

# MCP SmartFilter Ex

Patronfilter til både indendørs og udendørs applikationer. Filteret er velegnet til udsugning af røg, dampe, støv herunder også brændbart støv. Filteret kan anvendes i mange forskellige industrier.



## MCP SmartFilter Ex

- ✓ Opnå kontrol over filtreringsydelse med "Insight Analytics", Nederman's unikke overvågningsteknologi.
- ✓ Optimeret fodaftryk gennem innovativ patrondesign med høj luftgennemstrømning.
- ✓ Reduceret TCO ved hjælp af intelligent rensesystem. Lang levetid for filterpatroner og optimeret fodaftryk.
- ✓ Fremtidssikret system, som er IoT forberedt - "Insight Ready".
- ✓ Kontrolboks, HMI og Gateway samlet i en enhed med Insight Control Panelet.

MCP SmartFilter er et multifunktions-filtreringssystem. Det kan tilpasses, så det passer perfekt til kundespecifikke krav med en luftstrøm på op til 28.000 m<sup>3</sup>/time. Velegnet til røg, dampe og alle typer tørt støv og kan bruges i flere forskellige applikationer såsom svejsning, metalskæring og generelt støv. Det modulære design giver mulighed for fritstående løsninger såvel som sammenbygning af filtre til udvidede krav. Det nye og innovative patrondesign udnytter den rådige plads inden i filteret på den mest optimale måde og genererer høj luftgennemstrømning. Dermed reduceres filterets størrelse og dets fodaftryk. Filteret er konstrueret i 2 mm galvaniseret stålplade, er let at montere, omkostningseffektivt ved forsendelse samt korrosionsbeskyttet. Filteret har lang levetid, hvilket betyder "low cost of ownership". Styring, som er IoT forberedt, med avanceret rensesystem giver optimal systemdrift inklusiv overvågning og kontrol af filteranlægget. Gateway-funktionalitet til "Cloud" kommunikation. Fuld overensstemmelse med globale direktiver, isæt vigtigt for applikation til brændbart støv (ATEX). MCP SmartFilter har et stort tilbehørsprogram såsom ventilatorer, indløb, affaldsspande, spjæld osv. Filterpatronerne fås i forskellige materialer afhængig af applikationen.

## MCP SmartFilter Ex

|                                               |                                                                      |
|-----------------------------------------------|----------------------------------------------------------------------|
| Cerifikat                                     | EX                                                                   |
| Filter udskilningsgrad (%)                    | 99,9                                                                 |
| Tryklufatsforbrug                             | 60 liter per rensespuls ved 6,0 bar trykluft                         |
| Installation                                  | Indendørs, Udendørs                                                  |
| Materiale                                     | 2 mm galvaniseret stålplade                                          |
| Egnet til eksplosivt støv                     | True                                                                 |
| Metode for filterrensning                     | Puls Jet                                                             |
| Applikation                                   | Røg, Støv                                                            |
| Arbejdstryk (kPa)                             | Vakuüm max. 6 kPa. Overtryk max. 0 Pa. (1,5 kPa for silotop løsning) |
| Volumen affaldsbeholder (l)                   | 50 eller 100 liter spand                                             |
| Filterareal (m <sup>2</sup> )                 | Polyester: 30 til 192 m <sup>2</sup>                                 |
| Kapacitet (max luftvolumen m <sup>3</sup> /h) | 4500 til 28000                                                       |
| Driftstemperatur                              | -20 til +70 Deg. C                                                   |

## Modeller

|                                                                                     | Item number                  | Type af filter | Antal filter | Filtermateriale         |
|-------------------------------------------------------------------------------------|------------------------------|----------------|--------------|-------------------------|
|    | MCP-2-BS-Ex <sup>[1]</sup>   | Filterpatron   | 8            | Afhængig af applikation |
|    | MCP-4-16S-Ex <sup>[1]</sup>  | Filterpatron   | 16           | Afhængig af applikation |
|    | MCP-6-24S-Ex <sup>[1]</sup>  | Filterpatron   | 24           | Afhængig af applikation |
|    | MCP-8-32S-Ex <sup>[1]</sup>  | Filterpatron   | 32           | Afhængig af applikation |
|    | MCP-2-BSL-Ex <sup>[1]</sup>  | Filterpatron   | 8            | Afhængig af applikation |
|  | MCP-4-16SL-Ex <sup>[1]</sup> | Filterpatron   | 16           | Afhængig af applikation |
|  | MCP-6-24SL-Ex <sup>[1]</sup> | Filterpatron   | 24           | Afhængig af applikation |
|  | MCP-8-32SL-Ex <sup>[1]</sup> | Filterpatron   | 32           | Afhængig af applikation |

