

*"The Leader in*  
***Hardfacing***<sup>™</sup>  
*& Specialty Alloy Wires*  
WELDING WIRES, ELECTRODES

**QUICK REFERENCE  
PRODUCT GUIDE**

*July 2005*



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## **“The Leader in *HARDFACING*™ & *SPECIALTY* Alloy Welding Wires**

Stoody is the leading producer of alloys for Hardfacing and Welding, Electrodes and Wires for Hardfacing, Build-Up and Joining, Metal to Metal Wear, Moderate and Extreme Metal to Earth Impact Abrasion plus High Temperature Abrasion, Corrosion Resistance Alloys.

### ***“ We’ve made it simple”***

No matter what your level of experience, Stoody Company has developed thousands of unique alloys for demanding applications, However, there are a select few that continue to be the company’s premier products, these products have been designated as Stoody Signature Products.

### ***“Five Simple Steps for selecting Stoody products”***

1. Identify the mode of repair or wear.
2. Identify the base material.
3. Select the Signature wires or electrodes.
4. Check and select the process.
5. Choose the size/diameter and package required.

Don’t forget ... Our Product Specialist can be contacted on line through the web site ([www.stoody.com](http://www.stoody.com)) or call the Customer Service Department at 1-800-426-1888.

### ***What could be easier?***

## Build-Up & Joining Alloys

*Mode of Repair or Wear: Group 1-Repair*

### Build-Up (Wire)

#### Open Arc/Gas Shielded Welding Wire.

General use build-up.

**Applications:** Hammers, Carbon Steel, Shovels, Shafts, Rolls, Pump Parts.

### Welding Parameters

Diameter, in., (mm)	<b>.045 (1.2)</b>	<b>1/16 (1.6)</b>
Current, Amp, DCEP	175-225	200-300
Voltage	18-24	24-26
Wire Extension	1/2"-3/4"	1/2"-1"
Shielding Gas	98%Ar/2%O <sub>2</sub>	None or CO <sub>2</sub>
Position	Flat& Horizontal	Flat

Diameter, In., (mm)	<b>3/32 (2.4)</b>	<b>7/64 (2.8)</b>
Current, Amp, DCEP	300-400	350-450
Voltage	26-28	26-28
Wire Extension	3/4" -1-1/4"	3/4" -1-1/4"
Shielding Gas	None	None
Position	Flat	Flat

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### Build-Up LH (Electrode)

#### Shielded Metal Arc Welding Electrode.

General use Build-Up.

**Applications:** Tractor Rollers, Steel Shovel Pads, Tractor Idlers, Sprockets, Shafts.

### Welding Parameters

Diameter, in., (mm)	<b>1/8 (3.2)</b>	<b>5/32 (4.0)</b>
Current, Amp, DCEP	100-185	140-250
Position	All	All
Length	14"	14"

Diameter, In., (mm)	<b>3/16 (4.8)</b>	<b>1/4 (6.4)</b>
Current, Amp, DCEP	180-310	200-360
Position	Flat	Flat
Length	14"	18"

## Build-Up & Joining Alloys

*Mode of Repair or Wear: Group 1-Repair*

### Dynamang® (Wire)

**Open Arc/Gas Shielded Welding Wire.**

General use Build-Up and Joining.

**Applications:** Manganese Wear Plates to Dipper Lips, Manganese Steel Crossings, Impact Breaker Bars, Trunnions, Crusher Rolls and Jaws, Crane Wheels, Frog Heel Extensions.

### Welding Parameters

Welding Process	<b>Open Arc</b>	<b>GMAW</b>	
Diameter, in., (mm)	<b>1/16 (1.6)</b>	<b>.045 (1.2)</b>	
Current, Amp, DCEP	200-250	150-200	
Voltage	23-27	25-27	
Wire Extension	1/2"-1"	1/2"-3/4"	
Shielding Gas	None	Argon 98/202	
Position	Flat	Flat	
Welding Process	<b>Open Arc</b>	<b>Open Arc</b>	<b>Open Arc</b>
Diameter, in., (mm)	<b>1/16 (1.6)</b>	<b>3/32 (2.4)</b>	<b>7/64 (2.8)</b>
Current, Amp, DCEP	200-250	200-300	275-375
Voltage	23-27	24-27	25-28
Wire Extension	1/2"-1"	3/4"-1 1/4"	3/4"-1 1/4"
Shielding Gas	None	None	None
Position	Flat	Flat	Flat

### Nicromang® (Electrode)

**Shielded Metal Arc Welding Electrode.**

General use Build-Up.

**Applications:** Railroad Frogs and Crossings, Crusher Equipment Parts, Manganese Steel Castings, Wobbler Spindles, Coupling Boxes.

### Welding Parameters

Diameter, in., (mm)	<b>1/8 (3.2)</b>	<b>5/32 (4.0)</b>
Current, Amp, DCEP	100-160	140-200
Position	Flat/Horizontal	Flat/Horizontal
Length	14"	14"
Diameter, In., (mm)	<b>3/16 (4.8)</b>	<b>1/4 (6.4)</b>
Current, Amp, DCEP	170-225	230-330
Position	Flat	Flat
Length	18"	18"
Diameter, In., (mm)	<b>5/16 (8.0)</b>	
Current, Amp, DCEP	270-390	
Position	Flat	
Length	14"	

## Build-Up & Joining Alloys

*Mode of Repair or Wear: Group 1-Repair*

### Versalloy™ Plus (Electrode)

**Shielded Metal Arc Welding Electrode.**

General use build-up, repair & joining.  
(Joining Carbon Steel to Stainless Steel)

**Applications:** General purpose electrode used for joining stainless steels to other alloys; also a good cushioning layer for hardfacing

#### Welding Parameters

Diameter, in., (mm)	<b>3/32 (2.4)</b>	<b>1/8 (3.2)</b>
Current, Amp, DCEP	50-90	75-125
Position	All	All
Diameter, In., (mm)	<b>5/32 (4.0)</b>	
Current, Amp, DCEP	90-150	
Position	Flat/Horizontal	

### Versalloy™ (Wire)

**Open Arc/Gas Shielded Welding Wire.**

#### Welding Parameters

Welding Process	<b>GMAW</b>	<b>Open Arc</b>
Diameter, in., (mm)	<b>.045 (1.2)</b>	<b>1/16 (1.6)</b>
Current, Amp, DCEP	120-220	150-285
Voltage	18-26	23-26
Wire Extension	1/2" -3/4"	5/8" -1-1/4"
Shielding Gas	98%Ar/2%O <sub>2</sub>	None or CO <sub>2</sub>
Position	All	All

### Stoody 110 (Wire)

**Open Arc/Gas Shielded Welding Wire.**

General use build-up & repair.

