

EXOTHERMIC CUM INSULATING DATA SHEET

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RANGE OF EXOTHERMIC CUM INSUALTING SLEEVES FOR RAM-UP APPLICATION IN IRON AND STEEL CASTINGS

PRODUCT DESCRIPTION

MAGNEX sleeves are a range of exothermic cum insulating sleeves which are used to feed iron and steel castings.

They are available in both open and blind with diameters ranging from 25 mm to 500 mm with increments of 12.5mm

PURPOSE

Conventional use of sand risers for manufacture of iron and steel castings result into poor casting yield and high fettling cost. hence almost all casting manufacturers are using exothermic cum insulating sleeves for improvement of casting yield.

OUALITY ASSURANCE

These sleeves are superior quality exothermic cum insulating sleeves. Raw materials carefully selected and used for manufacture of sleeves result in bulk density of 0.55-0.58gm/cc. This ensures excellent insulating properties post exothermic stage.

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BENEFITS

- Exothermic material burns and generates temperature more than 1500°C. As a result, these extend solidification time of metal inside the sleeve by a factor of 2.5 as against a sand feeder of similar size. The modulus extension factor for these sleeves is in the range of 1.4 to 1.8
- These feeder sleeves are designed to give consistent performance because of their unique formulation and tight process control.
- These sleeves have less tendency to moisture pick-up thus this helps to overcome gas defects related to moisture in sleeve.

NOTE

- The geometric modulus of sleeve is calculated by taking all faces as cooling surfaces.
- Full height of sleeve is considered in calculating volume of metal in the sleeve.
- Dimensions are nominal . Minor variations is possible due to manufacturing process.
- owing to manufacturing process, there maybe variation in height to the extent of 2-3%

NOTE

- APC (Anti piping compound) should be used for all open sleeves for getting desired sleeve performance.
- *All dimensions in mm

■ EXOTHERMIC CUM INSULATING NECK-DOWN SLEEVES

GENERAL DESCRIPTION

These sleeves are suitable for top feeder applications in steel and iron castings as the smaller contact area subsequently reduces gas cutting and grinding work. It combines the advantage of breaker core and in many instances it is possible to knock off the feeder.

PURPOSE

ND Sleeves combine advantage of knock-off core which is in-built with sleeve and facilitate easy riser removal.

PRODUCT APPLICATION

- ND sleeves are suitable for ram-up application. It should be applied as a top feeder to get advantage of reduced opening.
- ND sleeves are available as open sleeves thus it is recommended to use a lid whenever blind sleeves are required.

BENEFITS

- ND sleeves have less volume than conventional cylindrical sleeves, thus improve casting yield.
- ND sleeves reduces contact area compared to cylindrical sleeve hence fettling cost and metal loss is considerably reduced.
- ND sleeves can be generally knocked-off in steel and hard metal grades there by eliminate the process of gas/arc cutting of risers.

■ LIDS

GENERAL DESCRIPTION

due to height difference of feeder, many a times there is a need to apply open sleeves as blind sleeves. standard open sleeves can be made a blind feeder sleeve with the use of a lid which has a suitable William's wedge.

INSTRUCTIONS FOR USE

- These lids have to be placed on sleeve during molding with Williams wedge directing towards the casting.
- Care should be taken to retain the William's wedge edge during handling, molding and consecutive steps for effective function of blind feeder.
- · Care should be taken to vent the mold through the hole available on the lid.

STANDARD PACKAGING

MAGNEX feeder sleeves are available in shrink wrapped cardboard trays for ease of handling.

STORAGE INSTRUCTIONS

- MAGNEX sleeves should be stored in cool and dry place.
- Sleeves should be removed from packaging only during time of use to prevent moisture pick up in sleeves.
- Sleeves should be kept away from any sources of fire and ignition.
- Torching and coating of sleeves must be avoided inside the moulds.

