

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

**PRESENTATION**

**ON**

***“ECONOMIA”***

**Locally Designed and Manufactured Products**

# ***“ECONOMIA”***

## **Locally Designed and Manufactured Products**

### **TOPIC OF PRESENTATION**

- **Introduction of Company**
- **Product Range**
- **New Developments**
- **Call Center**
- **Project Design Layout**
- **Cost Comparison Statement  
(Window. Split & Absorption, Centrifugal & Reciprocating Chillers Vs  
ECONOMIA)**
- **Technology for Energy Saving and De-rating Factor Vs any other Manufacturers  
(Saving up to 40% Running Cost)**
- **Merits & Demerits of Central Heating & Cooling System VS Conventional Sui  
Gas Heater and Split/Window AC.**
- **Services**



**THE PIONEER OF**  
**RISKLESS & ENERGY SAVING CENTRAL HEATING SYSTEM**  
**INTRODUCTION OF COMPANY**

- ❖ The company was established with the name of “**AGECO**” in 1980.
- ❖ In 1988 it was changed to **AGECO (Pvt.) Ltd.**
- ❖ We have completed **50 HVAC Projects** in Government and Semi Government sectors all over the country.
- ❖ We are The Pioneers in Introducing Designing and Manufacturing of “**ECONOMIA**” **Riskless & Energy Saving Central Heating System in Pakistan Since 1997** and to adopt same pattern of heating which has been used in Europe and other Countries in the World.
- ❖ We have since installed this system successfully more than **25000** Locations including **Defence Offices, Hospitals, Commercial Buildings, Guest Houses, Hotels & Residences** all over the country where ambient temp is up to (-)25 °C and altitude up to 14000ft.
- ❖ In 2004 we have introduced “Central Air Conditioning” (Cooling/Heating) attachable with existing Central Heating System.
- ❖ We have added “**ECONOMIA**” Clean Room HVAC System for Pharmaceuticals in January 2006
- ❖ we are in Partial production of “**ECONOMIA**” Pre Fabricated Insulated Ducting & Pipes
- ❖ Now Introducing Air Cooled Water Based Chiller & Split Units Capacity 3TR To 15TR to save upto 40% Running cost.

# **“ECONOMIA”**

## **PRODUCT RANGE**

- a. **Hot Water Central Heating System**
- b. **Clean Room HVAC System**
- c. **Central Air Conditioning System**

### **NEW Development**

- ❖ **Pre Fabricated Insulated Ducting & Pipes**
- ❖ **Air Cooled Water Based Economical Air Conditioner**
- ❖ **Air Cooled Water Based Chiller & Split A/C 3TR to 15TR**
- ❖ **Humidity Based Air Cooled Economical Air Conditioner**
- ❖ **Call Center**

- a. Hot Water Central Heating System**
  - i. Range of Product**
  - ii. Introduction of Products**
  - iii. Client List**

# ***“ECONOMIA”***

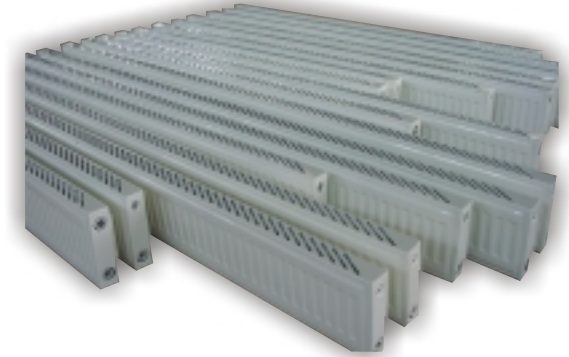
**CENTRAL HEATING SYSTEM**

## **i. Product Range**

6



**Radiators in  
40-Variety Sizes/Capacities**



**Skirting Radiators in  
Various Sizes/Capacities**



**Gas Operated Boiler in  
6-Variety Sizes/Capacities**



**Oil Operated Boiler in  
6-Variety Sizes/Capacities**

# “ECONOMIA”

RISKLESS & ENERGY SAVING CENTRAL HEATING SYSTEM

## ii. Introduction of Products

### Radiators

Front View

- Standard
- Slim Line

### Sizes available

S = Single

D = Double

- 600 x 300 mm
- 600 x 600
- 600 x 800
- 600 x 1000
- 600 x 1200
- 600 x 1400
- 600 x 1600
- 600 x 1800

And any odd sizes as desire



# “*ECONOMIA*”

RISKLESS & ENERGY SAVING CENTRAL HEATING SYSTEM

## ii. Introduction of Products

### Radiator Back View

- **Standard**
- **Slim Line**
- Slim Line is specially designed to reduce the thickness and less occupancy of space
- Paint fainting of wall
- Increase beautification





# “ECONOMIA”

RISKLESS & ENERGY SAVING CENTRAL HEATING SYSTEM

## ii. Introduction of Products

### Skirting Radiator View

- Specially Designed
- To install below the glassed / low level windows.
- To generate the heat curtain front side of glassed to reduce the running cost

### Size available

- Height 215 mm x any length.
- Suitable for Mosque, Auditorium and Spaces Halls.



# “ECONOMIA”

Energy Saving & Riskless Central Heating System

## ii. Introduction of Products

### Central Heating System Boiler

- Designed on renewable energy heat transfer 95 to 98%
- Complete View of Floor Mounted CB Gas Boiler

