

REFACCIONES Y MAQUINADOS INDUSTRIALES JC



REMAIN
• JC •

MIG/TIG Mild Alloy Steel Solid Welding Wire

Item	Copper plating	C	Mn	Si	S	P	Ni	Cr	Mo	Cu
ER70S-2	Y or N	≤0.07	0.90-1.40	0.40-0.70	≤0.035	≤0.025	Ti:0.05-0.15	Zr:0.02-0.12	Al:0.05-0.15	≤0.50
ER70S-6	Y or N	0.06-0.15	1.40-1.85	0.80-1.15	≤0.035	≤0.025	≤0.15	≤0.15	≤0.15	≤0.50
ER70S-3	Y or N	0.06-0.15	0.90-1.40	0.45-0.75	≤0.035	≤0.025	≤0.15	≤0.15	≤0.15	≤0.50
ER70S-6	Y or N	≤0.15	1.40-1.90	0.55-1.10	≤0.030	≤0.030	—	—	0.12-0.20	≤0.50
ER49-1	Y or N	≤0.11	1.80-2.10	0.65-0.95	≤0.030	≤0.030	≤0.30	≤0.20	—	≤0.50

*****The surface treatment of MIG welding wire: copper coated or non copper coated

Steel Alloy Flux Cored Welding Wire(Tubular Welding Wire)

Item	C	Mn	Si	S	P	Ni	Cr	Mo	V
E61T-6C	≤0.18	≤1.75	≤0.90	≤0.030	≤0.030	≤0.50	≤0.20	≤0.30	≤0.08
E70T-1C	≤0.18	≤1.75	≤0.90	≤0.030	≤0.030	≤0.50	≤0.20	≤0.30	≤0.08
E70T-4	≤0.30	≤1.75	≤0.60	≤0.030	≤0.030	≤0.50	≤0.20	≤0.30	Al:≤1.8
E71T-1C	≤0.12	≤1.75	≤0.90	≤0.030	≤0.030	≤0.50	≤0.20	≤0.30	≤0.08
E71T-5C	≤0.12	≤1.75	≤0.90	≤0.030	≤0.030	≤0.50	≤0.20	≤0.30	≤0.08
E71T-11	≤0.30	≤1.75	≤0.60	≤0.030	≤0.030	≤0.50	≤0.20	≤0.30	Al:≤1.8
E71T-6S	≤0.18	≤1.75	≤0.90	≤0.030	≤0.030	≤0.50	≤0.20	≤0.30	≤0.08
E71T-7	—	≤1.75	≤0.60	≤0.030	≤0.030	≤0.50	≤0.20	≤0.30	Al:≤1.8
E71T-8	—	≤1.75	≤0.60	≤0.030	≤0.030	≤0.50	≤0.20	≤0.30	Al:≤1.8
E670T-2	—	≤2.00	≤0.90	≤0.030	≤0.030	≤0.30	≤0.20	≤0.35	—
E672T-1	—	≤1.70	≤0.50	≤0.030	≤0.030	≤0.30	≤0.20	≤0.30	≤0.08



Item	C	Mn	Si	S	P	Cr	Ni	Mo	Cu
ER308	≤0.08	1.00-2.50	0.30-0.65	≤0.030	≤0.030	19.50-22.00	9.00-11.00	≤0.75	≤0.75
ER308L	≤0.03	1.00-2.50	0.30-0.65	≤0.030	≤0.030	19.50-22.00	9.00-11.00	≤0.75	≤0.75
ER308LM	≤0.03	1.00-2.50	0.30-0.65	≤0.030	≤0.030	19.50-22.00	9.00-11.00	≤0.75	≤0.75
ER308LSi	≤0.03	1.00-2.50	0.65-1.00	≤0.030	≤0.030	19.50-22.00	9.00-11.00	≤0.75	≤0.75
ER308LT	≤0.03	1.00-2.50	0.30-0.65	≤0.030	≤0.030	19.50-22.00	9.00-11.00	≤0.75	≤0.75
ER309	≤0.12	1.00-2.50	0.30-0.65	≤0.030	≤0.030	23.00-25.00	12.00-14.00	≤0.75	≤0.75
ER309L	≤0.03	1.00-2.50	0.30-0.65	≤0.030	≤0.030	23.00-25.00	12.00-14.00	≤0.75	≤0.75
ER309LSi	≤0.03	1.00-2.50	0.65-1.00	≤0.030	≤0.030	23.00-25.00	12.00-14.00	≤0.75	≤0.75
ER309Mo	≤0.12	1.00-2.50	0.30-0.65	≤0.030	≤0.030	23.00-25.00	12.00-14.00	2.00-3.00	≤0.75
ER309LMo	≤0.03	1.00-2.50	0.30-0.65	≤0.030	≤0.030	23.00-25.00	12.00-14.00	2.00-3.00	≤0.75
ER310	0.08-0.15	1.00-2.50	0.30-0.65	≤0.030	≤0.030	25.00-28.00	20.00-22.50	≤0.75	≤0.75
ER316	≤0.08	1.00-2.50	0.30-0.65	≤0.030	≤0.030	18.00-20.00	11.00-14.00	2.00-3.00	≤0.75
ER316L	≤0.03	1.00-2.50	0.30-0.65	≤0.030	≤0.030	18.00-20.00	11.00-14.00	2.00-3.00	≤0.75
ER316LSi	≤0.03	1.00-2.50	0.65-1.00	≤0.030	≤0.030	18.00-20.00	11.00-14.00	2.00-3.00	≤0.75
ER316LT	≤0.03	1.00-2.50	0.30-0.65	≤0.030	≤0.030	18.00-20.00	11.00-14.00	2.00-3.00	≤0.75
ER347	≤0.08	1.00-2.50	0.30-0.65	≤0.030	≤0.030	19.00-21.50	9.00-10.00	≤0.75	Nb: 10C-1.0
ER347L	≤0.03	1.00-2.50	0.30-0.65	≤0.030	≤0.030	19.00-21.50	9.00-11.00	≤0.75	Nb: 10C-1.0
ER347Si	≤0.08	1.00-2.50	0.65-1.00	≤0.030	≤0.030	19.00-21.50	9.00-11.00	≤0.75	Nb: 10C-1.0
ER321	≤0.08	1.00-2.50	0.30-0.65	≤0.030	≤0.030	18.50-20.50	9.00-10.50	≤0.75	Nb: 9C-1.0
ER410	≤0.12	≤0.60	≤0.50	≤0.030	≤0.030	11.50-13.50	≤0.60	≤0.75	≤0.75
ER410NiMo	≤0.06	≤0.60	≤0.50	≤0.030	≤0.030	11.00-12.50	4.00-5.00	0.40-0.70	≤0.75
ER317	≤0.08	1.00-2.50	0.30-0.65	≤0.030	≤0.030	18.50-20.50	13.00-15.00	3.00-4.00	≤0.75
ER318	≤0.08	1.00-2.50	0.30-0.65	≤0.030	≤0.030	18.00-20.00	11.00-14.00	2.00-3.00	Nb: 8C-1.0
ER385	≤0.025	1.00-2.50	≤0.50	≤0.030	≤0.030	19.50-21.50	24.00-26.00	4.20-5.20	1.20-2.00
ER430	≤0.10	≤0.60	≤0.50	≤0.030	≤0.030	15.50-17.00	≤0.60	≤0.75	≤0.75
ER430LNb	≤0.03	≤0.60	≤0.50	≤0.030	≤0.030	15.50-17.00	≤0.60	≤0.75	Nb: 8C-1.2
ER630	≤0.05	0.25-0.75	≤0.75	≤0.030	≤0.030	16.00-16.75	4.50-5.00	≤0.75	3.25-4.00
ER2209	≤0.03	0.50-2.00	≤0.90	≤0.030	≤0.030	21.50-23.50	7.50-9.50	2.50-3.50	N: 0.08-0.2 Cu≤0.75
ER2594	≤0.03	≤2.50	≤1.00	≤0.020	≤0.030	24.00-27.00	8.00-10.50	2.50-4.50	N: 0.2-0.3 Cu≤1.50

Item	C	Mn	Si	S	P	Cr	Ni	Mo	Cu
ER308	≤0.08	1.00-2.50	0.30-0.65	≤0.030	≤0.030	19.50-22.00	9.00-11.00	≤0.75	≤0.75
ER308L	≤0.03	1.00-2.50	0.30-0.65	≤0.030	≤0.030	19.50-22.00	9.00-11.00	≤0.75	≤0.75
ER308LM	≤0.03	1.00-2.50	0.30-0.65	≤0.030	≤0.030	19.50-22.00	9.00-11.00	≤0.75	≤0.75
ER308LSi	≤0.03	1.00-2.50	0.65-1.00	≤0.030	≤0.030	19.50-22.00	9.00-11.00	≤0.75	≤0.75
ER308LT	≤0.03	1.00-2.50	0.30-0.65	≤0.030	≤0.030	19.50-22.00	9.00-11.00	≤0.75	≤0.75
ER309	≤0.12	1.00-2.50	0.30-0.65	≤0.030	≤0.030	23.00-25.00	12.00-14.00	≤0.75	≤0.75
ER309L	≤0.03	1.00-2.50	0.30-0.65	≤0.030	≤0.030	23.00-25.00	12.00-14.00	≤0.75	≤0.75
ER309LSi	≤0.03	1.00-2.50	0.65-1.00	≤0.030	≤0.030	23.00-25.00	12.00-14.00	≤0.75	≤0.75
ER309Mo	≤0.12	1.00-2.50	0.30-0.65	≤0.030	≤0.030	23.00-25.00	12.00-14.00	2.00-3.00	≤0.75
ER309LMo	≤0.03	1.00-2.50	0.30-0.65	≤0.030	≤0.030	23.00-25.00	12.00-14.00	2.00-3.00	≤0.75
ER310	0.08-0.15	1.00-2.50	0.30-0.65	≤0.030	≤0.030	25.00-28.00	20.00-22.50	≤0.75	≤0.75
ER316	≤0.08	1.00-2.50	0.30-0.65	≤0.030	≤0.030	18.00-20.00	11.00-14.00	2.00-3.00	≤0.75
ER316L	≤0.03	1.00-2.50	0.30-0.65	≤0.030	≤0.030	18.00-20.00	11.00-14.00	2.00-3.00	≤0.75
ER316LSi	≤0.03	1.00-2.50	0.65-1.00	≤0.030	≤0.030	18.00-20.00	11.00-14.00	2.00-3.00	≤0.75
ER316LT	≤0.03	1.00-2.50	0.30-0.65	≤0.030	≤0.030	18.00-20.00	11.00-14.00	2.00-3.00	≤0.75
ER347	≤0.08	1.00-2.50	0.30-0.65	≤0.030	≤0.030	19.00-21.50	9.00-10.00	≤0.75	Nb: 10C-1.0
ER347L	≤0.03	1.00-2.50	0.30-0.65	≤0.030	≤0.030	19.00-21.50	9.00-11.00	≤0.75	Nb: 10C-1.0
ER347Si	≤0.08	1.00-2.50	0.65-1.00	≤0.030	≤0.030	19.00-21.50	9.00-11.00	≤0.75	Nb: 10C-1.0
ER312	≤0.15	1.00-2.50	0.30-0.65	≤0.030	≤0.030	28.00-32.00	8.00-10.50	≤0.75	≤0.75
ER410	≤0.12	≤0.60	≤0.50	≤0.030	≤0.030	11.50-13.50	≤0.60	≤0.75	≤0.75
ER410NiMo	≤0.06	≤0.60	≤0.50	≤0.030	≤0.030	11.00-12.50	4.00-5.00	0.40-0.70	≤0.75
ER317L	≤0.03	1.00-2.50	0.30-0.65	≤0.030	≤0.030	18.50-20.50	13.00-15.00	3.00-4.00	≤0.75
ER318	≤0.08	1.00-2.50	0.30-0.65	≤0.030	≤0.030	18.00-20.00	11.00-14.00	2.00-3.00	Nb: 8C-1.0
ER385	≤0.025	1.00-2.50	≤0.50	≤0.030	≤0.030	19.50-21.50	24.00-26.00	4.20-5.20	1.20-2.00
ER430	≤0.08	≤0.60	≤0.50	≤0.030	≤0.030	15.50-17.00	≤0.60	≤0.75	≤0.75
ER630	≤0.05	0.25-0.75	≤0.75	≤0.030	≤0.030	16.00-16.75	4.50-5.00	≤0.75	3.25-4.00
ER2209	≤0.03	0.50-2.00	≤0.90	≤0.030	≤0.030	21.50-23.50	7.50-9.50	2.50-3.50	N: 0.08-0.2 Cu≤0.75
ER2594	≤0.03	≤2.50	≤1.00	≤0.020	≤0.030	24.00-27.00	8.00-10.50	2.50-4.50	N: 0.2-0.3 Cu≤1.50