**Applications:** Drive Tumblers, Turbine Cones, Manganese Frog, Shovel Pads, Wobbler Feeders, Crusher Rolls, Fluid Components.

#### Welding Parameters

	<b>110-G</b>	<b>110-O</b>
Diameter, in., (mm)	<b>.045 (1.2)</b>	<b>1/16 (1.6)</b>
Current, Amp, DCEP	135-185	150-210
Voltage	18-24	22-26
Wire Extension	1/2" -1-1/2"	1/2" -1"
Shielding Gas	98%Ar/2%O <sub>2</sub>	None or CO <sub>2</sub>
Position	Flat	Flat
	<b>110</b>	<b>110, 110-MC</b>
Diameter, In., (mm)	<b>3/32 (2.4)</b>	<b>7/64 (2.8)</b>
Current, Amp, DCEP	225-300	225-375
Voltage	23-27	23-27
Wire Extension	1" -1-1/2"	1" -1-1/2"
Shielding Gas	None	None
Position	Flat	Flat

## Build-Up & Joining Alloys

*Mode of Repair or Wear: Group 1-Repair*

### Stoody 2110 (Electrode)

**Shielded Metal Arc Welding Electrode.**

General use build-up & repair.

**Applications:** Shovel Pads, Hammers, Grate Bars, Switch Points, Roll Crushers, Shovel Teeth, Carbon or Manganese Steel Frogs, Manganese Steel Components.

#### Welding Parameters

Diameter, In., (mm)	<b>1/8 (3.2)</b>	<b>5/32 (4.0)</b>
Current, Amp, DCEP	100-130	125-190
Position	Flat	Flat
Length	14"	14"
Diameter, In., (mm)	<b>3/16 (2.4)</b>	<b>1/4 (6.4)</b>
Current, Amp, DCEP	150-260	240-325
Position	Flat	Flat
Length	14"	14"

### Castweld Ni 55-0 (Wire) AWS A5, 15-90 ENIFET3-C1

**Open Arc/Submerged Arc Welding Wire.**

General use build-up, repair & joining.

**Applications:** Joining, Build-Up & Repair of Cast Iron Parts. Engine Blocks and Heads, Welding Castliron Universal Joints to Steel Drive Shafts, Pump Housings, Assorted Castings.

#### Welding Parameters

Welding Process	Open Arc	Open Arc	Open Arc
Diameter, In., (mm)	<b>.045 (1.2)</b>	<b>1/16 (1.6)</b>	<b>3/32 (2.4)</b>
Current, Amp. DCEP	140-175	200-250	250-350
Voltage	23-26	24-27	25-28
Wire Extension	1/2"-5/8"	5/8"-3/4"	3/4"-1"
Shielding Gas/Flux	None		
Bead Profile Desired	Convex Stringer Beads		
Base Metal Prep.	Grind Surface Clean		
Position	Flat		

Welding Process	Submerged Arc	Submerged Arc
Diameter, In., (mm)	<b>1/16 (1.6)</b>	<b>3/32 (2.4)</b>
Current, Amp. DCEP	250-300	325-400
Voltage	18-30	31-33
Wire Extension	1"-1 1/4"	1"-1 1/2"
Shielding Gas/Flux	Stoody R-20 Flux	
Bead Profile Desired	Convex Stringer Beads	
Base Metal Prep.	Grind Surface Clean	
Position	Flat	

## Build-Up & Joining Alloys

*Mode of Repair or Wear: Group 1-Repair*

### Castweld 55 (Electrode)

**Shielded Metal Arc Welding Electrode.**

General use build-up, repair & joining.

**Applications:** Joining or build-up of Cast Iron Parts. Engine Blocks, Pump Housings, Assorted Castings.

#### Welding Parameters

Diameter, In., (mm)	<b>3/32 (2.4)</b>	<b>1/8 3.2)</b>
Current, Amp, DCEP	40-80	70-110
Position	Flat	Flat
Length	9"	14"

Diameter, In., (mm) **3/16 (2.4)**

Current, Amp, DCEP 100-140

Position Flat

Length 14"

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### Castweld 99 (Electrode)

**Shielded Metal Arc Welding Electrode.**

General use build-up, repair & joining.

**Applications:** Repairing of Cast Iron, build-up and joining, particularly used for hairline cracks and casting defects.

#### Welding Parameters

Diameter, In., (mm)	<b>3/32 (2.4)</b>	<b>1/8 3.2)</b>
Current, Amp, DCEP	40-80	70-110
Position	Flat	Flat
Length	9"	14"

Diameter, In., (mm) **5/32 (4.0)**

Current, Amp, DCEP 100-140

Position Flat

Length 14"



## Metal to Metal

*Mode of Repair or Wear: Group 2-Wear*

### Stoody Super Build Up (Wire)

*Also available as Stoody 105 (Wire) in 1/8" and 5/32" diameters.*

#### Open Arc/Gas Shielded Welding Wire.

General use for Metal to Metal Wear.

**Applications:** Hammers, Shafting, Pump Parts, Steel Mill Wobblers & Slip Joints, Carbon Steel Shovel Pads, Wheel Burns, Rolls, Repairing Battered Rail.