<sup>[1]</sup> Konfigureret produkt

# Product Marking of MCP SmartFilter Ex

C E  II 1D/3D/- c Ex h IIC 120°C Da/Dc/-

Product marking of MCP SmartFilter Ex

| Pred,max | KST                                                                                                                       | Zone Placement        |
|----------|---------------------------------------------------------------------------------------------------------------------------|-----------------------|
| 0,3 bar  | St1 (0 to 200 bar m s <sup>-1</sup> )<br>St2 (> 200 to 300 bar m s <sup>-1</sup> )<br>St3 (> 300 bar m s <sup>-1</sup> )* | None-zone<br>Zone 22* |

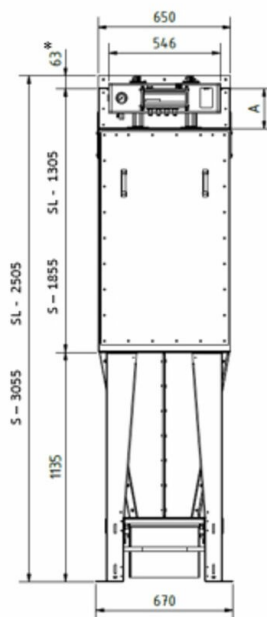
\*Not available as standard, available by request

MCP SmartFilter Ex specifications

## Cartridge material

- SC100 – Spunbond polyester
- SC140 – Spunbond polyester with antistatic treatment
- SC141 – Spunbond polyester with antistatic treatment and PTFE coating
- SC150 – Spunbond polyester with ePTFE membrane
- SC151 – Spunbond polyester with antistatic treatment and ePTFE membrane
- SC178/SC179 – 80% cellulose, 20% polyester material with nanofiber
- SC190 – Spunbond polyester with PTFE coating

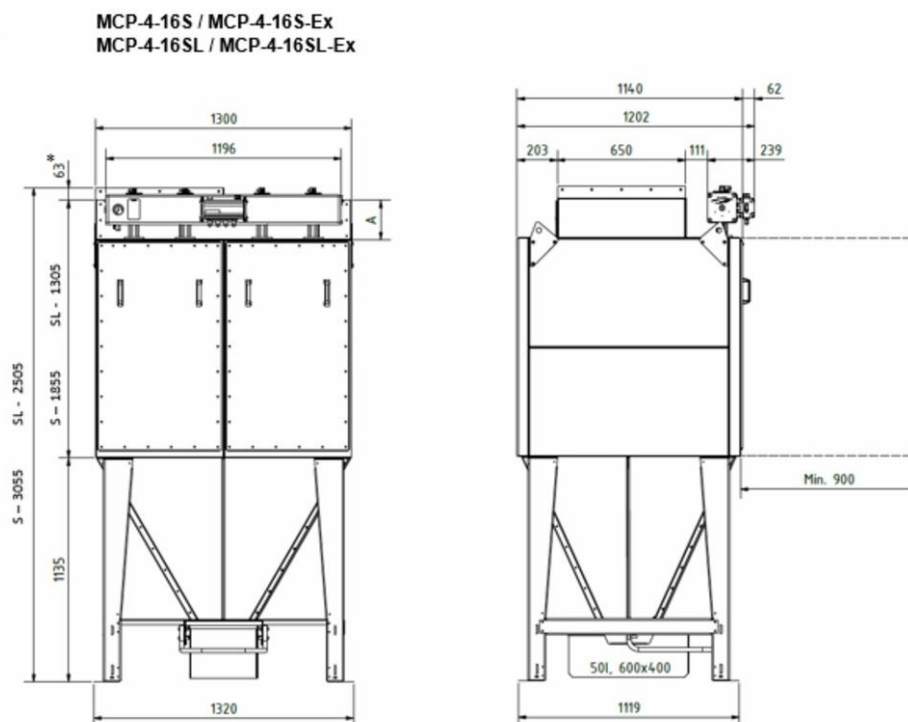
MCP-2-8S / MCP-2-8S-Ex  
MCP-2-8SL / MCP-2-8SL-Ex



All dimensions in mm. If 50 liter bin with wheels 90 mm must be added to the height. \* to be included only if a top mounted FM fan is used (transition for fan).

