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<thead>
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<td>Cobalarc Austex</td>
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</tr>
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<tr>
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<td>Stoody 105 (Cobalarc 105-SA)</td>
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<td>Stoody 107 (Cobalarc 107-SA)</td>
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<td>Stoody Buildup-O (Cobalarc 250-O)</td>
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<td>Stoody 600 (Cobalarc Impactaclad-O)</td>
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<td>99</td>
</tr>
</tbody>
</table>
COBALARC AUSTEX

- Metal Enriched, Rutile Type Electrode.
- For Joining Dissimilar steels or as a Buffer Layer Prior to Hard Surfacing.
- Tough, Machinable Austenitic Stainless Steel Deposit.

3.2mm size can be used for vertical welding by depositing overlapping horizontal stringer passes.

Classifications:

Description and Applications:
Cobalarc AUSTEX is a metal enriched, rutile type extruded electrode manufactured by CIGWELD. It produces a smooth arc action and higher deposition rates than conventional stainless steel electrodes.

Deposited weld metal has high strength and toughness in combination with excellent corrosion resistance and tolerance to dilution. Under heavy impact weld deposits will work harden.

Typical applications of Cobalarc AUSTEX include the joining of dissimilar steels, in particular austenitic manganese steels or stainless steels to mild steel and deposition as a buffer layer prior to hard surfacing.

The high tolerance to dilution makes Cobalarc AUSTEX ideal for crack repairs on high carbon steel components or manganese steel castings.

Packaging and Operating Data:
AC (50 O.C.V), DC+ or DC– polarity.

<table>
<thead>
<tr>
<th>Size mm</th>
<th>Electrode Length mm</th>
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<th>Current Range (amps)</th>
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<th>Part No</th>
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TYPICAL ALL WELD METAL DEPOSIT ANALYSIS:
C: 0.10%  Mn: 1.50%  Si: 0.90%  Cr: 24.5%  Ni: 9.3%

TYPICAL WELD DEPOSIT HARDNESS:

<table>
<thead>
<tr>
<th>All Weld Metal Deposit</th>
<th>HRC</th>
<th>HV30</th>
</tr>
</thead>
<tbody>
<tr>
<td>Work Hardened Deposit</td>
<td>20</td>
<td>240</td>
</tr>
</tbody>
</table>

FINISHING RECOMMENDATIONS:
Machinable with Carbide Tools.

Downhand & Horizontal joining and build-up applications:-
3.2mm size can be used for vertical welding by depositing overlapping horizontal stringer passes.

Email: cigweldsales@cigweld.com.au
COBALARC MANGCRAFT

Austenitic Manganese Steel Electrode for Building Up & Reinforcing 11-14% Manganese Steel Components.

Tough and Impact Resistant.

Work Hardens Under Impact.

Classifications:

Description and Applications:
Cobalarc MANGCRAFT is a smooth running electrode depositing austenitic manganese steel weld metal. The deposits are extremely tough with high resistance to impact. They will work harden under impact loading giving added abrasion resistance.

Mangcraft is used for rebuilding austenitic manganese steel components either to finished dimensions or prior to applying an overlay of more abrasion resistant material.

Typical components include dredge bucket lips, swing hammers, grizzlies, bucket teeth, blow bars, crusher jaws, liners and concaves. Keep austenitic manganese steels cool during welding. Do not preheat. Use intermittent or staggered weld runs and water quench at frequent intervals if necessary.

Packaging and Operating Data:
AC (55 O.C.V.), DC+ or DC-
polarity.

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<th>No. of Electrodes per kg</th>
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<td>15kg</td>
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</tr>
<tr>
<td>5.0</td>
<td>450</td>
<td>10</td>
<td>150-200</td>
<td>5kg</td>
<td>15kg</td>
<td>3 x 5kg</td>
</tr>
</tbody>
</table>

Typical All Weld Metal Deposit Analysis:
C: 0.60%  Mn: 12.0%  Si: 0.10%

Typical Weld Deposit Hardness:
All Weld Metal Deposit 15 ---
Work Hardened Deposit 43 425

Finishing Recommendations:
Machinable with Carbide Tools.

Comparable Cigweld Products:
Cobalarc Mang Nickel-O tubular wire
AS/NZS 2576: 1215-B7

Downhand & Horizontal build-up applications
COBALARC 350

- **Metal Enriched, Rutile Type Electrode.**
- **For Re-building Worn Steel Components.**
- **Tough, Machinable Low Carbon Martensitic Steel Deposit.**
- **For the manual arc build-up and surfacing of steel gear, shafts, rails, shovel pads, track links, rolls and wheels etc.**

3.2mm and 4.0mm sizes can be used for vertical welding by depositing overlapping horizontal stringer passes.

**Classifications:**

**Description and Applications:**
Cobalarc 350 is a metal enriched, rutile type electrode recommended for the multi-layer build-up and surfacing of steel components subjected to metal-to-metal wear and compressive loading.

Depositing a tough, air hardening low carbon martensitic steel weld deposit Cobalarc 350 is recommended for the manual arc build-up and surfacing of steel gears, shafts, rails, shovel pads, track links, rolls and wheels etc.

**Packaging and Operating Data:**

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<th>Size mm</th>
<th>Electrode Length mm</th>
<th>No. of Electrodes per kg.</th>
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<td>140–200</td>
<td>1kg</td>
<td>12kg – 12 x 1kg</td>
<td>610444</td>
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</tbody>
</table>

**Typical All Weld Metal Deposit Analysis:**
- C: 0.07%  
- Mn: 0.85%  
- Si: 0.30%  
- Cr: 1.85%  
- Mo: 0.5%

**Typical Weld Deposit Hardness:**
- HRc: 28  
- HV30: 290

**Finishing Recommendations:**
Machinable.

**Comparable Cigweld Products:**
Cobalarc 350-G, O tubular wire
ASNZS 2576: 1435-B5/B7

Downhand & Horizontal surfacing and build-up applications:
- 3.2mm and 4.0mm sizes can be used for vertical welding by depositing overlapping horizontal stringer passes.

**COBALARC HARDFACING CONSUMABLES**

Email: cigweldsales@cigweld.com.au
**COBALARC 650**

▲ Basic Type Manual Arc Welding Electrode.
▲ Resistant to Hard Particle Abrasion and Moderate Impact Loading.
▲ Air Hardening, Crack Free, Martensitic Steel Deposit - 650 HV30

**Classifications:**

**Description and Applications:**
Cobalarc 650 is a basic electrode for the hard surfacing of steel components subjected to wet or dry hard particle abrasion and low to moderate impact loading.

The air hardening, low alloy steel deposit of Cobalarc 650 remains crack free on most steels under normal welding conditions and is therefore recommended for hard surfacing components subject to flexing during service.

The basic flux coating gives excellent resistance to rust, mill scale, dirt and oil on the surface being hardfaced. Typical applications include the surfacing of agricultural points, shares and tynes, grader and dozer blades, conveyor screws and post hole augers etc.

**Packaging and Operating Data:**
AC (minimum 55 O.C.V.), DC+ or DC– polarity.

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<tr>
<th>Size mm</th>
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**Typical all weld metal deposit analysis:**
- C: 0.58%
- Mn: 1.1%
- Si: 0.6%
- Cr: 5.3%
- Mo: 0.25%

**Typical weld deposit hardness:**
- Single Layer on Mild Steel: 55 HRC, 600 HV30
- All Weld Metal Deposit: 57 HRC, 640 HV30

**Finishing Recommendations:**
Not Machinable / Grinding only.

**Comparable Cigweld Products:**
- Cobalarc 650-G tubular wire AS/NZS 2576: 1855-85/B7
- Cobalarc 850-O tubular wire AS/NZS 2576: 1865-87

**Downhand & Horizontal surfacing applications:**
- 3.2mm and 4.0mm sizes can be used for vertical welding by depositing overlapping horizontal stringer passes.
COBALARC HARDFACING CONSUMABLES

COBALARC 750

- Rutile type, AC/DC Hard Surfacing Electrode.
- Resistant to Hard Particle Abrasion.
- Air Hardening, Crack Free, Martensitic Steel Deposit - 750 HV30
- Easy Arc Starting and Stable Running on Portable AC Welding Sets (≥ 45 O.C.V.).

