

## Title: Technical Submittal cover page – Viewpoint

| SUBMITTAL REQUEST                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                              |                          |                 |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|-----------------|
| A formal Submittal will be issued to the relevant Client / Design Team members via Viewpoint. This section is to describe the submittal type, specific details of the individual items technical properties, outlining available colours, dimensions, manufacturer and supplier etc. If applicable, CE Certs and DoP's will form part of the submittal, as will other relevant technical documentation, photographs and whether a sample is available to view on site. |                                                                                                                                                                                                              |                          |                 |
| <b>1. General Details:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                              |                          |                 |
| <b>Project Name:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                   | <b>CWL01</b>                                                                                                                                                                                                 | <b>Contract No:</b>      | 6001            |
| <b>Submittal Type:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                 | <input type="checkbox"/> Technical (TS) <input checked="" type="checkbox"/> Sample (SS) <input type="checkbox"/> Shop Drawing (DS) <input type="checkbox"/> Material (MS)<br><input type="checkbox"/> Other: |                          |                 |
| <b>Package:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                        | <b>Mechanical</b>                                                                                                                                                                                            | <b>Discipline:</b>       | MECH            |
| <b>Submittal No.:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                  | <b>CWL01-MKRB-SS-02001-0</b>                                                                                                                                                                                 | <b>Revision:</b>         | 02              |
| The numbering convention for submittals should be as per the project naming convention on Viewpoint. if unspecified, please adopt the following: "Org-SubType-Design Discipline-Ref. No."                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                              |                          |                 |
| <b>Submittal Title:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                | Intake and Exhaust Louvres and Insect Mesh Sample                                                                                                                                                            |                          |                 |
| <b>Prepared By Org:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                | <b>Kirby Group Engineering</b>                                                                                                                                                                               | <b>Prepared By Name:</b> | Sinoxolo Racaza |
| <b>Issued To Org:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                  | <b>John Paul Construction</b>                                                                                                                                                                                | <b>Required By Date:</b> | 31-March-2025   |

| <b>2. Submittal Details:</b>                                                                                                                                                                                                                |                                                                                                     |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------|
| <b>Product / Material Description:</b>                                                                                                                                                                                                      | COLO External Louvre and Insect Mesh Material Sample                                                |
| <b>Product Ref.:</b>                                                                                                                                                                                                                        | COLO External Louvre and Insect Mesh                                                                |
| <b>Product Supplier:</b>                                                                                                                                                                                                                    | Q-nis                                                                                               |
| <b>Applicable Product Standard(s):</b>                                                                                                                                                                                                      | DIN EN 1751<br>DIN 1946 T4                                                                          |
| <b>Is the Product/Material as specified?</b><br>Where No, please indicate the basis for equivalence of the alternate solution proposed. Clarify this with reference to a particular paragraph, sentence, and page within the specification. | <b>Yes</b> / No<br><br>23_31_14 LOUVRE CASSETTE UNIT AND RETURN DAMPER _M_EMEA                      |
| <b>CE Marking provided?</b><br>Where No or N/A, Please provide justification.                                                                                                                                                               | <b>Yes</b> / No / N/A<br>Refer to Submittals CWL01-MKRB-V-02012-0 & CWL01-XKRB-CWL01-MKRB-V-02013-0 |
| <b>Declaration of Performance provided?</b><br>Where No or N/A, Please provide justification.                                                                                                                                               | <b>Yes</b> / No / N/A<br>Refer to Submittals CWL01-MKRB-V-02012-0 & CWL01-XKRB-CWL01-MKRB-V-02013-0 |
| <b>Current EU-27 Notified Body Cert provided?</b><br>Where No or N/A, Please provide justification.                                                                                                                                         | <b>Yes</b> / No / N/A<br>Refer to Submittals CWL01-MKRB-V-02012-0 & CWL01-XKRB-CWL01-MKRB-V-02013-0 |

|                                           |                       |
|-------------------------------------------|-----------------------|
| <b>Product Datasheet provided:</b>        | <b>Yes</b> / No / N/A |
| <b>Test Data or other certs provided:</b> | <b>Yes</b> / No / N/A |
| <b>Additional Information:</b>            | N/A                   |

### SUBMITTAL REVIEW

This section is capturing the review comments and approval status from the relevant Client / Design Team members authorised to approve submittals of this type and discipline.

#### 3. Submittal Status and Comments:

- ☐ Status A – Accepted / Approved  
☐ Status B – Approved with Comments  
☐ Status C – Rejected

A submittal is to achieve either Status A or B before procurement or off-site fabrication can commence.

**Status B & C Comments:**

|                                                                                                                                                                                                                                                                                                                                                                                      |                                                      |                               |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------|-------------------------------|
| <b>Document Review</b>                                                                                                                                                                                                                                                                           |                                                      |                               |
| <small>Review of this document has been carried out only for general conformance with the Design Intent and general compliance with the Contract Documents. Such review does not relieve the Contractor of contractual obligations including ensuring that the work is compliant, complete, accurate and correct.<br/>This review indicates that the document is considered:</small> |                                                      |                               |
| <input checked="" type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                  | <b>STATUS A</b> - Reviewed No Comment.               |                               |
| <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                             | <b>STATUS B</b> - Reviewed Comments As Noted.        |                               |
| <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                             | <b>STATUS C</b> - Rejected With or Without Comments. |                               |
| <small>Returned</small><br>01/04/2025                                                                                                                                                                                                                                                                                                                                                | <small>Initial</small><br><b>Ben Wolstenholme</b>    | <small>User</small><br>NG6626 |

**Response By Org:**

**Response By Name:**

**Please respond to this submittal via Viewpoint. If you have any queries please contact the Project Manager / Quality Lead at the following; [name1@johnpaul.ie](mailto:name1@johnpaul.ie) or [name2@johnpaul.ie](mailto:name2@johnpaul.ie)**

**Microsoft CWL0102**

**KGE-BM-M-44**

**SAMPLE SUBMITTAL**

**FOR**

**INTAKE AND EXHAUST LOUVRES AND INSECT MESH SAMPLE**

**TO BE USED IN CWL0102**

| Rev | Reason for Revision | Prepared by     | Comments by | Date       | No further comments |
|-----|---------------------|-----------------|-------------|------------|---------------------|
|     |                     |                 |             |            |                     |
|     |                     |                 |             |            |                     |
|     |                     |                 |             |            |                     |
|     |                     |                 |             |            |                     |
|     |                     |                 |             |            |                     |
| 2   | Rev 1 Comments      | Sinoxolo Racaza | N/A         | 20/03/2025 | N/A                 |
| 1   | Rev 0 Comments      | Sinoxolo Racaza | N/A         | 18/03/2025 | N/A                 |
| 0   | Issued for Approval | Sinoxolo Racaza | R. Scott    | 13/03/2025 | N/A                 |

## Microsoft CWL0102

### Contents Page

#### Contents

##### 1. Previous Comments

Elevation drawings indicating the external louvres has been included in section 2.1 Consultant drawings.

##### 2. Detail Drawings:

###### 2.1 Consultant Architectural drawings

###### 2.2 Louvre Shop drawings

###### 2.2.1 Intake Louvres

###### 2.2.2 Relief Louvres

##### 3. Compliance

###### 3.1 Extract from specification/schedules referring to relevant sections

###### 3.2 Technical compliance Review

##### 4. Material Sample

###### 4.1 Benchmark Inspection Sheet

###### 4.2 Product photo

###### 4.2.1 Intake Louvres (Horizontal Mounted blades)

###### 4.2.2 Relief Louvre (Vertical Mounted blades)

## Microsoft CWL0102

### 1. PREVIOUS COMMENTS

Rev 00 & 01 Comments

| Client Comment                                                                                                                                           | Kirby Response                                                                                                                  |
|----------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------|
| Status C:<br><br>Please include highlighted elevation drawings to clearly show the location of each Louvre. Items also to be highlighted on the schedule | Elevation drawings indicating the external louvres location has been included in section 2.1 Consultant Architectural drawings. |

## **Microsoft CWL0102**

### **2. DETAIL DRAWINGS:**

#### **2.1 Consultant Architectural drawings**



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Birmingham  
B3 2SL  
United Kingdom  
  
Tel. +44 (0)121 260 1600



Duffryn Lane Newport  
NP10 8BE

## Design Team

|                     |              |
|---------------------|--------------|
| Design              | GENSLER      |
| Drawn               | LN           |
| Checked             | JL           |
| Date                | 05.05.24     |
| Company Project No. | 026 1067 000 |
| M.S. Project No.    | P 020340     |

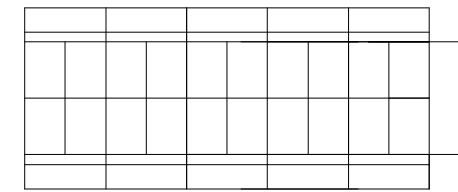
### Approvals

| CUSTOMER                      |                                  | MICROSOFT | Date |
|-------------------------------|----------------------------------|-----------|------|
| Microsoft Design Manager      | LEVI HOLLAND                     |           |      |
| Microsoft Electrical Engineer | MARK GLEASON                     |           |      |
| Microsoft Baseline Engineer   | ANDREW FRIEZEY                   |           |      |
| Microsoft Mechanical Engineer | DAVID WEST                       |           |      |
| CSA                           | SHARENDRA NADUN / STUART MCKEOWN |           |      |
| Telcom                        | MARK KELLY / PAUL BISHOP         |           |      |
| Security Manager              | DAVID BEADLE                     |           |      |
| Environmental                 | DEREDRE GORDMAN                  |           |      |
| PROJECT MANAGEMENT            |                                  |           |      |
| Project Planner               |                                  |           |      |
| Project Manager               |                                  |           | Date |
| Senior Project Manager        |                                  |           |      |
| Development Manager           |                                  |           |      |
| Project Manager               |                                  |           |      |
| Quality Control Reviewer      |                                  |           |      |
| Quality Control PPMC          |                                  |           |      |

### Revisions

[illegible]

