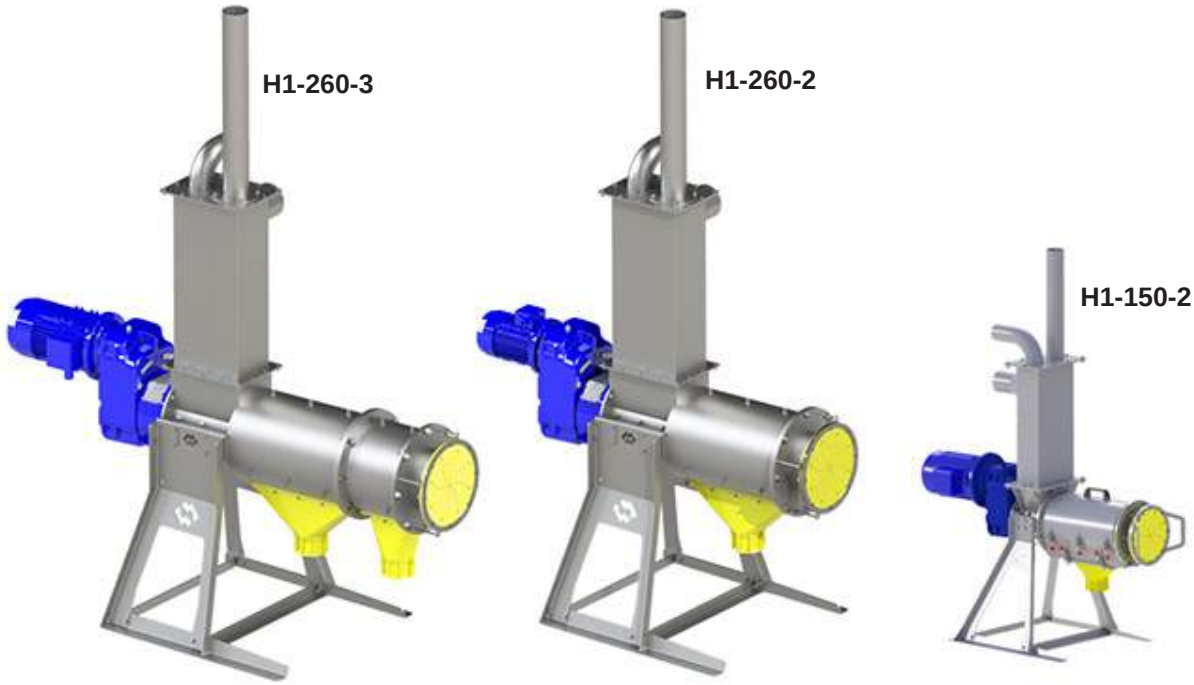
EN

# SEPCOM®
# Horizontal

*SEPINDH, SEPCOWH, SEPBIOH, SEPPAPH, SEPOILH - SOLID-LIQUID SEPARATOR*

1

# TECHNICAL CATALOGUE





**Manual No. SEP.SEPCOM_Horizontal.--.T.A.0422.EN**
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**ORIGINAL INSTRUCTIONS IN ENGLISH**



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WAMGROUP

SEPCOM

All the products described in this catalogue are manufactured according to **WAMGROUP S.p.A. Quality System procedures**. The Company's Quality System, certified in July 1994 according to International Standards **UNI EN ISO 9002** and extended to the latest release of **UNI EN ISO 9001**, ensures that the entire production process, starting from the processing of the order to the technical service after delivery, is carried out in a controlled manner that guarantees the quality standard of the product.

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## 1.1 General description of equipment

The separator **SEPCOM® Horizontal** consists of a feeding section provided with compensator tank and overflow hopper; the stainless steel casing includes a screw conveyor (inside a cylindrical screen basket) that transports the material towards the outlet of the separator and separates though the solids from the liquid phase, which flows through the screen while the solid fraction is pushed towards the outlet on which it is are installed a counter-pressure diaphragm for the material plug to get formed; this allows the automatic operation of the separator and avoids the flowing out of the liquid phase contained by the material handled.

The drive unit consists of an electric motor and a splined gear reducer fitted on the screw shaft.

The separator **SEPCOM® Horizontal** has to be installed within a plant that provides for the proper supply and that envisages a liquid and solids separated collecting system all managed by means of an electric control board and specific controlling devices.

**IMPORTANT NOTE:**

It is recommended the installation of an hours counter in the control panel that allows the counting of the operation hours of each separator component.

This aspect is very important especially as regards possible wear problems.

**Importante**

**The terms “equipment”, “separator ” used in this manual refer to the same machine.**
**As components meant for installation in a plant, the separators- not fully provided with safety means - have to be considered “partly completed machinery”. Therefore, they do not bear an EC marking.**
**It is forbidden to start the equipment unless the machine/plant in which it is to be installed has been declared compliant with the Directive 2006/42/EC and further modifications.**

## 1.2 Permitted use and environmental operating limits

The separator **SEPCOM® Horizontal** has to be used for the separation of liquid manure, digested matter from biogas plants, or similar material according to the indications provided by the manufacturer on condition that the material can be pumped into the compensator tank with a suitable chopper pump and on condition that the solid content does not exceed 12%.

The separator is to be used in the absence of overpressure or negative pressure.

**Every other use must be considered improper, therefore not permitted.**

Given that fact that **SEPCOM® Horizontal** is to be installed in a plant, the working of the equipment and its performances are also strictly linked to the entire plant condition and layout, it is therefore very important to follow all the recommendations listed at page 3. (Plants layout).