Classifications:

Description and Applications:
Cobalarc 750 is a NEW smooth running, rutile type electrode specifically designed for AC hard surfacing applications in the workshop or on the land.

It gives smooth stable arcing on AC or DC welding machines and is particularly suitable for surfacing with portable AC welding sets (with ≥ 45 Open Circuit Volts) such as the CIGWELD Easywelder. Cobalarc 750 should be used with a touch welding or short arc technique and 1-2 layers are recommended for maximum deposit hardness.

When hard surfacing high carbon or low alloy steel components a buffer or buttering layer of Ferrocraft 16TXP or Multicraft 7016 is recommended prior to depositing Cobalarc 750.

Typical applications include the surfacing of agricultural equipment and components including points, shares, post hole augers, ripper teeth and tynes etc.

Packaging and Operating Data:
AC (minimum 45 O.C.V.), DC+ polarity.

<table>
<thead>
<tr>
<th>Size mm</th>
<th>Electrode Length mm</th>
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<td>17</td>
<td>120–170</td>
<td>1kg</td>
<td>12kg</td>
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</table>

Easyweld Blister Pack:
10 x 3.2mm rod Cobalarc 750 Blister Pack 322218

FINISHING RECOMMENDATIONS:
Not Machinable / Grinding only.

COMPARABLE CIGWELD PRODUCTS:
- Cobalarc 650 manual arc electrode
  AS/NZS 2576: 1855-A4
- Cobalarc 650-G/O tubular wire
  AS/NZS 2576: 1855-B5/B7
- Cobalarc 850-G tubular wire
  AS/NZS 2576: 1865-B7

Downhand & Horizontal hard surfacing applications:
3.2mm and 4.0mm sizes can be used for vertical welding by depositing overlapping horizontal stringer passes.

Email: cigweldsales@cigweld.com.au
**COBALARC TOOLCRAFT**

- Secondary Hardening, Shock Resistant Properties.
- Crack Free Cr-Mo Steel Deposit for Repairing Blades, Dies, Punches etc.
- Also Suitable for General Hard Surfacing in Low Stress Abrasion Conditions.

3.2mm size can be used for vertical welding by depositing overlapping horizontal stringer passes.

**Classifications:**

**Description and Applications:**
Cobalarc Toolcraft is a versatile electrode for welding on mild, carbon and low alloy steels. The weld deposit has excellent abrasion / shock resistance and secondary hardness retention to 500°C.

The air hardening, low alloy Cr–Mo steel deposit of Cobalarc Toolcraft remains crack free on most steels under normal welding conditions and deposits can be ground to produce a long-lasting cutting edge.

Typical applications include the maintenance/repair of guillotine blades, cutting knives, punches, axes, lathe tools, chisels and debarking hammers. Cobalarc Toolcraft is also suitable for general hard surfacing applications under low stress abrasion conditions.

**Deposit Annealing and Hardening:**
Cobalarc Toolcraft deposits can be annealed by slow heating to 800°C, holding at temperature for one hour followed by furnace cooling.

For deposit re-hardening to ≈ 60 HRc, preheat slowly to 800 - 850°C then rapidly to 1250 - 1300°C, hold at temperature for ≈ 10 minutes and then quench in oil. For full hardness, temper twice at 520 - 530°C, for one hour.

**Packaging and Operating Data:**

<table>
<thead>
<tr>
<th>Size mm</th>
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<th>Length mm</th>
<th>No. of Electrodes per kg</th>
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**Typical Weld Metal Deposit Analysis:**
- C: 0.58%
- Mn: 0.10%
- Si: 0.20%
- Cr: 5.5%
- Mo: 6.8%

**Typical Weld Deposit Hardness:**

<table>
<thead>
<tr>
<th>Classification</th>
<th>HRc</th>
<th>HV30</th>
</tr>
</thead>
<tbody>
<tr>
<td>Single Layer on Mild Steel</td>
<td>55</td>
<td>600</td>
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<tr>
<td>All Weld Metal Deposit</td>
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<td>700</td>
</tr>
</tbody>
</table>

**Finishing Recommendations:**
Not Machinable / Grinding only.

---

Email: cigweldsales@cigweld.com.au
COBALARC CR70

- High Chromium Carbide Iron Deposit.
- Primary Chromium Iron Carbides in a Single Layer.
- Ideal for Coarse Abrasion and Low to Moderate Impact Loading.
- Typical applications of Cobalarc CR70 include the hard surfacing of crusher cones and mantles, swing hammers, bucket teeth and lips, dozer end plates and sugar mill rolls etc.

3.2mm and 4.0mm sizes can be used for vertical welding by depositing overlapping horizontal stringer passes.

Classification:


Description and Applications:

Cobalarc CR70 is a popular high alloy extruded hard surfacing electrode manufactured by CIGWELD. The weld deposit of Cobalarc CR70 produces a high level of primary chromium carbides resistant to coarse abrasion (in particular gouging abrasion) and moderate impact loading at temperatures up to ≈650°C.

Weld deposits can be finished by grinding and are best limited to two layers because of relief checking.

Typical applications of Cobalarc CR70 include the hard surfacing of crusher cones and mantles, swing hammers, bucket teeth and lips, dozer end plates and sugar mill rolls etc.

Packaging and Operating Data:

AC (minimum 50 O.C.V.), DC+ polarity.

<table>
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<tr>
<th>Size mm</th>
<th>Length mm</th>
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Typical Weld Deposit Analysis:

Single Layer on Mild Steel:
C: 3.3%  Mn: 1.5%  Si: 1.0%  Cr: 25%

All Weld Metal Deposit:
C: 4.0%  Mn: 1.8%  Si: 1.2%  Cr: 31%

Typical Weld Deposit Hardness:

HRc  HV30
Single Layer on Mild Steel 55  600
All Weld Metal Deposit 59  690

Deposits contain Chromium Carbides with hardness up to 1,500 HV.

Finishing Recommendations:

Grinding only.

Comparable Cigweld Products:

Cobalarc COARSECLAD-G/TOD tubular wire
AS/NZS 2576: 2360-BS/87

Downhand & Horizontal surfacing applications:-
3.2mm and 4.0mm sizes can be used for vertical welding by depositing overlapping horizontal stringer passes.

Email: cigweldsales@cigweld.com.au
COBALARC BOROCHROME

▲ Highly Alloyed Manual Arc Electrode.
▲ Martensitic Chromium Carbide Iron Deposit.
▲ Ideal for Fine Particle (Wet or Dry) Abrasion and Low Impact Loading.
▲ Primary Chromium Iron Carbides in a Hard, Martensitic Matrix.

Classifications:

Description and Applications:
Cobalarc BOROCHROME is a popular high alloy extruded hardsurfacing electrode manufactured by CIGWELD. The addition of nominally 1% Boron to Cobalarc BOROCHROME produces an ultra fine, martensitic matrix in the weld deposit particularly resistant to wet or dry abrasive or erosive media. Weld deposits can be finished by grinding and are best limited to two layers because of relief checking. Typical applications of Cobalarc BOROCHROME include the hard surfacing of sand chutes, dredge components, ripper shanks, screens, grizzly bars, scraper blades and bucket lips and teeth.

Packaging and Operating Data:
AC (minimum 50 O.C.V.), DC+ polarity.

<table>
<thead>
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<td>5kg</td>
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</tbody>
</table>

Typical Weld Deposit Analysis:
- Single Layer on Mild Steel:
  - C: 2.7%
  - Mn: 0.4%
  - Si: 1.8%
  - Cr: 20.0%
  - V: 1.4%
  - B: 1.0%
- All Weld Deposit:
  - C: 3.2%
  - Mn: 0.4%
  - Si: 2.4%
  - Cr: 24.0%
  - V: 1.7%
  - B: 1.2%

Typical Weld Deposit Hardness:
- HRC
- HV30
  - Single Layer on Mild Steel: 58 660
  - All Weld Metal Deposit: 60 700

Finishing Recommendations:
Grinding only.

Comparable CigWeld Products:
- Cobalarc FINECLAD-O tubular wire
  - AS/NZS 2576: 2565-B7

Contact Information:
Email: cigweldsales@cigweld.com.au
COBALARC 4

- Highly Alloyed Tubular Electrode.
- Resistant to Extreme Abrasion and Low Impact Loading.
- Typical applications include the hard surfacing of fan and pump impellors, pug mill augers and knives, and gravel chutes, feed screws, ripper tynes and scraper/mixer blades.

