













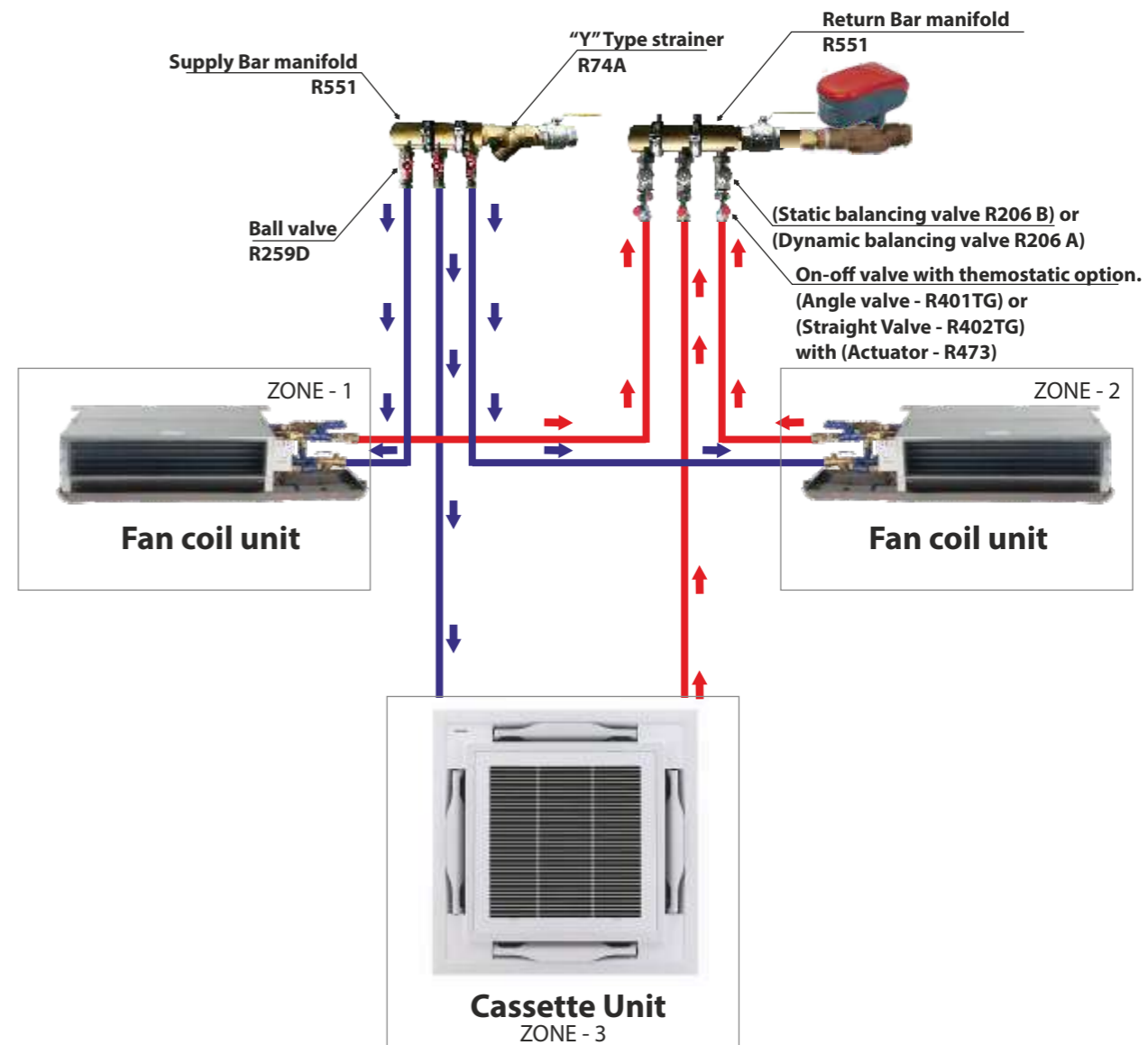


A new generation  
of emotional technology.

# FCU STATION

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## WHAT IS FCU STATION ?

Fan Coil Unit (FCU) station is Pre assemble station ,with which we can install FCU in a much faster way. In a current scenario with relevant to connection of FCU with MS pipe header more number of joints are required i.e Elbow ,coupler etc. Mobilisation of Welding Equipment with skilled labour is major cost.

