

## Winoa Improves Total Cost of Blasting (TCB)

### Winoa提高了喷丸的总成本

Thanks to its 50 years of experience, Winoa is able to reduce its customers' blasting costs by offering a full technical approach: specific ranges of products, technologies and services dedicated to its customer application.

Linked with full technical support provided by 21 application experts, Winoa can provide technical service around the world as in China through its subsidiary Shanghai Murga Steel Abrasives or in Taiwan with its subsidiary, Winoa Taiwan.

Winoa & W Abrasives technical teams demonstrate to customers that cost reduction is not a fantasy and become reality for them by developing WA COST technology in the field of blasting to validate and achieve global customer benefits.

Major customers in the foundry market have already trust in the Winoa expertise, combining the use of a dedicated Premium product: HYBRID SHOT with technical expertise.

By monitoring machine wear, Winoa helps to reduce maintenance costs while at the same time achieving remarkable performance in terms of cleaning:

- Low machine wear.
- Higher efficiency than shots.
- Suitable for complex shape castings.

Winoa's technical expertise approach consists of seven steps:

- Onsite technical expertise.
- Trial at the test center.
- Cost reduction offer.
- Launching of the trial.
- Training of the operators.
- Monthly check-up and follow-up.
- Balance sheet of the trial.

The W Abrasives teams approached a cast iron foundry customer to propose him a customized solution and allow him blasting cost reduction. The customer, producing 800 tons per month of manholes and other miscellaneous parts for civil and road works, is running a 16 wheel continuous hanger machine which consumes 300 tons per year of S550. Initially, 65% of this volume was supplied by one of Winoa sister company, the rest by a local competition.

The customer had too much re-blasting on some products which considerably increased its costs. Thus he needed a more efficient product to reduce his re-blasting rate, without increasing the maintenance cost.

The Premium product Hybrid Shot, specially designed to reduce overall blasting cost through a combination of high cleaning efficiency and low machine wear has been introduced.

Hybrid Shot introduction through the complete Premium approach: use the concept of the 7 steps

In addition to the high performances of Hybrid Shot (better efficiency than S550 with limited impact on machine wear), technical support has allowed to:

归功于其50年的经验,Winoa能够通过基于客户的要求提供一个完整的技术方案:特定范围的产品、技术和服务,来降低客户的喷丸成本。

联合21位应用专家提供全方位的技术支持, Winoa可以给全世界提供技术服务,在中国可以通过其附属子公司上海莫加钢研磨剂,在台湾的子公司是Winoa台湾公司。

Winoa & W磨料技术团队向客户证明,降低成本并不是一个幻想,他们通过在喷丸领域开发WA成本技术验证了这一点,这可以使得全球客户提升效益。

铸造市场主要客户相信Winoa的专业技术,结合使用一个专用的高端产品:混合喷丸技术。

通过监测机器磨损,Winoa有助于减少维护成本,同时实现卓越的清洁方面的成效。

低的机器磨损

高效性

复杂铸件的合适性

Winoa的专业技术包括以下七步:

现场专业技术

在测试中心试验

提供降低成本

进行试验

训练操作员

每月的检查与跟进

平衡资产负债表

W磨料磨具团队给铸铁铸造客户提出一个定制的方案,可以降低喷丸成本。某客户每月生产800吨的检修孔和各种各样的民事和道路施工工程,需要运转一个16轮连续吊挂机,这需要每年消耗300吨的S550磨料。最初,65%由一家Winoa姐妹公司完成,其余的留给当地竞争公司。

客户有很多再喷丸产品,这大大增加了成本。因此他需要一个更有效的产品以减少再喷丸率而不增加维护成本。

优质的产品混合喷丸,专门设计来通过提高清理效率和降低机械磨损率来降低全部的喷丸成本。

混合喷丸的完整方法:使用7步骤的观念

除了高性能混合喷丸(比S550效率更高而对机器磨损影响不大),我们的技术支持还有:

- 降低维护成本的想法:

热点(温度高的点)检查与WA CAM(创新技术能够精确识别真正的涡轮机产生的热点位置,而且优先显示机器磨损区)

- Reduce maintenance costs.
- Hot spot check with WA CAM (innovative technology which allows visual and precise identification of the real position of hot points generated by the turbines, but also visualization of preferential wear zones on the machines)
- Reduction of sand content in the operating mix - from 4 wt% to 0.5 wt% - through air separator fine tuning)
- Increase efficiency of the machine (hot spot check with thermal camera + adjustment of operating mix size distribution - rejection size decreased from 0.85 mm to 0.6 mm - through air separator fine tuning)
- This approach allowed the following customer benefits:
  - 60% reduction of the reblasting rate.
  - 45% reduction of maintenance costs.
  - 30% reduction of the total blasting cost.

Winoa and its W Abrasives teams have become the customer's privileged supplier. ■

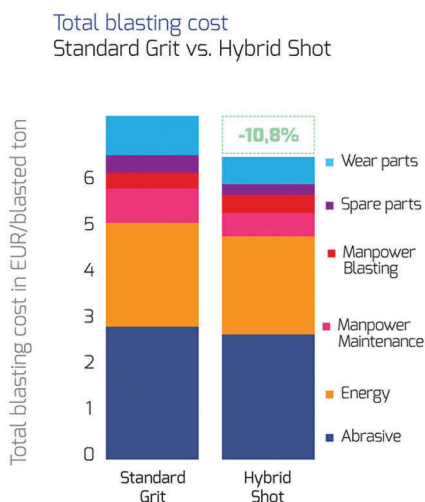
混合操作中减少含砂量-通过空气分离器从4wt%微调至0.5wt%)

- 提高机器的效率(用热像相机检查热点+调整混合大小分布操作-分离颗粒的大小从0.85毫米降到0.6毫米—通过空气分离器的微调)

这一方法实现如下的用户收益：

- 60% 再喷丸率的降低。
- 45%减少维护成本。
- 30%喷丸总成本的降低。

Winoa及其W磨料磨具团队成为了客户的优先供应商。 ■



Hybrid Shot operating mix

Available  
under a  
large range  
of sizes

## Eco-Friendly “Foundry of the Future” 生态友好的“未来铸造”

The “Foundry of the Future” is based on intelligent connectivity, allowing a system to automatically anticipate and avoid downtime, thus increasing production and giving it the flexibility to adapt to any new customer requirement.

Individual mechatronic components combining mechanical, electrical and computer engineering have been used in production for years, but they have now taken on an entirely new dimension and role in plant production by interconnection and communication as a single entity.

This is now practicable thanks to exponentially more powerful Cloud Computing that allows analysis of ever increasing and variable data volumes while still arriving at conclusions in real-time. Thanks to this new information management capacity to use effective and functional self-correction, predictive maintenance and energy use, the production process can be fully optimized to lower costs. Previously, the only method to maintain competitive costs

“未来铸造”是基于智能连接，允许系统进行自动预测和避免停机，从而提高生产率并赋予其灵活性以适应任何新客户的需求。

综合了机械、电气以及计算机工程的机电元器件用于生产已经很多年了。但是，现在它们在工厂生产中呈现出了全新的面貌和作用，借助相互联接以及通信形成了一个整体。

现在这是可行的，因为云计算能力以呈指数方式增加，变得更加强大，它允许分析不断增加和变化的数据量，同时依然能够实时给出结论。由于这种新的信息管理能力，使得工厂能够运用有效的自我修正功能，进行预测性维护以及能源的使用，生产流程能够充分得到优化，从而降低成本。而过去，维持竞争成本的唯一方法便是