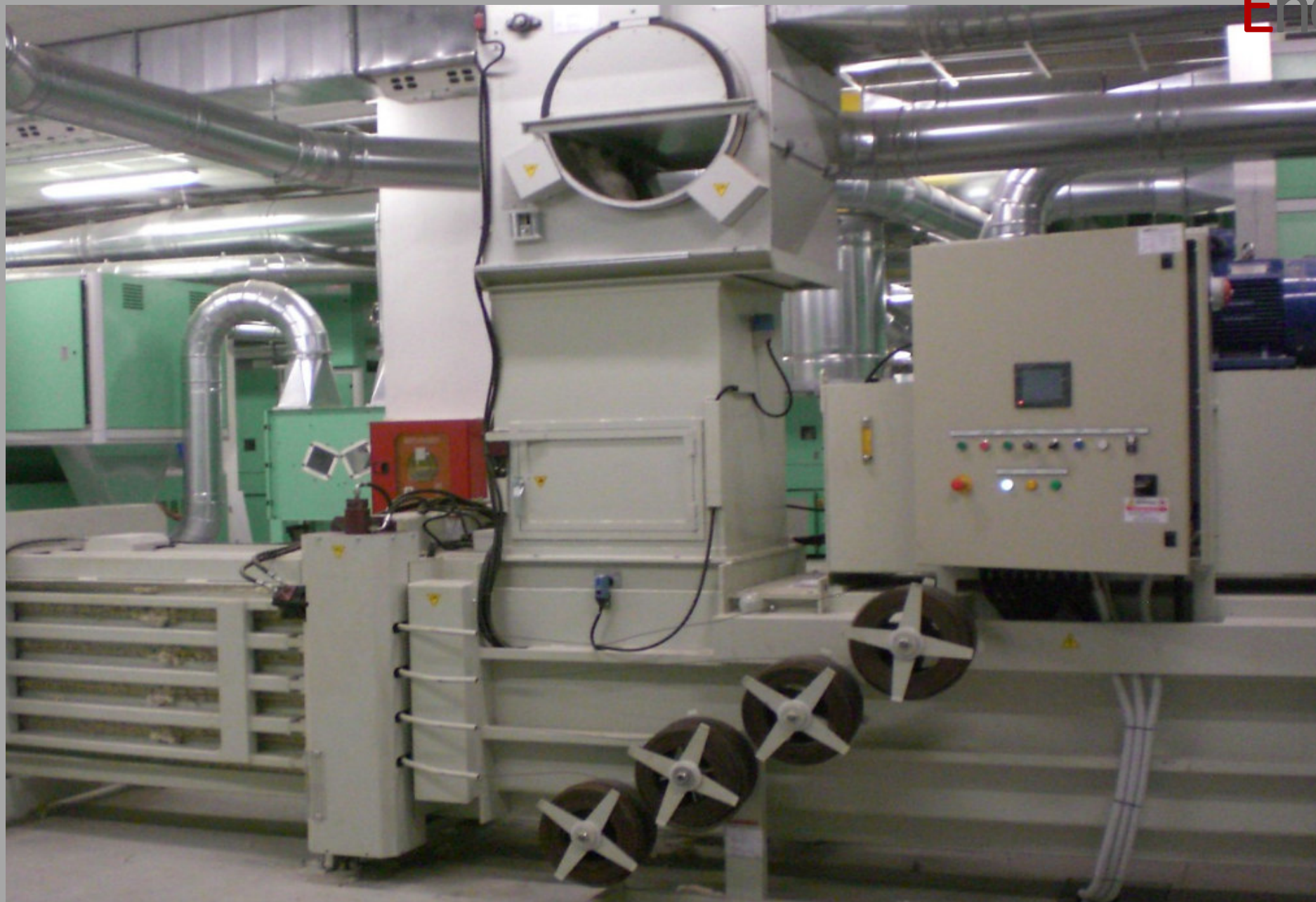
Aleppo- Syria



Cotton Waste Spinning Plant

Aleppo- Syria





Cotton Waste Spinning Plant

Aleppo- Syria



Cotton Waste Spinning Plant

Aleppo- Syria





Cotton Waste Spinning Plant

Aleppo- Syria





**Cotton Waste Spinning Plant**

**Aleppo- Syria**





Cotton Waste Spinning Plant

Aleppo- Syria



Cotton Waste Spinning Plant

Aleppo- Syria



Detail: **LASER & LSAW Pipe Mill 28"**

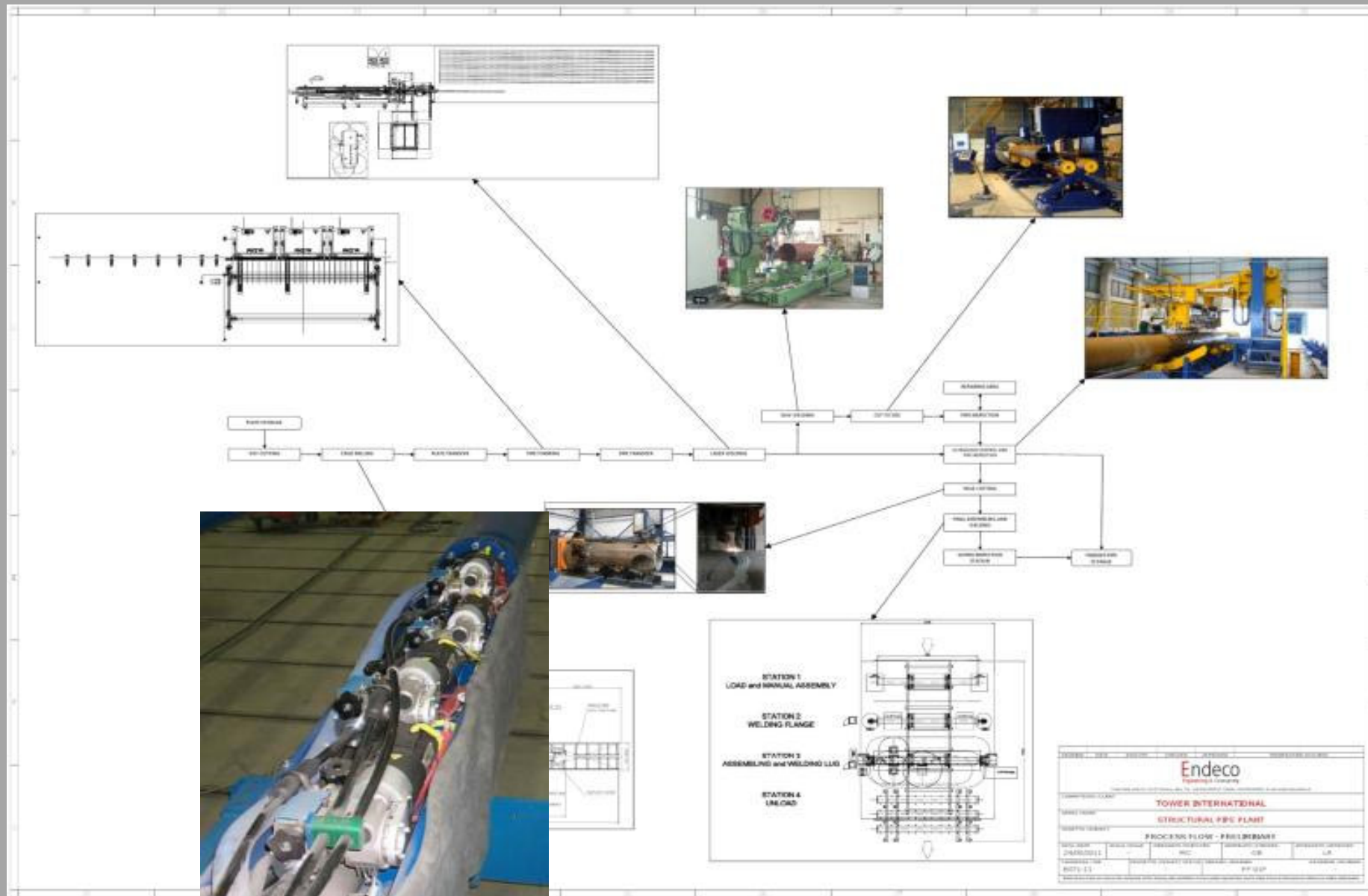
USA - Consultancy Service

Scope of work: Engineering of mainstream production

Capacity: 60.000 Ton/yr

Sections:

- Plasma cutting
- Edge Milling
- Pipe Forming
- Laser Welding
- LSAW process
- Ultrasonic control
- Assembly & Welding island



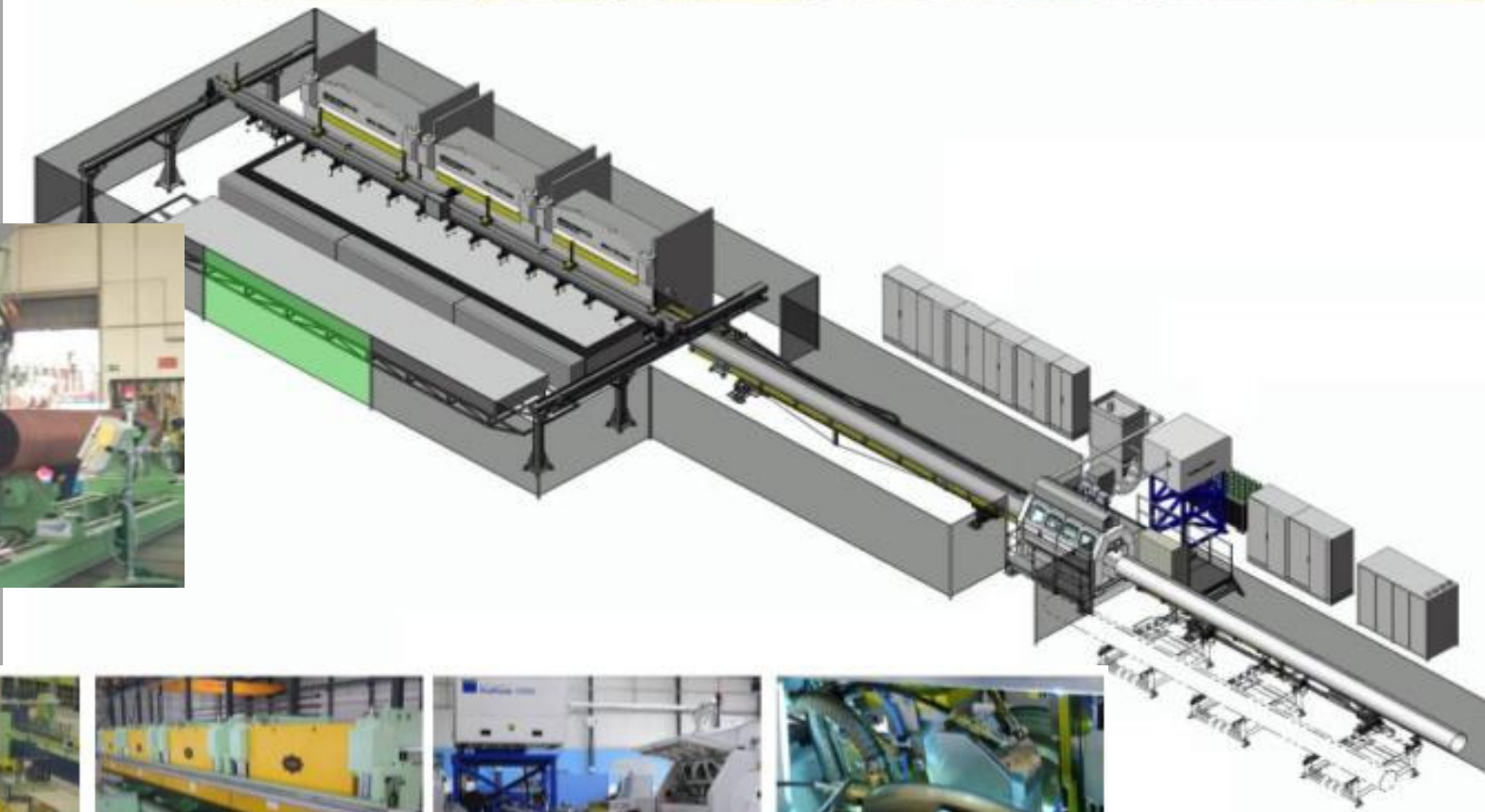
Laser & Lsaw Pipe Mill





Laser & Lsaw Pipe Mill

USA



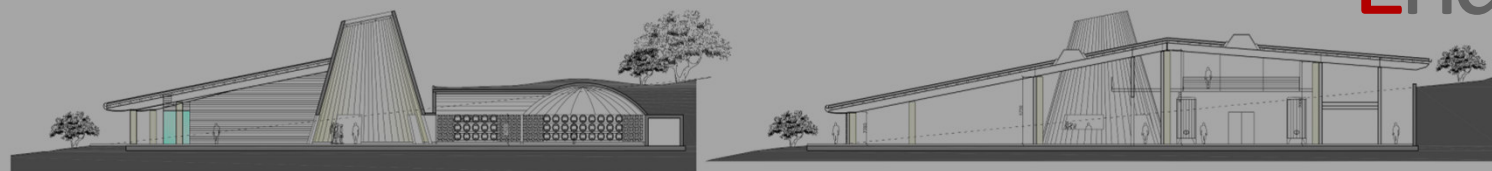


Detail: **W**ine cellar from grapes to  
storage

Krasnodar

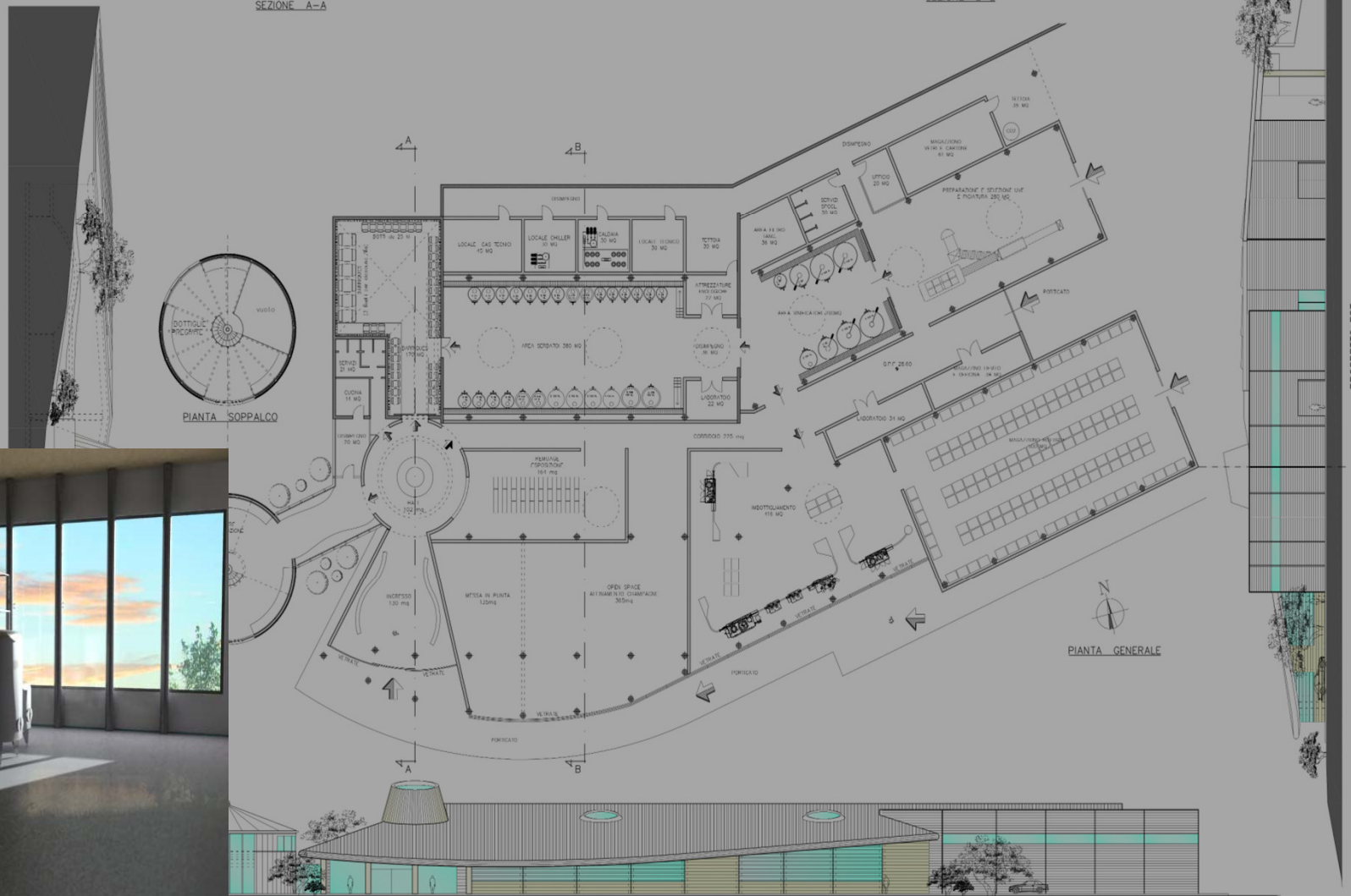
Capacity: 80.000 bottles/year

Scope of work: Design and supply of electromechanical  
systems



SEZIONE A-A

SEZIONE B-B



PIANTA Soppalco



PIANTA GENERALE



Wine Cellar

Russia





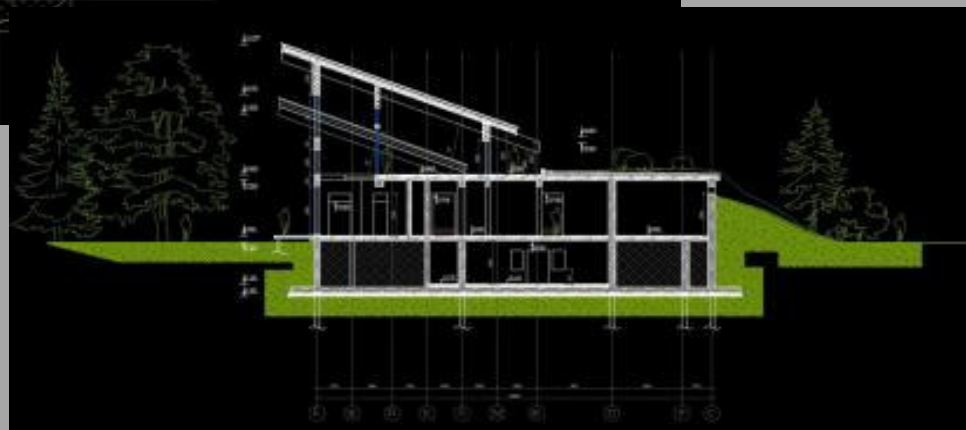
Detail: **S**port Center

Russia

Scope of work :