6.3mm Cobalarc 4 can be used for vertical surfacing by depositing overlapping horizontal stringer passes.

Classifications:

Description and Applications:
Cobalarc 4 is a tubular hard surfacing electrode manufactured by CIGWELD which deposits a highly wear resistant weld metal consisting of very hard partially dissolved tungsten carbides in an iron rich matrix.

Cobalarc 4 should not be used in applications involving heavy impact or shock loading.

Typical applications of Cobalarc 4 include the hard surfacing of fan and pump impellors, pug mill augers and knives, sand and gravel chutes, feed screws, ripper tynes and scraper / mixer blades.

Packaging and Operating Data:
AC (minimum 50 O.C.V.), DC+ polarity.

<table>
<thead>
<tr>
<th>Size mm</th>
<th>Length mm</th>
<th>No. of Electrodes per kg.</th>
<th>Current Range (amps)</th>
<th>Packet</th>
<th>Carton</th>
<th>Part No</th>
</tr>
</thead>
<tbody>
<tr>
<td>6.3</td>
<td>450</td>
<td>9</td>
<td>80–150</td>
<td>5kg</td>
<td>15kg – 3 x 5kg</td>
<td>613255</td>
</tr>
</tbody>
</table>

TYPICAL WELD DEPOSIT ANALYSIS*:
- Single Layer on Mild Steel:
  - C: 3.1%  Mn: 0.9%  W: 44%  Cr: 6%
- All Weld Metal Deposit:
  - C: 3.7%  Mn: 1.0%  W: 53%  Cr: 7%

TYPICAL WELD DEPOSIT HARDNESS:
- Single Layer on Mild Steel
  - HRC: 62  HV30: 750
- All Weld Metal Deposit
  - HRC: 64  HV30: 800

Deposits contain Tungsten Carbides with hardness up to 2,200 HV.

* Actual weld deposit consists of undissolved Tungsten Carbide particles in a eutectic matrix of C-W-Cr-Fe. The analysis of the matrix will vary with the proportion of Tungsten Carbides dissolved during welding.

FINISHING RECOMMENDATIONS:
Grinding only.

IDENTIFICATION COLOURS:
Purple (Single dot near holder end)

Downhand & Horizontal surfacing applications:
6.3mm Cobalarc 4 can be used for vertical surfacing by depositing overlapping horizontal stringer passes.
COBALARC 9

- Highly Aligned Tubular Electrode.
- Versatile, Complex Carbide Iron Deposit.
- Resistant to both Coarse and Fine Abrasion and Moderate to Heavy Impact Loading.
- Typical applications include the hard surfacing of railway ballast tampers, dredge buckets and lips, earth moving equipment, power shovels, rolling mill guides, sizing screens, ripper teeth and crushing equipment.

5.0mm and 6.3mm sizes can be used for vertical surfacing by depositing overlapping horizontal stringer passes.

Classifications:

Description and Applications:
Cobalarc 9 is the most versatile tubular hard surfacing electrode in the CIGWELD range. The complex chromium rich carbides in Cobalarc 9 make it highly resistant to both coarse and fine abrasion while retaining the toughness to withstand moderate to heavy impact.

Typical applications of Cobalarc 9 include the hard surfacing of railway ballast tampers, dredge buckets and lips, earth moving equipment, power shovels, rolling mill guides, sizing screens, ripper teeth and crushing equipment.

Packaging and Operating Data:
- AC (minimum 50 O.C.V.), DC+ polarity.

<table>
<thead>
<tr>
<th>Size (mm)</th>
<th>Electrode</th>
<th>Length (mm)</th>
<th>No. of Electrodes per kg.</th>
<th>Current Range (amps)</th>
<th>Packet</th>
<th>Carton Range</th>
<th>Part No</th>
</tr>
</thead>
<tbody>
<tr>
<td>5.0</td>
<td>450</td>
<td>20</td>
<td>60-120</td>
<td>5kg</td>
<td>15kg 3x5kg</td>
<td>613350</td>
<td></td>
</tr>
<tr>
<td>6.3</td>
<td>450</td>
<td>14</td>
<td>70-150</td>
<td>5kg</td>
<td>15kg 3x5kg</td>
<td>613360</td>
<td></td>
</tr>
</tbody>
</table>

Typical Weld Deposit Analysis:
- Single Layer on Mild Steel:
  - C: 4.0%  Mn: 0.9%  Si: 1.1%  Cr: 25.0%
  - Ni: 0.4%  Mo: 1.5%  V: 0.2%
- All Weld Deposit:
  - C: 4.8%  Mn: 1.1%  Si: 1.4%  Cr: 30.0%
  - Ni: 0.5%  Mo: 1.7%  V: 0.2%

Typical Weld Deposit Hardness:
- Single Layer on Mild Steel: HRC 58, HV 660
- All Weld Deposit: HRC 63, HV 780

Deposits contain complex Chromium Carbides with hardness up to 1,500 HV.

Finishing Recommendations:
Grinding only.

Identification Colours:
White (Single dot near holder end)

Downhand & Horizontal surfaced applications:- 5.0mm and 6.3mm sizes can be used for vertical surfacing by depositing overlapping horizontal stringer passes.
We’ve taken the “HARD” out of Hardfacing

STOODY - “The Leader in Hardfacing”
STOODY DYNAMANG-O

(Replaces Cobalarc Mang Nickel-O)

▲ Self Shielded (-O), Tubular Hardfacing Wire.
▲ Tough, Work Hardening Austenitic Manganese Steel Deposit.
▲ Typical applications include the repair of Manganese steel crusher rolls, jaw and hammer crushers, gyratory mantles, blow bars and dredge pump cutters etc.
▲ 1.6mm size can be used for vertical surfacing by depositing overlapping horizontal stringer passes.

Classifications:

AS/NZS 2576: 1215-B7.

Description and Applications:

Stoody Dynamang-O is a high alloy tubular wire depositing a manganese steel weld metal for the repair and joining of matching Manganese steel components used in the quarrying and mining industries.

Resultant weld deposits have high strength and elongation and are extremely resistant to impact loading. Stoody Dynamang-O can be multi-layered to any thickness without relief checking and deposits will work harden during service under high impact loading.

Typical applications include the repair of Manganese steel crusher rolls, jaw and hammer crushers, gyratory mantles, blow bars and dredge pump cutters etc.

Packaging and Operating Data:

DC Electrode Positive.

<table>
<thead>
<tr>
<th>Wire Dia. mm</th>
<th>Current Range (amps)</th>
<th>Voltage Range (volts)</th>
<th>Electrode Stickout mm</th>
<th>Pack Type</th>
<th>Pack Weight kg</th>
<th>Part No</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.6</td>
<td>200–250</td>
<td>23–27</td>
<td>12–25</td>
<td>Spool</td>
<td>15</td>
<td>11446700</td>
</tr>
<tr>
<td>2.8</td>
<td>275–375</td>
<td>25–28</td>
<td>20–45</td>
<td>Coil</td>
<td>27</td>
<td>11249900</td>
</tr>
</tbody>
</table>

TYPICAL ALL WELD METAL DEPOSIT ANALYSIS:

C: 0.90%  Mn: 13.40%  Si: 0.37%
Ni: 2.7%  Cr: 2.50%

TYPICAL WELD DEPOSIT PROPERTIES:

Yield Stress  615 MPa
Tensile Strength  810 MPa
Elongation  21%

TYPICAL WELD DEPOSIT HARDNESS:

HRC  17  220
HV0.1  42  410

FINISHING RECOMMENDATIONS:

Machinable as Deposited.

RECOMMENDED SHIELDING GAS:

* Open arc or welding grade CO2

COMPARABLE CIGWELD PRODUCTS:

Cobalarc Mangcraft extruded electrode AS/NZS 2576: 1215-A4

Downhand & Horizontal surfacing applications:- 1.6mm size can be used for vertical surfacing by depositing overlapping horizontal stringer passes.

