

ISO-Riser



ISO-Riser for non-ferrous metals

Reliable feeding of non-ferrous metals can be supported by the selective use of insulating risers sleeves. The essential characteristics/advantages of this feeding technology can be summarised as follows:

Optimised geometry for application on molding plants

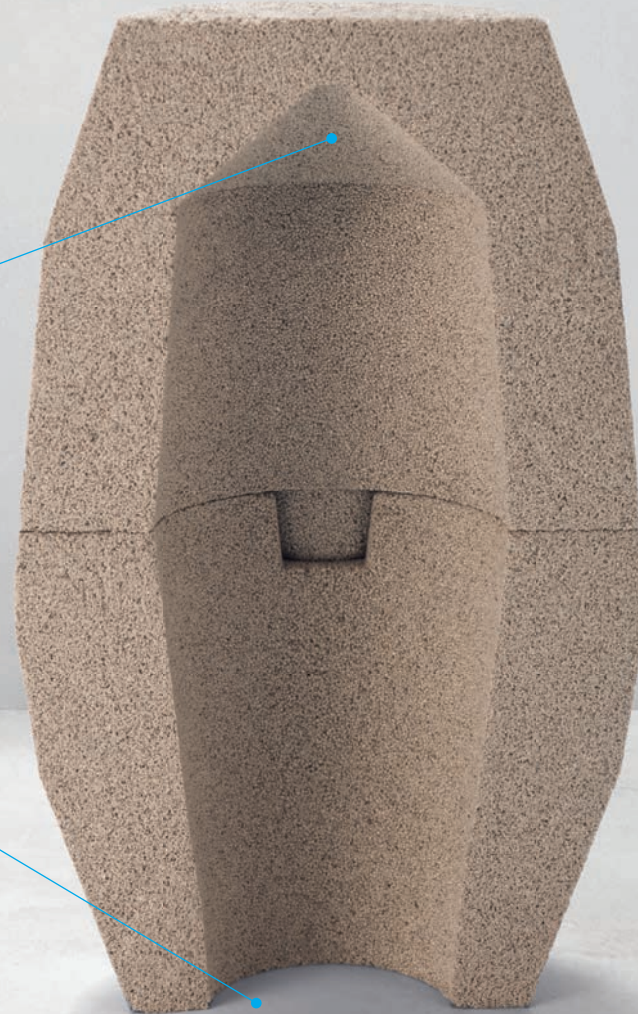
The self-centring inner contour guarantees quick charging of the pattern plate with risers in sync with the molding plant. A twisting of the risers on the pin is therefore effectively avoided.

The ergonomic outer contour of the POINT-Risers® increases the fluidity of the molding sand and reduces the risk of uneven compression of the molding material, e.g. through a compression shadow among the risers. During the pouring of the molding sand into the molding box, the POINT-Risers® are initially held up by a pin. As the molding sand is compressed, the riser is moved in the direction of the pattern, thus compacting the molding sand between the riser and pattern. The casting contour under the riser is formed by molding sand, which is formed between the riser and the cast part as a breaking core. The clear casting contour is only interrupted by the small metallic neck of the riser.

ISO-POINT-Riser

Self-centering inner contour

Breaking edge formed by riser



Product features

Stability

The ISO-POINT-Risers were specially developed for high demands in use in modern high-pressure moulding plants. While conventional riser masses based on filaments due to their physical properties tend to spring back or are damaged through the pressure of compression, ISO-POINT-Risers can be used even in difficult positions.

Little space required

The small neck of the riser only requires the area of the metal riser neck which connects the casting form and the riser. Unlike risers with a breaker core, this allows pinpoint positioning of the riser. Use on the smallest positions such as cams and fins is made possible.

Efficiency

The material property of the massive riser wall is designed to be highly insulating, in line with the intended use. Due to the optimised material characteristics and the adapted volume, the output can be considerably increased and the efficiency can be improved.

Neutrality and emissions

The insulating material of the reducing plate has a neutral interaction with the melt and hence it allows direct molding of the risers on the pattern. In addition to the organically bound quality, an inorganically bound quality has been developed. In this way emissions have been virtually eliminated.