## ADVANTAGES :

- Seamless Piping system
- Low pressure drop
- Low maintenance
- Easy installation
- Pressure test upto 16 bar
- Precisely adjustment of the flow
- Anti-corrosion pipe & fittings
- Leakproof
- Compact Design
- Single point & control with Giacomini manifolds
- Control FCU water flow individually
- No separate Strainer required for each FCU
- FCU isolation can be done from remote area
- Installation of Giacomini pipes & fittings are safe & secure as no welding or brazing is required
- The system can be modulated from 0.75TR to 5TR
- Flexibility of 500 mm to 2000 mm length pipe with ready connection fittings

# FCU STATION COMPONENTS

## Giacquest pipe in cross linked ployethylene

	ITEM CODE	SIZE
	GZ996Y105	3/4"
	GZ996Y106	1"

## PE-X/Al/PE-X multilayer pipe

	ITEM CODE	SIZE
	R999Y142	20x2
	R999Y143	20x2
	R999Y173	26x3
	R999Y183	32x3

## Distribution Manifold

	ITEM CODE	SIZE
	R551Y162	2" X 1 1/2"
	R551Y163	2" X 1 1/3"
	R551Y164	2" X 1 1/4"
	R551Y165	2" X 1 1/5"
	R551Y166	2" X 1 1/6"

*\* also available in 1 1/2" X 1/2"*

## Y filter

	ITEM CODE	SIZE
	R74AY004	3/4"
	R74AY005	1"
	R74AY006	1 1/4"
	R74AY007	1 1/2"
	R74AY008	2"
	R74AY009	2 1/2"
	R74AY010	3"
	R74AY011	4"

## Multilayer pipe PE-X/Al/PE-X

	ITEM CODE	SIZE
	R999Y240	20X2 insulation 10 mm - red
	R999Y245	20X2 insulation 10 mm - blue
	R999Y270	26X3 insulation 10 mm - red
	R999Y272	26X3 insulation 10 mm - red
	R999Y275	26X3 insulation 10 mm - blue
	R999Y280	32X3 insulation 10 mm - red
	R999Y140	20X2 insulation 13 mm - grey
	R999Y170	26X3 insulation 13 mm - grey
	R999Y180	32X3 insulation 13 mm - grey

## Standard port ball valve with tail piece

	ITEM CODE	SIZE
	R259X005	3/4"F x 3/4"M
	R259X006	3/4"F x 1"M
	R259X007	1"F x 1"M
	R259X008	1"F x 1 1/4"M
	R259X009	1 1/4"F x 1 1/4"M

## Plug for manifolds, self-sealing

	ITEM CODE	SIZE
	R592DY004	3/4"
	R592DY005	1"
	R592DY006	1 1/4"
	R592DX007	1 1/2"



# FCU STATION COMPONENTS

## Kit multifunction valves

	ITEM CODE	SIZE
	R269TY035	1"
	R269TY036	1 1/4"

## Isolation cover manifold R551 (1"1/2 - 2")

	ITEM CODE	SIZE
	R551WY005	for 3/4" R551 Distance 50mm
	R551WY006	3/8"x18
	R551WY007	1/2"x16
	R551WY008	1/2"x18
	R551WY009	1/2"x3/4"Eurocone


## Reducer self-sealing.

	ITEM CODE	SIZE
	R593DY001	3/4"M x 3/8"F
	R593DY002	3/4"M x 1/2"F
	R593DY003	1"M x 3/8"F
	R593DY004	1"M x 1/2"F
	R593DY005	1"M x 3/4"F
	R593DY006	1 1/4"M x 1/2"F
	R593DY007	1 1/4"M x 3/4"F
	R593DY008	1 1/4"M x 1"F

## Drain cock male connection

	ITEM CODE	SIZE
	R608Y014	3/4"
	R608Y022	3/8"
	R608Y023	1/2"
	R608Y024	3/4"
	R608Y033	1/2"
	R608Y034	3/4"

## Automatic air vent valve

	ITEM CODE	SIZE
	R99Y002	3/8"
	R99Y003	1/2"

## Nipple, brass finish

	ITEM CODE	SIZE
	R189Y004	3/4"
	R189Y005	1"
	R189Y006	1 1/4"
	R189Y007	1 1/2"

## Reducer male-female thread. BRASS FINISH

	ITEM CODE	SIZE
	R93Y003	3/4"M x 1/2"F
	R93Y010	1"M x 1/2"F
	R93Y011	1"M x 3/4"F
	R93Y018	1 1/2"M x 1 1/4"F
	R93Y019	2"M x 1 1/2"F
	R93Y020	2"M x 1 1/4"F