Design and supply of electromechanical systems





Sport Center

Russia





Sport Center

Russia

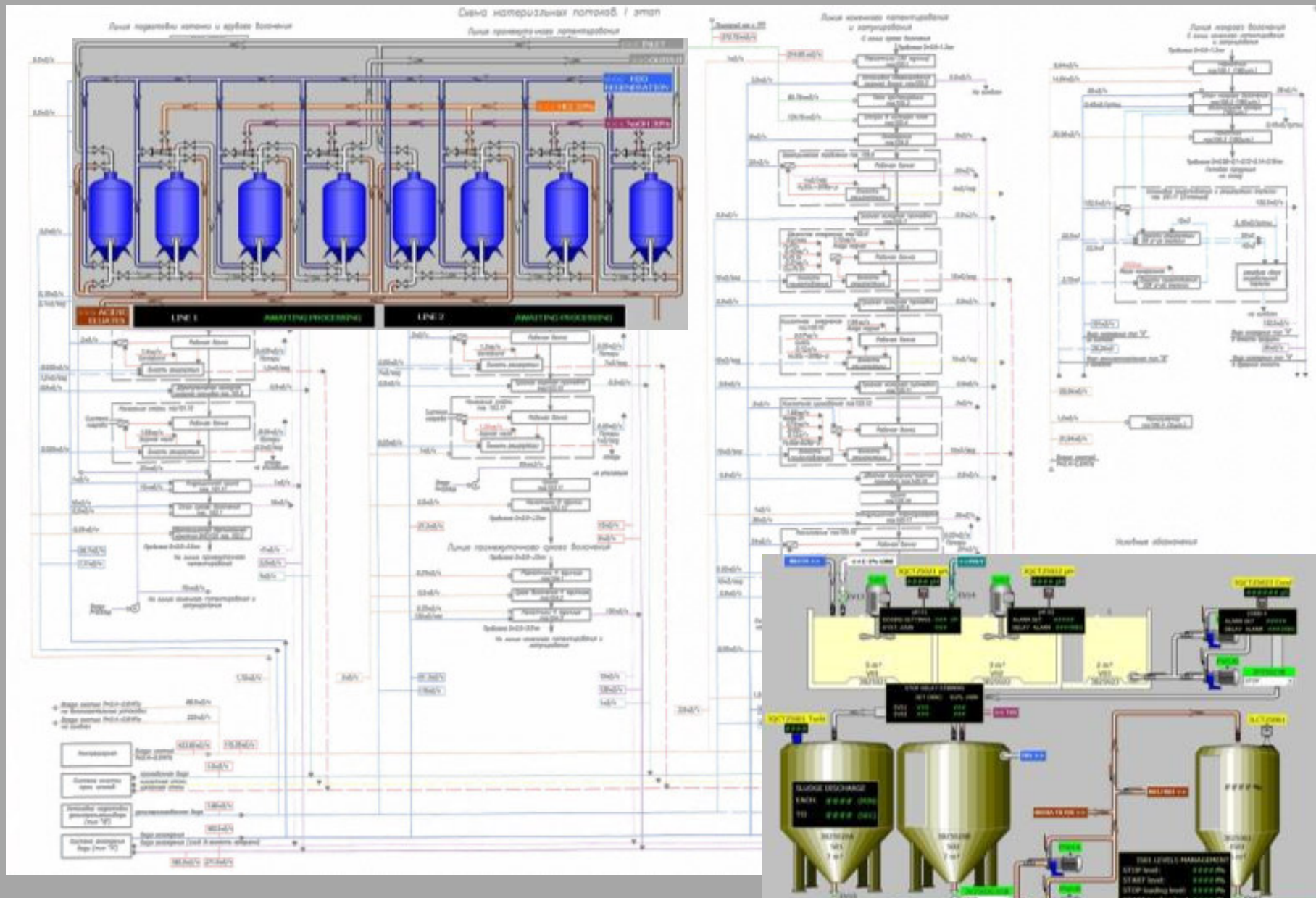


Detail: **MFL Saw Wire Project**

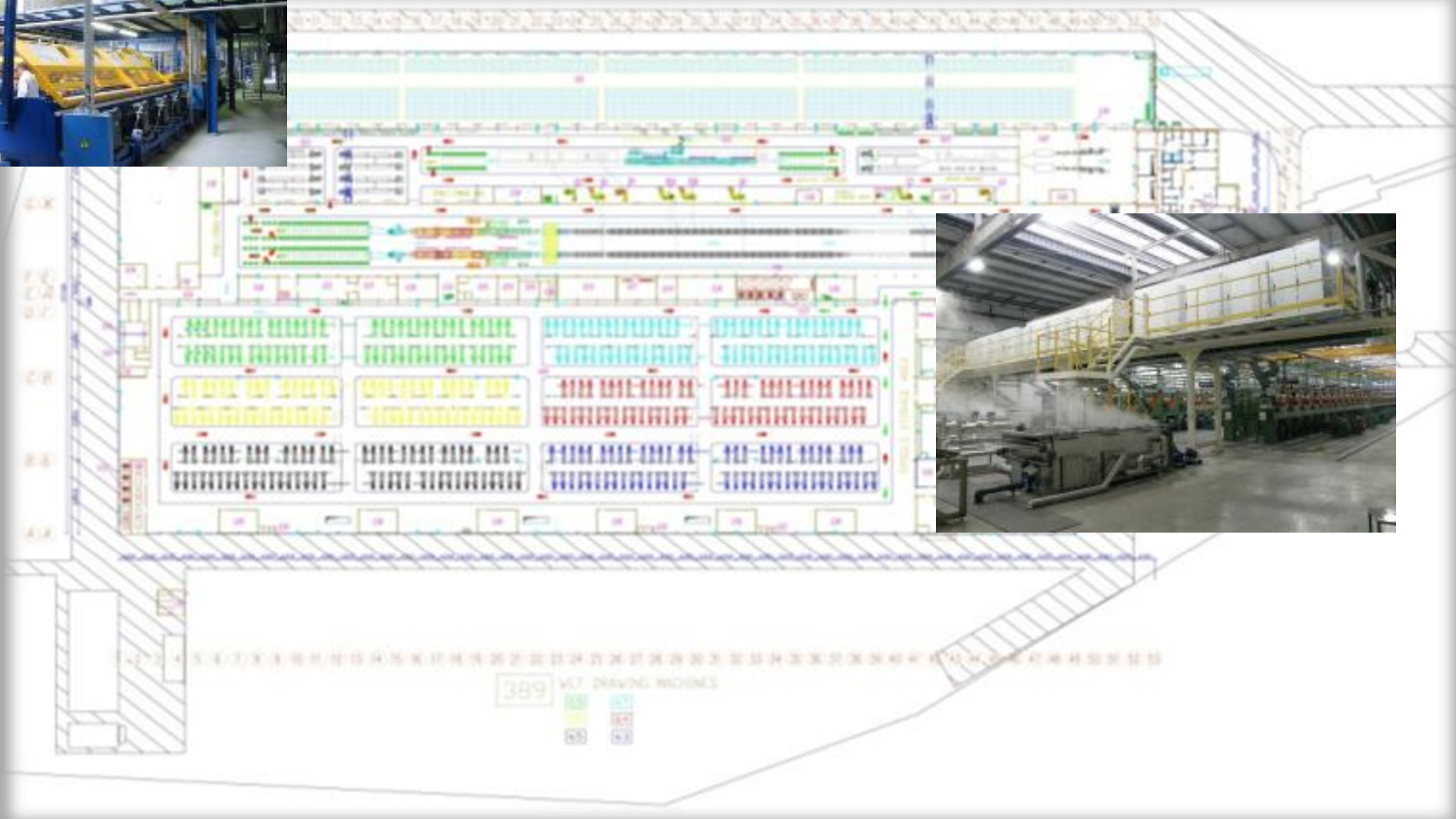
China – Completed

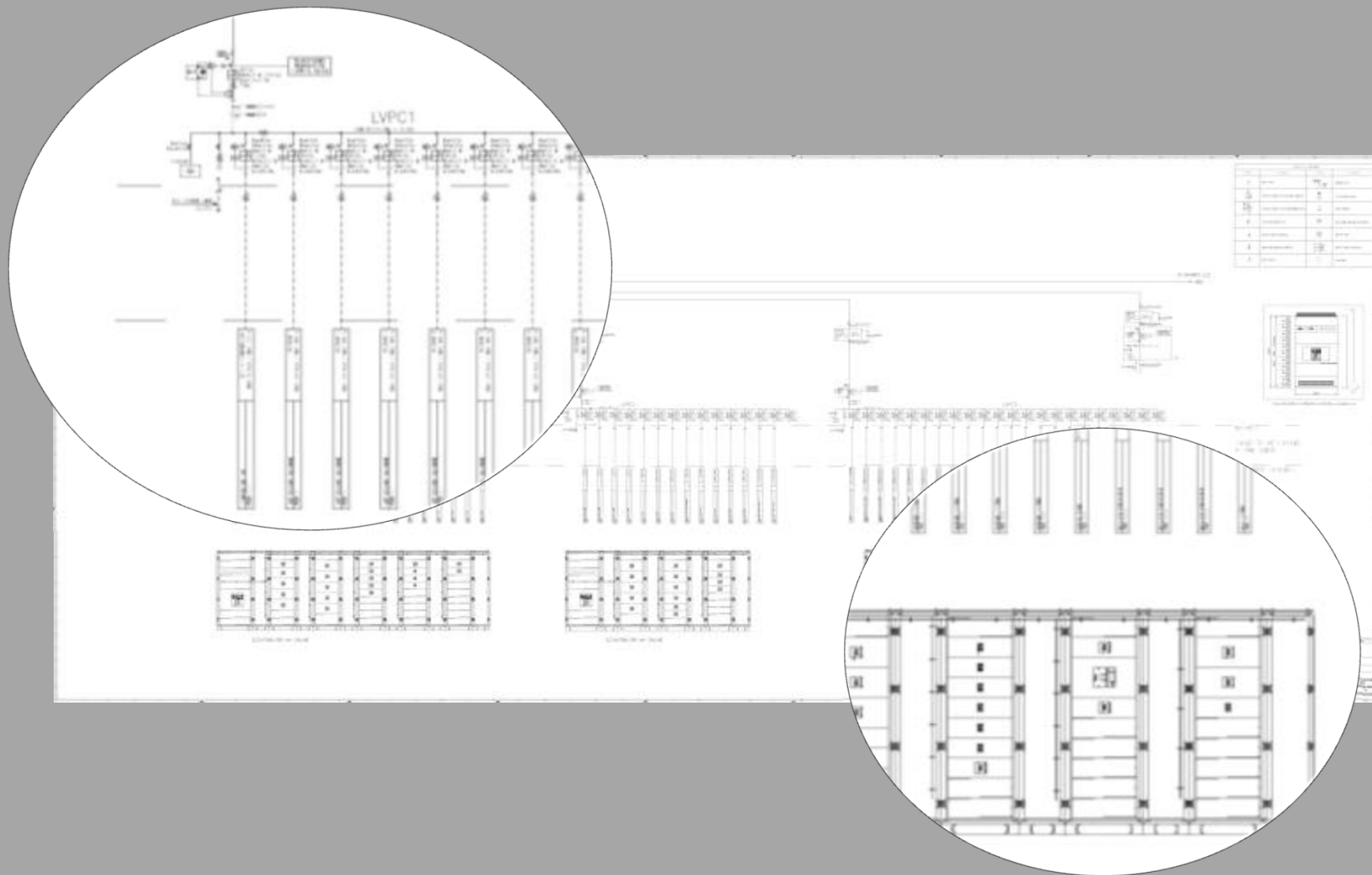
Capacity: 10.000 Ton/yr

Scope of work: Basic Plant Engineering and Auxiliaries  
detailed design for Saw Wire Plant

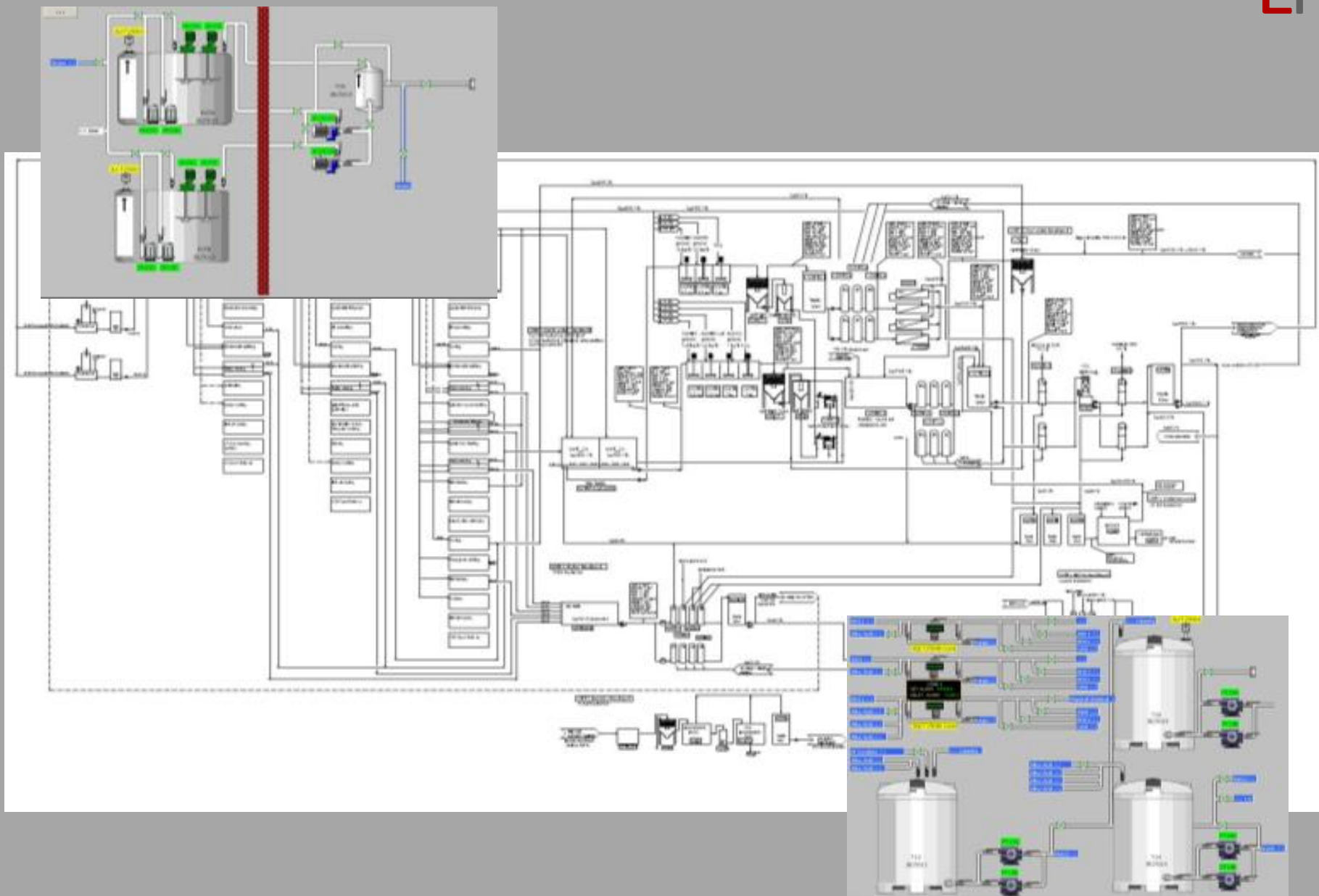












Saw Wire Project

China

Detail: **Villa Magnolia**

Russia

Capacity : 11.000 sq.m

Scope of work : Design and supply of electromechanical systems

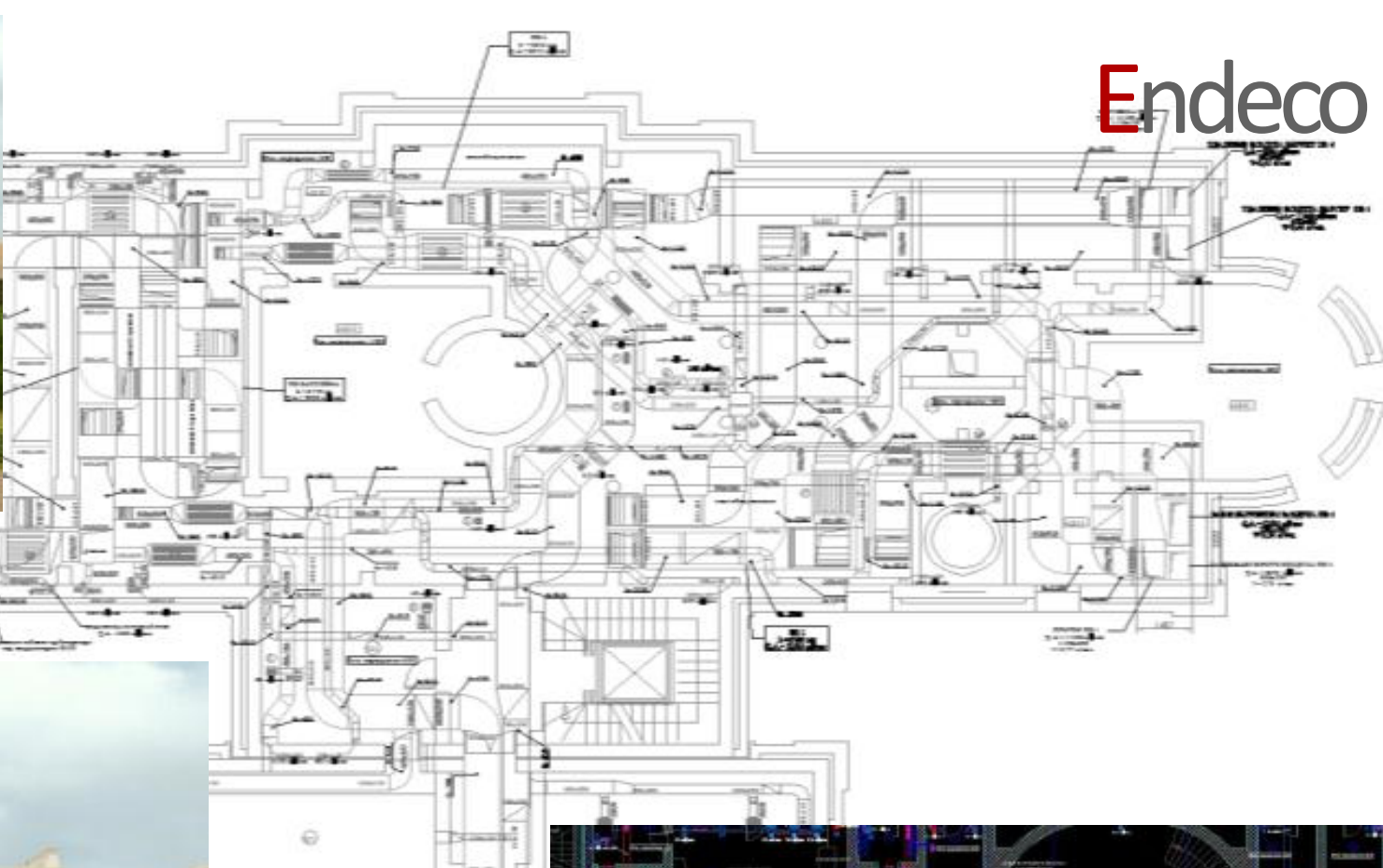




Villa Magnolia

Russia





Villa Magnolia

Russia



Detail: **LSAW API 5L Line Pipe Mill**

Thailand - Consultancy Service

Scope of work: Process Engineering and Feasibility Study

Capacity: 85.000 Ton/yr

Diameter: 16" ÷ 64"

Thickness: 10mm ÷ 30mm



LSAW Pipe Mill

Thailand





LSAW Pipe Mill

Thailand

Detail: **New woven garment plant at  
Almeda Textile PLC**

Location: Adwa - Ethiopia

Capacity:

- Men's Shirts: 6.000 pieces / day
- Men's Trousers: 14.000 pieces / day
- Denim trousers: 10.000 pieces / day