Item	C	Mn	Si	S	P	Cr	Ni	Mo	Cu
E307T1-1	≤0.13	3.30-4.75	≤1.00	≤0.030	≤0.040	18.00-20.50	9.00-10.50	0.50-1.50	≤0.75
E308T1-1	≤0.08	0.50-2.50	≤1.00	≤0.030	≤0.040	18.00-21.00	9.00-11.00	≤0.75	≤0.75
E308HT1-1	0.04-0.08	0.50-2.50	≤1.00	≤0.030	≤0.040	18.00-21.00	9.00-11.00	≤0.75	≤0.75
E308LT1-1	≤0.04	0.50-2.50	≤1.00	≤0.030	≤0.040	18.00-21.00	9.00-11.00	≤0.75	≤0.75
E309HT1-1	0.04-0.10	0.50-2.50	≤1.00	≤0.030	≤0.040	22.00-25.00	12.00-14.00	≤0.75	≤0.75
E309LT1-1	≤0.04	0.50-2.50	≤1.00	≤0.030	≤0.040	22.00-25.00	12.00-14.00	≤0.75	≤0.75
E309LMoT1-1	≤0.04	0.50-2.50	≤1.00	≤0.030	≤0.040	21.00-25.00	12.00-16.00	2.00-3.00	≤0.75
E310T1-1	≤0.20	1.00-2.50	≤1.00	≤0.030	≤0.030	25.00-28.00	20.00-22.50	≤0.75	≤0.75
E312T1-1	≤0.15	0.50-2.50	≤1.00	≤0.030	≤0.040	28.00-32.00	8.00-10.50	≤0.75	≤0.75
E316HT1-1	0.04-0.08	0.50-2.50	≤1.00	≤0.030	≤0.040	17.00-20.00	11.00-14.00	2.00-3.00	≤0.75
E316LT1-1	≤0.04	0.50-2.50	≤1.00	≤0.030	≤0.040	17.00-20.00	11.00-14.00	2.00-3.00	≤0.75
E317LT1-1	≤0.04	0.50-2.50	≤1.00	≤0.030	≤0.040	18.00-21.00	12.00-14.00	3.00-4.00	≤0.75
E347HT1-1	0.04-0.08	0.50-2.50	≤1.00	≤0.030	≤0.040	18.00-21.00	9.00-11.00	≤0.75	Nb: 8°C-1.0
E347T1-1	≤0.08	0.50-2.50	≤1.00	≤0.030	≤0.040	18.00-21.00	9.00-11.00	≤0.75	Nb: 8°C-1.0
E410T0-1	≤0.12	≤1.20	≤1.00	≤0.030	≤0.040	11.00-13.50	≤0.60	≤0.75	≤0.75
E410NiMoT1-1	≤0.06	≤1.00	≤1.00	≤0.030	≤0.040	11.00-12.50	4.00-5.00	0.40-0.70	≤0.75
E430T0-1	≤0.10	≤1.20	≤1.00	≤0.030	≤0.040	15.00-18.00	≤0.60	≤0.75	≤0.75
E385T1-1	≤0.03	1.00-2.50	≤0.50	≤0.020	≤0.030	19.50-21.50	24.00-26.00	4.20-5.20	1.20-2.00
E2209T1-1	≤0.04	0.50-2.00	≤1.00	≤0.030	≤0.040	21.00-24.00	7.50-10.00	2.50-4.00	N: 0.08-0.2 Cu≤0.75
E2594T1-1	≤0.04	0.50-2.50	≤1.00	≤0.030	≤0.040	24.00-27.00	8.00-10.50	2.50-4.50	N: 0.2-0.3 Cu≤1.50
EC409	≤0.08	≤0.80	≤0.80	≤0.030	≤0.030	10.50-13.50	≤0.60	≤0.50	Ti: 10C-1.5
EC439	≤0.04	≤0.80	≤0.80	≤0.030	≤0.030	17.00-19.00	≤0.60	≤0.50	Ti: 10C-1.1



Material	Item Code	Cu	Al	Si	Sn	Mn	Ni	Fe	Ag	P	Ti	Other
Aluminium Bronze	CuAl8	Rest	8.0	----	----	----	----	----	----	----	----	≤0.5
	CuAl10Fe	Rest	9.5	----	----	----	----	1.0	----	----	----	≤0.5
	CuAl8Ni2	Rest	8.0	----	----	1.5	2.2	2.0	----	----	----	≤0.5
	CuAl8Ni6	Rest	9.0	----	----	1.5	5.0	3.5	----	----	----	≤0.5
	CuMn13Al7	Rest	7.5	----	----	11.5	2.5	2.5	----	----	----	≤0.5
	CuAl11Fe	Rest	10.5	----	----	----	----	3.0	----	----	----	≤0.5
Low Alloyed	CuSn	Rest	----	0.3	0.7	0.3	----	----	----	0.01	----	≤0.5
	CuSi3	Rest	----	3.0	----	1.0	----	----	----	----	----	≤0.5
	CuAg	Rest	----	----	----	0.01	----	----	1.0	0.02	----	≤0.5
Tin Bronze	CuSn6	Rest	----	----	5.5	----	----	----	----	0.2	----	≤0.5
	CuSn9	Rest	----	----	8.0	----	----	----	----	0.2	----	≤0.5
Copper Nickel Alloyed	CuNi30Fe	Rest	----	----	----	1.0	30.5	1.0	----	----	0.4	≤0.5
	CuNi10Fe	Rest	----	----	----	1.0	10.5	1.0	----	----	0.4	≤0.5

Material	Item Code	Cu	Zn	Si	Sn	Mn	Ni	Fe	Other
Brass	CuZnA	59.5	Rest	----	0.5	----	----	----	≤0.5
	CuZnB	59.0	Rest	0.05	1.0	0.05	0.25	0.4	≤0.5
	CuZnC	59.0	Rest	0.05	1.0	0.05	----	0.4	≤0.5
	CuZnS	60.0	Rest	0.25	0.25	----	----	----	≤0.5
Nickel Silver	CuZnD	49.0	Rest	0.15	----	----	10.0	----	≤0.5

MIG

1kg / 5kg / 10-15kg: spool packing Then On Seaworthy Pallet



TIG

2.5kg / 5kg: plastic tube box
5kg / 10kg: Carton packing Then On Seaworthy Pallet

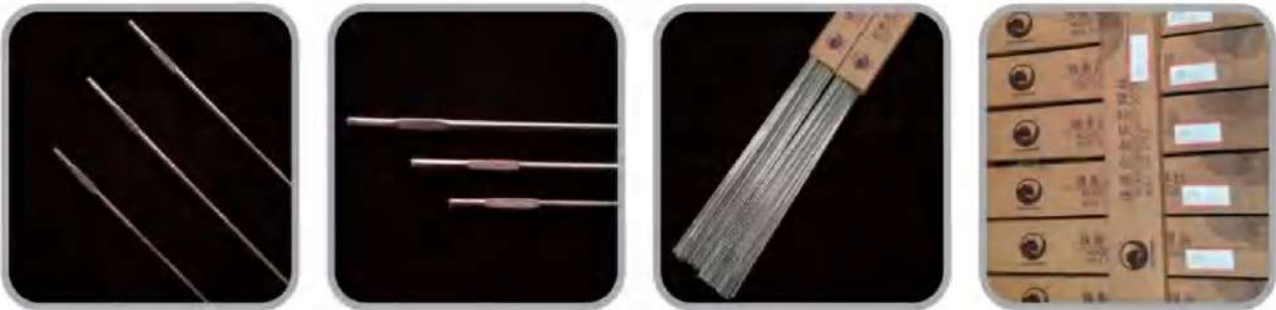


AWS Code	Ni	Cu	Fe	Cr	Mo	Ti	Mn	C	Si	Nb+Ta
ERNi-1	93.0 min	≤0.25	≤1.0	—	—	2.0-3.5	≤1.0	≤0.15	≤0.75	—
ERNiCu-7	62.0-69.0	Rest	≤2.5	—	—	1.5-3.0	≤4.0	≤0.15	≤1.25	—
ERCuNi	29.0-32.0	Rest	0.4-0.75	—	—	0.2-0.5	≤1.0	—	≤0.25	—
ERNiCrMo-3	≥55.0	≤0.5	≤7.0	20.0-23.0	8.0-10.0	0.2-0.5	≤1.0	≤0.10	≤0.80	3.25-4.15
ERNiCrMo-4	Rest	≤0.5	4.0-7.0	14.5-16.5	15.0-17.0	0.2-0.5	≤1.0	≤0.02	≤0.08	W: 3.0-4.5
ERNiCrMo-10	Rest	≤0.5	2.0-6.0	20.0-22.5	12.5-14.5	0.2-0.5	≤0.5	≤0.015	≤0.08	W: 2.5-4.5
ERNiCrMo-13	Rest	≤0.5	≤1.5	22.0-24.0	15.0-16.5	0.2-0.5	≤0.5	≤0.10	≤0.50	—
ERNiCr-3	≥67.0	≤0.5	≤3.0	18.0-22.0	—	0.5-1.0	2.5-3.5	≤0.10	≤0.50	2.0-3.0
ERNiCrFe-5	≥70.0	≤0.5	6.0-10.0	14.0-17.0	—	—	≤1.0	≤0.10	≤0.50	—
ERNiCrFe-7	Rest	≤0.5	7.0-11.0	28.0-31.5	—	—	≤1.0	≤0.04	≤0.50	≤0.1
ERNiCrFe-7A	Rest	≤0.5	7.0-11.0	28.0-31.5	—	—	≤1.0	≤0.04	≤0.50	0.5-1.0

Producing of MIG Welding Wire



Packing of TIG Welding Wire



Quality Approved:



AWS Code	EN ISO	Si	Fe	Cu	Mn	Mg	Cr	Zn	Ti	Zr	Ai	Be
ER1100	Al99.0Cu	0.95		0.05-0.20	0.05	—	—	0.1	—	—	99	—
ER4043	AlSi5	4.5-6.0	0.8	0.3	0.05	0.05	—	0.1	0.2	—	Rest	0.0003
ER4047	AlSi12	11.0-13.0	0.8	0.3	0.15	0.1	—	0.2	—	—	Rest	0.0003
ER5356	AlMg5Cr(A)	0.25	0.4	0.1	0.05-0.20	4.5-5.5	0.05-0.20	0.1	0.06-0.20	—	Rest	0.0003
ER5087	AlMg4.5MnZr	0.25	0.4	0.05	0.7-1.1	4.5-5.2	0.05-0.25	0.25	0.15	0.10-0.20	Rest	0.0003
ER5183	AlMg4.5Mn0.7(A)	0.4	0.4	0.1	0.5-1.0	4.5-5.2	0.05-0.25	0.25	0.15	—	Rest	0.0003