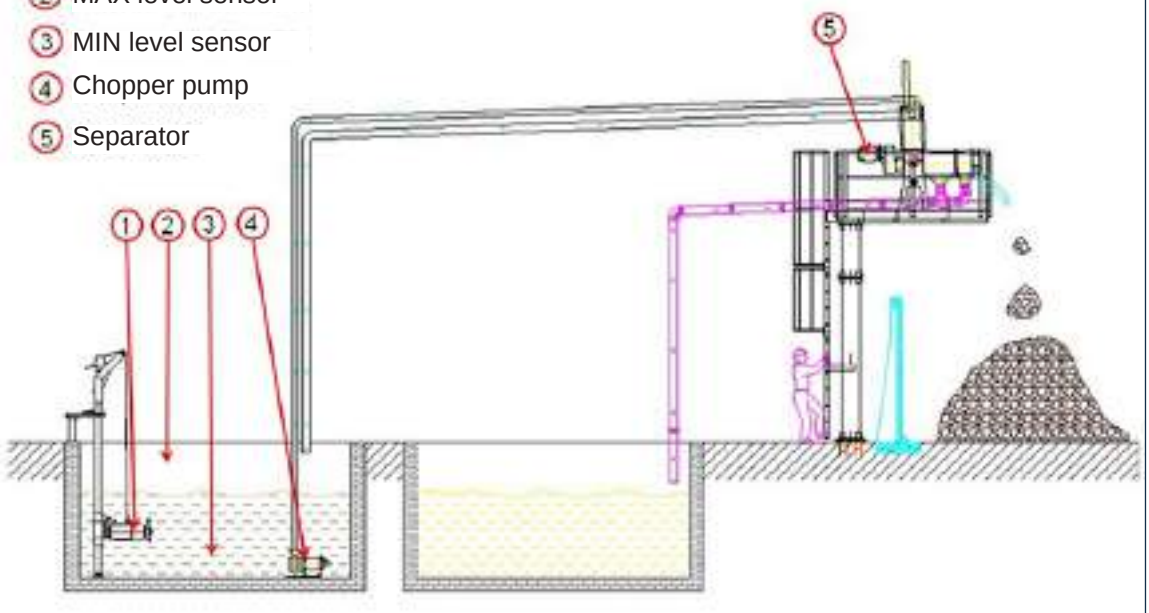
Unless otherwise specified, the equipment concerned can be used only within the indicated limits.

- Altitude: less than 1,000 m at sea level
- Ambient temperature: between 0 and + 40 °C.
- Cold environment: with temperatures below - 5 °C use only oil and lubricants suitable to the operating temperature.

## 2.1 Configurations available

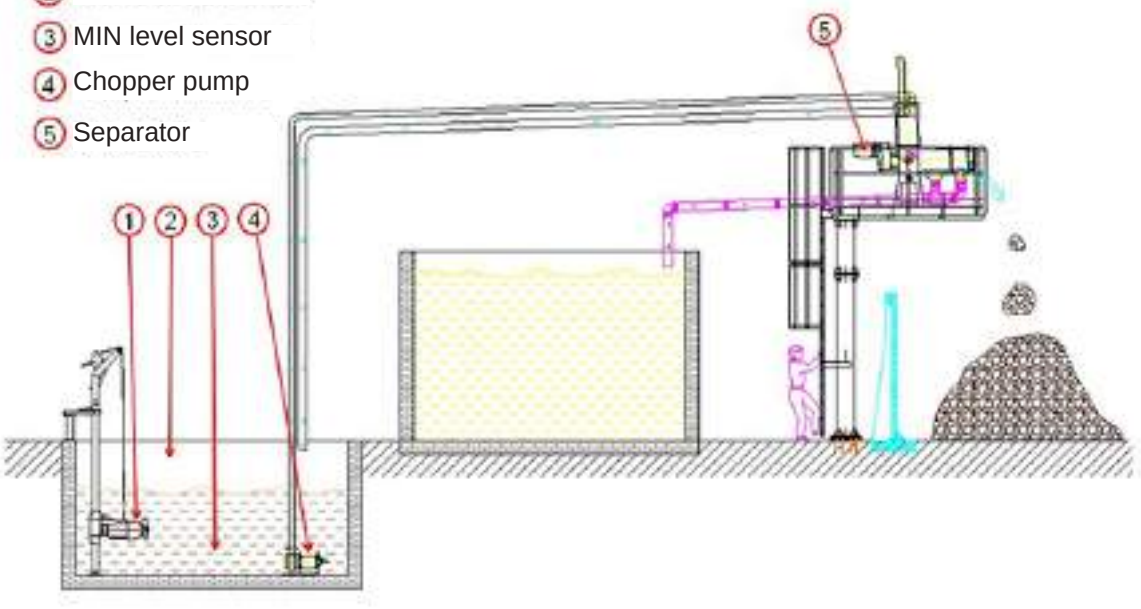
Plant with tower structure
and grounded separated liquid tank

1. Agitator
2. MAX level sensor
3. MIN level sensor
4. Chopper pump
5. Separator



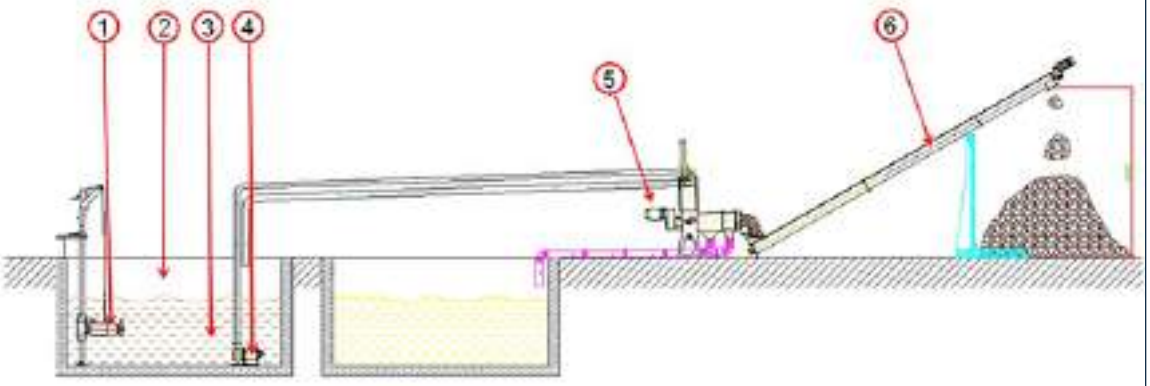

Plant with tower structure
and on the ground separated liquid tank

1. Agitator
2. MAX level sensor
3. MIN level sensor
4. Chopper pump
5. Separator



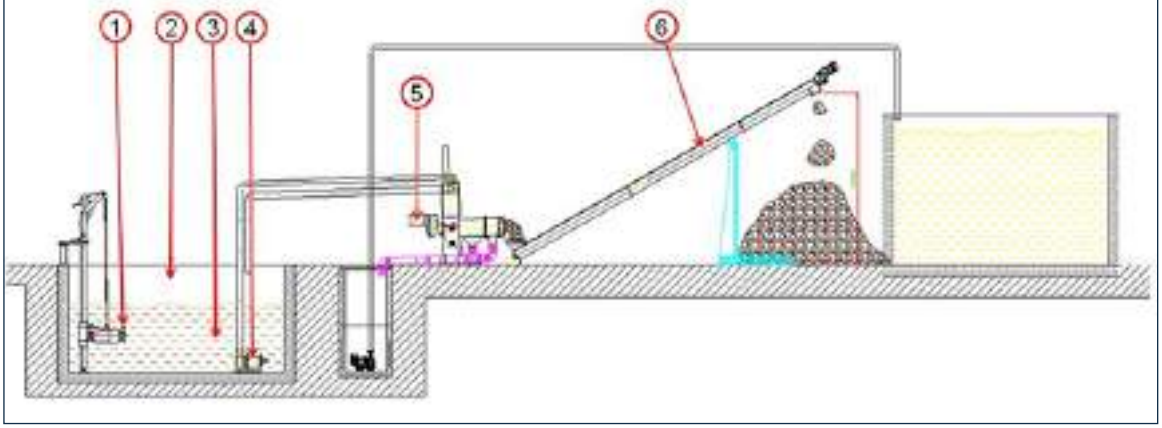
## Ground plant with screw conveyor and grounded separated liquid tank