Production Time: 7,5 hours per shift - 2 shifts per day



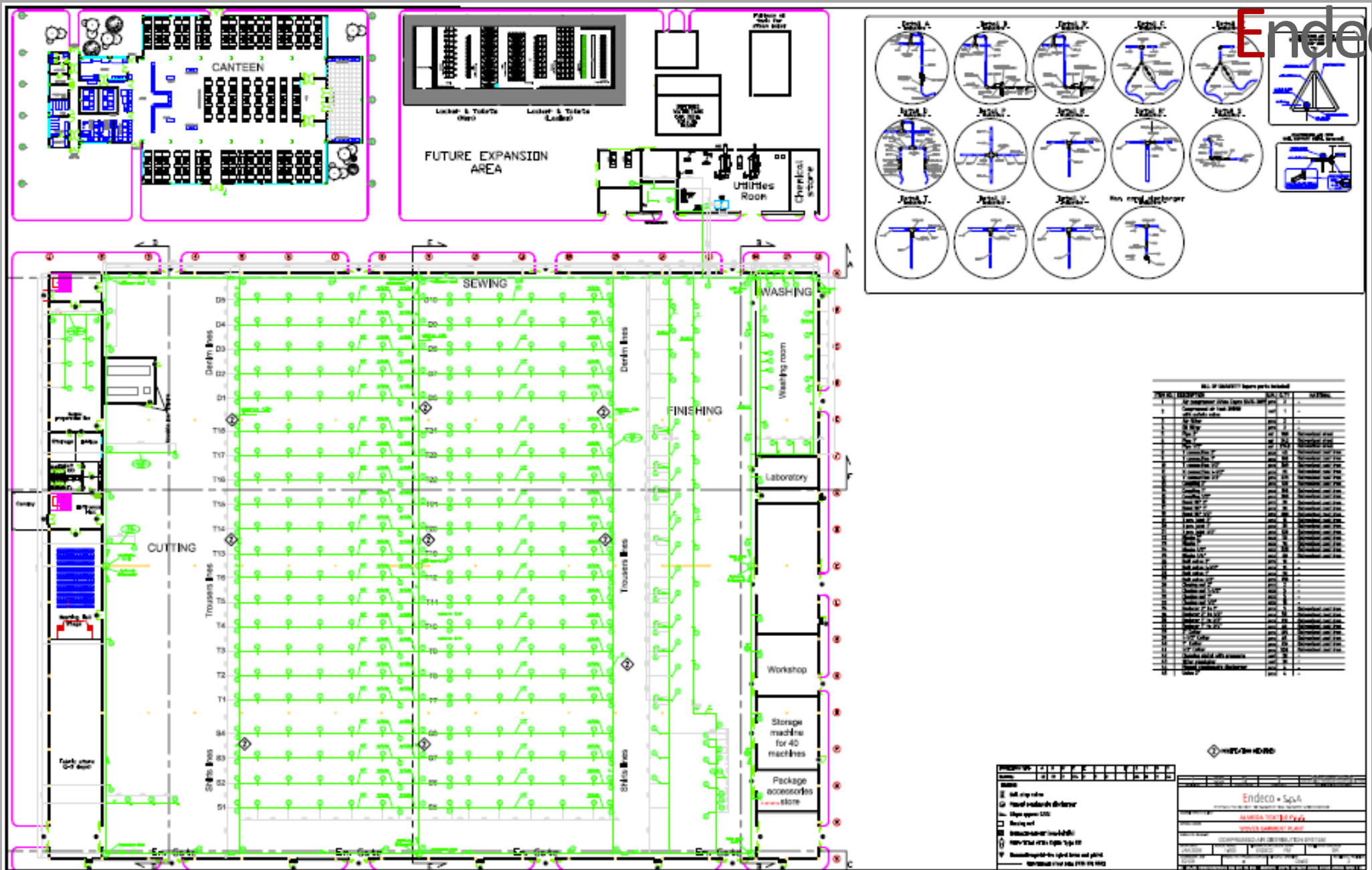
## **Plant Set-up:**

- Raw Material Store
- Cutting Section
- Sewing Section
- Finishing Section
- Washing Area
- Finished Product Store
- Utilities and Auxiliaries

(Steam Generation and Distribution, Vacuum System, Compressed Air, Emergency Power Generation and Power Distribution, Water Softening and Distribution, Fire Fighting, LPG System)

## **Scope of Supply:**

Engineering, Know-How, Production Lines, Utilities and Auxiliaries, Supervision of Erection, Commissioning and Training



New woven garment plant

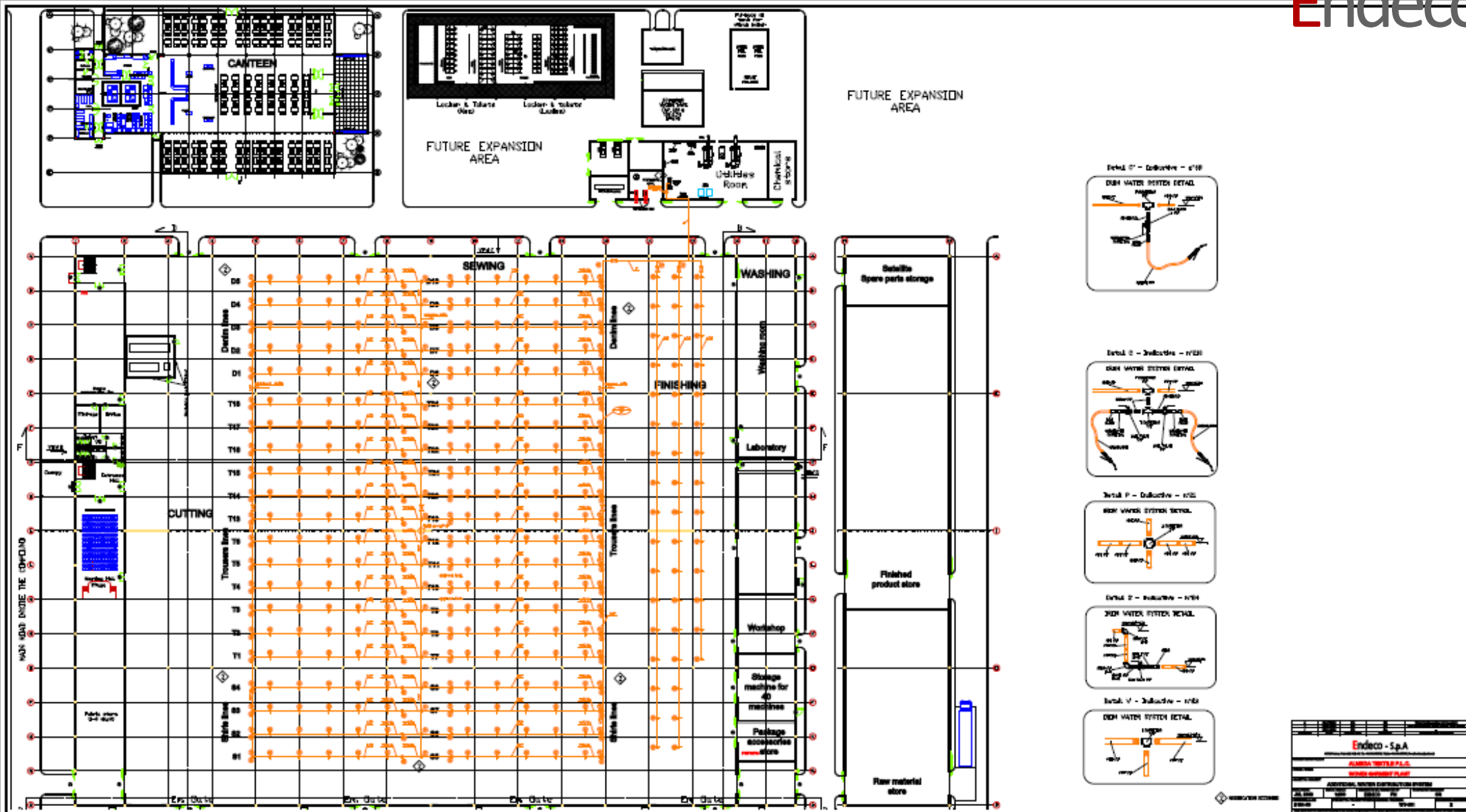
Adwa- Ethiopia





New woven garment plant

Adwa- Ethiopia



New woven garment plant

Adwa- Ethiopia





New woven garment plant

Adwa- Ethiopia





New woven garment plant

Adwa- Ethiopia





New woven garment plant

Adwa- Ethiopia

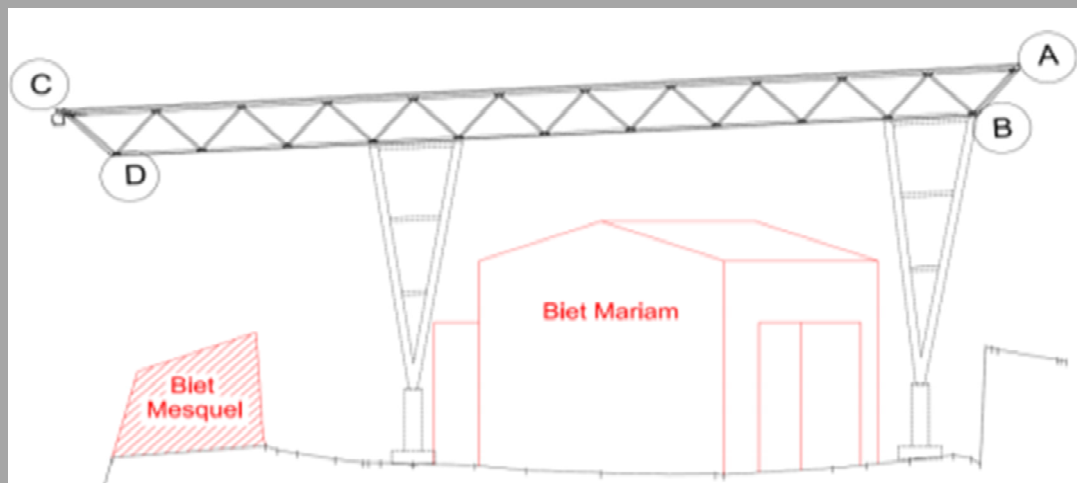
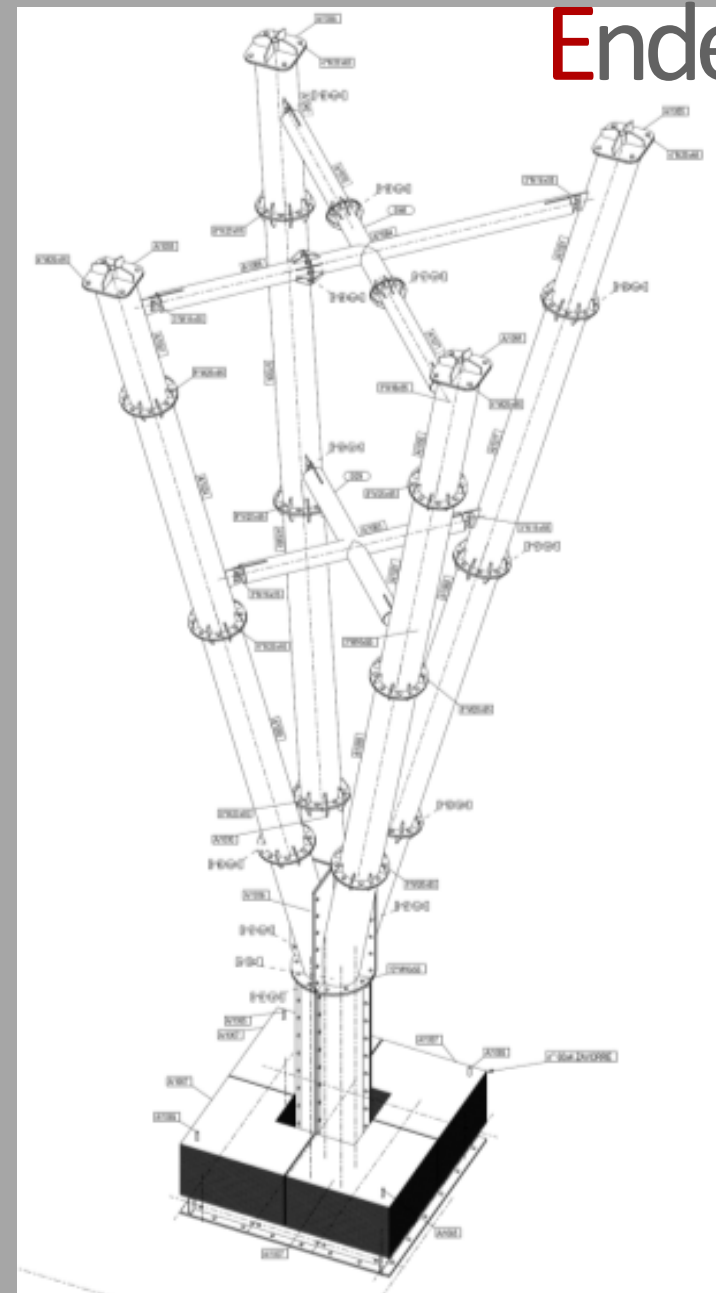
Detail: **Lalibela Five Churches Project**  
Ethiopia

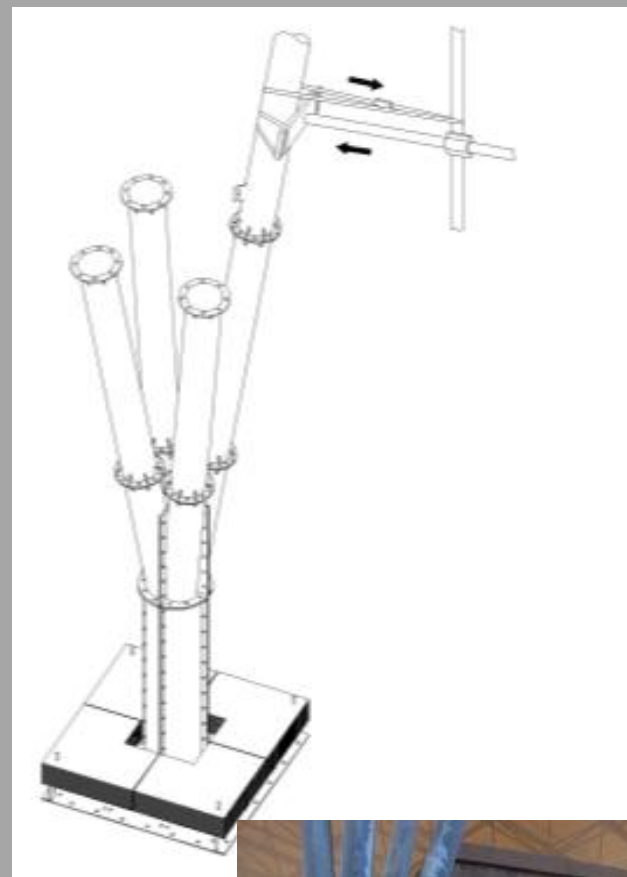
Scope of work: Engineering, supply and construction, supervision to erection, commissioning, testing and training

Activities:

- New Shelters for five churches
- Entrance control and service building
- Lalibela Community Center



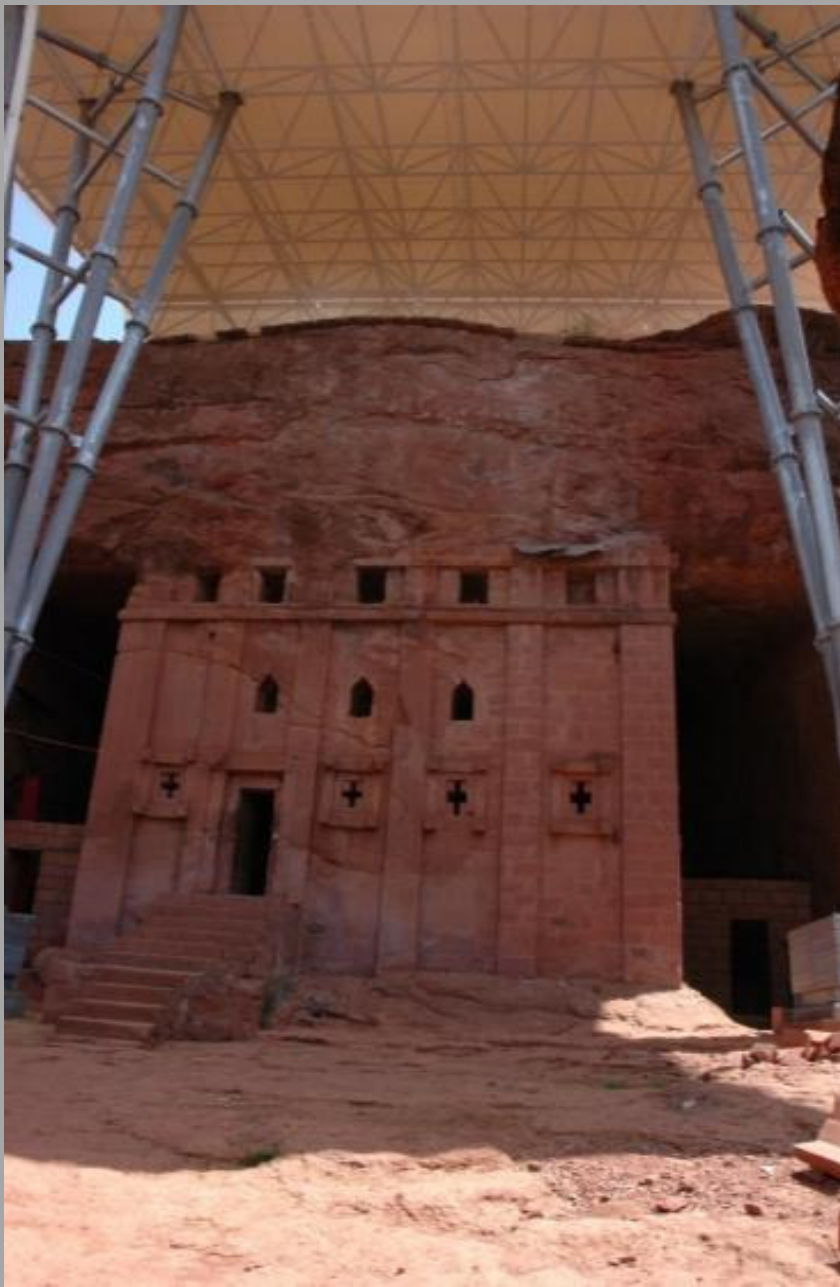




Lalibela Five Churches Project

Ethiopia



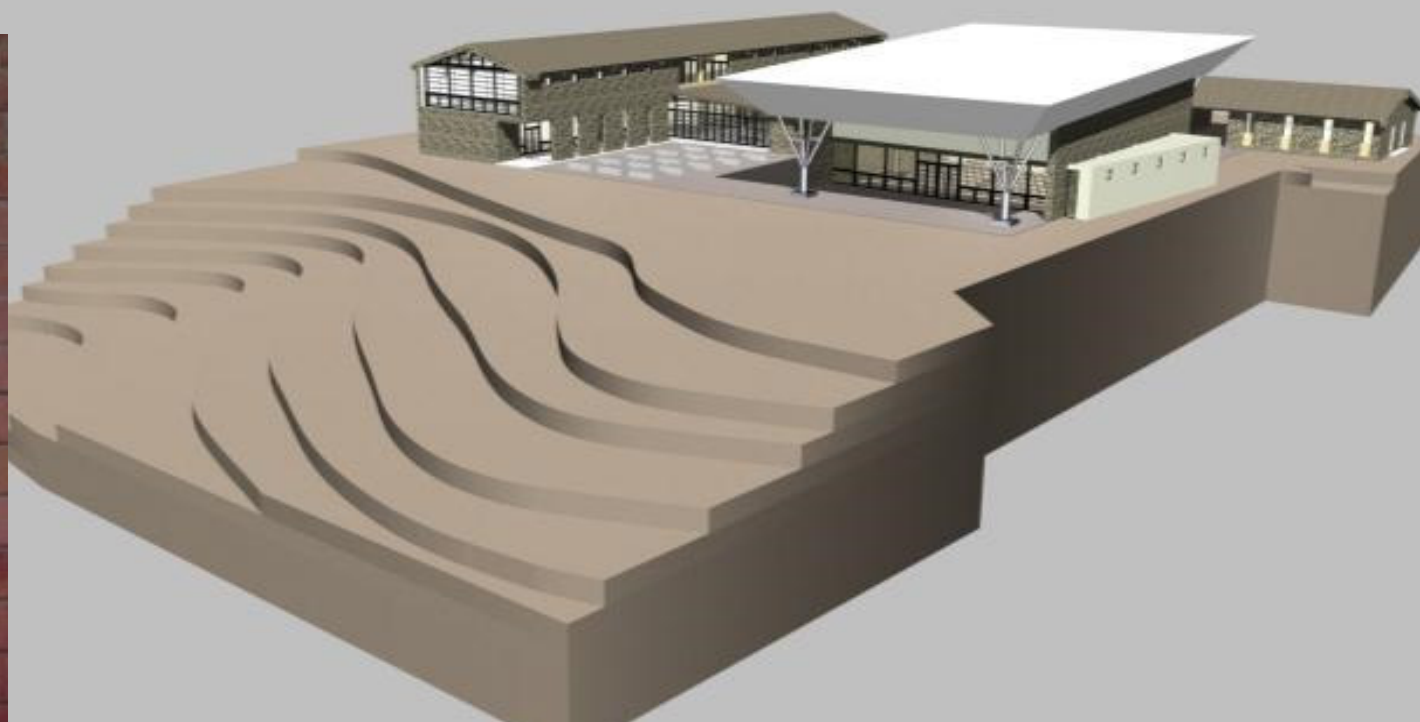
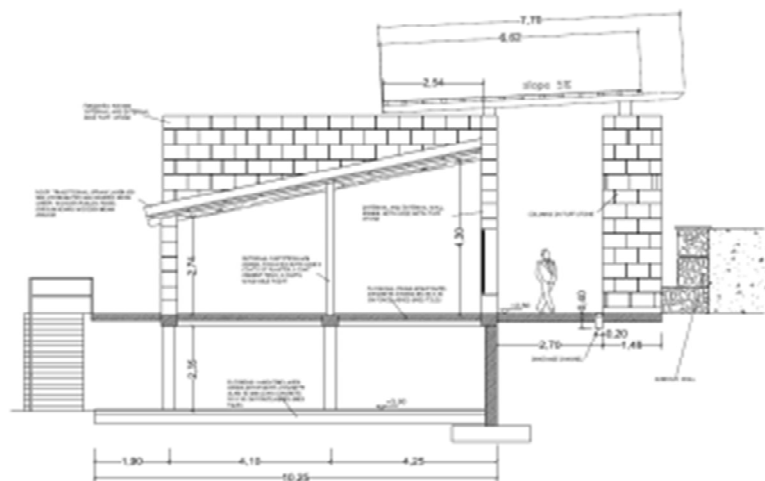