Choose the welding wire according to the base metal

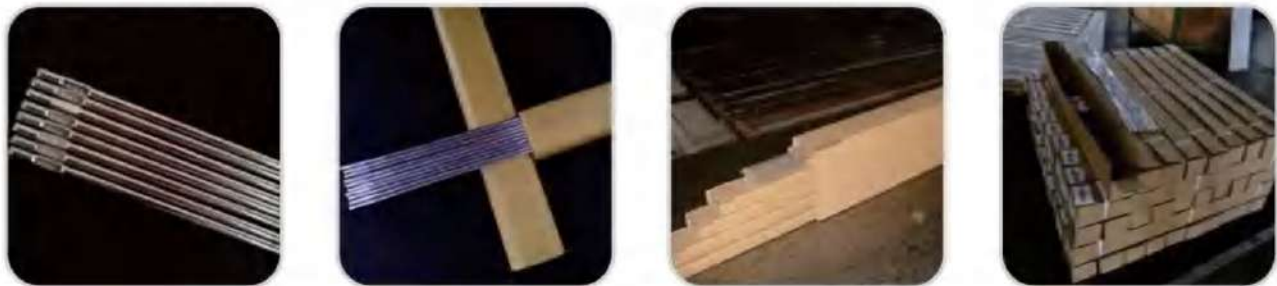
Base Metal	7003	6061 6063 6101	5086 5083 5056	5154 5454	5052	5005	2219	2014 2017	3004	1200	1100 3003	1070 1050
1070 1050	5356 (2 4 5)	4043 (5 7)	5356 (2)	5356 (2 4 5)	4043 (2 5)	1100 (1 4 5)	4145 (4 5)	4145	4043 (2 5)	1200 (1 4 5)	1100 (1 4 5)	1070 (1 4 5)
1100 3003	5356 (2 4 5)	4043 (5 7)	5356 (2)	5356 (2 4 5)	4043 (2 5)	1100 (1 4 5)	4145 (4 5)	4145	4043 (2 5)	1200 (1 4 5)	1100 (1 4 5)	
1200	5356 (2 4 5)	4043 (5 7)	5356 (2)	5356 (2 4 5)	4043 (2 5)	1200 (1 4 5)	4145 (4 5)	4145	4043 (2 5)	1200 (1 4 5)		
3004	5356 (2 4)	4043 (2 3 5 7)	5356 (2)	5356 (2 3)	5356 (2 3 4 5)	5356 (2 3 4)	4145 (4 5)	4145	5356 (2 3 4)			
2014 2017		4145				4145	4145 (8)	4145 (8)				
2219	4043 (5)	4043 (5 6)		4043 (5)	4043 (5)	4043 (5 6)	2319 (4 5 6)					
5005	5356 (2 3)	4043 (2 3 5 7)	5356 (2)	5356 (2 3)	5356 (2 3 4)	5356 (2 3 4 5)						
5052	5356 (2 3)	4043 (2 3 5 7)	5356 (2)	5356 (2 3)	5356 (2 3 4)							
5154 5454	5356 (2 3)	5356 (2 3 4)	5356 (2)	5356 (2 3)								
5086 5083 5056	5356 (2)	5356 (2)	5356 (2)									
6061 6063 6101	5356 (2 3 4 5)	5356 (2 3 5)										
7003	5356 (2)											

Remark:
(1) Can adopt 1100 or 1200
(2) Can adopt 5356 5556 or 5183
(3) Can adopt 5645 or 5554
(4) According to usage can adopt 4043
(5) Can adopt 4047
(6) Can adopt 4045
(7) Adopt 5356 when appears chromatic
abberation after anodic process
(8) Can adopt 2319

Packing of MIG Welding Wire



Packing of TIG Welding Wire

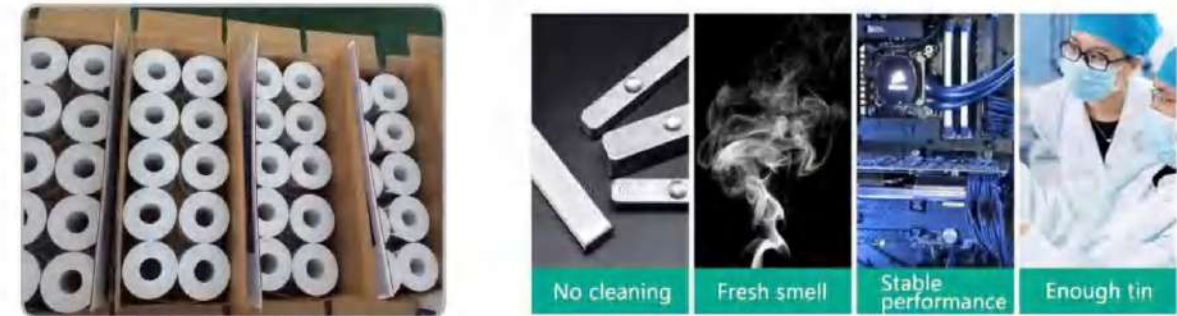


LEAD SOLDER WIRE

ITEM.NO.	MATERIAL	DIAMETER(MM)	WEIGHT/ROLL	MELTING POINT
63%	Sn63%, Pb37%	0.6/0.8/1/1.2/1.5/2	10g/50g/75g/450g/500g/1kg	183°C
60%	Sn60%, Pb40%	0.6/0.8/1/1.2/1.5/2	10g/50g/75g/450g/500g/1kg	183°C - 190°C
63%	Sn55%, Pb45%	0.6/0.8/1/1.2/1.5/2	10g/50g/75g/450g/500g/1kg	183°C - 203°C
1#	Sn50%, Pb50%	0.6/0.8/1/1.2/1.5/2	10g/50g/75g/450g/500g/1kg	183°C - 215°C
2#	Sn45%, Pb55%	0.6/0.8/1/1.2/1.5/2	10g/50g/75g/450g/500g/1kg	183°C - 221°C
3#	Sn40%, Pb60%	0.6/0.8/1/1.2/1.5/2	10g/50g/75g/450g/500g/1kg	183°C - 235°C
4#	Sn35%, Pb65%	0.6/0.8/1/1.2/1.5/2	10g/50g/75g/450g/500g/1kg	183°C - 245°C
5#	Sn30%, Pb70%	0.6/0.8/1/1.2/1.5/2	10g/50g/75g/450g/500g/1kg	183°C - 255°C
6#	Sn25%, Pb75%	0.6/0.8/1/1.2/1.5/2	10g/50g/75g/450g/500g/1kg	183°C - 267°C
7#	Sn20%, Pb80%	0.6/0.8/1/1.2/1.5/2	10g/50g/75g/450g/500g/1kg	183°C - 279°C

LEAD -FREE SOLDER WIRE

ITEM.NO.	MATERIAL	DIAMETER(MM)	WEIGHT/ROLL	MELTING POINT
Sn-0.7Cu	Sn99.3%, Cu0.7%	0.6/0.8/1/1.2/1.5/2	10g/50g/75g/450g/1kg	227°C - 277°C
Sn100	Sn100%	0.6/0.8/1/1.2/1.5/2	10g/50g/75g/450g/1kg	217°C - 277°C
Sn0.3AgCu	Sn99.7%, (Cu+Ag)0.3%	0.6/0.8/1/1.2/1.5/2	10g/50g/75g/450g/1kg	217°C - 277°C
Sn3AgCu	Sn97%, (Cu+Ag)3%	0.6/0.8/1/1.2/1.5/2	10g/50g/75g/450g/1kg	217°C - 277°C



Item Code	Oxide Addictive		Impuritirs Content %	Tungsten Content %	Color Standard	Standard
	Varieties	Content %				
WT10	ThO ₂	0.90-1.20	<0.2	Bal.	Yellow	ISO 6848 AWS A5.12M
WT20	ThO ₂	1.80-2.20	<0.2	Bal.	Red	
WT30	ThO ₂	2.80-3.20	<0.2	Bal.	Purple	
WT40	ThO ₂	3.80-4.20	<0.2	Bal.	Orange	
WL10	La ₂ O ₃	0.80-1.20	<0.2	Bal.	Black	ISO 6848 AWS A5.12M
WL15	La ₂ O ₃	1.30-1.70	<0.2	Bal.	Golden	
WL20	La ₂ O ₃	1.80-2.20	<0.2	Bal.	Sky Blue	
WC20	CeO ₂ ZrO ₂	1.80-2.20	<0.2	Bal.	Grey	ISO 6848 AWS A5.12M
WZ3		0.20-0.40	<0.2	Bal.	Brown	ISO 6848 AWS A5.12M
WZ8	ZrO ₂	0.70-0.90	<0.2	Bal.	White	
WP	--	--	<0.2	Bal.	Green	ISO 6848 AWS A5.12M
WY20	Y ₂ O ₃	1.80-2.20	<0.2	Bal.	Blue	ISO 6848 AWS A5.12M
WX	--	1.00-4.00	<0.2	Bal.	Pink	ISO 6848 AWS A5.12M
WS	--	1.00-4.00	<0.2	Bal.	Dark Green	

Electrode Type & Polarity Depending On The Welding Material

1 best	2 better	-- not recommended		
Material	Electrode Type	DC		AC
		Neg.	Pos.	
Alumium (width<2.5mm)	WL15.WP.WZ8	2	2	1
Alumium (width>2.5mm)	WL15.WP.WZ8	2	--	1
Alumium Alloys	WL15.WP.WZ8	2	--	1
Magnesium	WP	--	2	1
Magnesium Alloys	WP	--	2	1
Carbon Steel	WL15.WC20.WT20	1	--	--
Stainless Steel	WL15.WC20.WT20	1	--	--
Alumium Bronze	WP	1	--	--
Silicon Bronze	WL15.WC20.WT20	1	--	2
Nickel & Alloys	WP	2	--	1
Copper	WL15.WC20.WT20	1	--	--
Bronze	WL15.WC20.WT20	1	--	2
Titanium	WL15.WC20.WT20	1	--	2



Features & Applications

Gouging Welding Rod can be used for cutting, welding defects removing, making holes, welding inspection, and removing over-welded parts. The merits of Gouging Welding Rod are low consumptive and electrically resistant, and the stability of the products by using selected raw materials

TYPE	NORMAL DIMENSION		STANDARD CURRENT(A)	SHAPE
	Diameterx Length(mm)	(inch)		
4 DC 305	Ø4.0 x305	5/32 x 12	150~200	ROUND POINTED
5 DC 305	Ø5.0 x 305	3/16 x 12	200~250	
6.0 DC 305	Ø6.0 x305	15/64x 12	300~350	
6.5 DC 305	Ø6.5x 305	1/4 x 12	320~370	
8.0 DC 305	Ø8.0 x 305(355)	5/16 x 12(14)	400~450	
9.5 DC 305	Ø9.5 x 305(355)	3/8 x 12(14)	500~550	
11 DC 305	Ø11.0 x 305	11/32 x 12	600~650	
12DC 305	Ø12.0 x 305(355)	15/32 x 12(14)	750~800	
13DC 305(355)	Ø12.7 x 305(355)	1/2 x 12(14)	800~900	
16 DC 355	Ø16.0x 355	5/8 x 14	950~1100	
19 DC 355	Ø19.0x 355	3/4 x 14	1100~1300	

TORCH TYPE	STANDARD	ACCEPT	
		ROUND ELECTRODE	FLAT ELECTRODE
K3000	Medium Duty/Max.600AMP	5/32"(4mm) to 3/8"(10mm)	3/8"(10mm)
K4000	Heavy Duty/Max.1000AMP	5/32"(4mm) to 1/2"(13mm)	3/8"(10mm) to 5/8"(16mm)
K3	General Purporse/Max.600AMP	1/8"(3mm) to 3/8"(10mm)	3/8"(10mm) to 5/8"(16mm)
K5	General Purporse/Max.1250AMP	5/32"(4mm) to 5/8"(16mm)	3/8"(10mm) to 5/8"(16mm)