1. Agitator
2. MAX level sensor
3. MIN level sensor
4. Chopper pump
5. Separator
6. Screw

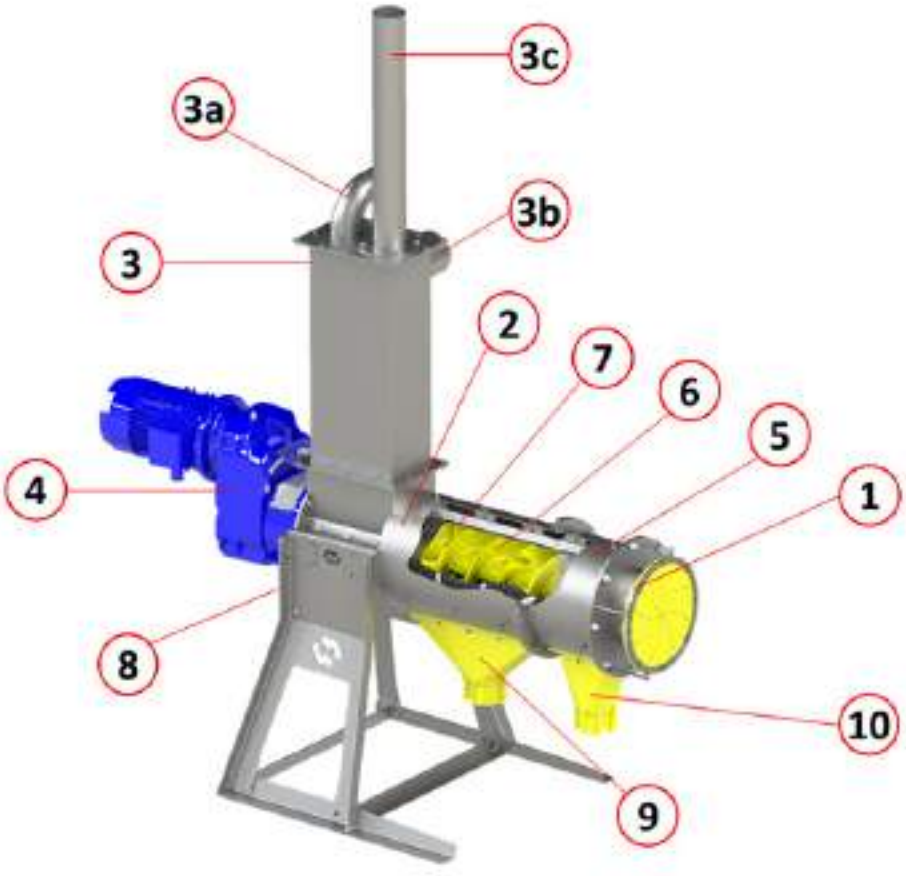



## Ground plant with screw conveyor and on the ground separated liquid tank

1. Agitator
2. MAX level sensor
3. MIN level sensor
4. Chopper pump
5. Separator
6. Screw



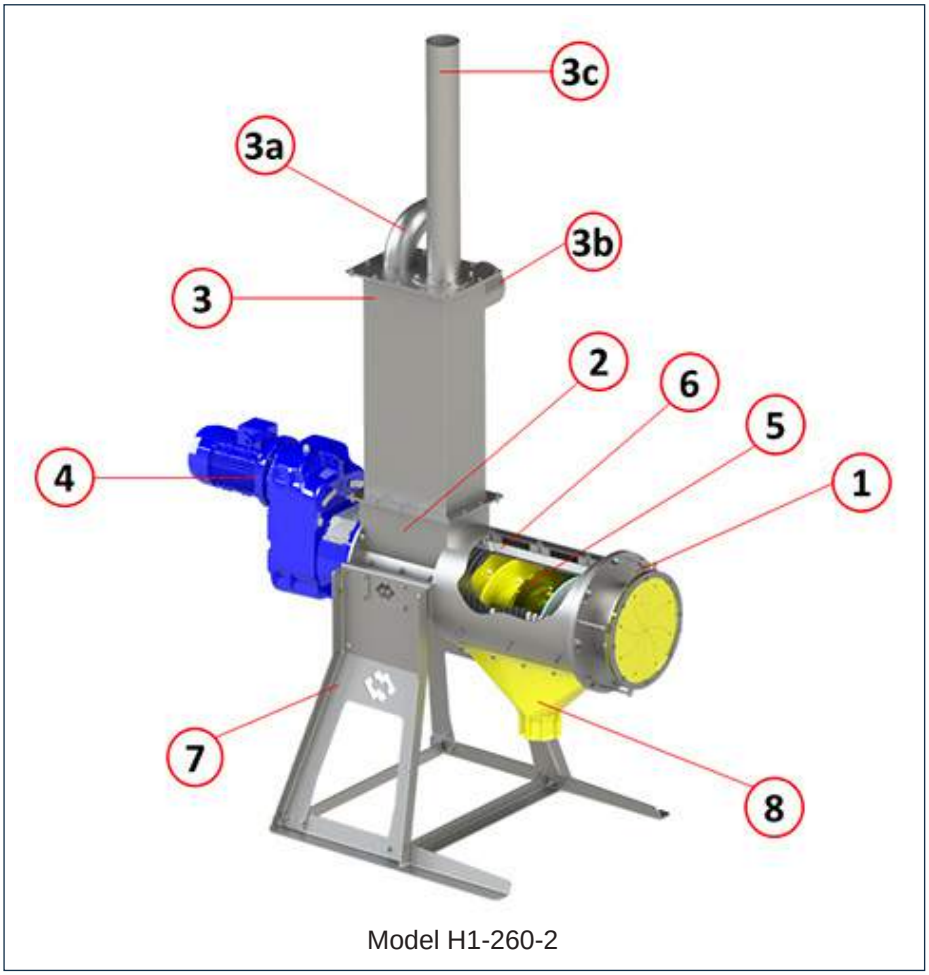
## 3.1 Standard supply: main components




Model H1-260-3

| Item | Description |
|---|---|
| 1 | Compaction module with diaphragm |
| 2 | casing |
| 3 | Compensator tank |
| 3a | Feeding pipe |
| 3b | Overflow |
| 3c | Venting air pipe |
| 4 | Motor and gear reducer. |
| 5 | Body extension |
| 6 | Auger |
| 7 | Screen basket |
| 8 | Support feet |
| 9 | Liquid phase discharging hopper |
| 10 | Liquid phase discharging hopper |