### Models & Capacity

- CB-90 =90,000 BTU
- CB-120 =1,20,000 BTU
- CB-160 =1,60,000 BTU
- CB-240 =2,40,000 BTU



# “ECONOMIA”

Energy Saving & Riskless Central Heating System

## ii. Introduction of Products

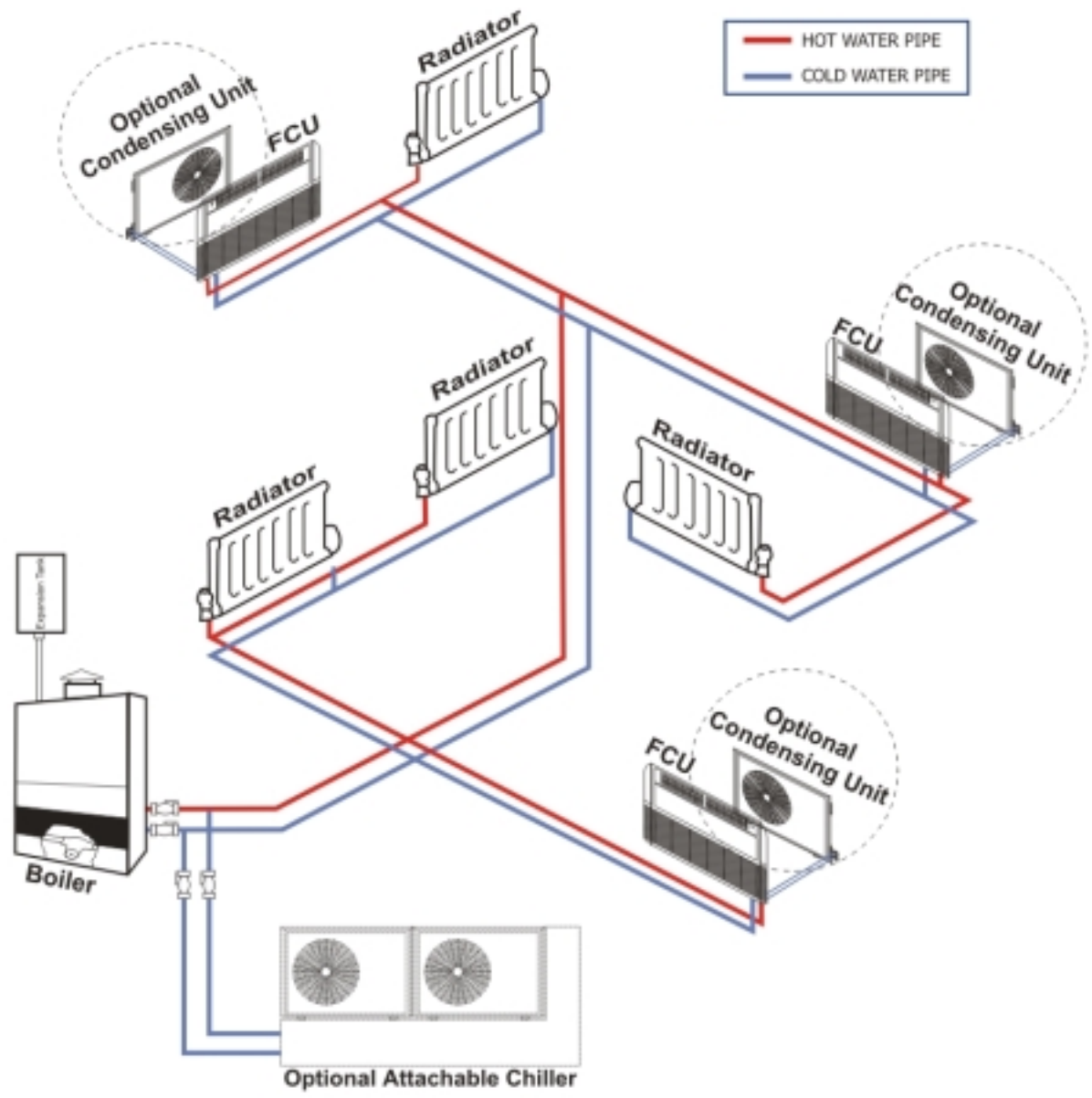
### Kerosene Oil Operated Boiler

- Designed on renewable energy which gives heat transfer up to 95 to 98%
- Designed for out door installation upto (-)20 °C ambient.
- Fully automatic
- In build burner
- In build water circulating pump
- Capacities
  - 90,000 BTU
  - 1,20,000 BTU
  - 1,60,000 BTU
  - 2,40,000 BTU

Tested at 8500 feet altitude at Changla Gali.



# SCHEMATIC LAYOUT OF CENTRAL HEATING & COOLING SYSTEM



### **iii. List of our Few Valuable Clients**

#### **Defence Projects**

- 1 DW & CE (Army), G.H.Q, Rawalpindi**
- 2 48 B.O.Qs, CMES (Army) Construction, Rawalpindi**
- 3 DW & CE (Navy), Islamabad**
- 4 FWO Headquarter Rawalpindi.**
- 5 SCO Headquarter, Rawalpindi**
- 6 Air Headquarter E-9, Islamabad**
- 7 Army Air Defence Command Headquarter, Rawalpindi**
- 8 Div Headquarter Murree**
- 9 PAF Base Kala Bagh, Nathia Gali**
- 10 Corps Headquarters Quetta**
- 11 Frontier Corps Headquarter Quetta**
- 12 Pakistan Rangers Mess, Lahore**
- 13 CEME, Artillery Div H.Q, Gujranwala**
- 14 Corps Guest House, Gujranwala.**
- 15 Armed Corps Headquarter Kharian**
- 16 Div Headquarter Office, Peshawar**
- 17 SCO Headquarter, Gilgit & Skardu**
- 18 Engineering Corps Headquarter, Dinor, Minimurg, Gilgit**
- 19 Kurram Agency Offices & Residence Parachana**
- 20 SSG Center**
- 21 H.Q ASC Center**
- 24 323 Brigade Khaplu, Goma & Sixsa**
- 25 62 Brigade Skardu**

### **iii. List of our Few Valuable Clients**

#### **Govt. & Semi Govt. Offices**

- 1 National Construction Limited, Islamabad**
- 2 NHA Main Building, Islamabad**
- 3 QESCO WAPDA Headquarter Quetta.**
- 4 Fauji Cement Head Office, Rawalpindi**
- 5 Comsats, Head Office, Islamabad**
- 6 PIEAS Nilore, Islamabad**
- 7 National Gas Regulatory Authority Islamabad**
- 8 Air Headquarter Main Building Islamabad**
- 9 Nadra (NSRC Skardu, Gilgit, Rawalakot, and Bagh)**

### **iii. List of our Few Valuable Clients**

#### **Private Projects**

- 1 B.H.P Petroleum, Islamabad**
- 2 Ezigrip Factory, Islamabad**
- 3 Werrick Factory, Islamabad**
- 4 Mr. Shahid, Brothers Production, Sialkot**
- 5 BD Syringes Office, Lahore**
- 6 BDS Factory, Murid Kay, Lahore**
- 7 Mohsin Match Factory, Peshawar**
- 8 Micro Finance Bank, Skardu, Gilgit, Ghakuch, Chitral, Hunza, Boni, Nagar, Chinary, Gupis**
- 9 Pakistan Tobacco Company Factory, Akora Khatak**
- 10 Bismillah Textile, Faisalabad**
- 11 Al-Mustafa Tower, 200 Apartments, Islamabad**
- 12 Mount Pleasant, C.H.D Apartments, Bhurban, Murree**
- 13 Cecil Apartments, Murree**
- 14 Pine Park Hotel & Resort Shogran, Kaghan**
- 15 Gilgit Gate Way Hotel, Gilgit**
- 16 Hotel Holiday Changla Gali, Murree**
- 17 Embassy Lodge Motel Islamabad**
- 18 Rest Houses, Kotli & Ziarat**