## Registration



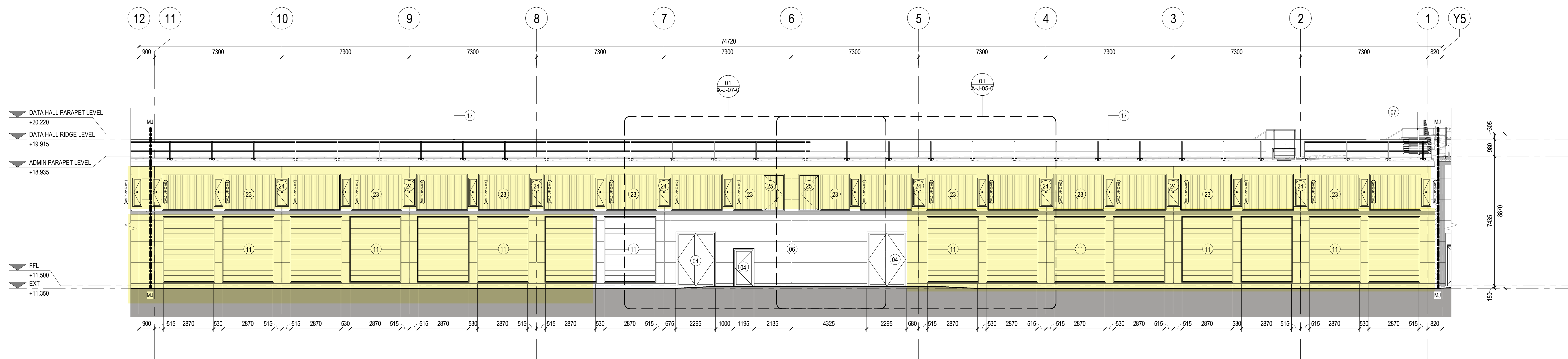

Box Code

Sheet Title/Number

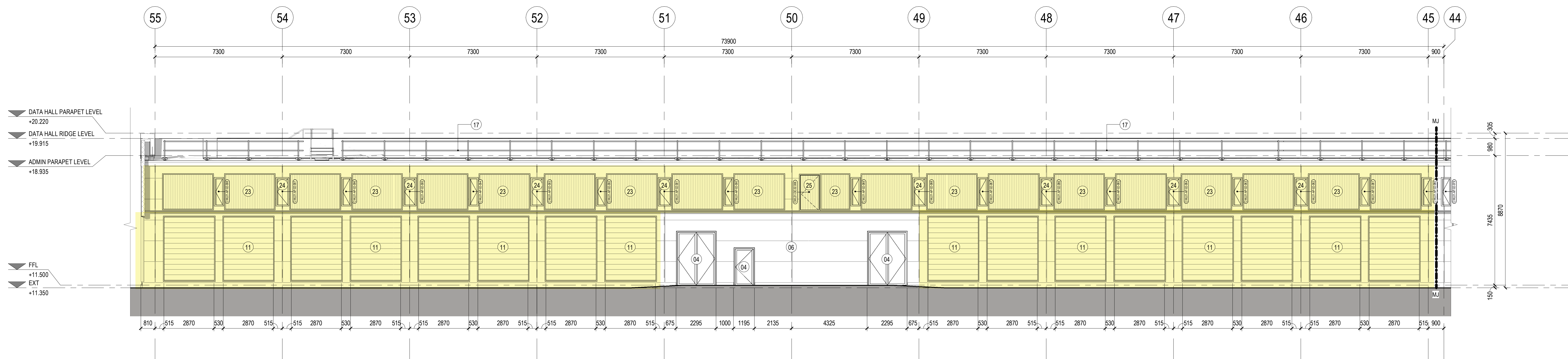
DATA HALLS - ENLARGED  
ELEVATION SOUTH

CWL01-  
A-H-04-0

CWL01 A-H-04-0-A



01 SOUTH ELEVATION - COLO 1  
SCALE: 1 : 100



02 SOUTH ELEVATION - COLO 5  
SCALE: 1 : 100



## SHEET NOTES

| No. | ELEMENT DESCRIPTION                                              | MATERIAL & FINISH | COLOUR                         |
|-----|------------------------------------------------------------------|-------------------|--------------------------------|
| 01  | EWS-701 LOUVRES                                                  | ALUMINIUM, PPC    | RAL 7016                       |
| 02  | EWS-101 CURTAIN WALL                                             | ALUMINIUM, PPC    | RAL 7016                       |
| 03  | DRS-201 SOLID DOOR - ADMIN                                       | STEEL, PPC        | RAL 9007                       |
| 04  | DRS-201 SOLID DOOR - DATA HALL                                   | STEEL, PPC        | RAL 9006                       |
| 05  | EWS-301 METAL CLADDING - ADMIN                                   | ALUMINIUM, PPC    | RAL 9007                       |
| 06  | EWS-302 METAL CLADDING - DATA HALL                               | ALUMINIUM, PPC    | RAL 9006                       |
| 07  | AM-401/402 ROOF ACCESS STAIRS / LADDER                           | GALVANISED STEEL  | -                              |
| 08  | EWS-401 MESH SCREEN AND ROOF MAINTENANCE ACCESS STAIRCASE BEHIND | STEEL, PPC        | RAL 9006                       |
| 09  | FX-703 BIN STORE                                                 | STEEL, PPC        | -                              |
| 10  | LOADING DOCK                                                     | -                 | -                              |
| 11  | EWS-702 AHU LOUVRED PANELS                                       | ALUMINIUM, PPC    | RAL 9006                       |
| 12  | EXTERNAL PLANT ROOM                                              | GALVANISED STEEL  | RAL 9007 as per RFI CWL01-0315 |
| 13  | QL-102 SPANDREL GLAZED PANEL                                     | GLAZED            | COLORBELL 77                   |
| 14  | GLULAM COLUMN                                                    | TIMBER            | -                              |
| 15  | AM-101 PARAPET COPING - ADMIN                                    | ALUMINIUM PROFILE | RAL 9007                       |
| 16  | AM-102 PARAPET COPING - DATA HALL                                | ALUMINIUM PROFILE | RAL 9006                       |
| 17  | BAL-401 ROOF BALUSTRADE                                          | GALVANISED STEEL  | -                              |
| 18  | EWS-304 TIMBER SLATTED PANEL                                     | TIMBER            | -                              |
| 19  | RWS-201 RAINWATER PIPE                                           | ALUMINIUM, PPC    | RAL 7016                       |
| 20  | GENERATOR                                                        | GALVANISED STEEL  | -                              |
| 21  | EWS-501 TIMBER SOFFIT                                            | TIMBER            | -                              |
| 22  | DRS-201 GLAZED DOOR                                              | ALUMINIUM, PPC    | RAL 7016                       |
| 23  | EWS-702 RAB WALL LOUVRES                                         | ALUMINIUM, PPC    | RAL 9006                       |
| 24  | DRS-202 FIRE DAMPER MAINTENANCE ACCESS PANELS                    | ALUMINIUM, PPC    | RAL 9006                       |
| 25  | DRS-201 RAB ACCESS DOOR                                          | ALUMINIUM, PPC    | RAL 9006                       |
| 26  | AM-401 ESCAPE CAGED LADDER FROM ROOF AND RAB WALKWAY             | GALVANISED STEEL  | -                              |
| 27  | GPS CLOCK ANTENNA                                                | -                 | -                              |

## GENERAL NOTES

1. ALL VERTICAL DIMENSIONS ARE RELATIVE TO ASSOCIATED BUILDING SLAB LEVEL.
2. DO NOT SCALE FROM DRAWINGS. ALL DISCREPANCIES TO BE REPORTED TO GENSLER ARCHITECTS IMMEDIATELY. ALL DIMENSIONS TO BE VERIFIED BY CONTRACTOR ON SITE PRIOR TO ANY WORKS.
3. THIS DRAWING IS TO BE PRINTED IN COLOUR.

### LEGEND

— · — · — · — MOVEMENT JOINT

As indicated@AC

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Duffryn Lane Newport  
NP10 8BE

## Design Team

|                     |              |
|---------------------|--------------|
| Design              | GENSLER      |
| Drawn               | LM           |
| Checked             | JL           |
| Date                | 06.09.24     |
| Company Project No. | 026-1067-000 |
| M.S. Project No.    | P-020340     |

Approvals

| CUSTOMER                      | MICROSOFT                       | Date |
|-------------------------------|---------------------------------|------|
| Microsoft Design Manager      | LEVI HOLLAND                    |      |
| Microsoft Electrical Engineer | MARK GLEESON                    |      |
| Microsoft Biophysics Engineer | ANDREW FREEZER                  |      |
| Microsoft Mechanical Engineer | DAVID WEST                      |      |
| CSA                           | SHARONRA NANDU / STUART MCKEOWN |      |
| Telecom                       | MARK KELLY PAUL BISHOP          |      |
| Security Manager              | DAVID BEADLE                    |      |
| Environmental                 | DEIDRE GORMAN                   |      |

## PROJECT MANAGEMENT

|                          |       |
|--------------------------|-------|
| Project Planner          |       |
| Project Manager          | Costs |
| Senior Project Manager   |       |
| Development Manager      |       |
| Project Manager          |       |
| Quality Control Reviewer |       |
| Quality Control F&E      |       |

## Revisions

[illegible]

## Registration



Sheet Title/Number

DATA HALLS - ENLARGE  
ELEVATION NORTH

CWL01-  
A-H-05-0

CWL01 A-H-05-0-A



## SHEET NOTES

| No. | ELEMENT DESCRIPTION                                              | MATERIAL & FINISH | COLOUR                                                                                            |
|-----|------------------------------------------------------------------|-------------------|---------------------------------------------------------------------------------------------------|
| 01  | EVS-701 LOUVRES                                                  | ALUMINIUM, PPC    | RAL 7016                                                                                          |
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| 03  | DRS-201 SOLID DOOR - ADMIN                                       | STEEL, PPC        | RAL 9007                                                                                          |
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| 08  | EVS-401 MESH SCREEN AND ROOF MAINTENANCE ACCESS STAIRCASE BEHIND | STEEL, PPC        | RAL 9006                                                                                          |
| 09  | FX-703 BIN STORE                                                 | STEEL, PPC        | -                                                                                                 |
| 10  | LOADING DOCK                                                     | -                 | -                                                                                                 |
| 11  | EVS-702 AHU LOUVRED PANELS                                       | ALUMINIUM, PPC    | RAL 9006 <span style="border: 1px solid red; padding: 2px;">RAL 9007 as per RFI CWL01-0315</span> |
| 12  | EXTERNAL PLANT ROOM                                              | GALVANISED STEEL  | -                                                                                                 |
| 13  | GL-102 SPANDREL GLAZED PANEL                                     | GLAZED            | COLORBEL 77                                                                                       |
| 14  | GLULAM COLUMN                                                    | TIMBER            | -                                                                                                 |
| 15  | AM-101 PARAPET COPING - ADMIN                                    | ALUMINIUM PROFILE | RAL 9007                                                                                          |
| 16  | AM-102 PARAPET COPING - DATA HALL                                | ALUMINIUM PROFILE | RAL 9006                                                                                          |
| 17  | BAL-401 ROOF BALUSTRADE                                          | GALVANISED STEEL  | -                                                                                                 |
| 18  | EVS-304 TIMBER SLATTED PANEL                                     | TIMBER            | -                                                                                                 |
| 19  | RWS-201 RAINWATER PIPE                                           | ALUMINIUM, PPC    | RAL 7016                                                                                          |
| 20  | GENERATOR                                                        | GALVANISED STEEL  | -                                                                                                 |
| 21  | EVS-501 TIMBER SOFFIT                                            | TIMBER            | -                                                                                                 |
| 22  | DRS-321 GLAZED DOOR                                              | ALUMINIUM, PPC    | RAL 7016                                                                                          |
| 23  | EVS-702 RAB WALL LOUVRES                                         | ALUMINIUM, PPC    | RAL 9006 <span style="border: 1px solid red; padding: 2px;">RAL 9007 as per RFI CWL01-0315</span> |
| 24  | DRS-202 FIRE DAMPER MAINTENANCE ACCESS PANELS                    | ALUMINIUM, PPC    | RAL 9006                                                                                          |
| 25  | DRS-201 RAB ACCESS DOOR                                          | ALUMINIUM, PPC    | RAL 9006                                                                                          |
| 26  | AM-401 ESCAPE CAGED LADDER FROM ROOF AND RAB WALKWAY             | ALUMINIUM, PPC    | -                                                                                                 |
| 27  | GFS CLOCK ANTENNA                                                | GALVANISED STEEL  | -                                                                                                 |

## GENERAL NOTES

1. ALL VERTICAL DIMENSIONS ARE RELATIVE TO ASSOCIATED BUILDING SLAB LEVEL.
2. DO NOT SCALE FROM DRAWINGS. ALL DISCREPANCIES TO BE REPORTED TO GENSLER ARCHITECTS IMMEDIATELY. ALL DIMENSIONS TO BE VERIFIED BY CONTRACTOR ON SITE PRIOR TO ANY WORKS.
3. THIS DRAWING IS TO BE PRINTED IN COLOUR.

