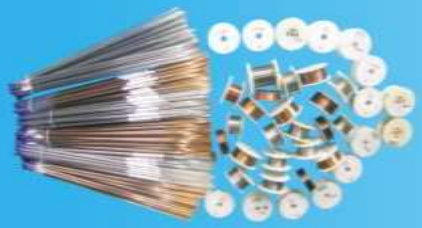
1996 Sunrise Company

MASS USED OF LASER WELDING WIRE/ROD(Cheapest)



MOLD STEEL ARGON WELDING ROD

Flux Cored Wire/Coated Electrode for Forging Die

Mass Used of laser Welding Wire/Rod(CHEAPEST)

1. TD-C2M Widely used to welding plastic mold steel such as: 718, 738, P20, Gs2738, GS2311, SP300, MUP, PX88, HPM7,PDS-5, SKT-5,CORRAX-336, PX5,CALMAX635.

AWS: 90S-G(B3) HRC 28-32C (ITALY MATERIAL)
ALLOY TYPE: Cr-Mo ALLOY STEEL
SIZE: Φ0.2, 0.3, 0.4 ,0.5, 0.6mm

C:0.08	si:0.65	Mn:1.0	Cr:2.5	Mo:1.0	Cu:0.3

2. TD-650 Buid-up of repairing die-casting mold, very good for heat-resistant tool steel such as: H13, SKD-61, DIEVER, 8407, DF2F, 2344 UNIMAX, W302. (ITALY MATERIAL)

WERK STOFF: 1.2606 HRC: 52-55C
SIZE: Φ 0.2, 0.3, 0.4 ,0.5, 0.6mm

C:0.35	si:1.1	Mn:0.4	Cr:5.2	Mo:1.4	v:0.4	w:1.3

3. TD-420 Welding of super finishing plastic mold steel such as: ST-AVAX, S136, 2316,M310, CORRAX-366, PAK90, POLMAX, RAMAX2, RAMAX8, ELMAX. (TAIWAN MATERIAL)

AWS: A5.9-06, ER420, HRC:35-38C
SIZE: Φ 0.2, 0.3, 0.4 ,0.5, 0.6mm

C:0.33	Cr:12.5	Ni:0.17	Mn:0.43	si:0.45
S:0.01	Mo:0.7	cu:0.7	Co:0.02	p:0.19

4. TD-600 Welding of punch die forming die, cutting die, build-up repair series of D2 cold work steel such as: SKD11,ASSAB88,DC53, VIKING, XW-5, K340, Cr12Mo1V1, SLD-Magic,XW-42, GS-2379, SLEIPNER. (ITALY MATERIAL)

WERK STOFF: 1.4718 HRC: 50-52C
SIZE: Φ 0.2, 0.3, 0.4 ,0.5, 0.6mm.

C:0.45	si:3.0	Mn:0.4	Cr:9.3

5. 888 (NITRIDE) Primarily usage: nitrided steel, gas nitrided alloy steel, gas nitrided alloy steel, Great performance in welding cracked and fractured tools,die,mold steel. (USA MATERIAL)

TENSILE STRENGTH: 10295OPSi
SIZE: Φ 0.2, 0.3, 0.4 ,0.5, 0.6mm
YIELD STRENGTH: 85.55OPSi, ELONGATION: 40%

C:0.09	Mn:1.65	si:0.4	Cr:30	Ni:8.6
Mo:0.02	S:0.01	p:0.02	Cu:0.03	N:0.06

6. TD-T96 Widely used in china over 10 years to welding series of P21, tool steel such as: NAK55, NAK80, HPM50,KAP88, CCS-SP400, GEST80.

AWS: ER120S-G EN12534: Mn4N2.5CrMo
SIZE: Φ0.2, 0.3, 0.4 ,0.5, 0.6mm (ITALY MATERIAL)
ALLOY TYPE: NIKEL-CHROME- MOLYBDENUM ALLOY

C:0.11	si:0.8	Mn:1.9	Mi:2.4	Cr:0.55	Mo:0.55

7. RO56 Low carbon alloy steel Commonly use towelding various tool steel and products, easy engraving and machining,high mechanical properties and tensile strength of R-600 N/mm2.

AWS: 5.18 WERK STOFF: 1.5130
(LINCOLN China Material)
SIZE: Φ 0.2, 0.3, 0.4 ,0.5, 0.6mm

C:0.08	si:0.95	Mn:1.7

8. S211 Silicn bronze commonly use to welding galvanized iron, cast, copper,beryllium copper,copper-zinc,base metal to themselves, and also to steel,Coated steel.
(CHINA MATERIAL)

AWS: ERCUSi-A TENSILE STRENGTH: 50750Psi
SIZE: Φ 0.2, 0.3, 0.4 ,0.5, 0.6mm

Zn:1.0	Sn:1.0	Mn:1.3	Fe:0.4	si:3.5
Al:0.01	pb:0.02	OET:0.5	Cu+Ag:Bai	

We provide multiple types of welding wire for different tool-steel maintenance.

