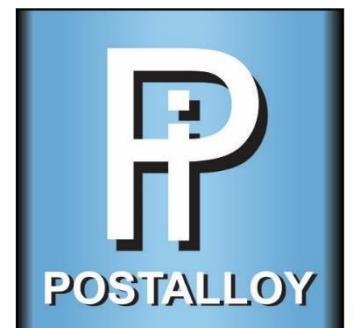


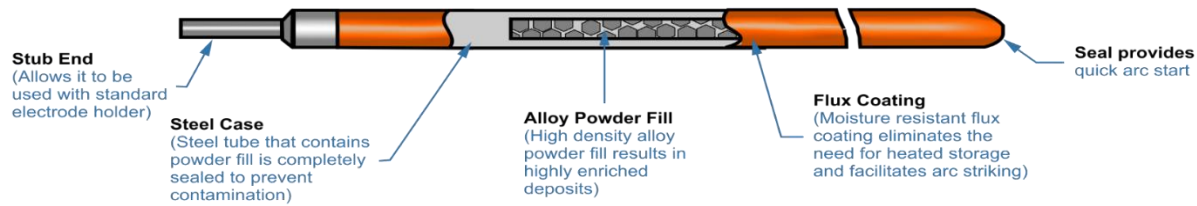


Postalloy® Tubular Hardfacing Electrodes

**Postalloy® Tubular Electrodes compared to
Conventional Electrodes have....**

- *Superior Abrasion Resistance*
- *Better Recovery rate, 90% compared to 65%*
- *55% more inches of weld deposit per pound*
- *Better Deposition rate, up to 3 times faster*
- *Lower amperage with less dilution and better first pass hardness*
- *De-slagging between layers is not necessary*
- *Ease of use, can be used with AC or DC welding equipment*
- *Storage - moisture resistant coating even under severe weather or high humidity*





Postalloy® Tubular Hardfacing Electrodes are a unique concept in hardfacing technology. As a tubular electrode, they are filled with the highest percentage of carbide forming alloys, much more (20%+) than any other Tubular Flux-Cored Wire. This gives much better wear resistance and overall product performance. They were engineered to provide extended life to parts subject to wear due to abrasion, impact and erosion

Postalloy® Tubular Hardfacing Electrodes are available in the following diameters: 1/4" (6mm), 3/8" (9.5mm) and 1/2" (12.7mm). They are designed for use in standard electrode holders. The 1/4" (6mm) diameter electrode may be used as low as 80 amps and can be used in vertical down and overhead hardfacing applications. The 1/2" (12.7mm) diameter electrode may be used up to 350 amps for covering large areas at high deposition rates.

Postalloy® Tubular Electrodes Offer:

- High Deposition Rates - Up to 3 times faster than ordinary electrodes
- Ease of Use - Can be used with AC or DC welding equipment
- High Metal Recovery - There is no slag to remove making it over 90% efficient. Ordinary electrodes waste up to 40%.
- Low Amperage
 - Reduces distortion
 - Reduces dilution - to improve the performance of the first layer
 - Minimizes the risk of burn-through
 - Allows hardfacing on a thin edge
 - Moisture Resistant Coating – even under severe weather or high humidity
 - De-slagging – between layers is not necessary
 - Reduces power consumption

1/4" (6mm) 80 to 130 amps

3/8" (9.5mm) 140 to 190 amps

1/2" (12.7mm) 190 to 350 amps

HIGH ABRASION/MILD to MODERATE IMPACT **Postalloy® 210HD**

This alloy is formulated with a high percentage of Chromium Carbides producing an overlay that is highly resistant to abrasion with mild or moderate impact. Weld deposits are smooth and take on a high polish to resist sliding particle abrasion. Hot hardness up to 1000°F (538°C). 210HD can be applied to carbon and alloy steels, manganese steel, as well as cast iron. High compression strength – deposits do not spall off under conditions of high impact. Ideal for gouging abrasion.

Average Hardness.....50-55Rc	Sizes: 1/4 (6mm)
Deposit Thickness..... 2 Passes	3/8 (9.5mm)
Relief checks readily to prevent stress build-up	1/2 (12.7mm)
Cannot be flame cut	

Applications: Swing hammers, fixed hammers, shovel buckets, crusher rolls, muller tires, blow bars, tampers and log grapples.