## Thermometer

	ITEM CODE	SIZE
	R226Y002	1/2" 6 bar

## Dynamic balancing valve, with integrated cartridge for stabilizing the flow rate

	ITEM CODE	SIZE
	R206AY014	3/4"
	R206AY015	1"
	R206AY016	1 1/4"
	R206AY017	1 1/2"
	R206AY018	2"
	R206AY033	1/2"
R206AY034	3/4"	

## Electrical actuator, normally closed

	ITEM CODE	SIZE
	R473X121	230 V
	R473X122	24 V
	R473VX121	230 V-with varistor

## Angle valve with thermostatic option

	ITEM CODE	SIZE
	R401X034	3/4" *
	R401X035	1" *

## Angle lockshield valve

	ITEM CODE	SIZE
	R14X034	3/4" *
	R14X035	1" *
	R14X036	1 1/4" *

## Static balancing valve

	ITEM CODE	SIZE
	R206BY004	3/4"
	R206BY005	1"
	R206BY006	1 1/4"
	R206BY007	1 1/2"
	R206BY008	2"
	R206BY014	3/4"
	R206BY015	1"
	R206BY016	1 1/4"
	R206BY017	1 1/2"
R206BY018	2"	

## Straight valve with thermostatic option

	ITEM CODE	SIZE
	R402X034	3/4" *
	R402X035	1" *

## Straight lockshield valve

	ITEM CODE	SIZE
	R15X034	3/4" *
	R15X035	1" *
	R15X036	1 1/4" *

# FCU STATION COMPONENTS

**Crimp Ring**

	ITEM CODE	SIZE
	GZ61Y005	3/4"
	GZ61Y006	1"

**Ball valve with Giacoqest connection**

	ITEM CODE	SIZE
	GZ650Y004	3/4"

**Straight Fitting**

	ITEM CODE	SIZE
	GZ102Y004	3/4"x3/4"
	GZ102Y005	1"x1"

**Straight fitting, male thread**

	ITEM CODE	SIZE
	GZ107Y044	3/4"x3/4"M
	GZ107Y054	3/4"x1"M
	GZ107Y045	1"x3/4"M
	GZ107Y055	1"x1"M

**Large crimping tool**

	ITEM CODE	SIZE
	GZ200Y004	3/4"
	GZ200Y005	1"

**Ball valve**

	ITEM CODE	SIZE
	GZ651Y004	3/4"
	GZ651Y005	1"

**Straight fitting, female thread**

	ITEM CODE	SIZE
	GZ109Y044	3/4"x3/4"F
	GZ109Y045	1"x3/4"F
	GZ109Y055	1"x1"F

**90° elbow**

	ITEM CODE	SIZE
	GZ122Y004	3/4"x3/4"
	GZ122Y005	1"x1"

**Medium crimping tool**

	ITEM CODE	SIZE
	GZ200Y103	1/2"
	GZ200Y105	3/4"

**Crimp ring remover**

	ITEM CODE	SIZE
	GZ201Y001	

**90° elbow, male thread**

	ITEM CODE	SIZE
	GZ127Y044	3/4"x3/4"M
	GZ127Y045	1"x3/4"M
	GZ127Y055	1"x1"M

**90° elbow, female thread**

	ITEM CODE	SIZE
	GZ129Y044	3/4"x3/4"F
	GZ129Y045	1"x3/4"F
	GZ129Y055	1"x1"F

**Checking guage**

	ITEM CODE	SIZE
	GZ211Y001	3/8"-1/2"-3/4"
	GZ211Y003	1"

**Tee fitting**

	ITEM CODE	SIZE
	GZ150Y004	3/4"
	GZ150Y005	1"


**Reducing tee.**

	ITEM CODE	SIZE
	GZ151Y025	1"x3/4"x3/4"
	GZ151Y017	3/4"x1"x3/4"
	GZ151Y026	1"x3/4"x1"
	GZ151Y027	1"x1"x3/4"

**Tee fitting, male thread**

	ITEM CODE	SIZE
	GZ153Y034	3/4"x1/2"Mx3/4"

**Tee fitting/female thread**

	ITEM CODE	SIZE
	GZ154Y045	1"x3/4"Fx1"

