

DEC DP

Robotized TMR distributing silage & concentrates

- Directs the robot to loading points (silo, augers, conveyor) and calculates the remaining ingredient quantities in silos
- Automatically load the ingredients and adjusts the RTM according to lactation cycle.
- Distributes the basic TMR ration, grains, supplements, minerals and concentrates on an individual basis for each cow. (Based on chosen program by cow group and/or Park).
- Gives up to 16 meals per day, to a maximum of 999 cows and manages each ingredient quantities consumed by each cow
- U to 7 compartments for food supplements used for individual cow feeding. Can help increase milk quality
- Automatically load dietary supplements
- **Unique design to Rovibec** discharge spouts, preventing overflows and gives precise quantities to each cow
- Adjustable high level probes for automatic supplement load to be served in large quantities (up to 3 probes available)



The DEC DP robotized TMR distributor is made to order according to the needs of each producer. Some features are available as an option. The characteristics, specifications and dimensions are subject to change without notice. Robots already in operation can be different than specifications illustrated on this document.

PLC :

Touch screen

- Wide screen, great visibility
- Clear instructions
- Resistant to dust and humidity industrial console
Standard : monochrome, option : color



Industrial PLC

- Complies with internationally recognized quality standards
Superior service life and reliability



Rovibec Software

- Directs the robot to loading points (mineral bin , augers)
- Rail switches activated by electrical actuator
- Allows you to manage feeding and programming from any independent computer and/or running on Windows platform.

Wireless communication kit

Allows data exchange between the robot and a desktop computer or any Smartphone

cell - ipad - Tablet PC (option available for some stables; special conditions apply)



Emergency dialer

- When triggering an alarm, the dialer will call up to 4 different phone numbers to signify alert; the numbers will be in the order that you have established and will redial if necessary.



Preparation & distribution

Mixing mechanism with double beaters

- Uniform recipe avoiding refusal
- Allows you to embed hay and straw up to 15 cm (6 inches) long



Nylon (UHMW) liner

- Reduces friction and eases TRM mixing.
- Promotes optimal energy use required for mixing.

Discharge conveyor

- Discharge conveyor 36cm (14 inches) wide
- Increased discharge effectiveness with longer fibers.
- High debit discharge for group feeding
- Can feed on both sides of the robot
- One rail to be installed in the middle of feeding alley!



Discharge auger

- Enhances supplements incorporation into TMR distribution
- Distributes TMR with precision
- Uniform recipe avoiding refusal
- Diameter: 12 in. (30 cm)



Weight captor & digital scale on TMR compartment

- Weighs TMR quantities served to individual or by group
- Contributes to control and reduce feeding costs



Grain-supplements-minerals distribution

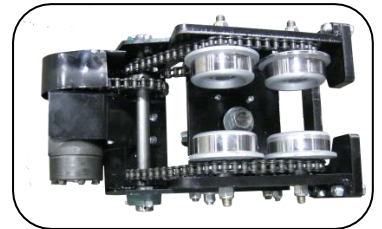
- Up to 7 compartments for feeding supplements
- 4 different models of supplements augers , activated simultaneously
- **Unique design to Rovibec** of disposal spouts
- Augers activated by 24 VDC heavy duty motors



Robot rail drive

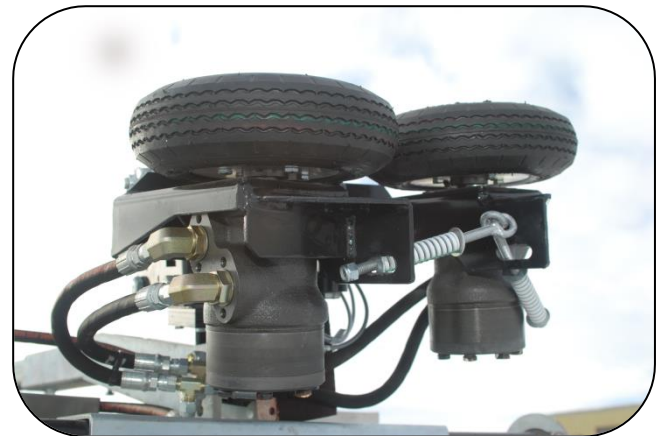
Rail operation

- Adapted for functioning onto different "I" beam rails



Wheel direct drive by hydraulic motor traction

- Efficient use of available power
- Mechanical design & simple maintenance
- Polymer filled wheels for maximum traction to rail
- Fast moves
- Compatible to slow slopes rails (0 to 4%)
- Soft start-stop operations ; increases long term durability and structure integrity



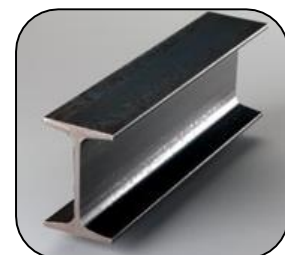
4 wheel drive supplied standard

- Eliminates slides or possible overturn risks, particularly in curves or allowable slopes
- Improves traction in extreme low temperature and humidity (less than 8 ° C; more than 70% humidity)
- Allows travel on rails with a high steep (8% maximum)

Monorail structure System

You will need to install an "I" beam rail structure into your building.