Product benefits

- Feeding in positions which previously could not be reached
- Use on small, slanted or uneven pattern contours
- Replacement for a side riser
- Better use of the pattern surface
- Reduced cleaning costs
- High stability is appropriate for high-pressure molding plants
- Reduction of recycled material

Molding of ISO-Riser on fixed pin

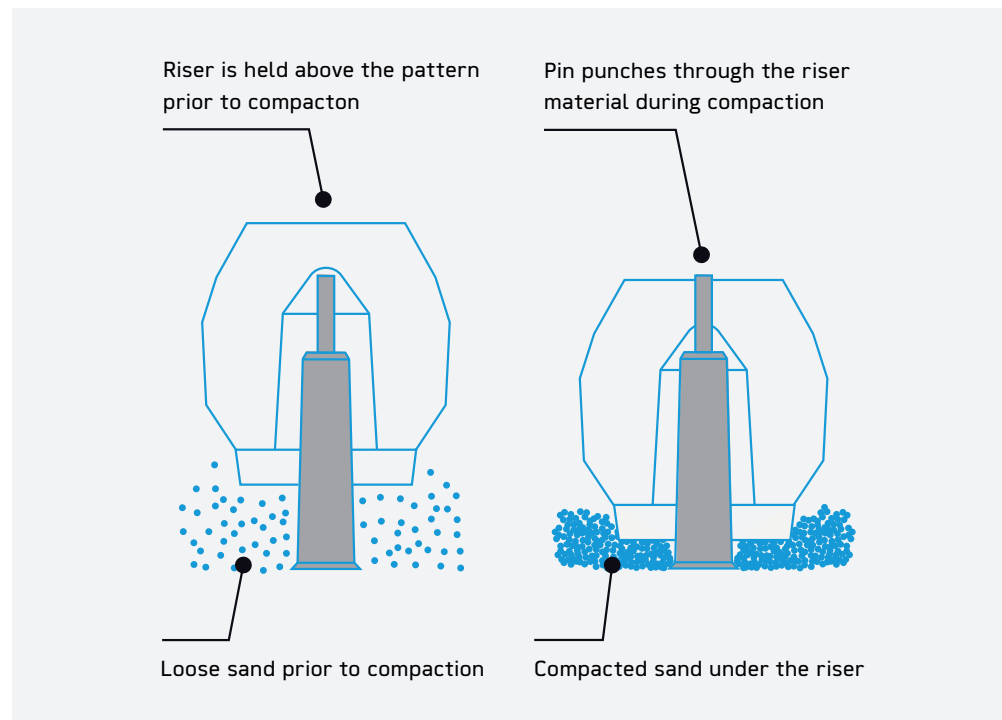


Image 1: molding of ISO-Riser on fixed pin

Case study

Change from side feeders to ISO-POINT-Risers

In this case the side risers used were replaced with ISO-POINT-Risers. In this way the intersections of the component can be reached better and hence the process reliability can be increased. In comparison with the side risers, it was possible to increase the output by 17%.

Key data	Sider riser	ISO-POINT-Riser
Weight casting	13 kg	13 kg
No. of risers	4	4
Riser neck diameter	24 mm	20 mm
Weight riser rest	6 335 g	600 g
Yield	54,33 %	71,05 %
Riser type	Sider Riser	PIL 90-20



Image 2: casting with side risers

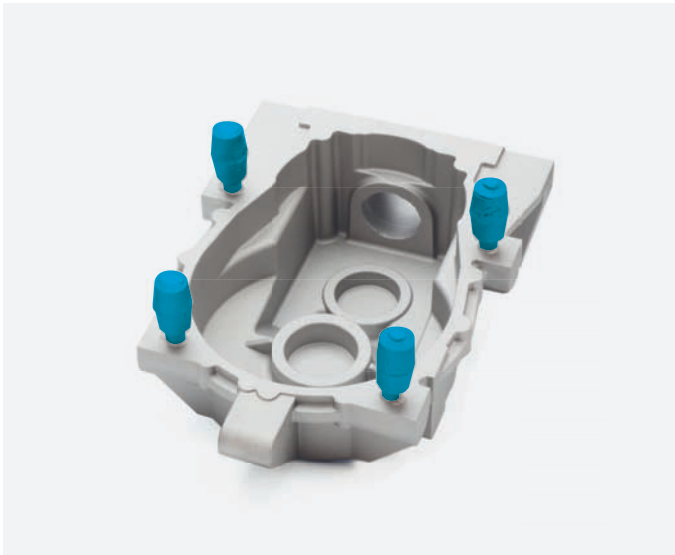


Image 3: casting with ISO-POINT-Risers

Products

In the field of ISO feeders for non-ferrous metals, almost all common feeder systems can be used. The selection must be adapted to the production systems and the individual application. In addition to conventional systems such as sleeves and tubes, the use of space-saving and more efficient systems such as thick-walled TG feeders with/ without breaker core and the POINT-Riser® system should also be evaluated.

All systems can be manufactured with inorganic feeder materials, so that these are significantly lower in emissions than the usual feeder systems available on the market.



Image 4: PI 1113-30Q



Image 5: TGI 310



Image 6: PIL 90-20



Image 7: ZI 40-150

Highlights



Applicable on small spaces



Higher output - more castings per box



Scrap reduction



Shorter processing times



Low emission due to inorganic binder system



Benzstraße 15
41515 Grevenbroich
+49 2181 23394-0
info@gtp-schaefer.de
www.gtp-schaefer.com