### **iii. List of our Few Valuable Clients**

#### **Institutions**

- 1 Air University E-9, Islamabad**
- 2 Army Logistic School, Murree**
- 3 Army School of Technician, Barian Murree**
- 4 3-Cadet Block 3<sup>rd</sup> Pak, PMA Kakul, Abbottabad**
- 5 6-Cadet Block 1st & 2nd Pak, PMA Kakul, Abbottabad**
- 6 National University of Modern Languages Islamabad**
- 7 Army Snow War College, Rattu**
- 8 Military College Sara-e-Alamgir**
- 9 Ghulam Ishaq Khan Institute of Technology, Topi**



### **iii. List of our Few Valuable Clients**

#### **School & College**

- 1 Preparatory School, Islamabad**
- 2 Convent School F-8, Islamabad**
- 3 St. Marry School Rawalpindi**
- 4 Lawrence Collage Ghora Gali, Murree**
- 5 Christian School, Gharial, Murree**
- 6 Presentation School Murree**
- 7 Army Burn Hall College for Boy & Girls, Abbottabad**
- 8 Islamia College, Peshawar**
- 9 Cadets College, Skardu**
- 10 Iqra University, Quetta**
- 11 Cadet College Palandri**

### iii. List of our Few Valuable Clients

#### Hospitals

- 1 Heart International Hospital, Rawalpindi
- 2 Al-Khidmat Hospital, Quetta
- 3 CMH, Abbottabad, Peshawar, Murree, Kharian
- 4 Islam Hospital, Sialkot
- 5 Skardu Eye Hospital, Ghamba, Skardu
- 6 D.H.Q Hospital, Skardu & Gilgit
- 7 Kashmir Surgical Hospital Muzzafarabad
- 8 Agency H.Q Hospital Parachina
- 9 Civil Hospital Quetta
- 10 Rafiq Anwar Memorial Hospital, Gujranwala
- 11 Military Hospital Jumber AJ&K
- 12 Medicare Hospital, Multan
- 13 PAF Hospital E-9, Islamabad
- 14 Hamid Latif Memorial Hospital Lahore
- 15 Haider Hospital, Gujrat

### **iii. List of our Few Valuable Clients**

#### **Hotels & Guest Houses**

- 1 Hotel Ornate, Civic Center Islamabad**
- 2 Kashmir Palace Hotel, Lahore**
- 3 Embassy Lodge Motel, Islamabad**
- 4 Continental Guest House Islamabad**
- 5 Savoy Guest House Islamabad**
- 6 Grace Guest House Islamabad**
- 7 Poet Guest House Islamabad**
- 8 Lim Rick Guest House Islamabad**
- 9 Aria Guest House Islamabad**
- 10 Haiku Guest House Islamabad**
- 11 Royal Continental Guest House Islamabad**

### iii. List of our Few Valuable Clients

#### Hostels

- 1 Hostel EME College, Rawalpindi
- 2 Hostel, SUPARCO, Islamabad
- 3 Girls & Men's Hostel Block-1,2&5 Int'l Islamic University, Isb.

Over 25000 residential completed and over 8000 in progress

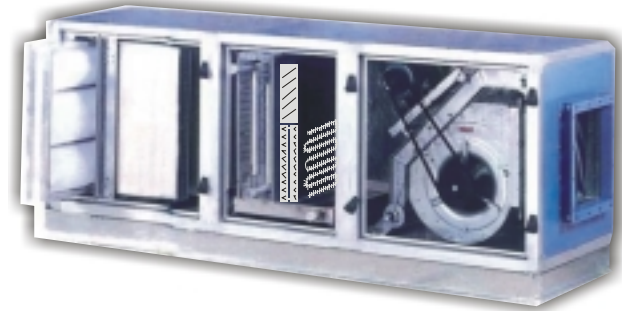
**b. Clean Room HVAC System**

- i. Range of Product**
- ii. Number of Projects**

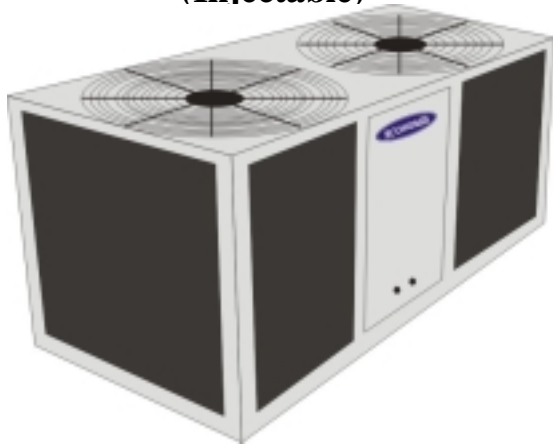
## **i. Product Range**



**Clean Room AHU Capacity 2.5 to 8 TR  
(Injectable)**



**Clean Room AHU Capacity 2.5 to 8 TR  
(Non-Injectable)**



**Condensing Unit Cap. 0.75 to 8 TR  
(Side & Top Discharge)**

## **Other Products**

- **Rotary & Scroll Compressors**
- **Oil Burner**
- **Water Circulating Pumps**
- **Lock Shield Valves**

## ii. List of Pharmaceuticals Client

S.#	Name of Client	Location	Work Status	Ministry Report
1	Lloyd Pharma	Industrial Area Humak Islamabad	Completed	Inspected
2	Zesion Pharma	Industrial Area Humak Islamabad	Completed	Inspected
3	Silver Oak Pharma	Industrial Estate Hatar	Completed	Inspected
4	Panasia Pharma	Industrial Area Rawat	Completed	Inspected
5	Miricle Pharma	Industrial Area Rawat	Completed	Inspected
6	Aims Pharma	Industrial Area Humak Islamabad	Completed	Inspected
7	Madera Pharma	Industrial Area Humak Islamabad	Completed	Inspected
8	Tecno Vision Pharma	Industrial Area Humak Islamabad	Completed	Inspected
9	Lloyd Pharma	Industrial Estate Hatar	Completed	Inspected
10	Cherwel Pharma	Industrial Estate Hatar	Completed	Inspected
11	Maxson Pharma	Industrial Area I-10/3 Islamabad	Completed	Inspected
12	Bio Lab Pharma	Industrial Area Humak Islamabad	Completed	Inspected
13	IPP Pharma	Industrial Area Humak Islamabad	Completed	Inspected
14	IPP Pharma	Industrial Area Risalpur	Under Production	
15	IPP Pharma	Industrial Area Swat	Completed	Inspected
16	Glitz Pharma	Industrial Area Humak Islamabad	Under Production	
17	Neomedix Pharma	Industrial Area Rawat	Completed	Inspected
18	Fynk Pharma	Wahdat Road, Lahore	In Progress	
19	Focus Pharma	Thokar Niaz Baig Lahore	Under Production	
20	Festal Pharma	Thokar Niaz Baig Lahore	Under Production	
21	Z.Jans Pharma	Hayatabad Peshawar	Completed	Inspected
22	Wilshire Pharma	Kot Lakhpat, Lahore	In Progress	
23	Innvtek Pharma	Industrial Area Humak Islamabad	Completed	Inspected
24	Waller Pharma	Industrial Area Humak Islamabad	Completed	Inspected
25	Vision Pharmaceutical	I-10/3, Industrial Area, Islamabad	In Progress	