9. S201 Pure deoxidized copper for welding bronze and structural shapes, buss bars, rotor, copper containers, and all copper units where high electrical conductivity is a prime requisite.
(CHINA MATERIAL)
SIZE: ϕ0.2,0.3,0.4,0.5,0.6mm

AWS: ERCU TESILE STRENGTH: 29000Psi
YIEID STRENGTH: 7975PSI ELONGATION:29%

P:0.15	Sn:1.0	Al:0.01	Si:0.5
pb:0.02	OET:0.5	Cu+Ag:98	

10. S215 The most Versatile aluminum bronze welding alloy for weldimg mamy ferrous and nonferrous metals and dissimilar combinatioms includinmg the more weldable grades of cast iron high and low Carbon steels, copper bronzes and copper/niekel alloys, also for overlaying bearings and Corrosion-resistant surfaces.
(CHINA MATERIAL) SIZE: ϕ0.2,0.3,0.4,0.5,0.6mm AWS:ERCuAl-A2

Al:9	Fe:1.5	Si:0.1	Zn:0.02	Pb:0.02	OET:0.5	Cu+Ag:Bal

11. 5940 (Beryllium copper) Is a copper, nikel, chromium, aluminum bare wire,it has excellent thermal conductivity wear resistance and corrosion resistance, the high thermal conductivity copper alloy commonly utilized by the injection and blow molding industries as well as other in the molding industry as an alternative products for welding BERYLLIUM COPPER. also used for welding AMPCO940 mold. (USA MATERIAL)TENSILE STRENGTH: 100,000Psi ELONGATION 13%. SIZE: ϕ 0.2, 0.3, 0.4, 0.5, 0.6mm

12. 308L Stainless steel use to welding base metal of Similar composition such as 301,302, 304, 304L, 308, 308L and 347.

AWS: ER308l TENSILE STRENGTH: 84000Psi
SIZE: ϕ0.2, 0.3, 0.4, 0.5, 0.6mm (TAIWAN MATERIAL)

C:0.015	Cr:19.6	Ni:9.6	Mn:1.7	Si:0.47	P:0.24	S:0.01	Mo:2.5	Cu:0.18	N:0.36

13. 316L Is use for welding low carbon molybdenum – bearing austenitic alloy.

AWS: ER316L TERSILE STRENGTH: 79750Psi
SIZE: 0.2, 0.3, 0.4, 0.5, 0.6mm (TAIWAN MATERIAL)

C:0.002	Cr:18.6	Ni:11.5	Mn:1.6	Si:0.57	p:0.24	S:0.01	Mo:2.5	Cu:0.18	N:0.36

14. 880 (312) Was designed to welding cast alloy of similar composition, this filler metal also to welding dissimilar metals such as carbon steel to stainless steel and plus highly resistant to weld metal crack and fissues. (USA MATERIAL)

AWS: ER312 UNS: S31380
TENSILE STRENGTH: 102950Psi
SIZE: ϕ 0.2, 0.3, 0.4, 0.5, 0.6mm

C:0.15	Mn:1.3	Si:0.5	Cr:28	Ni:10
Mo:0.5	S:0.02	p:0.03	Cu:0.7	

15. 304 (Nonmagnatic) commonly use to welding stainless steel products and pieces.(CHINA MATERIAL) SIZE: ϕ 0.2, 0.3, 0.4, 0.5, 0.6mm

16. 304 (Magnatic) commonly use to welding stainless steel products and pieces. (CHINA MATERIAL) SIZE: ϕ 0.2, 0.3, 0.4, 0.5, 0.6mm

17. 5356 Is a 5% magnesium aluminum filler metal, it can be used to welding most aluminum grades such as 5050, 5052, 5083, 5454, this filler metal offer good corrosion resistance exposed to salt water, the post-anodizing colourtint of the weld area is white. (CANADIAN METERIAL)

AWS: ER5356 Sg-AlMg5
SIZE: ϕ 0.2, 0.3, 0.4, 0.5, 0.6mm

Si:0.1	Fe:0.3	Cu:0.05	Mg:5	Mn:0.05-0.2
Cr:0.15	Zn:0.09	Be:0.0008	Ti:0.1	Al:remainder

18. 4043 Is a 5% silicon aluminum, it can be used for welding 3003, 3004, 5052, 6061, 6063,the post-anodizing colourtint of the weld area is gray. (CANADIAN MATERIAL)

AWS: ER4043 Alsi5 SIZE: ϕ 0.2, 0.3, 0.4, 0.5, 0.6mm

Si:5	Fe:0.3	Cu:0.05	Mn:0.04	Cr:0.05
Zn:0.05	Be:0.0002	Ti:0.005	Al:remainder	

19. 4047 A silicon alloyed aluminum developed for aluminum brazing with a lower melting point an higher fluidity than 4043, it provide increased silicon in weld metal which minimize hot cracking and produce higher fillet weld shear strengths.
(CANADIAN MATERIAL)

AWS: ER4047 Sg-Alsi12
SIZE: ϕ0.2, 0.3, 0.4, 0.5, 0.6mm

Si:11-13	Fe:0.3	Cu:0.05	Mg:0.05	Zn:0.1	Be:0.0003
Ti:0.005	Al:remainder		Cr:0.05		Mn:0.05

We provide multiple types of welding wire for different tool-steel maintenance.

20. 1100 (PURE ALUMINUM) Contains no alloy element and is considered nonheat-treatable, it is used primarily in chemical tanks and pipe because of is superior corosion resistance. This is also used in electrical bus conductors because of its excellent electrical conductivity. (CANADIAN MATERIAL).

