

Rotary Degassing System

Introduction

Morgan offers Rotary Degassing System - a complete solution to degassing needs of foundries. The system consists of a versatile degassing machine along with consumable degassing rotor and anti-vortex plate which ensure consistent degassing efficiency over extended periods of time. The system can have a provision for additional facilities like flux dispensing and an inbuilt RPT (Reduced Pressure Test) of degassed Aluminium. Thus the system can be used for a complete metal treatment solution.

Features

- The machine has options to be either trolley mounted or pillar mounted
- Provision for 180° swivel action with locking options
- Four speed variable drive available for shaft
- Safety shut-off valve
- Digital monitor for key operating parameters like gas flow rate, pressure, consumption
- Device to record, store and print degassing data history for 100 cycles and provision to store more using USB
- Auto feeder mechanism to add fluxes along with measurement tool for flux consumption
- Inbuilt RPT sampling facility
- Automated movement of anti-vortex plate
- Operator friendly control panel with HMI(Human Machine Interface)



Advantages

- Easy to use as either a mobile or fixed degassing station
- Suitable for any capacity of ladle / furnace
- Variable speed drive prevents metal flashing at different capacity levels
- Easy to maintain due to interlocks to key functions and a visual display on HMI
- Quick and efficient sample testing of degassed metal with inbuilt RPT facility
- Metal vortex formation is precise and remains active for required period of time
- Easy plug and play operation
- Auto timer and flash light notifies completion of each stage of operation
- Automatic warning alarms safeguard against inadequate gas pressure or insufficient flux quantity in the dispenser box
- Unique coupling design enhances the shaft life
- Combination of machine, rotor and anti-vortex plate, all designed by Morgan, ensures highest degassing efficiency

Specification

- **Mechanical:** Powder coated machine body, Variable RPM of 100-1000, Flux dispenser of 7-10 Kg capacity, Suitable for 150-1000 Kg metal degassing, Variable gas flow rate for purging/process with Argon or Nitrogen.
- **Electrical:** 3 Phase, 420 VAC, 50Hz, Control panel of 24V DC. Electric motor of variable frequency total – 3.75 Kw
- **Dimension:** Height-305 CM X Width-153 CM X Length-305 CM of weight-1300 Kg

Consumables for Degassing Machine

SiC Degassing Rotor

Morgan has developed a one piece silicon carbide rotor and shaft for use in aluminium degassing. Morgan rotary degassing rotor has a high resistance to wear in service and has excellent anti oxidation properties providing a cost effective consumable for use in foundries degassing processes.

Features

- One piece shaft and rotor
- Wear resistant silicon carbide material
- Excellent oxidation resistance
- Rotor designed for effective gas dispersal
- Six vane rotor to reduce bubble size for better hydrogen removal

Advantages

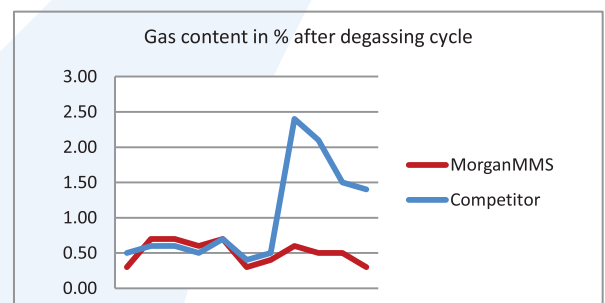
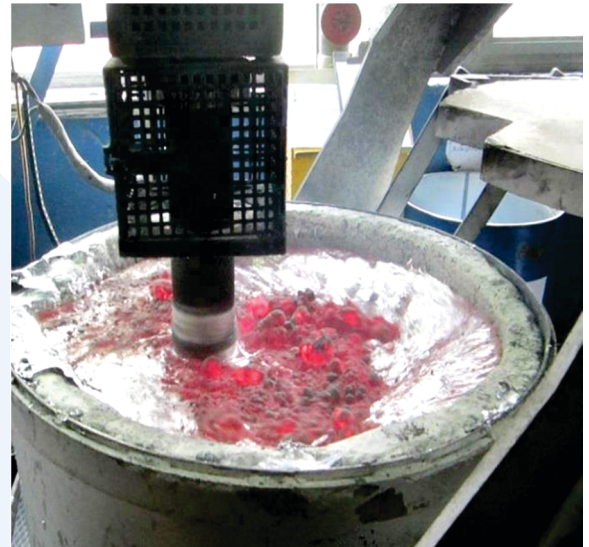
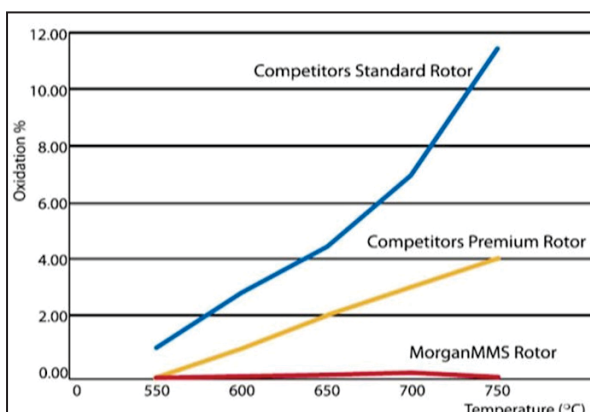
- Efficient removal of hydrogen and unwanted particles
- Quick change over of rotor
- One piece construction
- Cost effective
- Long life

Product Dimensions:

| Reference | A [mm] | Comments |
|-----------------|------------|-----------------------|
| DGRU150-A-S02T | up to 1200 | MMS THREADED COUPLING |
| DGRU150-A-S0130 | up to 1200 | 30mm CAMLOCK FITTING |

All dimensions are subject to normal manufacturing tolerances.
Morgan reserves the right to change specifications at any time

Tests show significantly lower oxidation levels at operating temperatures for the Morgan MMS silicon carbide rotor than for leading competitive products in other materials.



Anti Vortex Plate

To complement our degassing rotor, Morgan MMS also produces a clay graphite anti vortex plate. This plate is manufactured in a proven wear and oxidation resistant material. It will help stop the reintroduction of hydrogen and aluminium oxide particles into the treated molten aluminium by reducing the circular metal flow caused by the rotation of the degassing rotor.



| S. No | Model | Thickness-MM | Length-MM |
|-------|-------|--------------|-----------|
| 1 | N20.5 | 20.5 | 900 |
| 2 | N30 | 30 | 650 |
| 3 | N23 | 23 | 710 |
| 4 | N30 | 30 | 554 |