## ii. List of Pharmaceuticals Client

S.#	Name of Client	Location	Work Status	Ministry Report
26	Nimrall Pharmaceutical	Industrial Area Rawat	Completed	Inspected
27	Global Pharmaceutical	K. Triangle Industrial Area Islamabad	Completed	Inspected
28	Pearl Pharmaceutical	I-10/3, Industrial Area Islamabad	Completed	Inspected
29	Ambrosia Pharmaceutical	Industrial Area Rawat	Completed	Inspected
30	Webros Pharmaceutical	Industrial Area Rawat	Completed	Inspected
31	Amson Pharmaceutical	K.T Industrial Area Islamabad	Completed	Inspected
32	Navigal Pharmaceutical	Industrial Estate Hattar	Completed	Inspected
33	Glinz Pharmaceutical	Industrial Area Risalpur	Under Production	
34	Shazal's Pharmaceutical	Industrial Estate Hattar	Under Production	
35	Rotex Pharmaceutical	Industrial Area Hummak	Under Production	
36	Pharma Gen Phase-1	Feroz Pur Road, Lahore	Completed	
37	Crown Pharma	K.T Industrial Area Humak	Completed	
38	Danies Pharma	Industrial Area Humak	Completed	Inspected
39	IPP Pharma	Swat New Building	Completed	Inspected
40	Wahab Sons	Swat	Completed	Inspected

**Large Number of Industries are under Negotiation**



# **“ECONOMIA”**

## **c. Central Air Conditioning System**

**i. Range of Product**

**ii. Number of Projects**

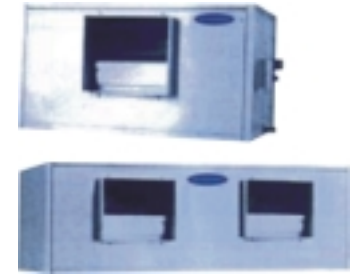
### **i. Product Range**



**Decorative Universal Type FCU**  
**Capacity 0.75 to 5 TR**



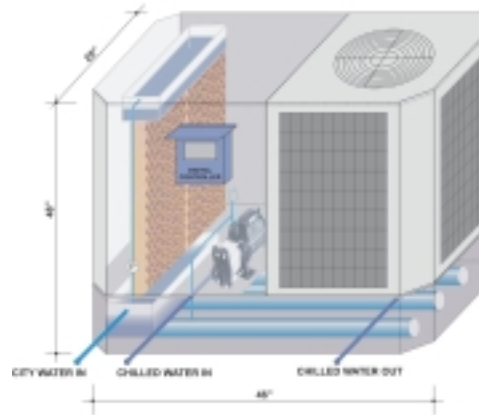
**Concealed Type FCU**  
**Capacity 0.75 to 5 TR**



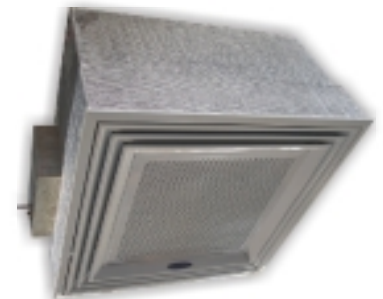
**Standard AHU**  
**Capacity 4 to 12 TR**



**Condensing Unit Cap. 0.75 to 8 TR**  
**(Side & Top Discharge)**



**Air Cooled Chiller**  
**Capacity 2 to 12 TR**



**Cassette Type Unit**  
**Capacity 1 to 2.5 TR**

## ii. List of Central Air Conditioning Projects

S.#	Project Name	Location	Status
1	Tech. Accommodation	CAD Sargodha	Job Completed in 1993
2	3 x Twin Igloos	CAD Sargodha	Job Completed in 1993
3	Storage Accommodation	CAD Sargodha	Job Completed in 1991
4	200 Bedded Female Surgical Ward	MH Rawalpindi	Job Completed in 1992
5	VVIP Lounge	Chaklala Rawalpindi	Job Completed in 1994
6	Officer Mess	E-9 Islamabad	Job Completed in 1994
7	National Defence College	E-9, Islamabad	Job Completed in 1996
8	DESTO Lab	Chattar	Job Completed in 1993
9	Army Squash Complex	Peshawar	Job Completed in 1989
10	Public Library & Archive Building	Peshawar	Job Completed in 1990
11	Public Library Cum Auditorium	Abbottabad	Job Completed in 1990
12	Caddet Mess	Risalpur	Job Completed in 1992
13	Command & Staff College	Quetta	Job Completed in 1992
14	Electronic Workshop	Faisal Base Karachi	Job Completed in 1994
15	Fuel Pump Shop	Faisal Base Karachi	Job Completed in 1992
16	Defence Project	Khanpur	Job Completed in 1996
17	Air Headquarter	E-9 Islamabad	Job Completed (ECONOMIA)
18	MTBC	E-9 Islamabad	Job Completed (ECONOMIA)
19	Thalassemia Hospital	Rawalpindi	Job Completed (ECONOMIA)
20	Rizwan Arcade	Rawalpindi	Job Completed (ECONOMIA)
21	NUML Library	Islamabad	Job Completed (ECONOMIA)
22	Nidai Millat TV	Lahore	In Progress (ECONOMIA)
23	SAFMA TV	Lahore	In Progress (ECONOMIA)

**Large Nos of Projects are at negotiation**

# **“ECONOMIA”**

## **New Developments**

- **Introduction of Pre Fabricated Insulated Ducting Alternate of G.I Metal Ducting and Pre Fabricated Pipe Insulation.**
- **Air Cooled Water Based Chiller & Split A/C 3TR to 15TR**
- **Air Cooled Water Based Economical Packaged Air-Conditioner**
- **Humidity Based Air Cooled Economical Packaged Air-Conditioner**
- **Call Center**

