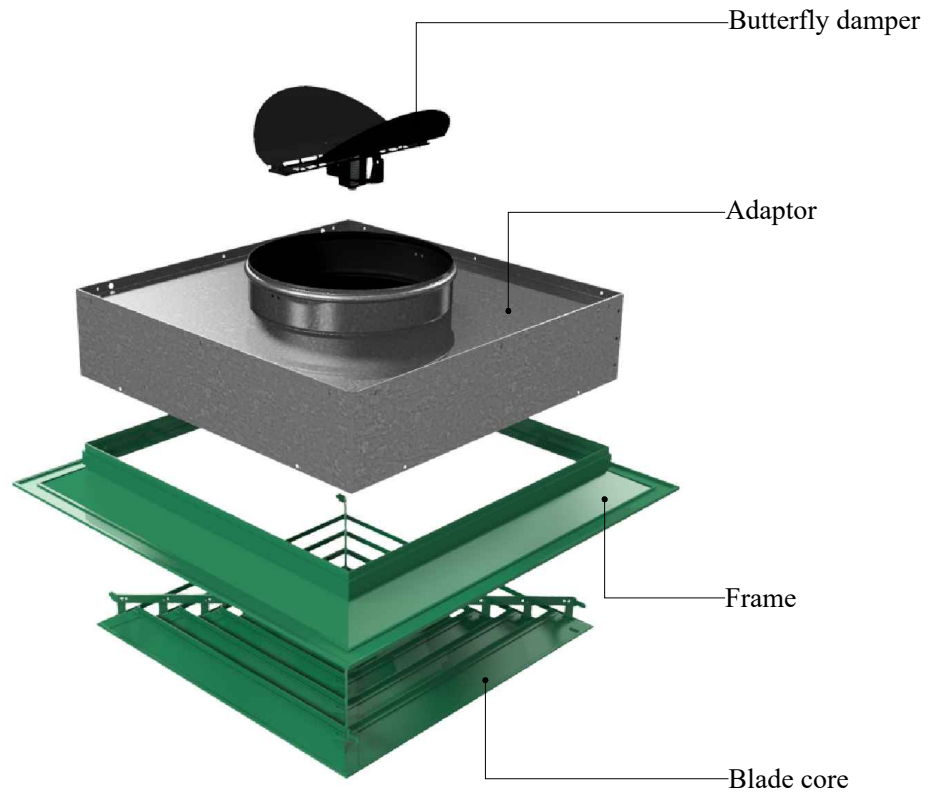


# SQUARE SUPPLY LOUVER FACE DIFFUSER



## USER INSTRUCTION:

We have attached the following tabulated submittal sheets, which will provide you necessary information about our square supply louver face diffusers for your selection and design purposes.

For your easy reference, a box located on the top right corner of each submittal sheet describes the main diffuser options therein, differentiating it from another submittal sheet.

The main diffuser options are:

- (a) adaptor or plenum, and its height
- (b) top or side inlet, and
- (c) type of damper.

## TABLE OF SUBMITTAL SHEETS:

| Page No | Drawing No | Description                                                                               |
|---------|------------|-------------------------------------------------------------------------------------------|
| 2       | ABXEP006   | Square Supply Louver Face Diffuser with 10mm Adaptor, Top Inlet and Butterfly Damper      |
| 3       | ABXEP008   | Square Supply Louver Face Diffuser with 100mm Adaptor, Top Inlet and Butterfly Damper     |
| 4       | ABXEP009   | Square Supply Louver Face Diffuser with 200mm Adaptor, Top Inlet and Butterfly Damper     |
| 5       | ABXEP012   | Square Supply Louver Face Diffuser with 100mm Adaptor, Top Inlet and Opposed Blade Damper |
| 6       | ABXEP013   | Square Supply Louver Face Diffuser with 200mm Adaptor, Top Inlet and Opposed Blade Damper |
| 7       | ABXEP017   | Square Supply Louver Face Diffuser with 200mm Plenum and Side Inlet                       |
| 8       | ABXEP018   | Square Supply Louver Face Diffuser with 300mm Plenum and Side Inlet                       |
| 9       | ABXEP019   | Square Supply Louver Face Diffuser with 350mm Plenum and Side Inlet                       |



**CONNOLLS-AIR**  
 3-B, Joo Koon Circle, Singapore 629034  
 Tel.: 68615253 Fax.: 68619850  
 email: team.ade@connolls-air.com



Cert. No.:  
 SG00/00080

Scope: Design and Manufacturing

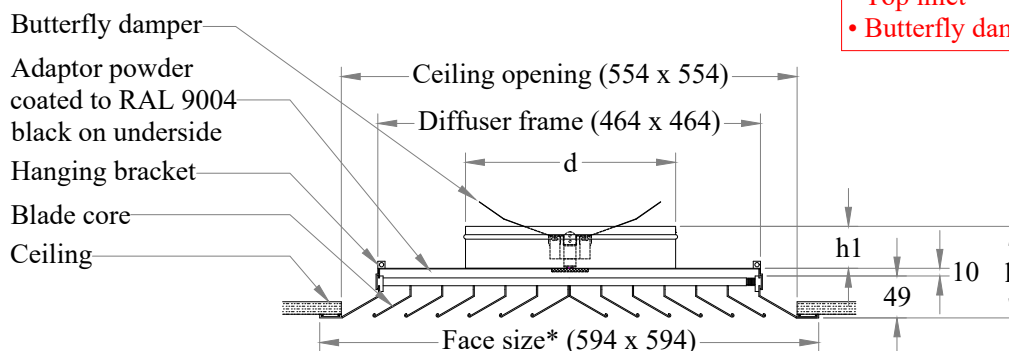


Cert. No.:  
 LA-2020-0755-G

## Submittal

### DIFFERENTIATING OPTIONS:

- Adaptor, 10mm height
- Top inlet
- Butterfly damper



\* Face size is 600 x 600mm for diffuser installed in snap-in concealed ceiling.

### FEATURES:

1. Frame and core are constructed of heavy gauge corrosion resistant extruded aluminium alloy 6063 tempered to T5.
2. Frame and blade are mechanically joined by corner inserts.
3. Damper adjustable from room side.
4. Core removable for cleaning.
6. Joint lines are not visible after painting.
7. Diffusers of 594 x 594 face size are suitable for lay-on Tee bar installation on 600 x 600 mm inverted Tee bar ceilings and surface mounted on plaster ceiling. Diffusers of 600 x 600 face size are suitable for snap-in installation only with concealed ceiling tile.