#### Welding Parameters

Diameter, In., (mm)	<b>.045 (1.2)</b>	<b>1/16 (1.6)</b>
Current, Amp, DCEP,AC	20-220	140-260
Voltage	8-24	23-26
Wire Extension	1/2"-3/4"	1/2"-1"
Shielding Gas	98%Ar/2%O <sub>2</sub>	None or CO <sub>2</sub>
Position	Flat/Horizontal	Flat/Horizontal
Diameter, In., (mm)	<b>3/32 (2.4)</b>	
Current, Amp, DCEP	200-350	
Voltage	24-28	
Wire Extension	3/4" - 1-1/4"	
Shielding Gas	None	
Position	Flat	

### Stoody 1105 (Electrode)

#### Shielded Metal Arc Welding Electrode.

General use for Metal to Metal Wear.

**Applications:** Tractor Rollers and Idlers, Shovel Roller and Idlers, Drive Tumblers, Charging Car Wheels, Arch Wheels, Sprockets, Chum Drills, Wobblers.

#### Welding Parameters

Diameter, In., (mm)	<b>1/8 (3.2)</b>	<b>5/32 (4.0)</b>
Current, Amp, DCEP,AC	80-150	140-210
Position	Flat	Flat
Length	14"	14"
Diameter, In., (mm)	<b>3/16 (4.8)</b>	
Current, Amp, DCEP	165-250	
Position	Flat	
Length	14"	

## Metal to Metal

*Mode of Repair or Wear: Group 2-Wear*

### Stoody 1102 (Electrode)

#### Shielded Metal Arc Welding Electrode

General use for Metal to Metal Wear.

**Applications:** Cable Sheaves, Forging Dies, Crane Wheels, Hat and Cold Shear Blades, Drillpipe Hard Banding, Hot work Extrusion Rolls.

#### Welding Parameters

Diameter, In., (mm)	<b>1/8 (3.2)</b>	<b>5/32 (4.0)</b>
Current	DC±/AC	DC±/AC
Amperage	125-150	140-200
Position	All	All
Length	14"	14"

### Thermaclad 102 (Stoody 102) (Wire)

#### Submerged Arc Welding Wire

#### Welding Parameters

Welding Process: Submerged Arc

Diameter, In., (mm)	<b>3/32 (2.4)</b>	<b>1/8 (3.2)</b>	<b>5/32 (4.0)</b>
Current, Amp. DCEP	300-400	400-500	450-600
Voltage	25-29	26-30	28-32
Wire Extension	1"-1 1/4"	1 1/4"-1 1/2"	1 1/4"-1 1/2"
Shielding Gas/Flux	Stoody R-20 Flux (STOODY102 uses S Flux)		
Position:	Flat (Thermaclad parameters)		

#### Open Arc/Gas Shielded Welding Wire

#### Welding Parameters

Welding Process: Open Arc/Gas Shielded

Diameter, In., (mm)	<b>.045 (1.2)</b>	<b>1/16 (1.6)</b>
Current, Amp. DCEP, AC	135-185	225-275
Voltage	18-24	25-27
Wire Extension	1/2"-3/4"	1/2"-1"
Shielding Gas	98%Ar/2%O <sub>2</sub>	None or 98%Ar/2%O <sub>2</sub>
Position	Flat/Horizontal	Flat/Horizontal

## Metal to Earth "Moderate Abrasion"

*Mode of Repair or Wear: Group 3-Wear*

### Stoody 19 (Electrode)

**Shielded Metal Arc Welding Electrode.**

General use Severe Abrasion, Low Impact.

**Applications:** Crusher Rolls, Impact Breaker Bars, Dredge Pump Shells and Impellers, Scrappers.

#### Welding Parameters

Diameter, In., (mm)	<b>1/8 (3.2)</b>	<b>5/32 (4.0)</b>
Current, Amp, DCEP,AC	90-130120-160	
Position	Flat/Horizontal	Flat

Diameter, In., (mm)	<b>3/16 (4.8)</b>	<b>1/4 (6.4)</b>
Current, Amp, DCEP	140-220	175-300
Position	Flat	Flat

### Stoody 965 (Wire)

**Open Arc/Gas Metal Arc Welding Wire.**

General use Moderate Abrasion, High Impact.

**Applications:** Tillage Tools, Tire Shredders, Knives, Conveyor Screws.

#### Welding Parameters

	<b>965-G</b>	<b>965-G</b>
Diameter, In., (mm)	<b>.035 (0.9)</b>	<b>.045 (1.2)</b>
Current, Amp, DCEP,AC	80-130150-200	
Voltage	15-20	25-29
Wire extension	1/2"-5/8"	1/2"-3/4"
Shielding Gas	75/25, CO <sub>2</sub>	98/2 or 75/25
Position	All	Flat/Horizontal

	<b>965-G</b>	<b>965-O</b>
Diameter, In., (mm)	<b>1/16" (1.6)</b>	<b>1/16" (1.6)</b>
Current, Amp, DCEP,AC	200-250	200-250
Voltage	27-31	27-31
Wire extension	3/4"-1"	3/4" - 1-1/4"
Shielding Gas	98/2 or 75/25	None or CO <sub>2</sub>
Position	Flat/Horizontal	Flat/Horizontal

## Metal to Earth "Moderate Abrasion"

**Mode of Repair or Wear:** *Group 3-Wear*

### Stoody 31 (Electrode)

**Shielded Metal Arc Welding Electrode.**

General use Moderate Abrasion, Moderate Impact.

**Applications:** Bucket Arms, Chain Links, Buckets, Scrapers, Rolling Mill Guides, Pulleys, Blades, Hammers, Crusher Parts.

#### Welding Parameters

Diameter, In., (mm)	<b>1/8 (3.2)</b>	<b>5/32 (4.0)</b>
Current, Amp, DCEP	100-120	120-180
Position	Flat/Horizontal	Flat
Diameter, In., (mm)	<b>3/16 (4.8)</b>	<b>1/4 (6.4)</b>
Current, Amp, DCEP	170-240	250-325
Position	Flat	Flat

**Note:** also available as **Stoody 131 Wire**

### Stoody 101HC (Wire)

**Open Arc/Gas Shielded Welding Wire.**

General use Severe Abrasion, Low Impact.