Endeco



Lalibela Five Churches Project

Ethiopia







Endeco



Lalibela Five Churches Project

Ethiopia

Detail: **EFB Composting Plant**

Thailand

**Scope of work:** Engineering, supply and construction of utilities, supervision to erection, commissioning, testing and training

**Capacity:**

- Raw material incoming: 80 ton/day
- Finished product: 40 ton/day





EFB Composting Plant

Thailand



EFB Composting Plant

Thailand





EFB Composting Plant

Thailand

Detail: **Cattle and Sheep Slaughterhouse**  
Qatar

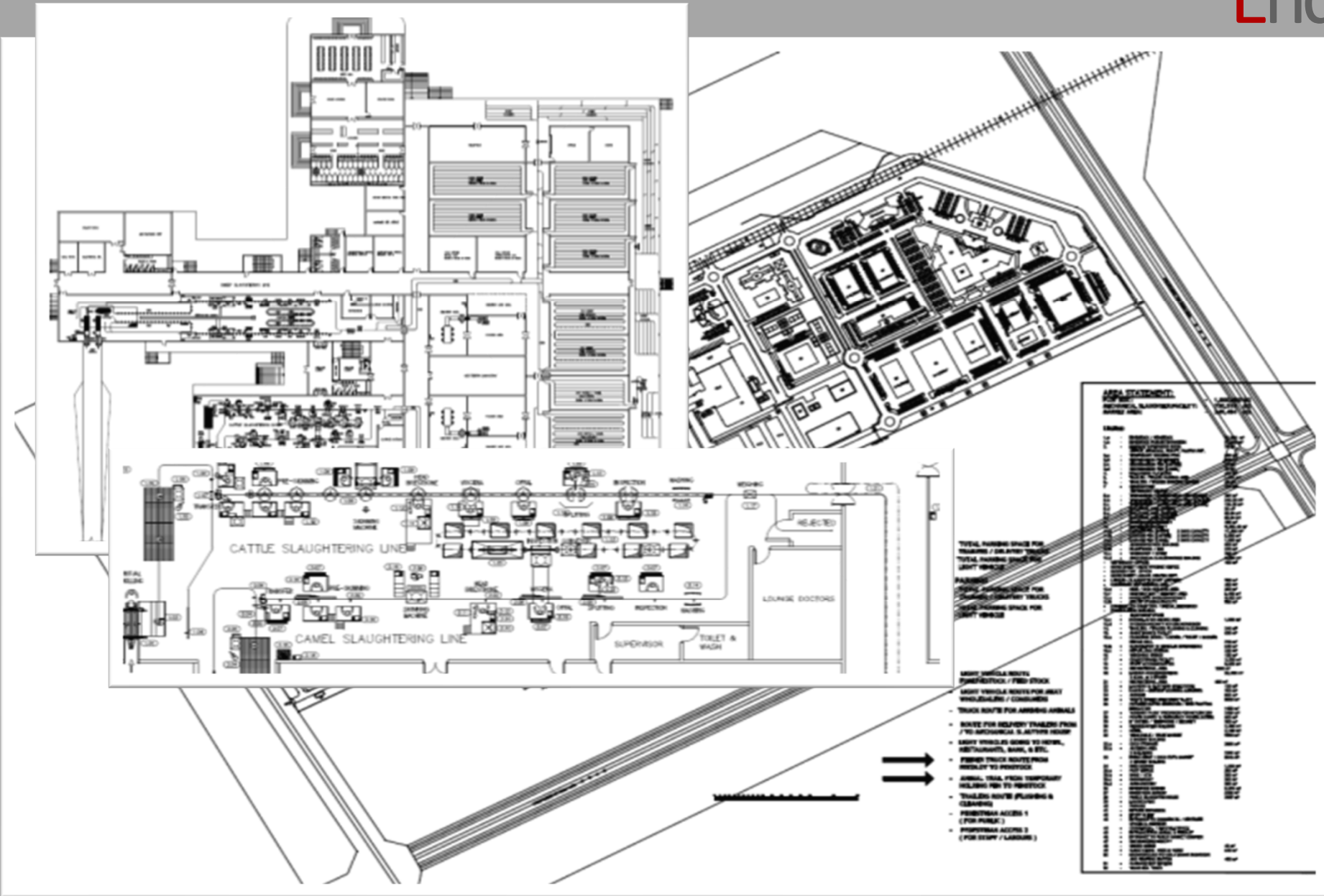
Scope of work:

Design for bidding purposes for the EPC contractor

Capacity:

- Cattle 40 heads/hour
- Camels 30 heads/hr
- Sheep 200 heads/hour





Slaughterhouse

Qatar





Detail: **Biscuit Manufacturing Plant**

Ethiopia

Capacity:

- Biscuits: 1500 kg/h
- Continuous production line length: 140 m
- Packing: 600 pieces/min

Scope of work:

Engineering, supply and construction, supervision to erection, commissioning, testing and training



Biscuit Plant

Ethiopia





Biscuit Plant

Ethiopia

Detail: **P**rocurement of capital goods – **Endeco**

**EPA**

## **Textile Projects**

Location: Ethiopia

Scope of Works: Procurement of Capital Goods and Services for:

- Addis Garment Factory
- Kombolcha Textile Share Co
- Adey Ababa Yarn Factory
- Gullele Garment Factory
- Ethio-Japanese Synthetic Textile Share Company
- Ediget Yam Sewing Thread Factory



# Addis Garment Factory



Endeco



EPA Textile Projects

Ethiopia



# Kombolcha Textile Share Co



EPA Textile Projects

Ethiopia





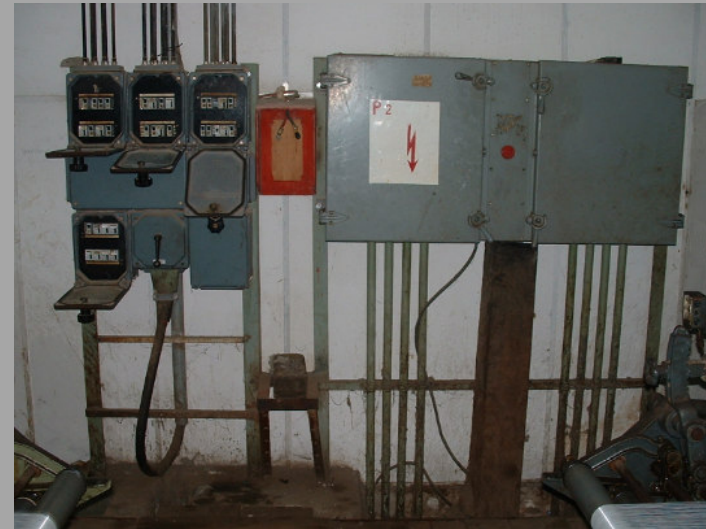






# Ethio-Japanese Synthetic Textile Share

Endeco



Ediget Yarn and Sewing Thread Factory

Ethiopia







# Ediget Yam Sewing Thread Factory

Endeco



Ediget Yarn and Sewing Thread Factory

Ethiopia

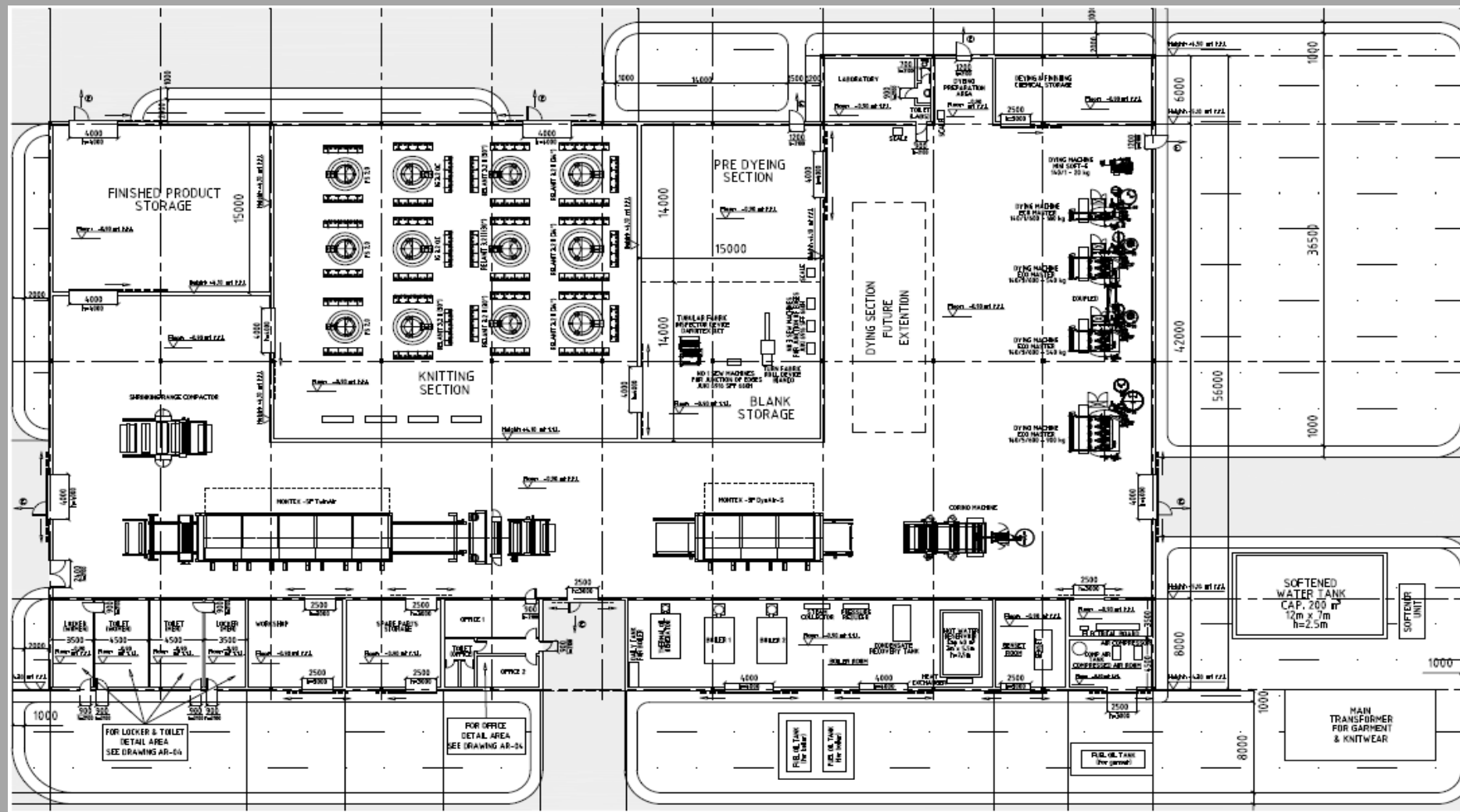
Detail: **K**nitwear and Spinning Project  
at Kebire Enterprise PLC

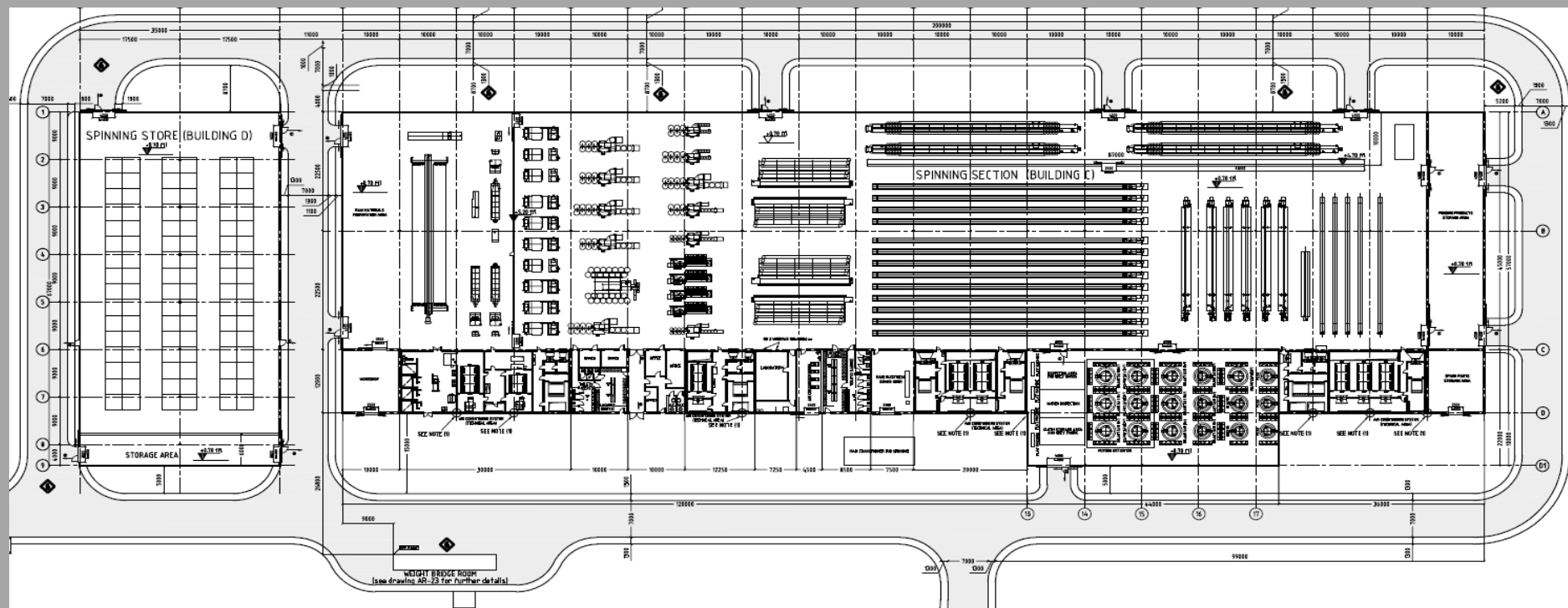
Location: Makalle - Ethiopia

Capacity:

- 4 Tons / day of carded ring yarn – Ne 25.4
- 3 Tons / day of combed ring yarn – Ne 30
- 3 Tons / day of yarn from cotton – Ne 20
  
