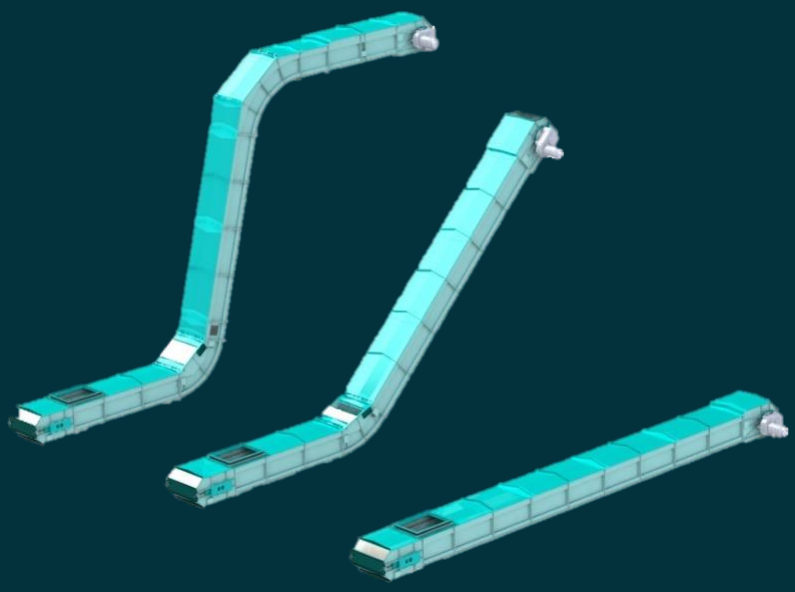
# MoveMaster C-AF

- Dust tight construction
- Explosion and fire protection systems easy to integrate
- Multiple outlets using slide gates
- Smart tensioning system, control and protection
- Easy fit slidegate
- Easy to connect to other AF equipment (eg. EcoDock, MultiDock, MultiFlex, ...)
- Easy to install and maintain
- High feed rate up to 570 m3/hr



## Application

The MoveMaster C-AF chain conveyor is used for conveying and elevating of all kinds bulk solid secondary fuels used mainly as a fuel for heating of cement or lime producing kilns as well as boilers at power plants or combined heat and power plants. The material processed include all kinds of alternative fuels typically:

RDF

- shredded plastics
- textile, paper
- rubber (tire chips)

Biomass

- wood (chips, pellets)
- straw
- agricultural waste

Sludge and granulates

- WWTP sludge
- coal sludge
- animal meal

Any mixtures of above listed

## Equipment

The MoveMaster C-AF is designed for continual conveying and elevating of bulk solids mainly from the docking station to the other machines in technology.

The heart of the machine is the use of forged, machined and case hardened high strength chains, driven by hardened sprockets and leading by trailing wheels.

Two strands of chain are used with plastic cross flights with sheet extension to convey the material. The casing is bent steel plates with chain runners

The material to be conveyed is fed to the machine inlet at the controlled rate. The flights on the chains then scrape the material to the outlet where it discharges.

## Functions and key benefits

- Inclination of conveyor from 0° up to 75°
- Optimal speed of the chain for competitive wear options
- All main components from reputable manufacturers
- Flanged or torque arm mounted drives
- Single or multiple outlets
- Conveyed material is protected against weather spillage free conveyor
- Width of conveyor from 650 up to 1550 mm

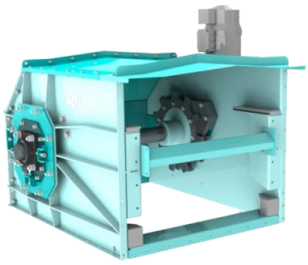
ATEX compliant design

## Configurations

The selection of equipment specification, machine sizing and materials of construction is optimized for the materials and process conditions.

| | |
|---|---|
| **Layout, trajectory of conveying** | • Minimum length of conveyor is 5 m<br>• Maximum length of conveyor 40 m<br>• Trajectory could be straight, L-type and Z-type |
| **Side or top filling method of conveying** | • Examples:<br>• Side inlet of material: screw or spiral conveyors including EcoDock<br>• Top inlet of material: other equipment including MultiDock |
| **Material properties** | • Bulk density 0.01 – 0.70 t/m3<br>• Moisture max. 40%<br>• Grain size 1D,2D,3D max. 150 mm<br>• Material temperature max. 50 °C |
| **Chain runners** | • Wear resistant steel 10mm |
| **High strength chain** | • Redler® link 3002 - tensile strength 300 kN<br>• Redler® link 3003 - tensile strength 450 kN |
| **Flight sizing** | • Plastic flights with steel extension with low height 140 mm<br>o For conveyors using en-masse principle, for conveyor with side inlet (e.g. EcoDock docking station) eventually very low feed rates<br>• Plastic flights with steel extension with height 230 mm<br>o For conveyors with incline higher than 20° |
| **ATEX** | • Sensor of temperature of trailing wheel bearings<br>• ATEX gear drives, sensors, pneuvalves, etc. |