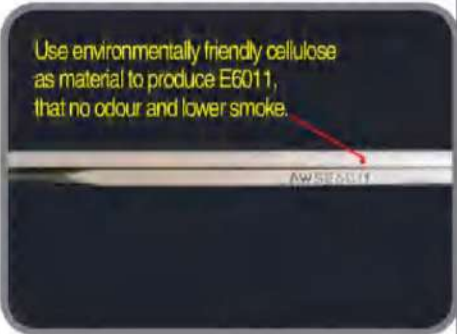


INFORMACIÓN: 444-209-4335 Y 444-8298-274

Item	Shield Gas	Type of Current	Standard & Typical Chemical Composition of Deposited Metal (%)												Hardness of Deposited Metal HRC
			C	Mn	Si	S	P	Cr	Ni	Mo	V	W	Nb	Others	
BHG107	Co ₂	DC ⁺	≤0.20	≤3.50	≤1.00	—	—	—	—	—	—	—	—	—	≥ 22
Applications: Surfacing low hardness surface at normal and middle temperature															
BHG127	Co ₂	DC ⁺	≤0.20	≤4.20	≤1.00	—	—	—	—	—	—	—	—	—	≥ 28
Applications: Surfacing medium hardness surface at normal and middle temperature															
BHG172	Co ₂	DC ⁺	≤0.50	—	—	—	—	≤2.50	—	≤2.50	—	—	—	—	≥ 40
Applications: Surfacing gear, digger, tractor scraper, deep plowing wear parts, mining machinery plough															
BHG207	Co ₂	DC ⁺	0.5-1.0	≤2.50	≤1.00	—	—	≤3.50	—	—	—	—	—	≤1.00	≥ 50
Applications: Surfacing the wear parts such as the blade of the bulldozer and the propeller, etc.															
BHG212	Co ₂	DC ⁺	0.3-0.6	—	—	—	—	≤5.00	—	≤4.00	—	—	—	—	≥ 50
Applications: Surfacing single layer or multi layer surfacing all kinds of damaged parts, such as gear, dug bucket, mining machinery, etc.															
BHG224	Co ₂	DC ⁺	≤0.40	0.5-2.0	≤1.00	—	—	4.0-9.0	—	≤2.00	≤2.00	1.5-4.5	—	—	50-55
Applications: Surfacing and repair welding of hot roll															
BHG225	Co ₂	DC ⁺	≤0.60	0.5-2.0	≤1.00	—	—	4.0-9.0	—	≤2.00	≤2.00	1.5-4.5	—	—	55-60
Applications: Repair welding of rolls and the other wear-resistance parts															
BHG226	Co ₂	DC ⁺	≤0.50	0.5-2.0	≤1.00	—	—	4.0-9.0	—	≤2.00	≤2.00	1.5-4.5	—	—	40-46
Applications: Surfacing and sealing surface for cold-rolling roll															
BHG237	Co ₂	DC ⁺	≤0.60	1.5-2.5	—	—	—	8.0-10.0	—	≤2.50	0.5-1.0	—	—	—	≥ 50
Applications: Surfacing high hardness surface at normal and middle temperature															
BHG252	Co ₂	DC ⁺	0.2-0.8	—	—	—	—	4.0-7.0	—	0.5-2.0	—	—	—	—	≥ 50
Applications: Surfacing high hardness surface at normal and middle temperature															
BHG255	Co ₂	DC ⁺	0.2-0.7	—	1.0-3.5	—	—	6.0-9.5	—	—	—	—	—	—	≥ 50
Applications: Surfacing high hardness back-up roll and agricultural machinery															
BHG256	Co ₂	DC ⁺	0.2-0.8	—	—	—	—	4.0-7.0	—	—	0.2-1.0	0.5-2.0	—	—	≥ 50
Applications: Surfacing parts of serious abrasion wear and normal temperature wear															
BHG257	Co ₂	DC ⁺	0.4-0.6	1.0-3.0	0.4-1.0	—	—	5.0-7.0	—	1.0-2.5	—	—	—	—	55-60
Applications: Surfacing roll parts of excellent abrasion wear and high temperature wear															
BHG350	Co ₂	DC ⁺	0.1-0.2	1.3-2.0	0.4-1.0	—	—	1.0-2.0	—	≤0.50	—	—	—	—	Hb≥350
Applications: Surfacing low hardness surface of mining equipment at normal and middle temperature.															
BHG397	Co ₂	DC ⁺	≤0.60	≤2.50	≤1.00	≤0.035	≤0.040	≤2.00	—	≤1.00	—	—	—	—	≥ 40
Applications: Surfacing and repairing forging die for cast steel and forged steel															
BHG414	Co ₂	DC ⁺	≤0.15	0.5-2.0	≤1.00	—	—	8.0-14.0	25-45	≤1.00	—	—	—	—	≥ 43
Applications: Surfacing welding of valve stand and pressure relief valve															
BHG450	Co ₂	DC ⁺	0.15-0.3	—	—	—	—	11.0-15.0	—	—	—	—	—	—	≥ 45
Applications: Surfacing and sealing surface for axles and steam valve															
BHG487	Co ₂	DC ⁺	0.1-0.5	—	—	—	—	2.0-6.0	—	≤4.00	—	≤2.50	—	—	45-60
Applications: Surfacing and sealing surface for hot forging die															
BHG507Mo	Co ₂	DC ⁺	≤0.20	≤1.75	≤0.50	—	—	9.0-16.0	≤6.0	≤2.50	—	≤2.00	—	≤2.50	≥ 37
Applications: Surfacing of valves, which working temperature is below 510 °C															
BHG630	Co ₂	DC ⁺	1.5-3.5	—	≤1.50	—	—	6.0-15.0	—	≤1.00	—	—	—	B≤1.00	≥ 59
Applications: Surfacing and sealing surface for cement roller and wear-resisting plate															

Item	Shield Gas	Type of Current	Standard & Typical Chemical Composition of Deposited Metal (%)												Hardness of Deposited Metal HRC
			C	Mn	Si	S	P	Cr	Ni	Mo	V	W	Nb	Others	
BHM60	Self-shield	DC ⁺	≤1.00	—	—	—	—	6.5-8.5	—	≤3.00	0.5-1.0	—	—	≤4.00	≥ 60
Applications: Surfacing at room temperature and non paterall corrosion conditions, with abrasive wear under impact loading working parts, wearing parts															
BHM94	Self-shield	DC ⁺	1.5-3.0	≤2.00	≤2.00	—	—	20.0-30.0	—	6.5-8.5	≤2.00	—	—	—	≥ 55
Applications: Surfacing withstand parts under medium impact and severe abrasive wear															
BHM103	Self-shield	DC ⁺	≤0.15	≤1.50	≤1.00	—	15-30	—	≤1.00	—	—	—	—	—	Hb220-260
Applications: Surfacing and repair welding of tubulous mould															
BHM256	Self-shield	DC ⁺	≤1.00	11.0-16.0	≤1.30	—	—	—	—	—	—	—	—	≤5.00	Hb≥170
Applications: Surfacing crusher roller, high manganese steel rail, bucket, bulldozers and other affected parts easy to wear.															
BHM317	Self-shield	DC ⁺	0.3-0.8	0.5-1.0	0.3-0.6	≤0.03	≤0.03	3.0-4.0	—	2.0-3.5	1.5-2.5	6.0-8.0	—	≤2.50	58-62
Applications: Surfacing high impact resistant wear, corrosion and corrosion situation															
BHM322	Self-shield	DC ⁺	≤0.50	—	—	—	—	—	—	≤2.50	≤1.00	7.0-10.0	—	—	≥ 55
Applications: Surfacing die and cutting tools and for repairing mechanical parts requiring high performance high loss															
BHM337	Self-shield	DC ⁺	0.25-0.55	—	—	—	—	—	—	—	—	7.0-10.0	—	≤1.00	≥ 48
Applications: Forging die on a cast steel or a forged steel, which can also be used for forging die repair															
BHM547	Self-shield	DC ⁺	≤0.18	0.6-2.0	3.5-6.4	≤0.03	≤0.04	15.0-18.0	7.0-9.0	—	—	—	—	≤2.50	Hb270-320
Applications: Surfacing the sealing surface and other sealing parts of the high pressure boiler device of a power station with the working temperature of less than 570°C															
BHM547Mo	Self-shield	DC ⁺	≤0.18	0.6-5.0	2.0-4.5	≤0.03	≤0.04	14.0-21.0	6.5-12.0	2.5-7.0	—	—	0.5-1.2	≤2.50	≥ 30
Applications: Surfacing the high pressure valve seal face with a working temperature of less than 600°C.															
BHM577	Self-shield	DC ⁺	≤1.50	12.0-18.0	≤2.00	—	—	12.0-18.0	≤6.00	≤4.00	—	—	—	≤3.00	≥ 28
Applications: Surfacing middle temperature high pressure valve sealing surface and other affected parts easy to wear with the working temperature of less than 510°C															
BHH517	Self-shield	DC ⁺	≤1.00	—	—	—	—	8.0-16.0	—	≤2.50	—	—	—	—	≥ 45
Applications: Surfacing and sealing surface for middle temperatures high pressure valves															
BHH581	Self-shield	DC ⁺	3.0-5.0	—	—	—	—	20.0-30.0	—	—	—	—	—	≤6.00	≥ 55
Applications: Surfacing overlaying parts that bear strong abrasive wear, such as coal grinding rings and pulverized quinones.															
BHH620	Self-shield	DC ⁺	3.0-5.0	≤2.00	≤2.00	—	—	22.0-28.0	—	—	—	—	—	≤4.00	≥ 60
Applications: Surfacing overlaying parts that bear strong abrasive wear, such as coal grinding rings and pulverized quinones.															
BHH938	Self-shield	DC ⁺	2.0-4.0	≤2.00	≤2.00	—	—	15.0-25.0	≤2.00	≤4.00	—	0.5-3.0	—	≤2.00	≥ 60
Applications: Surfacing overlaying parts, can also be used for grinding and grinding rolls, which bear strong abrasive wear and slight impact.															
BHH63	Self-shield	DC ⁺	≤4.00	1.0-2.0	≤1.00	—	—	12.0-20.0	—	—	—	—	—	—	55-60
Applications: Surfacing excellent wear resistant for coal mill roll and Cement mixing roll															
BHH64	Self-shield	DC ⁺	≤5.00	0.5-1.5	≤1.00	—	—	20.0-30.0	—	—	—	—	—	—	55-65
Applications: Surfacing excellent wear resistant for coal mill roll and Cement mixing roll															
BHH65R	Self-shield	DC ⁺	3.0-6.0	0.5-1.0	≤4.00	—	—	22.0-30.0	—	4.0-8.0	≤2.00	1.0-3.0	4.0-8.0	≤2.00	≥ 60
Applications: Surfacing heavy wear parts and high temperature wear parts for surfacing with abrasive wear with less than 650°C															
BHH70R	Self-shield	DC ⁺	3.0-5.0	0.5-1.0	≤4.00	—	—	20.0-25.0	—	—	—	6.0-10.0	—	≤6.00	≥ 60
Applications: Surfacing heavy wear parts and high temperature wear parts for surfacing with abrasive wear with less than 650°C															

Item	Welding Position	Type of Current	Standard & Typical Chemical Composition of Deposited Metal (%)									Yield Point Rel(MPa)	Tensile Strength Rm(MPa)	Elongation A4(%)	Type of Covering
			C	Mn	Si	S	P	Cr	Ni	Mo	V				
E6013	F,V OH,H	AC or DC ⁺	≤0.20	≤1.20	≤1.00	≤0.035	≤0.040	≤0.20	≤0.30	≤0.30	≤0.08	ReH≥306	400-560	≥22	High titania Potassium
Applications: Welding mild steel with normal tensile strength particularly suitable for intermittent welding to sheet and small work pieces.															
E6010	F,VD OH,H	DC	≤0.20	≤1.20	≤1.00	≤0.035	≤0.040	≤0.20	≤0.30	≤0.30	≤0.08	≥330	≥430	≥22	High cellulose Sodium
Applications: It is for all position welding general structures, including vertical down welding, especially pipelines, vessels.															
E6011	F,V OH,H	AC or DC ⁺	≤0.20	≤1.20	≤1.00	≤0.035	≤0.040	≤0.20	≤0.30	≤0.30	≤0.08	≥330	≥430	≥22	High cellulose Potassium
Applications: Suitable for vertical-down welding and lap welding for sheet structures.															
E6018	F,V OH,H	AC≥70V or DC ⁺	≤0.03	≤0.60	≤0.40	≤0.015	≤0.025	≤0.20	≤0.30	≤0.30	≤0.08	≥330	≥430	A5(%)≥17	Low hydrogen Potassium Iron powder
Applications: For welding important mild steel and low alloy steel structures.															
E6019	F,V OH,H	AC or DC ⁺	≤0.20	≤1.20	≤1.00	≤0.035	≤0.040	≤0.20	≤0.30	≤0.30	≤0.08	ReH≥306	400-560	≥22	Iron oxide Titania Potassium
Applications: Suitable for welding ship hulls, pressure vessels, bridges as well as structural fabrications.															
E6020	F ₁ HF	AC or DC ⁺	≤0.20	≤1.20	≤1.00	≤0.035	≤0.040	≤0.20	≤0.30	≤0.30	≤0.08	≥330	400-560	≥22	Hign iron oxide
Applications: For welding general mild steel structures, such as heavy machinery and construction machinery and so on.															