AWS: ER1100 NO equiv.
SIZE: ϕ 0.2, 0.3, 0.4, 0.5, 0.6mm

Si:0.25	Fe:0.3	Cu:0.05-0.15	Mn:0.05	Cr:0.05
Mg:0.05	Zn:0.05	Be:0.0002	Ti:0.05	Al:Min99

Colour Match And Eching Texture of Laser Welding Wire/Rod

1. 9210 A high quality drawn wire of chrome/moly alloy steel, it was designed to weld plastic mold steel such as: P20, 718,738, SKT5, CALMAX,NIMAX, 2711, 2311, perfect for colour match and eching texture as welded. (USA MATERIAL)

AWS: P20 HRC: 34-40C
SIZE: ϕ 0.2, 0.3, 0.4, 0.5, 0.6mm

C:0.28-0.4	Mn:0.6-1.0	Si:0.2-0.8	Cr:1.4-2.0
Mo:0.3-0.55	P:0.3	S:0.3	

2. 959 For repair and reclamation of H13,SKD61, 2344, W303, SKD4-5,6,8, DAC, 8407, DAC55, ORVAR, UNIMAX, DIEVAR hot work tool steel. It is a tungsten-free 5% chrome/moly alloy used on hot work tools and dies that are suject to heat checking> Uses include the repair and overlay of aluminum, zinc and magnesium die-casting dies, press-forging die and inserts. perfect for colour match and eching texture as welded. AWS: H13 HRC: 48-52C SIZE: 0.2, 0.3, 0.4, 0.5, 0.6mm USA METERIAL CUSTOM DRAW TO SMALL DIAMETER

C:0.32-0.45	Cr:4.8-5.5	Mn:0.2-0.5	Mo:1.1-1.7
Si:0.8-1.2	V:0.8-1.2	p:0.3	S:0.3

3. 420 JAPANESE "Toritani" original wire draw and straightening to rod, welding super finishing plastic injection mold steel such as: STAWAX, S136, M333, POLMAX, GS2316, CORRAX366, PAK90, RAMAX2, ELMAX, HPM-50, perfect for colour match and eching texture as welded.

AWS: ER420, HRC: 45-49C
SIZE: ϕ 0.2, 0.3, 0.4, 0.5, 0.6mm

C:0.33	Si:0.5	Mn:0.4	P:0.022	S:0.03
Ni:0.6	Cr:14	Mo:0.75	Cu:0.04	

4. NAK80 Welding of NAK55, NAK80, Cr-Mo tool steel mold, perfect for colour match and eching texture as as welded. JANPANESE "Daido" ORIGINAL WIRE CUSTOM DROW TO SMALL DIAMETER.

HRC: 32-38C
SIZE: ϕ 0.2, 0.3, 0.4, 0.5, 0.6mm

C:0.12	Si:0.27	Mn:1.51	P:0.011	S:0.003
Cu:0.93	Ni:3.22	Cr:0.22	Mo:0.25	Al:1.03

Special Alloy Steel of Laser Welding Wire/Rod

1. 9770 (MARAGING300) 18% Cobalt bare rod were developed for repairing hot work die, die casting, plastic molds, extrusion dies, the as welded hardness is rockwell C32-38C which allows for complete machining operations, at 480° C-510° C at temperature for 3-6 hours produces a hardness of rockwell C48-52C. AISI: MARAGE 300 SIZE: ϕ 0.2, 0.3, 0.4, 0.5, 0.6mm (USA MATERIAL)

2. HS-9 (HRC 60-62C) A high quality finely drawn 5% molybdenum high speed alloy. used for repair and reclamation of M1, M2, ASP23, ASP30, M42, SKH51, W4 tool steel,typical applications include repair of drills, blanking and trimming die.(JAPANESE ORIGINAL)

ALLOY TYPE: molybdenum high speed Aws:M2
HARDNESS: ROCKWELL C60-62C SIZE: ϕ 0.3, 0.4,0.5,0.6mm

Cr:0.9	Si:0.4	Mn:0.3	P:0.03	S:0.01
Cr:0.4	Mo:5	W:5.8	V:1.85	

3. 700 A 99% pure nickel wire provides outstanding easily machinable, weld deposits for buildup or joining of cast iron and cast iron to steel. (USA MATERIAL)

AWS: ENicl Tensile Strength: 50000Psi
SIZE: ϕ0.2, 0.3, 0.4, 0.5, 0.6mm

4. 750 A 55% nickel was nickel-iron alloy, weld deposits for buildup or joining of ductile, malleable and grey cast iron.

AWS: ENiFeC1 Tensile Strength: 55000Psi
SIZE: ϕ 0.2, 0.3, 0.4, 0.5, 0.6mm (USA MATERIAL)

We provide multiple types of welding wire for different tool-steel maintenance.

5. 630 Use include joining 17/4,15/5,305, 17/7, PH grade stainless steel to themselves or dissimilar compinations,mairine and aerospace application, pump parts, bolts shaft, flexible bellows.

AWS: ER630 Tensile Strength: 143550Psi
ALLOY TYPE: 17/4H, Preipition Hardening
SIZE: ϕ 0.2, 0.3, 0.4, 0.5, 0.6mm (USA MATERIAL)

C:0.04	Mn:0.5	Si:0.6	Cr:16	Ni: 4.7
Mo:0.6	Cu:3.3	S:0.02	p:0.02	Cb+Ta:0.2

6. C276 Is nickel-molybdenum-chromium corrosion resistance alloy used for diasimilar welding between nickel base alloy and stainless steel, as well as surfacing cladding, due to the high molybdenum content that offers excellent resistant to stress corrosion,cracking, pitting and crevice corrosion.

