**DEC HDR** 

**Robotized TMR mixer-distributor** 

- CSA certified , and also meets CE regulations
- Feeds free stall up to 300 animals without human intervention
- Measures, prepares and distributes the TMR by group
- Consumes little power, works with an electric motor 5 Hp (3.8 kW)
- Travels on a hanging rail, can be adapted to all dimensions and alley types
- Manages group and curves
- Mixing capacity of 3.4 m<sup>3</sup> (120.4pi<sup>3</sup>)

The DEC HDR robotic 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 hymidity 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)



 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**

## Single beater mixing mechanism

- 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!

Weight captor & digital scale on TMR compartment

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



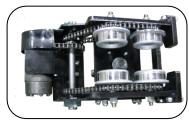
# **Rail operation**

• 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 :

						IPE ra	il type	ype						
	Spread between supports - c/c		Legend		Danger zone		Zone for D SR(2-3-4), I		Zone for DP 5					
Ро	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

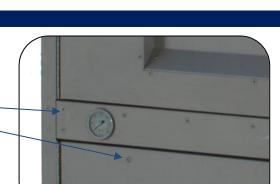
- Mixing mechanism, distribution and traveling onto the rail operated by a hydraulic power unit
- Efficiency proven in harsh environments (dust, humidity, corrosion)
- High reliability and durability
- Simple and inexpensive maintenance

## 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 assemby 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









• 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



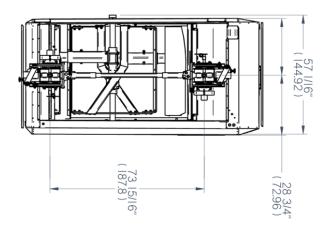


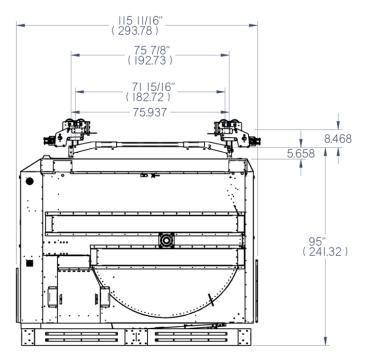
# Dimensions

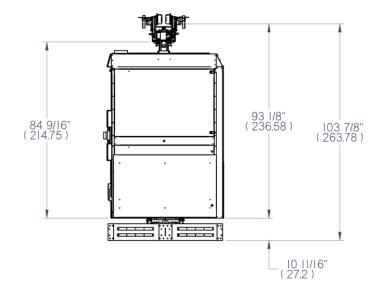
ft3 m3 Kg * ft3 m3 Kg * in** mm** in** mm** in mm Lb Kg	Model		Tub capacity			Mixing capacity			Overall length		Overall width		Height **		Tare weight**	
			ft3	m3	Kg *	ft3	m3	Kg *	in**	mm**	in**	mm**	in	mm	Lb	Kg
650 120 3.40 996 96 2.72 797 II5.625 2937 55.375 1407 78.75 2000 4900 222:		650	120	3.40	996	96	2.72	797	115.625	2937	55.375	1407	78.75	2000	4900	2223

\* The tank capacity weight in kg is based on an average weight of 8.3Kg per ft<sup>4</sup>, or 290Kg per m<sup>4</sup>. A variation of ± 10% must be considered. Notice, humidity will influence volume weight

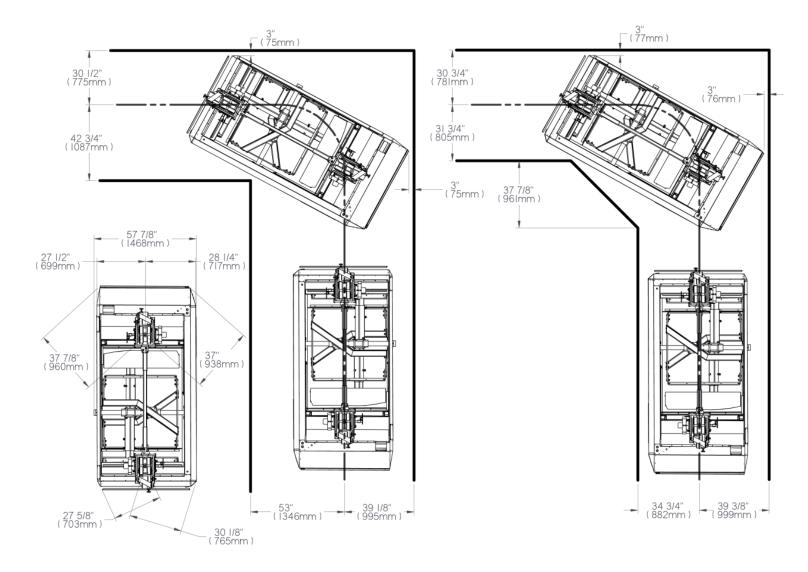
\*\* Options not included into present specifications.







# Required clearances while performing turns



# DEC discharge diagram