## LEGEND

----- MOVEMENT JOINT

As indicated@AC

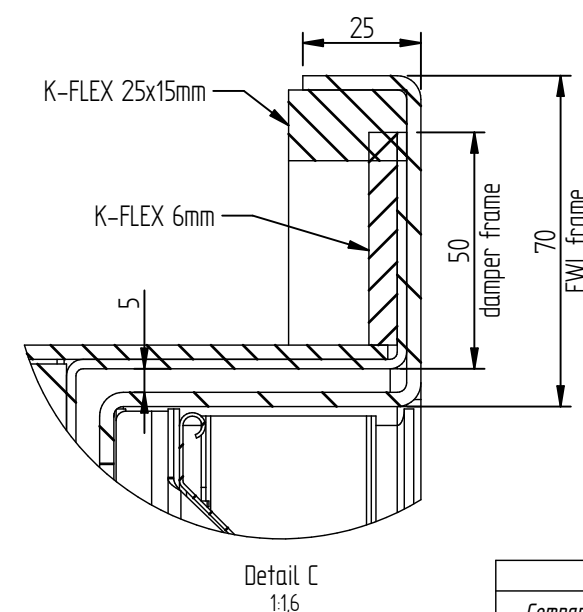
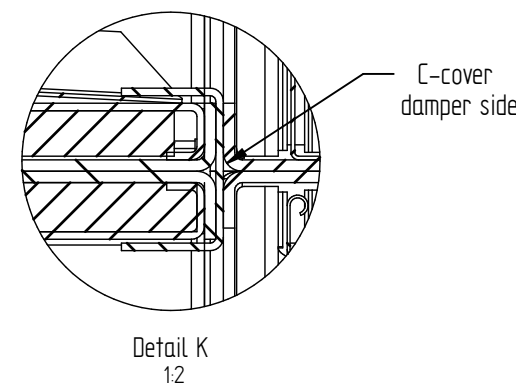
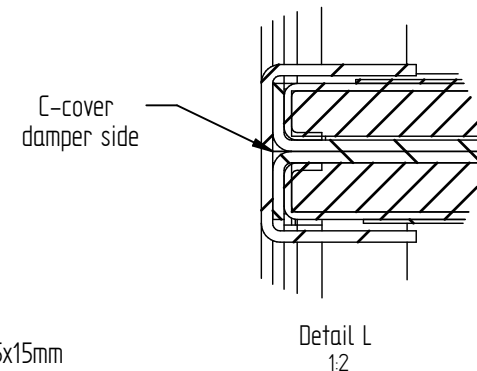
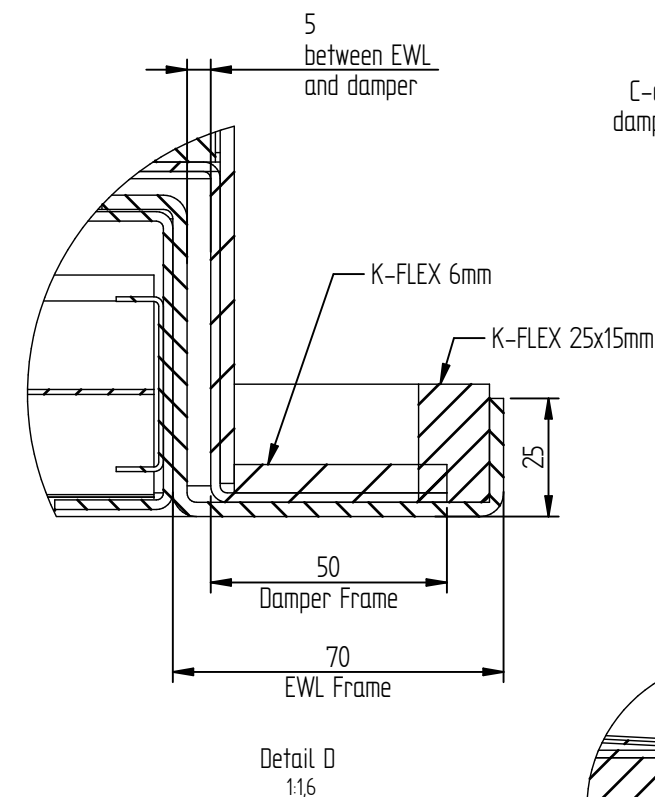
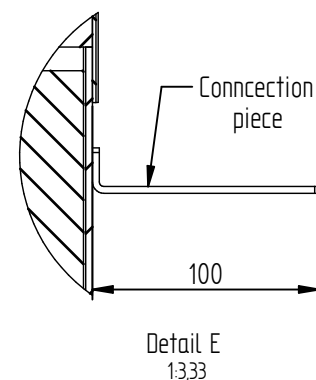
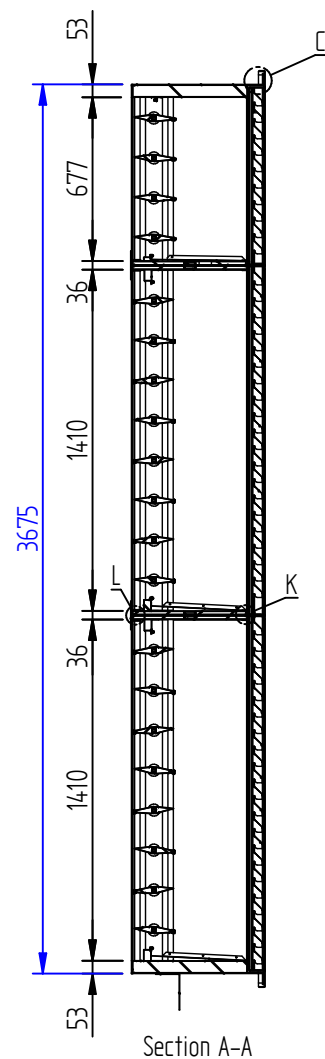
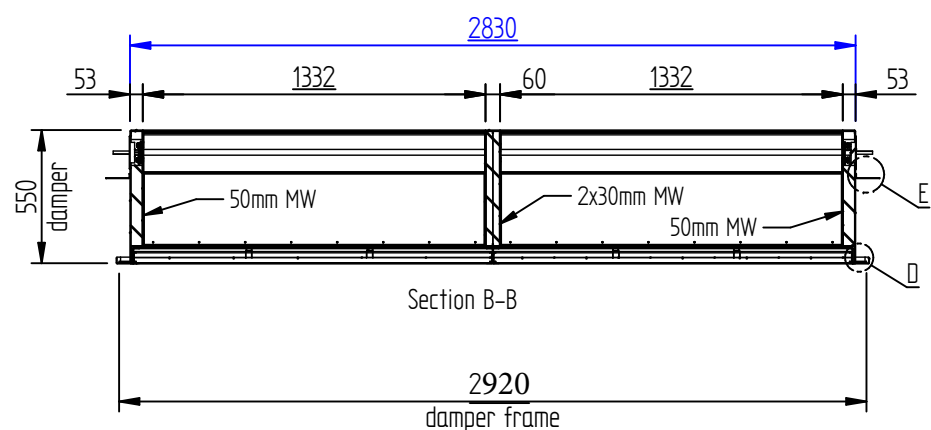
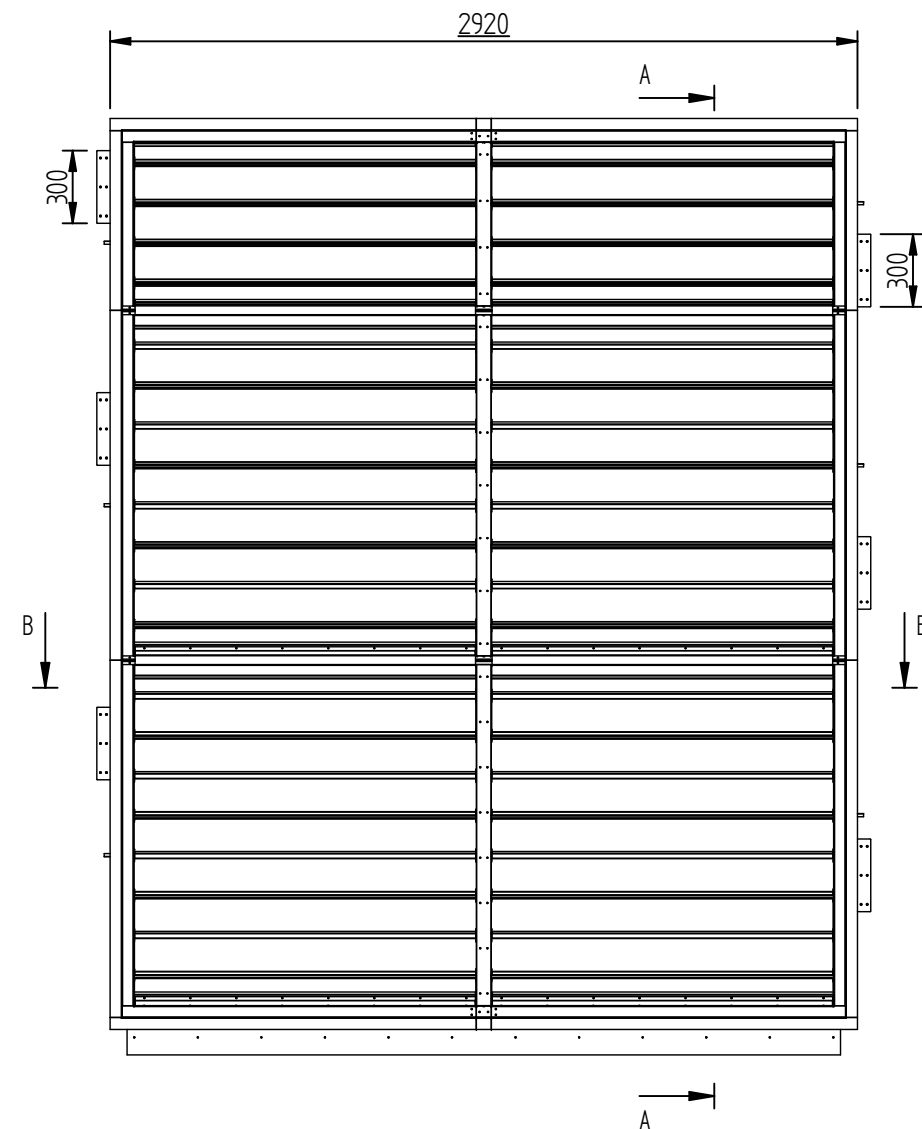
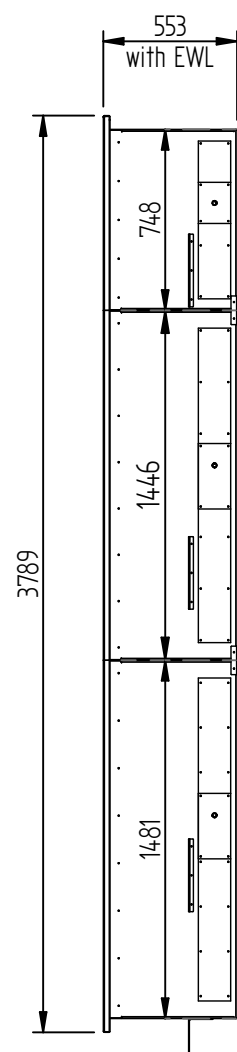
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## **Microsoft CWL0102**

### **2.2 Louvre Shop drawings**

#### **2.2.1 Intake Louvres**



❑ **LDM Module Intake Damper Aluminium opposed blade 1332 x 1410mm (w x h) 4no**

LDM-Module damper rectangular, for pressure and voume flow control in HVAC-Systems, casing made of aluminium, depth **550mm**, double walled, insulation 50mm mineral wool 40kg/m3, extended flange with 6mm K-FLEX, inside sealed with special foam and sliding foil, one sided stainless steel connecting rod, coupled in opposed direction, SELFOIL® self-lubricating sintered bearing, lamellas made of special aluminium profiles, insulated with polyurethane, horizontally arrange, one side rubber lip seal, lamella hight 165mm, console for actuator, 150mm deep, drive axle 12x12 stainless steel, reinforced design, air-tightness class 4 (casing class C) according to DIN EN 1751 and DIN 1946 T4, temperature-resistant from -30°C to +80°C, silicone-free.