### NOTE:

1. Diffuser not suitable for 2ft x 2ft Tee bar ceiling. If you need, please consult the sales representative.
2. Refer to drawing no ABXEP004 for insulation detail.
3. Refer to drawing no ABXEP005 for installation detail.

**TABLE 1: FLOW PATTERN**

| 1 WAY                          | 2 WAY                          | 3 WAY                          | 4 WAY                          |
|--------------------------------|--------------------------------|--------------------------------|--------------------------------|
|                                |                                |                                |                                |
| <input type="checkbox"/> MSX11 | <input type="checkbox"/> MSX21 | <input type="checkbox"/> MSX31 | <input type="checkbox"/> MSX41 |

**TABLE 2: RECOMMENDED AIRFLOW RANGE**

| Collar Size Options      | Size (in)  | d (mm) | Recommended Airflow (CMH) |           | Recommended Airflow (L/s) |           | Recommended Airflow (CFM) |           |
|--------------------------|------------|--------|---------------------------|-----------|---------------------------|-----------|---------------------------|-----------|
|                          |            |        | Min. flow                 | Max. flow | Min. flow                 | Max. flow | Min. flow                 | Max. flow |
| <input type="checkbox"/> | 6 (round)  | Ø150   | 127                       | 191       | 35                        | 53        | 75                        | 112       |
| <input type="checkbox"/> | 8 (round)  | Ø200   | 226                       | 339       | 63                        | 94        | 133                       | 200       |
| <input type="checkbox"/> | 10 (round) | Ø250   | 353                       | 530       | 98                        | 147       | 208                       | 312       |
| <input type="checkbox"/> | 12 (round) | Ø300   | 509                       | 763       | 141                       | 212       | 299                       | 449       |
| <input type="checkbox"/> | 14 (round) | Ø350   | 692                       | 1039      | 192                       | 288       | 408                       | 611       |
| <input type="checkbox"/> | 16 (round) | Ø400   | 904                       | 1356      | 251                       | 377       | 532                       | 798       |

In the interest of product improvement, we reserved the right to make changes without notice.

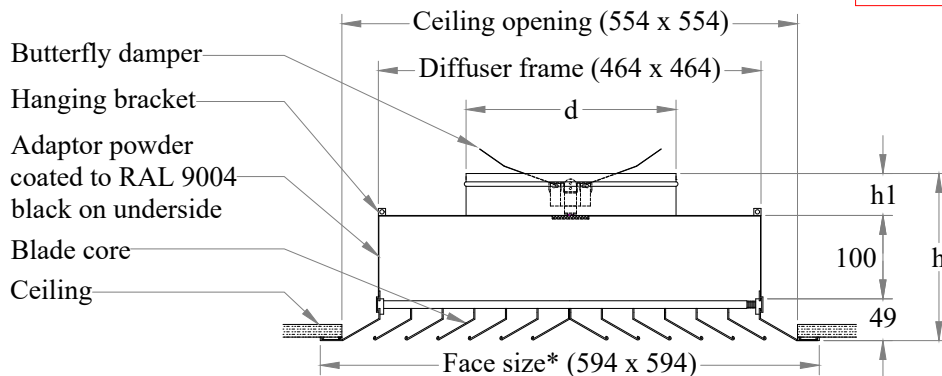
All dimensions are in mm

|                                                                                                                                                                                                                         |           |                                                                                                |            |            |                                                                                       |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|------------------------------------------------------------------------------------------------|------------|------------|---------------------------------------------------------------------------------------|
| Title : <b>SQUARE SUPPLY LOUVER FACE DIFFUSER WITH 10 MM ADAPTOR,<br/>TOP INLET AND BUTTERFLY DAMPER</b>                                                                                                                |           |                                                                                                | Project :  |            |                                                                                       |
| <br><b>CONNOLS-AIR</b><br>3-B, Joo Koon Circle, Singapore 629034<br>Tel.: 68615253 Fax.: 68619850<br>email: team.ade@connols-air.com | Dwn. By : | San        | Date :     | 14/07/2020 | Scale :                                                                               |
|                                                                                                                                                                                                                         | Chk. By : | Jing Jing  | Dwg. No. : | ABXEP006   | N.T.S                                                                                 |
|                                                                                                                                                                                                                         | App. By : | Wong       |            |            |  |

## Submittal

### DIFFERENTIATING OPTIONS:

- Adaptor, 100mm height
- Top inlet
- Butterfly damper



\* Face size is 600 x 600mm for diffuser installed in snap-in concealed ceiling.

### FEATURES:

1. Frame and core are constructed of heavy gauge corrosion resistant extruded aluminium alloy 6063 tempered to T5.
2. Frame and blade are mechanically joined by corner inserts.
3. Damper adjustable from room side.
4. Core removable for cleaning.
6. Joint lines are not visible after painting.
7. Diffusers of 594 x 594 face size are suitable for lay-on Tee bar installation on 600 x 600 mm inverted Tee bar ceilings and surface mounted on plaster ceiling. Diffusers of 600 x 600 face size are suitable for snap-in installation only with concealed ceiling tile.

### NOTE:

1. Diffuser not suitable for 2ft x 2ft Tee bar ceiling. If you need, please consult the sales representative.
2. Refer to drawing no ABXEP004 for insulation detail.
3. Refer to drawing no ABXEP005 for installation detail.