## MoveMaster C-AF design features

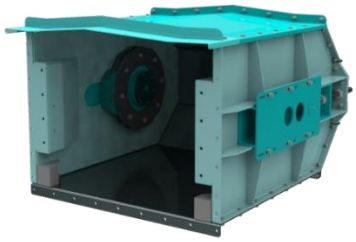


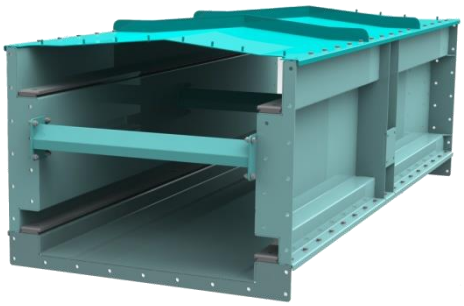
**Drive end**

- Sprockets teeth made of wear resistant material
- Shaft sealing and hermetic separating material from surrounding
- Wear resistant cleaners of sprockets
- Easy access to change wear parts and cleaners of sprockets

**Tension end**

- Smart shaft-less construction of trailing wheels
- Prevent wrapping of stripes on the shaft
- Independent tension of the chain branches
- Prevents over tensioning of one chain strand



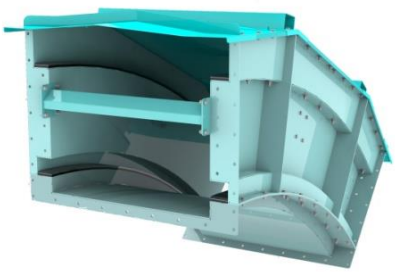


**Straight casing**

- Standard length 0.5 m, 1 m and 2.5 m
- Various material, thickness of bottom plate:
  - Mild steel 6 or 8 mm
  - Wear resistant steel 6 or 8 mm
  - Stainless steel 6 mm
- Plastic or wear resistant steel runners
- Removable top cover designed for any weather
- Side/top material entrance or bottom discharge

**Lower bend**

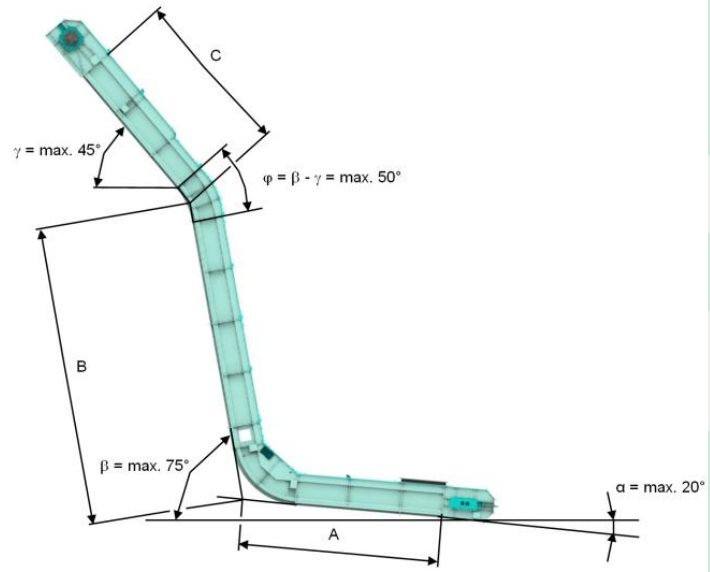
- Inclination from 20° to 75° is possible
- Patented system of tensioning
- Tension paddles shows strength of limits (over-tension and under-tension) of tens and make the right size of stretching force
- Limit switch monitoring the position of paddles



**Upper bend**

- Inclination from 15° to 50°
- Chain runners from wear resistant steel
- Upper bend is used for Z-type conveyor

## Technical data




**Material inlet inclination α**
Maximal inlet inclination is 20°. Higher inlet inclinations are possible for some materials