**Applications:** Scraper Sides, Cutters, and Blades, Shovel Bucket Tooth Adapters, Tillage Tools, Augers, and Auger Flights, Crushing and Grinding Equipment, Ripper Shanks and Teeth, Bucket Sides and Lips, Conveyor Screws, Fan Blades.

#### Welding Parameters

	<b>101HC-G</b>	<b>101HC-G</b>
Diameter, In., (mm)	<b>.035 (0.9)</b>	<b>.045 (1.2)</b>
Current, Amp. DCEP	80-140	150-200
Voltage	15-20	22-26
Wire Extension	1/2"-.5/8"	1/2"-.3/4"
Shielding Gas	75/25, CO <sub>2</sub> or 98/2	98% Ar/2% O <sub>2</sub> or 75/25, AR/CO <sub>2</sub>
Position	Flat/Horizontal	Flat/Horizontal
	<b>101HC-O</b>	<b>101HC-O</b>
Diameter, In., (mm)	<b>1/16" (1.6)</b>	<b>5/64" (2.0)</b>
Current, Amp. DCEP.	200-260	225-375
Voltage	24-28	24-28
Wire Extension	1/2"-1"	3/4"-1 1/4"
Shielding Gas	None	None
Position	Flat/Horizontal	Flat

## Metal to Earth "Moderate Abrasion"

*Mode of Repair or Wear: Group 3-Wear*

### Stoody 121 (Wire)

*Also available as Stoody 121 (Coated Electrode)*

#### Open Arc/Gas Shielded Welding Wire.

General use Moderate to Severe Abrasion and Impact.

**Applications:** Scraper Sides, Cutters, Pug Mill Paddles, Vibratory Ditcher Shanks, Augers, Tamper Tools.

### Welding Parameters

	<b>121-G</b>	<b>121-O</b>
Diameter, In., (mm)	<b>.045 (1.2)</b>	<b>1/16 (1.6)</b>
Current, Amp. DCEP	175-200	205-255
Voltage	22-26	24-28
Wire Extension	1/2"-3/4"	1/2"-1"
Shielding Gas	98/2 or 75/25	None
Position	Flat	Flat

	<b>121</b>	<b>121</b>
Diameter, In., (mm)	<b>3/32 (2.4)</b>	<b>7/64 (2.8)</b>
Current, Amp. DCEP	250-350	300-400
Voltage	24-28	24-28
Wire Extension	3/4"-1 1/4"	3/4"-1 1/4"
Shielding Gas	None	None
Position	Flat	Flat

## Metal to Earth "Extreme Abrasion"

*Mode of Repair or Wear: Group 4-Wear*

### Stoody 130 (Wire)

**Open Arc Welding Wire.**

General use for Extreme Abrasion, Low Impact.

**Applications:** Scoop Lips and Teeth, pug Mill Knives, Cultivator Chisels, Raymond Mill Plows, Tillage Tools of all Types, Muller Plows, Ammonia Injectors, Swing Hammers, Augers and Auger Flights, Ensilage Knives.

### Welding Parameters

	<b>130-0</b>	<b>130-0</b>
Diameter, In., (mm)	<b>1/16 (1.6)</b>	<b>7/64 (2.8)</b>
Current, Amp. DCEP	90-120	300-350
Voltage	18-24	18-24
Wire Extension	1/2"	1/2"
Shielding Gas	None	None
Position	Flat	Flat

### Van Car®-0 (Wire)

**Open Arc Welding Wire.**

General use for Extreme Abrasion, Low Impact.

**Applications:** Ripper Shanks and Teeth, Dry Cement Pump Screws, Shredding Hammers, Shovel Buckets and Teeth, Ammonia injectors, Debarking Hammers, Stabilizers, Dozer End Bits, Tiller Tines, Auger Bits, Cultivator Chisels, Mill Hammers, Pug Mill Knives.

### Welding Parameters

	<b>GMAW</b>	<b>GMAW</b>
Welding Process	<b>GMAW</b>	<b>GMAW</b>
Diameter, In., (mm)	<b>1/16 (1.6)</b>	<b>3/32 (2.4)</b>
Current, Amp. DCEP	150-200	200-300
Voltage	22-26	25-27
Wire Extension	1/2" - 3/4"	1" - 1 1/4"
Shielding Gas	None/CO <sub>2</sub>	None
Position	Flat	Flat

Welding Process	<b>GMAW</b>
Diameter, In., (mm)	<b>1/8 (3.2)</b>
Current, Amp. DCEP	500-600
Voltage	28-30
Wire Extension	1 1/4" - 1 1/2"
Shielding Gas	None
Position	Flat

## Metal to Earth "Extreme Abrasion"

*Mode of Repair or Wear: Group 4-Wear*

### Van Car®-E (Electrode)

**Shielded Metal Arc Welding Electrode.**

General use for Extreme Abrasion, Low Impact.

**Applications:** Farm Drill Points, Dry Cement Pump Screws, Ammonia Injector Wings, Pug Mill Knives, Drill Pipe Stabilizer Wings, Chisels.

### Welding Parameters

Welding Process	<b>SMAW</b>	<b>SMAW</b>
Diameter, In., (mm)	5/32 (4.0)	3//16 (4.8)
Current, Amp. DCEP	80-130	130-165
Position	Flat	Flat
Welding Process	<b>SMAW</b>	
Diameter, In., (mm)	1/4 (6.4)	
Current, Amp. DCEP	175-250	
Position	Flat	

### Bare Oxy-Acetylene Tube Borium

**Oxy-Acetylene/Gas Tungsten Arc Welding Rod.**

General use for Extreme Abrasion, Low Impact.