**TABLE 1: FLOW PATTERN**

| 1 WAY                          | 2 WAY                          | 3 WAY                          | 4 WAY                          |
|--------------------------------|--------------------------------|--------------------------------|--------------------------------|
|                                |                                |                                |                                |
| <input type="checkbox"/> MSX11 | <input type="checkbox"/> MSX21 | <input type="checkbox"/> MSX31 | <input type="checkbox"/> MSX41 |

**TABLE 2: RECOMMENDED AIRFLOW RANGE**

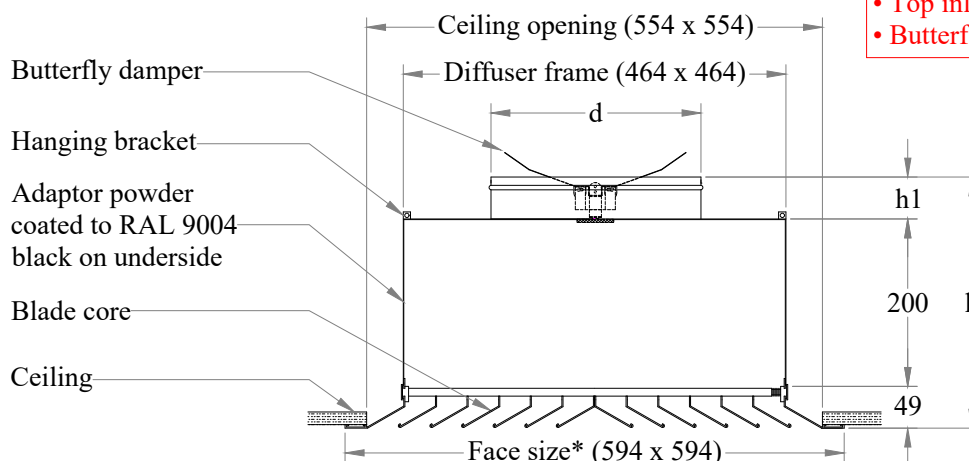
| Collar Size Options      | Size (in)  | d (mm) | Recommended Airflow (CMH) |           | Recommended Airflow (L/s) |           | Recommended Airflow (CFM) |           |
|--------------------------|------------|--------|---------------------------|-----------|---------------------------|-----------|---------------------------|-----------|
|                          |            |        | Min. flow                 | Max. flow | Min. flow                 | Max. flow | Min. flow                 | Max. flow |
| <input type="checkbox"/> | 6 (round)  | Ø150   | 146                       | 210       | 41                        | 58        | 86                        | 124       |
| <input type="checkbox"/> | 8 (round)  | Ø200   | 260                       | 373       | 72                        | 104       | 153                       | 220       |
| <input type="checkbox"/> | 10 (round) | Ø250   | 406                       | 583       | 113                       | 162       | 239                       | 343       |
| <input type="checkbox"/> | 12 (round) | Ø300   | 585                       | 839       | 162                       | 233       | 344                       | 494       |
| <input type="checkbox"/> | 14 (round) | Ø350   | 796                       | 1142      | 221                       | 317       | 469                       | 672       |
| <input type="checkbox"/> | 16 (round) | Ø400   | 1040                      | 1492      | 289                       | 414       | 612                       | 878       |

In the interest of product improvement, we reserved the right to make changes without notice.

All dimensions are in mm

|                                                                                                                                                                                                                           |           |                                                                                               |            |            |                                                                                       |  |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|-----------------------------------------------------------------------------------------------|------------|------------|---------------------------------------------------------------------------------------|--|
| Title : <b>SQARE SUPPLY LOUVER FACE DIFFUSER WITH 100 MM ADAPTOR, TOP INLET AND BUTTERFLY DAMPER</b>                                                                                                                      |           |                                                                                               |            | Project :  |                                                                                       |  |
| <br><b>CONNOLLS-AIR</b><br>3-B, Joo Koon Circle, Singapore 629034<br>Tel.: 68615253 Fax.: 68619850<br>email: team.ade@connolls-air.com | Dwn. By : | San        | Date :     | 14/07/2020 | Scale :                                                                               |  |
|                                                                                                                                                                                                                           | Chk. By : | Jing Jing  | Dwg. No. : | ABXEP008   | N.T.S                                                                                 |  |
|                                                                                                                                                                                                                           | App. By : | Wong       |            |            |  |  |

## Submittal



\* Face size is 600 x 600mm for diffuser installed in snap-in concealed ceiling.

### FEATURES:

1. Frame and core are constructed of heavy gauge corrosion resistant extruded aluminium alloy 6063 tempered to T5.
2. Frame and blade are mechanically joined by corner inserts.
3. Damper adjustable from room side.
4. Core removable for cleaning.
6. Joint lines are not visible after painting.
7. Diffusers of 594 x 594 face size are suitable for lay-on Tee bar installation on 600 x 600 mm inverted Tee bar ceilings and surface mounted on plaster ceiling. Diffusers of 600 x 600 face size are suitable for snap-in installation only with concealed ceiling tile.

### NOTE:

1. Diffuser not suitable for 2ft x 2ft Tee bar ceiling. If you need, please consult the sales representative.
2. Refer to drawing no ABXEP004 for insulation detail.
3. Refer to drawing no ABXEP005 for installation detail.

**TABLE 1: FLOW PATTERN**

| 1 WAY                          | 2 WAY                          | 3 WAY                          | 4 WAY                          |
|--------------------------------|--------------------------------|--------------------------------|--------------------------------|
|                                |                                |                                |                                |
| <input type="checkbox"/> MSX11 | <input type="checkbox"/> MSX21 | <input type="checkbox"/> MSX31 | <input type="checkbox"/> MSX41 |

**TABLE 2: RECOMMENDED AIRFLOW RANGE**

| Collar Size Options      | Size (in)  | d (mm) | Recommended Airflow (CMH) |           | Recommended Airflow (L/s) |           | Recommended Airflow (CFM) |           |
|--------------------------|------------|--------|---------------------------|-----------|---------------------------|-----------|---------------------------|-----------|
|                          |            |        | Min. flow                 | Max. flow | Min. flow                 | Max. flow | Min. flow                 | Max. flow |
| <input type="checkbox"/> | 6 (round)  | Ø150   | 159                       | 223       | 44                        | 62        | 94                        | 131       |
| <input type="checkbox"/> | 8 (round)  | Ø200   | 283                       | 396       | 79                        | 110       | 166                       | 233       |
| <input type="checkbox"/> | 10 (round) | Ø250   | 442                       | 618       | 123                       | 172       | 260                       | 364       |
| <input type="checkbox"/> | 12 (round) | Ø300   | 636                       | 890       | 177                       | 247       | 374                       | 524       |
| <input type="checkbox"/> | 14 (round) | Ø350   | 865                       | 1212      | 240                       | 337       | 509                       | 713       |
| <input type="checkbox"/> | 16 (round) | Ø400   | 1130                      | 1583      | 314                       | 440       | 665                       | 931       |

In the interest of product improvement, we reserved the right to make changes without notice.