AWS: ERiCrMo-4 Tensile Strength: 106000Psi
SIZE: ϕ0.2, 0.3, 0.4, 0.5, 0.6mm (USA MATERIAL)

C:0.02	Mn:1.0	Si:0.2	Fe:5.6	Mo:16	W:3.5
Cr:16	Ni:Bal	Cu:0.5	V:0.3	Co:2.5	OET:0.5

7.SW2209 Duplex for welding ferritic austenitic stainless steels to type22%.Cr5% Ni and3% Mo the deposided metal of this wire has a high resistance to corrosion in media containing chlorides and hydrogen sulphide,this welding wire has a high resistance to pitting and especially corrosion under stress,the service temperature range from-40°C to 250°C.(SWEDEN MATERIL)
Tensile stremgth 124700psi

AWS:ER2209 En12072
SIZE: ϕ0. 2,0. 3, 0. 4,0. 5, 0. 6mm

C:<0.03	Si:0.5	Mn:1.7	Cr:22.5	Ni:8.5	Mo:3.3	Cu:<0.3

8. 410 Is used to weld type 403, 405, 410,416. It is also used used to welding overlay on carbon steel to resisit corrosion,erosion, it is an air hardening type filler metal that calls for preheating of the joint to 350F before welding.(USA MATERIAL)

AWS: ER410, Tensile Strength: 78300Psi SIZE: ϕ 0.2, 0.3, 0.4, 0.5, 0.6mm

C:0.017	Cr:12.5	Ni:0.2	Mo:0.01	Mn:0.35
Si:0.31	P:0.02	S:0.002	Cu:0.03	N:0.01

9.4625 (INCONEL) Used primarily to Weld Inconel 625 and 601. Inconel 800 and 802 and 9% nickel steel. Unsurpassed as a wear-resistant overlay on hot-work tools such as extrusion dies.

AWS: ENiCrMo-3 Tensile Strength: 114500Psi
SIZE: ϕ 0.2, 0.3, 0.4, 0.5, 0.6mm (USA MATERIAL)

10.Pure tiamium wire/rod(CHINA MATERIAL)SIZE: ϕ0.3,0.4,0.5, 0.6mm

PACKING FOR LASER WIRE/ROD

1.Spool wire

standard packing for steel copper,nickel 0.5kg/per spool (use wheel spo1)

wheel spo1

wheel spo2

NONSTANDARD PADKING:

customized length/weight will cost extra charge,wheel spo1 Min.100g up to 500g or 20M up to 400M,wheel spo2 Min.50g up to 200g or 20M up to 200M

standard packing for aluminum, titanium 0.25kg/per spool (use wheel spo1)

2. Rod ϕ*500mm length

TBO1

standard packing ϕ0.2, 0.3, 0.4mm 200pcs(100m)/per tube
standard packing ϕ0.5,0.6,0.7mm 100pcs(50m)/per tube

NONSTANDARD PACKING:any length/weight on your request as extra charge,tube TBO1 Min.20g up to 80g or 20m up to 100m.

3.Wire/rod approx meter in tubes of per kilogam

ϕ	steel	copper	aluminum	nickel	titanium
0.2mm	3900m/39tubes	3480m/35tubes	11270m/113tubes	3185m/32tubes	2950m/30tubes
0.3mm	1750m/18tubes	1550m/16tubes	5085m/51tubes	1426m/15tubes	1775m/18tubes
0.4mm	960m/10tubes	870m/9tubes	2871m/29tubes	809m/9tubes	
0.5mm	610m/13tubes	560m/12tubes	1833m/37tubes	519m/11tubes	
0.6mm	420m/9tubes	385m/8tubes	1323m/27tubes	382m/8tubes	

We provide multiple types of welding wire for different tool-steel maintenance.

Mass Used of Argon Welding Rod for Mold Steel(CHEAPEST)

1. TD-600T Tig rod for welding of punch die, cutting die, build-up repair series of D2 cold work steel such as: SKD11, ASSAB88, DC53, VIKING, XW-5,K-340, Cr12Mo1V1, SLD-Magic, XW-42, GS-2379, SLEIPNER.

WERK STOFF:1.4718 (ORIGINAL FROM ITALY)
SIZE: ϕ0.8, 1.0, 1.2, 1.6, 2.0, 2.4, 3.2mm

C:0.45	Si:3.0	Mn:0.4	Cr:9.3	HRC:50-52C

2. TD-500 (MEDIUM HARDNESS) Same application as TD-600T uses, tig rod for welding D2 cold work steel such as: refer to TD-600T. (ORIGINAL FROM ITALY)

WERK STOFF: 1.8425 HRC: 45-48C SIZE: ϕ 1.6, 2.0mm

C:1.1	Si:0.5	Mn:1.9	Cr:1.8	Ti:0.2

3. TD-350T(MACHINABLE HARDNESS) Same application as TD-600T uses, tig rod for welding D2 cold work steel such as:refer to TD-600T. (ORIGINAL FROM ITALY)

WERK STOFF: 1.7363 HRC: 36-40C SIZE: ϕ 1.6, 2.0mm

C:0.08	Si:0.55	Mn:0.9	Cr:6.0	Mo:0.9

4. TD-D2T Economic and general purposes for welding plastic injection mold steel such as: P20, P-5, M201,3CrNiMnMo, 42CrMo, Ft61, 618, 3Cr2Mo,

AWS: ER80S-D2 MOLYBDENUM-ALLOY HRC: 21-25C
SIZE: ϕ 0.8,1.0,1.2,1.6,2.0,2.4mm (ORIGINAL FROM ITALY)

C:0.09	Si:0.7	Ni:≤0.15	Mn:1.9	Mo:0.5	Cr:≤0.15

5. TD-CMT General purposes for welding plastic injection mold steel such as: 718, 2311, PX4, 2711, M202, CCS-SP300, 60CrMnMo, PDS-3, SKT-5, MUP, P20H, HPM1.