# FCU STATION COMPONENTS

## Pressure independent control valves (PICV)

	ITEM CODE	SIZE
	R206AY054	3/4" F
<i>Working flow rate [l/h]</i>		

## Two way zone valve, F \* F connections

	ITEM CODE	SIZE
	R276Y004	3/4"
	R276Y005	1"

## Three way zone valve, M \* M connections

	ITEM CODE	SIZE
	R278Y004	3/4"
	R278Y005	1"

## Full port ball valve, red lever handle, chrome plated.

	ITEM CODE	SIZE
	R850X023	1/2"
	R850X024	3/4"
	R850X025	1"
	R850X026	1 1/4"
	R850X027	1 1/2"
	R850X028	2"
	R850X009	2 1/2"
	R850X010	3"
	R850X031	4"

## Actuator 'ON/OFF' Type

	ITEM CODE	SIZE
	K281X022	M30 x 1.5 mm.
<i>Supply 24 V - ON/OFF type. Valve</i>		

## Actuator 'V' type

	ITEM CODE	SIZE
	K281X012	M30 x 1.5 mm.
<i>Supply 24 V - 0±10 V type.</i>		

## Electrical motor for Diverter valve

	ITEM CODE	SIZE
	K270Y101	230 V
	K270Y102	24 V
<i>Motor for R276, R277, R278, R279 zone valve having end stroke microswitch. 90° rotation in around 40 seconds.</i>		

## F \* M Standard Port Ball Valve

	ITEM CODE	SIZE
	R254LX003	1/2"
	R254LX004	3/4"
	R254LX005	1"
	R254LX006	1 1/4"
	R254LX007	1 1/2"
	R254LX008	2"

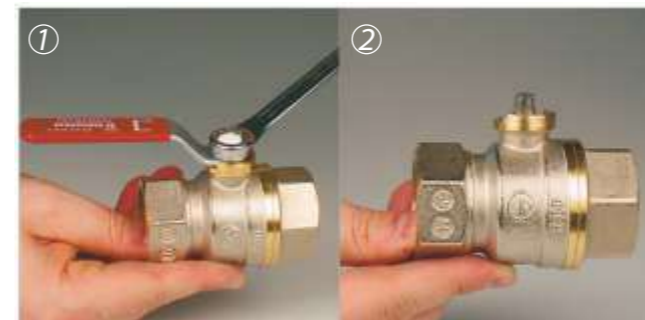
## M \* M Standard Port Ball Valve red or yellow lever handle, chrome plated

	ITEM CODE	SIZE
	R253LX003	1/2"
	R253LX004	3/4"
	R253LX005	1"
	R253LX006	1 1/4"

## Full port valve with extended handle

	ITEM CODE	SIZE
	R851TX003	1/2"
	R851TX004	3/4"
	R851TX005	1"
	R851TX006	1 1/4"
	R851TX007	1 1/2"
	R851TX008	2"

## Installation sequence for R749T (Extended lever)



① Unscrew the nut with the special wrench.

② Remove the lever.

## F \* M full port ball valve

	ITEM CODE	SIZE
	R854X023	1/2"
	R854X024	3/4"
	R854X025	1"
	R854X026	1 1/4"
	R253LX006	1 1/4"

## Cylinder extension for ball valves

	ITEM CODE	SIZE
	R749TX101	3/8" - 1/2"
	R749TX102	3/4" - 1" - 1 1/4"
	R749TX103	1 1/2" - 2"
	R749TX004	2 1/2" - 3"
	R749TX005	4"



③ Position the handle raised

④ Put back the lever and with the special wrench tightly screw the nut.

# FCU STATION COMPONENTS

## Male fitting for multilayer or synthetic pipes

ITEM CODE	SIZE
R187MX096	3/4"X (20X2)
R187MX105	3/4"X (26X2)
R187MX115	1"X (26X3)
R187MX126	1"X (32X3)
R187MX130	1 1/4"x(32x3)

## Female fitting for multilayer or synthetic pipes

ITEM CODE	SIZE
R187FX096	3/4"X (20X2)
R187FX105	3/4"X (26X2)
R187FX115	1"X (26X3)
R187FX126	1"X (32X3)

## Straight fitting, for multilayer pipes.

ITEM CODE	SIZE
R560MY048	16x2
R560MX052	18x2
R560MY057	20x2
R560MY062	26x3
R560MY126	32x3

## Reducer Straight fitting

ITEM CODE	SIZE
R566MX053	(20x2)x(16x2)
R566MX060	(26x3)x(20x2)
R566MX076	(32x3)x(26x3)