Item	Welding Position	Type of Current	Standard & Typical Chemical Composition of Deposited Metal (%)									Yield Point Rel(MPa)	Tensile Strength Rm(MPa)	Elongation A4(%)	Type of Covering
			C	Mn	Si	S	P	Cr	Ni	Mo	V				
E7018	F,V OH,H	AC≥70V or DC ⁺	≤0.15	≤1.60	≤0.75	≤0.035	≤0.035	≤0.20	≤0.30	≤0.30	≤0.08	≥400	≥490	≥22	Low hydrogen Potassium Iron powder
Applications:Suitable for welding important low alloy structures, which belong to the same grade of tensile strength such as boilers, pressure vessels, pipelines and so on.															
E7018-1	F,V OH,H	AC≥70V or DC ⁺	≤0.15	≤1.60	≤0.75	≤0.035	≤0.040	≤0.20	≤0.30	≤0.30	≤0.08	ReH≥375	490-660	≥22	Low hydrogen Potassium Iron powder
Applications:Suitable for welding important structures fabricated by low alloy steels, such as ships, high pressure vessels, bridges and offshore drilling platforms and so on.															
E7015	F,V OH,H	AC≥70V or DC ⁺	—	≤1.60	≤0.75	≤0.035	≤0.040	—	—	—	—	ReH≥375	490-660	≥22	Low hydrogen Sodium
Applications:Suitable for welding important structures made of low alloy steel with corresponding grade of tensile strength, such as ships and heavy machinery															
E7016	F,V OH,H	AC≥70V or DC ⁺	≤0.15	≤1.60	≤0.75	≤0.035	≤0.040	≤0.20	≤0.30	≤0.30	≤0.08	ReH≥375	490-660	≥22	Low hydrogen Potassium
Applications:Suitable for welding important structures made by low alloy steel with corresponding grade of tensile strength, such as ships.															
E7014	F,V OH,H	AC or DC ⁺	≤0.15	≤1.25	≤0.90	≤0.035	≤0.035	≤0.20	≤0.30	≤0.30	≤0.08	≥400	≥490	≥17	Iron powder Titania
Applications:Suitable for welding mild steel and low alloy steel structures, such as vehicles and machinery.															
E7024	F H, HF	AC or DC ⁺	≤0.15	≤1.25	≤0.90	≤0.035	≤0.035	≤0.20	≤0.30	≤0.30	≤0.08	ReH≥375	490-660	≥22	Iron powder Titania
Applications:Suitable for flat and horizontal fillet welding ship structures, H beams of bridges, as well as general steel structures															



AWS Code	Tensile Strength Rm(Mpa)	Elongation A4(%)	C	Mn	Si	S	P	Cr	Ni	Mo	Cu
E308L-16	≥520	≥35	≤0.04	0.5-2.5	≤0.90	≤0.020	≤0.030	18.0-21.0	9.0-11.0	≤0.75	≤0.75
E309-16	≥550	≥30	≤0.15	0.5-2.5	≤0.90	≤0.030	≤0.030	22.0-25.0	12.0-14.0	≤0.75	≤0.75
E318-16	≥520	≥25	≤0.08	0.5-2.5	≤0.90	≤0.020	≤0.030	17.0-20.0	11.0-14.0	2.0-3.0	Nb: 8xC%-1.00
E316L-16	≥490	≥30	≤0.04	0.5-2.5	≤0.90	≤0.020	≤0.030	17.0-20.0	11.0-14.0	2.0-3.0	≤0.75
E316Mo-16	≥540	≥25	≤0.04	0.5-2.5	≤0.90	≤0.040	≤0.030	22.0-25.0	12.0-14.0	2.0-3.0	≤0.75
E308-16	≥550	≥35	≤0.08	0.5-2.5	≤0.90	≤0.020	≤0.030	18.0-21.0	9.0-11.0	≤0.75	≤0.75
E308-15	≥550	≥35	≤0.08	0.5-2.5	≤0.90	≤0.020	≤0.030	18.0-21.0	9.0-11.0	≤0.75	≤0.75
E347-16	≥520	≥25	≤0.08	0.5-2.5	≤0.90	≤0.020	≤0.030	18.0-21.0	9.0-11.0	≤0.75	Nb: 8xC%-1.00
E347-15	≥520	≥25	≤0.08	0.5-2.5	≤0.90	≤0.020	≤0.030	18.0-21.0	9.0-11.0	≤0.75	Nb: 8xC%-1.00
E316-16	≥520	≥30	≤0.08	0.5-2.5	≤0.90	≤0.020	≤0.030	17.0-20.0	11.0-14.0	2.0-3.0	≤0.75
E316-15	≥520	≥30	≤0.08	0.5-2.5	≤0.90	≤0.020	≤0.030	17.0-20.0	11.0-14.0	2.0-3.0	≤0.75
E309-15	≥550	≥25	≤0.15	0.5-2.5	≤0.90	≤0.020	≤0.030	22.0-25.0	12.0-14.0	≤0.75	≤0.75
E309Mo-16	≥550	≥25	≤0.12	0.5-2.5	≤0.90	≤0.020	≤0.030	22.0-25.0	12.0-14.0	2.0-3.0	≤0.75
E310-16	≥520	≥25	0.08-0.20	1.0-2.5	≤0.75	≤0.030	≤0.030	25.0-28.0	20.0-22.5	≤0.75	≤0.75
E310-15	≥550	≥25	0.08-0.20	1.0-2.5	≤0.75	≤0.030	≤0.030	25.0-28.0	20.0-22.5	≤0.75	≤0.75
E310Mo-16	≥550	≥25	≤0.12	1.0-2.5	≤0.75	≤0.030	≤0.030	25.0-28.0	20.0-22.5	2.0-3.0	≤0.75
E2209-16	≥690	≥20	≤0.04	0.5-2.0	≤0.90	≤0.020	≤0.030	21.5-23.5	8.5-10.5	2.5-3.5	N: 0.08-0.20
E308H-16	≥550	≥35	0.04-0.08	0.5-2.5	≤0.90	≤0.020	≤0.030	18.0-21.0	9.0-11.0	≤0.75	≤0.75
E308Mo-16	≥550	≥35	≤0.08	0.5-2.5	≤0.90	≤0.020	≤0.030	18.0-21.0	9.0-12.0	2.0-3.0	≤0.75
E308LMo-16	≥520	≥35	≤0.04	0.5-2.5	≤0.90	≤0.020	≤0.030	18.0-21.0	9.0-12.0	2.0-3.0	≤0.75
E309Nb-16	≥550	≥30	≤0.12	0.5-2.5	≤0.90	≤0.020	≤0.030	22.0-25.0	12.0-14.0	≤0.75	Nb: 0.7-1.0
E312-16	≥660	≥30	≤0.15	0.5-2.5	≤0.90	≤0.020	≤0.030	28.0-32.0	8.0-10.5	≤0.75	≤0.75
E316H-16	≥520	≥35	0.04-0.08	0.5-2.5	≤0.90	≤0.020	≤0.030	17.0-20.0	11.0-14.0	2.0-3.0	≤0.75
E317L-16	≥490	≥30	≤0.04	0.5-2.5	≤0.90	≤0.020	≤0.030	18.0-21.0	12.0-14.0	3.0-4.0	≤0.75
E347L-16	≥520	≥30	≤0.04	0.8-2.5	≤0.90	≤0.020	≤0.030	18.0-21.0	9.0-11.0	≤0.50	Nb: 8xC%-1.00
E385-16	≥520	≥32	≤0.03	1.0-2.5	≤0.75	≤0.020	≤0.030	19.5-21.5	24.0-26.0	4.2-5.2	1.2-2.0
E410-16	≥520	≥20	≤0.12	≤1.0	≤0.90	≤0.020	≤0.030	11.0-13.5	≤0.70	≤0.75	≤0.75
E410-15	≥520	≥20	≤0.12	≤1.0	≤0.90	≤0.020	≤0.030	11.0-13.5	≤0.70	≤0.75	≤0.75
E410NiMo-15	≥760	≥15	≤0.06	≤1.0	≤0.90	≤0.030	≤0.030	11.0-12.5	4.0-5.0	0.40-0.70	≤0.75



Cast Iron Welding Electrode

AWS Code	Type Covering	C	Mn	Si	S	P	V	Ni	Cu	Fe
ESi	Oxide flux with carbon steel core	≤0.15	≤0.60	≤0.15	≤0.040	≤0.040	—	—	—	Remain
ECi	Graphite with carbon steel core	2.00-4.00	≤0.75	2.50-6.50	≤0.10	≤0.15	—	—	—	Remain
ENi-Ci	Graphite with pure nickel core	≤2.00	≤1.00	≤2.50	≤0.030	—	—	≥90.0	—	≤8.00
ENiFe-Ci	Graphite with nickel-ferro core	≤2.00	≤2.50	≤4.00	≤0.030	—	—	45.0-60.0	≤2.50	Remain
ENiCu-B	Graphite with monelmetal core	0.35-0.55	≤2.30	≤0.75	≤0.025	—	—	60.0-70.0	25.0-35.0	3.0-6.0

Copper & Copper Alloy Welding Electrode

AWS Code	Tensile Strenght MPa	Cu	Mn	Fe	Si	S	P	Ni	Pb	Ti	Others
ECu	≥170	≥95.0	≤3.00	—	≤0.50	—	≤0.30	—	≤0.02	—	Fe+Al+Ni+Zn≤0.50
ECuSi	≥270	≥92.0	≤3.00	—	2.5-4.0	—	≤0.30	—	≤0.02	—	Al+Ni+Zn≤0.50
ECuSn-C	≥270	Remain	Sn: 7.0-9.0	—	—	—	≤0.30	—	≤0.02	—	Si+Mn+Fe+Al+Ni+Zn≤0.50
ECuAl-A2	≥390	Remain	≤2.00	≤1.50	≤1.00	—	Al: 6.5-10.0	≤0.50	≤0.02	—	Zn+Pb≤0.50
ECuNi	≥350	Remain	≤2.50	≤2.50	≤0.50	≤0.015	≤0.020	29.0-33.0	≤0.02	≤0.50	≤0.50

