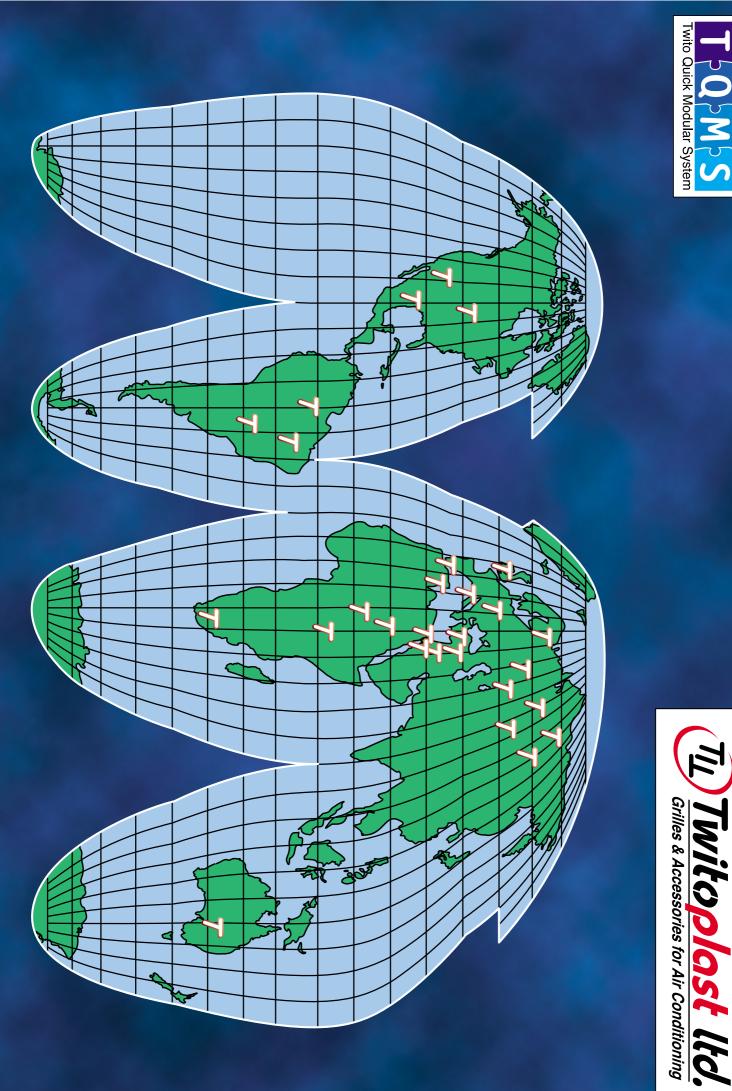




LONG LIFE PLASTIC AIR CONDITIONING ACCESSORIES

- Established in 1989
- 120 employees
- 13 injection-molding machines
- vacuum machines
- Assembly department
- R & D department
- In house designed moulds department
- Owns about 300 moulds.







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A/C indoor Unit 7

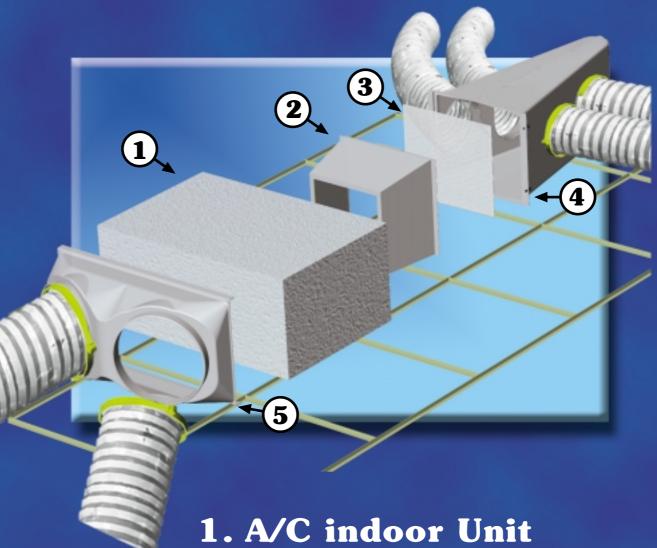
1

- **Extension Box**
- **Duct Manifolds**
 - **Return Air Unit**
- A/C Unit Return Air Adaptor
 - **Celling Diffuser**
- **Proportional Damper**
- **Opal Thermostatice Control Unit** .