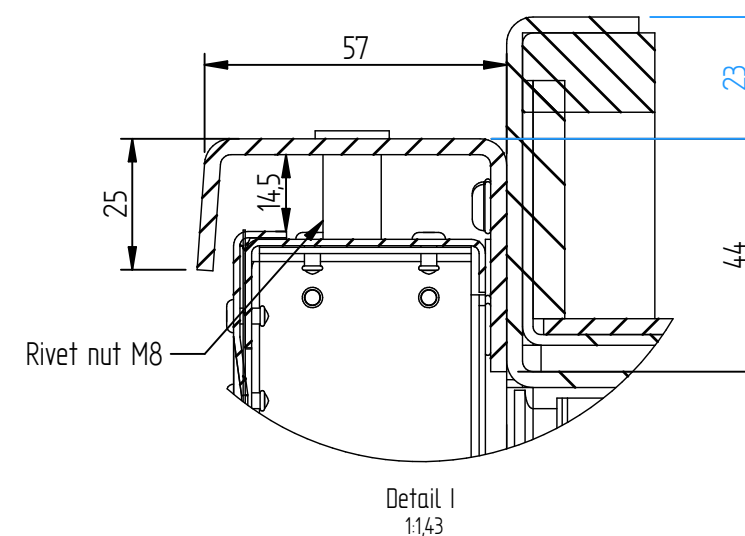
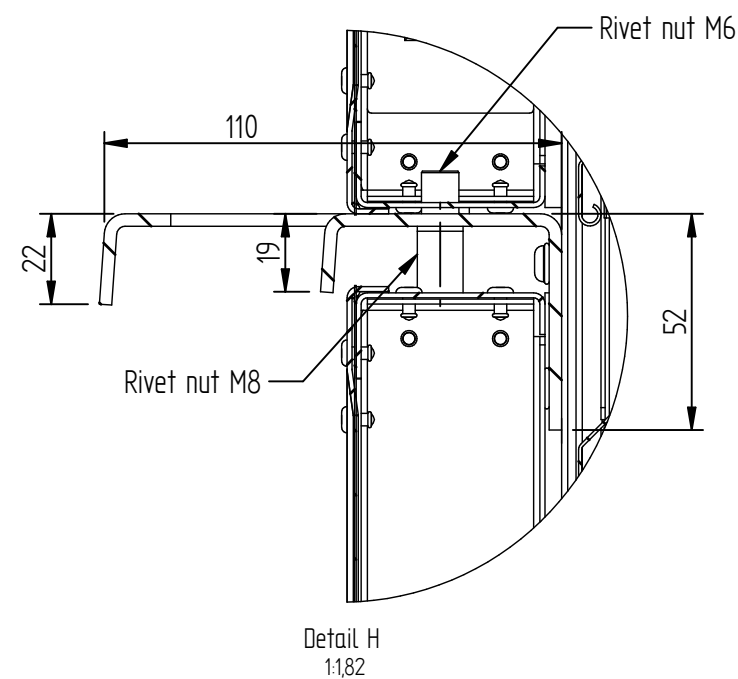
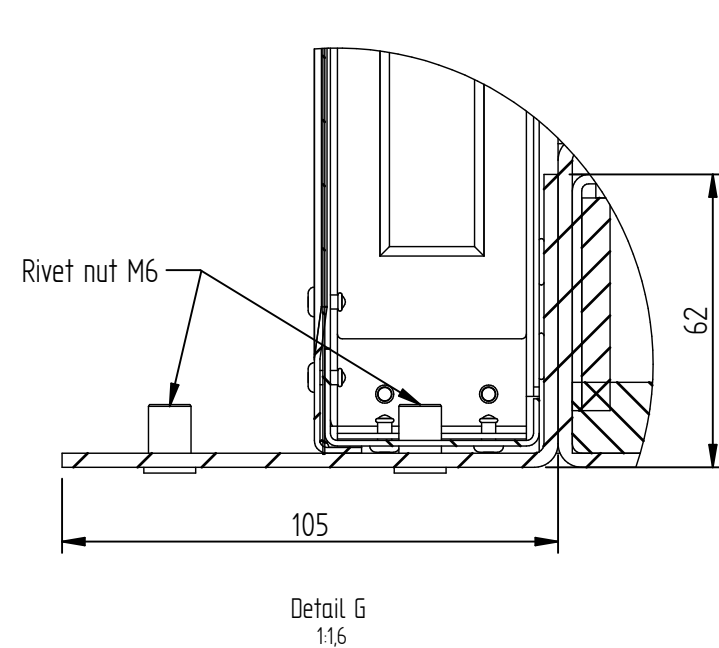
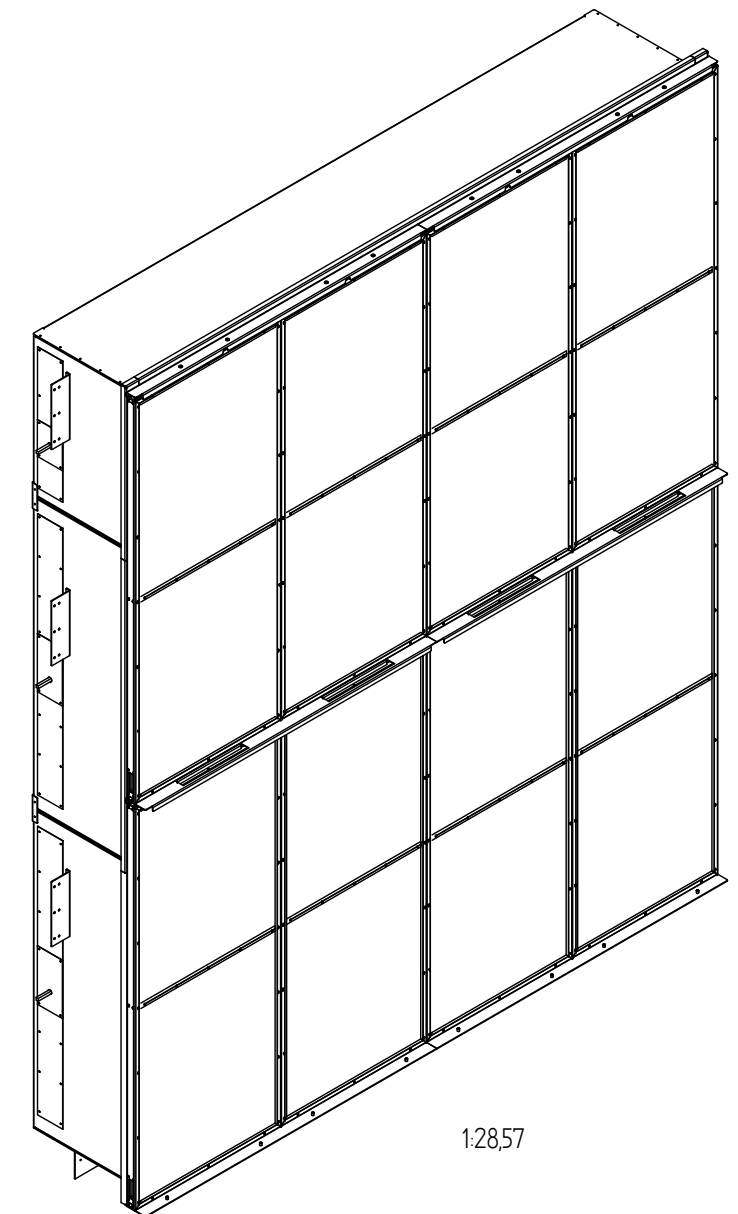
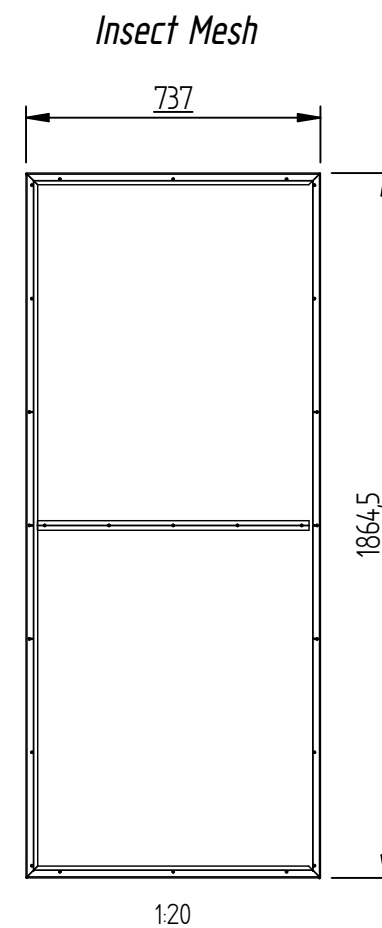
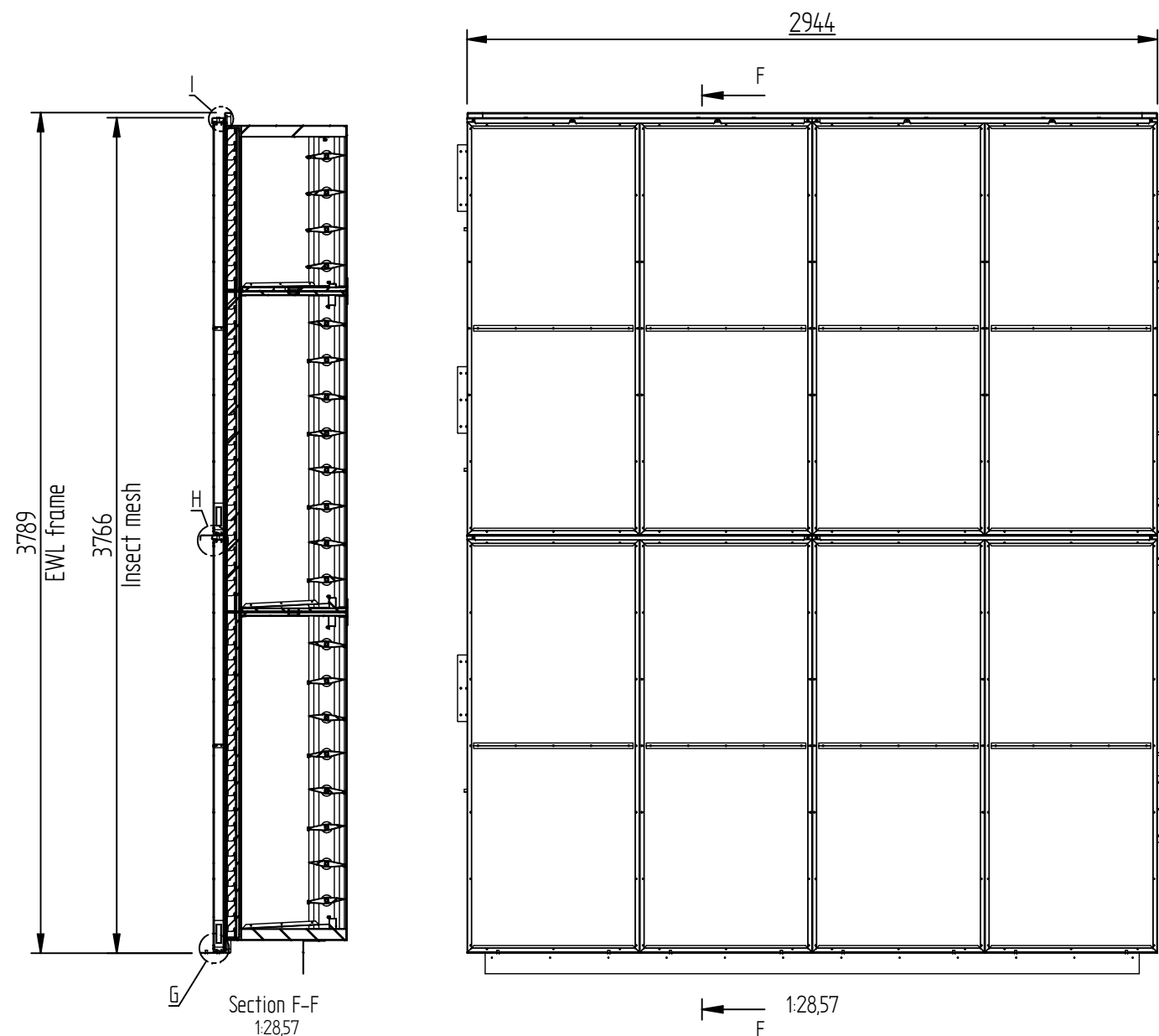
❑ **LDM Module Intake Damper Aluminium parallel blade 1332 x 677mm (w x h) 2no**

LDM-Module damper rectangular, for pressure and volume flow control in HVAC-Systems, casing made of aluminium, depth **550mm**, double walled, insulation 50mm mineral wool 40kg/m3, extended flange with 6mm K-FLEX, inside sealed with special foam and sliding foil, one sided stainless steel connecting rod, coupled in parallel direction, SELFOIL® self-lubricating sintered bearing, lamellas made of special aluminium profiles, insulated with polyurethane, horizontally arrange, one side rubber lip seal, lamella hight 165mm, console for actuator, 150mm deep, drive axle 12x12 stainless steel, reinforced design, air-tightness class 2 (casing class C) according to DIN EN 1751 and DIN 1946 T4, temperature-resistant from -30°C to +80°C, silicone-free.

❑ **LDM Weather-Resitant Louver for LDM Module Intake Damper**

LDM Weather-Resistant Louver made of aluminium, rectangular for air supply or exhaust applications, mounting in HVAC-systems, special frame. Aerodynamic, rain repelling horizontally mounted blades. Blade spacing 68mm.

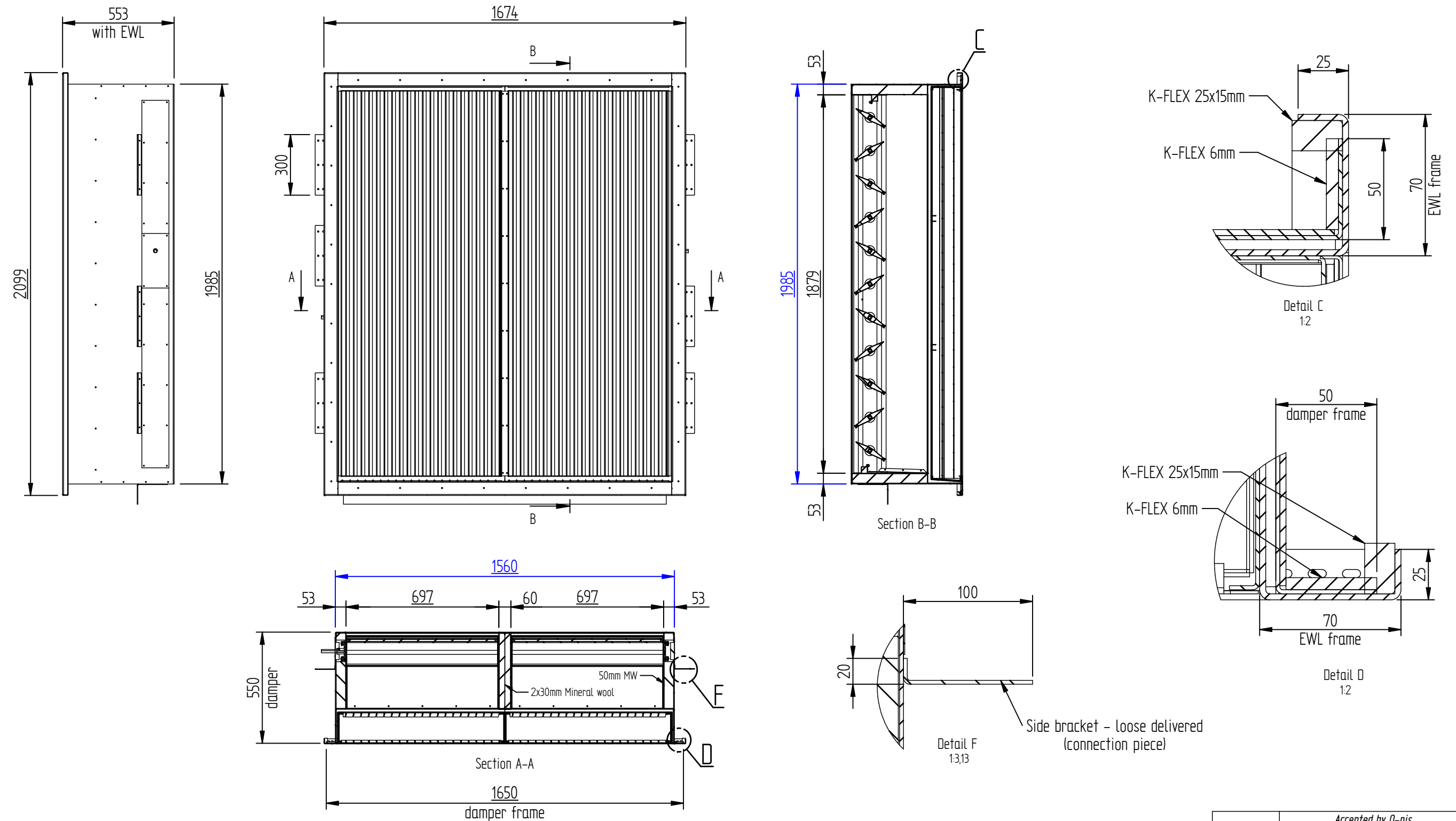
|                                |  |                |  |          |  |
|--------------------------------|--|----------------|--|----------|--|
| Accepted by Q-nis              |  |                |  |          |  |
| Company:                       |  |                |  |          |  |
| Name:                          |  |                |  |          |  |
| Date:                          |  |                |  |          |  |
| Accepted by Client             |  |                |  |          |  |
| Company:                       |  |                |  |          |  |
| Name:                          |  |                |  |          |  |
| Date:                          |  |                |  |          |  |
| Material:                      |  | Thickness:     |  | Weight:  |  |
| Aluminum                       |  | 30mm           |  | 543 kg   |  |
| Drawn:                         |  | Date:          |  | Project: |  |
| Hubert Sieg                    |  | 13-02-2025     |  | CWL 01   |  |
| Order:                         |  | Customer:      |  |          |  |
| -                              |  | Q-nis          |  |          |  |
| Name:                          |  | CWL01 - INTAKE |  | Size:    |  |
| dl.lufttechnik<br>airgineering |  |                |  | 1 A3     |  |



|                    |  |                |          |           |        |
|--------------------|--|----------------|----------|-----------|--------|
| Accepted by Q-nis  |  |                |          |           |        |
| Company:           |  |                |          |           |        |
| Name:              |  |                |          |           |        |
| Date:              |  |                |          |           |        |
| Accepted by Client |  |                |          |           |        |
| Company:           |  |                |          |           |        |
| Name:              |  |                |          |           |        |
| Date:              |  |                |          |           |        |
| Material:          |  | Thickness:     | Weight:  | Quantity: | Scale: |
| Aluminium          |  | 3.0mm          | 543 kg   | pieces    | 1:1    |
| Drawn:             |  | Date:          | Project: |           |        |
| Hubert Sieg        |  | 13-02-2025     | CWL 01   |           |        |
| Order:             |  | Customer:      |          |           |        |
| -                  |  | Q-nis          |          |           |        |
| Name:              |  | CWL01 - INTAKE |          | Rev:      | Size:  |
|                    |  |                |          | 1         | A3     |