## 90° elbow fitting

ITEM CODE	SIZE
R561MX048	16x2
R561MX052	18x2
R561MX057	20x2
R561MX062	26x3
R561MX126	32x3

## 90° elbow mail thread fitting

ITEM CODE	SIZE
R562MX048	1/2"x(16x2)
R562MX052	1/2"x(18x2)
R562MX057	1/2"x(20x2)
R562MX060	3/4"x(16x2)
R562MX061	3/4"x(20x2)
R562MX062	3/4"x(26x3)
R562MX120	1"x(26x3)
R562MX126	1"x(32x3)

## 90° elbow, female thread

ITEM CODE	SIZE
R563MX048	1/2"x(16x2)
R563MX052	1/2"x(18x2)
R563MX057	1/2"x(20x2)
R563MX060	3/4"x(16x2)
R563MX061	3/4"x(20x2)
R563MX062	3/4"x(26x3)
R563MX120	1"x(26x3)
R563MX126	1"x(32x3)

## Threaded female elbow fitting with wall bracket

ITEM CODE	SIZE
R572MX048	1/2" x (16 x 2)
R572MX057	1/2" x (20 x 2)

## Tee fitting, male thread

ITEM CODE	SIZE
R568MX061	(20x2)x3/4"x(20x2)
R568MX062	(26x3)x3/4"x(26x3)
R568MX126	(32x3)x1"x(32x3)

## Tee fitting

ITEM CODE	SIZE
R564MX057	20x2
R564MX062	26x3
R564MX126	32x3

## Tee fitting, for multilayer pipes.

ITEM CODE	SIZE
R569MX061	(20x2)x3/4"x(20x2)
R569MX062	(26x3)x3/4"x(26x3)
R569MX120	(26x3)x1"x(26x3)
R569MX126	(32x3)x1"x(32x3)

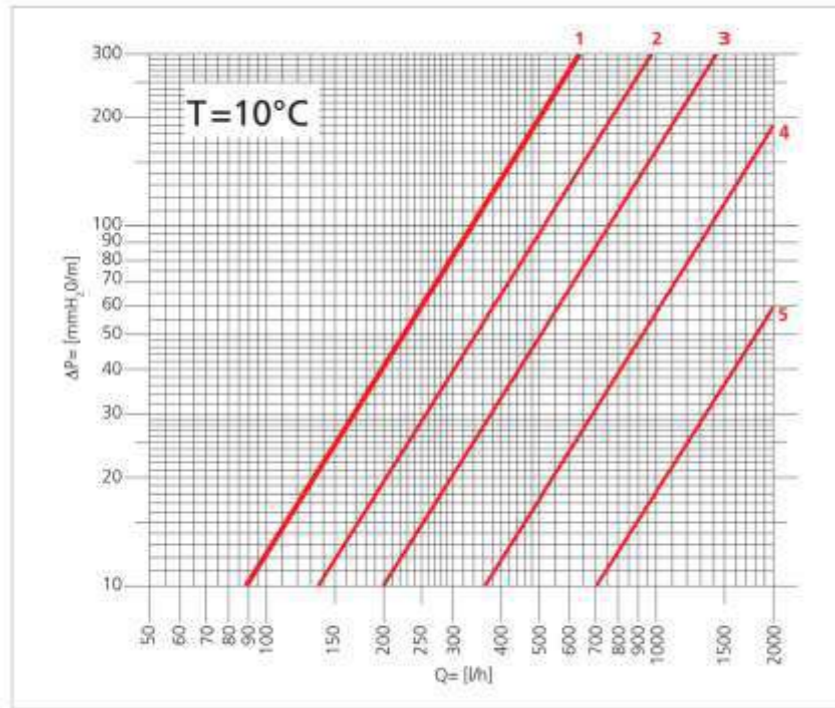
## CONVERSION TABLE :

TR	BTUH	Kcal /Hr	KW	GPM	M <sup>3</sup> /hr	Ltr / hr
1.0	12000	3000	3.517	2.67	0.606	605.67
1.5	18000	4500	5.2755	4.00	0.908	908.50
2.0	24000	6000	7.034	5.33	1.211	1211.33
2.5	30000	7500	8.7925	6.67	1.514	1514.17
3.0	36000	9000	10.551	8.00	1.817	1817.00
3.5	42000	10500	12.3095	9.33	2.120	2119.83
4.0	48000	12000	14.068	10.67	2.423	2422.66
4.5	54000	13500	15.8265	12.00	2.725	2725.50
5.0	60000	15000	17.585	13.33	3.028	3028.33