 - **Return Air Grill for a Door** Three Way Y-Elbow Supply Grill 9.

TIL) Twitoplast Itd. Grilles & Accessories for Air Conditioning

Duct Manifolds & Return air Adaptor



- 2. Extension Box
- **3. Flowing Equalizer**
- 4. Duct Manifolds
- 5. Return Air Adaptor

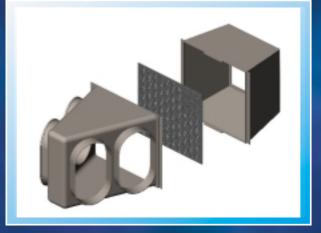








DUCT MANIFOLD





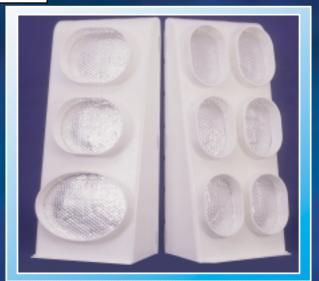
- 3 different types.
- Without air flow control flap.
- With manually operated deflection flap.
- Duct manifold good for air conditioning up to 1100 cfm and 1800 cfm.
- T duct manifold.





DUCT MANIFOLD

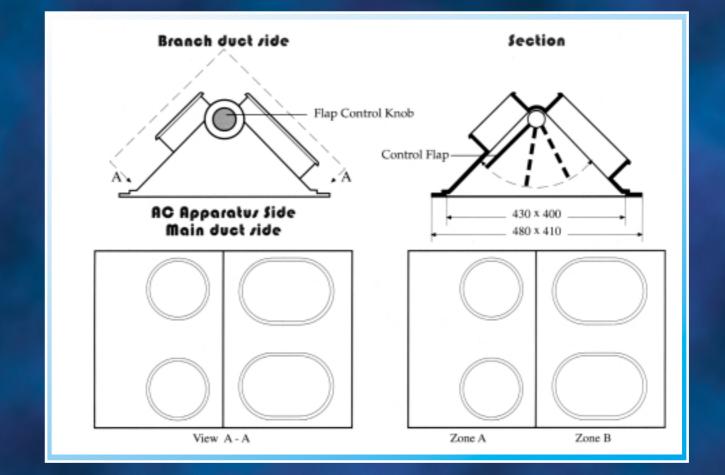


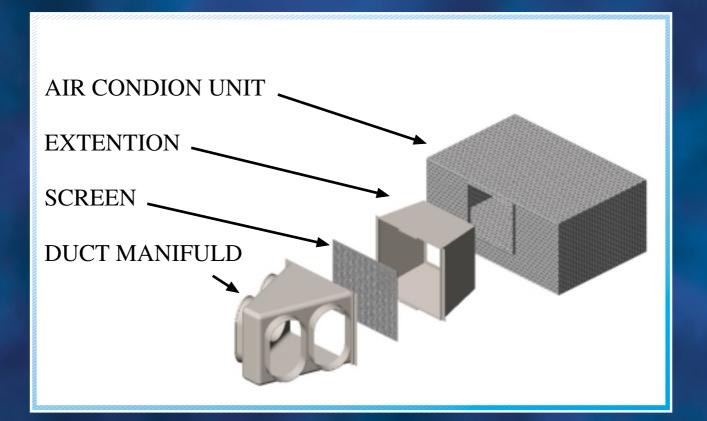


- Made of P.S
- Corrosion resistant.
- Temp. range of 0°c-65°c.
- Serves the air conditioning system distribution box.
- Each side can contain 1 to 4 connections of various sizes.
- Lined with foil alu. insulation sheets.
- Main duct connection is rectangular opening of 400mm x 400mm.
- Duct connection from 6" up to 14".