## Microsoft CWL0102

### 2.2.2 Relief Louvres



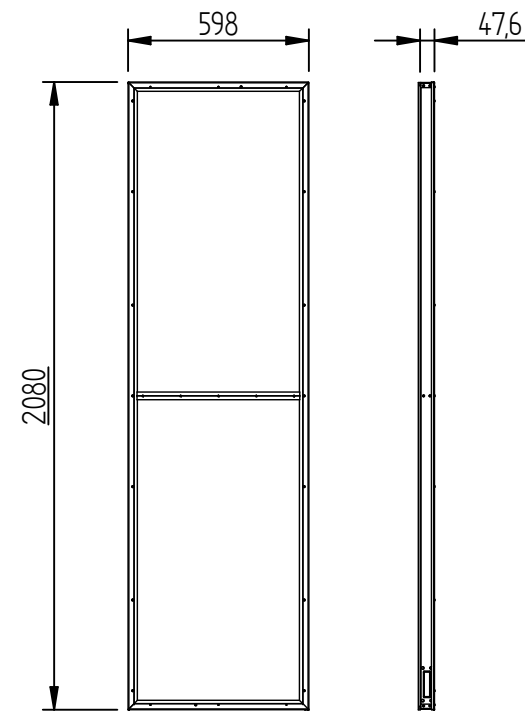
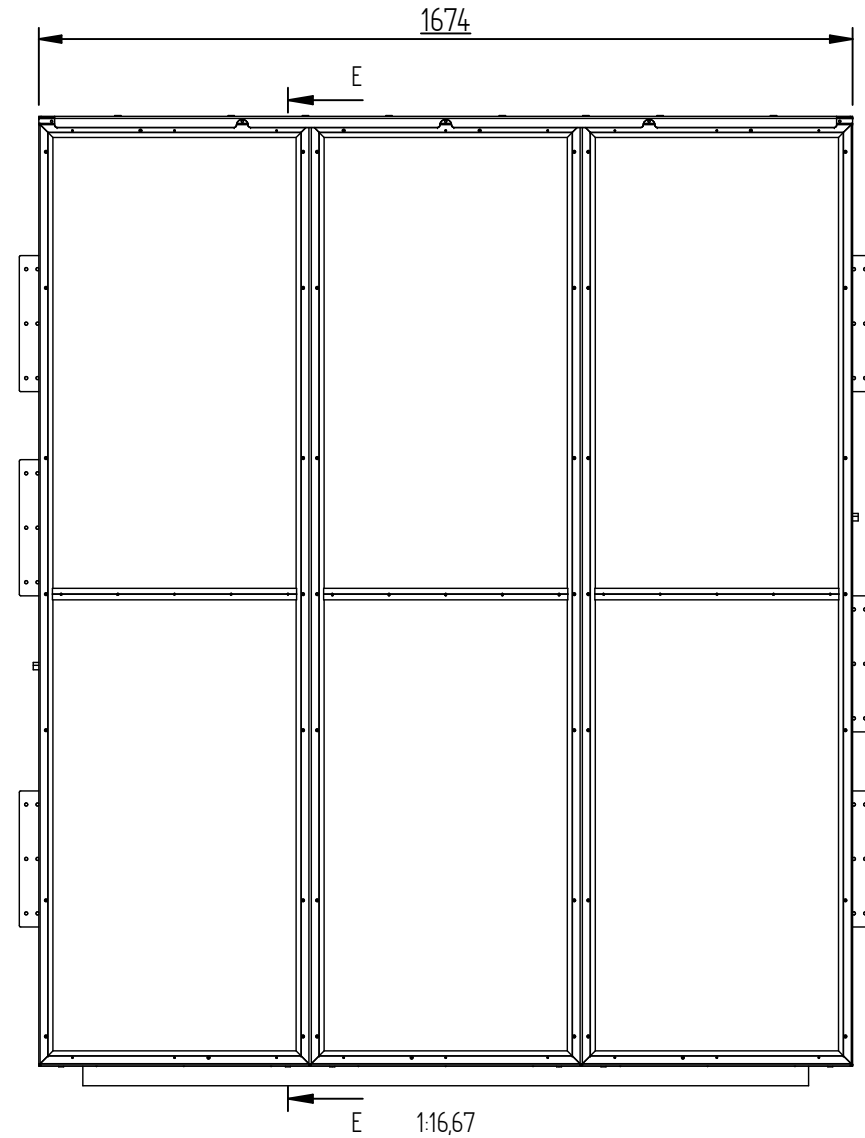
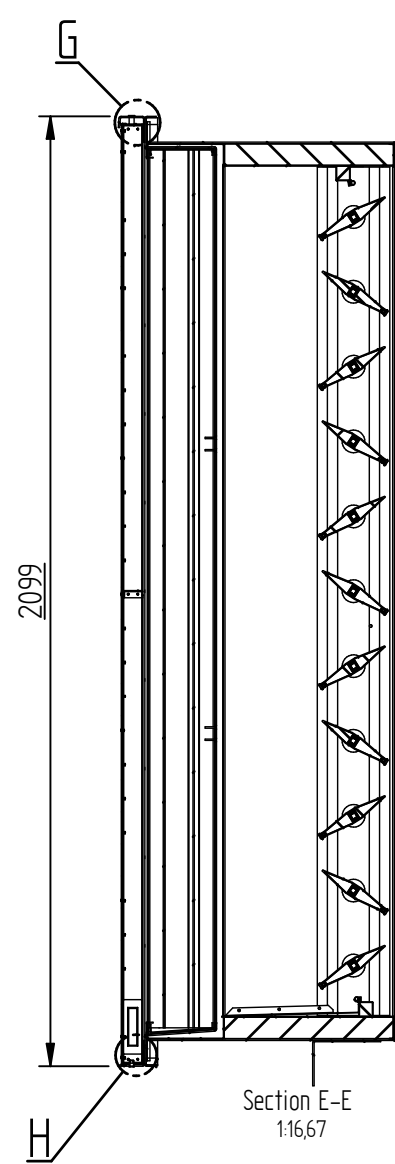
#### ❑ LDM Module Relief 2 Damper Aluminium opposed blade 697 x 1879mm (w x h) 2no

DL-Microsoft damper rectangular, for pressure and volume flow control in HVAC-Systems, casing made of aluminium, depth **550mm**, double walled, insulation 50mm mineral wool 40kg/m<sup>3</sup>, extended flange with 6mm K-FLEX, inside sealed with special foam and sliding foil, one sided stainless steel connecting rod, coupled in opposed direction, SELFOIL® self-lubricating sintered bearing, lamellas made of special aluminium profiles, insulated with polyurethane, horizontally arrange, one side rubber lip seal, lamella hight 165mm, console for actuator, 150mm deep, drive axle 12x12mm stainless steel, reinforced design, air-tightness class 4 (casing class C) according to DIN EN 1751 and DIN 1946 T4, temperature-resistant from -30°C to +80°C, silicone-free.

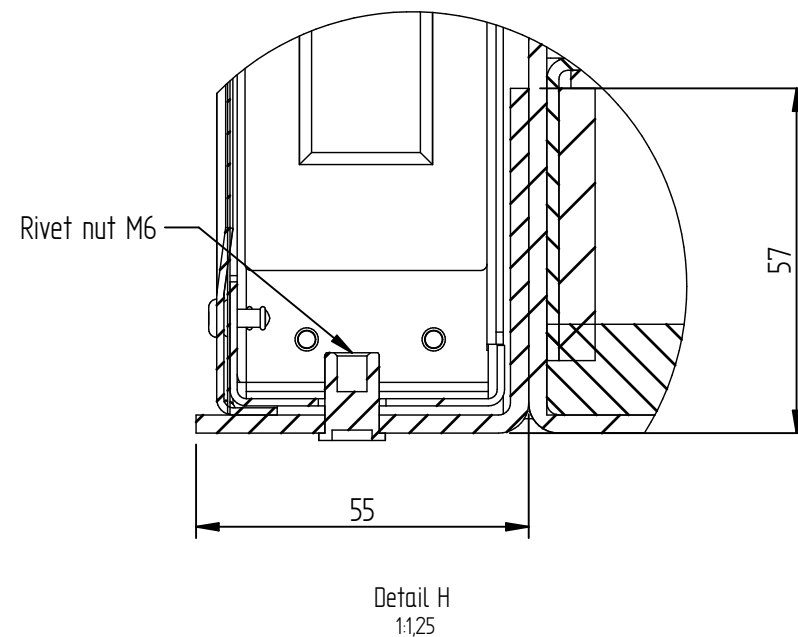
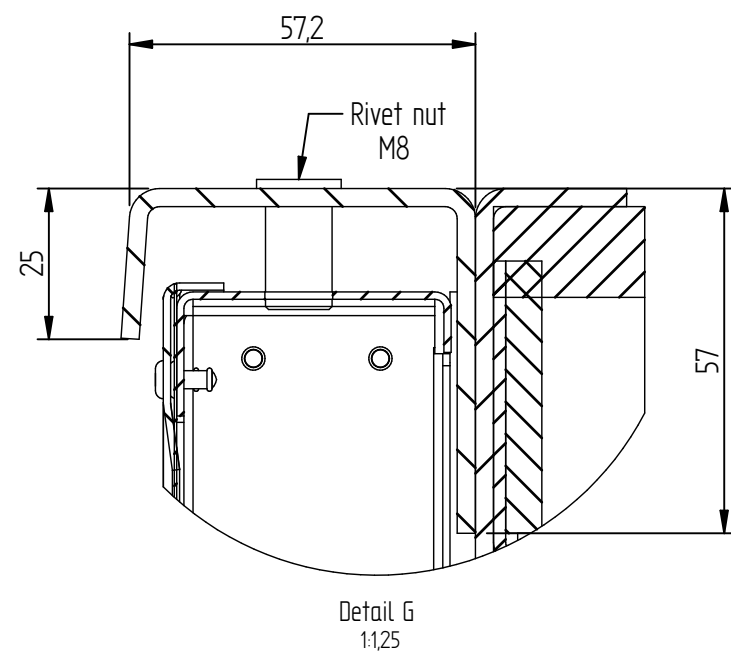
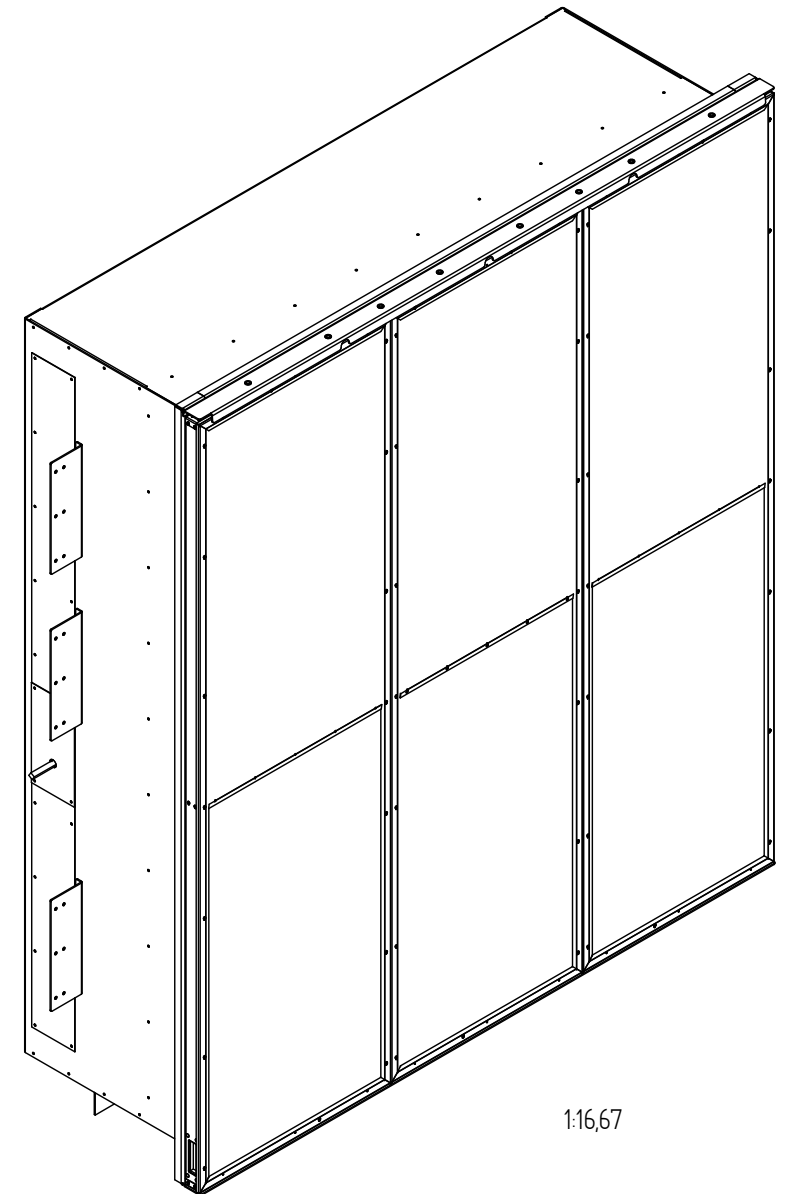
#### ❑ LDM Module Weather-Resistant Louver for LDM Module Relief 2 Damper

LDM Weather-Resistant Louver made of aluminium, rectangular for air supply or exhaust applications, mounting in HVAC-systems, special frame. Aerodynamic, rain repelling vertically mounted blades.