Nickel & Nickel Alloy Welding Electrode

AWS Code	C	Mn	Si	Fe	S	P	Ni	Nb+Ta	Al	Ti	Mo	Cr	Others
ENiCrMo-3	≤0.10	≤1.00	≤0.75	≤7.00	≤0.015	≤0.020	≥55	3.15-4.15	—	Cr≤0.12	8.0-10.0	20.0-23.0	≤0.50
ENiCrMo-4	≤0.02	≤1.00	≤0.20	4.00-7.00	≤0.030	≤0.040	Remain	—	—	Cr≤250	15.0-17.0	14.5-16.5	W:30-45
ENiCrMo-6	≤0.10	2.0-4.0	≤1.00	≤10.0	≤0.020	≤0.030	≥55	0.5-2.0	—	—	5.0-9.0	12.0-17.0	W:10-20
ENiCrMo-10	≤0.02	≤1.00	≤0.20	2.00-6.00	≤0.015	≤0.030	Remain	—	—	—	12.5-14.5	20.0-22.5	W:25-35
ENiCrMo-13	≤0.02	≤1.00	≤0.20	≤1.50	≤0.010	≤0.015	Remain	—	—	—	15.0-16.5	22.0-24.0	≤0.50
ENi-1	≤0.10	≤0.75	≤1.25	≤0.75	≤0.020	≤0.030	≥92	—	≤1.00	1.0-4.0	—	—	≤0.50
ENiCrFe-1	≤0.08	≤3.50	≤0.75	≤11.0	≤0.015	≤0.030	≥62	1.5-4.0	—	—	—	13.0-17.0	≤0.50
ENiCrFe-2	≤0.10	1.0-3.5	≤0.75	≤12.0	≤0.020	≤0.030	≥62	0.5-3.0	—	—	0.5-2.5	13.0-17.0	≤0.50
ENiCrFe-3	≤0.10	5.0-9.5	≤1.00	≤10.0	≤0.015	≤0.030	≥59	1.0-2.5	—	—	—	13.0-17.0	≤0.50
ENiCrFe-4	≤0.20	1.0-3.5	≤1.00	≤12.0	≤0.020	≤0.030	≥60	1.0-3.5	—	—	—	13.0-17.0	≤0.50
ENiCrFe-7	≤0.05	≤5.00	≤0.75	7.00-12.00	≤0.020	≤0.030	Remain	1.0-2.5	—	—	≤0.50	28.0-31.5	≤0.50
ENiCrFe-9	≤0.15	1.0-4.5	≤0.80	≤12.0	≤0.020	≤0.030	≥55	0.5-3.0	—	—	2.5-5.5	12.0-17.0	≤0.50
ENiCu-7	≤0.15	≤4.00	≤1.50	≤2.50	≤0.015	≤0.020	62-69	—	—	≤1.00	—	—	Cr:Remain
ENiCrCoMo-1	0.05-0.15	0.3-2.5	≤0.75	≤5.00	≤0.015	≤0.030	Remain	—	—	—	8.0-10.0	21.0-26.0	≤0.50

Art No.	Standard & Typical Chemical Composition of Deposited Metal (%)												Hardness of Deposited Metal HRC
	C	Mn	Si	S	P	Cr	Ni	Mo	V	W	Nb	Others	
BHF102	≤0.20	≤3.50	—	—	—	—	—	—	—	—	—	—	≥ 22
Applications: Surfacing and repair welding of worm parts surface of low carbon, medium carbon and low alloy steel.													
BHF112	≤0.25	—	—	—	—	≤2.00	—	≤1.50	—	—	—	≤2.00	≥ 22
Applications: Surfacing and repair welding of worm parts surface of low carbon, medium carbon and low alloy steel.													
BHF126	≤0.20	≤4.20	—	—	—	—	—	—	—	—	—	≤2.00	≥ 28
Applications: Surfacing of worm surface of low carbon, medium carbon steel and low alloy steel.													
BHF132	≤0.50	—	—	—	—	≤3.00	—	≤1.50	—	—	—	—	≥ 30
Applications: Surfacing and repair welding of worm surface of low and medium carbon steel or low alloy steel.													
BHF167	≤0.45	≤6.50	≤1.00	—	—	—	—	—	—	—	—	—	≥ 50
Applications: Surfacing of the mechanical damage parts of agriculture and construction, such as large bulldozer etc.													
BHF172	≤0.50	—	≤1.00	—	—	—	—	—	—	—	—	—	≥ 50
Applications: Surfacing of worm parts of gear wheel, mining machinery etc.													
BHF207	0.3-1.0	≤2.50	≤1.00	≤0.035	≤0.035	≤3.5	—	—	—	—	—	≤1.00	≥ 50
Applications: Surfacing of worm parts of bulldozer blade propeller etc.													
BHF212	0.3-0.6	—	—	—	—	≤5.00	—	≤4.00	—	—	—	—	≥ 50
Applications: One layer and multi-layer surfacing of worn parts surface of gear wheel, excavator and mining machinery etc.													
BHF227	0.45-0.65	—	—	—	—	4.0-5.0	—	2.0-3.0	4.0-5.0	—	—	—	≥ 55
Applications: Suitable for welding under the impact load of the surface													
BHF237	0.3-0.6	—	—	—	—	8.0-10.0	—	≤3.00	0.5-1.0	—	—	≤4.00	≥ 50
Applications: Surfacing of silt worm and atmosphere corrosive hydraulic machinery, excavator and mining machinery etc.													
BHF246	≤1.00	≤0.80	1.5-3.0	≤0.03	≤0.03	6.5-8.5	—	≤3.00	0.5-1.0	—	—	B0.5-0.9	≥ 60
Applications: Suitable for hardfacing parts, such as mines, bricks etc.under the condition of surfacing and normal wear and no erosion.													
BHF256	≤1.10	11.0-16.0	≤1.30	—	—	—	—	—	—	—	—	≤5.00	Hb≥170
Applications: Surfacing of easy-impacted, easy worn parts of crusher, rails, bulldozers etc..													
BHF266	≤1.10	12.0-16.0	0.3-1.3	—	—	—	—	≤2.50	—	—	—	≤1.00	Hb≥170
Applications: Suitable for hardfacing abraded parts of crusher machines, excavators, bulldozers, switches of railway etc.													
BHF276	≤0.80	11.0-18.0	≤0.80	—	—	13.0-17.0	—	—	—	—	—	≤4.00	≥ 20
Applications: Surfacing of high manganese steel structures.													
BHF307	0.7-1.0	—	—	≤0.035	≤0.040	3.8-4.5	—	—	1.0-1.5	17.0-19.5	—	≤1.50	≥ 50
Applications: Surfacing of blade of semifinished cutting tool made of medium carbon carbon steel, and repair welding worn cutting tool or other tool.													
BHF317	0.7-1.0	—	—	≤0.035	≤0.040	3.0-4.0	—	3.0-5.0	1.5-3.0	4.5-6.0	—	≤1.50	≥ 55
Applications: Applicable to impulse and like cutting edge													
BHF322	≤0.50	—	—	≤0.035	≤0.040	≤5.00	—	≤2.50	≤1.00	7.0-10.0	—	—	≥ 50
Applications: Surfacing of blade of model and cutting, and repair welding of mechanical parts requiring high function for wear resistance.													
BHF327	≤0.50	—	—	≤0.035	≤0.040	≤5.00	—	≤2.50	≤1.00	7.0-10.0	—	—	≥ 55
Applications: Surfacing of blade of model and cutting, and repair welding of mechanical parts requiring high function for wear resistance.													
BHF337	0.25-0.55	—	—	≤0.035	≤0.040	2.0-3.5	—	—	—	7.0-10.0	—	≤1.00	≥ 48
Applications: Surfacing of forging model for cast steel and forge steel. Also repair welding of forging model.													
BHF397	≤0.60	≤2.50	≤1.00	≤0.035	≤0.040	≤2.00	—	≤1.00	—	—	—	—	≥ 40
Applications: Surfacing of cast steels and heat forging model. Also repair welding of worn forging model.													

Art No.	Standard & Typical Chemical Composition of Deposited Metal (%)												Hardness of Deposited Metal HRC
	C	Mn	Si	S	P	Cr	Ni	Mo	V	W	Nb	Others	
BHF502	≤0.15	—	—	≤0.03	≤0.04	10.0-16.0	—	—	—	—	—	—	≥40
Applications: For hardfacing carbon steel and low alloy steel axis, shafts and valves that working temperature is below 450°C													
BHF507	≤0.15	—	—	≤0.03	≤0.04	10.0-16.0	—	—	—	—	—	≤2.50	≥40
Applications: Surfacing of axles and valves made of carbon steel and alloy steel, working temperature is below 450°C													
BHF507Mo	≤0.20	—	—	—	—	10.0-16.0	≤6.00	≤2.50	—	≤2.00	—	≤2.50	≥37
Applications: Surfacing of valves, which working temperature should be below 510°C													
BHF516	≤0.25	6.0-1.0	≤0.80	—	—	12.0-14.0	—	—	—	—	—	—	38-40
Applications: Suitable for the parts under the action of water and steam oil medium under 450°C													
BHF517	≤0.25	—	—	—	—	10.0-16.0	—	—	—	—	—	≤5.00	≥45
Applications: Surfacing of axles made of carbon steel and low alloy steel valves, working temperature is below 450°C													
BHF547	≤0.18	0.6-2.0	4.8-6.4	≤0.030	≤0.040	15.0-18.0	7.0-9.0	—	—	—	—	—	Hb 270-320
Applications: Suitable for the sealing surface and other sealing parts of the high pressure copper furnace installed at below 570°C													
BHF547Mo	≤0.18	0.6-5.0	3.8-6.5	≤0.030	≤0.040	14.0-21.0	6.5-12.0	3.5-7.0	—	—	0.5-1.2	≤2.50	≥37
Applications: Surfacing and sealing surface for high pressure valves working temperature is below 600°C													
BHF557	≤0.20	2.0-3.0	5.0-7.0	≤0.030	≤0.040	18.0-20.0	7.0-10.0	—	—	—	—	—	≥37
Applications: Suitable for high pressure door cover with a working temperature is below 600°C.													
BHF567	0.5-0.8	24.0-27.0	≤1.30	—	—	9.5-12.5	—	—	—	—	—	—	Hb≥170
Applications: Suitable for welding work temperature of less than 350 °C of the medium temperature and medium pressure cast iron ball gate surface.													
BHF577	≤1.10	12.0-18.0	≤2.00	—	—	12.0-18.0	≤6.00	≤4.00	—	—	—	≤3.00	≥ 28
Applications: Surfacing and sealing surface for middle temperature high pressure valves working temperature is below 510°C													
BHF608	2.5-4.5	—	—	—	—	3.0-5.0	—	3.0-5.0	—	—	—	—	≥ 55
Applications: Surfacing parts of agricultural machinery and mining equipments worn and impacted by grits.													
BHF618	≤4.00	1.0-2.5	—	≤0.03	≤0.05	15.0-25.0	—	3.0-6.5	—	—	—	≤6.00	≥ 48
Applications: Surfacing parts worn by grit, air, water at normal and middle temperature.													
BHF646	1.5-3.5	≤1.00	—	—	—	22.0-32.0	—	—	—	—	—	≤7.00	≥ 45
Applications: Surfacing structure and high temperature wear resistance corrosion resistance.													
BHF648	1.5-3.5	≤1.00	—	—	—	22.0-32.0	—	—	—	—	—	≤7.00	≥ 45
Applications: Surfacing structure and high temperature wear resistance corrosion resistance.													
BHF656	3.0-4.5	≤1.50	≤2.50	—	—	26.0-34.0	—	2.0-3.0	—	—	—	≤3.00	≥ 60
Applications: For resistance and corrosion resistance, which is mainly affected by grain wear under medium impact.													
BHF667	2.5-5.0	≤8.00	1.0-4.8	—	—	25.0-32.0	3.0-5.0	—	—	—	—	≤2.00	≥ 48
Applications: Surfacing parts of bear serious abrasion and corrosion resistance and atmospheric corrosion resistance.													
BHF698	≤3.00	—	—	—	—	4.0-6.0	—	—	—	8.5-14.0	—	≤3.00	≥ 60
Applications: Surfacing of mining machinery and mud pump.													
BHF707	1.5-3.0	≤2.00	≤4.00	—	—	—	—	—	—	40.0-50.0	—	Fe Rem.	≥ 60
Applications: Surfacing of rock strong wear resisting parts, such as concrete mixer vanes, bulldozer and vanes, excavator vanes.													
BHF802	0.7-1.4	≤2.00	≤2.00	—	—	25.0-32.0	—	—	—	3.0-6.0	Fe≤5.00	≤4.00 Co Rem.	≥ 40
Applications: Suitable for hardfacing at around 650C, which can still maintain good resistance and corrosion resistance.													
BHF812	1.0-1.7	≤2.00	≤2.00	—	—	25.0-32.0	—	—	—	7.0-10.0	Fe≤5.00	≤4.00 Co Rem.	≥ 40
Applications: Suitable for high temperature and high pressure gate, high pressure East shaft sleeve and inner village sleeve, and cutting knife edge of chemical fiber equipment.													