- 6 Tons / day of knitwear fabric











Knitwear and Spinning Project

Makalle - Ethiopia





Knitwear and Spinning Project

Makalle - Ethiopia





Knitwear and Spinning Project

Makalle - Ethiopia







Knitwear and Spinning Project

Makalle - Ethiopia



**Knitwear and Spinning Project**

**Makalle - Ethiopia**





Knitwear and Spinning Project

Makalle - Ethiopia





Knitwear and Spinning Project

Makalle - Ethiopia





Knitwear and Spinning Project

Makalle - Ethiopia





Knitwear and Spinning Project

Makalle - Ethiopia

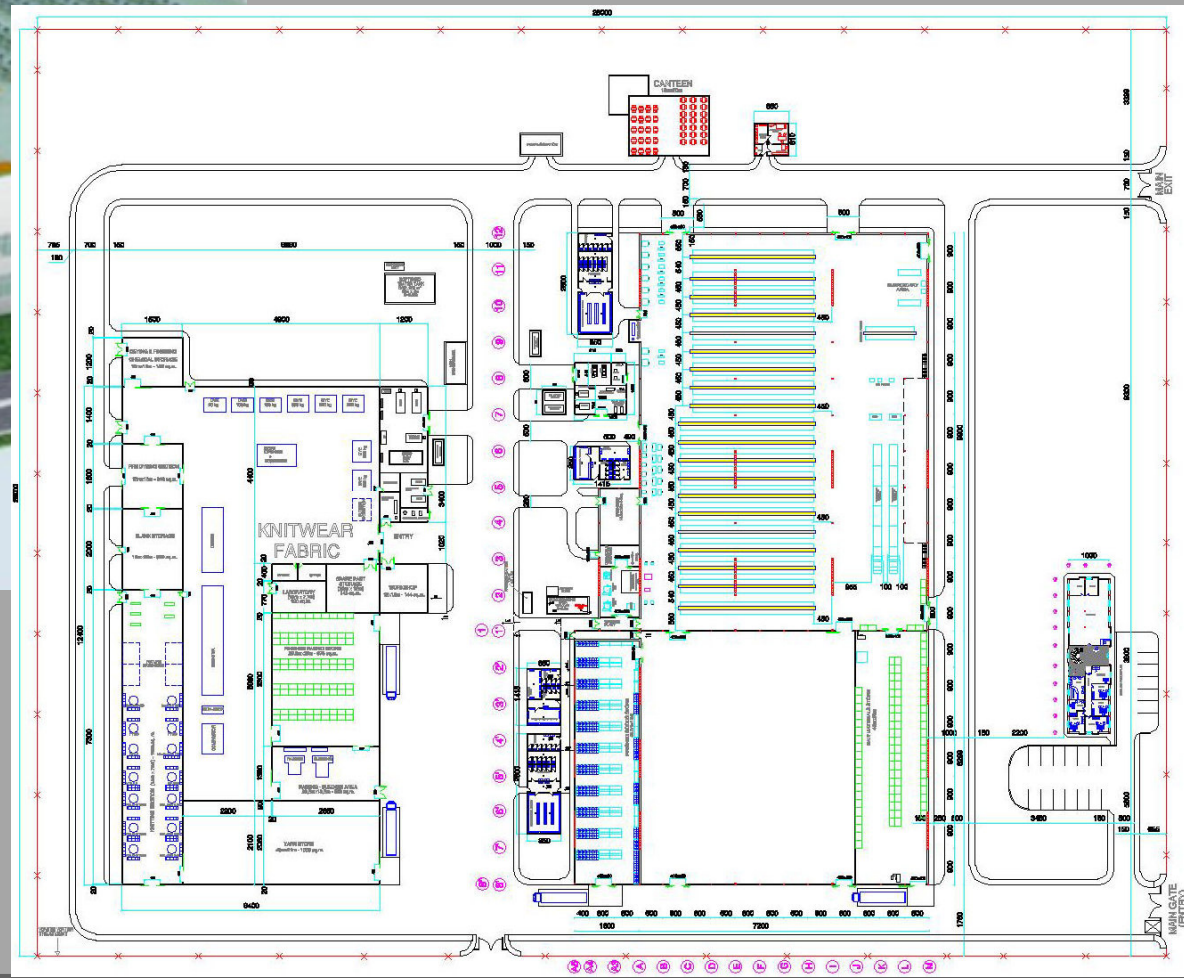
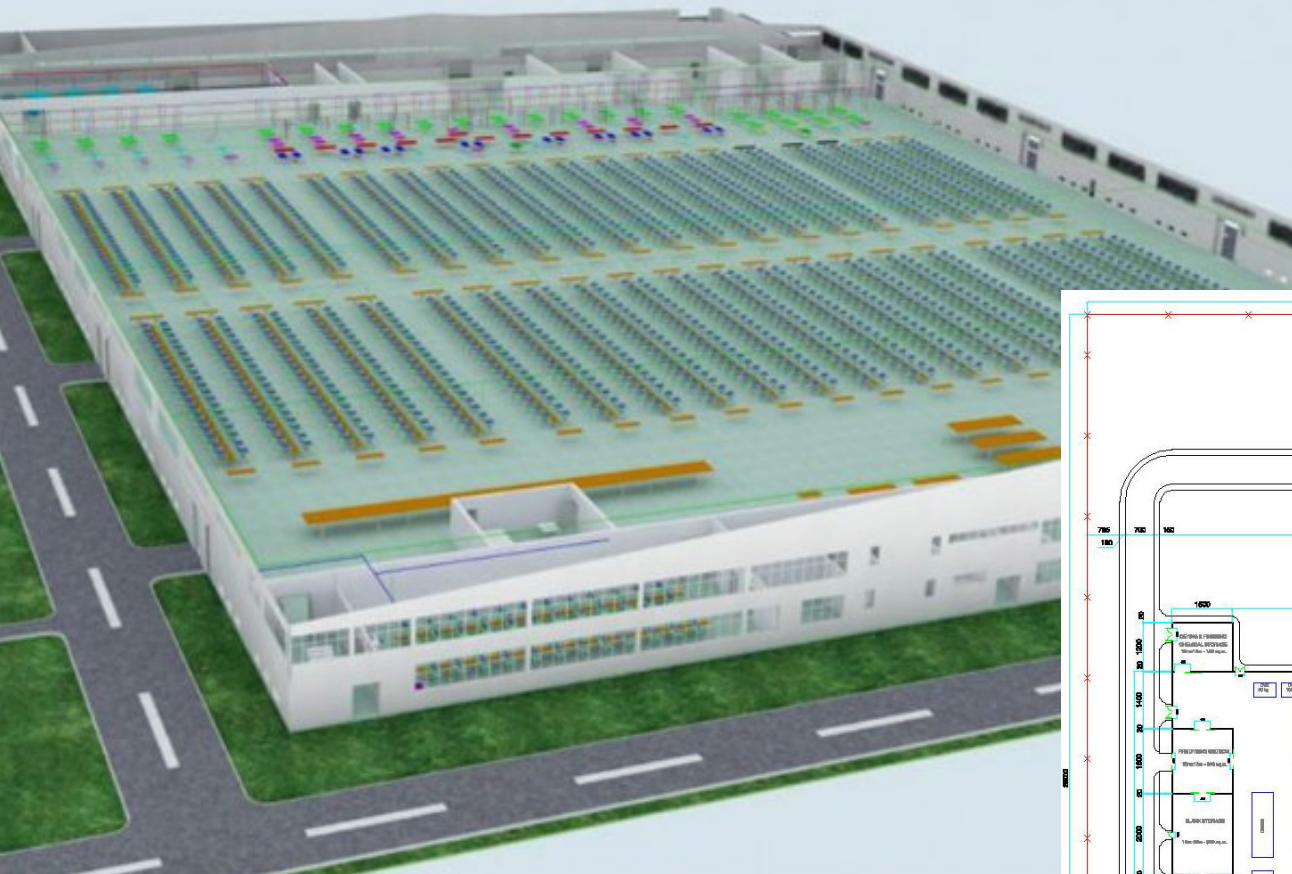


Detail: **G**arment plant at Kebire Enterprise PLC

Location: Makalle - Ethiopia

Capacity:

- Shirts : 2400 pieces / day
- Trousers : 1200 pieces / day
- Jeans trousers : 300 pieces / day
- Jeans jacket : 300 pieces / day



Garment plant at Kebire Enterprise PLC

Makalle - Ethiopia





Garment plant at Kebire Enterprise PLC

Makalle - Ethiopia





Garment plant at Kebire Enterprise PLC

Makalle - Ethiopia





Garment plant at Kebire Enterprise PLC

Makalle - Ethiopia





Garment plant at Kebire Enterprise PLC

Makalle - Ethiopia





Garment plant at Kebire Enterprise PLC

Makalle - Ethiopia

Detail: **Wire Down Stream Plant**

Thailand

Scope of work: Engineering, supply and construction of utilities, supervision to erection, commissioning, testing and training

Capacity: 75.000 Ton/yr





Wire Down Stream Plant

Thailand





Wire Down Stream Plant

Thailand

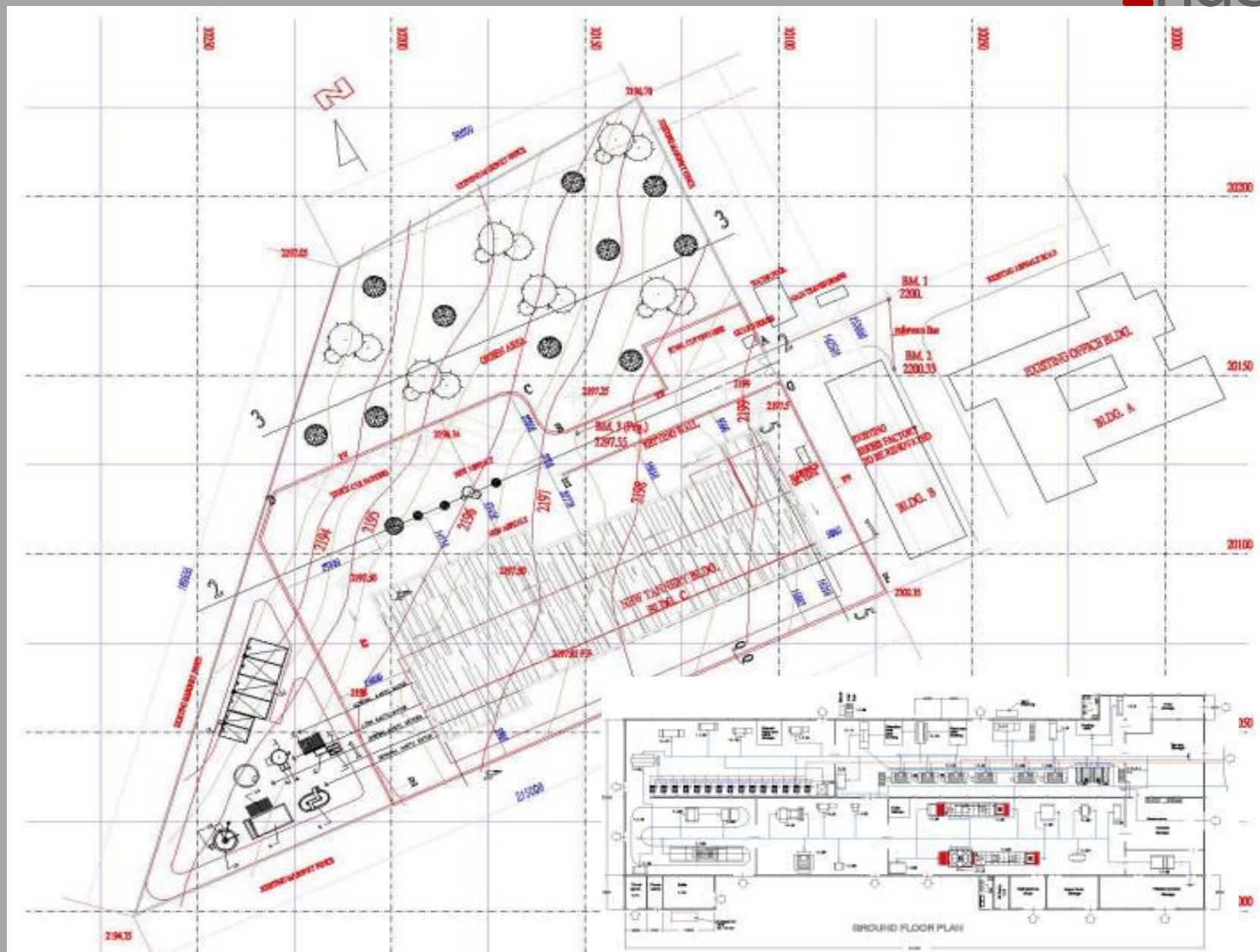


Detail: **Hide and Skin Tannery with Shoes Factory & Leather Goods Factory**  
Ethiopia

Scope of work: Engineering, supply and construction, supervision to erection, commissioning, testing and training

Capacity:

- 3.000 pcs of raw goat & sheep skins/day
- 400 pcs of raw cattle hides/day
- 800 pairs of shoes/day



Tannery

Ethiopia







Tannery

Ethiopia





Tannery

Ethiopia



Tannery

Ethiopia





Tannery

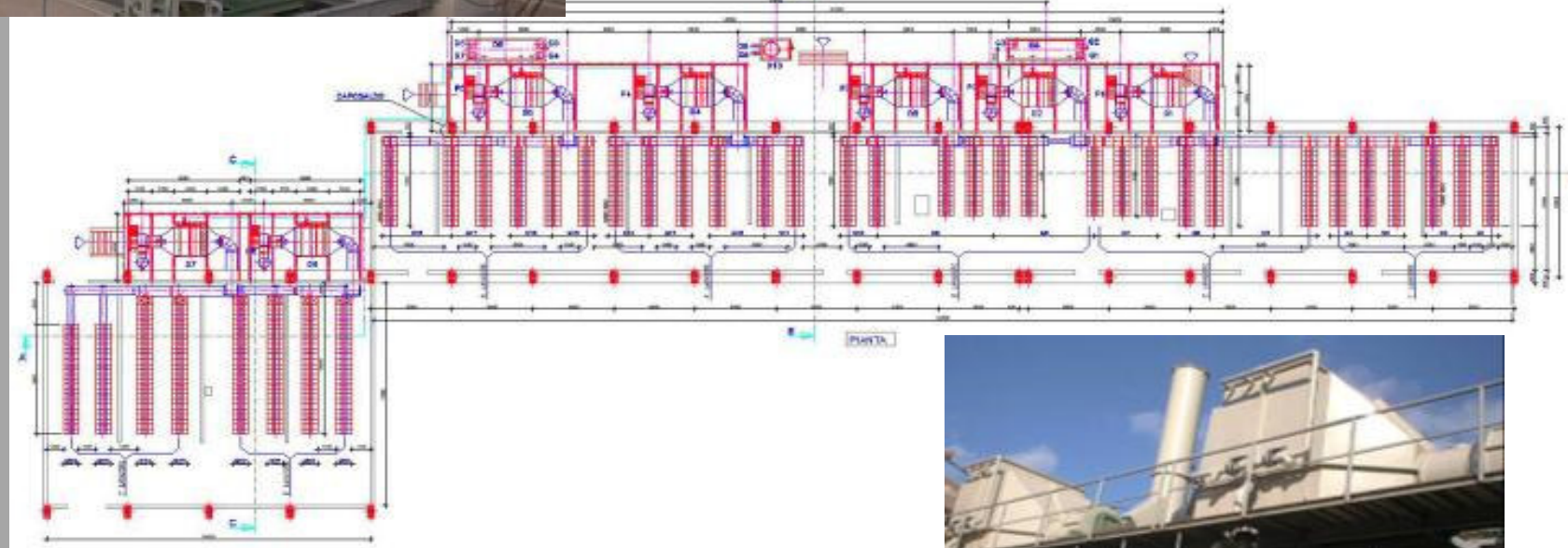
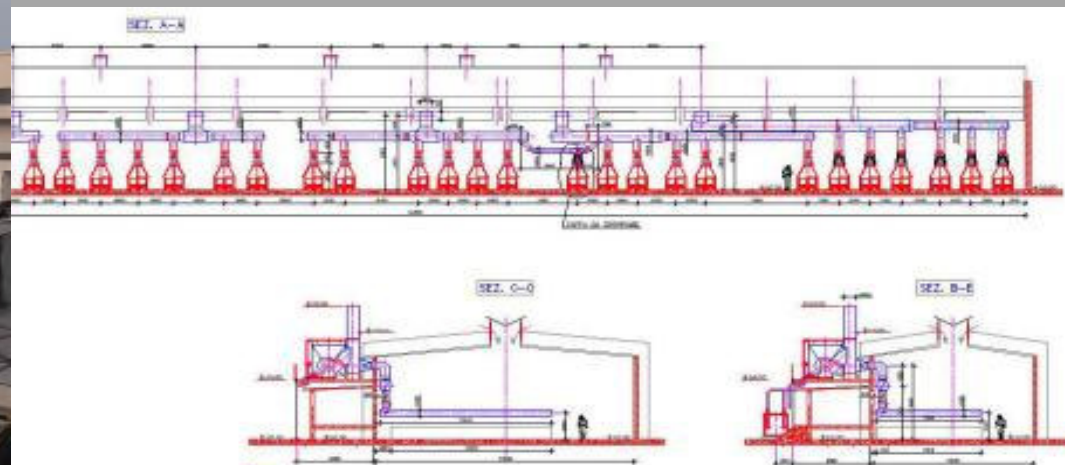
Ethiopia

Detail: **S**ystem for Extraction &  
Neutralization for Lead Acid  
Battery Fumes  
Egypt

Scope of work: Engineering, supply and construction, supervision to erection, commissioning, testing and training

Capacity: 7 suction system with a capacity of 25.000 m/h





Battery Fumes Treatment System

Egypt



Battery Fumes Treatment System

Egypt

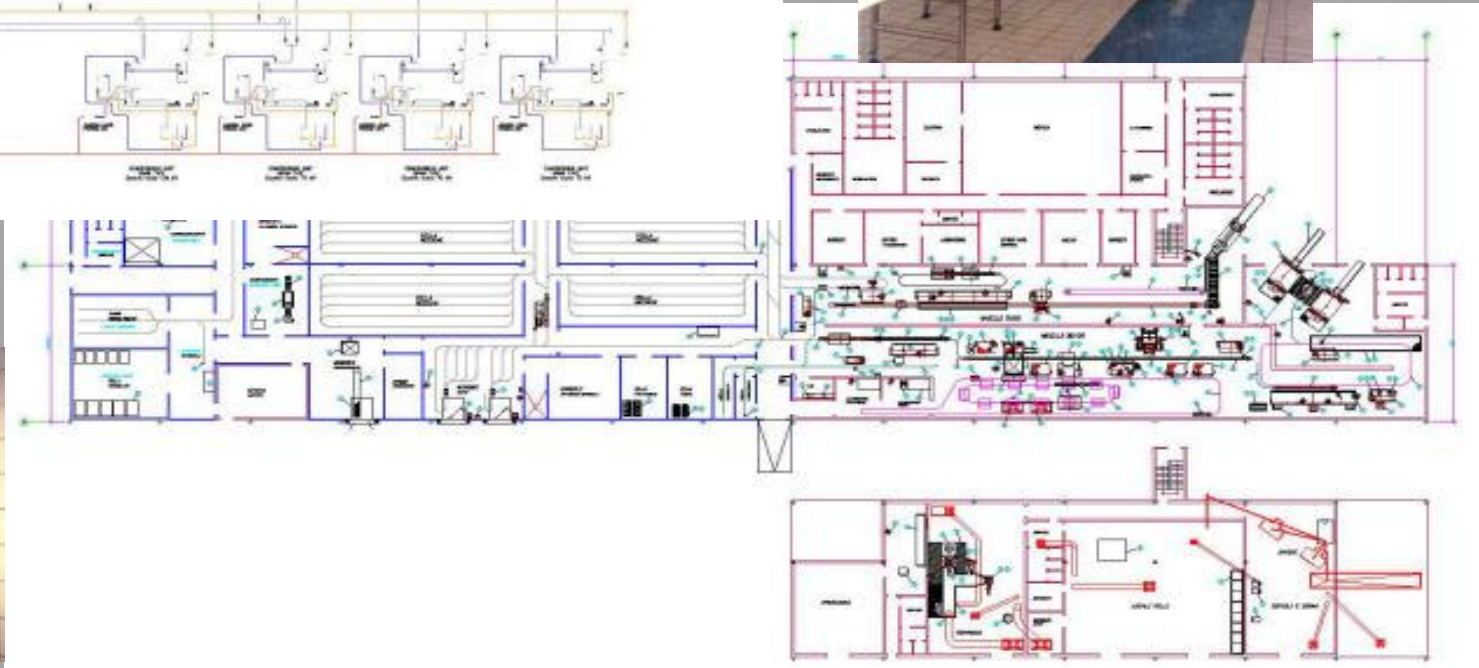
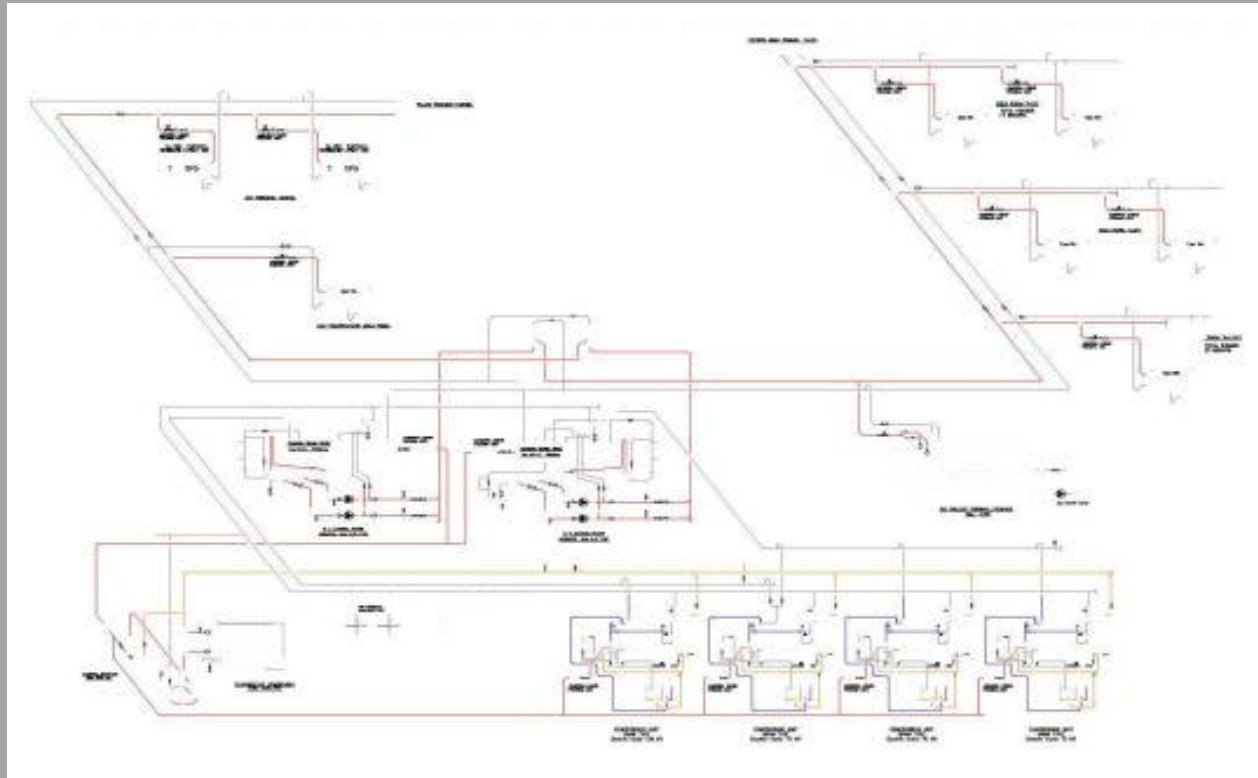