Email: cigweldsales@cigweld.com.au
STOODY HARDFACING CONSUMABLES

STOODY HARDFACING CONSUMABLES

(Replaces Cobalarc 350-G/O)

- Gas (-G) and Self Shielded (-O), Tubular Hardfacing Wires.
- Tough, Machinable Low Carbon Martensitic Steel Deposit.
- Recommended for the build-up and surfacing of steel track rolls, idler wheels, track pads, drive sprockets, pins, links and other components subject to abrasion and/or metal-to-metal wear.
- 1.2mm and 1.6mm sizes can be used for vertical surfacing by depositing overlapping horizontal stringer passes.
- 1.2mm and 1.6mm wires are B5 type wires which require a shielding gas. 2.4mm size is a B7 type open arc wire which requires no shielding gas.

Classifications:

<table>
<thead>
<tr>
<th>Wire Size</th>
<th>Current Range (amps)</th>
<th>Voltage Range (volts)</th>
<th>Recommended Stickout (ESO) mm</th>
<th>Pack Type</th>
<th>Pack Weight (kg)</th>
<th>Part No</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.2</td>
<td>120–220</td>
<td>18–24</td>
<td>15–20</td>
<td>Spool</td>
<td>15</td>
<td>11423600</td>
</tr>
<tr>
<td>1.6</td>
<td>140–250</td>
<td>23–26</td>
<td>15–25</td>
<td>Spool</td>
<td>15</td>
<td>11946200</td>
</tr>
<tr>
<td>2.4</td>
<td>200–350</td>
<td>24–28</td>
<td>20–30</td>
<td>Coil</td>
<td>27</td>
<td>11183600</td>
</tr>
</tbody>
</table>

TYPICAL WELD METAL DEPOSIT ANALYSIS:

<table>
<thead>
<tr>
<th>C</th>
<th>Mn</th>
<th>Si</th>
<th>Cr</th>
<th>Mo</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.20%</td>
<td>1.5%</td>
<td>0.4%</td>
<td>2.0%</td>
<td>0.5%</td>
</tr>
</tbody>
</table>

TYPICAL WELD DEPOSIT HARDNESS:

<table>
<thead>
<tr>
<th>HRC</th>
<th>HV30</th>
</tr>
</thead>
<tbody>
<tr>
<td>30</td>
<td>300</td>
</tr>
</tbody>
</table>

All Weld Metal Deposit

40

390

FINISHING RECOMMENDATIONS:

Machinable. Carbide tools recommended.

RECOMMENDED SHIELDING GASES:

- 1.2mm & 1.6mm Super Buildup-G
  - Ar + 1-3% O2
  - Ar + 10-25% CO2 or equivalent
- 2.4mm Super Buildup-O
  - Open arc or welding grade CO2

COMPARABLE CIGWELD PRODUCTS:

Cobalarc 350 extruded electrode

AS/NZS 2576: 1435-A4

Description and Applications:

Stoody Super Buildup-G/O is a tubular hard surfacing wire designed for the re-building or surfacing of steel components subject to metal-to-metal wear and compressive loading.

1.2mm Stoody Super Buildup-G/O is ideal for all positional surfacing applications with Transmig 250 and 275 power plants.

Depositing a tough, air hardening low carbon martensitic steel weld deposit, Stoody Super Buildup-G/O is recommended for the semi-automatic build-up and surfacing of steel track rolls, idler wheels, track pads, drive sprockets, pins, links and other components subject to abrasion and/or metal-to-metal wear.

Email: cigweldsales@cigweld.com.au
STOODY 965-G/O
(Replaces Cobalarc 650-G/O)

▲ Gas (-G) and Self Shielded (-O), Tubular Hard-facing Wires.

▲ Air Hardening, Crack Free, Martensitic Steel Deposit.

▲ Resistant to Hard Particle Abrasion and Moderate Impact Loading.

▲ Typical applications include the surfacing of agricultural points, shares and tynes, sand dredge cutter heads, dredge rollers and tumblers, conveyor screws, bucket lips, etc.

▲ 1.2mm and 1.6mm sizes can be used for vertical surfacing by depositing overlapping horizontal stringer passes.

▲ 1.2mm and 1.6mm wires are B5 type wires which require a shielding gas.

▲ 2.4mm wire size is a B7 type open arc wire which requires no shielding gas.

Classifications:

1.2mm & 1.6mm 2.4mm *


* - 1.2mm and 1.6mm Stoody 965-G wires are B5 type wires which require a shielding gas. 2.4mm Stoody 965-O is a B7 type open arc wire which requires no shielding gas.

Description and Applications:

Stoody 965-G/O is a tubular hard surfacing wire for surfacing components subjected to wet or dry hard particle abrasion and low to moderate impact loading. The air hardening martensitic steel weld deposit of Stoody 965-G/O remains crack free on most steels under normal welding conditions and is therefore recommended for the surfacing of components subject to flexing during service. 1.2mm Stoody 965-G/O is ideal for all positional surfacing applications with the Transmig 210, 250 and 310 power sources.

Typical applications include the surfacing of agricultural points, shares and tynes, sand dredge cutter heads, dredge rollers and tumblers, conveyor screws, bucket lips, etc.

Packaging and Operating Data:

DC Electrode Positive.

<table>
<thead>
<tr>
<th>Wire Dia (mm)</th>
<th>Current Range (amps)</th>
<th>Voltage Range (volts)</th>
<th>Recommended Stickout (ESO) (mm)</th>
<th>Pack Type</th>
<th>Pack Weight (kg)</th>
<th>Part No</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.2</td>
<td>120–220</td>
<td>18–24</td>
<td>15–20</td>
<td>Spool</td>
<td>15kg</td>
<td>11423100</td>
</tr>
<tr>
<td>1.6</td>
<td>140–250</td>
<td>23–26</td>
<td>20–25</td>
<td>Spool</td>
<td>15kg</td>
<td>11501500</td>
</tr>
<tr>
<td>2.4</td>
<td>200–350</td>
<td>24–28</td>
<td>20–30</td>
<td>Coils</td>
<td>27kg</td>
<td>11946100</td>
</tr>
</tbody>
</table>

Email: cigweldsales@cigweld.com.au
STOODY 850

▲ Self Shielded (-O), Tubular Hardfacing Wire.
▲ Air Hardening, Crack Prone High Carbon, Martensitic Steel Deposit.
▲ Resistant to Severe Abrasion and Low Impact Loading.
▲ Typical applications include the hard surfacing of agricultural, mining and materials handling equipment including tynes, points, conveyor screws, dredge buckets, cane harvester cutters/elevators and sugar mill scraper plates.
▲ 1.2mm size can be used for vertical surfacing by depositing overlapping horizontal stringer passes.

Classifications:

Description and Applications:
Stoody 850 is a self shielded (or open arc) hard surfacing wire which deposits a high carbon martensitic steel for excellent resistance to severe, fine (wet or dry) abrasion and low impact loading. Weld deposits are air hardening and prone to fine relief checking. Stoody 850 should not be used in applications involving heavy impact or shock loading.

1.2mm Stoody 850 is ideal for all positional surfacing applications with the Transmig 250 and 275 power plant. Typical applications include the hard surfacing of agricultural, mining and materials handling equipment including tynes, points, conveyor screws, dredge buckets, cane harvester cutters / elevators and sugar mill scraper plates.

Packaging and Operating Data:

<table>
<thead>
<tr>
<th>Wire Dia (mm)</th>
<th>Current Range (amps)</th>
<th>Voltage Range (volts)</th>
<th>Recommended Stickout (ESO) (mm)</th>
<th>Pack Type</th>
<th>Pack Weight (kg)</th>
<th>Part No</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.2</td>
<td>120–220</td>
<td>18–24</td>
<td>15–20</td>
<td>Spool</td>
<td>15</td>
<td>11945500</td>
</tr>
</tbody>
</table>

Typical All Weld Metal Deposit Analysis:
- C: 0.95%
- Mn: 0.6%
- Si: 0.9%
- Cr: 6.5%
- Mo: 3.5%
- B: 1.5%

Typical Weld Deposit Hardness:
- Single Layer on Mild Steel: HRC 62, HV30 750
- All Weld Metal Deposit: HRC 65, HV30 830

Finishing Recommendations:
- Grinding only.

Recommended Shielding Gas:
- EN439: C1
- Open arc or welding grade CO2

Downhand & Horizontal surfacing applications:
- 1.2mm size can be used for vertical surfacing by depositing overlapping horizontal stringer passes.