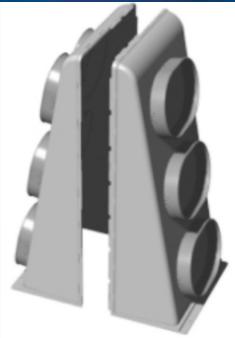






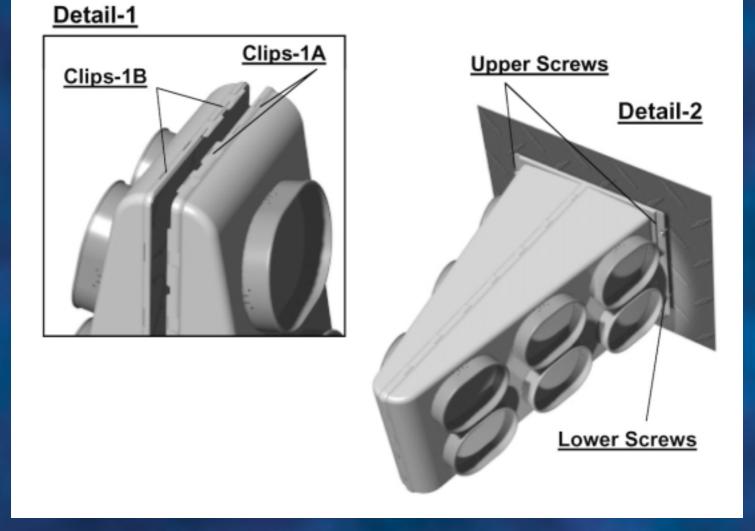






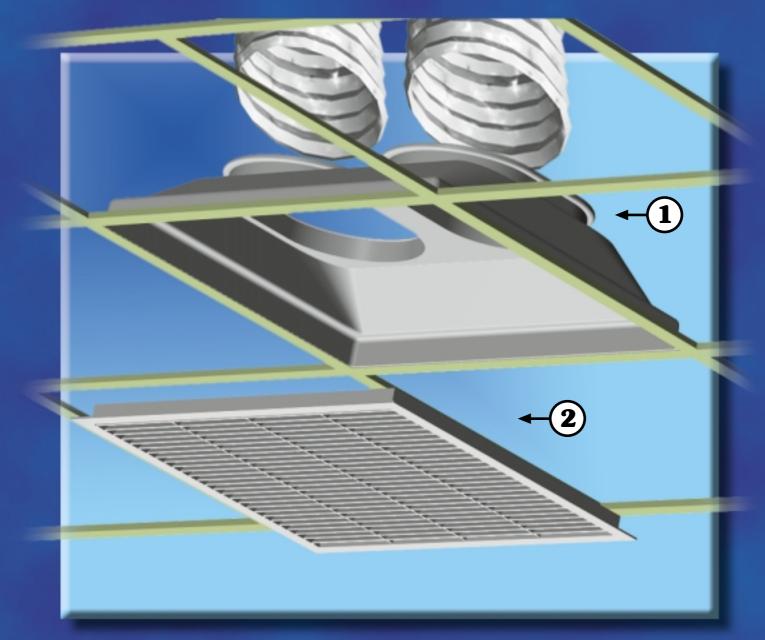
ASSEMBILING INSTRUCTIONS Duct Manifold

- Place both parts of the duct manifold on the floor with the wide opening facing down.
- Position both parts so that clips-1A & 1B (located on the perimeter wall) are aligned (see Detail-1).
- 3. Press both parts and press carefully together.
- Patch the inner side of the duct manifold, around the connections with the tape supplied.
- 5. Open the required air outlet using a knife.
- Connect the duct manifold to the A/C unit. <u>Note:</u> It is best to connect the upper screws before connecting the lower screws (see Detail-2).





Return Air Grille



Adaptor
 Grille







RETURN AIR GRILLE



- Made of A.B.S
- Corrosion resistant.
- Temp. range of 0°c-65°c.
- 4 Series 220mm, 400mm, 525mm, 600mm and special size.
- With or with out filters.
- Prevents condensation.
- Mounted on the wall or ceiling.
- One piece molded unit
- Curved blades 19mm spacing 30^o down deflaction.
- Frames 20 mm 30 mm.
- Wide frame 40mm.