All dimensions are in mm

### DIFFERENTIATING OPTIONS:

- Adaptor, 200mm height
- Top inlet
- Butterfly damper

### COLLAR HEIGHT:

| Size (in) | d (mm)       | With damper |     | W/o damper |     |
|-----------|--------------|-------------|-----|------------|-----|
|           |              | h1          | h   | h1         | h   |
| 6 to 12   | Ø150 to Ø300 | 50          | 299 | 38         | 287 |
| 14 to 16  | Ø350 to Ø400 | 75          | 324 | 38         | 287 |

### EXTERNAL INSULATION OPTIONS:

- ☐ Non
- ☐ 13mm Armaflex
- ☐ Other thickness, specify \_\_\_\_\_

### DAMPER OPTIONS:

- ☐ Non
- ☐ Butterfly damper

### COLOR OPTIONS:

- ☐ White RAL 9010
- ☐ White RAL 9003
- ☐ Black RAL 9004
- ☐ Other color, specify RAL \_\_\_\_\_

### CEILING INSTALLATION OPTIONS:

- ☐ Lay-on Tee bar ceiling, 594 x 594 face size
- ☐ Snap-in concealed ceiling, 600 x 600 face size

Title : **SQUARE SUPPLY LOUVER FACE DIFFUSER WITH 200 MM ADAPTOR, TOP INLET AND BUTTERFLY DAMPER**

Project :



**CONNOLLS-AIR**

3-B, Joo Koon Circle, Singapore 629034  
Tel.: 68615253 Fax.: 68619850  
email: team.ade@connolls-air.com

Dwn. By : San

Chk. By : Jing Jing

App. By : Wong

Date :

14/07/2020

Scale :

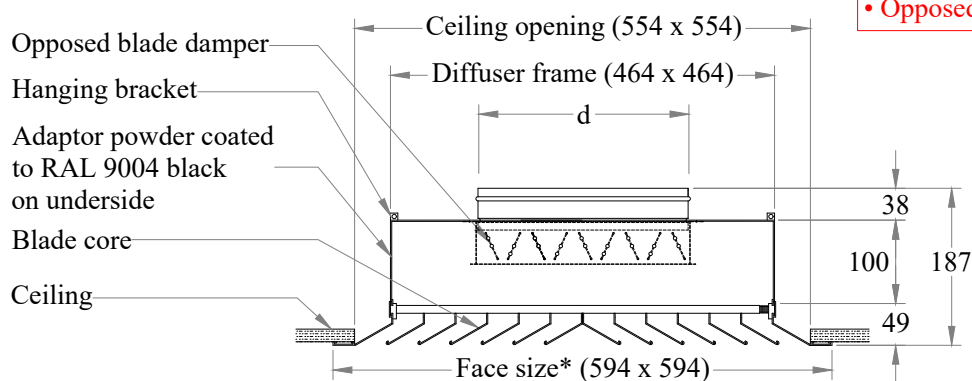
Dwg. No. :

ABXEP009

N.T.S



## Submittal



\* Face size is 600 x 600mm for diffuser installed in snap-in concealed ceiling.

### FEATURES:

1. Frame and core are constructed of heavy gauge corrosion resistant extruded aluminium alloy 6063 tempered to T5.
2. Frame and blade are mechanically joined by corner inserts.
3. Damper adjustable from room side.
4. Core removable for cleaning.
6. Joint lines are not visible after painting.
7. Diffusers of 594 x 594 face size are suitable for lay-on Tee bar installation on 600 x 600 mm inverted Tee bar ceilings and surface mounted on plaster ceiling. Diffusers of 600 x 600 face size are suitable for snap-in installation only with concealed ceiling tile.

### NOTE:

1. Diffuser not suitable for 2ft x 2ft Tee bar ceiling. If you need, please consult the sales representative.
2. Refer to drawing no ABXEP004 for insulation detail.
3. Refer to drawing no ABXEP005 for installation detail.

**TABLE 1: FLOW PATTERN**

| 1 WAY                          | 2 WAY                          | 3 WAY                          | 4 WAY                          |
|--------------------------------|--------------------------------|--------------------------------|--------------------------------|
|                                |                                |                                |                                |
| <input type="checkbox"/> MSX11 | <input type="checkbox"/> MSX21 | <input type="checkbox"/> MSX31 | <input type="checkbox"/> MSX41 |

**TABLE 2: RECOMMENDED AIRFLOW RANGE**

| Collar Size Options      | Size (in)  | d (mm) | Recommended Airflow (CMH) |           | Recommended Airflow (L/s) |           | Recommended Airflow (CFM) |           |
|--------------------------|------------|--------|---------------------------|-----------|---------------------------|-----------|---------------------------|-----------|
|                          |            |        | Min. flow                 | Max. flow | Min. flow                 | Max. flow | Min. flow                 | Max. flow |
| <input type="checkbox"/> | 6 (round)  | Ø150   | 146                       | 210       | 41                        | 58        | 86                        | 124       |
| <input type="checkbox"/> | 8 (round)  | Ø200   | 260                       | 373       | 72                        | 104       | 153                       | 220       |
| <input type="checkbox"/> | 10 (round) | Ø250   | 406                       | 583       | 113                       | 162       | 239                       | 343       |
| <input type="checkbox"/> | 12 (round) | Ø300   | 585                       | 839       | 162                       | 233       | 344                       | 494       |
| <input type="checkbox"/> | 14 (round) | Ø350   | 796                       | 1142      | 221                       | 317       | 469                       | 672       |
| <input type="checkbox"/> | 16 (round) | Ø400   | 1040                      | 1492      | 289                       | 414       | 612                       | 878       |

In the interest of product improvement, we reserved the right to make changes without notice.