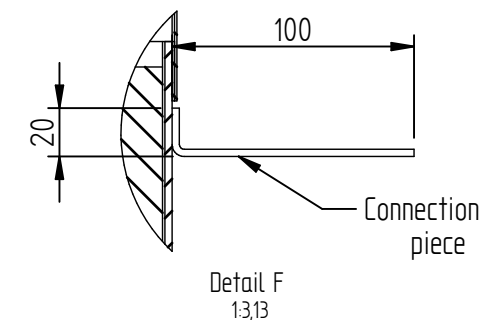
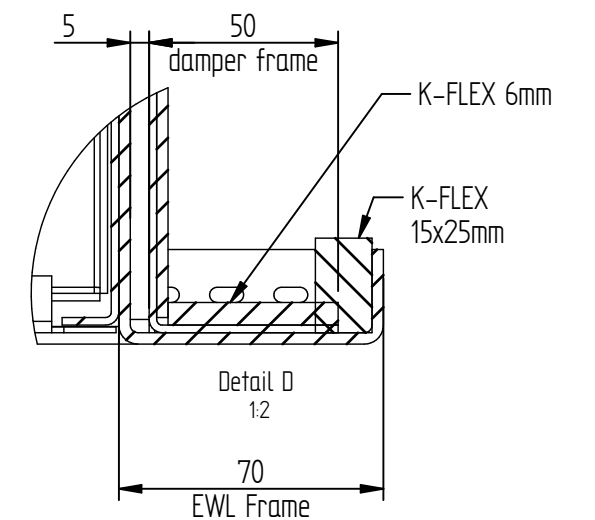
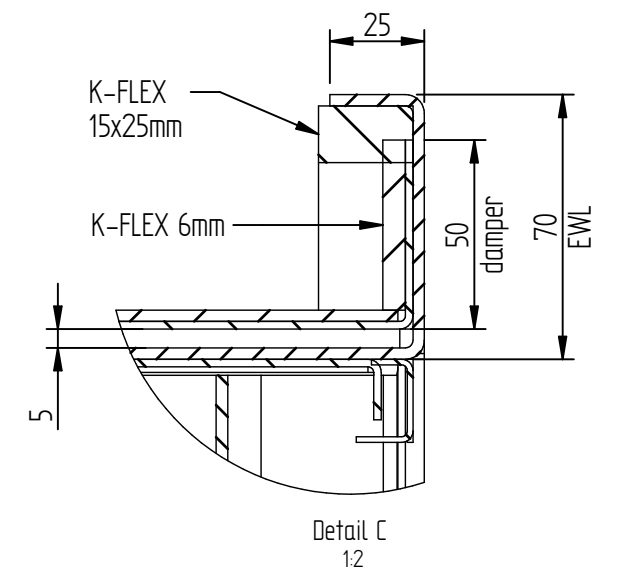
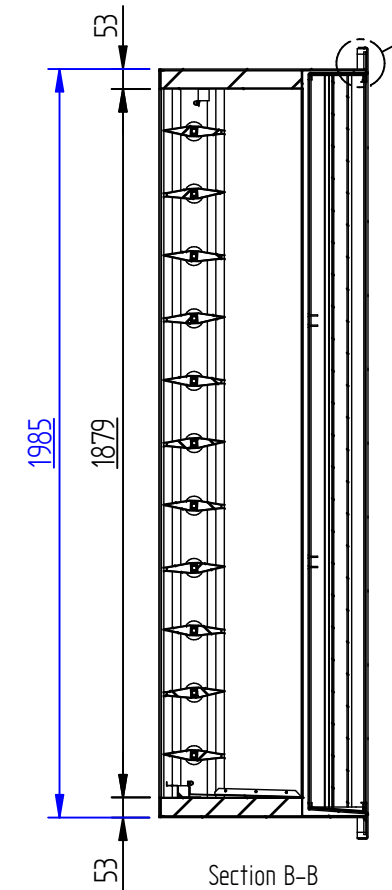
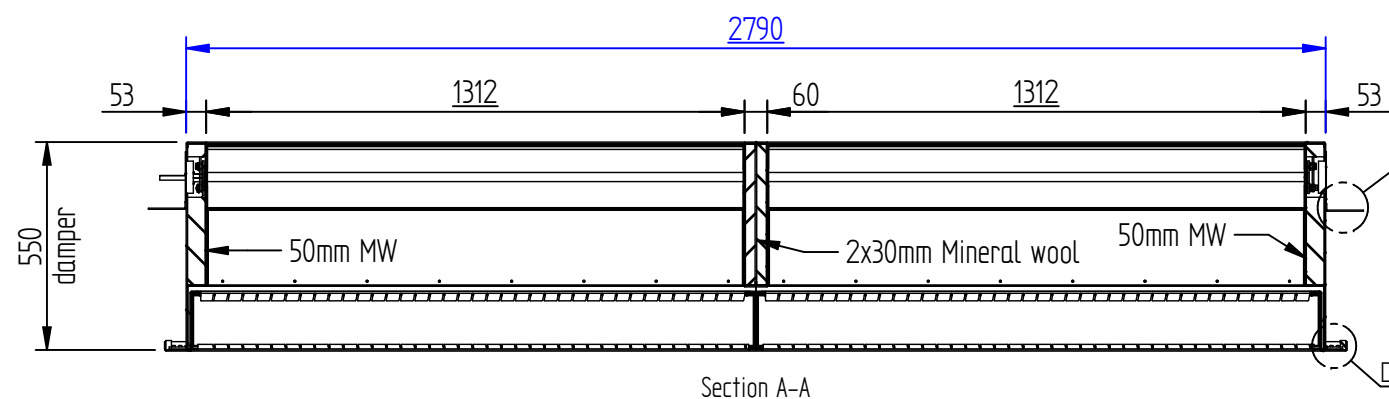
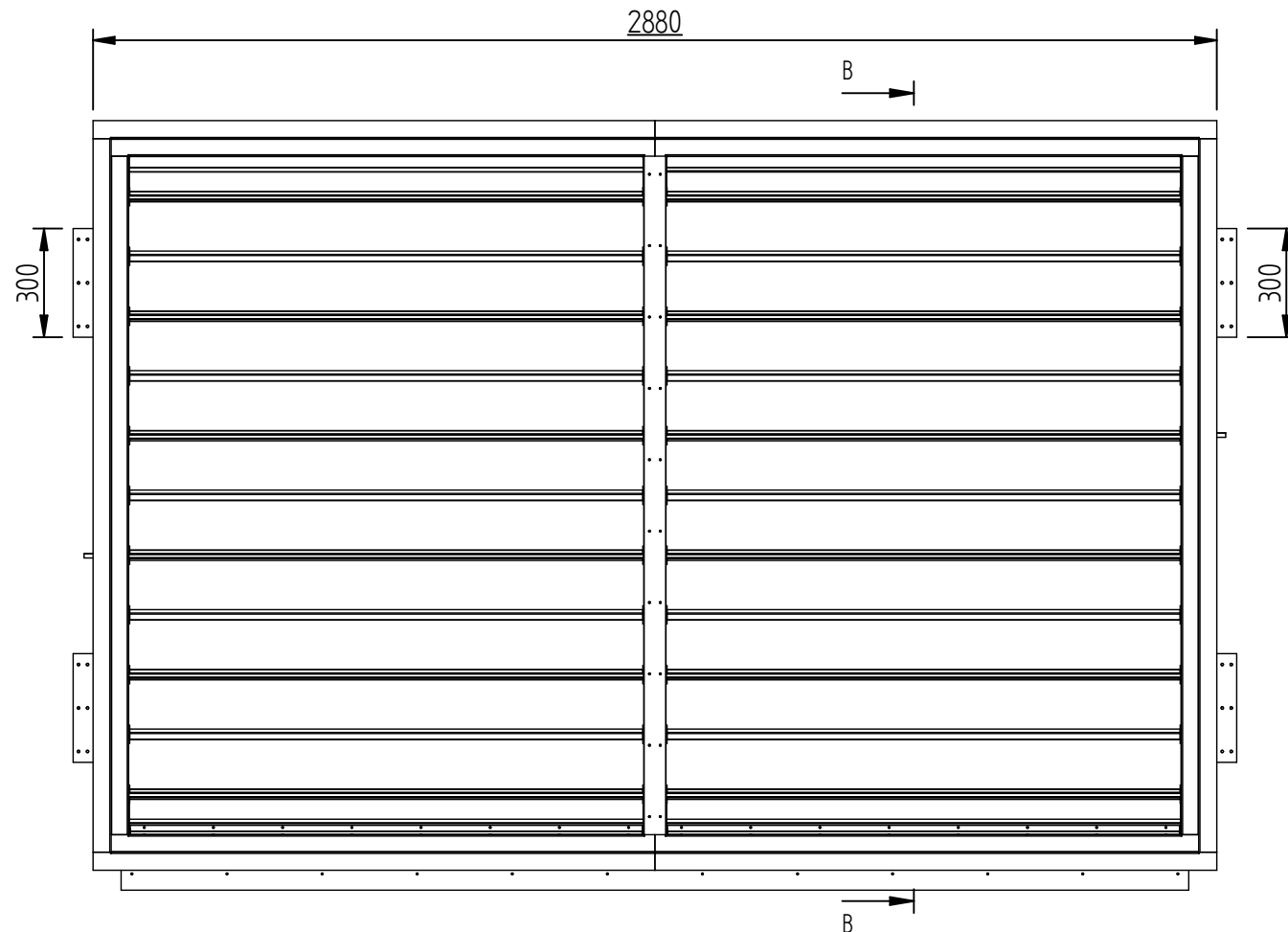
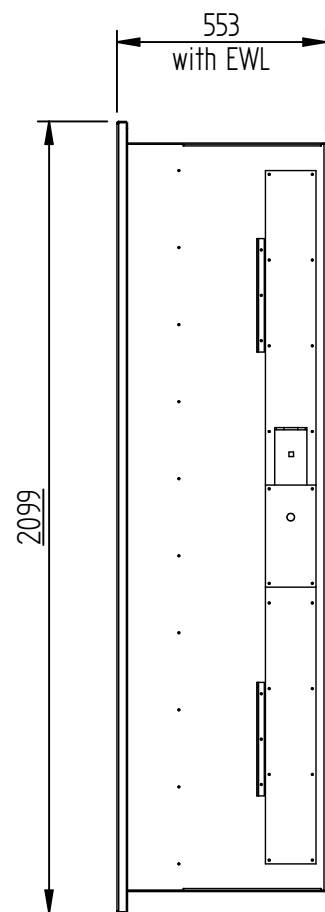
|                                                                                                                        |  |                  |          |           |        |       |
|------------------------------------------------------------------------------------------------------------------------|--|------------------|----------|-----------|--------|-------|
| Accepted by Q-nis                                                                                                      |  |                  |          |           |        |       |
| Company:                                                                                                               |  |                  |          |           |        |       |
| Name:                                                                                                                  |  |                  |          |           |        |       |
| Date:                                                                                                                  |  |                  |          |           |        |       |
| Accepted by Client                                                                                                     |  |                  |          |           |        |       |
| Company:                                                                                                               |  |                  |          |           |        |       |
| Name:                                                                                                                  |  |                  |          |           |        |       |
| Date:                                                                                                                  |  |                  |          |           |        |       |
| Material:                                                                                                              |  | Thickness        | Weight:  | Quantity: | Scale: |       |
| Aluminium                                                                                                              |  | 30mm             | 124 kg   | pieces)   | 1:20   |       |
| Drawn:                                                                                                                 |  | Date:            | Project: | Customer: |        |       |
| Hubert Sieg                                                                                                            |  | 13-02-2025       | CWL 01   |           |        |       |
|  dl.lufttechnik<br>airengineering |  | Order:           |          | Customer: |        |       |
|                                                                                                                        |  | -                |          | Q-nis     |        |       |
|                                                                                                                        |  | Name:            |          |           | Rev:   | Size: |
|                                                                                                                        |  | CWL01 - RELIEF 2 |          |           | 1      | A3    |



Single insect mesh frame



|                                                                                                                        |  |            |           |           |        |
|------------------------------------------------------------------------------------------------------------------------|--|------------|-----------|-----------|--------|
| Accepted by Q-nis                                                                                                      |  |            |           |           |        |
| Company:                                                                                                               |  |            |           |           |        |
| Name:                                                                                                                  |  |            |           |           |        |
| Date:                                                                                                                  |  |            |           |           |        |
| Accepted by Client                                                                                                     |  |            |           |           |        |
| Company:                                                                                                               |  |            |           |           |        |
| Name:                                                                                                                  |  |            |           |           |        |
| Date:                                                                                                                  |  |            |           |           |        |
| Material:                                                                                                              |  | Thickness: | Weight:   | Quantity: | Scale: |
| Aluminium                                                                                                              |  | 30mm       | 124 kg    | piecels)  | 1:25   |
| Drawn:                                                                                                                 |  | Date:      | Project:  |           |        |
| Hubert Sieg                                                                                                            |  | 13-02-2025 | CWL 01    |           |        |
|  dl.lufttechnik<br>airengineering |  | Order:     | Customer: |           |        |
|                                                                                                                        |  | -          | Q-nis     |           |        |
| Name:                                                                                                                  |  | Rev:       |           | Size:     |        |
| CWL01 - RELIEF 2                                                                                                       |  | 1          |           | A3        |        |