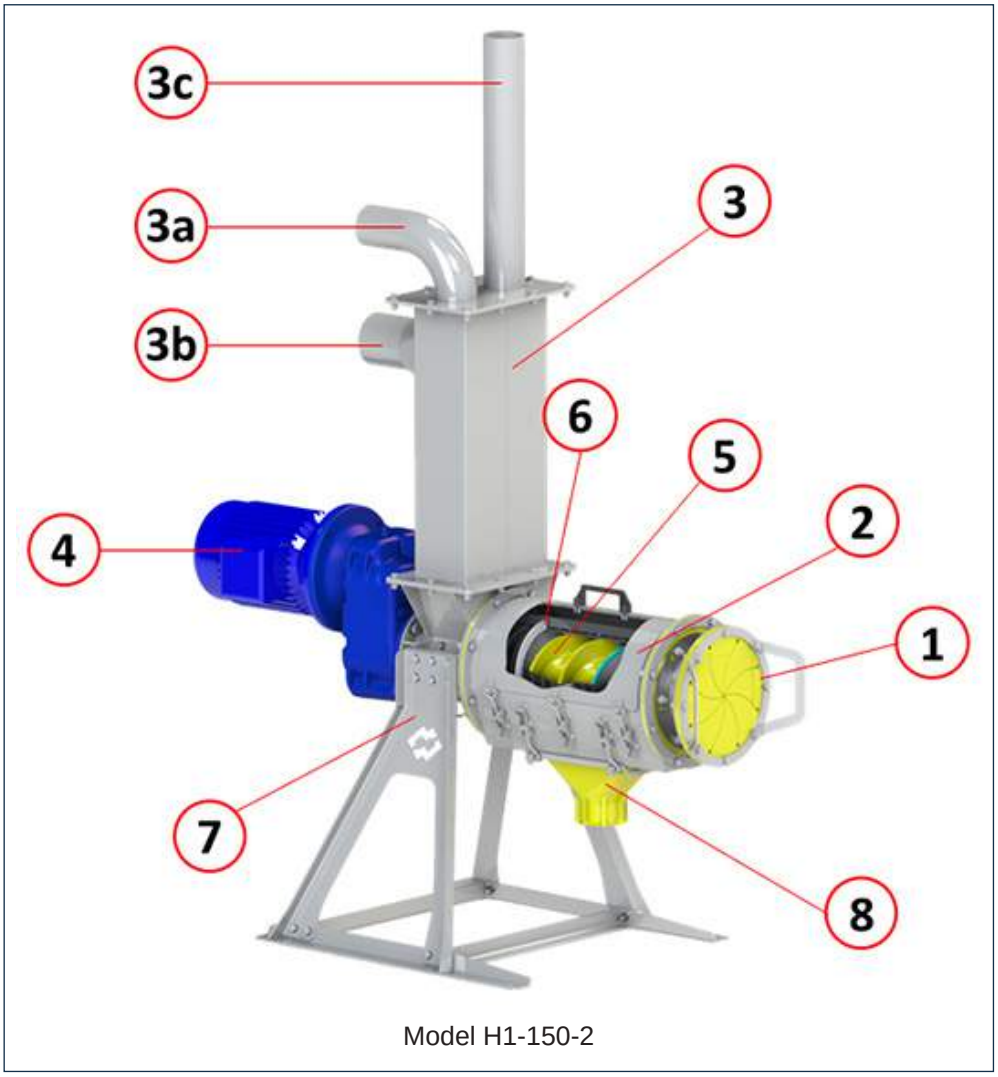
| CONFIGURATION OPTIONS | |
|---|---|
| **Auger** | SINT® ER, SINT® EC, SS 304L, SS 316L |
| **Screen basket** | 0,25 - 0,50 - 0,75 - 0,90 mm |
| **Compression** | 0, 1, 2, 3 |




Model H1-260-2

| Item | Description |
|---|---|
| 1 | Compaction module with diaphragm |
| 2 | casing |
| 3 | Compensator tank |
| 3a | Feeding pipe |
| 3b | Overflow |
| 3c | Venting air pipe |
| 4 | Motor and gear reducer. |
| 5 | Auger |
| 6 | Screen basket |
| 7 | Support feet |
| 8 | Liquid phase discharging hopper |

| CONFIGURATION OPTIONS | |
|---|---|
| **Auger** | SINT® ER, SINT® EC, SS 304L, SS 316L |
| **Screen basket** | 0,25 - 0,50 - 0,75 - 0,90 mm |
| **Compression** | 0, 1, 2, 3 |