Email: cigweldsales@cigweld.com.au
STOODY 101 HC-G/O
(Replaces Cobalarc Coarseclad-G/O 1.2 & 1.6mm)

▲ High Alloy, Tubular Hardfacing Wire.
▲ High Chromium - Carbide Iron Deposit. For Ground Engaging Applications.
▲ Resistant to Severe Abrasion and Low to Moderate Impact Loading.
▲ Typical applications include the hard surfacing of crusher cones and mantles, swing hammers, earthmoving buckets, scarifier points and sugar harvesting and milling equipment.
▲ 1.2mm size is suitable for vertical-up surfacing using a wide weaving technique.

Classifications:

<table>
<thead>
<tr>
<th>1.2mm*</th>
<th>1.6mm*</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.2mm</td>
<td>1.6mm</td>
</tr>
<tr>
<td>2360-B5</td>
<td>2360-B7</td>
</tr>
<tr>
<td>2360-B5</td>
<td>2360-B7</td>
</tr>
</tbody>
</table>

* 1.2mm 101 HC-G is a B5 type wire which requires a shielding gas.
1.6mm 101 HC-O is a B7 type wire which requires no shielding gas.

Description and Applications:

Stoody 101 HC-G/O is a high alloy tubular hardfacing wire depositing a high chromium carbide iron particularly resistant to severe coarse (large particle) abrasion. The weld deposit of Stoody 101 HC-G/O produces a high level of primary chromium carbides resistant to coarse abrasion (in particular gouging abrasion) at temperatures up to 650°C.

Weld deposits can be finished by grinding and relief checking is normal. Typical applications of Stoody 101 HC-G/O include the hard surfacing of crusher cones and mantles, swing hammers, earthmoving buckets, scarifier points and sugar harvesting and milling equipment. For high impact applications Stoody 101 HC-G/O deposits should be restricted to one layer.

Weld Deposit Microstructure:

Two layers of Stoody 101 HC-G/O onto a mild steel component will produce approximately 25 - 30% primary chromium iron carbides in a carbide-ferrite matrix ideal for severe abrasion and low to moderate impact applications.

Packaging and Operating Data:

DC Electrode Positive.

<table>
<thead>
<tr>
<th>Wire Dia mm</th>
<th>Current Range (amps)</th>
<th>Voltage Range (volts)</th>
<th>Recommended Stickout (ESO) (mm)</th>
<th>Pack Type</th>
<th>Pack Weight</th>
<th>Part No</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.2 Coarseclad-G</td>
<td>150-200</td>
<td>22-26</td>
<td>12-20</td>
<td>Spool</td>
<td>15kg</td>
<td>11436300</td>
</tr>
<tr>
<td>1.6 Coarseclad-O</td>
<td>200-260</td>
<td>24-28</td>
<td>15-25</td>
<td>Spool</td>
<td>15kg</td>
<td>11304700</td>
</tr>
<tr>
<td>Handispool</td>
<td>4kg</td>
<td>11945600</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Typical Weld Deposit Analysis:

<table>
<thead>
<tr>
<th>Deposit Type</th>
<th>C:</th>
<th>Mn:</th>
<th>Si:</th>
<th>Cr:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Single Layer on Mild Steel</td>
<td>4.0%</td>
<td>0.7%</td>
<td>0.7%</td>
<td>14.0%</td>
</tr>
<tr>
<td>All Weld Metal Deposit</td>
<td>5.2%</td>
<td>0.7%</td>
<td>0.7%</td>
<td>19.0%</td>
</tr>
</tbody>
</table>

Typical Weld Deposit Hardness:

<table>
<thead>
<tr>
<th>Deposit Type</th>
<th>HRC</th>
<th>HV30</th>
</tr>
</thead>
<tbody>
<tr>
<td>Single Layer on Mild Steel</td>
<td>55</td>
<td>600</td>
</tr>
<tr>
<td>All Weld Metal Deposit</td>
<td>60</td>
<td>700</td>
</tr>
</tbody>
</table>

Weld deposits contain Chromium Carbides with hardness up to 1,500 HV (80 HRc).

Finishing Recommendations:

Grinding only.

Recommended Shielding Gas:

1.2mm 101 HC-G
- Ar+ 1-3% O2 or equivalent
1.6mm 101 HC-O
- Open arc or welding grade CO2

Comparable CigWeld Products:

Cobalarc CR70 extruded electrode ASDNZS 2576: 2355-A4

Downhand & Horizontal surfacing applications:-
1.2mm size is suitable for vertical-up surfacing using a wide weaving technique.

Email: cigweldsales@cigweld.com.au
STOODY 100 HC-O

(Replaces Cobalarc Coarseclad-O 2.4 & 2.8mm)

- Self Shielded (-O), Tubular Hardfacing Wire.
- High Chromium Carbide Iron Deposit.
- For Ground Engaging Applications.
- Resistant to Coarse Abrasion and Low to Moderate Impact Loading.
- Primary Chromium Iron Carbides in Single Layer.

Classifications:
AS/NZS 2576: 2360-B7.

Description and Applications:
Stoody 100 HC-O is a high alloy tubular hardfacing wire depositing a high chromium carbide iron particularly resistant to coarse (large particle) abrasion. The weld deposit of Stoody 100 HC-O produces a high level of primary chromium carbides resistant to coarse abrasion (in particular gouging abrasion) at temperatures up to 650°C.

Weld deposits can be finished by grinding and relief checking is normal. Typical applications of Stoody 100 HC-O include the hard surfacing of crusher cones and mantles, swing hammers, earthmoving buckets, blades and rippers. Also suitable for single layer wear plate manufacture.

For higher impact applications Stoody 100 HC-O deposits should be restricted to two layers.

Weld Deposit Microstructure:
Two layers of Stoody 100 HC-O onto a mild steel component will produce approximately 30% - 35% primary chromium iron carbides in a carbide-ferrite matrix ideal for coarse abrasion and low to moderate impact applications.

Packaging and Operating Data:
DC Electrode Positive.

<table>
<thead>
<tr>
<th>Wire Diameter</th>
<th>Current Range (amps)</th>
<th>Voltage Range (volts)</th>
<th>Recommended Stickout (ESO) mm</th>
<th>Pack Type</th>
<th>Pack Weight</th>
<th>Part No</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.4</td>
<td>250–350</td>
<td>25–30</td>
<td>35–55</td>
<td>Coil</td>
<td>27kg</td>
<td>11313400</td>
</tr>
<tr>
<td>2.8</td>
<td>300–450</td>
<td>27–33</td>
<td>35–55</td>
<td>Coil</td>
<td>27kg</td>
<td>11001000</td>
</tr>
<tr>
<td>2.8</td>
<td>300–450</td>
<td>27–33</td>
<td>35–55</td>
<td>POP*</td>
<td>226kg</td>
<td>11235400</td>
</tr>
</tbody>
</table>

* Pay-off Pack or Drum

Email: cigweldsales@cigweld.com.au
STOODY FINECLAD-O

(Replaces Cobalarc Fineclad-O)

- Self Shielded (-O), Tubular Hardfacing Wire.
- Chromium Iron Carbides in a Hard, Martensitic Matrix.
- Resistant to Fine, Wet or Dry Abrasion
- High Deposit Hardness - typically 65 HRC.
- Now available in 1.6mm size on 15kg spools.

Classifications:

Description and Applications:
Stoody FINECLAD-O is a second generation Cobalarc tubular wire depositing a hard martensitic chromium carbide iron resistant to severe fine abrasion. The addition of nominally 0.8% Boron to Stoody FINECLAD-O produces an ultra fine, martensitic matrix in the weld deposit particularly resistant to wet or dry abrasive or erosive media.

Stoody FINECLAD-O also gives satisfactory performance under medium to coarse abrasion however this is limited to conditions of low impact loading. Weld deposits can be finished by grinding and relief checking is normal.

Typical applications of Stoody FINECLAD-O include the surfacing of sand chutes, dredge components, ripper shanks, screens, grizzly bars, scraper blades, and bucket teeth and lips etc.