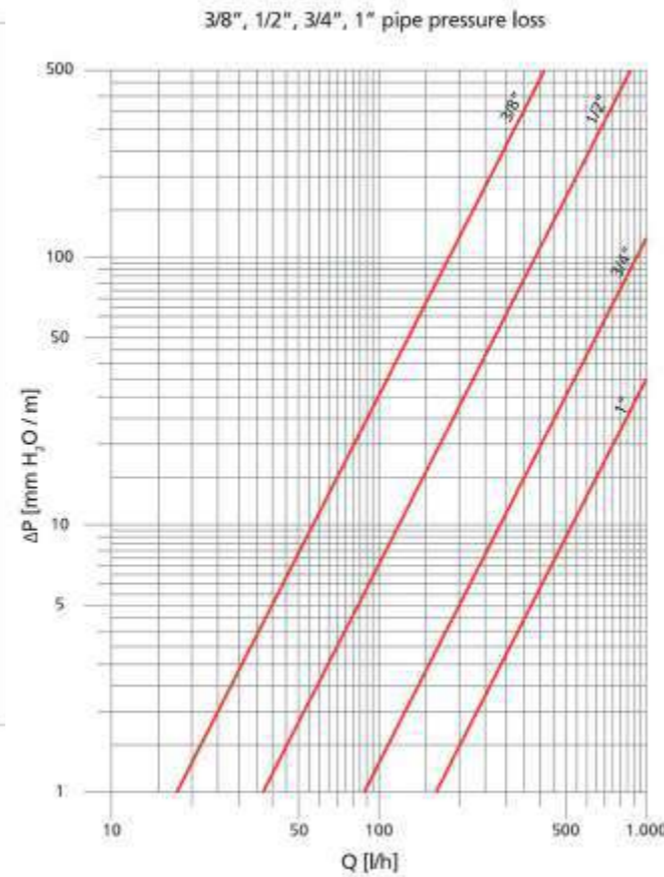


# PRESSURE DROP CHART

**R 999**



**GZ 996**



# FCU SYSTEM SOLUTION

SN.	Description	Conventional MS Pipes	PEX Pipes System
1	Material Used	MS Pipes	PEX pipe
2	Outer Dia of Pipe	34 mm	28.58 mm
3	Inner Dia of Pipe	25 mm	22.22 mm
4	Standard Use	IS 1239	ASTM F876 and EN ISO 15875
5	Pressure drop	1.2 Mpa	0.000506 Mpa
6	Routing of pipes	Elbows & bend required for routing	Flexible enough to bend without any joint
7	Seamless	More number of joints	Jointless System
8	Welding	Required	Not required
9	Copper Soldering	Required	Not required
10	Elbow	Required	Not required
11	Corrosion	MS pipes will be corroded	Not possible
12	Chemical Flushing	Required	Not required
13	Chemical Dosing	Required	Not required
14	Pressure testing	12 bar	12 bar
15	Installation	Heavy weight	Low weight
16	Installation time	Time require is more	Time require is less.
17	Insulation installation	Pipe Insulation done after installation	Pipe Insulation can be done simultaneously with installation
18	Maintenance	Higher maintainence due to more number of joints	No maintainence due to Jointless system
19	Accessibility	Individual	Centralise / Individual
20	Modification of FCU location	Not Possible	Possible
21	Dismantling Time	High	Low
22	Scaling	Present	Absent
23	Life Period of pipe	Approx 10 years	50 years
24	Equipment Life	Life of equipment degraded due to scaling	Life of equipment enhanced due to non scaling



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**We cultivate our future  
to strengthen yours.**

In the future that awaits us, buildings will be less of a “roof over our heads” , and more places that are vital to our health, our personal and professional relationships, our well-being and the one of our planet.

As such, they will become more than just buildings - they will increasingly become environments in which light, temperature and water will be used with greater intelligence and a increased sense of responsibility.

In such a scenario, our mission is to become a Leading company in the production of components and systems that use water to produce comfort, to manage its usage “in situ” and to extinguish fire. All of this with a strong green attitude.

Our products give Life to water, in order to provide useful services and well-being to people. For this reason, our motto is :“WATER E-MOTION”. At home, in the office, at work and wherever water flows, is heated or is cooled - there is a Giacomini product