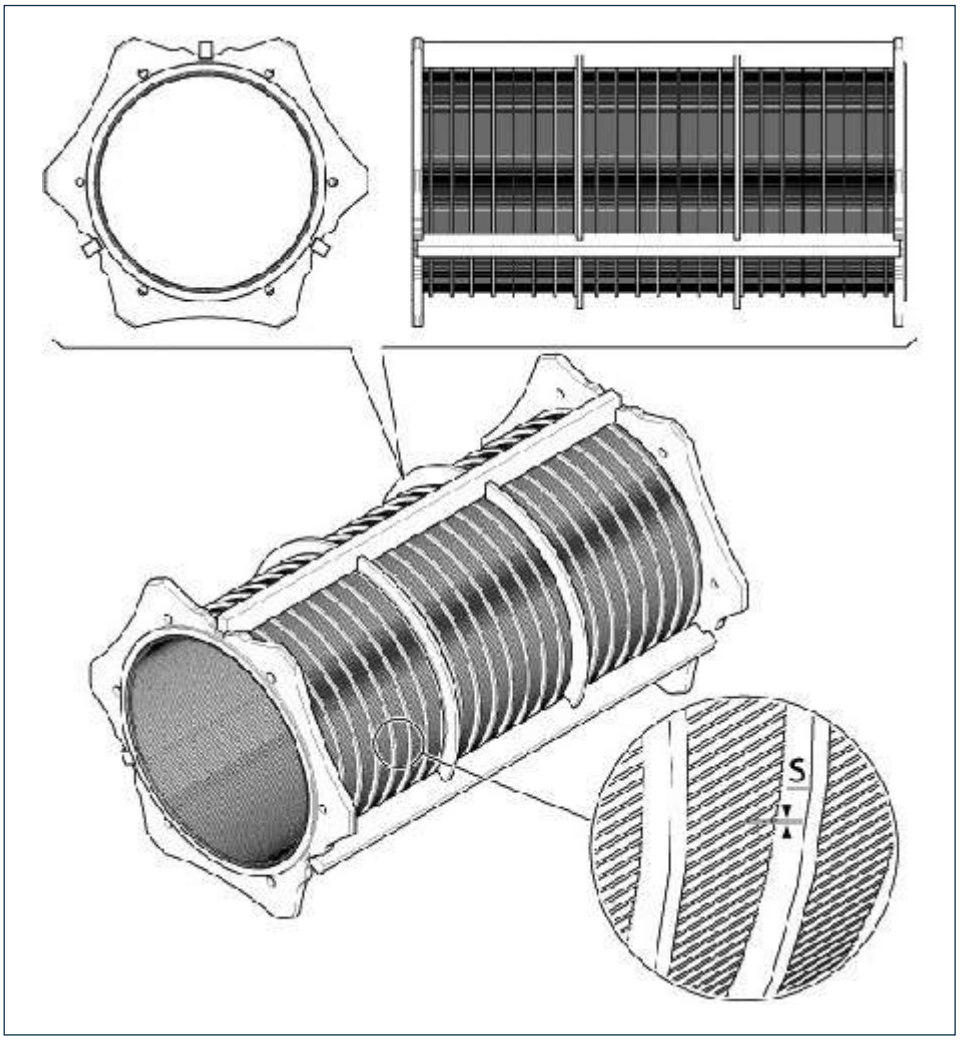



Model H1-150-2

| Item | Description |
|---|---|
| 1 | Compaction module with diaphragm pressor |
| 2 | casing |
| 3 | Compensator tank |
| 3a | Feeding pipe |
| 3b | Overflow |
| 3c | Venting air pipe |
| 4 | Motor and gear reducer. |
| 5 | Auger |
| 6 | Screen basket |
| 7 | Support feet |
| 8 | Liquid phase discharging hopper |

| CONFIGURATION OPTIONS | |
|---|---|
| **Auger** | SINT® ER, SINT® EC, SS 304L |
| **Screen basket** | 0,25 - 0,50 - 0,75 - 0,90 mm |
| **Compression** | 0, 1, 2, 3 |