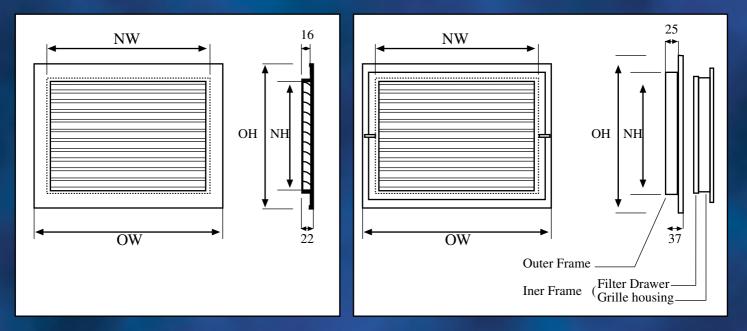




RETURN AIR GRILLE

Grille without filter

Grille with filter



OW-overall width
 NW-neck width
 OH-overall hight
 NH-neck hight



Return Air Grill for a Door

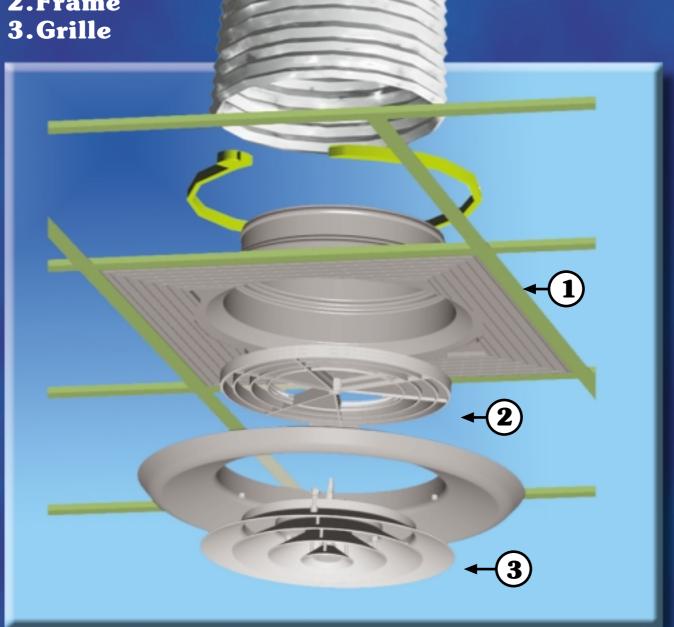






Round Celling Diffuser

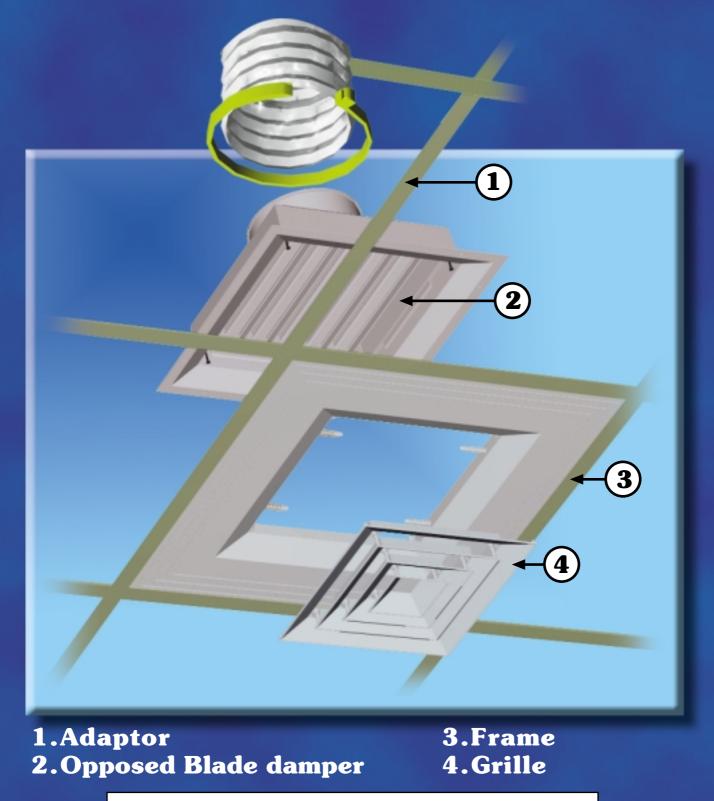
1.Adaptor 2.Frame **3.Grille**







Squar Celling Diffuser





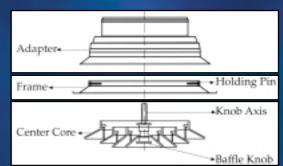




CIELING DIFFUSER SUPPLY GRILLE



- Made of A.B.S.
- Corrosion resistant.
- Temp. range of 0°c-65°c.
- Consists 3 sections:
 - Adapter –
 - Frame
 - Center core —



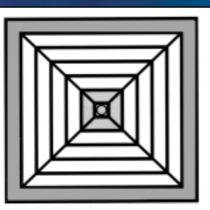
- Distributes uniform air
- Outfloawing air jet mixed repidly with room air.
- Baffle knob manually operated.