HIGH ABRASION/MILD to MODERATE IMPACT

Postalloy® 215HD

This alloy is formulated with a high percentage of Chromium Carbides producing an overlay that is highly resistant to abrasion with mild or moderate impact. Weld deposits are smooth and take on a high polish to resist sliding particle abrasion. Hot hardness up to 1000°F (538°C). 215HD can be applied to carbon and alloy steels, manganese steel, as well as cast iron.

Average Hardness.....	60Rc	Sizes:	1/4 (6mm)
Deposit Thickness.....	2 Passes		3/8 (9.5mm)
Relief checks readily to prevent stress build-up			1/2 (12.7mm)
Cannot be flame cut			

Applications: Bucket lips and teeth, crusher jaws, crusher mantles & liners, Shredder and fibrizer hammers, quarry screen plates, grizzly bars & feeder spouts, mining and construction screw conveyors, and dozer end bits.

HIGH ABRASION/MILD to MODERATE IMPACT

Postalloy® 216HD

This alloy is primarily engineered for the sugar cane industry (Roll-Arcing) and is to be used while the sugar cane roll is rotating. Postalloy® 216HD produces a rough weld deposit that will aid in pulling, tearing and crushing the sugar cane as it feeds through the rolls during processing. Also used for sugar mill rolls hooks (Picote). Postalloy® 216HD is a chromium carbide tubular hardfacing electrode with much higher percentages of carbide forming elements contained in the core than with conventional flux-coated electrodes. Weld chemistry produces a chromium carbide weld deposit for overlaying surfaces exposed to high abrasion and medium impact.

Average Hardness.....	58-62Rc	Sizes:	1/4 (6mm)
Deposit Thickness.....	2 Passes		3/8 (9.5mm)
Relief checks readily to prevent stress build-up			1/2 (12.7mm)
Cannot be flame cut			

Applications: Sugar mill rolls (Chapisco), Sugar mill roll hooks (Picote), cane rakes and combs, casing cane crushers, cane knives (Cuchillas) and Fibrizor hammers (Martillo).

RESISTS HIGH ABRASION/MILD IMPACT

Postalloy® 217HD

Postalloy® 217HD is a mixture of Chromium Carbide, Niobium Carbide and Molybdenum Carbide. It is designed for applications that require more abrasion resistance than Postalloy 215HD at a slight sacrifice to impact resistance. The Carbide concentration is denser and slightly harder than Postalloy 215HD providing a better, more abrasion-resistant surface.

Average Hardness.....	62Rc	Sizes:	1/4 (6mm)
Deposit Thickness.....	2 Passes		3/8 (9.5mm)
Relief checks readily to prevent stress build-up			1/2 (12.7mm)
Cannot be flame cut			

Applications: Swing hammers, brick & clay mill augers, screens & chutes in coal mining, siliceous coal grinding equipment, bucket lips & teeth of open mining wheel excavators & shovels, ground nut oil expeller screws, dredging teeth and cutters, clamshell and dragline buckets.

RESISTS SEVERE ABRASION, EROSION & MILD IMPACT

Postalloy® 218HD

Postalloy® 218HD produces a multi-carbide weld deposit that resists many types of wear. The weld deposit is a tightly packed, dense, inter-connected network of Chromium Carbides, Vanadium Carbides, Molybdenum Carbides, Niobium Carbides and Tungsten Carbides. Weld deposits offer exceptional wear resistance to general abrasion, high stress grinding, low stress scratching and erosion. Impact resistance is limited. This alloy may also be used at elevated temperatures up 1500°F (816°C).

Average Hardness.....	65Rc	Sizes:	1/4 (6mm)
Deposit Thickness.....	2 Passes		3/8 (9.5mm)
Relief checks readily to prevent stress build-up			1/2 (12.7mm)
Cannot be flame cut			

Applications: Boiler fan blades, blast furnace deflecting plates, sinter plant hot crusher parts, hot sinter screens, and exhaust fan blades in sinter and pelletizing plants, coke crusher segments and pusher shoes, and tong bits.

TUNGSTEN CARBIDE ALLOYS

EXTREME ABRASION

Postalloy® 219HD

Postalloy® 219HD is used when protection with tungsten carbide is needed. Weld deposits contain tungsten carbide in a chromium carbide rich matrix for added wear and corrosion resistance.

Average Matrix Hardness64-68 Rc	Sizes: 1/4 (6.0mm)
Deposit Thickness.....2 Layers	3/8 (9.5mm)
Relief checks readily to prevent stress build-up	1/2 (12.7mm)
Cannot be flame cut	

Applications: Auger points, debarking hammers, bucket pin ends, muller plows, shredder and anvil knives, mixer paddles and fan blades, cutter and dredge teeth, fly ash conveyors, debarking hammers, tamping tools and impeller tips.