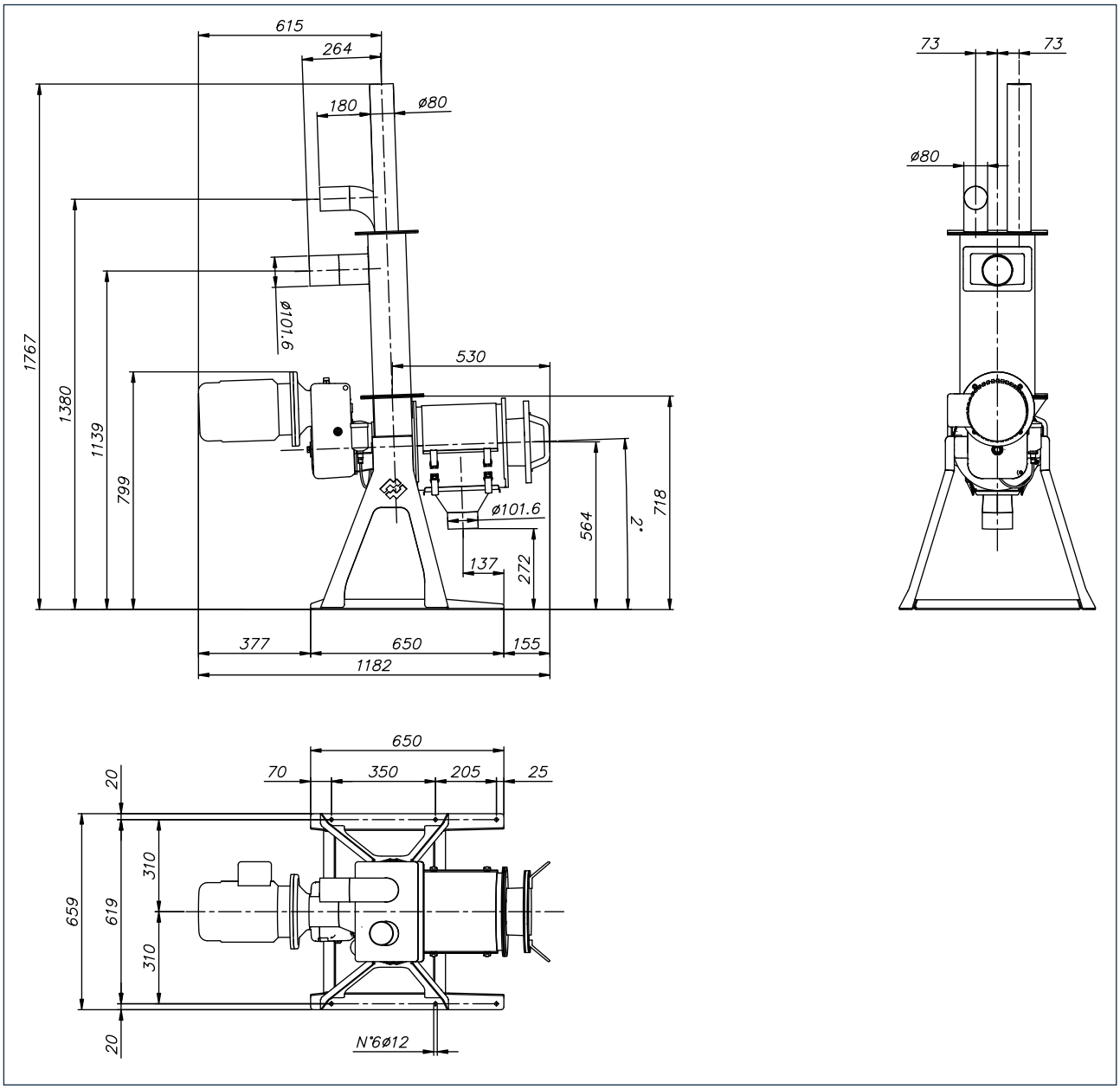
## 3.2 Screen details



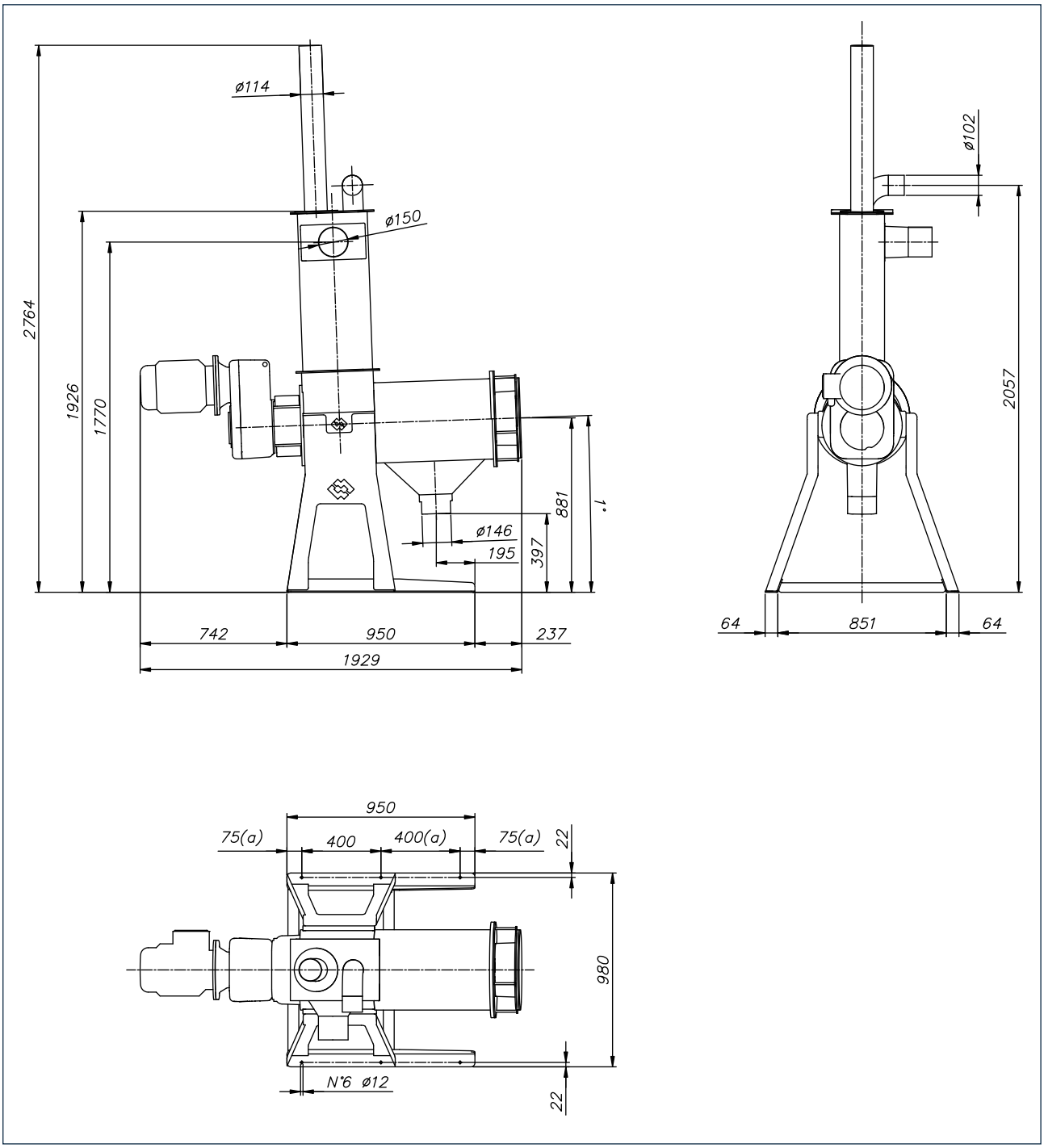

| MODEL | SINGLE SCREW SCREEN | ADDITIONAL SCREEN |
|---|---|---|
| | S = sizes available [mm]: | S = sizes available [mm]: |
| **H1-150-2** | 0.25 - 0.50 - 0.75 - 0.90 | - |
| **H1-260-2** | 0.25 - 0.50 - 0.75 - 0.90 | - |
| **H1-260-3** | 0.25 - 0.50 - 0.75 - 0.90 | 0.25 - 0.50 - 0.75 - 0.90 |