AWS: ER80S(B2) Cr-Mo Alloy(ORIGINAL FROM ITALY)
HRC: 25-30C SIZE: ϕ0.8, 1.0, 1.2, 1.6, 2.0, 2.4mm

C:0.09	Si:0.65	Cr:1.15	Mn:1.05	Mo:0.5	Cu:0.25

6. TD-C2MT General purposes for welding plastic injection mold steel such as: 738, 2728, 738H, CALMAX,M238, EM38, GS738, NIMAX, HPM-Magic, 818, HPM7, PX88, 638, 2312.

AWS: ER90S-G(B3) Cr-Mo Alloy (ORIGINAL FROM ITALY)
HRC: 28-32C SIZE: ϕ 0.8, 1.0, 1.2, 1.6, 2.0mm

C:0.08	SI:0.65	Mn:1.0	Cr:2.5	Mo:1.0	Cu:0.3

7. TD-650T Very popular used over ten years in china to welding die-casting mold, hot work tool steel such as: 8407,H13, DF2F, 2344, SKD-61, DIEVER, UNIMAX, W302.

WERK STOFF: 1.2606 HRC: 52-55C
SIZE: ϕ 0.8, 1.0, 1.2, 1.6, 2.0, 2.4mm (ORIGINAL FROM ITALY)

C:0.35	Si:1.1	Mn:0.4	Cr:5.2	Mo:1.4	V:0.4	W:1.3

8. S136T(420) General purpose for welding super finishing plastic mold steel such as:STAVAX,S136H, 2316, M310, CORRAX-366, PAK90, POLMAX,RAMAX2, RAMAX8, ELMAX.

AWS: A5.9-06 ER420 HRC: 35-38C
SIZE: ϕ 0.8,1.0,1.2,1.6,2.0,2.4mm (ORIGINAL FROM TAIWAN)

C:0.33	Cr:12.5	Ni:0.17	Mn:0.43	Si:0.45
S:0.01	Mo:0.7	Cu:0.7	Co:0.02	P:0.19

9. TD-196T Economic and general purposes for welding series of P21 tool steel such as: NAK80, NAK55, HPM50,KAP88, CSS-SP400, GEST80. (ORIGINAL FROM ITALY)

NICKEL-CHROME MOLYBDENUM ALLOY
SIZE: ϕ0.8, 1.0, 1.2, 1.6, 2.0mm
AWS: ER120S-G EN12534: Mn4N2.5CrMo

C:0.11	Si:0.8	Mn:1.9	Ni:2.4	Cr:0.55	Mo:0.55

10. RO56T Low carbon alloy steel general use to welding various tool steel and products, easy engraving and machining,high mechanical properties and tensile strength of R-600 N/mm2.(:LINCOLN china"MATERIAL)

AWS:5.18 WERK STOFF:1.5130
SIZE: ϕ0.8, 1.0, 1.2, 1.6, 2.0, 2.4mm

C:0.08	Si:0.95	Mn:1.7

We provide multiple types of welding wire for different tool-steel maintenance.

11.888T(NITRIDE) Primarily for welding nitrided steel, gas nitrided alloy steel, perfect to welding cracked and fractured tools,die, mold steel. (ORIGINAL FROM USA)

TENSILE STRENGTH:10295OPSi SIZE: ϕ0.9, 1.2, 1.6mm

C:0.09	Mn:1.65	Si:0.4	Cr:30	Ni:8.6
Mo:0.02	S:0.01	P:0.02	Cu:0.03	N:0.06

12. RC9T(M2) For repairing of high speed tools, dies, drills, reamers, broachies, shears, punches, and other units that require long lasting sharp edges. Also for build-up or upgrading of lower alloy steels to suit high speed steel requirements on hot or cold workiing units. (ORIGINAL FROM ITALY)

AWS: M2 WERK-STOFF: 1.3343 HRC: 62-63C
SIZE: ϕ 1.2, 1.6, 2.4mm
Preheat and post heat will be dictated by the base metal chemistry.

C:0.9	Si:0.25	Mn:0.3	Cr:4.3	Mo:4.9	V:1.8	W:6.3

13. S211T Very commonly used over 20 years in china to welding galvanized iron, cast, berylliun copper,copper-zinc, base metal to themselves, and also to steel,coated steel.

AWS: ERCUSI-A TENSILE STRENGTH: 85550Psi
SIZE: ϕ0.9, 1.2, 1.6, 2.4mm (CHINA MATERIAL)

Zn:1.0	Sn:1.0	Mn:1.3	Fe:0.4	Si:3.5
AI:0.01	Pb:0.02	OET:0.5	Cu+Ag:Bal	

14. S201T Pure deoxidized copper for welding bronze and structural shapes, buss bars, rotor, copper containers,and all copper units where high electrical conductivity is aprime requisite.

AWS: ERCU TENSILE STRENGTH:29000Psi
SIZE: ϕ 0.9,1.2, 1.6mm (CHINA MATERIAL)

P:0.15	Sn:1.0	Pb:0.02	Si:0.5	AI:0.01	OET:0.5	Cu+Ag:98

15.S215T The most versatile aluminum bronze welding alloy for welding many ferrous and nonferrous metals and dissimilar combinations including the more weldable grades of cast iron high and low carbon steels,copper bronzes and coppr/nickel alloys,also for over laying bearings and corrosion-resistant surfaees
(CHINA MATERIAL) SIZE: ϕ0.9,1.2,1.6mm