Detail: **Cattle and Sheep**  
**Slaughterhouse**  
Ethiopia

Scope of work: Engineering, supply and construction, supervision to erection, commissioning, testing and training

Capacity:

- Cattle 50 heads/hour
- Sheep 200 heads/hour



Slaughterhouse

Ethiopia

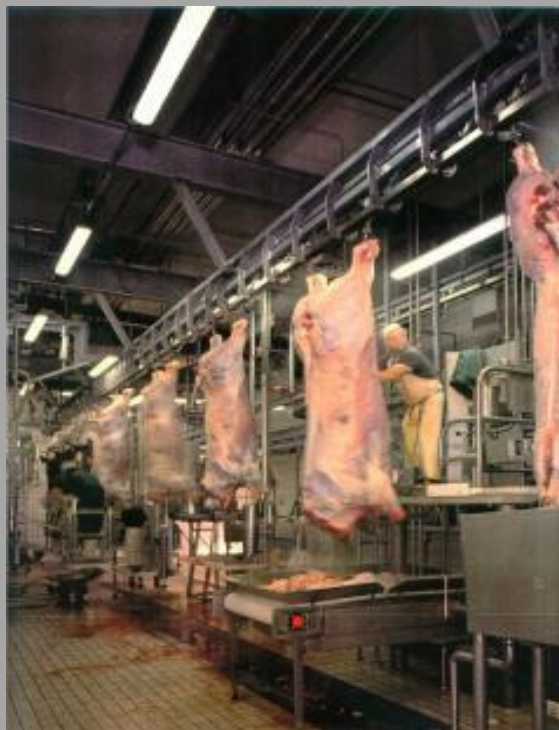




Slaughterhouse

Ethiopia





Slaughterhouse

Ethiopia



## Major Projects

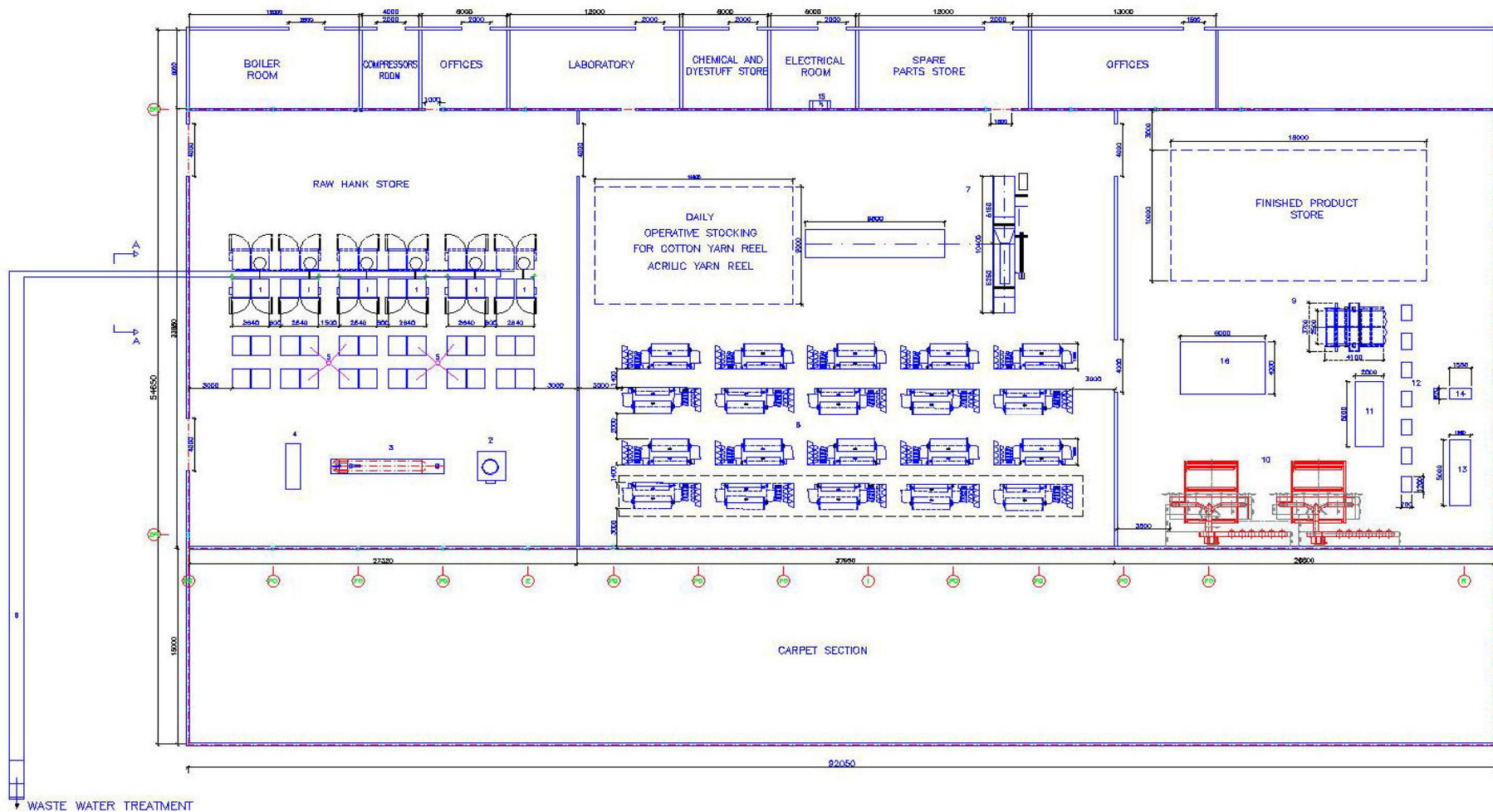
# Acrylic Yarn Dyeing Plant & Blanket Factory

Location:

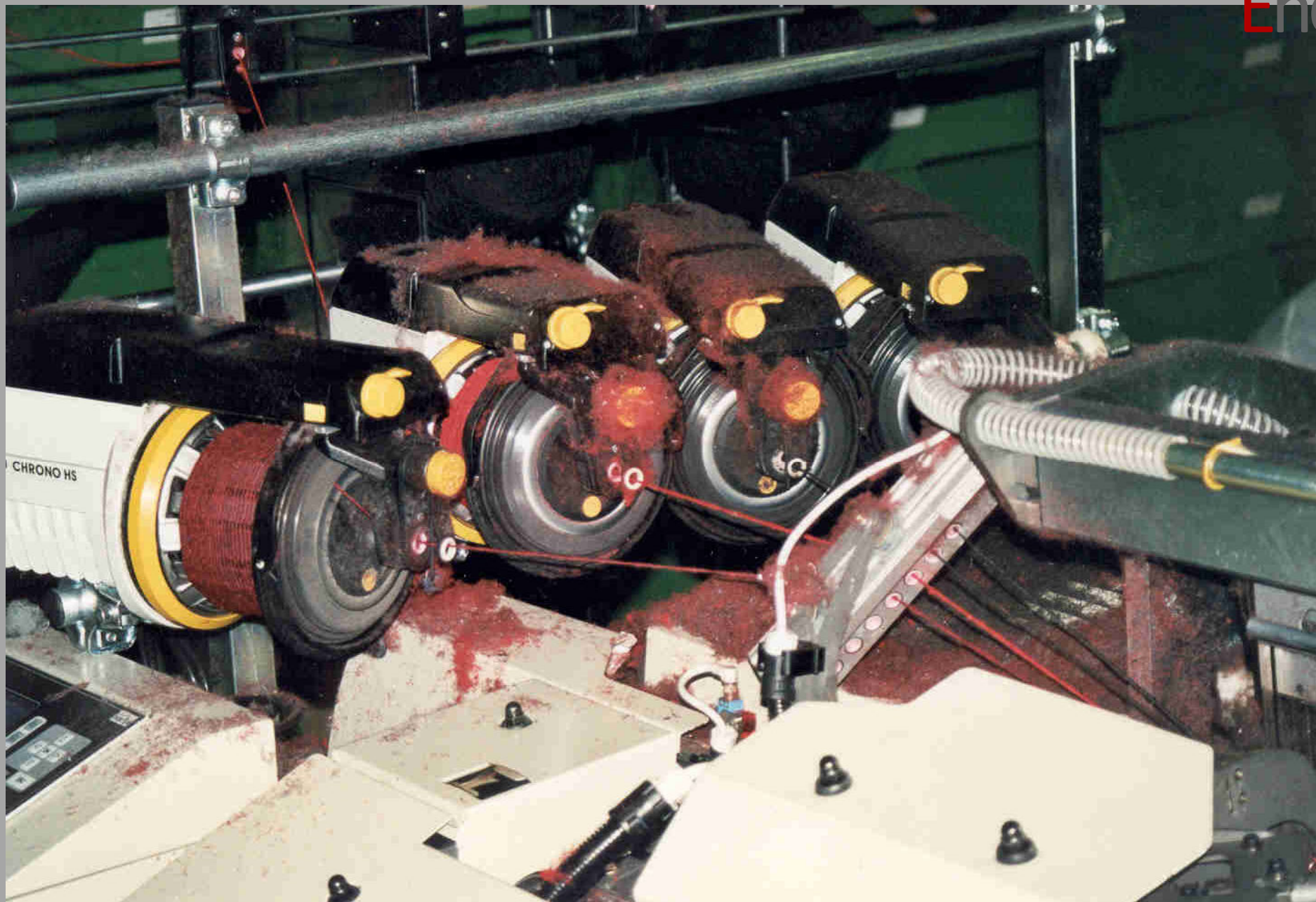
Ethiopia

Capacity:

- 11.100 kg/day of dyed yarn material
- 5.500 m/day of blankets



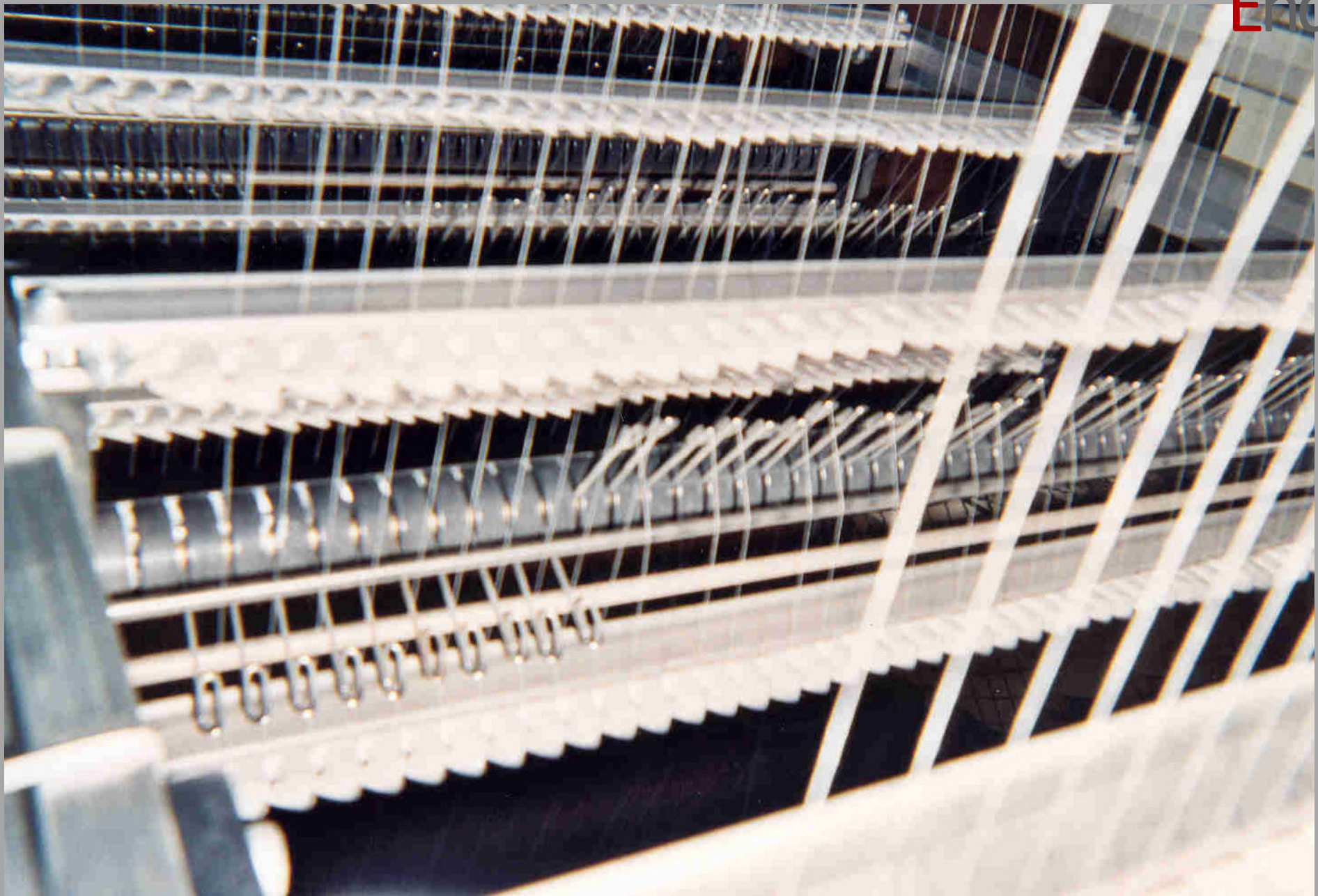




**Arcrylic Yarn Dyeing Plant & Blancket Factory**

**Ethiopia**

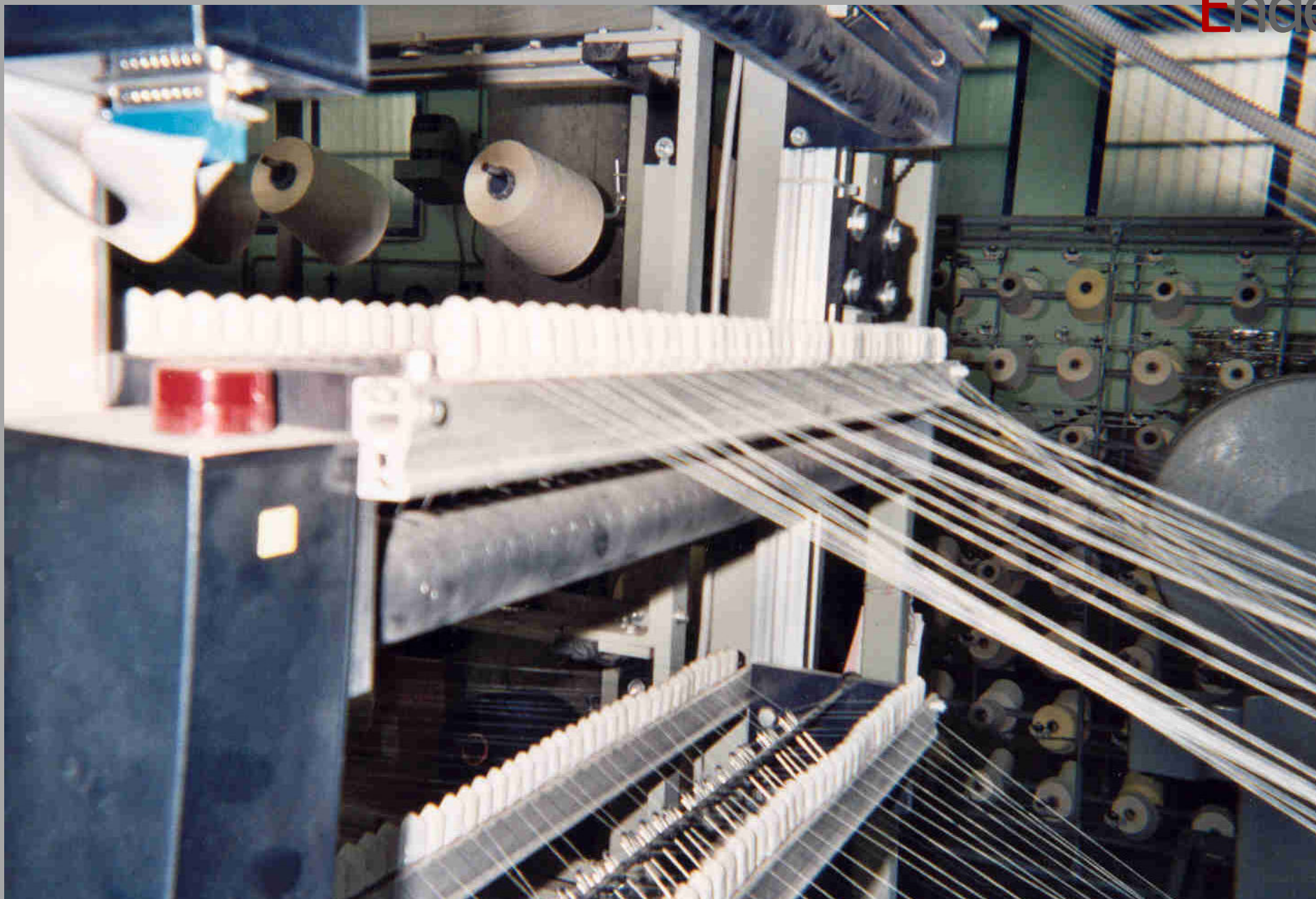




**Arcrylic Yarn Dyeing Plant & Blancket Factory**

**Ethiopia**





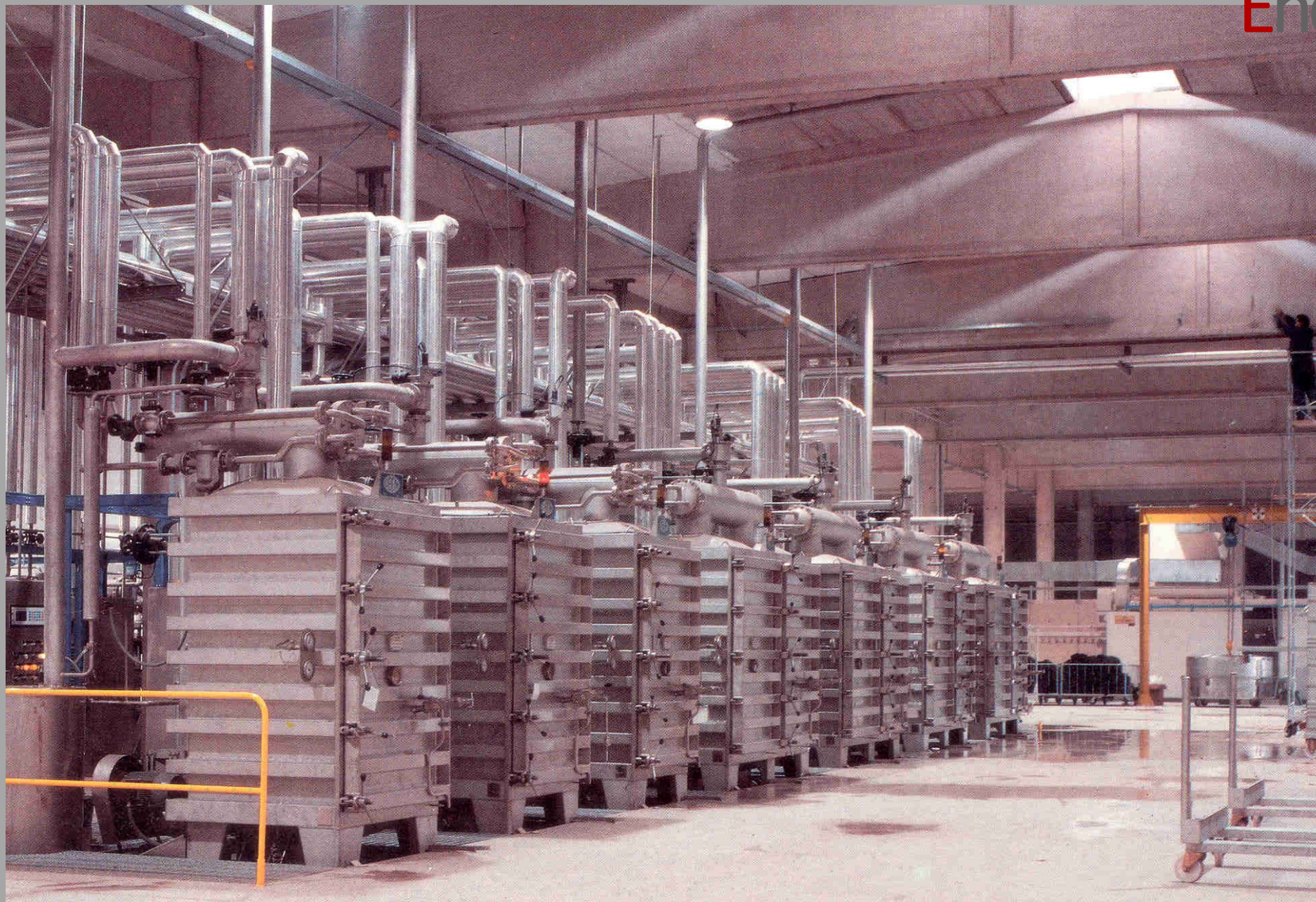
**Arcrylic Yarn Dyeing Plant & Blancket Factory**