**Central section incline β**
Maximal incline of the central section is 75°

**Material outlet incline γ**
Maximal material outlet angle is 45°

**Upper bend angle φ = β - γ**
The maximum angle of the upper bend is 50°

**Conveyor overall length L = A + B + C**
Maximal overall length of the conveyor is 40 m

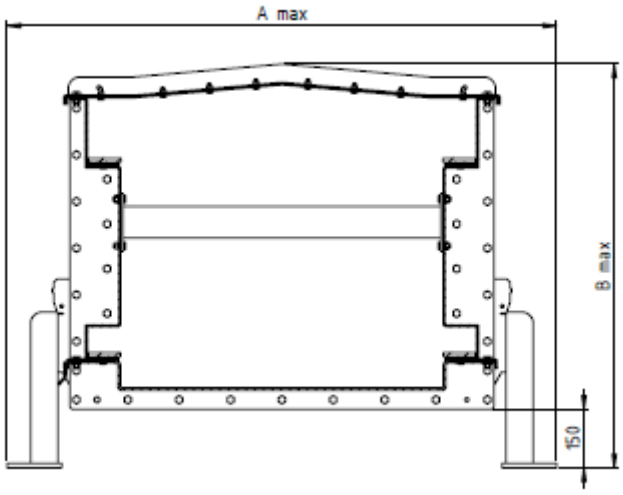
## Maximum feedrate

| Conveyor nominal width | 650 | 800 | 1000 | 1250 | 1550 |
|---|---|---|---|---|---|
| Feedrate [m³/h] | 150 | 200 | 270 | 350 | 570 |

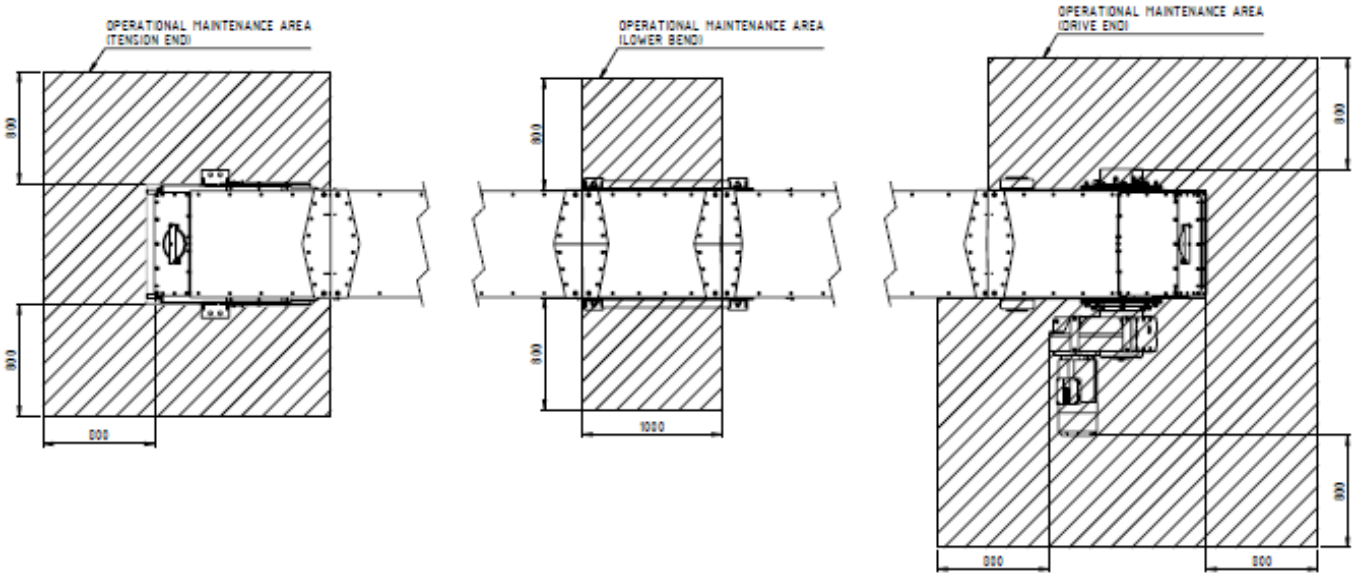
| | |
|---|---|
| **Operating conditions** | (-20 to 40) °C ambient |
| **Control** | From clients control system |
| **Main drive motor** | Size according to application |
| **Standard ability** | (3 - 44) kW |
| **Utility requirements** | 3 phase (380-500) V, 50 Hz supply main drive<br>24VDC, 50 Hz for sensors |
| **Enquiry / Order Data** | In order to process your enquiry please provide the following information:<br>• Material specification including: name, bulk density range, moisture, abrasivity, other specifications info<br>• Details of the inlet and outlet requirements<br>• Layout dimensions of the individual machine(s) by fig. on top of page<br>• Power supply details<br>• Any special requirements (e. g. ATEX zone)<br>*) Depend on maximal inclination of conveyor, material repose properties and size of flight |