AWS:ERCuAI-A2

AI:9	Fe:1.5	Si:0.1	Zn:0.02	Pb:0.02	OET:0.5	Cu+Ag:Bal

16. 5940T (BERYLLIUM COPPER) Is a copper,nickel,chromium, aluminum, bare rod, it has excellent thermal conductivity wear-resistance and corrosion resistance, the high thermal conductivity copper alloy commonly utilized by the injection and blow molding industries as well as other in the molding industry as an alternative products for welding BERYLLIUM COPPER.Also used for welding AMPCO940 mold. (USA MATERIAL)
TENSILE STRENGTH: 100000Psi ELONGATION 13% SIZE: ϕ1.2mm

Colour Match AND Eching Texture of Aorgon Welding Rod

1. 9210T A high quality drawn wire of chrome/moly alloy steel, it was designed to weld plastic mold steel such as: P20, 718,738, SKT5, CALMAX,NIMAX, 2711, 2311, perfect for colour match and eching texture as welded. (ORIGINAL FROM USA)

AWS: P20 HRC: 34-40C
SIZE: ϕ 0.9, 1.2, 1.6, 2.4mm

C:0.28-0.4	Mn:0.6-1.0	Si:0.2-0.8	Cr:1.4-2.0
Mo:0.3-0.5	P:0.3	S:0.3	

2. 959T For repair and reclamation of H13,SKD61, 2344, W303, SKD4-5,6,8, DAC, 8407, DAC55, ORVAR, UNIMAX,DIEVAR hot work tool steel. It is a tungsten-free 5% chrome/moly alloy used on hot work tools and dies that are subject to heat checking. Uses include the repair and overlay of aluminum, zinc and magnesium die-casting dies,press-forging die and inserts.Perfect for colour match and eching texture as welded.

AWS: H13 HRC: 48-52C SIZE: ϕ 0.9, 1.2, 1.6, 2.4mm (ORIGINAL FROM USA)

C:0.32-0.45	Cr:4.8-5.5	Mn:0.2-0.5	Mo:1.5	Si:0.8-1.2	V:0.8-1.2	P:0.3	S:0.3

3. NAK80T Welding of NAK-55, NAK80, Cr-Mo tool steel mold,perfect for colour match and eching texture as welded.JANPANESE "Daido" original wire straightening to rod.at 500℃ for 5 hours a HRC48-52℃.

SIZE: ϕ 0.8, 1.2, 1.6mm HRC: 32-38℃ as welded

C:0.12	Si:0.27	Mn:1.5	P:0.1	S:0.003
Cu:0.93	Ni:3.3	Cr:0.2	Mo:0.3	AI:1.03

4. 420T Japanese "Toritoni" original wire to staightening for rod,welding Super finishing plasite injection mold steel such as: STAVAX,SI36,M333,POLMAX,GS2316,CORRAX336,PAK90,RAMX2,ELMAX,HPM-50, good for colour match and eching texture as weld.

AWS:ER420 HRC 38-42℃ SIZE: ϕ0.8,1.2,1.6mm HRC:45-49C

C:0.33	Si:0.5	Mn:0.4	P:0.022	S:0.03	Ni:0.6	Cr:14	Mo:0.75	Cu:0.04

Special Alloy Steel of Argon Welding Rod

1. 9770T(MARAGING 300) 18% coblt bare rod were developed for repairing hot work die, die casting, plastic mold, extrusion dies, the as welded hardness is rockwell C32-38 which allows for complete machining operation, at 480℃-510℃ at temperture for 3-6 hours produces a hardness of rockwell C48-52. (USA MATERIAL) AISI: MARAGING 300 SIZE: ϕ 0.9, 1.6mm

2. 4625T Used primarily to weld Inconel 625 and 601, Incoloy 800 and 801 and 9% nickel steel.Unsurpassed as a wear-resistant overlay on hot-work tools such as extrusion dies. AWS: ENiCrMo -3 SIZE: ϕ0. 9, 1.2, 1.6mm

3. 880T (312) as designed to welding cast alloy of similar composition, this filler metal also to welding dissimilar metals such as carbon steel to stainless steel and plus highly resistant to weld metal crack and fissues. (USA MATERIAL) SIZE: ϕ 0.9, 1.2, 1.6mm
AWS: ER312 UNS: S31380 TENSILE STRENGTH:102950Psi

C:0.15	Mn:1.3	Si:0.5	Cr:28	Ni:10	Mo:0.5	S:0.02	P:0.03	Cu:0.7

4. C276T Is nickel-molybdenum-chromium corrosion resistnce alloy, used for dissimilar welding between nickel base alloys and stainless steel, as well as surfacing cladding, due to the high molybdenum content that offers excellent to stress corrosion,cracking, fitting and crevice corrosion. (USA MATERIAL) SIZE: ϕ0.9mm AWS: ERNiCrMo-4 TENSILE STRENGTH: 106000Psi

C:0.02	Mn:1.0	Si:0.2	Fe:5.6	Mo:16	W:3.5	Cr:16	Ni:Bal	Cu:0.5	V:0.3	Co:2.5	OET:0.5

We provide multiple types of welding wire for different tool-steel maintenance.

5. 630T Use include joining 17/4, 15/5, 305, 17/7, PH grade stainless steel to themselves or dissimilar compinations. Marine and aerospace application, jumb parter bolts shafts, flexible bellows. (USA MATERIAL) SIZE: ϕ0.9mm AWS: ER630
ALLOY TYPE: 17/4H Preipition Hardening TENSILE STRE NGTH: 143550psi

C:0.04	Mn:0.5	Si:0.6	Cr:16	Ni:4.7	Mo:0.6	Cu:3.3	Cb+Ta:0.2	S:0.02	P:0.02

6. 410T Is used to weld type 403, 405, 410, 416.It is also used to welding overlay on carbon steel to resist corrosion, erosion,it is an air hardening type filler metal that calls for preheat of the joint to 350°F before welding. (USA MATERIAL)

AWS:ER410SIZE:ϕ 0.9,1.2,1.6mm
TENSILE STRENGTH: 50000psi

C:0.017	Cr:12.5	Ni:0.2	Mo:0.01	Mn:0.35
Si:0.31	P:0.02	S:0.002	Cu:0.03	N:0.01

7. 750T A 55% nickel was nickel-iron alloy weld deposit for build up or joining of ductile, malleable and gray cast iron.