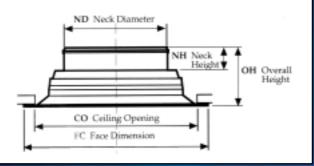




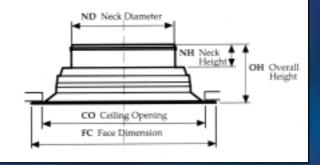
Square Diffuser

Round Diffuser



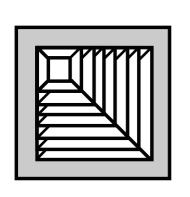




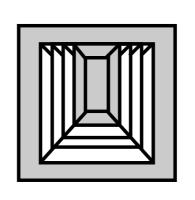


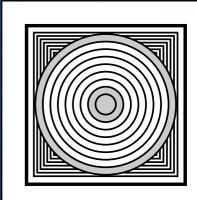
Option 3 WAY

Ard



2 WAY









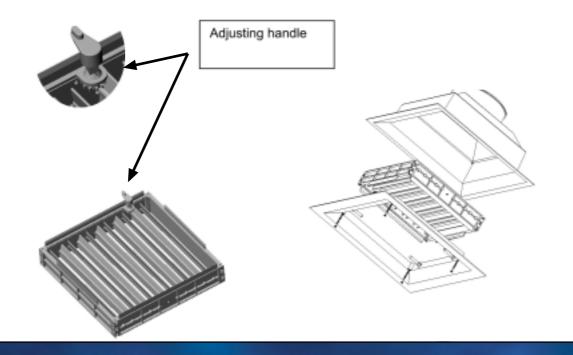
Opposed blade for a ceiling Diffuser

 New line of opposed blades registers specially designed for ceiling diffuser.

This line is equipped with adjusting handle that enables the user to control the air volume.

The line is uses a special adapter.

Available sizes: 225X225, 330X330, 385X385 mm.





Thermostatic Damper



Opal C128DD

Proportional Damper







Dampers



- Made of A.B.S.
- Corrosion resistant.
- Temp. range of 0°c-65°c.
- Control air supply to the individual user.
- Flap type adjustment of 90° fully open to close.
- Control methodes
 - Mechanical-terning knob + 2 m
 brake cable
 - Electrical-dimmer controler (OPAL EL).
 - Electrical thermostatic temp.
 Control (OPAL C-128DD).
 - OpalRC10 remote control



Dampers and control units



BOX MOUNT



MOUNT

1. Mechanical Operation



2. Motorized Damper





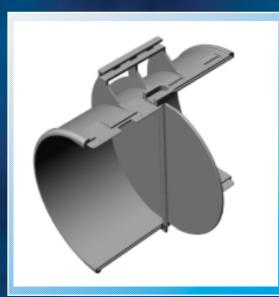


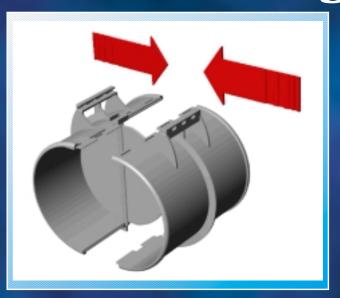
CONTROL

THERMOSTAIC CONTROL



Modular Dampers Assembling













OPAL C128 DD



- Ergonomic & easy to operate.
- Room Thermostat.
- Modern design
- Can be instolled as an Independent unit in any existing A/C system.
- Heating/Cooling Selector
- Automatic/manual Operation Selector









Power supply " C- 315 " 1 channel

(for one Damper). Code 1400315

Power supply " C- 315 " 2 channel (for 2 Damper) . Code 14003152

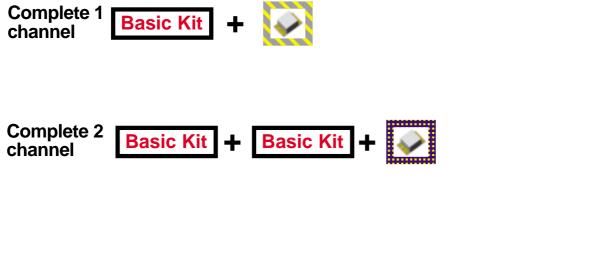
Power supply " C- 315 " 4 channel (for 4 Damper) . Code 14003154

Complete 4

channel











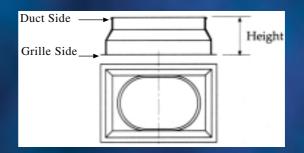


Adapter



- Ergonomic & easy to operate.
- Room Thermostat.
- Modern design
- Prevents condensation
- Connects between flexible ducts and grilles or diffusers.
- Dimensions of the adaptor match the
- Twitoplast grilles & diffusers size.
- 1200 standard adapters max. 600 mm height.