Weld Deposit Microstructure:
The addition of nominally 0.8% Boron to Stoody FINECLAD-O facilitates the formation of martensite in the eutectic. It also results in an ultra fine eutectic structure which in combination with the martensite fraction is responsible for Stoody FINECLAD-O’s excellent resistance to fine worldly abrasion and erosion.

Packaging and Operating Data:
DC Electrode Positive.

<table>
<thead>
<tr>
<th>Wire Diameter mm</th>
<th>Current Range (amps)</th>
<th>Voltage Range (volts)</th>
<th>Electrode Stickout mm</th>
<th>Pack Type</th>
<th>Pack Weight</th>
<th>Part No</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.6</td>
<td>200–260</td>
<td>24–28</td>
<td>15–25</td>
<td>Spool</td>
<td>27kg</td>
<td>11945800</td>
</tr>
<tr>
<td>2.4</td>
<td>250–350</td>
<td>25–30</td>
<td>35–55</td>
<td>Coil</td>
<td>27kg</td>
<td>11945800</td>
</tr>
</tbody>
</table>

TYPICAL WELD DEPOSIT ANALYSIS:

<table>
<thead>
<tr>
<th></th>
<th>Single Layer on Mild Steel</th>
<th>All Weld Metal Deposit</th>
</tr>
</thead>
<tbody>
<tr>
<td>C</td>
<td>3.5%</td>
<td>4.8%</td>
</tr>
<tr>
<td>Mn</td>
<td>0.3%</td>
<td>0.5%</td>
</tr>
<tr>
<td>Si</td>
<td>0.4%</td>
<td>0.6%</td>
</tr>
<tr>
<td>Cr</td>
<td>14%</td>
<td>20%</td>
</tr>
<tr>
<td>B</td>
<td>0.5%</td>
<td>0.75%</td>
</tr>
</tbody>
</table>

TYPICAL WELD DEPOSIT HARDNESS:

<table>
<thead>
<tr>
<th></th>
<th>HRC</th>
<th>HV30</th>
</tr>
</thead>
<tbody>
<tr>
<td>Single Layer on Mild Steel</td>
<td>62</td>
<td>750</td>
</tr>
<tr>
<td>All Weld Metal Deposit</td>
<td>65</td>
<td>830</td>
</tr>
</tbody>
</table>

Deposits contain Chromium Carbides with hardness up to 1,500 HV (80 HRC).

FINISHING RECOMMENDATIONS:
Grinding only.

RECOMMENDED SHIELDING GAS:
- Open arc or welding grade CO2
- EMA39: C1

COMPARABLE CIGWELD PRODUCTS:
Cobalarc Borochrome extruded electrode
AS/NZS 2576: 2560-A4

Downhand & Horizontal surfacing applications:
- 1.6mm size can be used for vertical surfacing by depositing overlapping horizontal stringer passes.

Email: cigweldsales@cigweld.com.au
STOODY 110 MC

(Replaces Cobalarc Crome Mang-O)

▲ Self shielded (-0) tubular hardfacing wire.
▲ Tough, work hardening high manganese/ high chromium stainless steel deposits.
▲ Repair, joining and surfacing of manganese steel components.
▲ Suitable for heavy build-up applications.

Classifications:
AS/NZS 2576: 1715-B7.

Description and Applications:
Stoody 110 MC is an open arc tubular wire depositing a high manganese and high chromium stainless steel weld metal for the repair, joining or surfacing of manganese steel components extensively used in the quarrying and mining industry.

Resultant weld deposits have high strength and toughness, good resistance to cavitation and corrosion and are extremely resistant to impact loading. Stoody 110 MC can be multi-layered to any thickness without relief checking and deposits will work harden during service under high impact loading.

Typical applications include the repair of manganese steel crusher rolls, jaw and hammer crushers, gyratory mantles, manganese frogs, drive tumblers and dredge pump cutters etc.

Packaging and Operating Data:

DC Electrode Positive

<table>
<thead>
<tr>
<th>Electrode Size</th>
<th>Current Range (amps)</th>
<th>Voltage Range (volts)</th>
<th>Electrode Stickout mm</th>
<th>Pack Type</th>
<th>Pack Weight</th>
<th>Part No</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.8mm</td>
<td>200-375</td>
<td>25-28</td>
<td>20-35mm</td>
<td>Coil</td>
<td>27kg</td>
<td>11836900</td>
</tr>
</tbody>
</table>

TYPICAL ALL WELD DEPOSIT ANALYSIS:

C: 0.30%  Mn: 14.7%  Cr: 16.8%  Ni: 0.65%  Si: 0.37%  Fe: Balance

TYPICAL WELD DEPOSIT PROPERTIES:

Yield Strength  520 MPa
Tensile Strength  820 MPa
Elongation  40%

TYPICAL WELD DEPOSIT HARDNESS:

All Weld Metal Deposit  HRc  17  HV30  220
Work Hardened  55  600

FINISHING RECOMMENDATIONS:
Machinable-as deposited

RECOMMENDED SHIELDING GASES:
• Open Arc or Welding Grade CO2

COMPARABLE CIGWELD PRODUCTS:
Cobalarc Mangcraft Extruded Electrode
AS/NZS 2576:1215-A4
Stoody Dynamang-O Open Arc Wire
AS/NZS 2576:1215-B7

Email: cigweldsales@cigweld.com.au
STOODY 104

(Replaces Cobalarc 104-SA)

▲ Submerged arc (-SA) tubular build-up wire.
▲ Tough, machinable, low carbon pearlitic steel deposit.
▲ Resistant to high compressive loading.
▲ For the unlimited build-up of worn steel components.

Classifications:

Description and Applications:
Stoody 104 is a low alloy steel submerged arc tubular wire developed for the rebuilding of steel components subjected to high compressive loading and plastic deformation. Producing weld metal with excellent machinability in the ‘as welded’ condition, when used with Stoody S flux, Stoody 104 can be multi-layered and readily hot forged. Typical applications of Stoody 104/Stoody S flux include the submerged arc build-up of steel rolls, wheels, sprockets, shafts and track links etc.

Typical All Weld Deposit Analysis:
C: 0.07%  Mn: 2.90%  Si: 1.25%
Cr: 1.15%  Fe: bal

Typical Weld Deposit Hardness:
All weld metal deposit  HRC  29
HV50  290

Finishing Recommendations:
Machinable.

Recommended Shielding Gases:
Stoody S

Deposit Characteristics:
Abrasion resistance  Low
Impact resistance  Excellent
Compressive strength  Excellent
Hardness  29 HRC
Surface cross checks  No
Magnetic  Yes
Deposit Layers  Unlimited
Machinability  Yes

Comparative CigWeld Products:
Cobalarc 250 extruded electrode
AS/NZS 2576:1120-A4
Stoody Build Up-O self shielded tubular wire
AS/NZS 2576:1125-O7

Packaging and Operating Data:

<table>
<thead>
<tr>
<th>Wire diameter (mm)</th>
<th>Current Range (amps)</th>
<th>Voltage Range (volts)</th>
<th>Electrode Stickout (ESO) (mm)</th>
<th>Pack Type</th>
<th>Pack Weight (kg)</th>
<th>Part No</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.2</td>
<td>350-400</td>
<td>28-30</td>
<td>25-35</td>
<td>Half Pack</td>
<td>90kg</td>
<td>11040900</td>
</tr>
<tr>
<td>3.2</td>
<td>350-400</td>
<td>26-30</td>
<td>25-35</td>
<td>Pay-off Pack</td>
<td>226kg</td>
<td>11039500</td>
</tr>
</tbody>
</table>

Email: cigweldsales@cigweld.com.au
STOODY 105
(Replaces Cobalarc 105-SA)

- Submerged arc tubular build-up wire.
- Tough, machinable, crack-free steel deposit.
- Resistant to high compressive loading.
- Ideal as an underbase prior to hardfacing.
- For re-building worn steel components.

Classifications:

Description and Applications:
Stoody 105 is a submerged arc wire with very good resistance to abrasion in metal-to-metal wear. Multiple layer crack-free steel deposits can be obtained. When more than 3 layers are required, an underbase of Stoody 105 is recommended. Tungsten carbide tools and rigid, well powered equipment are required for machining. Deposits are difficult to flame cut. Applications include the rebuilding of: rollers, idlers, mine car wheels, arch wheels and charging car wheels.