All dimensions are in mm

Title : **SQUARE SUPPLY LOUVER FACE DIFFUSER WITH 100 MM ADAPTOR, TOP INLET AND OPPOSED BLADE DAMPER**

Project :



**CONNOLLS-AIR**  
3-B, Joo Koon Circle, Singapore 629034  
Tel.: 68615253 Fax.: 68619850  
email: team.ade@connolls-air.com

Dwn. By : San  
Chk. By : Jing Jing  
App. By : Wong

Date :

14/07/2020

Scale :

Dwg. No. :

ABXEP012



### DIFFERENTIATING OPTIONS:

- Adaptor, 100mm height
- Top inlet
- Opposed blade damper

### EXTERNAL INSULATION OPTIONS:

- ☐ Non
- ☐ 13mm Armaflex
- ☐ Other thickness, specify \_\_\_\_\_

### DAMPER OPTIONS:

- ☐ Non
- ☐ Opposed blade damper

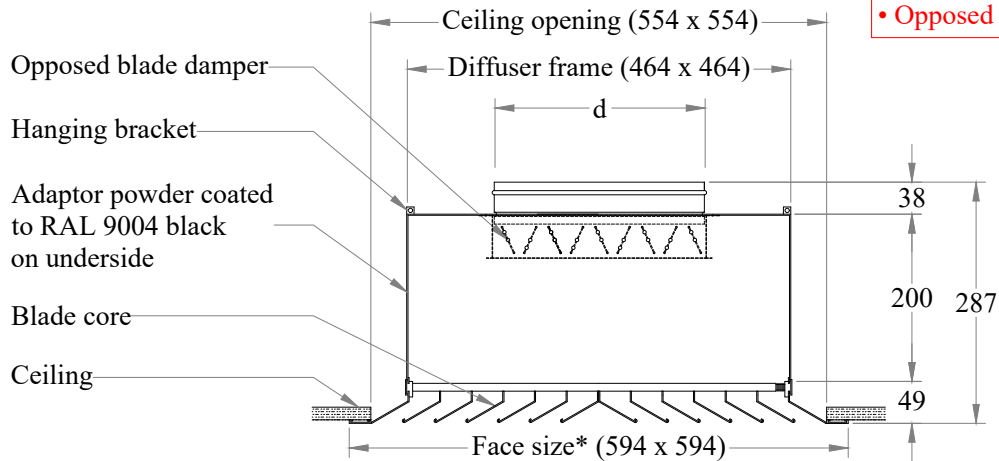
### COLOR OPTIONS:

- ☐ White RAL 9010
- ☐ White RAL 9003
- ☐ Black RAL 9004
- ☐ Other color, specify RAL \_\_\_\_\_

### CEILING INSTALLATION OPTIONS:

- ☐ Lay-on Tee bar ceiling, 594 x 594 face size
- ☐ Snap-in concealed ceiling, 600 x 600 face size

## Submittal



\* Face size is 600 x 600mm for diffuser installed in snap-in concealed ceiling.

### FEATURES:

1. Frame and core are constructed of heavy gauge corrosion resistant extruded aluminium alloy 6063 tempered to T5.
2. Frame and blade are mechanically joined by corner inserts.
3. Damper adjustable from room side.
4. Core removable for cleaning.
6. Joint lines are not visible after painting.
7. Diffusers of 594 x 594 face size are suitable for lay-on Tee bar installation on 600 x 600 mm inverted Tee bar ceilings and surface mounted on plaster ceiling. Diffusers of 600 x 600 face size are suitable for snap-in installation only with concealed ceiling tile.

### NOTE:

1. Diffuser not suitable for 2ft x 2ft Tee bar ceiling. If you need, please consult the sales representative.
2. Refer to drawing no ABXEP004 for insulation detail.
3. Refer to drawing no ABXEP005 for installation detail.

**TABLE 1: FLOW PATTERN**

| 1 WAY                          | 2 WAY                          | 3 WAY                          | 4 WAY                          |
|--------------------------------|--------------------------------|--------------------------------|--------------------------------|
|                                |                                |                                |                                |
| <input type="checkbox"/> MSX11 | <input type="checkbox"/> MSX21 | <input type="checkbox"/> MSX31 | <input type="checkbox"/> MSX41 |

**TABLE 2: RECOMMENDED AIRFLOW RANGE**

| Collar Size Options      | Size (in)  | d (mm) | Recommended Airflow (CMH) |           | Recommended Airflow (L/s) |           | Recommended Airflow (CFM) |           |
|--------------------------|------------|--------|---------------------------|-----------|---------------------------|-----------|---------------------------|-----------|
|                          |            |        | Min. flow                 | Max. flow | Min. flow                 | Max. flow | Min. flow                 | Max. flow |
| <input type="checkbox"/> | 6 (round)  | Ø150   | 159                       | 223       | 44                        | 62        | 94                        | 131       |
| <input type="checkbox"/> | 8 (round)  | Ø200   | 283                       | 396       | 79                        | 110       | 166                       | 233       |
| <input type="checkbox"/> | 10 (round) | Ø250   | 442                       | 618       | 123                       | 172       | 260                       | 364       |
| <input type="checkbox"/> | 12 (round) | Ø300   | 636                       | 890       | 177                       | 247       | 374                       | 524       |
| <input type="checkbox"/> | 14 (round) | Ø350   | 865                       | 1212      | 240                       | 337       | 509                       | 713       |
| <input type="checkbox"/> | 16 (round) | Ø400   | 1130                      | 1583      | 314                       | 440       | 665                       | 931       |

In the interest of product improvement, we reserved the right to make changes without notice.

All dimensions are in mm

|                                                                                                                                                                                                                        |           |           |  |            |            |         |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|-----------|--|------------|------------|---------|
| Title : <b>SQUARE SUPPLY LOUVER FACE DIFFUSER WITH 200 MM ADAPTOR, TOP INLET AND OPPOSED BLADE DAMPER</b>                                                                                                              |           |           |  | Project :  |            |         |
|  <b>CONNOLLS-AIR</b><br>3-B, Joo Koon Circle, Singapore 629034<br>Tel.: 68615253 Fax.: 68619850<br>email: team.ade@connolls-air.com | Dwn. By : | San       |  | Date :     | 14/07/2020 | Scale : |
|                                                                                                                                                                                                                        | Chk. By : | Jing Jing |  | Dwg. No. : | ABXEP013   | N.T.S   |
|                                                                                                                                                                                                                        | App. By : | Wong      |  |            |            |         |

### DIFFERENTIATING OPTIONS:

- Adaptor, 200mm height
- Top inlet
- Opposed blade damper

### EXTERNAL INSULATION OPTIONS:

- ☐ Non
- ☐ 13mm Armaflex
- ☐ Other thickness, specify \_\_\_\_\_

### DAMPER OPTIONS:

- ☐ Non
- ☐ Opposed blade damper

### COLOR OPTIONS:

- ☐ White RAL 9010
- ☐ White RAL 9003
- ☐ Black RAL 9004
- ☐ Other color, specify RAL \_\_\_\_\_