**Applications:** Plow Share, Teeth, Helicopter Pads, Cane Knives. Tool Drill Bits

### Welding Parameters

Diameter, In., (mm)	<b>7/64 2.8)</b>	<b>1/8 (3.2)</b>
Mesh	30-40	20-30
Flame	3X	3X
Tip Size	4	4
Position	Flat	Flat
Length, In.(mm0	28 (710)	14 (355)
Diameter, In., (mm)	<b>5/32 (4.0)</b>	<b>3/16 (4.8)</b>
Mesh	20-30	20-30
	30-40	30-40
	30 Down	30 Down
Flame	3X	3X
Tip Size	4	4
Position	Flat	Flat
Length, In.(mm0	14 (355)	14 (355)
	28 (710)	28 (710)

## Temperature Abrasion Corrosion

*Mode of Repair or Wear: Group 5-Wear*

### Stoodite 6 (Bare Rod)

**Bare Rod For OAW & GTAW.**

General use High Temperature Abrasion & Corrosion Resistant.

**Applications:** Zinc Tanks, Forging Dies, Diesel Engine Valves, Trunnions, Chemical and Steam Valve Trim, Bearing and Bushing Areas, Plastic Extrusion Screws Trimmer Dies, Guide Rolls.

### Welding Parameters

Welding Process	<b>GTAW</b>	<b>GTAW</b>	<b>GTAW</b>
Diameter, In., (mm)	<b>1/8 (3.2)</b>	<b>5/32 (4.0)</b>	<b>3/16 (4.8)</b>
Current, Amp. DCEN	90-120	120-140	140-160
Voltage	20-40	20-40	20-40
Shielding Gas	100% Argon	100% Argon	100% Argon
Welding Process	<b>OAW</b>	<b>OAW</b>	<b>OAW</b>
Diameter, In., (mm)	<b>1/8 (3.2)</b>	<b>5/32 (4.0)</b>	<b>3/16 (4.8)</b>
Tip Size	4	4	5
Flame	3X-4X	3X-4X	3X-4X
Position	Flat	Flat	Flat
Welding Process	<b>GTAW</b>	<b>GTAW</b>	
Diameter, In., (mm)	<b>1/4 (6.4)</b>	<b>5/16 (8.0)</b>	
Current, Amp. DCEN	160-180	NA	
Voltage	20-40		
Shielding Gas	100% Argon		
Welding Process	<b>OAW</b>	<b>OAW</b>	
Diameter, In., (mm)	<b>1/4 (6.4)</b>	<b>5/16 (8.0)</b>	
Tip Size	6	6	
Flame	3X-4X	3X-4X	
Position	Flat	Flat	



## Temperature Abrasion Corrosion

*Mode of Repair or Wear: Group 5-Wear*

### **Stoodite 6-M (Wire)**

#### **Gas Metal Arc Welding Wire.**

General use High Temperature Abrasion & Corrosion Resistant.

**Applications:** Flights of Extrusion Screws, Sinker Roll Bushings in Steel Mills, Soaking Pit Bits, Shafts,

#### **Welding Parameters**

Diameter, In., (mm)	<b>.045 (1.2)</b>	<b>1/16 (1.6)</b>
Current, Amp. DCEP	180-200	200-300
Voltage	25-27	26-28
Shielding Gas	Argon	Argon
Wire Extension	1/2"-5/8"	5/8"/3/4"
Position	Flat	Flat

### **Stoodite 6 (Coated Electrode)**

#### **Coated Electrode.**

General use High Temperature Abrasion & Corrosion Resistant.

**Applications:** Zinc Tanks, Forging Dies, Diesel Engine Valves, Trimmer Dies, Guide Rolls, Trunnions, Chemical and Steam Valve Trim, Bearing and Bushing Areas, Plastic Extrusion Screws.

#### **Welding Parameters**

Diameter, In., (mm)	<b>1/8 (3.2)</b>	<b>5/32 (4.0)</b>
Current, Amp. DCEP	90-120	135-160
Position	Flat	Flat
Diameter, In., (mm)	<b>3/16 (4.8)</b>	<b>1/4 (6.4)</b>
Current, Amp. DCEP	160-180	220-270
Position	Flat	Flat

## Temperature Abrasion Corrosion

*Mode of Repair or Wear: Group 5-Wear*

### Stoodite 21-M (Wire)

#### Gas Metal Arc Welding Wire

General use High Temperature Abrasion & Corrosion Resistant.

**Applications:** Steam Valves, Hot Shears, Chemical and Petrochemical Valves, Hydro-turbine Cavitation Repair, Forging Dies, Piercing Plugs.

#### Welding Parameters

Diameter, In., (mm)	<b>.045 (1.2)</b>	<b>1/16 (1.6)</b>
Current, Amp. DCEP	189-200	280-300
Voltage	25-27	26-28
Shielding Gas	Argon	Argon
Wire Extension	1/2"-5/8"	1/2"-3/4"
Position	Flat	Flat

### Stoodite 21 (Electrode, also available in Bare Rod)

#### Coated Electrode.

General use High Temperature Abrasion & Corrosion Resistant.

Applications: Steam Valves, Forging Dies, Chemical and Petrochemical Valves, Hydro-Turbine Cavitation Repair, Hot Shears, Piercing Plugs.

#### Welding Parameters

Diameter, In., (mm)	<b>1/8 (3.2)</b>	<b>5/32 (4.0)</b>
Current, Amp. DCEP	90-120	135-160
Position	Flat	Flat
Diameter, In., (mm)	<b>3/16 (4.8)</b>	<b>1/4 (6.4)</b>
Current, Amp. DCEP	160-180	220-270
Position	Flat	Flat



## Temperature Abrasion Corrosion

### Cobalt Nickel Wires

#### Stoody A T1® (Wire)

##### Gas Shielded Flux Cored Wire

##### Applications:

- Joining nickel-chromium-iron alloys.
- Join nickel steels
- Joining Alloy 600, 601 and Alloy 800 to themselves or to stainless and carbon steels