## 4.1 Overall dimensions

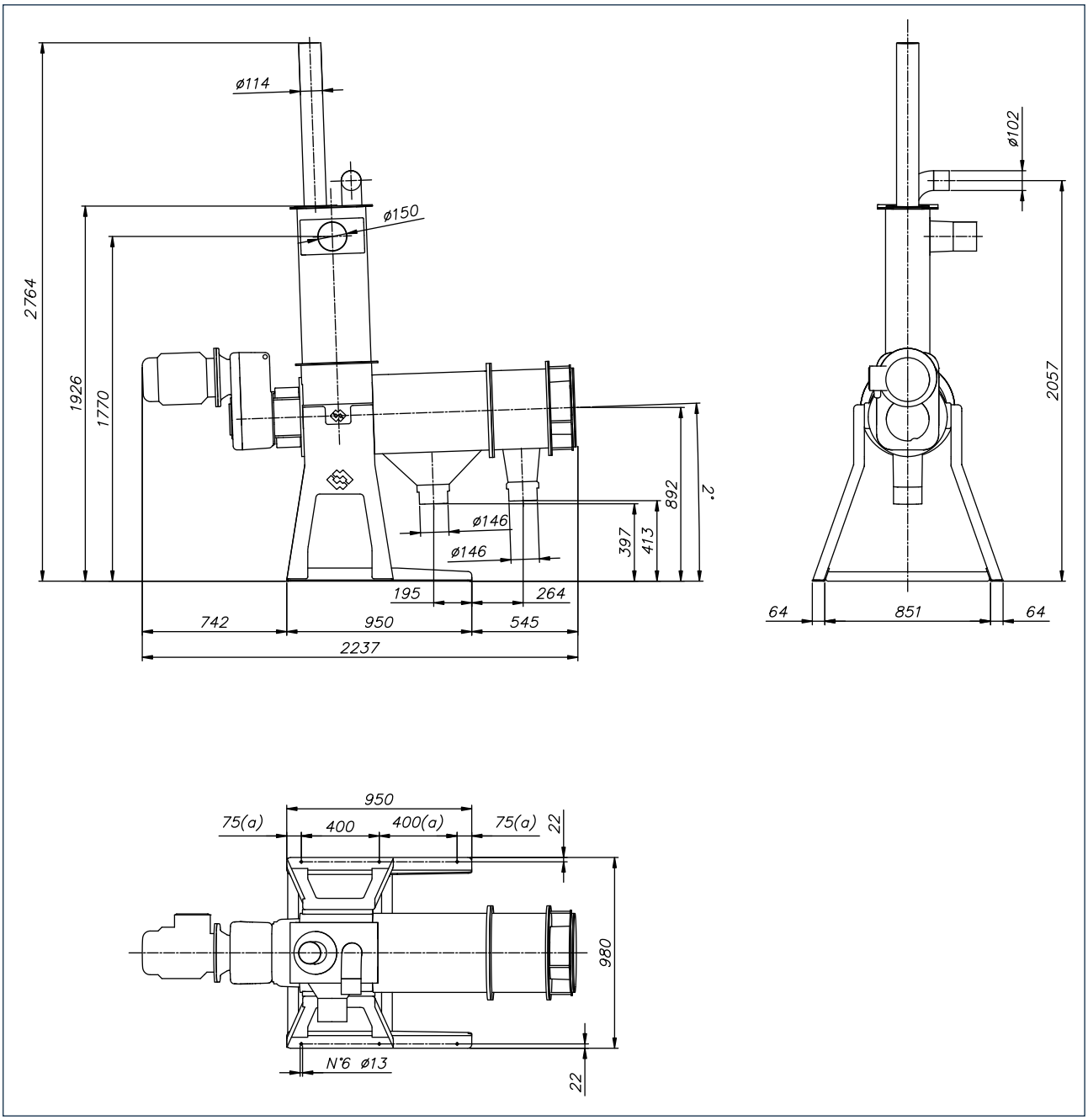
### Overall dimensions model H1-150-2



## Overall dimensions model H1-260-2



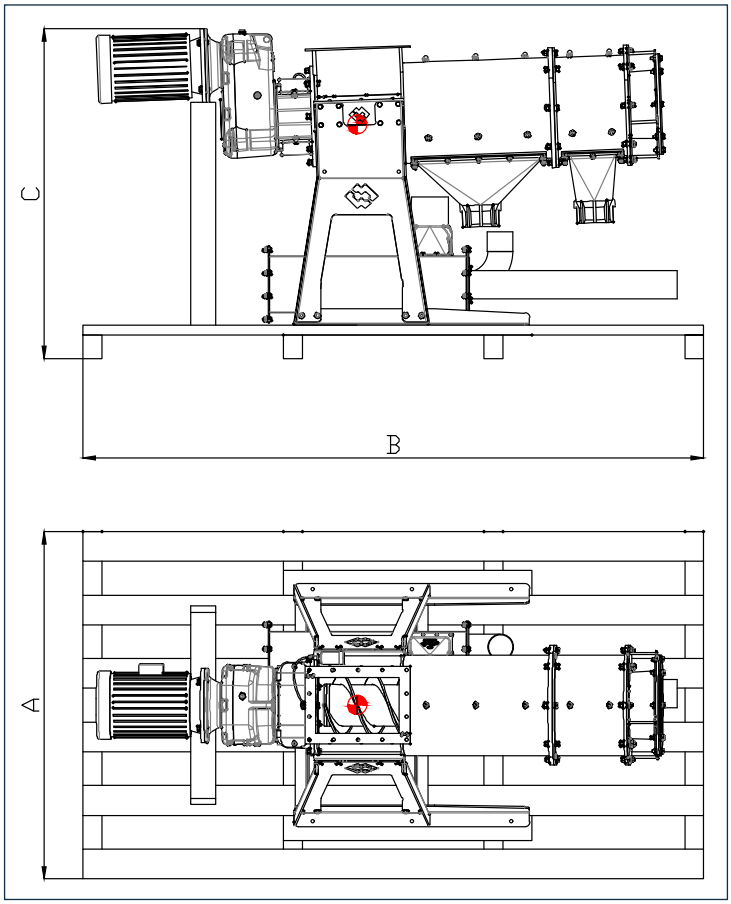
## Overall dimensions model H1-260-3



## 4.2 Packaging dimensions for shipping

Type of packages available:

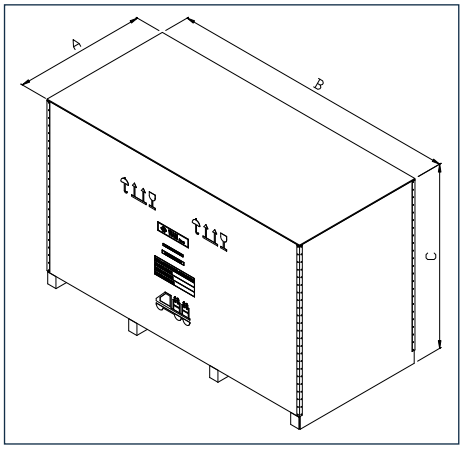
**PACKAGING PALLET + NYLON SHRINK-WRAP**



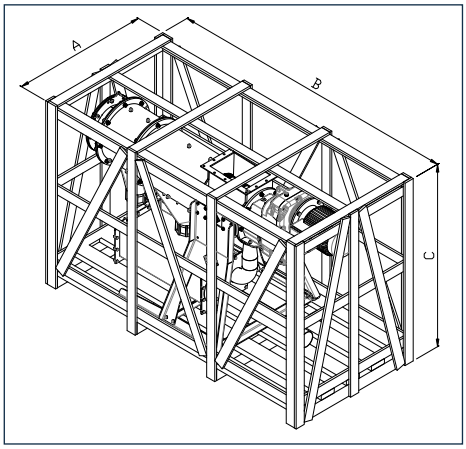

**Importante**

**The centre of gravity in the picture above is only an indicative in relation to the packed equipment. However, all necessary precautions must always be taken to handle the material correctly.**

**PACKAGING INCLUDING THE CRATE+ BARRIER BAG**




**PACKAGING INCLUDING CAGE + NYLON SHRINK-WRAP**



| MODEL | PACKAGING TYPE | Dimensions [mm] | | | Weight [kg] | | |
|---|---|---|---|---|---|---|---|
| | | A | B | C | Equipment | Packag-ing | Equipment + packaging |
| H1-150-2 | PALLET + heat-shrink film | 750 | 1300 | 935 | 137 | 16 | 153 |
| | CRATE + heat-shrink film | 784 | 1334 | 1000 | | 27 | 164 |
| | CASE + barrier bag | 750 | 1300 | 1000 | | 32 | 169 |
| H1-260-2 | PALLET + heat-shrink film | 1050 | 2286 | 1335 | 485 | 30 | 515 |
| | CRATE + heat-shrink film | 1084 | 2320 | 1450 | | 60 | 545 |
| | CASE + barrier bag | 1050 | 2300 | 1451 | | 80 | 565 |
| H1-260-3 | PALLET + heat-shrink film | 1050 | 2286 | 1335 | 535 | 30 | 565 |
| | CRATE + heat-shrink film | 1084 | 2320 | 1450 | | 60 | 595 |
| | CASE + barrier bag | 1050 | 2300 | 1451 | | 80 | 615 |