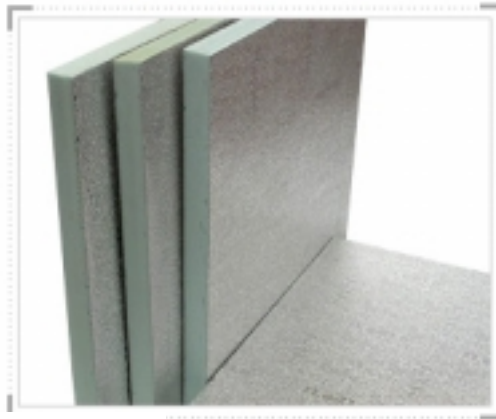
# ***“ECONOMIA”***

## **Pre Fabricated Insulated Ducting**

# **“ECONOMIA”**

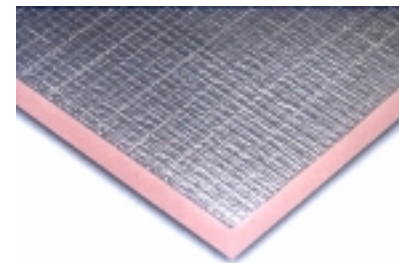
## **PIR/PU Pre-insulated Duct Panel**

### **Alternate of G.I Metal Ducting**



### **Detailed Product Description**

This product is made of a layer of silicate modified fireproof rigid polyurethane. It is Foam coated with aluminum foils and is a new alternative to galvanized ducts. Easy to install, it has a high density, good insulation, low air leakage (which saves energy), it's easy to clean, environmentally friendly, non-itchy, and Freon free.



### **Features:**

- 1) Specification: 3, 600 x 1, 200 x 20mm
- 2) 80/80um aluminum foil, both sides embossed
- 3) Density: 50-60kg/m<sup>3</sup>
- 4) Compressive strength: 200N/mm<sup>2</sup>
- 5) Thermal conductivity: 0.021 W/m.K
- 6) Flame retardancy: B1
- 7) Friction coefficient: 0.0135
- 8) Light Weight 15% of G.I Sheet
- 9) Durable, No Rust, Hygienic

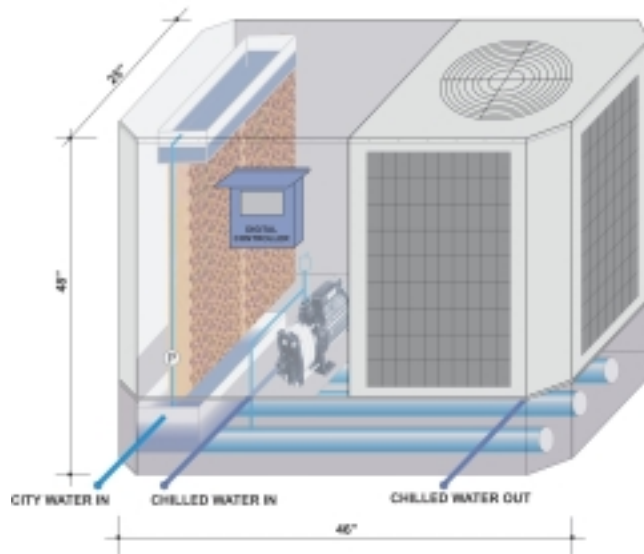


# **“ECONOMIA”**

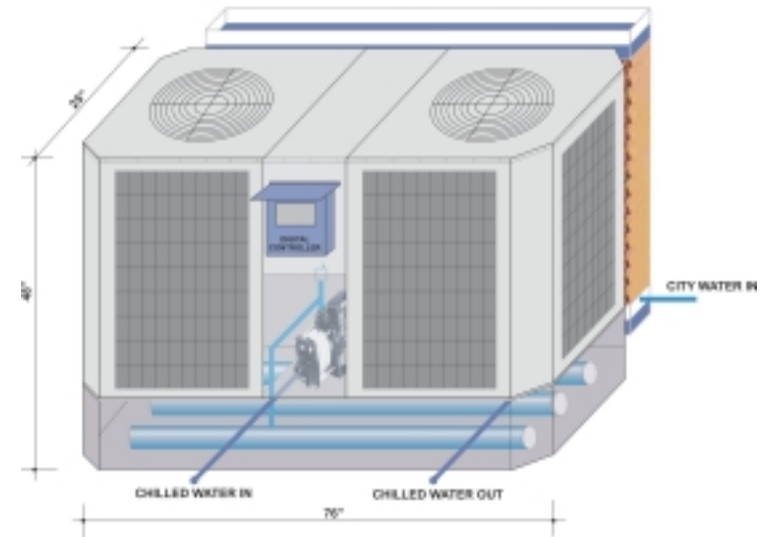
**Air Cooled Water Based Chiller & Split A/C 3TR to 15TR**