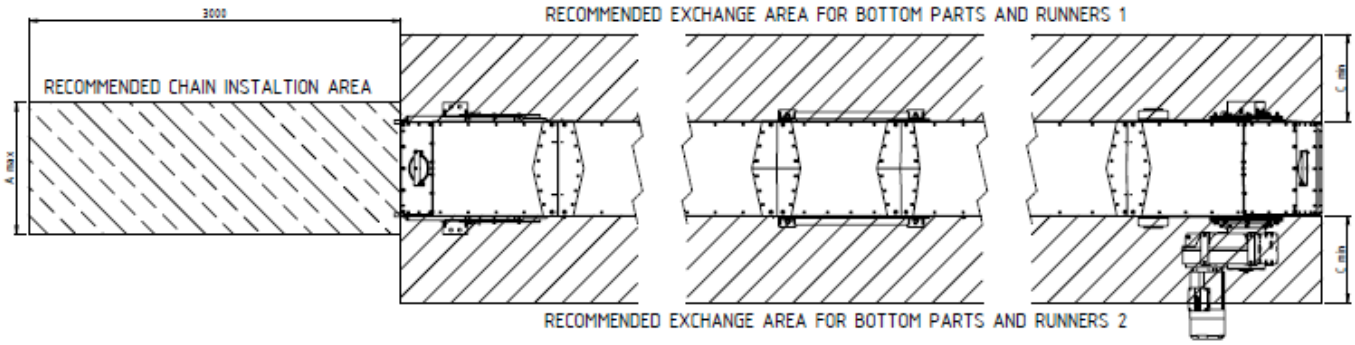
General dimensions

| Conveyor nominal width | 650 | 800 | 1000 | 1250 | 1550 |
|---|---|---|---|---|---|
| A max [mm] | 1062 | 1212 | 1412 | 1662 | 1962 |
| B max [mm] | 1060 | 1070 | 1115 | 1125 | 1130 |
| C min [mm] | 1100 | 1250 | 1450 | 1700 | 2000 |



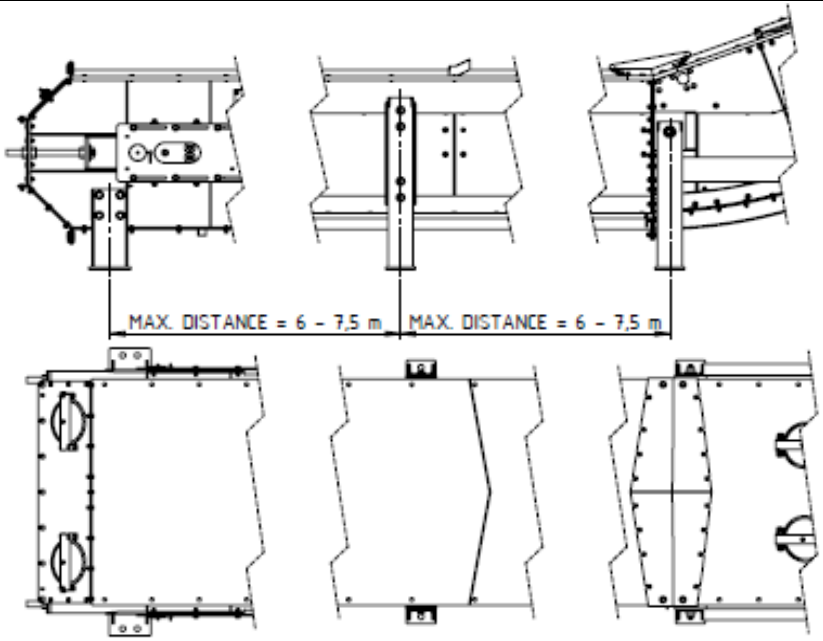

MoveMaster C-AF -Space requirements






Approximate weight per one meter for heaviest configuration with material bulk density 800kg/m³ (weight of gear-drive unit not included)

| **Conveyor nominal width** | 650 | 800 | 1000 | 1250 | 1550 |
|---|---|---|---|---|---|
| **Weight per one meter of chain conveyor length [kg/m]** | 510 | 600 | 710 | 860 | 1030 |

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