## 5.1 Inquiry form

**PLANT**

Separator fed by: Pump — YES ☐ NO ☐ — Which type? Volumetric ☐ Centrifugal ☐

Is it a chopper pump? — YES ☐ NO ☐ — Kw ☐ Head:H[m] ☐

Pump/Separator horizontal distance[m] ☐ — Vertical distance from the separator [m] ☐

Pre-mixed material — YES ☐ NO ☐

Pump controlled by inverter — YES ☐ NO ☐

Separator controlled by inverter — YES ☐ NO ☐

Geographic areas ☐

Frequency [Hz] ☐ — Volt [V] ☐ — No. of phases ☐

**APPLICATION/SECTOR**

FARMING: Cattle farming sector ☐ — Livestock sector (specify) ☐

Pig farm sector ☐

BIOGAS: Livestock sector ☐

From F.O.R.S.U. ☐ — Other sectors (specify) ☐

Other applications: please describe the process and where the separation is required ☐

**MATERIAL**

Manure — YES ☐ NO ☐

Presence of straw — YES ☐ NO ☐ — Dimensions [mm] ☐

Other bedding material (specify) ☐

Does the material come from stable washing systems? — YES ☐ NO ☐

Digestate — YES ☐ NO ☐

Material description ☐

Total floating solids % ☐ — Temperature [°C] ☐

Other — YES ☐ NO ☐

Material description ☐

Total floating solids % ☐ — Temperature [°C] ☐

**PURPOSE**

Dry solids ☐ — Clean liquid ☐ — N or P separation ☐

Other ☐

Liquid phase use ☐

Solid phase use ☐

**OPERATION CONDITIONS**

Operation hours per day ☐ [h/day]

Operation hours per day ☐ [m³/h]

**ACCESSORIES**

Equipped with compensator tank of 1 m³ — YES ☐ NO ☐

Moisture Sensor — YES ☐ NO ☐

Output solid support — YES ☐ NO ☐

SCP control panel — YES ☐ NO ☐

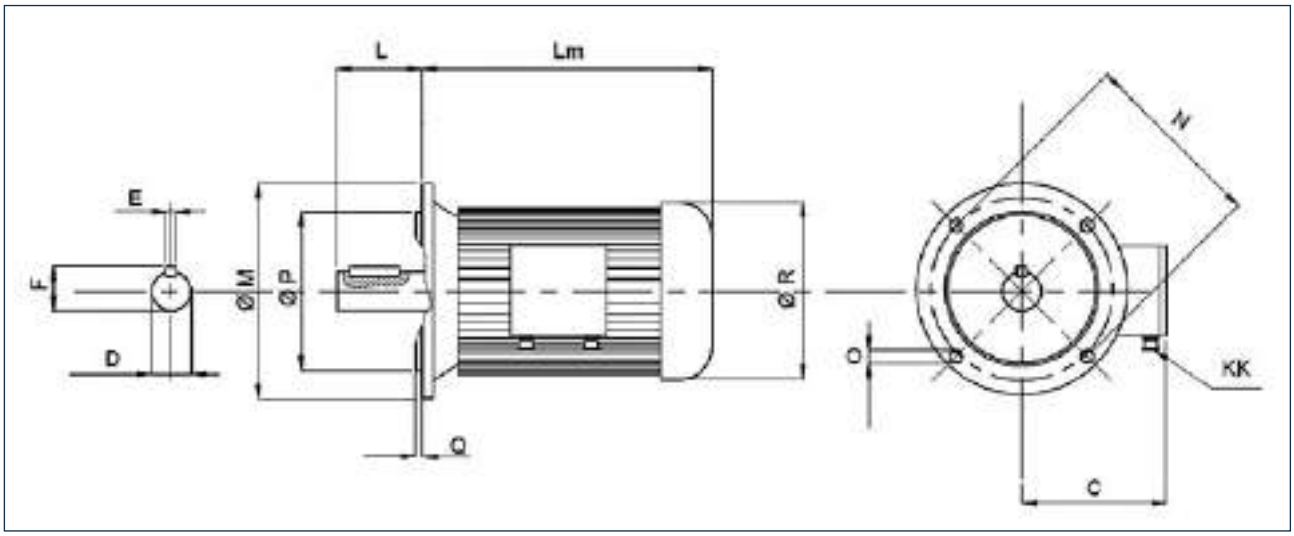
Raised tower platform for separator installation — YES ☐ NO ☐

**PACKAGING**

Pallet and nylon shrink film ☐

Cage provided with protective salt and rust protective bag for transport over sea ☐

Crate with shrink film for air transport ☐




| Model | kW | Size | Code | C | D | E | F | L | Lm* | M | N | O | Bores no. | P | Q | R | kg | KK |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | mm | | | | | | | | | | mm | | | | |
| **H1-150-2** | 2.2 | 100LR | MT100LR041453A | 180 | 28 | 8 | 31 | 60 | 340 | 250 | 215 | 14.5 | 4 | 180 | 4 | 215 | 26 | M25x1.5 |
| **H1-260-2** | 4 | 112M | MT1120M041453A | 200 | 28 | 8 | 31 | 60 | 350 | 250 | 215 | 14.5 | 4 | 180 | 4 | 240 | 41 | M25x1.5 |
| **H1-260-3** | 5.5 | 132S | MT1320S041453A | 210 | 38 | 10 | 41 | 80 | 390 | 300 | 265 | 14.5 | 4 | 230 | 4 | 275 | 65 | M25x1.5 |

The cable glands are made of plastic.
The junction box is on the LH side of the motor (seen from the guard).
* With different brands ± 50 mm tolerances are possible.

**N.B.:** Assembled on the separator it is painted in gentian blue RAL 5010; as a spare part it is rust-proof coated.

The motors in the table are manufactured by **WAM**® and comply with the European standards IE3 as well as with EN 50262 regulations with regard to the joints (cable glands) in the terminal block. This means that the user can employ any motor brand as long as they follow the same standards, without having to change drive unit completely.