Packaging and Operating Data:

<table>
<thead>
<tr>
<th>Wire diameter (mm)</th>
<th>Current Range (amps)</th>
<th>Voltage Range (volts)</th>
<th>Electrode Stickout (ESO) (mm)</th>
<th>Pack Type</th>
<th>Pack Weight (kg)</th>
<th>Part No</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.2</td>
<td>350-400</td>
<td>28-30</td>
<td>25-35</td>
<td>Half Pack</td>
<td>90</td>
<td>11041000</td>
</tr>
<tr>
<td>3.2</td>
<td>350-400</td>
<td>26-30</td>
<td>25-35</td>
<td>Pay-off Pack</td>
<td>226</td>
<td>11039600</td>
</tr>
</tbody>
</table>

TYPICAL ALL WELD DEPOSIT ANALYSIS:
C: 0.2%  Mn: 2.0%  Si: 1.3%
Cr: 2.8%  Mo: 0.4%  V: 0.15%  Fe: bal

TYPICAL WELD DEPOSIT HARDNESS:
3 layers maximum on Mild Steel
HRC 40  HV 30

FINISHING RECOMMENDATIONS:
Machinable with difficulty.

RECOMMENDED SHIELDING GASES:
Stoody S

DEPOSIT CHARACTERISTICS:
- Abrasion resistance: Very good
- Impact resistance: Good
- Compressive strength: Good
- Hardness: 450HV
- Surface cross checks: No
- Magnetic: Yes
- Deposit Layers: Three
- Machinability: With difficulty

COMPARABLE CIGWELD PRODUCTS:
Cobalarc 350 extruded electrode
AS/NZS 2576:1435-A4
Stoody Super Build Up-G/O
AS/NZS 2576:1435-B5/B7

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STOODY 107

(Replaces Cobalarc 107-SA)

▲ Submerged arc tubular build-up wire.
▲ Tough, machinable, crack-free steel deposit.
▲ Resistant to high compressive loading.
▲ Ideal as an underbase prior to hardfacing.
▲ For re-building worn steel components.

Classifications:

Description and Applications:
Stoody 107 is a submerged arc wire with good resistance to metal-to-metal wear, excellent impact resistance, good compressive strength and resistance to plastic deformation. Multiple layer check-free deposits can be obtained up to 20mm thick. Deposits are readily machinable with carbide tools and can be flame cut. Stoody 107 can be used for both the build-up and hardfacing of rollers and idlers. Applications include the rebuilding of rollers, idlers, carbon steel crane wheels, mine car wheels and house rollers.

Packaging and Operating Data:
AC, DC electrode positive or negative.

<table>
<thead>
<tr>
<th>Wire diameter</th>
<th>Current Range (amps)</th>
<th>Voltage Range (volts)</th>
<th>Electrode Stickout (ESO) mm</th>
<th>Pack Type</th>
<th>Pack Weight</th>
<th>Part No</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.2</td>
<td>350-400</td>
<td>28-30</td>
<td>25-35</td>
<td>Half Pack</td>
<td>90kg</td>
<td>11041200</td>
</tr>
<tr>
<td>3.2</td>
<td>350-400</td>
<td>26-30</td>
<td>25-35</td>
<td>Pay-off Pack</td>
<td>226kg</td>
<td>11039800</td>
</tr>
</tbody>
</table>

TYPICAL ALL WELD DEPOSIT ANALYSIS:
C: 0.14%  Mn: 1.9%  Si: 0.8%
Cr: 2.2%  Mo: 0.3%  Fe: bal

TYPICAL WELD DEPOSIT HARDNESS:
HRc HV30
Multiple Layer on Mild Steel 38 380

FINISHING RECOMMENDATIONS:
Machinable.

RECOMMENDED SHIELING GASES:
Stoody S

DEPOSIT CHARACTERISTICS:
Abrasion resistance Good
Impact resistance Excellent
Compressive strength Good
Hardness 38 HRc
Surface cross checks No
Magnetic Yes
Deposit thickness up to 20mm
Machinability Yes

COMPARABLE CIGWELD PRODUCTS:
Cobalarc 350 extruded electrode
AS/NZS 2576:1435-A4
Stoody Super Build Up-G/O
AS/NZS 2576:1435-B5/B7
STOODY BUILDUP-O

(Replaces Cobalarc 250-O)

▲ Self shielded (-O), tubular build-up wire.
▲ Tough, machinable low carbon pearlitic steel deposit.
▲ Resistant to high compressive loading.
▲ Ideal as an underbase prior to hardfacing.
▲ For re-building worn steel components.

Classifications:
AS/NZS 2576: 1125-B7.

Description and Applications:
Stoody Buildup-O is an open arc tubular wire developed for the re-building of steel components subjected to high compressive loading and plastic deformation.

Producing excellent machinability in the 'as welded' condition, weld deposits of Stoody Buildup-O can be multi-layered and readily hot forged.

Typical applications of Stoody Buildup-O include the semi or fully automatic build-up of steel rolls, wheels, sprockets, shafts and track links.

Packaging and Operating Data:
DC electrode positive.

<table>
<thead>
<tr>
<th>Wire diameter mm</th>
<th>Current Range (amps)</th>
<th>Voltage Range (volts)</th>
<th>Electrode Stickout (ESO) mm</th>
<th>Pack Type</th>
<th>Pack Weight</th>
<th>Part No</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.8</td>
<td>300-450</td>
<td>26-30</td>
<td>20-35</td>
<td>Coil</td>
<td>22kg</td>
<td>11000100</td>
</tr>
<tr>
<td>2.8</td>
<td>300-450</td>
<td>26-30</td>
<td>20-35</td>
<td>Half Pack</td>
<td>90kg</td>
<td>11813100</td>
</tr>
<tr>
<td>2.8</td>
<td>300-450</td>
<td>26-30</td>
<td>20-35</td>
<td>Pay-Off Pack</td>
<td>225kg</td>
<td>11869900</td>
</tr>
</tbody>
</table>

Typical All Weld Deposit Analysis:
C: 0.10%  Mn: 2.00%  Si: 0.50%
Cr: 1.00%  Mo: 0.25%  Fe: bal

Typical Weld Deposit Hardness:

<table>
<thead>
<tr>
<th>HRC</th>
<th>HV30</th>
</tr>
</thead>
<tbody>
<tr>
<td>28</td>
<td>290</td>
</tr>
</tbody>
</table>

Finishing Recommendations:
Machinable.

Recommended Shielding Gases:
• Open arc or welding grade CO₂

Comparable Cigweld Products:
Cobalarc 350 extruded electrode
AS/NZS 2576:1435-A4
Stoody Super Build Up-G/O
AS/NZS 2576:1435-B5/B7

Email: cigweldsales@cigweld.com.au
STOODY 600

(Replaces Cobalarc Impactaclad-O)

▲ Self shielded (-O) tubular hardfacing wires.
▲ Crack free, martensitic alloy steel containing hard, titanium carbides.
▲ Excellent resistance to high stress abrasion and heavy impact.

Classifications:
AS/NZS 2576: 1955-B7
W.T.I.A. Tech Note 4: 1955-B7

Description and Applications:
Stoody 600 is a new generation Cobalarc tubular wire which deposits a martensitic alloy steel containing a high volume fraction of fine, hard titanium carbides. The unique microstructure of Stoody 600 makes it particularly suitable for high stress abrasion and heavy impact conditions. A minimum of two layers of Stoody 600 is recommended for optimum service performance. Weld deposits are normally free from relief checking and have good hardness retention to ≈500°C.

Typical applications of Stoody 600 include the surfacing of mill hammers, bucket teeth and lips, tampers, agitator screws and other components subjected to extreme abrasion and moderate to heavy impact.

Finishing Recommendations:
The all weld metal microstructure of Stoody 600 shows an even dispersion (~10% by volume) of fine, hard titanium carbides in a high chromium martensitic matrix resistant to high stress abrasion and heavy impact loading.