# “ECONOMIA”

## Air Cooled Water Based Chiller (Energy Saving Up to 40% Running Cost)



**Single Circuit**  
Capacity 3-TR to 7.5-TR



**Double Circuit**  
Capacity 6-TR to 15-TR



# **“ECONOMIA”**

## **Water Based Air Cooled Economical Packaged Air-Conditioner**

# “ECONOMIA”

## Installation Pattern

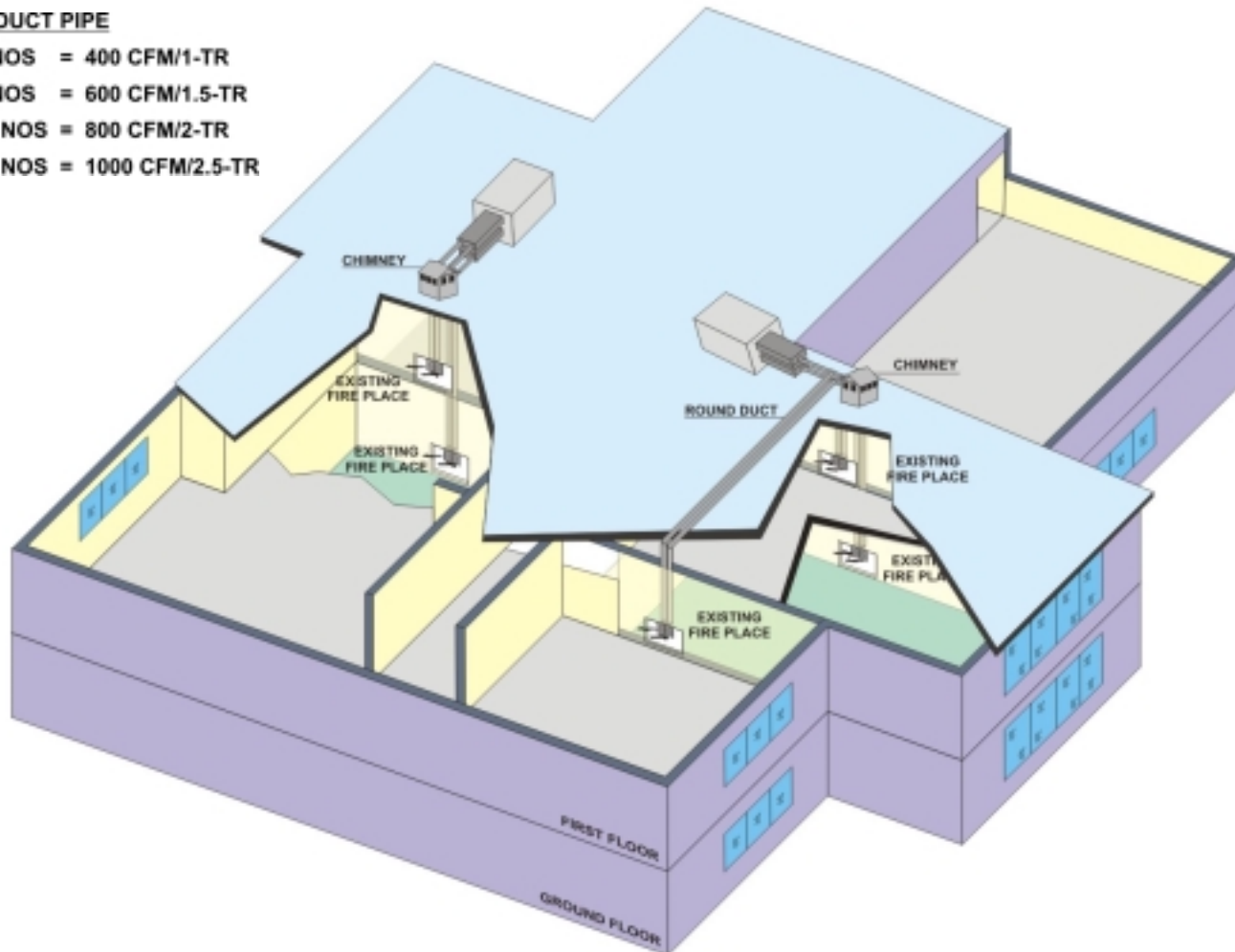
### SIZE OF DUCT PIPE

6" Ø X 2 NOS = 400 CFM/1-TR

8" Ø X 2 NOS = 600 CFM/1.5-TR

10" Ø X 2 NOS = 800 CFM/2-TR

12" Ø X 2 NOS = 1000 CFM/2.5-TR



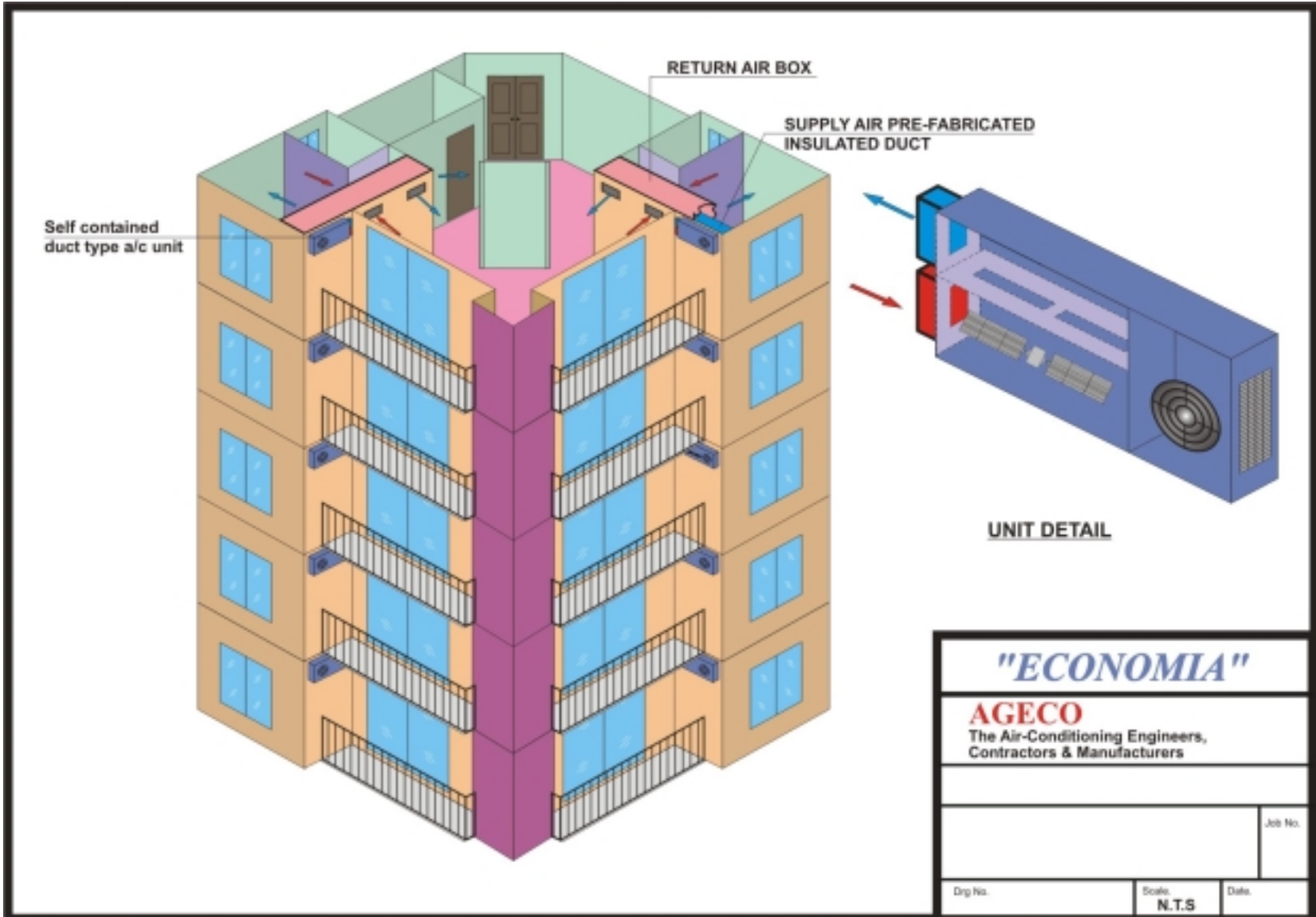
# **“ECONOMIA”**

## **Humidity Based Air Cooled Economical Packaged Air-Conditioner**

# *“ECONOMIA”*

## ECONOMICAL AIR CONDITIONER

### Duct Type Humidity Based Air Cooled Packaged Unit



**“ECONOMIA”**

**Call Center**

- **INTRODUCTION**

*Call Centre is being established for system monitoring of Performance and fault indication to help customers and improve our services and quick response for maintenance/awareness.*