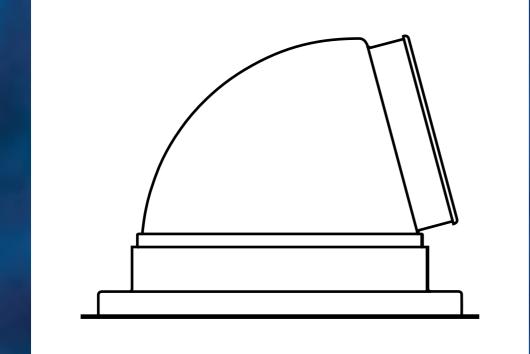


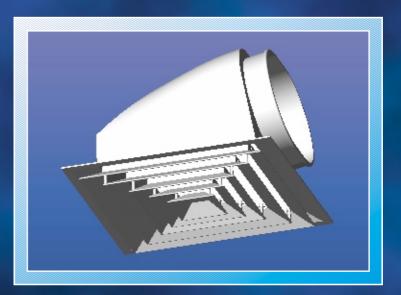






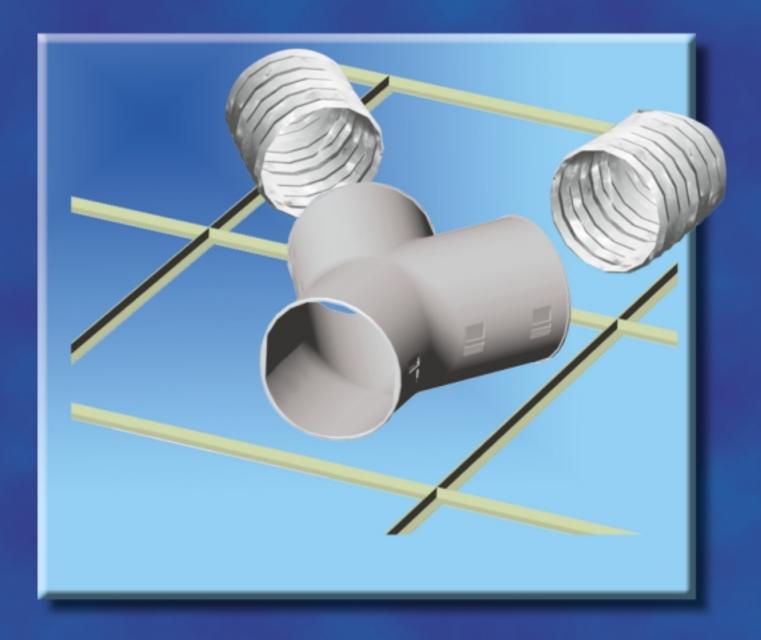
90° Adapter







Three Way Y-Elbow



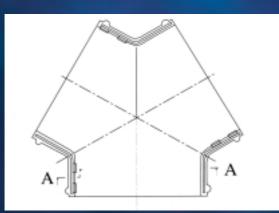


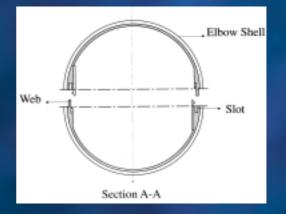




Doabel Deflection Supply Grille

- Made of A.B.S.
- Corrosion resistant.
- **Temp.** range of 0° c-65°c.
- Cnvenient simpel connector for branches take of flexible ducts.
- Equal angles of 120° between the branches.
- Equal pressure drop.
- Simpel assemble.
- Ducts sizes from 6" up to 14".

