News Release

FOR IMMEDIATE RELEASE

The Smart Guide to Buying Manganese and High Chrome Castings

By: Jim Georgantones – North Central Sales Manager

Practically every crushing operation these days is looking for ways to cut costs and increase production. One way you can find a lot of potential savings is by carefully choosing the right manganese castings, in the right alloys, from the right vendor.

Look closely at your entire crushing operation from start to finish: the material you're crushing, the type of crusher you're using — even a vendor's parts availability and on-time delivery record. Give extra attention to the profile of the crushing parts. By matching the profile of the manganese part to your operation's requirements, you can run more efficiently with less downtime and lower operating and maintenance costs.

Here's a list of factors to consider before you buy manganese castings. Asking the right questions before buying can save you money now and lower-costs of future operations.

Grades and alloys

Manganese content is critical to the wear life of your crusher parts and the cost efficiency of your operation. **Manganese content can range between 11.5% - 24% and is usually referenced as;**

- **Standard = 11.5-14% MN**
- **18% = 17% - 19% MN**
- **21/22% = 21% - 24% MN**

Castings with any of these manganese percentages could be the right ones for your application. It just depends on what you're crushing. While you could use a higher percentage of manganese for cones or jaws, standard manganese can work fine for hard non-abrasive materials. Ask vendors specifically what you're getting, since alloy trademarks like "Premium" or "Standard" don't reveal the manganese content. Ask if they can provide field test results of different ASTM material specs.

Remember manganese must "work-harden" for optimum performance, which should be matched with material hardness. The hardness & abrasiveness of the rock to be crushed should determine the manganese content for your operation.

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Jaw crusher wear parts

Unified supplies wear replacement parts for almost any crusher made today or yesterday.

Critical factors for jaw crusher wear parts are how long they last and how efficiently they crush the material. Jaw weight, tooth profile and proper fit are all important considerations for efficient crushing.

Efficiency requires proper tooth design. Tooth profile can be determined for each crushing application with the help of experienced service representatives.

Jaw Crusher Replacement Parts Ready for Shipment

Cone crusher wear parts

The critical factors for cone crusher parts are the open and closed side feed settings. The reduction ratio is the top size of the feed opening divided by the closed side setting (CSS) in inches. Reduction ratio will help determine the proper profile for each operation — most options are coarse, medium, and fine profiles. Be sure to match the profile to your crushing needs.

Also check the product wear of mantle and bowl liners to confirm wear patterns. OEM specs assure proper fit which minimizes vibration for optimal wear. Knowledge of OEM parts and numbering systems is crucial for ordering the right part.

Manganese Castings

VSI and HSI crushers

Vertical shaft impactor (VSI) and Horizontal shaft impactor (HSI) crushers are both characterized by low capital costs and properly scheduled maintenance. It's important to minimize these costs and maximize plant uptime by selecting the correct alloy for wear parts.

Various VSI Wear Parts

Impact crushers are application-sensitive so you need to consider feed size, type of material and the desired product. HSI crushers, for example, are commonly used by shot rock quarry operations, sand and gravel producers and recyclers (where there might be tramp metal in the material.) Selecting the wrong alloy can cause breakage of bars, accelerated wear and catastrophic failure to the crusher.

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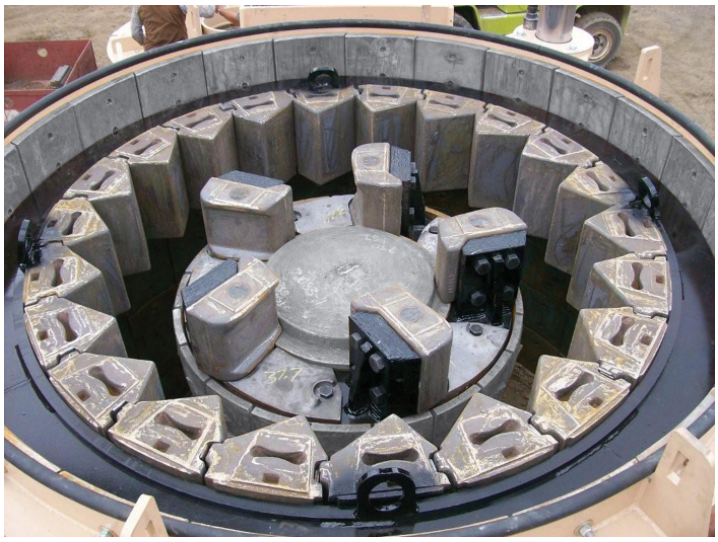
Also ensure an accurate fit to minimize vibration. All moving parts must be installed in matched weights to keep the crusher in balance. Unmatched weights can cause excessive vibration and cause crushers to break parts or cause premature failure.



VSI Wear Table

Vendor factors

Probably the most important factor when buying manganese castings is to evaluate and know your vendor. What's the vendor's crushing expertise and knowledge of local product? Both you and your vendor should know your quarrying conditions, equipment and your operation's throughput. The critical factors for ordering wear parts are your equipment, material being crushed (is it wet or dry?), mineral content and the desired throughput / tons per hour.

Take a close look at the vendor's manufacturing and pricing. You want access to global sourcing with competitive pricing and proven product quality. For logistics, make sure that the right parts for your operation are in nearby inventory and ready for timely delivery.

Remember that high-quality wear parts may cost more up front, but you can earn back the extra cost many times over through more efficient operation (increasing your tons per hour) and less downtime. The bottom line: The vendor should always help you minimize cost and maximize production.

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