CANADA – USA :
Recommended steel beam for the HDR is a standard "I" beam ;
S6@12.5 (S150@19), meeting norm CSA G40.21 50W - ASTM
A572 GR50 / A992.



EUROPE :

Recommended steel beam shall be minimum IPE 180 ou or stronger (see IPE chart below).

A structure (arch type) is necessary to support the rail as well as the weight of DEC HDR full load capacity and it safely. We recommend that the installation be done recognized contractors for their skills in structure assembly

For EUROPE :

| Spread between supports - c/c | | IPE rail type | | | | | | | | | |
|-------------------------------|------|---------------|-----|-----|-----|-------------|-----|--------------------------------------|-----|---------------|-----|
| | | Legend | | | | Danger zone | | Zone for DP(1-2-3-4), SR(2-3-4), HDR | | Zone for DP 5 | |
| Po | mm | 140 | 150 | 160 | 180 | 200 | 220 | 240 | 270 | 300 | 330 |
| 24 | 610 | | | | | | | | | | |
| 30 | 762 | | | | | | | | | | |
| 36 | 914 | | | | | | | | | | |
| 42 | 1067 | | | | | | | | | | |
| 48 | 1219 | | | | | | | | | | |
| 54 | 1372 | | | | | | | | | | |
| 60 | 1524 | | | | | | | | | | |
| 66 | 1676 | | | | | | | | | | |
| 72 | 1829 | | | | | | | | | | |

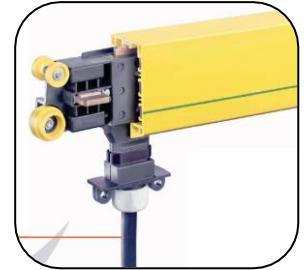
Electrical source

Minimum power required of 240 or 380 vAc (depending on country) must be installed to provide a constant for proper functioning of DEC HDR

This unique power system is flexible, corrosion resistant and easy to install. It meets the EC (European Community) standards qualifications. Easy maintenance, it will give you many years of trouble-free performance.

Reduced electrical maintenance (compared to batteries power source)

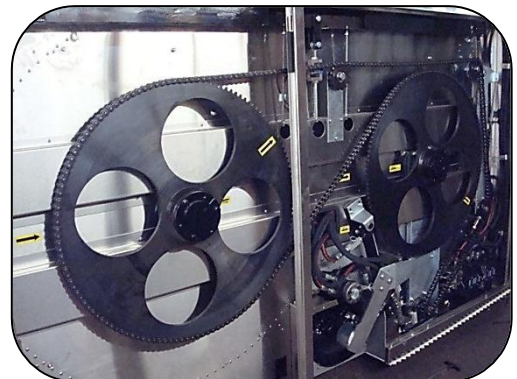
A shocker can be installed (where laws authorizes this device) to power source certain components while working



Quality fabrication and security

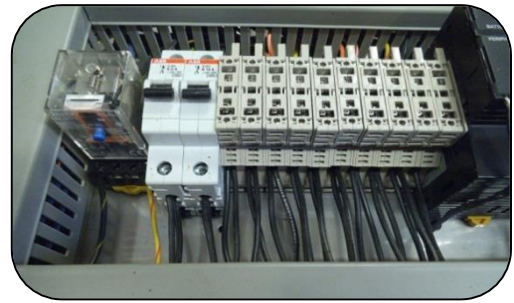
Mixing mechanism

- Mixing mechanism, distribution and traveling onto the rail operated by a hydraulic power unit
- Efficiency proven in harsh environments (dust, humidity, corrosion)
- High reliability and durability
- Simple and inexpensive maintenance