Item Code	Equivalent Norm	Chemical Composition of Wire (%)										
		C	Mn	Si	S	P	Cr	Ni	Mo	Cu	Combined Flux	Welding Position
SAW-EL12	AWS A5.17 F6A0/EL12	0.04-0.14	0.25-0.60	≤0.10	≤0.030	≤0.030				≤0.35	SJ43	F
	AWS A5.17 F7A2/EL12	0.07	0.40	0.018	0.011	0.014				0.10	SJ501	F
SAW-EM12	AWS A5.17 F6A0/EM12	0.06-0.15	0.80-1.25	≤0.10	≤0.030	≤0.030	—	—		≤0.35	SJ101	F
	AWS A5.17 F6A4/EM12	0.066	0.88	0.022	0.013	0.010	0.020	0.021		0.075	SJ103	F
SAW-EH14	AWS A5.17 F7A0/EH14	0.10-0.20	1.70-2.20	≤0.10	≤0.030	≤0.030	—	—		≤0.35	SJ101	F
	AWS A5.17 F7A4/EH14	0.13	1.87	0.05	0.011	0.013	0.018	0.015		0.020	SJ105	F
SAW-EH14A	AWS A5.17MF48A4/EH14	0.10-0.20 0.13	1.70-2.20 1.95	≤0.10 0.076	≤0.030 0.006	≤0.030 0.014	—	— 0.016	—	≤0.35 0.07	SJ102	F
SAW-EM13K	AWS A5.17 F7A0/EM13K	0.06-0.16 0.089	0.90-1.40 1.01	0.35-0.75 0.61	≤0.030 0.016	≤0.030 0.016	—	—	—	≤0.35 0.110	SJ101	F
SAW-EM12K	AWS A5.17 F7A4/EM12K	0.05-0.15	0.80-1.25	0.10-0.35	≤0.030	≤0.030	—	—		≤0.35	SJ101	F
	AWS A5.17 F7A0/EM12K	0.08	1.06	0.22	0.014	0.016	0.025	0.026		0.10	SJ501	F
SAW-EL8	AWS A5.17 F6A0/EL8	≤0.10 0.07	0.25-0.60 0.40	≤0.07 0.018	≤0.030 0.011	≤0.030 0.014	—	—	—	≤0.35 0.10	SJ43	F
*****The surface treatment of SAW welding wire : copper coated or non copper coated												
SAW-308	AWS A5.9 ER308	≤0.08 0.056	1.00-2.50 1.43	0.30-0.65 0.32	≤0.030 0.006	≤0.030 0.021	19.5-22.0 19.81	9.0-11.0 9.45	≤0.75 0.10	≤0.75 0.11	SJ260	F
SAW-308L	AWS A5.9 ER308L	≤0.03 0.023	1.00-2.50 1.68	0.30-0.65 0.59	≤0.030 0.011	≤0.030 0.019	19.5-22.0 20.88	9.0-11.0 9.12	≤0.75 0.41	≤0.75 0.20	SJ601	F
SAW-309	AWS A5.9 ER309	≤0.12 0.060	1.00-2.50 2.05	0.30-0.65 0.34	≤0.030 0.010	≤0.030 0.018	23.0-25.0 23.83	12.0-14.0 13.26	—	≤0.75 0.10	SJ601	F
SAW-309L	AWS A5.9 ER309L	≤0.03 0.026	1.00-2.50 2.11	0.30-0.65 0.38	≤0.030 0.016	≤0.030 0.014	23.0-25.0 23.56	12.0-14.0 12.31	—	≤0.75 0.13	SJ601	F
SAW-310	AWS A5.9 ER310	0.08-0.15 0.09	1.00-2.50 1.90	0.30-0.65 0.35	≤0.030 0.015	≤0.030 0.014	25.0-28.0 26.80	20.0-22.5 21.40	—	≤0.75 0.12	SJ601	F
SAW-316	AWS A5.9 ER316	≤0.08 0.04	1.00-2.50 1.88	0.30-0.65 0.33	≤0.030 0.013	≤0.030 0.018	18.0-20.0 19.27	11.0-14.0 12.70	2.00-3.00 2.26	≤0.75 0.11	SJ601	F
SAW-316L	AWS A5.9 ER316L	≤0.03 0.02	1.00-2.50 1.85	0.30-0.65 0.38	≤0.030 0.010	≤0.030 0.015	18.0-20.0 18.73	11.0-14.0 12.50	2.00-3.00 2.36	≤0.75 0.10	SJ601	F
SAW-317	AWS A5.9 ER317	≤0.08 0.04	1.00-2.50 1.86	0.30-0.65 0.46	≤0.030 0.012	≤0.030 0.017	18.5-20.5 19.30	13.0-15.0 14.20	3.00-4.00 3.50	≤0.75 0.11	SJ601	F
SAW-347	AWS A5.9 ER347	≤0.08 0.06	1.00-2.50 1.84	0.30-0.65 0.41	≤0.030 0.018	≤0.030 0.020	19.0-21.5 19.40	9.0-11.0 9.50	—	≤0.75 0.12	SJ601	F
SAW-410	AWS A5.9 ER410	≤0.12 0.10	≤0.60 0.47	≤0.50 0.42	≤0.030 0.011	≤0.030 0.016	11.5-13.5 11.80	≤0.60 0.20	—	≤0.75 0.14	SJ601	F
SAW-2209	AWS A5.9 ER2209	≤0.03 0.01	0.50-2.00 1.52	≤0.90 0.60	≤0.030 0.007	≤0.030 0.011	21.5-23.5 22.80	7.5-9.5 9.27	Mo 2.5-3.5 N 0.08-0.2	≤0.75 0.10	SJ601	F

Mechanical Properties of Deposited Metal(Typical)							Applications
Current	Postweld Condition	Yield Point ReL(Mpa)	Tensile Strength Rm(Mpa)	Elongation A4(%)	AkV Value(J)		
					Temp.(℃)	Joule	
DC ⁺ or AC	AW	360	450	29	-20	80	Suitable for welding structures fabricated by 450MPa tensil strength steel especially high speed welding for thin plate
DC ⁺ or AC	AW	425	530	29	0	70	
DC ⁺ or AC	AW	370	470	30	-20	120	For welding structures made by 450MPa-500MPa tensile strength steels, such as boiler, bridges, pressure vessels.
DC ⁺ or AC	AW	360	480	31	-40	110	
DC ⁺ or AC	AW	440	530	30	-20	150	Suitable for structures made by 500MPa tensile strength steels, such as ship hulls, bridges, pressure vessels and H-beam structures.
DC ⁺	AW	430	510	28	-40	120	
DC ⁺	AW	475	575	27	-40	119	Suitable for structures made by 550MPa tensile strength steels, such as bridges, cisterns, pressure vessels and H-beam structures.
DC ⁺ or AC	AW	425	535	32	-20	110	Suitable for structures fabricated by 500MPa-550MPa tensil strength steels, such as ship hulls, bridges, pressure vessels and H-beam structures.
DC ⁺ or AC	AW	420	510	31	-40	110	Suitable for fabricating normal strength structures made by 450MPa-500MPa tensile strength mild steels.
DC ⁺ or AC	AW	466	540	28	-29	80	
DC ⁺	AW	360	455	30	-20	75	Suitable for welding structures fabricated by 450MPa tensil strength steel
*****The surface treatment of SAW welding wire : copper coated or non copper coated							
DC ⁺	AW	—	580	40	—	—	For welding austenitic stainless steel structures that require acid proof and for hardfacing rolls also.
DC ⁺	AW	—	530	42	—	—	For welding extra low carbon Cr18Ni8 stainless steel.
DC ⁺	AW	—	540	38	—	—	For welding Cr22Ni12 stainless steel. The weld metal shows a good heat resistance & corrosion resistance feature. Also used in dissimilar steels.
DC ⁺	AW	—	530	39	—	—	For welding extra low carbon Cr24Ni13 stainless steel. Also used for root welding.
DC ⁺	AW	—	560	40	—	—	For welding Cr25Ni20 stainless steel. The weld metal shows a good heat resistance & corrosion resistance feature.
DC ⁺	AW	—	540	38	—	—	For welding Cr18Ni12Mo2 stainless steel. The weld metal has very good heat crack resistance character.
DC ⁺	AW	—	530	39	—	—	For welding extra low carbon Cr18Ni12Mo2 stainless steel. The weld metal has excellent heat crack resistance & corrosion resistance character.
DC ⁺	AW	—	550	38	—	—	For fabricating stainless steel containers that resisting corrosion of vitriol, ammonia, sulfurous acid or salt, etc.
DC ⁺	AW	—	550	39	—	—	For welding important resisting corrosion structures made by 1Cr18Ni9Ti stainless steels.
DC ⁺	AW	—	510	26	—	—	Hard facing surface of structures made of 0Cr13 or 1Cr13 stainless steels.
DC ⁺	AW	650	770	28	-30	70	For welding structures of chemical carriers and facilities of petrochemical, sea water desalinization, salt works, nuclear energy that fabricated by duplex stainless steels

INFORMACIÓN: 444-209-4335 Y 444-8298-274

SJ101

Specification: EN760 SA FB 1 65 AC H5 AWS A.5.17/5.23 F60-EL8 F7A2-EM12K F7A4-EH14

Applications:

Horizontal welding of oil storage tanks, ships, bridges, pressure vessels, penstocks, boilers and structural steels

Characteristics: SJ101 is an agglomerated fluoride-basic flux

Metallurgical behavior:

Slight silicon pick up. The behavior of manganese is neutral

Grain Size: 10 to 60 mesh

Basicity: 1.8(BIIW)

Damp flux should be re-dried at 300-350°C for 2 hours. Rust, grease and moisture on the weldment should be removed before welding.

Chemical Composition of SJ101 (%)

SiO ₂ +TiO ₂	CaF ₂	Al ₂ O ₃ +MnO	CaO+MgO	S	P
15-20	15-20	25-30	25-30	≤0.05	≤0.05

Mechanical Properties of the All-Weld

Wire	Yield Point σ s(Mpa)	Tensile Strength σ b(Mpa)	Elongation σ 5(%)	Charpy V Notch Impact Value(J)	
				-20°C	-40°C
EM12K	≥400	490-600	≥22	≥50	—
EH14	≥400	490-650	≥22	≥70	≥50

SJ101G

Specification: EN760 SA FB 1 55 AC H5 AWS A.5.17/5.23 F7A2-EM12K F7A4-EH14 F7A6-EG-G F8A2-EA2-A2

Applications:

Single and multi-layer welding of steel for low temperature service used in offshore structures, chemical vessels, API pipes, windmills, and low temperature service equipments.