AWS: ENiFeCl SIZE: ϕ 0.9, 1.6mm
TENSILE STRENGTH: 50000Psi (USA MATERIAL)

8. 700T A 99% pure nickel wire provides outstanding easily machin able, weld deposits for buildup on joining of cast iron and cast to steel.

AWS: ENiCl SIZE: ϕ0.9, 1.6mm
TENSILE STRENGTH: 50000Psi

9. 935T (01) For welding AISI 0-1 throuth 0-6 oil hardening steel, provides a deposits that is hard as welded, fine grained and completely heat-treatable. Uses include the repair and reclamation of blanking, forming, and trim dies,preheat and postheat will be dictated by the base metal chemistry AISI: 01 HRC: 57-60C (USA MATERIAL) SIZE: ϕ 0.9, 1.2, 1.6mm

10. 943T (S7) For the repair and reclamation of AISI S-series shock-resisting tool steel (especially AISI:S7) particularly suited for cold-working applications and for the composite fabrication of blanking,trimmer, header and broke dies,preheat and postheat will be dictated by the base metal chemistry.AISI: S7 HRC: 54-57C SIZE: ϕ 0.9, 1.2, 1.6mm (USA MATERIAL)

11. 937T (A2) For welding AISI A-2 through A-6 and D2 throuth D-5 air-hardening tool steels and upgrading wear areas on low alloys. deposits are hard as welded. fine grained and completely heat-treatable. Uses include the repair and reclamation of extrusion, blanking, coining and forming dies. AISI: A2 HRC: 56-58C SIZE: ϕ0.9, 1.2, 1.6mm (USA MATERIAL)

12. TIZT Pure titanium rod (CHINA MATERIAL) SIZE: ϕ 0.8, 1.2, 1.6mm

We provide multiple types of welding wire for different tool-steel maintenance.

Flux Cored Wire/ Coated Electrode for Forging Die

1. 535 (ELC/FC) For joining, buildup, and repairing cracked or fractured steels with up to 180000Psi tensile strengths.Use for fabricating structures, machinery, assemblies and repair of equipment. Hot work applications include joining fractured forging dies that are to be machined, also used for touch up work and marking engineering changes.(ORIGINAL FROM USA)
ROCKWELL C35-38 TENSILE STRENGTH: 180000Psi ELC: ϕ 4.8mm FCG: ϕ 2.4mm
PREHEAT 361°C up / POSTHEAT 538°C up 1 hour per inch of thickness.

2. 545 (ELC/FC) For heavy buildup and overlays on equipment that requires high impact and wear properties at temperatures up to 538°C, may be used on certain forge on press die applications. ROCKWELL C40-45 TENSILE STENGTH: 200000Psi
ELC: ϕ 4.8mm FCG: ϕ 2.4mm (ORIGINAL FROM USA)
PRHEAT 427°C up / POSTHEAT 538°C up 1 hour per inch of thickness.

3. 9650 (ELC/FC) /for all forging die imporessions reducers,guides,ways, flat dies, rolls, steel mill units, shaft overlay work, also excellent for a tough buildup when a higher hardness material is requied on the surface. Use the preheat requied for the base material, for the low and medium alloy steels 149°C to 316°C is usually sufficient, on forging die and other high alloy or hot working steels at least 427°C is required, maintain temperture and peen welds at forging temperature. After welding, replace forging dies in furnace at 427°C for two to three hours for equaliging of heat throuthout the unit, remove from furnace and cool to below 149°C, then temper at 538°C. Whenever possible a double temper will produce the ultimate in toughness.HRC: 38-42C FORGED RC: 44-46 (ORIGINAL FROM USA) FLUX CORD WIRE : ϕ 2.4mm, COATED ELECTRODE: ϕ 4.8mm

4. 9652 (ELC/FC) Has exceptional impact qualities at high temperature. ideal for shallow hammer dies,press dies, screw press dies, and impactor dies. Its broad tempering range allows for EDM and conventional machining with carbide cutters.
PROCEDURE: Romove all foreign material and crackis before welding. Use the preheat dictated by your specific base material. For the low and medium alloy steels 300°F to 600°F is ususlly sufficient.On forging dies and other high alloy or hot working steels preheat a minimum of 800°F. Maintain interpass temperature (+/- 150°F of preheat temp.) and peen each weld deposit while bead is still red hot from welding. After welding low and medium alloy steels allow material to slow cool. After welding forging dies and other high alloy materials post heat the material in a furnace at 800°F for two-three hours fo allow equalizirg of heat throughout the umit. Remove from furnace and air cool to below 300°F, then return the material to the furnace for temper/stress relieve process, which will determine the final hardness of the material.(ORIGIAL FROM USA) HRC: 51-54C
FLUX CORD WIRE: ϕ 2.4mm COATED ELECTRODE: ϕ 4.8mm