**Ethiopia**









**Arcrylic Yarn Dyeing Plant & Blancket Factory**

**Ethiopia**





**Arcrylic Yarn Dyeing Plant & Blancket Factory**

**Ethiopia**

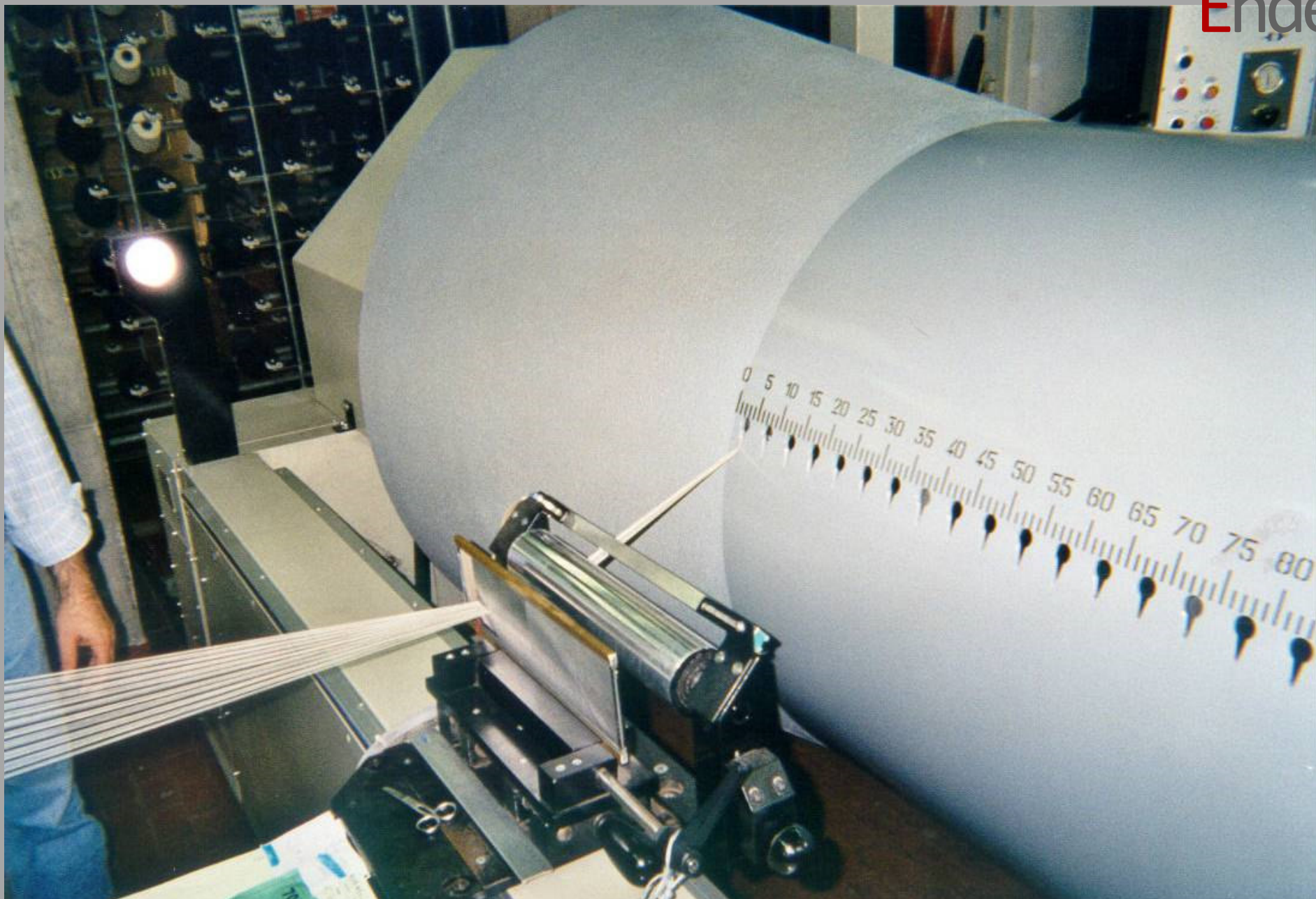




**Arcrylic Yarn Dyeing Plant & Blanket Factory**

**Ethiopia**





**Arcrylic Yarn Dyeing Plant & Blancket Factory**

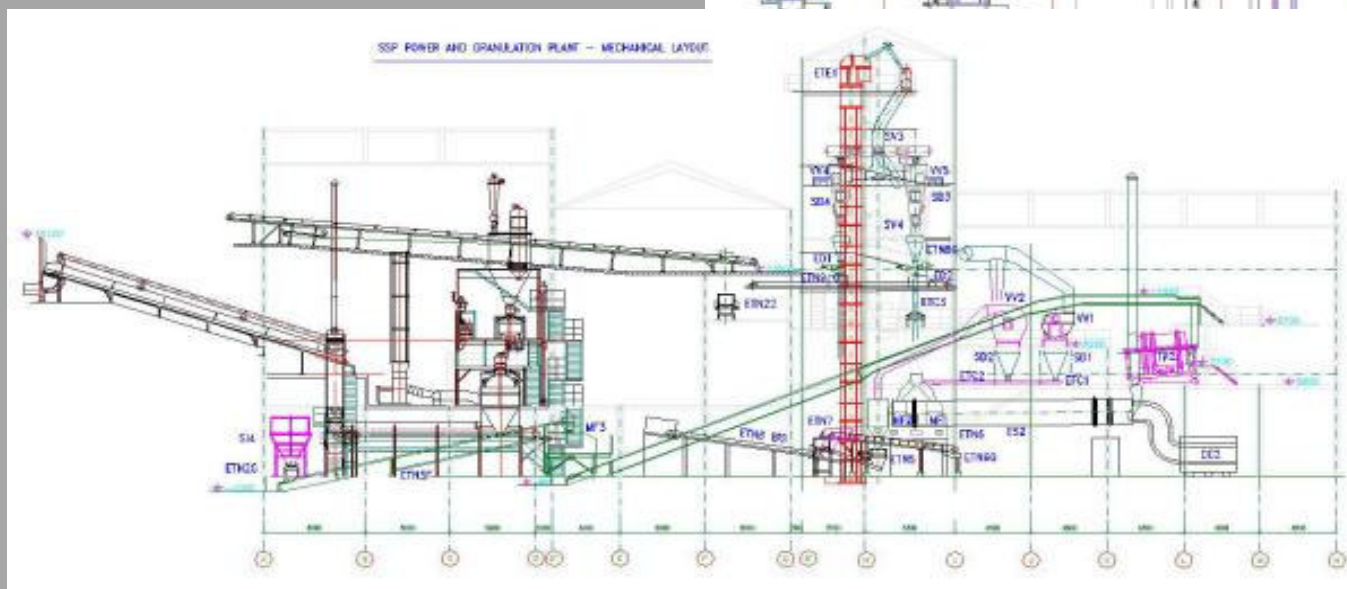
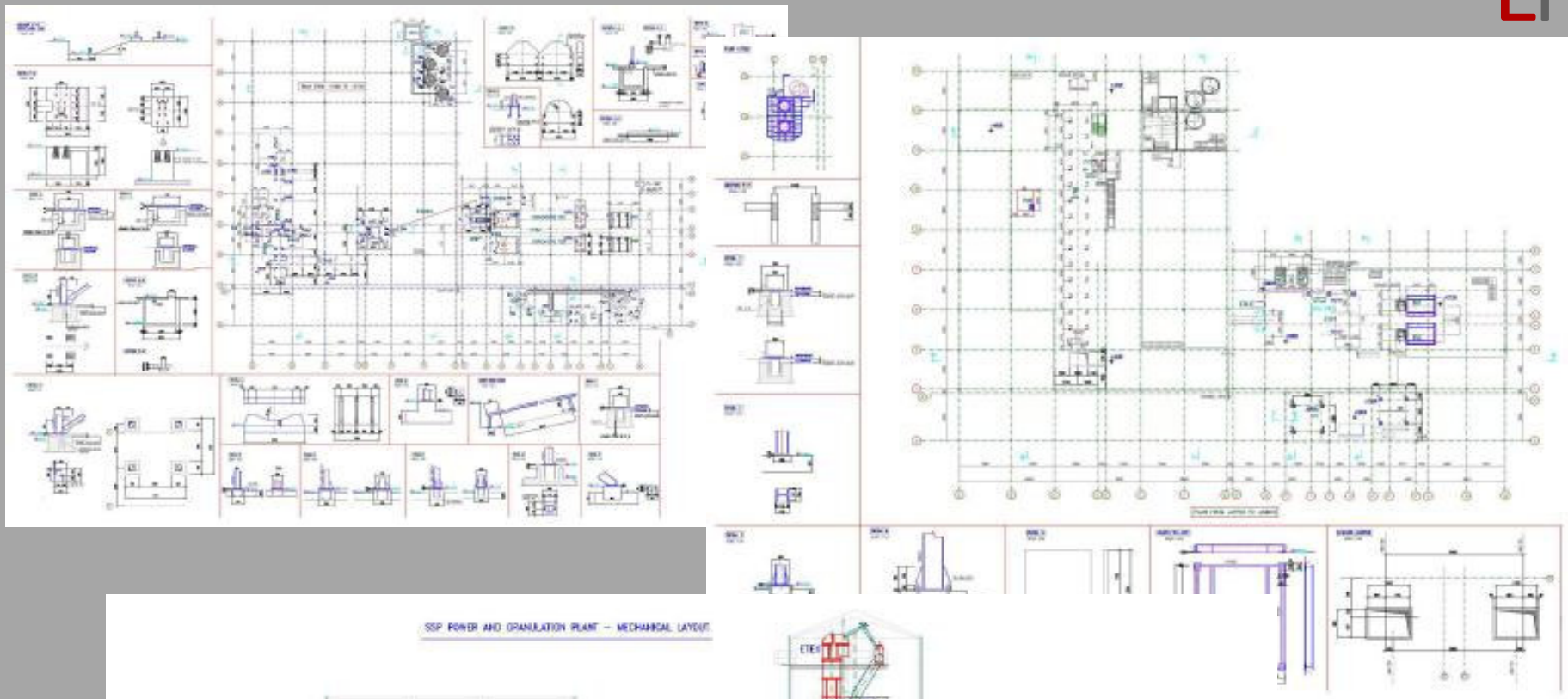
**Ethiopia**



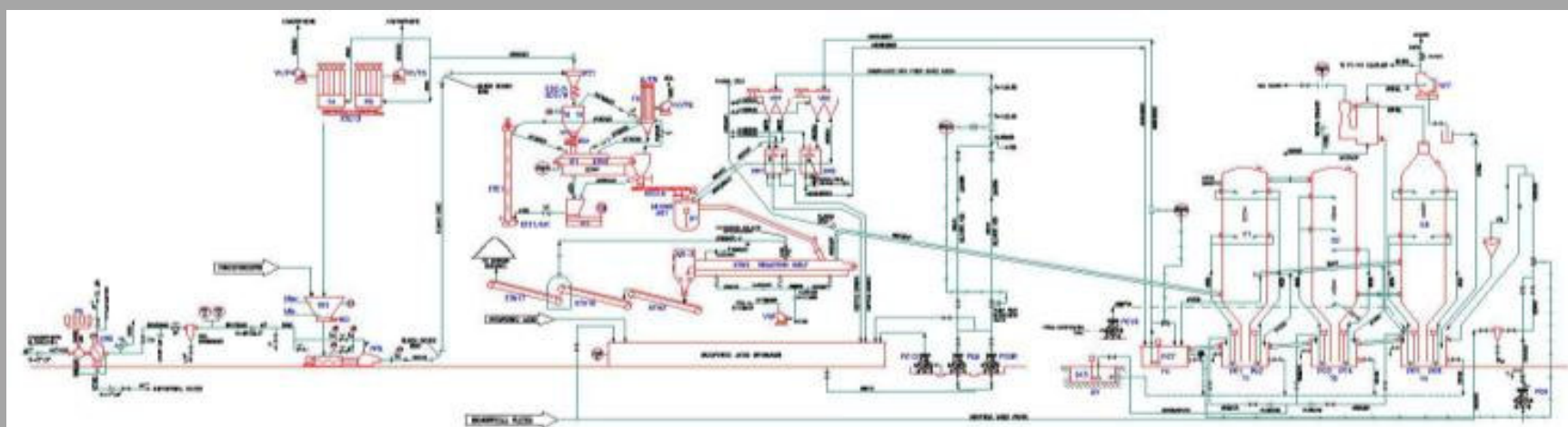
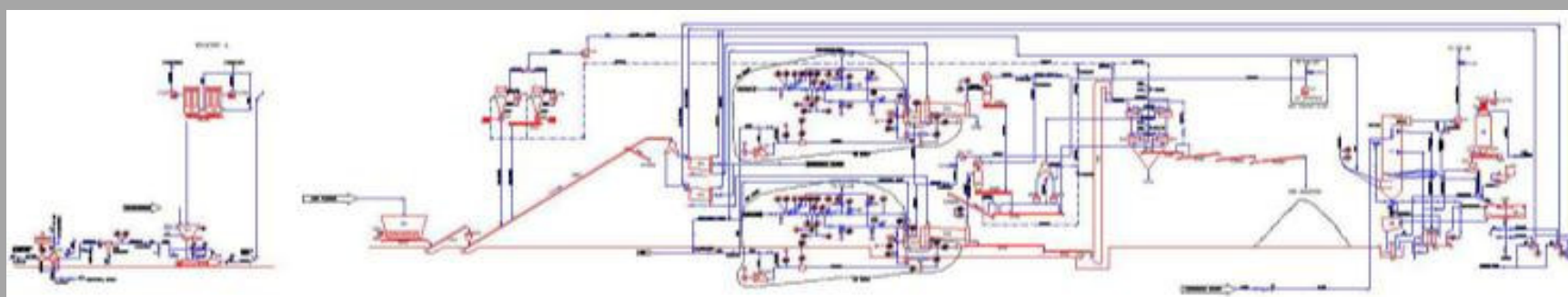
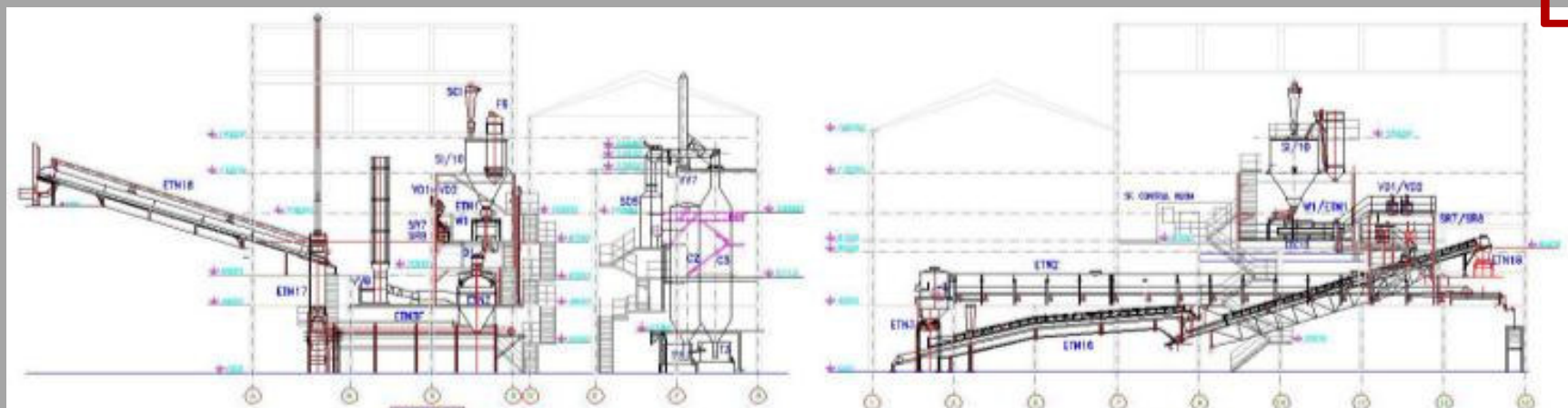
Detail: **G**ranulated Single Super  
**Phosphate Plant**  
Egypt

Scope of work: Engineering, supply and construction,  
supervision to erection, commissioning,  
testing and training