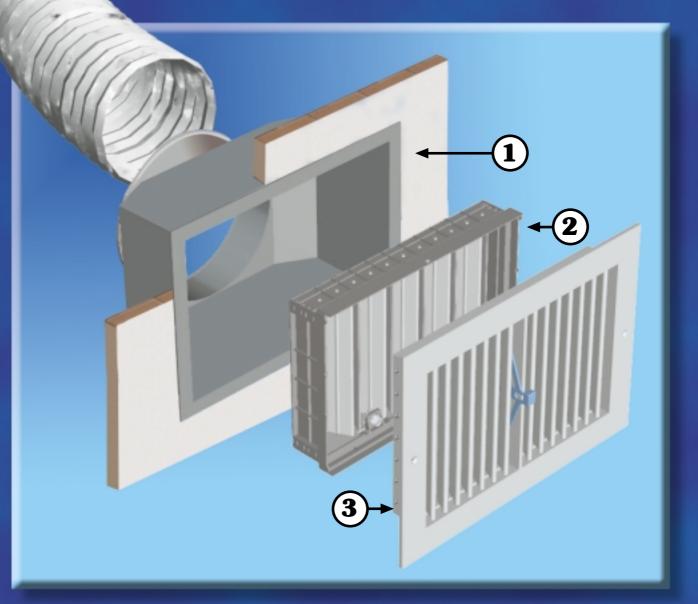








SUPPLY GRILL DOUBLE DEFLECTION



 Adaptor
 Opposed Blade damper
 Grille







Doabel Deflection Supply Grille

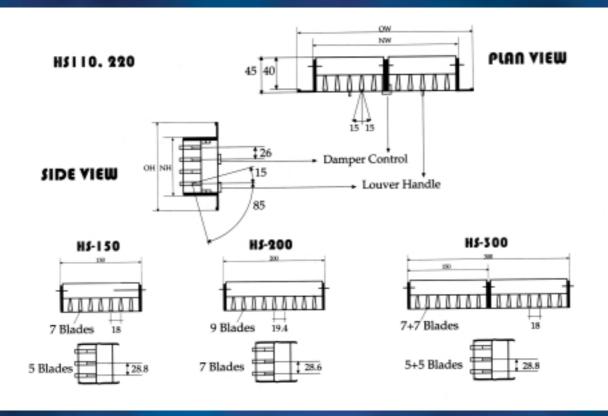


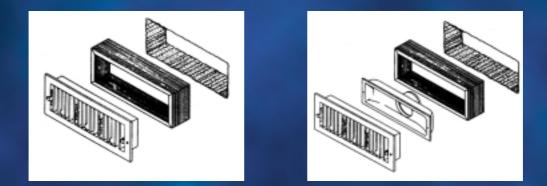
- Made of A.B.S.
- Corrosion resistant.
- Glossy colors
- Temp. range of 0°c-65°c.
- Size 110x990 mm 150x900 mm 200x900 mm 220x880 mm & more.
- Each segment consists a row of adjastable louver blades in the front and in the back.
- Elastomer foam installation tape preventing air leakage.





Typecal segment

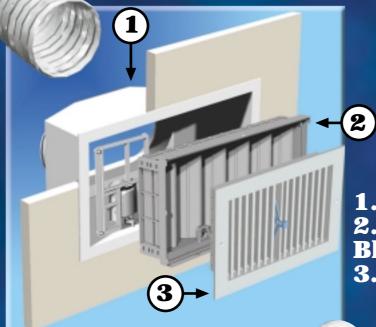




Mounted directly to the wall.
 Connected to a flexible duct by an adaptor.



Opposed Blade damper





Adaptor
 Manual Opposed
 Blade damper
 Supply Grille

3

2

1.Adaptor 2. Motorized Opposed Blade damper 3.Supply Grille







Comparision between plastic & Alominum

Plastic

Corrosion resistance

Anti static

Replasive to dust

Light weight

Does not sweat

No dripping

Easy to clean

Colored raw material

Chemicals resistance

Perfect look

Alominum

Corrosion

Accumuliation

and dirt

Heavier

Sweating

Dripping

Hard to clean

Out side painting easy

screeching and rubbing

Does not stand Against Chemicals

Imperfect look



Zone control system OPAL ZC107

ZONE 5

ZONE 6

Up to 7 modulating rooms (zones) control system.

ZONE 2

ZONE 1

- 3 types of operations :
 - Thermostat OPAL C128DD.
 - Remote control OPAL RC10.
 - OPAL EL electrical controller.
- Up to 2 compressors.
- Modern design.

ZONE 4

ZONE 3

- Quick and easy installation.
- 4 daily programs 7 days a week.
- Quick connectors.
- 12" damper for BY-PASS.

CONTROL PANEL C206



Damper

CONTROL BOX C139





THANK YOU FOR YOUR ATTENTION