Flux Cored Wire/Coated Electrode for Hot&Cold Working Tools

5. 9580 (ELC/FC) Hot or cold work trimmers, shears, blanking and forming dies where chipping,spalling and cracking are a problem. Typical hot work examples are: forging dies, coining dies, header dies, punches, extrusing mandreis and tong bits, Among the cold work application are induded automotive trim section for stock up to 1/4" thick, forming dies,blanking dies, sledge hammer faces, cutting edges for hatchets and punches. Especially suited for composite fabrication of die sections.
PROCEDURE: Use AC or DC, reverse polarity. For repairs, prepare area to be welded by removing all cracks, heat checks or other defects by grinding or scarfing with chamfer electrodes or the carbon arc process. Clean area of any slag, scale, rust or drawing compounds, Preheat die blacks and other units where the entire working surface is to be welded to 800°F.On other alloys preheat and post-heat according to the base metal, Maintain temperature during welding. Hold electrode on a slight angle in the direction of travel and maintain a short arc gap, Use the stringer bead technique. Peen the weld when hot to relieve stresses. After welding,cool in still air to 300°F to obtain the ultimate grain refinement and uniform hardness in the weld deposit. Post-heat at 1000°F. Hold at temperature at one hour per inch of thickness. Cool in still air to room temperature. HRC: 55-58C
(ORIGINAL FROM USA) FLUX CORD WIRE: ϕ 2.4mm COATED ELECTRODE: ϕ 4.8mm

6. 958E (ELC) Coated electrode welding of punch die, cutting die, buildup repair series of D2 cold work steel such as: SKD11, ASSAB88, DC53, VIKING, XW-5, K340 etc. (ORIGINAL FROM USA)
COATED ELECTRODE: ϕ 3.2mm preheat 427°C / postheat 149°C-538°C HRC: 52-55C

7. 959E (ELC) Coated electrode for repair and reclamation of H13, SKD61, 2344, W303, SKD5,6,8 etc.Hot work steel, it is a tungsten-free 5% chorm moly alloy.(ORIGINAL FROM USA)
COATED ELECTRODE: ϕ3.2mm PREHEAT 427°C/ POSTHEAT 149-538°C HRC: 54-57°C

8. 880E (ELC) a superior all position welding electrode possessing a unique coating and special alloy core wire that produces a homogeneous, porous-free, machinable weld deposit. Use for joining cracked die sections, high manganese,tool steels, high carbon, low carbon, and stainless steels.Examples include: hot and cold shears, drill shanks, springs, drill shank extensions, tap extraction, and heat-treat baskets.
PROCEDURE: Use either AC or DC, reverse polarity. Clean weld area. Bevel heavy sections to be joined.On high alloy tool steels it is advisable to preheat according to the base metal to obtain maximum results. Generally, on other applications preheating is not necessary. hold a short arc and use stringer beads. Peening will help relieve stresses. Slag will peel off easily after each pass cools.
TENSILE STRENGTH: 120000Psi COATED ELECTRODE: ϕ 3.2mm

For Cast Iron Maintenance (Nickel Base)

9. 750E (55% Ni-ELC) 55% nickel used for high strength crack-free welds are required on all cast iron maintenance applications, including motor housings, gears, sprockets, ladels, flasks and transmission housings. Excellent for building up shy areas and filling holes in castings. Use for all repair and joining welds on gray, malleable and nodular cast iron and their joining to steel alloys.
PROCEDURE: All rust, scale and oil should be removed from the surface to be welded. Chamfer or grind edges to be joined.Drill holes at the end of he crack if it is confined on one part to eliminate the possibillity of further cracking during welding.Use DC or AC, reverse polarity maintaining a short arc and use either the stringer bead or slight weaving technique. Skip weld where large cracks are encountered in order to dissipate the heat as venly as possible into the workpiece. Peen rapidly to help relieve stresses. Always back-step the crater before breaking the arc. Clean off slag between passes. Cover the finished unit after welding the asbestos in order to retard the cooling rate.
AWS: ENiFeCl TENSILE STRENGTH: 55000Psi COATED ELECTRODE: ϕ 3.2mm

10. 704E (99% Ni-ELC) 99% nickel is preferred for welding thin sections of cast iron where high dilution occurs and maximum machinability is required as encountered on shy castings and machining errors. Excellent for building up on large castings.Deposits can be filed, drilled, and tapped.
PROCEDURES: Prepare weld area by beveling and cleaning cracked edges to be joined. Use chamfer electrodes for all beveling applicetions. A preheat is not always necessary, however to obtain maximum machinability, warm part to 400°F. Use DC reverse polarity or AC with short to medium arc length. Use stringer bead or weaving technique. Peen to relieve stresses. Allow casting to cool slowly room temperature.
TENSILE STRENGTH: 50000Psi COATED ELECTRODE: ϕ 3.2mm AWS: ENiCl

11. 765E (65%Ni-ELC) A very special nickel iron alloy with the same unique coating as Polyweld 765 that results again in a truly all position cast iron electrode. A soft stable arc allows a minumum penetration, a smooth bead with excellent wet out.It may be held at almost any angle for easy operation with machinability throuthout the weld zone if properly applied.
APPLICATIONS: For welding on all new and used cast iron parts including, thin sections, motor blocks,heads, mounts, gears,housings, filing holes, build up buffer zone, and for production and maintenance.
PROCEDURE: Use DC strainght polarity or AC. Preheat will assist in a slower quench between the molten metal and adjacent area, therefore, more machinability on some grades of cast iron. The temperature varies from 400°F to 1000°F.Keep all weld areas clean of all foreign substances. Use stringer beads and DC straight polarity or AC with 1/4" arc length and travel speed for desired build up. Two passes are desirable, cool slowly.
AWS: 5.18 EniFeCl TENSILE STRENGTH: 72000Psi COATED ELECTRODE: ϕ3.2mm

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