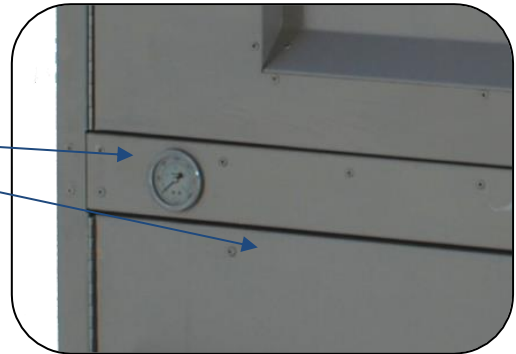
Heavy duty electric components

- Efficiency proven in harsh environments (dust, humidity, corrosion)
- High reliability and durability
- Simple and inexpensive maintenance



Compartments, stainless steel panels / rivet assembly

- Rivet assembly such as aeronautical standards giving a much higher structure strength
- Excellent resistance to corrosion
- Shock and scratch resistant
- Nice look
- Higher life durability than galvanized or paint finish



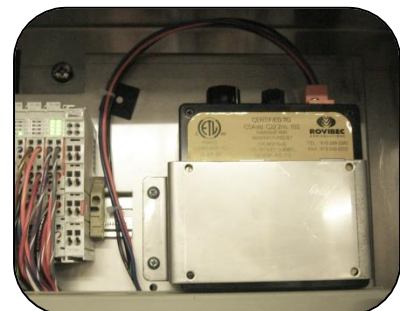
Front and rear bumpers

- Bumper commanding instant stop of the robot if contact with an obstacle occurs



Shocker – optional where laws allow it

- Keeps animal at a safe distance from the robot
- Provides training to young cows in short time



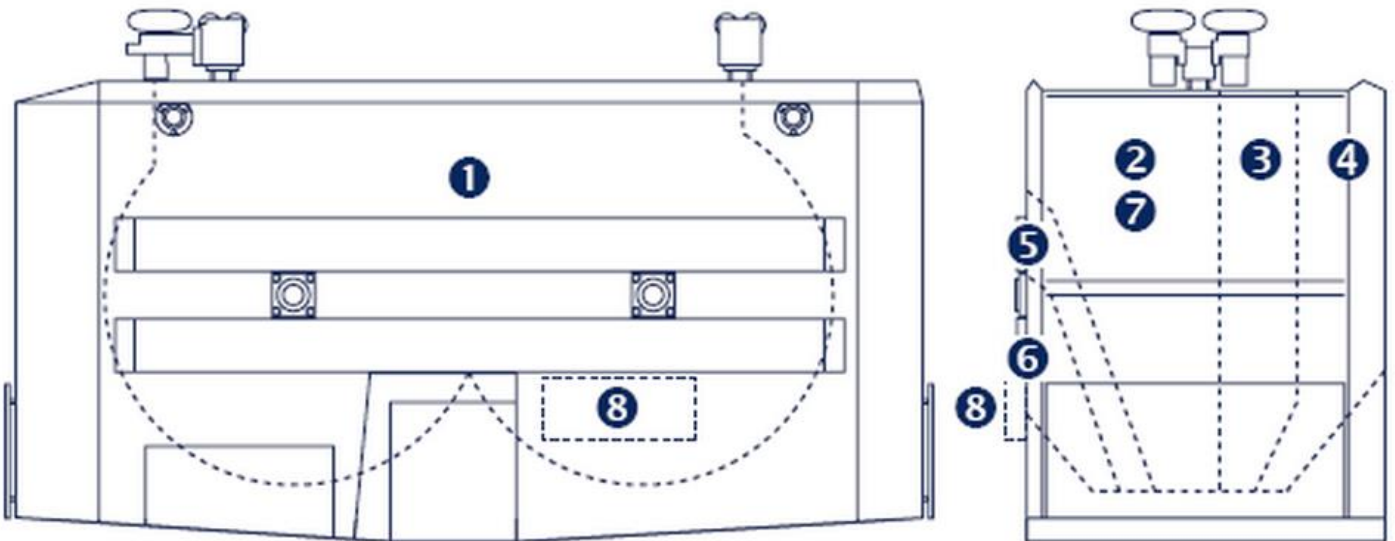
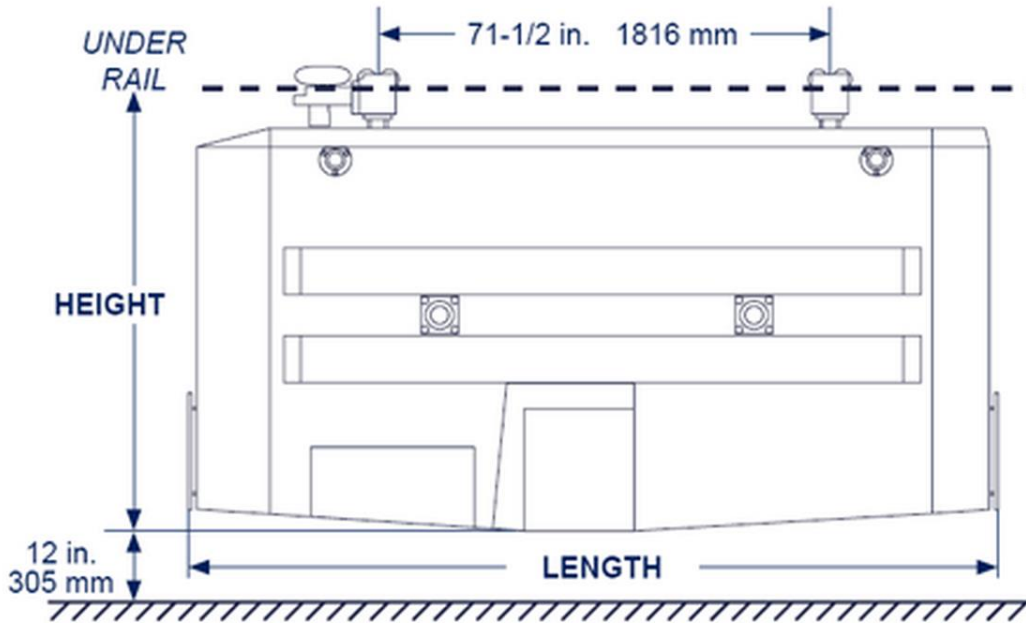
Dimensions