## A – Height of Clean Air Chamber (mm)

| 200               | 350                  | 500                  | 650                  |
|-------------------|----------------------|----------------------|----------------------|
| Shown in drawings | Add 150 mm in height | Add 300 mm in height | Add 450 mm in height |



All dimensions in mm. If 50 liter bin with wheels 90 mm must be added to the height. \* to be included only if a top mounted FM fan is used (transition for fan).

Technical drawing of a metal structure, likely a bridge or industrial platform, showing dimensions in millimeters (mm). The drawing includes a side elevation and a top view.

**Dimensions:**

- Overall width: 2600 mm
- Overall length: 2321 mm
- Overall height: 1305 mm
- Height of the upper section: 63 mm
- Height of the lower section: 1135 mm
- Height of the middle section: 1855 mm
- Height of the bottom section: 3055 mm
- Height of the base: 2620 mm

The structure features a central vertical support and two diagonal bracing elements on each side. The top section is a horizontal beam with a central joint. The bottom section is a base with two large, rectangular supports.

Technical drawing of the front view of a container chassis. The drawing shows a rectangular frame with a central vertical support and diagonal bracing. Dimensions are provided in millimeters: overall width 1950, overall height 2505, top section width 1846, top section height 63, middle section height 1305, bottom section height 1135, and overall length 1970. A small 'A' is marked on the right side.

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## Filter area

| Filter type                 | Quantity of cartridges | Filter area (m²)                         |       |       | Max. airflow (m³/h)* |
|-----------------------------|------------------------|------------------------------------------|-------|-------|----------------------|
|                             |                        | SC100, SC140, SC141, SC150, SC151, SC190 | SC178 | SC179 |                      |
| MCP-2-8S<br>MCP-2-8S-Ex     | 8                      | 48,0                                     | 105,6 | 52,0  | 7000                 |
| MCP-4-16S<br>MCP-4-16S-Ex   | 16                     | 96,0                                     | 211,2 | 104,0 | 14000                |
| MCP-6-24S<br>MCP-6-24S-Ex   | 24                     | 144,0                                    | 316,8 | 156,0 | 21000                |
| MCP-8-32S<br>MCP-8-32S-Ex   | 32                     | 192,0                                    | 422,4 | 208,0 | 28000                |
| MCP-2-8SL<br>MCP-2-8SL-Ex   | 8                      | 30,4                                     | 67,2  | 32,8  | 4500                 |
| MCP-4-16SL<br>MCP-4-16SL-Ex | 16                     | 60,8                                     | 134,4 | 65,6  | 9000                 |
| MCP-6-24SL<br>MCP-6-24SL-Ex | 24                     | 91,2                                     | 201,6 | 98,4  | 13500                |
| MCP-8-32SL<br>MCP-8-32SL-Ex | 32                     | 121,6                                    | 268,8 | 131,2 | 18000                |

\*Max. air flow is dependent on the dust type, etc.

## Accessories

| Figure | Description                                                                                                                                                                          | Figure | Description                                                                                                       |
|--------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|-------------------------------------------------------------------------------------------------------------------|
|        | Top mounted FM-fans 50 Hz or 60 Hz up to 14000 m³/h                                                                                                                                  |        | Leg height extensions from 0 mm to 2000 mm to fit larger bins/containers, rotary valves and big bags              |
|        | Combifab remote fans 50 Hz or 60 Hz                                                                                                                                                  |        | Leg width extension 300 mm to left, right or both sides to fit larger bins/containers, rotary valves and big bags |
|        | Noise enclosure to reduce fan and motor break-out-noise of FM-fans                                                                                                                   |        | Suspension below rotary valve for big bag                                                                         |
|        | Dual silencer to reduce air flow, fan noise and motor break-out-noise of FM-fans (available with grid (indoor use), grid and rain cover (outdoor use) or flange for duct connection) |        | Isolation box for pressure tank incl. cleaning valves                                                             |
|        | Regulation (iris) damper at fan inlet for FM-fans                                                                                                                                    |        | Access platform with ladder for maintenance                                                                       |
|        | Dust bins (50 l, 50 l with wheels and 100 l with wheels)                                                                                                                             |        | Lime feeder NFKG-70                                                                                               |
|        | Plastic bag in the dust bin with pressure compensation set 'bin balancing'                                                                                                           |        | Several sensors available for extraction, filtration and discharge process                                        |
|        | Rotary valves NRS3 and NRSZ3                                                                                                                                                         |        | Water separator and pressure regulator                                                                            |
|        | Dust discharge valve NFUS3                                                                                                                                                           |        | QF-duct system                                                                                                    |