- **CALL CENTRE LOCATION**

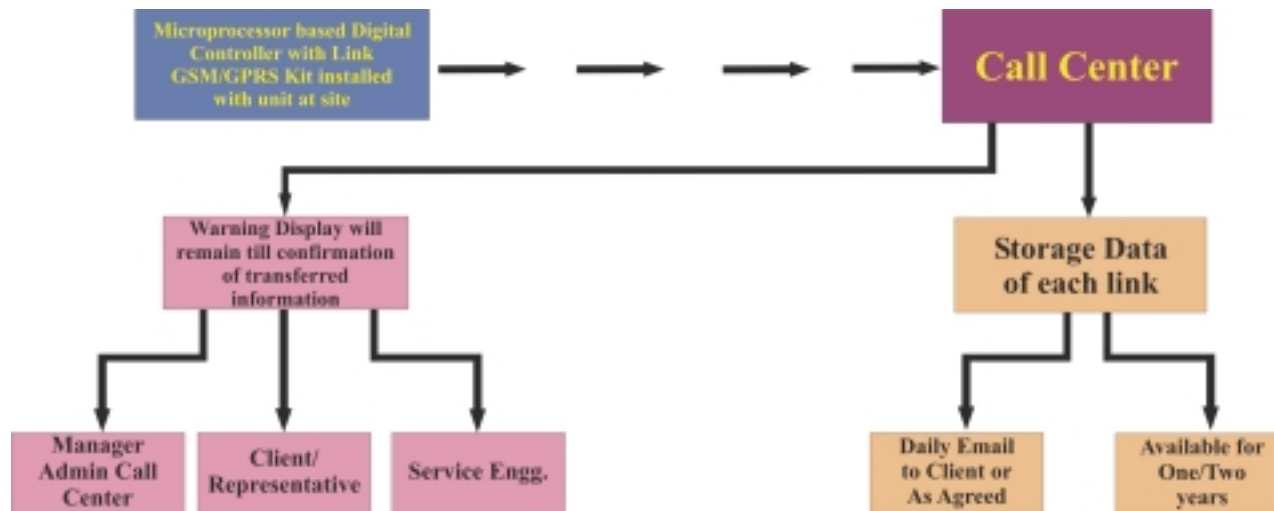
*The Call Centre is located in Islamabad for System Monitoring through GPRS/SMS and this GPRS/SMS Kit can be installed with any supplied AHU/Chiller based on Microprocessor Digital Controller.*

## MONITORING SYSTEM

*A GPRS/SMS Kit is being installed with Microprocessor Digital Controller for supplied “ECONOMIA” system and new product after 2007/Upon operation of Call Centre in-built will be supplied with each AHU/Chiller, which will record the data on hourly basis and send Information to Call Centre every 12/24 hours. However, in case of warning information immediately send within 5 seconds and same will be transferred in next 3-5 seconds to concerned area for action.*

## CALL CENTRE OPERATIONS

*The Call Centre gets data from any part of the world wherever system is configured and keep the records for last 2 years and update every 12/24 Hours basis and same record can be sent to client, Maintenance Engineer, Security Incharge or can be Printed as hard Copy for any use.*



**“ECONOMIA”**

# **COST COMPARISON STATEMENT**

**ABSORPTION, RECIPROCATING & CENTRIFUGAL CHILLER**

**Vs**

**“ECONOMIA”**

## Cost Comparison Statement UP to 500-TR Capacity

**Cost Comparison Statement UP To 500-TR Capacity**

Nomenclature	Window A/C (Cooling Only)	Split A/C (Cooling Only)	Central Air Conditioning			*ECONOMIA* Economical Water Based Air Conditioner with AHU & Condensing Unit (Heating & Cooling)
			Reciprocating Chiller with AHU & Cooling Tower (Heating & Cooling)	Centrifugal Chiller with AHU & Cooling Tower (Heating & Cooling)	Gas Fired Chiller with AHU & Cooling Tower (Heating & Cooling)	
Capital Cost Approx. (Without GST)	Rs.20,000/TR	Rs.30,000/TR	Rs.1,25,000/TR	Rs.1,50,000/TR	Rs.1,75,000/TR	Rs. 51,000 to Rs.72,000 for Nust
Running Cost	1.50 KW/TR	1.25 KW/TR	0.95 KW/TR	0.70 KW/TR	0.40 KW/TR equivalent Gas Consumption	0.85 KW
Plant Room	Nil	Nil	Required 20 x 50 x 14	Required 20 x 50 x 15	Required 20 x 50 x 15	Nil
Operating Staff	1-Diploma Tech 3-Simple Tech.	1-Diploma Tech 3-Simple Tech.	1-Three years Diploma Engg. Incharge 3-Techs. Each shift (total 9 Techs)	1-Three years Diploma Engg. Incharge 3-Techs. Each shift (total 9 Techs)	1-BSc. Engg. Incharge 3-Diploma Shift Incharge 3-Techs. Each shift (total 9 Techs)	1-Diploma Tech. 3-Simple Techs