### CEILING INSTALLATION OPTIONS:

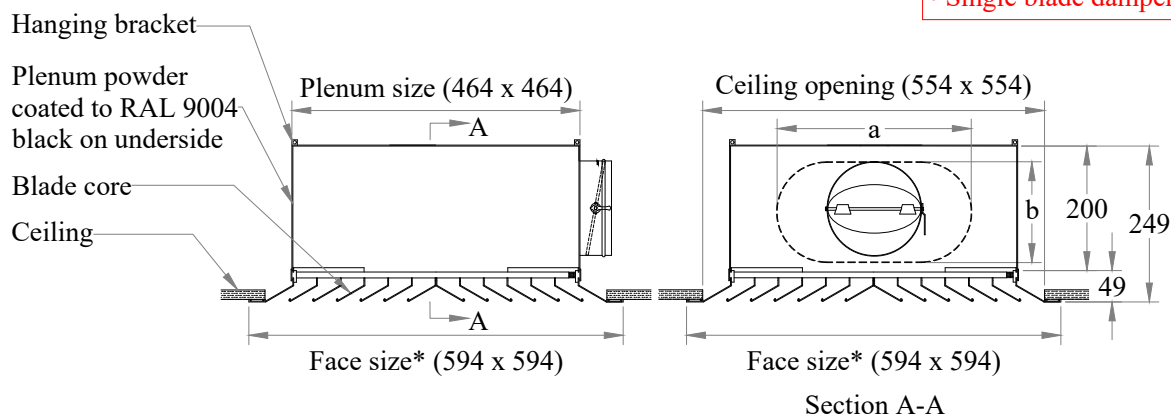
- ☐ Lay-on Tee bar ceiling, 594 x 594 face size
- ☐ Snap-in concealed ceiling, 600 x 600 face size



## Submittal

### DIFFERENTIATING OPTIONS:

- Plenum, 200mm height
- Side inlet
- Single blade damper



### FEATURES:

1. Frame and core are constructed of heavy gauge corrosion resistant extruded aluminium alloy 6063 tempered to T5.
2. Frame and blade are mechanically joined by corner inserts.
3. Damper adjustable from room side.
4. Core removable for cleaning.
6. Joint lines are not visible after painting.
7. Diffusers of 594 x 594 face size are suitable for lay-on Tee bar installation on 600 x 600 mm inverted Tee bar ceilings and surface mounted on plaster ceiling. Diffusers of 600 x 600 face size are suitable for snap-in installation only with concealed ceiling tile.

### NOTE:

1. Diffuser not suitable for 2ft x 2ft Tee bar ceiling. If you need, please consult the sales representative.
2. Refer to drawing no ABXEP004 for insulation detail.
3. Refer to drawing no ABXEP005 for installation detail.

### INTERNAL INSULATION OPTIONS:

- ☐ Non
- ☐ 15mm, Fire retardant foam
- ☐ 25mm, Fire retardant foam
- ☐ 15mm, Fibre glass, (48 kg/m<sup>3</sup>)
- ☐ 25mm, Fibre glass, (48 kg/m<sup>3</sup>)

### EXTERNAL INSULATION OPTIONS:

- ☐ Non
- ☐ 13mm Armaflex
- ☐ Other thickness, specify \_\_\_\_\_

### DAMPER OPTIONS:

- ☐ Non
- ☐ Single blade damper with manual lever adjustable from ceiling side
- ☐ Single blade damper with manual lever adjustable from room side

### COLOR OPTIONS:

- ☐ White RAL 9010
- ☐ White RAL 9003
- ☐ Black RAL 9004
- ☐ Other color, specify RAL \_\_\_\_\_

### CEILING INSTALLATION OPTIONS:

- ☐ Lay-on Tee bar ceiling, 594 x 594 face size
- ☐ Snap-in concealed ceiling, 600 x 600 face size

### EQUALIZER OPTIONS:

- ☐ Non
- ☐ Equalizer

**TABLE 1: FLOW PATTERN**

| 1 WAY                          | 2 WAY                          | 3 WAY                          | 4 WAY                          |
|--------------------------------|--------------------------------|--------------------------------|--------------------------------|
|                                |                                |                                |                                |
| <input type="checkbox"/> MSX11 | <input type="checkbox"/> MSX21 | <input type="checkbox"/> MSX31 | <input type="checkbox"/> MSX41 |

**TABLE 2: RECOMMENDED AIRFLOW RANGE**

| Collar Size Options      | Size (in) | a x b (mm) | Recommended Airflow (CMH) |           | Recommended Airflow (L/s) |           | Recommended Airflow (CFM) |           |
|--------------------------|-----------|------------|---------------------------|-----------|---------------------------|-----------|---------------------------|-----------|
|                          |           |            | Min. flow                 | Max. flow | Min. flow                 | Max. flow | Min. flow                 | Max. flow |
| <input type="checkbox"/> | 6 (round) | Ø150       | 147                       | 205       | 41                        | 57        | 86                        | 121       |
| <input type="checkbox"/> | 8 (oval)  | 240 x 115  | 256                       | 359       | 71                        | 100       | 151                       | 211       |
| <input type="checkbox"/> | 10 (oval) | 292 x 160  | 370                       | 518       | 103                       | 144       | 218                       | 305       |
| <input type="checkbox"/> | 12 (oval) | 370 x 160  | 482                       | 675       | 134                       | 188       | 284                       | 398       |

In the interest of product improvement, we reserved the right to make changes without notice.