EXTREME ABRASION

LOW CHROMIUM

Postalloy® 220HD

Postalloy® 220HD is used for applications that have extreme abrasion with very little impact or compressive loading. Temperature limit on this alloy is 900°F (488°C). This alloy is especially good where abrasive media is hard and sharp. It contains over 50% Tungsten Carbide and 10% Chromium Carbide Chromium Carbide lowers the coefficient of friction and hardens the matrix, thereby protecting the Tungsten Carbide particles from premature wear.

Average Matrix Hardness64-68 Rc	Sizes: 1/4 (6mm)
Tungsten Carbide Hardness.....75Rc	3/8 (9.5mm)
Deposit Thickness.....2 Passes	1/2 (12.7mm)
Relief checks readily to prevent stress build-up	
Cannot be flame cut	

Applications Include: Pan scrapers, coal & cement fans, dry cement pump screws, suction dredge blades, shredder knives, pilot blades, mixer paddles and blades, churn drills, ditcher teeth, fly ash conveyors, debarking hammers, sand slinger cups and impeller tips.

VANADIUM - TUNGSTEN CARBIDE ALLOYS

EXTREME ABRASION & IMPACT

Postalloy® 150HD Vanguard

POSTALLOY® 150HD Vanguard is a tubular hardfacing electrode that provides a dense, heterogeneous deposit of vanadium - tungsten carbides, along with other elements to enhance wear resistance, resulting in a very good combination of abrasion and impact resistance. This makes it superior to chromium carbide hardfacing alloys and almost equal to tungsten carbide in hardness at half the weight. Postalloy Vanguard 150HD is not a replacement for tungsten carbide overlays. However, it is a good alternative to tungsten carbide hardfacing alloys when they are too expensive or when MIG carbide embedding is not available or impractical. Unlike straight tungsten carbides, which are heavy and forced to the bottom of the weld puddle, the composition of Postalloy®150HD Vanguard is ideally balanced to provide a uniform distribution of vanadium - tungsten carbides throughout a tough steel matrix that takes more impact than both chromium and tungsten carbides. Also, it provides a very consistent wear rate and is designed for multiple re-applications. An excellent choice for many different hardfacing applications including mining, construction, recycling, dredging, forestry and sugar industries.

Average Matrix Hardness62-67 Rc	Sizes: 1/4 (6mm)
Deposit Thickness.....2 Passes	
Does not check crack with proper procedures	
Cannot be flame cut	

Applications: Recycling wear parts, shredder hammers, augers, grinding equipment, stabilizers and rippers.

Wear Resistant Solutions for All Industries



Mining/Quarries



Sugar Cane



Construction



Energy/Power



Logging



Foundation Drilling



Recycling



Dredging



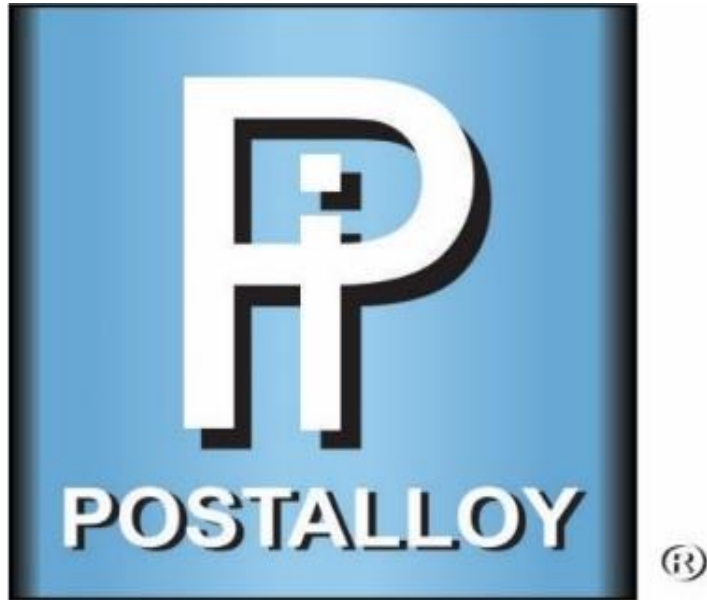
Agriculture



Railroads



Wood/Mulch



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