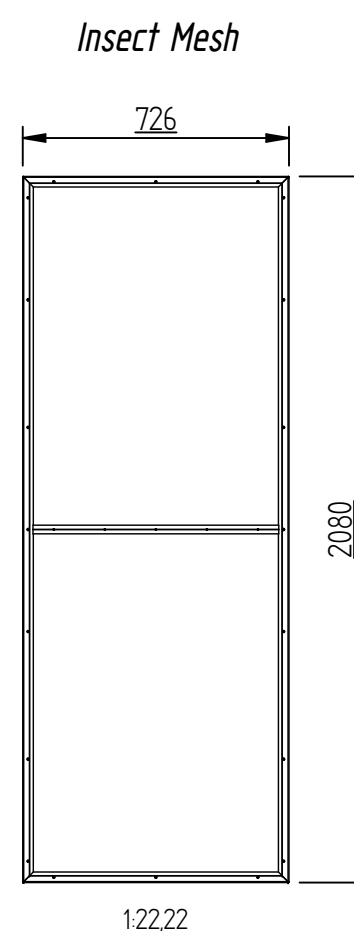
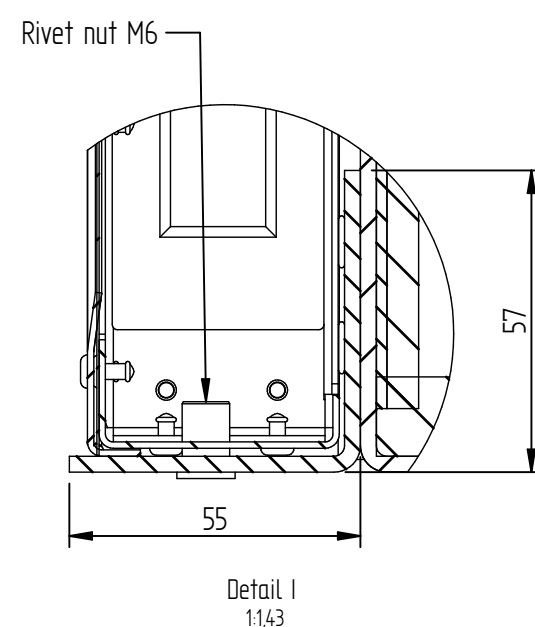
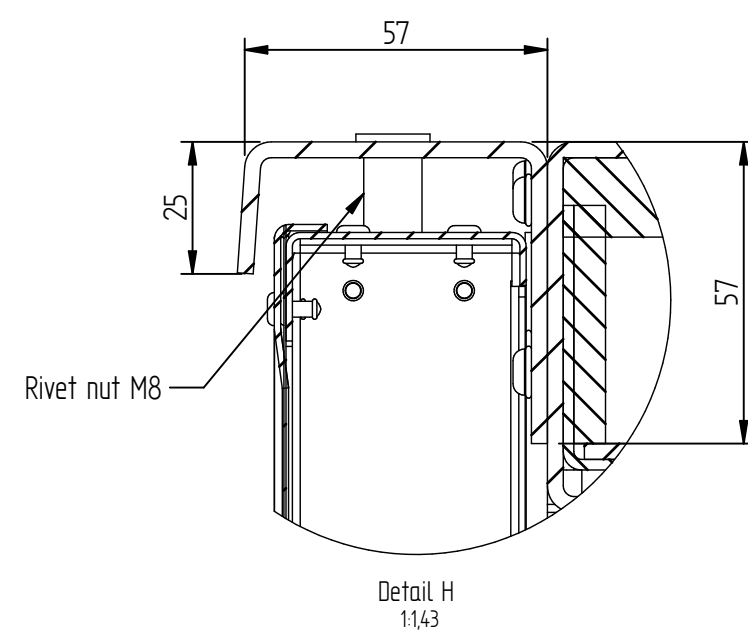
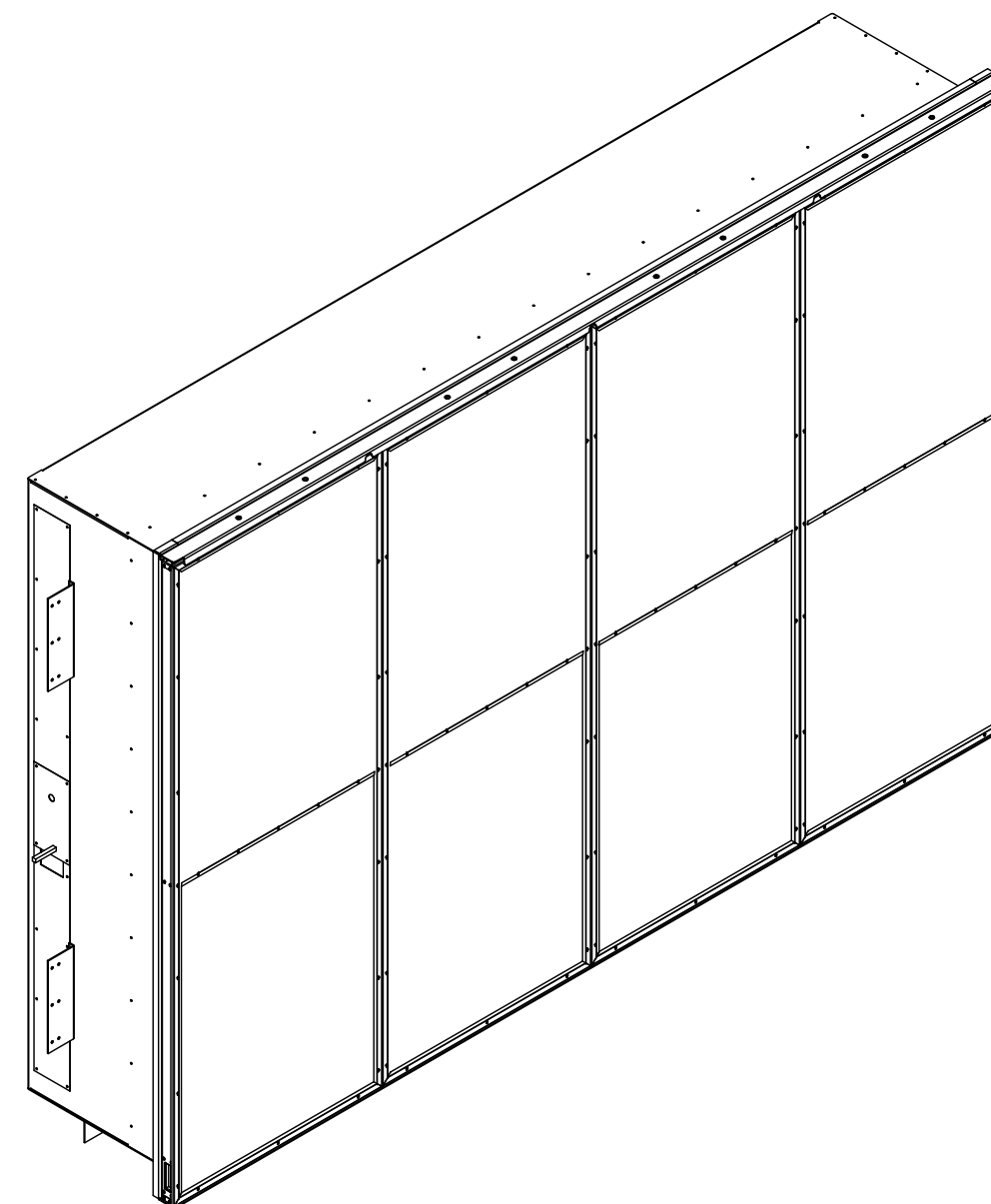
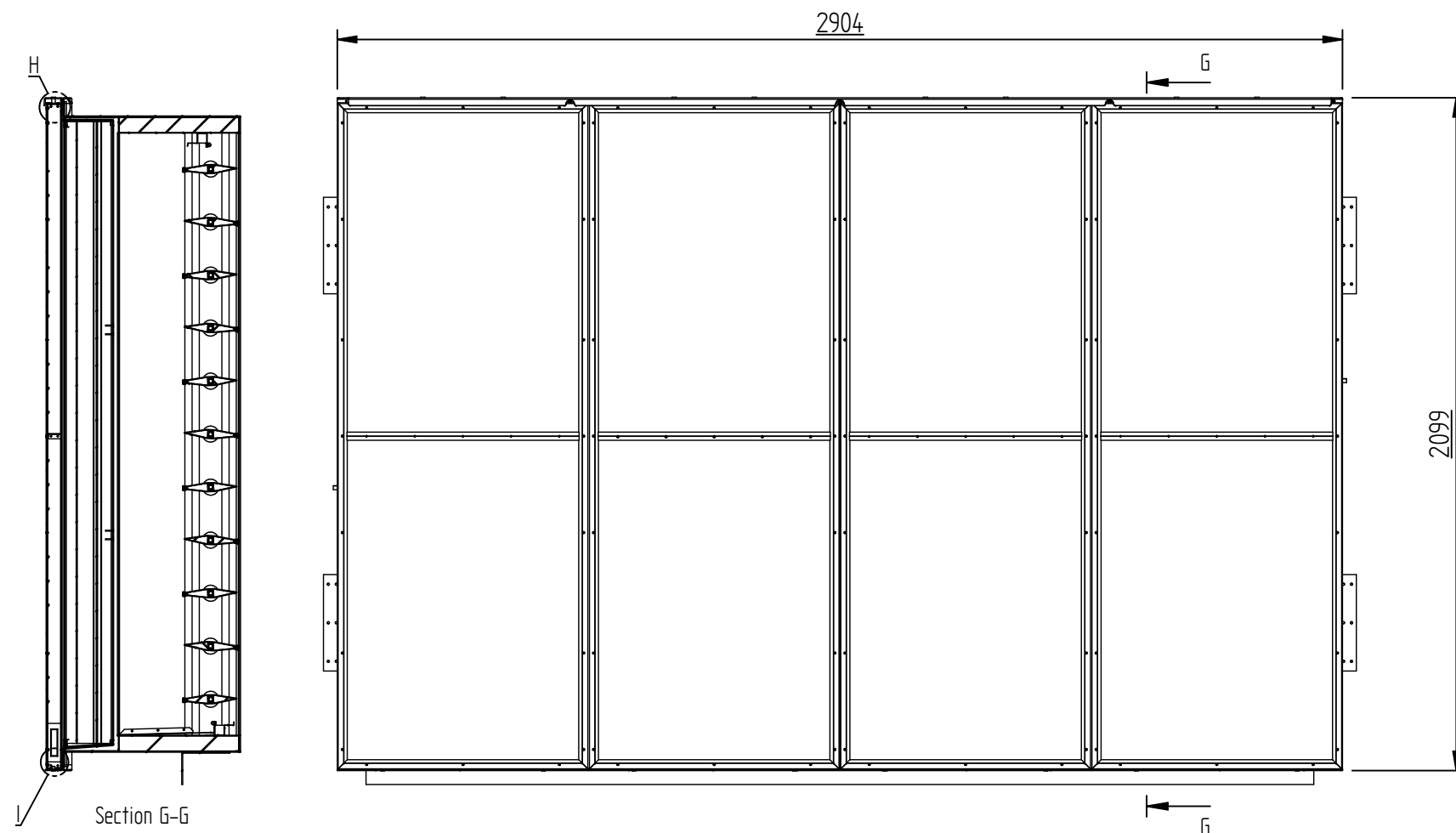
#### ❑ LDM Module Relief 1 Damper Aluminium opposed blade 1312 x 1879mm (w x h) 2no

DL-Microsoft damper rectangular, for pressure and volume flow control in HVAC-Systems, casing made of aluminium, depth **550mm**, double walled, insulation 50mm mineral wool 40kg/m<sup>3</sup>, extended flange with 6mm K-FLEX, inside sealed with special foam and sliding foil, one sided stainless steel connecting rod, coupled in opposed direction, SELFOIL® self-lubricating sintered bearing, lamellas made of special aluminium profiles, insulated with polyurethane, horizontally arrange, one side rubber lip seal, lamella height 165mm, console for actuator, 150mm deep, drive axle 12x12mm stainless steel, reinforced design, air-tightness class 4 (casing class C) according to DIN EN 1751 and DIN 1946 T4, temperature-resistant from -30°C to +80°C, silicone-free.