Capacity: 150.000 tpy

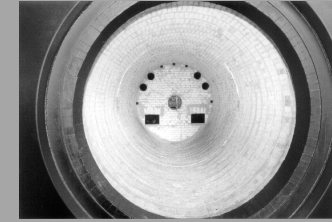












SSP Plant

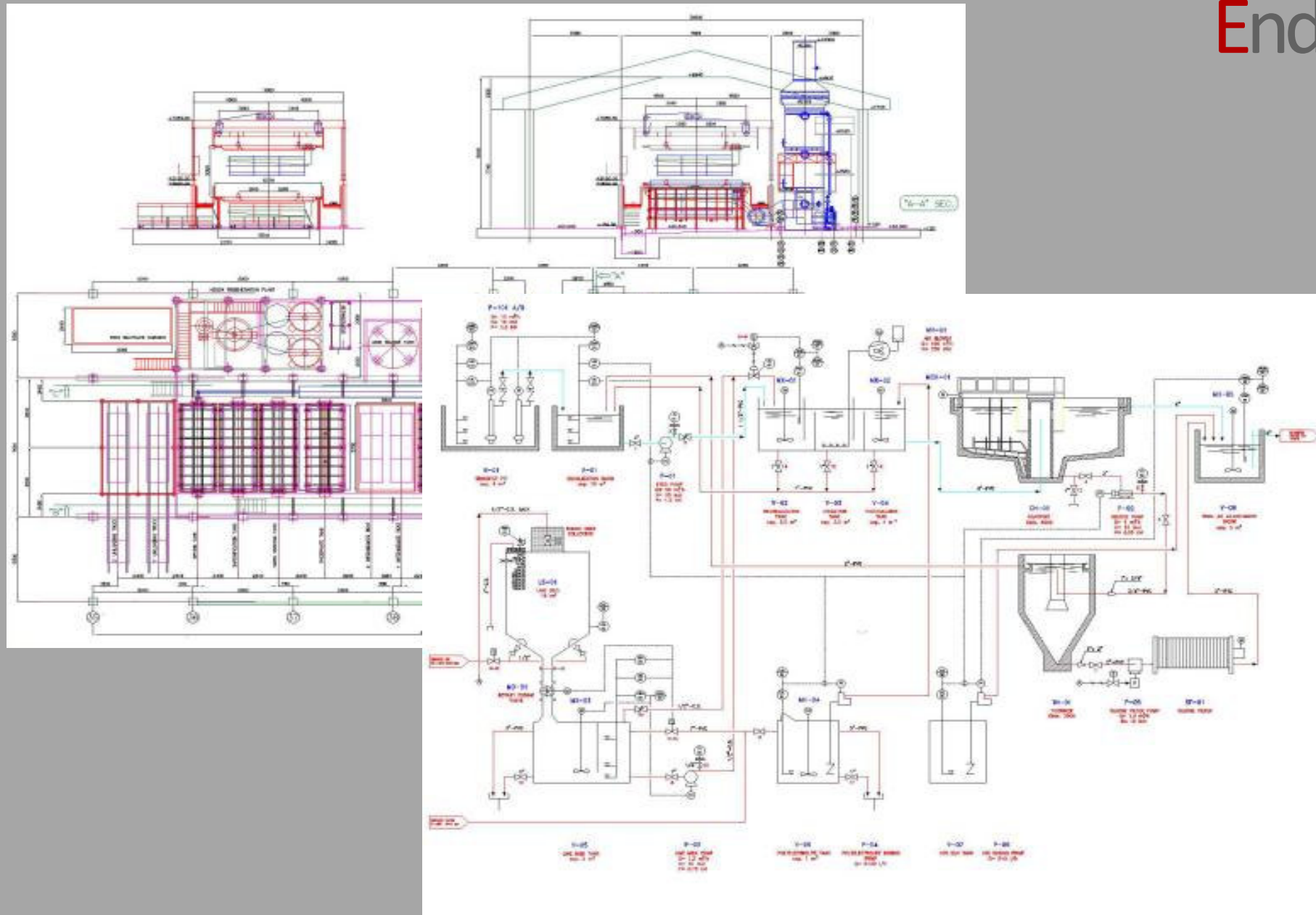
Egypt

Detail: **Wire Rod Pickling & PC Wire PC  
Strand Plant**  
Thailand

Scope of work: Engineering, supply and construction, supervision to erection, commissioning, testing and training

Capacity: 45.000 Tons/Year of PC Wire and PC Strand







Wire Plant

Thailand





Wire Plant



Thailand



Wire Plant

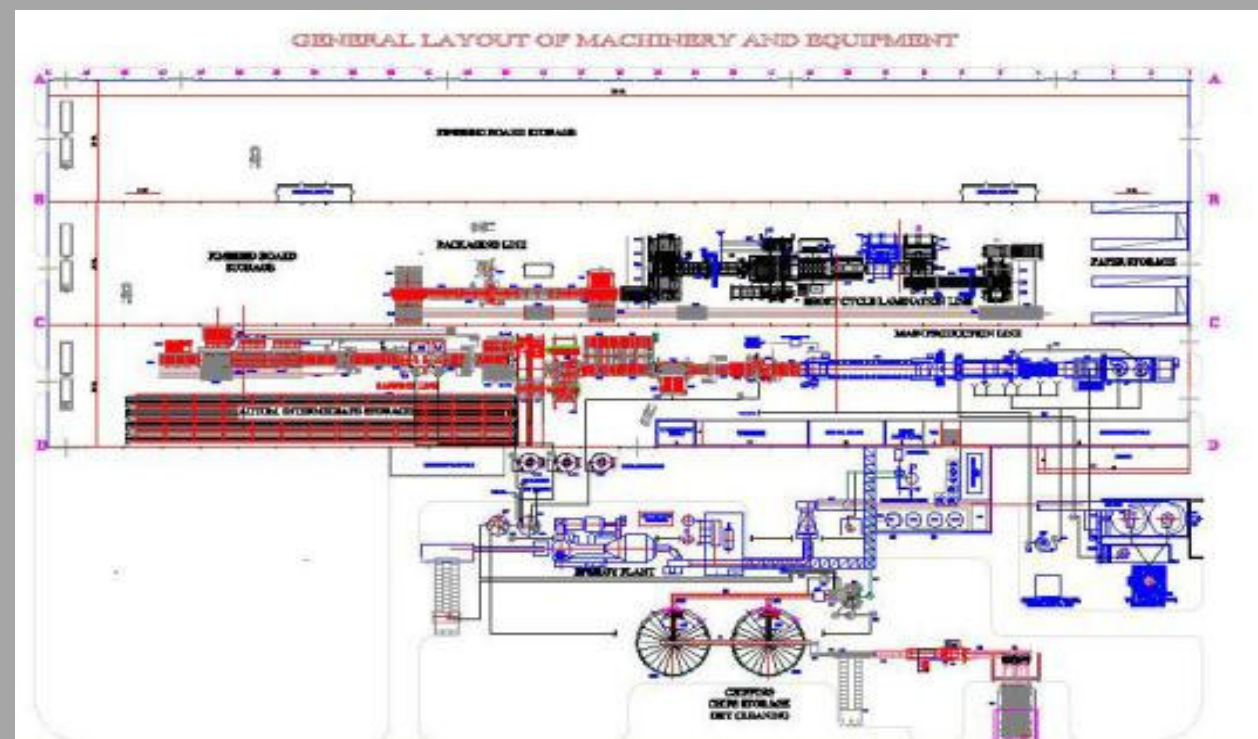
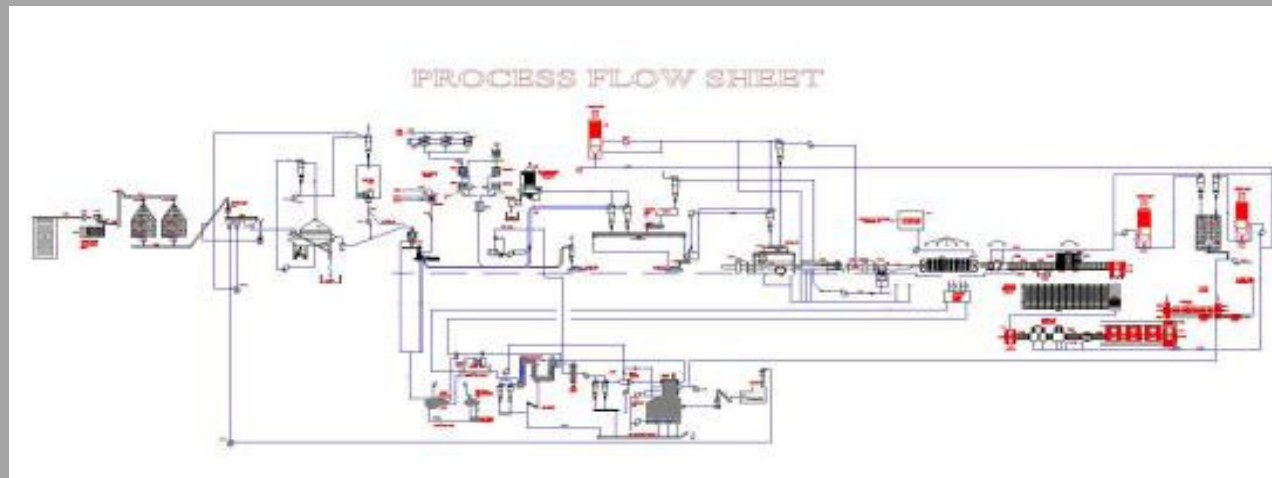
Thailand



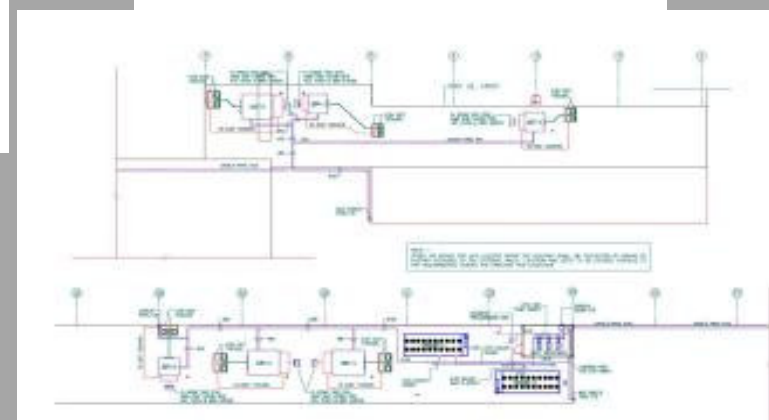
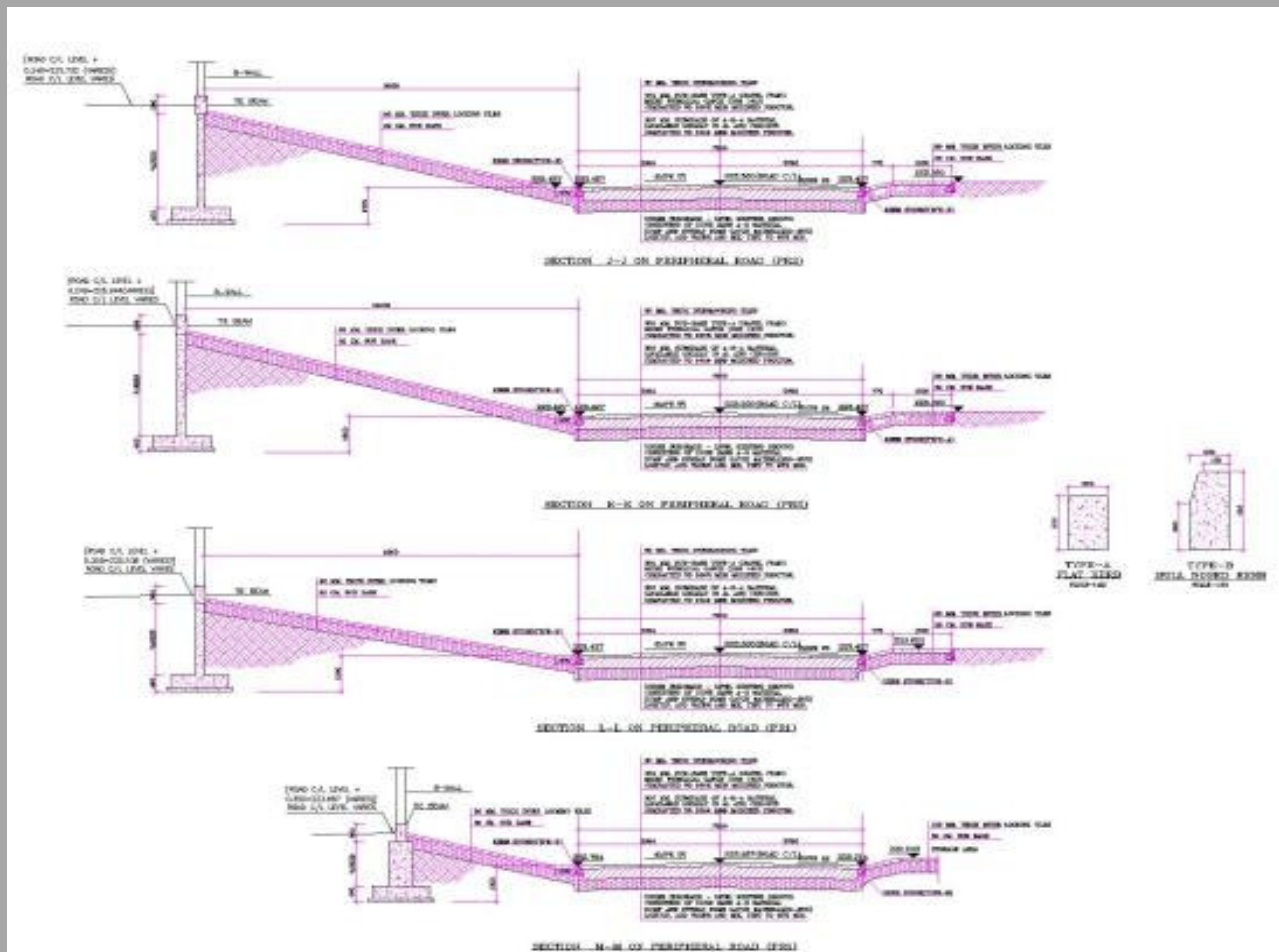
Detail: **Detailed Design for complete  
MDF Manufacturing Plant**  
U.A.E.

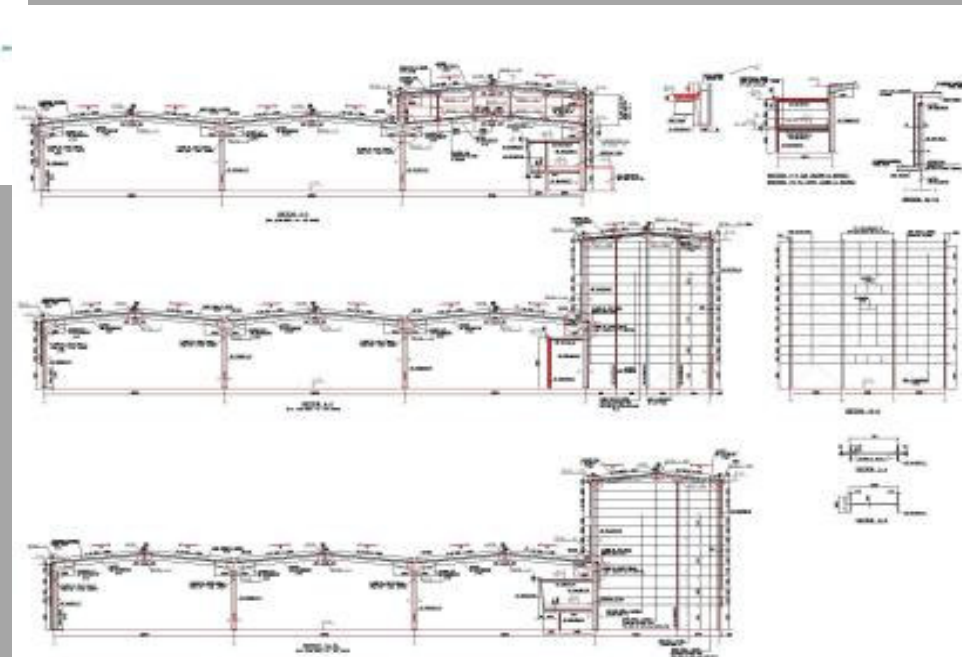
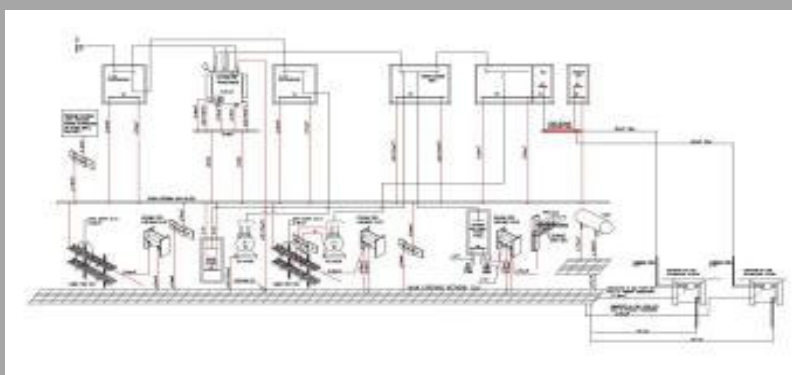
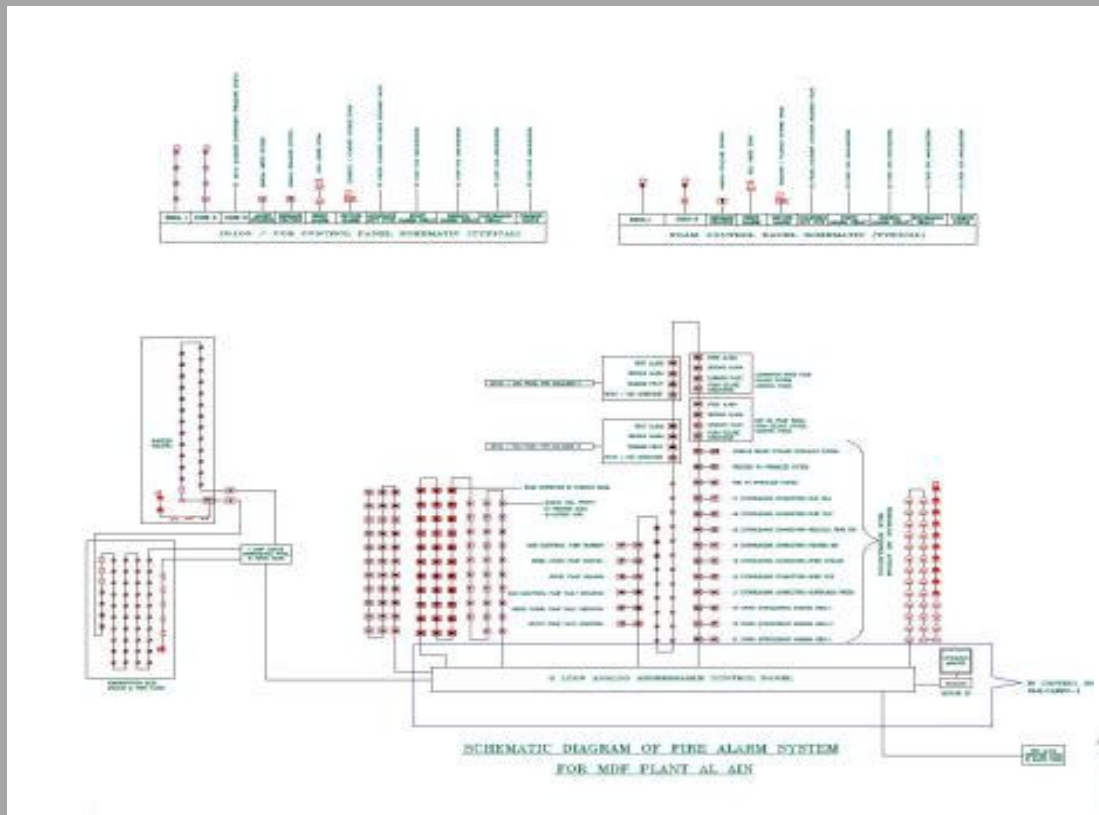
Scope of work: Consultancy Service

Capacity: 100.000 m<sup>3</sup>/year











Detail: **Agricultural Pesticides Plant**  
Ethiopia

Scope of work: Engineering, supply and construction, supervision to erection, commissioning, testing and training



**Agricultural Pesticides Plant  
Ethiopia**





**Agricultural Pesticides Plant  
Ethiopia**





**Agricultural Pesticides Plant  
Ethiopia**