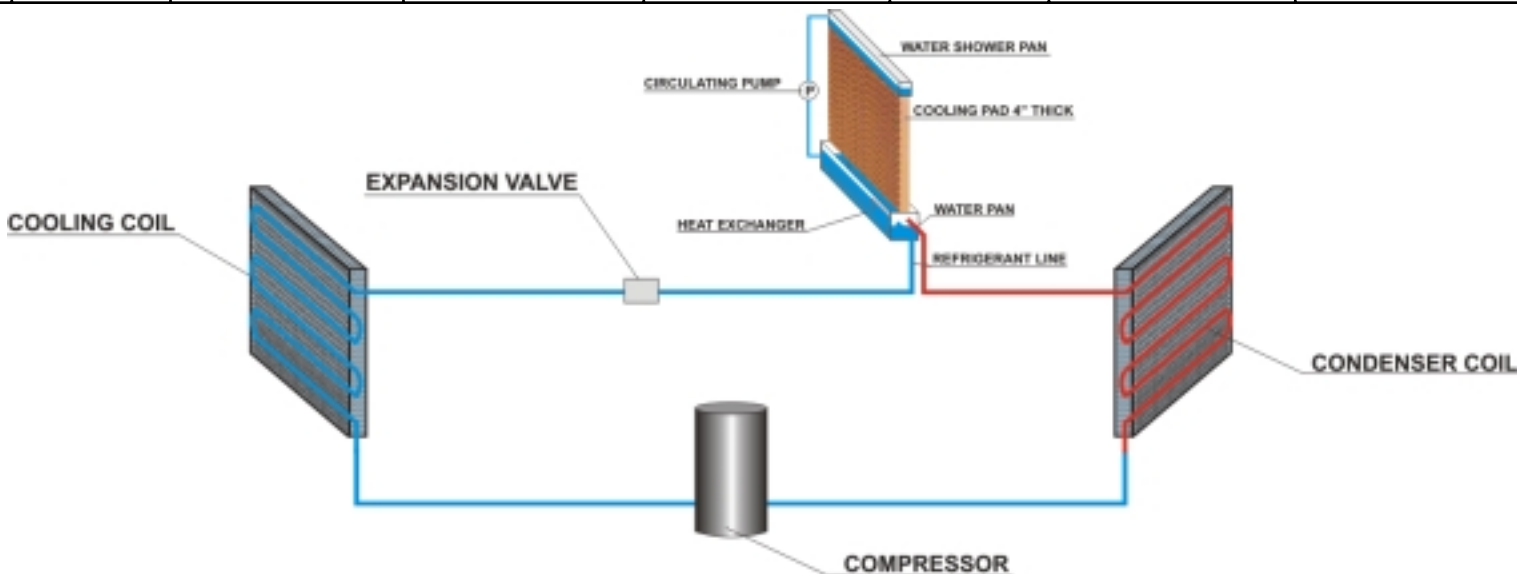
**Technology for Energy Saving and  
De-rating Factor Vs any other Manufacturers  
Saving up to 40% Running Cost**

**How “ECONOMIA” is economical in cooling?**

## COMPARISON OF DERATING FACTOR "ECONOMIA" Vs ANY OTHER MANUFACTURERS

SAVING UP TO 40% RUNNING COST  
 How “ECONOMIA” is economical in cooling?

Only Air Cooled Unit				"ECONOMIA" Air Cooled water based Unit			
Ambient Temp	Capacity	Running Load	Refrigerant Liquid Temperature	Ambient Temp.	Capacity	Running Load	Refrigerant Liquid Temperature through Heat Exchanger of Cooling Pad
35 °C	2-TR	10 Amps	46 °C	35 °C	2-TR	10 Amps	30 °C
40 °C	1.75-TR	12 Amps	50 °C	40 °C	2-TR	10 Amps	34 °C
45 °C	1.5-TR	14 Amps	58 °C	45 °C	2-TR	9.5 Amps	38 °C



CONCLUSIONS	REMARKS
a. Around 40% to 70% saving in initial cost. b. Around 80% saving in water consumption in cooling tower. c. Around 40% saving in Running cost.	a. Rs.60,000 to Rs.70,000/TR VS Rs.100,000 to Rs.175,000/TR. b. Max. 20% water consumption due to heat dissipation in Air Cooled Condensing unit. c. 0.70 Kw/TR VS 1.25 Kw/TR of Air Cooled condensing Split Unit.

**Merits & Demerits of Central Heating & Cooling System  
VS  
Conventional Sui Gas Heater and Split/Window AC.**

# “ECONOMIA”

## COMPARISON

### MERITS & DEMERITS BY CHOOSING CENTRAL HEATING/COOLING SYSTEM

VS

### CONVENTIONAL SUI GAS HEATER & SPLIT/WINDOW AC

Piping laid can be used for only Heating, only Cooling or Heating & Cooling.

<b>Central Heating System</b>	<b>Traditional Gas Heater</b>
a. Environment friendly (No Monoxide)	a. Gas Burning generate monoxide which is harmful and pollute the environment.
b. System can be used during sleep.	b. Heater can not be operated during sleep.
c. Safe from Children.	c. Unsafe from children due to burning.
d. Uniform Temperature changing environment feeling as warm blanket.	d. No uniform temperature which gives un-comfortable heating.
e. System life 20 years.	e. Heater life 5 years.
f. Low price cost 6 HRS Heater = 24 HRS Radiator	f. High Running cost
g. Provision for warm bath rooms towel rails and wet cloths can be dried.	g. Not applicable.

## “ECONOMIA”

Central Cooling System	Split/Window AC
a. One outdoor chiller handling entire floor, proper design placement and nice control.	a. No. of outdoor unit placed surrounding the house giving ugly look and make noise.
b. 40% to 60% saving in Running cost due to chiller technology.	b. High running cost upon increasing ambient high capacity de-rate in result running cost increasing up to 100%
c. System life up to 10 to 15 years.	c. System life up to 5 to 10 years.
d. Properly designed by professionals.	d. Placing & design is 99% not done by professionals.
e. Systematic piping layout is designed and placed according to drawing in professional way & no chance for gas leakage as in pipes water will flow.	e. In building piping of split is placed which gives ugly look and more chance for leakage/ Maintenance.
f. Provision for monitoring through GPRS which can also be use for Security.	f. No provision

# “ECONOMIA”

Central Cooling & Heating	Cooling & heating
a. One Fan Coil being installed for Heating as well as cooling	a. For Heating Heater will be installed separately and window or split unit will be installed for cooling.
b. One chiller and its boiler for a floor can be placed at appropriate location to maintain the beauty of the house & easy for maintenance.	b. Number of condensing units to be placed, damage the beauty of the house & more difficult for maintenance.
c. Monitoring system for maintenance, operating and security is available inbuilt chiller.	c. Not applicable.
d. Initial cost lower than separate heating & cooling.	d. Initial cost higher than the Central Cooling & Heating System.
e. Running cost for 5 rooms = 2 Splits 4 Rooms system heating = 1 Room Heater	e. High Running cost.

# **“ECONOMIA”**

## **SERVICES**

- a. Cost Estimation**
- b. After Sale Service**

# “ECONOMIA”

## a. Cost Estimation

1. We received site plan confirming dimension of room then submit the cost.
2. You can visit web site to feed altitude where installation is required that to system will automatically understand the ambient and by feeding the room size you will find complete selection of Radiators and boilers including installed cost as detail bill of quantity.







**Thank You**