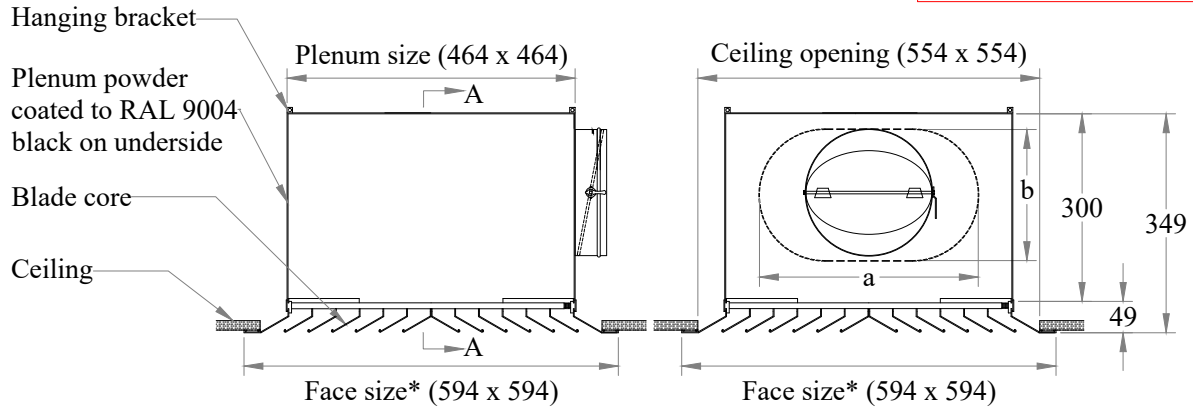
All dimensions are in mm

|                                                                                                                                                                                                                         |           |                                                                                                |            |            |                                                                                       |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|------------------------------------------------------------------------------------------------|------------|------------|---------------------------------------------------------------------------------------|
| Title : <b>SQARE SUPPLY LOUVER FACE DIFFUSER WITH 200 MM PLENUM,<br/>SIDE INLET AND SINGLE BLADE DAMPER</b>                                                                                                             |           |                                                                                                | Project :  |            |                                                                                       |
| <br><b>CONNOLS-AIR</b><br>3-B, Joo Koon Circle, Singapore 629034<br>Tel.: 68615253 Fax.: 68619850<br>email: team.ade@connols-air.com | Dwn. By : | San        | Date :     | 14/07/2020 | Scale :                                                                               |
|                                                                                                                                                                                                                         | Chk. By : | Jing Jing  | Dwg. No. : | ABXEP017   | N.T.S                                                                                 |
|                                                                                                                                                                                                                         | App. By : | Wong       |            |            |  |

## Submittal

### DIFFERENTIATING OPTIONS:

- Plenum, 300mm height
- Side inlet
- Single blade damper



\* Face size is 600 x 600mm for diffuser installed in snap-in concealed ceiling.

### Section A-A

### FEATURES:

1. Frame and core are constructed of heavy gauge corrosion resistant extruded aluminium alloy 6063 tempered to T5.
2. Frame and blade are mechanically joined by corner inserts.
3. Damper adjustable from room side.
4. Core removable for cleaning.
6. Joint lines are not visible after painting.
7. Diffusers of 594 x 594 face size are suitable for lay-on Tee bar installation on 600 x 600 mm inverted Tee bar ceilings and surface mounted on plaster ceiling. Diffusers of 600 x 600 face size are suitable for snap-in installation only with concealed ceiling tile.

### NOTE:

1. Diffuser not suitable for 2ft x 2ft Tee bar ceiling. If you need, please consult the sales representative.
2. Refer to drawing no ABXEP004 for insulation detail.
3. Refer to drawing no ABXEP005 for installation detail.

### INTERNAL INSULATION OPTIONS:

- ☐ Non
- ☐ 15mm, Fire retardant foam
- ☐ 25mm, Fire retardant foam
- ☐ 15mm, Fibre glass, (48 kg/m<sup>3</sup>)
- ☐ 25mm, Fibre glass, (48 kg/m<sup>3</sup>)

### EXTERNAL INSULATION OPTIONS:

- ☐ Non
- ☐ 13mm Armaflex
- ☐ Other thickness, specify \_\_\_\_\_

### DAMPER OPTIONS:

- ☐ Non
- ☐ Single blade damper with manual lever adjustable from ceiling side
- ☐ Single blade damper with manual lever adjustable from room side

### COLOR OPTIONS:

- ☐ White RAL 9010
- ☐ White RAL 9003
- ☐ Black RAL 9004
- ☐ Other color, specify RAL \_\_\_\_\_

### CEILING INSTALLATION OPTIONS:

- ☐ Lay-on Tee bar ceiling, 594 x 594 face size
- ☐ Snap-in concealed ceiling, 600 x 600 face size

### EQUALIZER OPTIONS:

- ☐ Non
- ☐ Equalizer

**TABLE 1: FLOW PATTERN**

| 1 WAY                          | 2 WAY                          | 3 WAY                          | 4 WAY                          |
|--------------------------------|--------------------------------|--------------------------------|--------------------------------|
|                                |                                |                                |                                |
| <input type="checkbox"/> MSX11 | <input type="checkbox"/> MSX21 | <input type="checkbox"/> MSX31 | <input type="checkbox"/> MSX41 |

**TABLE 2: RECOMMENDED AIRFLOW RANGE**

| Collar Size Options      | Size (in)  | a x b (mm) | Recommended Airflow (CMH) |           | Recommended Airflow (L/s) |           | Recommended Airflow (CFM) |           |
|--------------------------|------------|------------|---------------------------|-----------|---------------------------|-----------|---------------------------|-----------|
|                          |            |            | Min. flow                 | Max. flow | Min. flow                 | Max. flow | Min. flow                 | Max. flow |
| <input type="checkbox"/> | 8 (round)  | Ø200       | 298                       | 426       | 83                        | 118       | 176                       | 251       |
| <input type="checkbox"/> | 10 (round) | Ø250       | 472                       | 674       | 131                       | 187       | 278                       | 397       |
| <input type="checkbox"/> | 12 (oval)  | 342 x 210  | 628                       | 897       | 174                       | 249       | 370                       | 528       |
| <input type="checkbox"/> | 14 (oval)  | 420 x 210  | 793                       | 1133      | 220                       | 315       | 467                       | 667       |

In the interest of product improvement, we reserved the right to make changes without notice.