##### Welding Parameters

Diameter, In., (mm)	<b>.045 (1.2)</b>	<b>1/16 (1.6)</b>
Amperage (DCEP)	150-200	200-250
Wire Feed Speed (ipm)	290-400	190-275
Voltage	25-26	26-27
Shielding Gas	75% AR-25% CO <sub>2</sub> or 100%-CO <sub>2</sub>	
Wire Extension, In. (mm)	1/2" (12)	1/2" (12)
Position	All	All

#### Stoody 82 T1 (Wire)

##### Gas Shielded Flux Cored Wire

##### Applications:

- Joining nickel-chromium-iron alloys.
- Clad side of joints in steels in steel clad with nickel-chromium-iron weld metal.
- Surfacing steel with nickel-chromium-iron weld metal.
- Joining Inconel 600, 601 and Incoloy 800 to themselves or to stainless and carbon steels

##### Welding Parameters

Diameter, In., (mm)	<b>.045 (1.2)</b>	<b>1/16 (1.6)</b>
Amperage (DCEP)	150-200	200-250
wire Feed Speed (ipm)	290-400	190-275
Voltage	25-26	26-27
Shielding Gas	75% AR-25% CO <sub>2</sub> or 100%-CO <sub>2</sub>	
Wire Extension, In. (mm)	1/2" (12)	1/2" (12)
Position	All	All

## Temperature Abrasion Corrosion

### Cobalt Nickel Wires

#### Stoody 182 T1 (Wire)

##### Gas Shielded Flux Cored Wire

##### Applications:

- Joining nickel-chromium-molybdenum alloys.
- Clad side of joints in steels in steels clad with nickel-chromium-molybdenum weld metal.
- Surfacing steel with nickel-chromium-molybdenum weld metal.
- Joining steels to nickel based alloys.

##### Welding Parameters

Diameter, In., (mm)	<b>.045 (1.2)</b>	<b>1/16 (1.6)</b>
Amperage (DCEP)	150-200	200-250
Wire Feed Speed (ipm)	290-400	190-275
Voltage	25-26	26-27
Shielding Gas	75% AR-25% CO <sub>2</sub> or 100%-CO <sub>2</sub>	
Wire Extension, In. (mm)	1/2" (12)	1/2" (12)
Position	All	All

#### Stoody 625 T1 (Wire)

##### Gas Shielded Flux Cored Wire

##### Applications:

- Joining nickel-chromium-molybdenum alloys.
- Clad side of joints in steels in steels clad with nickel-chromium-molybdenum weld metal.
- Surfacing steel with nickel-chromium-molybdenum weld metal.
- Joining steels to nickel based alloys.

##### Welding Parameters

Diameter, In., (mm)	<b>.045 (1.2)</b>	<b>1/16 (1.6)</b>
Amperage (DCEP)	150-200	200-250
Wire Feed Speed (ipm)	290-400	190-275
Voltage	25-26	26-27
Shielding Gas	75% AR-25% CO <sub>2</sub> or 100%-CO <sub>2</sub>	
Wire Extension, In. (mm)	1/2" (12)	1/2" (12)
Position	All	All

## Temperature Abrasion Corrosion

### Stainless Steel Wires

#### Brilliant 308L T1 AP (Wire - All Position)

##### Gas Shielded Flux Cored Wire

Stoody® AP stainless steel wires are designed for welding in all positions with either 100% CO<sub>2</sub> (X=1) or Argon/CO<sub>2</sub> (X=4) gas mixtures. These wires exhibit a spray like arc transfer, easy slag removal and can be welded within a wide range of parameters.

##### Application:

Brilliant® 308L T-1 AP wires can be used to join AISI 301, 302, 304 commonly used in the chemical industry and food processing applications.

#### Welding Parameters (DCEP)

##### .035" (0.9mm)

Amps	100 <sup>1</sup>	120 <sup>1</sup>	150 <sup>1</sup>	170 <sup>1</sup>
Volts	25	26	28	28
WFS in/min	275	374	480	600
(m/min)	(6.9)	(9.5)	(12.2)	(15.3)

##### .045" (1.2mm)

Amps	130 <sup>1</sup>	165 <sup>1</sup>	190 <sup>1</sup>	220 <sup>2</sup>
Volts	24	26	27	27
WFS in/min	227	315	445	565
(m/min)	(5.8)	(8.7)	(11.3)	(14.4)

##### 1/16" (1.6mm)

Amps	170 <sup>1</sup>	210 <sup>1</sup>	250 <sup>2</sup>	300 <sup>2</sup>
Volts	25	26	27	28
WFS in/min	155	195	245	320
(m/min)	(3.9)	(4.9)	(6.2)	(8.2)

- Notes:
- 3/8" - 1/2" (10 - 12mm) electrical stick out.
  - 1 = Flat and vertical welding
  - 2 = Flat welding only

## Temperature Abrasion Corrosion

### Stainless Steel Wires

#### Brilliant 308L T1 FH (Wire - Flat Horizontal)

##### Gas Shielded Flux Cored Wire

Stoody® FH stainless steel, flux cored wires are designed for flat and horizontal welding applications, using either 100% CO<sub>2</sub> (X=10) or Argon/CO<sub>2</sub>(X=2) gas mixtures. These wires exhibit a spray like arc transfer with very low levels of spatter, a slag system that is essentially self-releasing, a smooth evenly rippled bead appearance, and deposition rates which are obtained at lower levels of heat input than competitive products.

#### Application:

Stoody® 308L T-1 FP wires can be used to join AISI 301, 302, 304 commonly used in the chemical industry and food processing applications.

#### Welding Parameters (DCEP)

<b>.035" (0.9mm)</b>	<b>Low</b>	<b>Optimum</b>	<b>High</b>
Amps	120	150	180
Volts	24	25/26	28
WFS in/min	375	460	550
(m/min)	(9.5)	(11.7)	(14.0)

<b>.045" (1.2mm)</b>	<b>Low</b>	<b>Optimum</b>	<b>High</b>
Amps	130	170	210
Volts	22/23	25/26	26/27
WFS in/min	200	285	380
(m/min)	(5.0)	(7.9)	(9.7)

<b>1/16" (1.6mm)</b>	<b>Low</b>	<b>Optimum</b>	<b>High</b>
Amps	200	250	300
Volts	24/26	26/28	28/30
WFS in/min	175	250	325
(m/min)	(4.5)	(6.4)	(8.3)

- Notes:
- 3/8" - 1/2" (10 -12mm) electrical stick out.
  - When using Argon/Carbon Dioxide mixtures, voltage may be reduced by up to two volts to improve weldability and bead appearance.