Packaging and Operating Data:

<table>
<thead>
<tr>
<th>DC Electrode Positive</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wire diameter (mm)</td>
</tr>
<tr>
<td>1.6mm</td>
</tr>
<tr>
<td>2.4mm</td>
</tr>
<tr>
<td>2.8mm</td>
</tr>
<tr>
<td>2.4mm</td>
</tr>
</tbody>
</table>

Typical weld deposit hardness:

<table>
<thead>
<tr>
<th>Deposits</th>
<th>HRc</th>
<th>HV30</th>
</tr>
</thead>
<tbody>
<tr>
<td>Single Layer or Mild Steel</td>
<td>58</td>
<td>670</td>
</tr>
<tr>
<td>Two layers of Mild Steel</td>
<td>60</td>
<td>690</td>
</tr>
<tr>
<td>3-8 layers of Mild Steel</td>
<td>60</td>
<td>690</td>
</tr>
<tr>
<td>Deposits contain Titanium Carbides with hardness up to 3,200HV</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Finishing Recommendations:
 Grinding Only

Recommended Shielding Gases:
Open Arc Operation

Typical All Weld Deposit Analysis:

<table>
<thead>
<tr>
<th>C</th>
<th>Mn</th>
<th>Si</th>
<th>Cr</th>
<th>Mo</th>
<th>Ti</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.7%</td>
<td>1.6%</td>
<td>0.5%</td>
<td>7.5%</td>
<td>1.3%</td>
<td>5.3%</td>
</tr>
</tbody>
</table>

Typical Weld Deposit Hardness:

<table>
<thead>
<tr>
<th>Deposits</th>
<th>HRc</th>
<th>HV30</th>
</tr>
</thead>
<tbody>
<tr>
<td>Single Layer or Mild Steel</td>
<td>58</td>
<td>670</td>
</tr>
<tr>
<td>Two layers of Mild Steel</td>
<td>60</td>
<td>690</td>
</tr>
<tr>
<td>3-8 layers of Mild Steel</td>
<td>60</td>
<td>690</td>
</tr>
<tr>
<td>Deposits contain Titanium Carbides with hardness up to 3,200HV</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Email: cigweldsales@cigweld.com.au
STOODY 143-O

(Replaces Cobalarc Abrasoclad-O)

▲ Self shielded (-O), tubular hardfacing wire.
▲ Complex niobium / chromium carbide iron deposit.
▲ Resistant to sever fine or coarse abrasion and low to moderate impact.
▲ Now available in 1.6mm size on 15kg spools.

Classifications:
AS/NZS 2576: 2460-B7
W.T.I.A. Tech Note 4: 2460-B7

Description and Applications:
Stoody 143-O is a high alloy tubular hardfacing wire depositing a complex chromium carbide iron resistant to extreme abrasion and low to moderate impact loading. The addition of nominally 7% niobium to Stoody 143-O produces a complex chromium / niobium carbide iron weld deposit which is particularly resistant to severe low and high stress abrasion and low to moderate impact loading at temperatures up to 650°C.

The nodular niobium rich carbide structure of Stoody 143-O is capable of withstanding higher impact loading than standard chromium carbide alloy types. The low dilution sensitivity means that two layers will normally be sufficient to achieve optimum wear resistance. Stoody 143-O deposits will readily stress relief check and can only be finished by grinding. Typical applications include the surfacing of conveyor screws, pug mill paddles, wear plates, fan blades, coke chutes / shoes and grizzly bars, etc.

Weld Deposit Microstructure:
The addition of nominally 7% niobium to Stoody 143-O initiates the formation of a complex niobium / chromium carbide iron structure which resists extreme high or low stress abrasion even under conditions of moderate impact.

Packaging and Operating Data:

<table>
<thead>
<tr>
<th>DC Electrode Positive</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wire diameter (mm)</td>
</tr>
<tr>
<td>----------------------</td>
</tr>
<tr>
<td>1.6</td>
</tr>
<tr>
<td>2.8</td>
</tr>
<tr>
<td>2.8</td>
</tr>
</tbody>
</table>

Typical All Weld Deposit Analysis:

<table>
<thead>
<tr>
<th>Single Layer on Mild Steel</th>
<th>All Weld Metal Deposit</th>
</tr>
</thead>
<tbody>
<tr>
<td>C: 3.7%</td>
<td>C: 5.2%</td>
</tr>
<tr>
<td>Mn: 0.6%</td>
<td>Mn: 0.7%</td>
</tr>
<tr>
<td>Si: 0.3%</td>
<td>Si: 0.4%</td>
</tr>
<tr>
<td>Cr: 16%</td>
<td>Cr: 22%</td>
</tr>
<tr>
<td>Nb: 5%</td>
<td>Nb: 7.3%</td>
</tr>
</tbody>
</table>

Typical Weld Deposit Hardness:

<table>
<thead>
<tr>
<th>Single Layer on Mild Steel</th>
<th>All Weld Metal Deposit</th>
</tr>
</thead>
<tbody>
<tr>
<td>HRC 58</td>
<td>HRC 62</td>
</tr>
<tr>
<td>HV 670</td>
<td>HV 760</td>
</tr>
</tbody>
</table>

Finishing Recommendations:
Grinding only.

Recommended Shielding Gases:
• Open arc or welding grade CO2

Comparable Cigweld Products:
Cobalarc 9 tubular electrode
AS/NZS 2576: 2460-A1

Typical Surfacing Weld Metal Analysis:
Single Layer on Mild Steel
C: 3.7% Mn: 0.6% Si: 0.3%
Cr: 16% Nb: 5%

All Weld Metal Deposit
C: 5.2% Mn: 0.7% Si: 0.4%
Cr: 22% Nb: 7.3%

Typical Weld Deposit Hardness:
Single Layer on Mild Steel
HRC 58
HV 670

All Weld Metal Deposit
HRC 62
HV 760

Deposits contain niobium carbides with hardness up to 2,400 HV.

Finishing Recommendations:
Grinding only.

Recommended Shielding Gases:
• Open arc or welding grade CO2

Comparable Cigweld Products:
Cobalarc 9 tubular electrode
AS/NZS 2576: 2460-A1

Contact Information:
Email: cigweldsales@cigweld.com.au
STOODY 145 OPEN ARC WIRE

Description and Applications:
Stoody 145 is a highly alloyed open arc wire, with high abrasion resistance, high corrosion resistance, and high hardness at elevated temperature. The Stoody 145 alloyed wire contains columbium (niobium), which contributes to its excellent high temperature abrasion resistance up to 1500°F (816°C).

- Non-Ferrous Metals: Copper Ladles, Slag Ladles, Zinc Pots, Tin Mill Parts, Copper Bar Guides, Zinc Scrapers.

Packaging and Operating Data:

<table>
<thead>
<tr>
<th>Wire diameter mm</th>
<th>Current Range (amps)</th>
<th>Voltage Range (volts)</th>
<th>Wire Extension mm</th>
<th>Pack Type</th>
<th>Pack Weight</th>
<th>Part No</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.8</td>
<td>300-550</td>
<td>28-34</td>
<td>19-32</td>
<td>Coil</td>
<td>27kg</td>
<td>11414300</td>
</tr>
<tr>
<td>2.8</td>
<td>300-550</td>
<td>28-34</td>
<td>19-32</td>
<td>Coil</td>
<td>226kg POP</td>
<td>11440200</td>
</tr>
</tbody>
</table>

TYPICAL DEPOSIT CHEMISTRY (WT%):
- C: 5.8%
- Cr: 24%
- Mo: 6.3%
- Mn: 1.0%
- Cu: 5.1%
- W: 1.8%
- V: 0.8%
- Si: 0.7%
- Fe: Bal

FINISHING RECOMMENDATIONS:
- Grinding Only

DEPOSIT CHARACTERISTICS:
- Abrasion resistance: Excellent
- Impact resistance: Low
- Hardness 2 Layers: 56-61HRc
- Surface cross checks: Yes
- Machinability: Grinding Only
- Magnetic: Yes
- Deposit thickness: 2 Maximum
- Hot Wear Applications: Up to 1500°F (816°C)

COMPARABLE CIGWELD PRODUCTS:

Email: cigweldsales@cigweld.com.au
STOODY “S” FLUX

Description and Applications:
Stoody “S” Flux is an active fused flux designed for use with Stoody Submerged Arc Welding Wires (other than the thermaClad® wire). As the deposit composition is significantly altered from the wire composition, care should be exercised in the matching of this flux to the right wire.

Packaging and Operating Data:
Stoody “S” Flux is available in 22kg Bags (Part Number: 11008400)