#### ❑ LDM Module Weather-Resistant Louver for LDM Module Relief 1 Damper

LDM Weather-Resistant Louver made of aluminium, rectangular for air supply or exhaust applications, mounting in HVAC-systems, special frame. Aerodynamic, rain repelling vertically mounted blades.

|                    |  |                  |  |           |  |
|--------------------|--|------------------|--|-----------|--|
| Accepted by Q-nis  |  |                  |  |           |  |
| Company:           |  |                  |  |           |  |
| Name:              |  |                  |  |           |  |
| Date:              |  |                  |  |           |  |
| Accepted by Client |  |                  |  |           |  |
| Company:           |  |                  |  |           |  |
| Name:              |  |                  |  |           |  |
| Date:              |  |                  |  |           |  |
| Material:          |  | Thickness:       |  | Weight:   |  |
| Aluminum           |  | 30mm             |  | 233 kg    |  |
| Drawn:             |  | Date:            |  | Quantity: |  |
| Hubert Sieg        |  | 13-02-2025       |  | 233 kg    |  |
| Project:           |  | Customer:        |  | Scale:    |  |
| CWL 01             |  | Q-nis            |  | 1:20      |  |
| Order:             |  | Name:            |  | Rev:      |  |
| -                  |  | CWL01 - RELIEF 1 |  | 1         |  |
| Size:              |  | A3               |  |           |  |



❑ LDM Module stainless steel insect mesh system

|                                                                                                                        |  |                  |          |           |        |
|------------------------------------------------------------------------------------------------------------------------|--|------------------|----------|-----------|--------|
| Accepted by Q-nis                                                                                                      |  |                  |          |           |        |
| Company:                                                                                                               |  |                  |          |           |        |
| Name:                                                                                                                  |  |                  |          |           |        |
| Date:                                                                                                                  |  |                  |          |           |        |
| Accepted by Client                                                                                                     |  |                  |          |           |        |
| Company:                                                                                                               |  |                  |          |           |        |
| Name:                                                                                                                  |  |                  |          |           |        |
| Date:                                                                                                                  |  |                  |          |           |        |
| Material:                                                                                                              |  | Thickness:       | Weight:  | Quantity: | Scale: |
| Aluminum                                                                                                               |  | 30mm             | 233 kg   | pieces(s) | 12     |
| Drawn:                                                                                                                 |  | Date:            | Project: | Customer: |        |
| Hubert Sieg                                                                                                            |  | 13-02-2025       | CWL 01   | Q-nis     |        |
|  dl.lufttechnik<br>airengineering |  | Order:           |          | Customer: |        |
|                                                                                                                        |  | -                |          | Q-nis     |        |
| Name:                                                                                                                  |  | CWL01 - RELIEF 1 |          |           | Rev:   |
|                                                                                                                        |  |                  |          |           | 1      |
|                                                                                                                        |  |                  |          |           | Size:  |
|                                                                                                                        |  |                  |          |           | A3     |

## **Microsoft CWL0102**

### **3. COMPLIANCE**

#### **3.1 Extract from specification/schedules referring to relevant sections**

## CWL01 - Design

### Louvre Cassette Unit and Return Damper

**Client** Microsoft

**Date** 6<sup>th</sup> September 2024  
**File Ref** 23\_31\_14 LOUVRE CASSETTE UNIT\_M\_EMEA  
**Revision** D  
**Classification** ☐ Public | ☐ Internal | ☐ Restricted | ☒ Confidential

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3. Storage and handling requirements and recommendations.
4. Installation methods.

- C. Shop Drawings: Submit shop drawings indicating materials, construction, dimensions, accessories, and installation details
- D. Samples: Submit sample of Louvre to show frame, blades, bird screen, gutters, downspouts, vertical supports, sill, accessories, finish, and colour.

## 1.5 QUALITY ASSURANCE

- A. Manufacturer Qualifications:
1. The manufacturer shall have implemented the management of quality objectives, continual improvement, and monitoring of customer satisfaction to assure that customer needs and expectations are met.
  2. Manufacturer shall be International Organization for Standardisation (ISO) 9000 accredited.
- B. Installer Qualifications: The installer shall have minimum three (3) years installing similar products.
- C. Product Qualifications: Louvres to be tested and certified in accordance with BS EN 13030:2001.
- D. Design and Installation Standards
1. DW 144 – Specification for Sheet metal Ductwork
  2. CIBSE Guide B2: Ventilation and Ductwork
  3. Approved Document F – Ventilation

## 1.6 DELIVERY, STORAGE, AND HANDLING

- A. Store products in manufacturer's unopened packaging until ready for installation.
- B. Store materials in a dry area indoors, protected from damage and in accordance with manufacturer's instructions.
- C. Handling: Protect materials and finishes during handling and installation to prevent damage.
- D. Store and dispose of solvent-based materials, and materials used with solvent-based materials, in accordance with requirements of local authorities having jurisdiction.

## 1.7 PROJECT CONDITIONS

- A. Maintain environmental conditions (temperature, humidity, and ventilation) within limits recommended by manufacturer for optimum results. Do not install products under environmental conditions outside manufacturer's absolute limits.

## **Microsoft CWL0102**

### **3.2 Technical compliance Review**

| 23_31_14 LOUVRE CASSETTE UNIT AND RETURN DAMPER _M_EMEA                                                                                                                                                                                                                                                                                                                                                                                                                              |                            |                                                                                                                                                  |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------|
| Rev. C                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                            |                                                                                                                                                  |
| <div> <div>Legend:</div> <div> <div>C - Comply without exceptions</div> <div>D - Comply with deviations</div> <div>E - Exception, do not comply</div> <div>NA - Not Applicable</div> </div> </div>                                                                                                                                                                                                                                                                                   |                            |                                                                                                                                                  |
| Decription                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Compliance                 | Comments                                                                                                                                         |
| <b>PART 1 - GENERAL</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                            |                                                                                                                                                  |
| <b>1.1 SECTION INCLUDES</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                            |                                                                                                                                                  |
| A. A standalone inlet / relief louver-damper cassette unit. Aluminium stationary louver cassette unit with exceptional water rejection properties. Louvres provided with factory insulated dampers with independent actuators. Refer to mechanical details drawing CWL02-M-L-series drawings. The louver assembly and associated ductwork connections shall be designed to ensure any water ingress though the louver is drained away effectively without causing any water pooling. | C                          |                                                                                                                                                  |
| <b>1.2 RELATED SECTIONS</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                            |                                                                                                                                                  |
| A. Full architectural specification                                                                                                                                                                                                                                                                                                                                                                                                                                                  | N/A                        | Note                                                                                                                                             |
| B. Section 25 05 00 Integrated automation control and monitoring                                                                                                                                                                                                                                                                                                                                                                                                                     | N/A                        | Note                                                                                                                                             |
| C. 23 31 13 Sheet Metal Work                                                                                                                                                                                                                                                                                                                                                                                                                                                         | N/A                        | Note                                                                                                                                             |
| D. CWL02-M-L Details Series Drawings                                                                                                                                                                                                                                                                                                                                                                                                                                                 | N/A                        | Note                                                                                                                                             |
| <b>1.3 REFERENCES</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                            |                                                                                                                                                  |
| A. GSB AL 631 – International Quality Regulations For The Coating of Building Components                                                                                                                                                                                                                                                                                                                                                                                             | N/A                        | Note                                                                                                                                             |
| B. QUALICOAT – Quality Label For Liquid and Powder Organic Coatings on Aluminium For Architectural Applications                                                                                                                                                                                                                                                                                                                                                                      | N/A                        | Note                                                                                                                                             |
| C. BS EN 13030 – Performance Testing of Louvres Subjected to Simulated Rain                                                                                                                                                                                                                                                                                                                                                                                                          | N/A                        | Note                                                                                                                                             |
| D. BS EN 1991 Eurocode 1 - Actions on Structures                                                                                                                                                                                                                                                                                                                                                                                                                                     | N/A                        | Note                                                                                                                                             |
| E. BS EN 485-2:2013 – Aluminium and Aluminium Alloys – Sheet, Strip and Plate                                                                                                                                                                                                                                                                                                                                                                                                        | N/A                        | Note                                                                                                                                             |
| F. BS EN 755 – Aluminium and Aluminium Alloys – Extruded Rod/Bar, Tube and Profiles                                                                                                                                                                                                                                                                                                                                                                                                  | N/A                        | Note                                                                                                                                             |
| G. BS EN ISO 11507:2007 – Paints and varnishes. Exposure of Coatings to Artificial Weathering                                                                                                                                                                                                                                                                                                                                                                                        | N/A                        | Note                                                                                                                                             |
| H. ISO 4628 – 6 & 7:2011 – Assessment of Degree of Chalking by Tape Method and Velvet Method                                                                                                                                                                                                                                                                                                                                                                                         | N/A                        | Note                                                                                                                                             |
| I. ISO/CIE 11664-6:2014 – CIEDE2000 Colour-difference Formula                                                                                                                                                                                                                                                                                                                                                                                                                        | N/A                        | Note                                                                                                                                             |
| <b>1.4 SUBMITTALS</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                            |                                                                                                                                                  |
| A. Submit under provisions of Section 01300.                                                                                                                                                                                                                                                                                                                                                                                                                                         | N/A                        | Covered in Equipment Technical submittals CWL01-XKRB-V-02012-0-Relief Damper & Louvres & CWL01-XKRB-CWL01-XKRB-V-02013-0-Intake Damper & Louvres |
| B. Product Data: For each product to be used, including:                                                                                                                                                                                                                                                                                                                                                                                                                             | N/A                        |                                                                                                                                                  |
| 1. Manufacturer's product data including performance data.                                                                                                                                                                                                                                                                                                                                                                                                                           | N/A                        | Covered in Equipment Technical submittals CWL01-XKRB-V-02012-0-Relief Damper & Louvres & CWL01-XKRB-CWL01-XKRB-V-02013-0-Intake Damper & Louvres |
| 2. Preparation instructions and recommendations                                                                                                                                                                                                                                                                                                                                                                                                                                      | N/A                        | Covered in Equipment Technical submittals CWL01-XKRB-V-02012-0-Relief Damper & Louvres & CWL01-XKRB-CWL01-XKRB-V-02013-0-Intake Damper & Louvres |
| 3. Storage and handling requirements and recommendations.                                                                                                                                                                                                                                                                                                                                                                                                                            | N/A                        | Covered in Equipment Technical submittals CWL01-XKRB-V-02012-0-Relief Damper & Louvres & CWL01-XKRB-CWL01-XKRB-V-02013-0-Intake Damper & Louvres |
| 4. Installation methods.                                                                                                                                                                                                                                                                                                                                                                                                                                                             | N/A                        | Covered in Equipment Technical submittals CWL01-XKRB-V-02012-0-Relief Damper & Louvres & CWL01-XKRB-CWL01-XKRB-V-02013-0-Intake Damper & Louvres |
| C. Shop Drawings: Submit shop drawings indicating materials, construction, dimensions, accessories, and installation details                                                                                                                                                                                                                                                                                                                                                         | N/A                        | Drawings will submitted separately                                                                                                               |
| D. Samples: Submit sample of Louvre to show frame, blades, bird screen, gutters, downspouts, vertical supports, sill, accessories, finish, and colour.                                                                                                                                                                                                                                                                                                                               | D - Comply with deviations | This submittals contains information for the louver frame, blades, bird screen, finish and colour only.                                          |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                            |                                                                                                                                                  |

## **Microsoft CWL0102**

### **4. MATERIAL SAMPLE**

#### **4.1 Benchmark Inspection Sheet**

|                                                                                   |                                                                                   |                                                                                     |
|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
|  |  |  |
| <b>Microsoft CWL01 - Project QA Benchmarking</b>                                  |                                                                                   |                                                                                     |

| Benchmark Quality Inspection & Close Out |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Project:</b>                          | Microsoft CWL01                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>Package:</b>                          | Ventilation - Louvres                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <b>Benchmark Reference No:</b>           | BM-M-01                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>Area/Location</b>                     | COLOs 1&2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>Benchmark Title:</b>                  | COLO External Louvres                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <b>Benchmark Inspection Description:</b> | <p>This Mechanical Installation benchmark covers the installation of the following details:</p> <ul style="list-style-type: none"> <li>– The COLO external Louvres will be adjacent to the intake and relief air dampers and align with the external cladding of the building envelope.</li> <li>– The insect mesh screens will be fixed onto the louvres and be removable for maintenance.</li> <li>– Material samples will be made available at the Kirby Microsoft CWL01 site office.</li> <li>– Full benchmark with dampers and louvres will be conducted on site at a later date for comments.</li> </ul> |

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| <b>Comments:</b>                                                                    |                                                                                     |                                                                                       |
|  |  |  |
| <b>Signature:</b>                                                                   | <b>Signature:</b>                                                                   | <b>Signature:</b>                                                                     |
| <b>Name:</b> Sinoxolo Racaza                                                        | <b>Name:</b>                                                                        | <b>Name:</b>                                                                          |

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| <p>Microsoft CWL01 - Project QA Benchmarking</p>                                  |                                                                                   |                                                                                     |

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| <p>Date: 13-Mar-2025</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | <p>Date:</p>                                                                                                                                                                                                                                                                                                                                                                                                                           | <p>Date:</p> |
| <p><b>Description / Scope:</b></p> <p>The Relief Vertical bladed DL weather resistant Louvre:</p> <ul style="list-style-type: none"> <li>- Rear of the louvre will be fixed against the building envelope align with the cladding.</li> <li>- Front of the louvre will be fixed against the building envelope align with the cladding- with the removable insect mesh attached.</li> <li>- The louvres will be coated with a C3 Very High corrosion-resistant and the color finish for both the louvres and their frames will be RAL 9007</li> </ul> | <div data-bbox="639 512 1508 1131">  </div> <p><b>Fig. No.1a: Rear of Relief Damper Louvre (vertically mounted blades)</b></p> <div data-bbox="639 1243 1492 1908">  </div> <p><b>Fig. No.1b: Front of Relief Damper Louvre (vertically mounted blades)</b></p> |              |

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| <p>Microsoft CWL01 - Project QA Benchmarking</p>                                  |                                                                                   |                                                                                     |

**Description / Scope:**

The Intake horizontal bladed DL weather resistant Louvre:

The rear of the Intake horizontal-bladed DL weather-resistant louvre will be securely fixed against the building envelope, aligned with the cladding for a seamless integration

- The front of the Intake horizontal-bladed DL weather-resistant louvre will be securely fixed against the building envelope, aligned with the cladding. A removable insect mesh will be attached to the louvre for easy maintenance and cleaning

- The louvres will be coated with a C3 Very High corrosion-resistant and the color finish for both the louvres and their frames will be RAL 9007



**Fig. No.2a: Rear of Intake 1& 2 damper Louvre (horizontally mounted blades)**



**Fig. No.2b: Front of Intake 1& 2 damper Louvre (horizontally mounted blades)**

## Microsoft CWL0102

### 4.2 Product photo

#### 4.2.1 Intake Louvres (Horizontal Mounted blades)