## Temperature Abrasion Corrosion

### Stainless Steel Wires

#### “Brilliant” 309L T1 AP (Wire - All Position)

##### Gas Shielded Flux Cored Wire

Stoody® AP stainless steel, flux cored wires are designed for welding in all positions with either 100% CO<sub>2</sub> (X=10 or Argon/CO<sub>2</sub> (X=2) gas mixtures. These wires exhibit a spray like arc transfer, easy slag removal and can be welded within a wide range of parameters.

##### Application:

Stoody® 309L T-1 AP wires can be used to join AISI 309 steels. It is also used to join AISI 304 to carbon and low alloy steels.

### Welding Parameters (DCEP)

#### .035" (0.9mm)

Amps	100 <sup>1</sup>	120 <sup>1</sup>	150 <sup>1</sup>	170 <sup>1</sup>
Volts	25	26	28	28
WFS in/min	275	374	480	600
(m/min)	(6.9)	(9.5)	(12.2)	(15.3)

#### .045" (1.2mm)

Amps	130 <sup>1</sup>	165 <sup>1</sup>	190 <sup>1</sup>	220 <sup>2</sup>
Volts	24	26	26	27
WFS in/min	227	315	445	565
(m/min)	(5.8)	(8.7)	(11.3)	(14.4)

#### 1/16" (1.6mm)

Amps	170 <sup>1</sup>	210 <sup>1</sup>	250 <sup>2</sup>	300 <sup>2</sup>
Volts	25	26	27	28
WFS in/min	155	195	245	320
(m/min)	(3.9)	(4.9)	(6.2)	(8.2)

Notes: • 3/8" - 1/2" (10 - 12mm) electrical stick out.

- 1 = Flat and vertical welding
- 2 = Flat welding only



## Temperature Abrasion Corrosion

### Stainless Steel Wires

#### “Brilliant” 309L T1 FH (Wire - Flat Horizontal)

##### Gas Shielded Flux Cored Wire

Stoody® FH stainless steel, flux cored wires are designed for flat and horizontal welding applications, using either 100% CO<sub>2</sub> (X=10) or Argon/CO<sub>2</sub> (X=2) gas mixtures. These wires exhibit a spray like arc transfer with very low levels of spatter, a slag system that is essentially self-releasing, a smooth evenly rippled bead appearance, and deposition rates which are obtained at lower levels of heat input than competitive products.

#### Application:

Stoody® 309L T-1 FH wires can be used to join AISI 309 steels. It is also used to join AISI 304 to carbon and low alloy steels.

#### Welding Parameters (DCEP)

<b>.035" (0.9mm)</b>	<b>Low</b>	<b>Optimum</b>	<b>High</b>
Amps	120	150	180
Volts	24	25/26	28
WFS in/min	375	460	550
(m/min)	(9.5)	(11.7)	(14.0)

<b>.045" (1.2mm)</b>	<b>Low</b>	<b>Optimum</b>	<b>High</b>
Amps	130	170	210
Volts	22/23	25/26	26/27
WFS in/min	200	285	380
(m/min)	(5.0)	(7.9)	(9.7)

<b>1/16" (1.6mm)</b>	<b>Low</b>	<b>Optimum</b>	<b>High</b>
Amps	200	250	300
Volts	24/26	26/28	28/30
WFS in/min	175	250	325
(m/min)	(4.5)	(6.4)	(8.3)

- Notes:
- 3/8" - 1/2" (10 - 12mm) electrical stick out.
  - When using Argon/Carbon Dioxide mixtures, voltage may be reduced by up to two volts to improve weldability and bead appearance.

## Temperature Abrasion Corrosion

### Stainless Steel Wires

#### "Brilliant" 316L T1 AP (Wire - All Position)

##### Gas Shielded Flux Cored Wire

Stoody® AP stainless steel, wires are designed for welding in all positions with either 100% CO<sub>2</sub> (X=10 or Argon/CO<sub>2</sub> (X=2) gas mixtures. These wires exhibit a spray like arc transfer, easy slag removal and can be welded within a wide range of parameters.

#### Application:

Stoody® 316L T-1 AP wires can be used to join AISI 316 and 316L, commonly used in the rubber, chemical, petrochemical and dye industries.

### Welding Parameters (DCEP)

#### .035" (0.9mm)

Amps	100 <sup>1</sup>	120 <sup>1</sup>	150 <sup>1</sup>	170 <sup>1</sup>
Volts	25	26	28	28
WFC in/min	275	374	480	600
(m/min)	(6.9)	(9.5)	(12.2)	(15.3)

#### .045" (1.2mm)

Amps	130 <sup>1</sup>	165 <sup>1</sup>	190 <sup>1</sup>	220 <sup>2</sup>
Volts	24	26	26	27
WFC in/min	227	315	445	565
(m/min)	(5.8)	(8.7)	(11.3)	(14.4)

#### 1/16" (1.6mm)

Amps	170 <sup>1</sup>	210 <sup>1</sup>	250 <sup>2</sup>	300 <sup>2</sup>
Volts	25	26	27	28
WFC in/min	155	195	245	320
(m/min)	(3.9)	(4.9)	(6.2)	(8.2)

- Notes:
- 3/8" - 1/2" (10 - 12mm) electrical stick out.
  - 1 = Flat and vertical welding
  - 2 = Flat welding only

## Temperature Abrasion Corrosion

### Stainless Steel Wires

#### “Brilliant” 316L T1 FH (Wire - Flat Horizontal)

##### Gas Shielded Flux Cored Wire

Stoody® FH stainless steel, flux cored wires are designed for flat and horizontal welding applications, using either 100% CO<sub>2</sub> (X=10 or Argon/CO<sub>2</sub> (X=2) gas mixtures. These wires exhibit a spray like arc transfer with very low levels of spatter, a slag system that is essentially self-releasing, a smooth evenly rippled bead appearance, and deposition rates which are obtained at lower levels of heat input than competitive products.