| Model | Type | | Tub Capacity | | | Overall length | | Overall width | | Height ** | | Tare weight *** | |
|-------|---------|-------------|-----------------|----------------|------|----------------|------|---------------|------|-----------|------|-----------------|------|
| | Battery | Electrified | ft ³ | m ³ | Kg * | in** | mm** | in** | mm** | in | mm | Lb | Kg |
| DP1 | x | x | 62 | 1.76 | 515 | 121.5 | 3086 | 37 | 940 | 69 | 1753 | 2900 | 1315 |
| DP2 | x | x | 75 | 2.12 | 623 | 121.5 | 3086 | 43 | 1092 | 69 | 1753 | 3000 | 1361 |
| DP3 | x | x | 87 | 2.46 | 722 | 121.5 | 3086 | 49 | 1245 | 69 | 1753 | 3100 | 1406 |
| DP4 | x | x | 100 | 2.83 | 830 | 121.5 | 3086 | 54 | 1372 | 69 | 1753 | 3200 | 1451 |
| DP45 | x | x | 125 | 3.54 | 1038 | 121.5 | 3086 | 63 | 1600 | 69 | 1753 | 3400 | 1542 |

* The tank capacity weight in kg is based on an average weight of 8.3Kg per ft³, or 290Kg per m³. A variation of ± 10% must be considered. Notice, humidity will influence volume weight

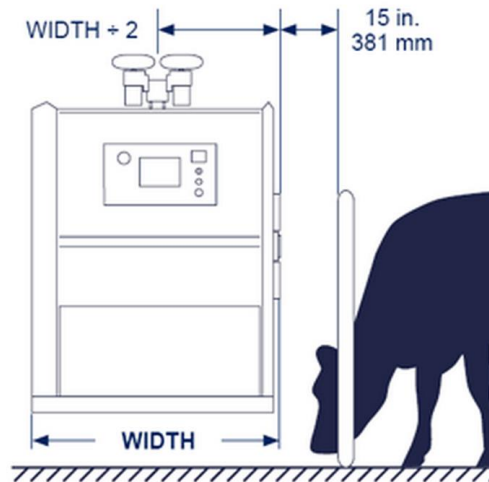
** Options not included into present specifications.

*** Battery weight not included into present specifications. Add 75 lbs - 34kg per battery for a battery powered DEC



DEC distribution diagram

*Maximum weight loaded = 5000 lbs 2268 kg



Clearances required for 90° curves

| Model | Alley A | | Alley B | |
|-----------|---------|------|---------|------|
| | po* | mm* | po* | mm* |
| DP1 4430 | 73 | 1854 | 76 | 1930 |
| DP2 4436 | 76 | 1930 | 79 | 2007 |
| DP3 4442 | 81 | 2057 | 84 | 2134 |
| DP4 4448 | 84 | 2134 | 87 | 2210 |
| DP45 4460 | 90 | 2286 | 93 | 2362 |

** Options not included into present specifications.