All dimensions are in mm

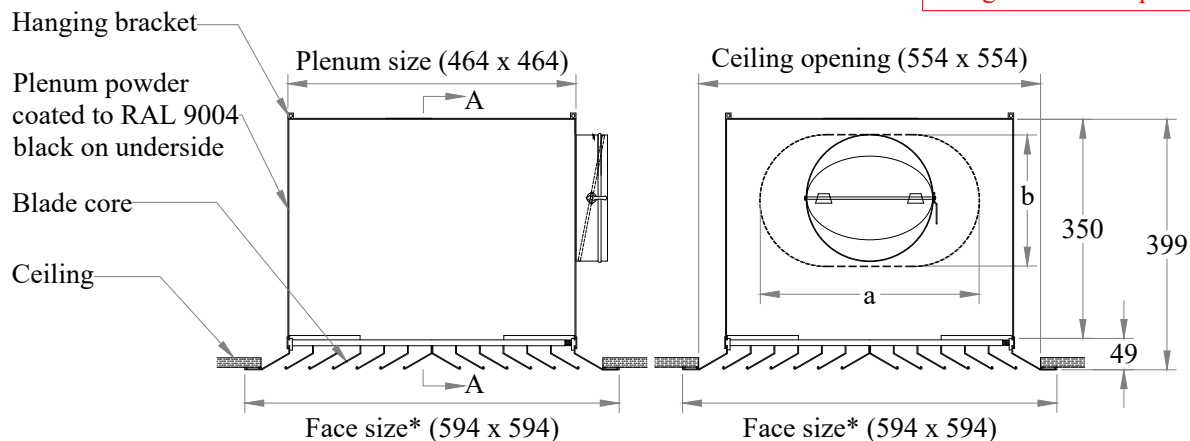
|                                                                                                                                                                                                                      |           |           |     |            |            |         |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|-----------|-----|------------|------------|---------|
| Title : <b>SQUARE SUPPLY LOUVER FACE DIFFUSER WITH 300 MM PLENUM, SIDE INLET AND SINGLE BLADE DAMPER</b>                                                                                                             |           |           |     | Project :  |            |         |
|  <b>CONNOLS-AIR</b><br>3-B, Joo Koon Circle, Singapore 629034<br>Tel.: 68615253 Fax.: 68619850<br>email: team.ade@connols-air.com | Dwn. By : | San       | li  | Date :     | 14/07/2020 | Scale : |
|                                                                                                                                                                                                                      | Chk. By : | Jing Jing | Jo  | Dwg. No. : | ABXEP018   | N.T.S   |
|                                                                                                                                                                                                                      | App. By : | Wong      | Way |            |            |         |



## Submittal

### DIFFERENTIATING OPTIONS:

- Plenum, 350mm height
- Side inlet
- Single blade damper



\* Face size is 600 x 600mm for diffuser installed in snap-in concealed ceiling.

Section A-A

### FEATURES:

1. Frame and core are constructed of heavy gauge corrosion resistant extruded aluminium alloy 6063 tempered to T5.
2. Frame and blade are mechanically joined by corner inserts.
3. Damper adjustable from room side.
4. Core removable for cleaning.
6. Joint lines are not visible after painting.
7. Diffusers of 594 x 594 face size are suitable for lay-on Tee bar installation on 600 x 600 mm inverted Tee bar ceilings and surface mounted on plaster ceiling. Diffusers of 600 x 600 face size are suitable for snap-in installation only with concealed ceiling tile.

### NOTE:

1. Diffuser not suitable for 2ft x 2ft Tee bar ceiling. If you need, please consult the sales representative.
2. Refer to drawing no ABXEP004 for insulation detail.
3. Refer to drawing no ABXEP005 for installation detail.

### INTERNAL INSULATION OPTIONS:

- ☐ Non
- ☐ 15mm, Fire retardant foam
- ☐ 25mm, Fire retardant foam
- ☐ 15mm, Fibre glass, (48 kg/m<sup>3</sup>)
- ☐ 25mm, Fibre glass, (48 kg/m<sup>3</sup>)

### EXTERNAL INSULATION OPTIONS:

- ☐ Non
- ☐ 13mm Armaflex
- ☐ Other thickness, specify \_\_\_\_\_

### DAMPER OPTIONS:

- ☐ Non
- ☐ Single blade damper with manual lever adjustable from ceiling side
- ☐ Single blade damper with manual lever adjustable from room side

### COLOR OPTIONS:

- ☐ White RAL 9010
- ☐ White RAL 9003
- ☐ Black RAL 9004
- ☐ Other color, specify RAL \_\_\_\_\_

### CEILING INSTALLATION OPTIONS:

- ☐ Lay-on Tee bar ceiling, 594 x 594 face size
- ☐ Snap-in concealed ceiling, 600 x 600 face size

### EQUALIZER OPTIONS:

- ☐ Non
- ☐ Equalizer

TABLE 1: FLOW PATTERN

| 1 WAY                          | 2 WAY                          | 3 WAY                          | 4 WAY                          |
|--------------------------------|--------------------------------|--------------------------------|--------------------------------|
|                                |                                |                                |                                |
| <input type="checkbox"/> MSX11 | <input type="checkbox"/> MSX21 | <input type="checkbox"/> MSX31 | <input type="checkbox"/> MSX41 |

TABLE 2: RECOMMENDED AIRFLOW RANGE

| Collar Size Options      | Size (in)  | a x b (mm) | Recommended Airflow (CMH) |           | Recommended Airflow (L/s) |           | Recommended Airflow (CFM) |           |
|--------------------------|------------|------------|---------------------------|-----------|---------------------------|-----------|---------------------------|-----------|
|                          |            |            | Min. flow                 | Max. flow | Min. flow                 | Max. flow | Min. flow                 | Max. flow |
| <input type="checkbox"/> | 10 (round) | Ø250       | 472                       | 674       | 131                       | 187       | 278                       | 397       |
| <input type="checkbox"/> | 12 (round) | Ø300       | 684                       | 978       | 190                       | 272       | 403                       | 575       |
| <input type="checkbox"/> | 14 (oval)  | 420 x 210  | 793                       | 1133      | 220                       | 315       | 467                       | 667       |

In the interest of product improvement, we reserved the right to make changes without notice.

All dimensions are in mm

|                                                                                                                                                                                                                         |           |                      |            |            |                                                                                       |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|----------------------|------------|------------|---------------------------------------------------------------------------------------|
| Title : <b>SQUARE SUPPLY LOUVER FACE DIFFUSER WITH 350 MM PLENUM, SIDE INLET AND SINGLE BLADE DAMPER</b>                                                                                                                |           |                      | Project :  |            |                                                                                       |
| <br><b>CONNOLS-AIR</b><br>3-B, Joo Koon Circle, Singapore 629034<br>Tel.: 68615253 Fax.: 68619850<br>email: team.ade@connols-air.com | Dwn. By : | San <i>Li</i>        | Date :     | 14/07/2020 | Scale :                                                                               |
|                                                                                                                                                                                                                         | Chk. By : | Jing Jing <i>JJB</i> | Dwg. No. : | ABXEP019   | N.T.S                                                                                 |
|                                                                                                                                                                                                                         | App. By : | Wong <i>Wong</i>     |            |            |  |