#### Application:

Stoody® 316L T-1 FH wires can be used to join AISI 316 and 316L commonly used in the rubber, chemical, petrochemical, and dye industries.

#### Welding Parameters (DCEP)

<b>.035" (0.9mm)</b>	<b>Low</b>	<b>Optimum</b>	<b>High</b>
Amps	120	150	180
Volts	24	25/26	28
WFC in/min	375	460	550
(m/min)	(9.5)	(11.7)	(14.0)

<b>.045" (1.2mm)</b>	<b>Low</b>	<b>Optimum</b>	<b>High</b>
Amps	130	170	210
Volts	22/23	25/26	26/27
WFC in/min	200	285	380
(m/min)	(5.0)	(7.9)	(9.7)

<b>1/16" (1.6mm)</b>	<b>Low</b>	<b>Optimum</b>	<b>High</b>
Amps	200	250	300
Volts	24/26	26/28	28/30
WFC in/min	175	250	325
(m/min)	(4.5)	(6.4)	(8.3)

- Notes:
- 3/8" - 1/2" (10 - 12mm) electrical stick out.
  - When using Argon/Carbon Dioxide mixtures, voltage may be reduced by up to two volts to improve weldability and bead appearance.

## Thermal Arc Wires

### Mild Steel Wires

#### Thermal Arc TR S-6 (Solid Wire 70S6)

##### Gas Shielded Welding Wire - GMAW

Thermal Arc TR S-6 is an exceptional mild steel, copper coated wire for GMAW welding under CO<sub>2</sub> Ar/CO<sub>2</sub> shielding gases. With it's levels of manganese and silicon, TR S-6 is an excellent choice for welding through mill scale, rust or dirt.

##### Applications:

Typical applications include sheet metal work, construction fabrication, agricultural equipment fabrication and repair, automobile and truck body work, tanks, pipe work, and general repair and fabrication using carbon steel.

##### Welding Parameters (DCEP)

Diameter, In., (mm)	<b>.025" (0.65mm)</b>	<b>.035" (0.9mm)</b>
Amperage	50-200	70-240
Volts	16-26	17-28
WFS (ipm)	100-575	120-570
Wire Extension (in.)	1/4 -3/8	3/8 -5/8

#### Thermal Arc SF-1A (Seamless Flux Cored Wire 71T1)

##### Gas Shielded Welding Wire - GMAW

AR-1 is a seamless flux cored wire for use with Co<sub>2</sub> shielding gas. the arc is stable with low spatter, excellent bead appearance and an easily removed slag cover. diffusible hydrogen is as low as that of solid wires. Weldability is excellent in all positions and high efficiency welding in the flat, horizontal fillet, vertical up and vertical down positions. All can be performed with the same parameters.

##### Features:

- Seamless Design stops moisture absorption
- Copper coating reduces drag during welding
- Rust resistant wire surface
- Enhanced electrical conductivity

##### Welding Parameters (DCEP)

Diameter, In., (mm)	<b>.045" 1.2mm)</b>	<b>.052" (1.4mm)</b>
Amperage	180-300	200-400
Volts	19-28	22-27
Wire Extension (in.)	3/8 -5/8	3/8 -5/8



## POP Display Products

One pound display products will become available in 2005.

### Electrodes

Description:	Diameter	Package Size
Castweld 55	1/8"	1 Pound
Castweld 99	1/8"	1 Pound
Versalloy Plus	3/32"	1 Pound
Build-Up LH	1/8"	1 Pound
Stoody 35	1/8"	1 Pound

### Wire

Description:	Diameter	Package Size
Build-Up-0	.045"	10 Pound
Stoody 101HC-G	.035"	5 Pound
Stoody 965-G	.035"	5 Pound
Brilliant 308L T-1 AP	.035"	5 Pound
Brilliant 309L T-1 AP	.035"	5 Pound
Brilliant 316L T-1 AP	.035"	5 Pound
Versalloy T-1 AP	.035"	5 Pound

## JS-100 Jet Spray Powder Torch Kit

Includes:	Oty	Description
	1	Torch Handle
	1	Powder Hopper Assembly
	1	Elbow Assembly
	3	Heating Tips (#3 TE, #4 TE, #6 TEMF)
	1	1 lb. Bottle of Stoody 63 T. G. (Build-Up Powder)
	1	1 lb. Bottle of Stoody 83 T. G. (Wear Prevention Powder)
	1	"How to" Video

## Sales

Stoody is the world's leader in the production of welding wires and electrodes used to combat various types of wear and corrosion. Our extensive family of products includes iron, nickel, cobalt, tungsten and vanadium based alloys. Stoody company has developed thousands of unique alloys for demanding applications. We look forward to serving you. When you need product information or want to order our products, contact your Stoody Authorized Distributor. For a list of distributors in your area, call our Customer Service Department at 1-800-426-1888 or visit our web site.

## Literature Request

You can order literature directly through our Customer Service Center at 1-800-426-1888. Product Data Sheets and MSDS information is available on our web site, in the Literature Library.

## Technical Service

For technical support and product assistance contact the Stoody Customer Care Center at 1-800-426-1888. Visit our web-site for Product Data sheets, MSDS files are locate a Product Specialist in you area. The Product Specialist are highly experienced people trained to assist you with technical support and sales.

## How to Contact Us

Customer Care: 1-800-426-1888

Website: [www.stoody.com](http://www.stoody.com)

Fax: 1-800-535-0557

International Customer Care: (905) 827-9777

### **The Stoody Company**

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Bowling Green, KY 42101

**We look forward to serving you.**

**STOODY®**

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