Characteristics: SJ101G is an agglomerated fluoride-basic type flux

Metallurgical behavior:

The behavior of silicon and manganese is neutral, so it is better to weld with wires containing relatively high manganese and silicon.

Basicity: 3.1(BIIW)

Damp flux should be re-dried at 300-350°C for 2 hours. Rust, grease and moisture on the weldment should be removed before welding.

Chemical Composition of SJ101G (%)

SiO ₂ +TiO ₂	CaF ₂	Al ₂ O ₃ +MnO	CaO+MgO	S	P
18-25	16-25	23-30	28-35	≤0.06	≤0.08

Mechanical Properties of the All-Weld

Wire	Yield Point σ s(Mpa)	Tensile Strength σ b(Mpa)	Elongation σ 5(%)	Charpy V Notch Impact Value(J)		
				-20°C	-40°C	-50°C
EM12K	≥400	490-600	≥22	≥60	—	—
EH14	≥420	510-600	≥22	≥70	≥57	≥27
EG	≥430	530-690	≥22	≥90	≥80	≥42
EA2	≥500	600-700	≥20	≥60	≥55	≥34

SJ301

Specification: EN760 SA CS 1 89 AC H5 AWS A5.17 F6A0-EL8 F7A2-EM12K

Applications:

Butt and flat fillet welding of miniature LPG tanks, ships, vehicles, agricultural implements, machinery, boilers, bridges, structural steels.

Characteristics: SJ301 is an agglomerated calcium-silicate type welding flux.

Metallurgical behavior:

High silicon pick-up is obtained. When the manganese content in wire is less than 1.5%, also is a manganese pick-up.

Grain Size: 10 to 60 mesh

Basicity: 1.0(BIIW)

Damp flux should be re-dried at 300-350°C for 2 hours. Rust, grease and moisture on the weldment should be removed before welding.

Chemical Composition of SJ301 (%)

SiO ₂ +TiO ₂	CaF ₂	Al ₂ O ₃ +MnO	CaO+MgO	S	P
30-40	5-13	25-30	5-10	≤0.05	≤0.05

Chemical Composition of Deposited Metal

Wire	C	Si	Mn
EL8	0.05-0.10	0.35-0.50	1.2-1.5
EM12K	0.05-0.10	0.35-0.50	1.4-1.6

Mechanical Properties of the Deposited Metal

Wire	Standard	Yield Point σ s(Mpa)	Tensile Strength σ b(Mpa)	Elongation σ 5(%)	Impact Value akv (J)
EL8	F6A0-EL8	≥350	≥420	≥22	≥40(0°C)
EM12K	F7A2-EM12K	≥410	≥500	≥30	≥60(-20°C)

SJ501

Specification: EN760 SA AR 1 88 AC H5 AWS A5.17/5.23 F7A0-EL12K F7A2-EM12K

Applications:

Butt and flat fillet welding of miniature LPG tanks, ships, vehicles, agricultural implements, machinery, boilers, bridges, structural steels.

Characteristics: SJ501 is an agglomerated aluminate-rutile type flux

Metallurgical behavior:

High silicon and manganese pick-up is obtained.

Basicity: 0.7(BIIW)

Damp flux should be re-dried at 300-350°C for 2 hours. Rust, grease and moisture on the weldment should be removed before welding.

Chemical Composition of SJ501 (%)

SiO ₂ +TiO ₂	CaF ₂	Al ₂ O ₃ +MnO	CaO+MgO	S	P
25-35	5-10	50-60	3-10	≤0.05	≤0.05

Chemical Composition of Deposited Metal

Wire	C	Si	Mn
EM12K	0.05-0.10	0.05-0.10	1.4-1.6

Mechanical Properties of the Deposited Metal

Wire	Standard	Yield Point σ s(Mpa)	Tensile Strength σ b(Mpa)	Elongation σ 5(%)	Impact Value akv (J)
EL12	F7A0-EL12	≥330	≥420	≥22	≥53(-18°C)
EM12K	F7A2-EM12K	≥410	≥500	≥22	≥45(-20°C)

SJ431

Specification: AWS A5.17 F6A2-EL12

Applications:

Butt and flat fillet welding of miniature LPG tanks, ships, vehicles, agricultural implements, machinery, boilers, bridges, structural steels

Characteristics: SJ431 is a fused glassy granulated flux

Metallurgical behavior:

High silicon and manganese pick-up is obtained.

Grain Size: 14 to 60 mesh

Basicity: 0.7(BI IW)

Damp flux should be re-dried at 300-350°C for 2 hours. Rust, grease and moisture on the weldment should be removed before welding.

Chemical Composition of SJ431 (%)

SiO ₂	CaF ₂	Al ₂ O ₃ +MnO	CaO+MgO	FeO	S	P
40-44	3-7	35-42	7-14	≤1.80	≤0.06	≤0.08

Mechanical Properties of the Deposited Metal with Wire EL12

Tested Items	Yield Point σ s(Mpa)	Tensile Strength σ b(Mpa)	Elongation σ 5(%)	Impact Value akv (-20°C)(J)
Average Results	≥400	≥500	≥22	≥48



SJ601

Specification: HOCr21Ni10,HOOCr21Ni10 and HOCr19Ni12Mo2

Applications:

It can weld low-carbon steel,super-low carbon steel and highalloy heat-resisting steel,and is fit for multiway welding.

Characteristics: SJ601 is a specialized alkali sintered flux

Metallurgical behavior:

Less loss of chrome and good intergranular corrosion resistance

Grain Size: 10 to 60 mesh

Basicity: 1.8(BI IW)

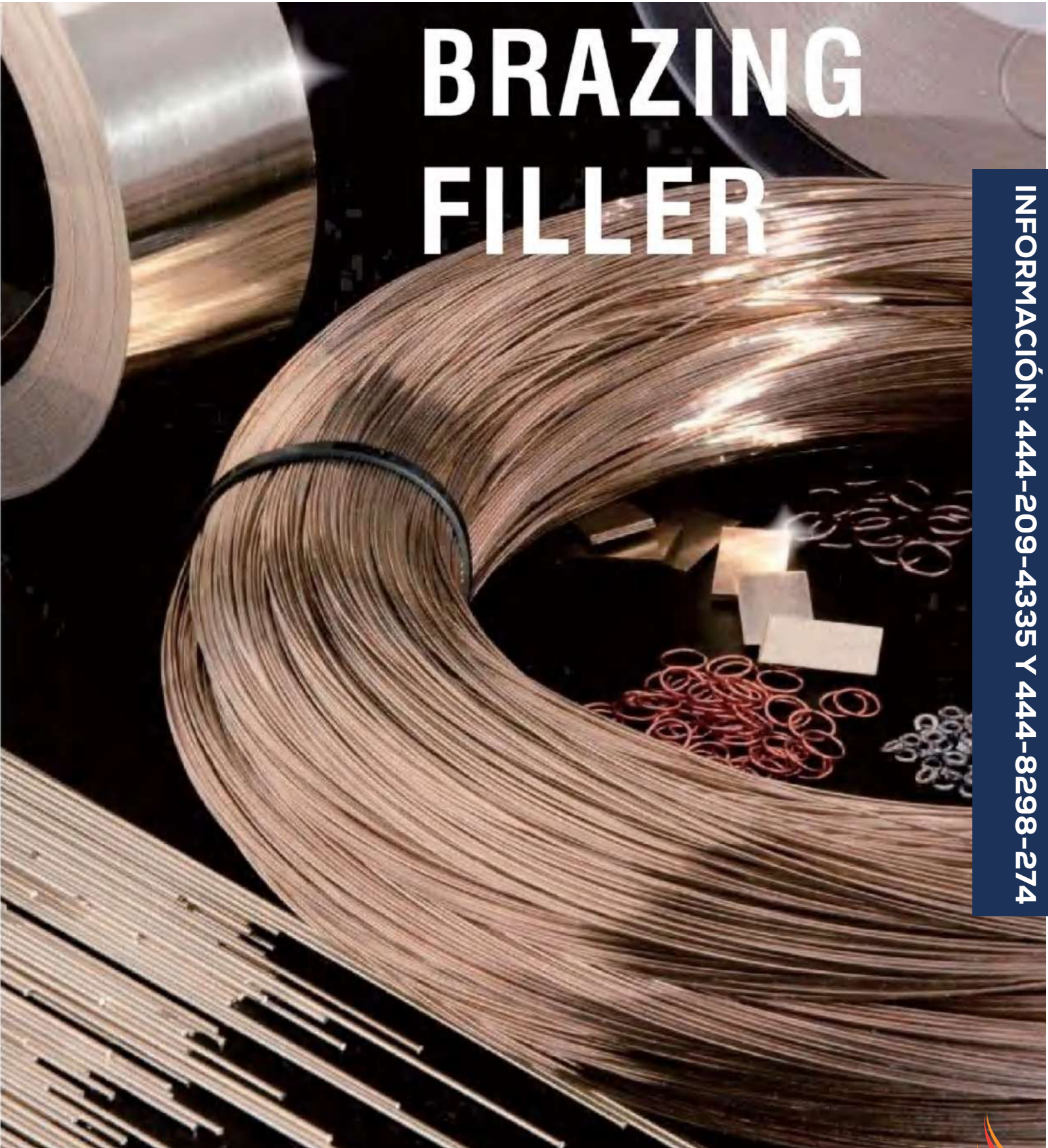
Damp flux should be re-dried at 300-350°C for 2 hours. Rust, grease and moisture on the weldment should be removed before welding.

Chemical Composition of SJ601 (%)

SiO ₂ +TiO ₂	Al ₂ O ₃ +MnO	CaO+MgO	CaF ₂	S	P
5-10	30-40	7-14	40-50	≤0.06	≤0.06

Mechanical Properties of the Deposited Metal with Wire EL12

Wires	Standard Models	Tensile Strength σ b(Mpa)	Elongation σ 5(%)
HOCr21Ni10	F308-HOCr21Ni10	≥520	≥30
HOOCr21Ni10	F308L-HOOCr21Ni10	≥480	≥25



INFORMACIÓN: 444-209-4335 Y 444-8298-274

Silver-copper-zinc Alloys Brazing Filler Metals

The product owns good properties such as low melting point, excellent wettability and ability to fill the clearances, high mechanical strength, good plasticity, electrical conductivity and corrosion resistance. It is used for brazing of some ferrous metals and some non-ferrous metals, such as stainless steel, carbon steel, hard alloys, copper and copper alloys, diamond etc. It is applied widely in the industries of machinery, electro mechanical, refrigeration, glasses, instrument, hard alloys and aerospace.

Code	Composition %						Melting Range °C		Standard
	Zn	Ag	Cu	Sn	In	Ni	SOL	LIQ	AWS A5.8
BAG5CuZn	Remain	4-6	54-56				820	870	
BAG10CuZn	Remain	9-11	52-54				810	850	
BAG12CuZn	Remain	11-13	47-49				800	830	
BAG20CuZn	Remain	19-21	43-45				690	810	
BAG25CuZn	Remain	24-26	39-41				700	790	
BAG30CuZn	Remain	29-31	37-39				680	765	BAG-20
BAG35CuZn	Remain	34-36	31-33				685	775	BAG-35
BAG40CuZn	Remain	39-41	30-32				675	755	
BAG45CuZn	Remain	44-46	29-31				665	745	BAG-5
BAG50CuZn	Remain	49-51	33-35				690	775	BAG-6
BAG60CuZn	Remain	59-61	25-27				695	730	
BAG63CuZn	Remain	62-64	23-25				690	730	
BAG65CuZn	Remain	64-66	19-21				670	720	BAG-9
BAG70CuZn	Remain	69-71	19-21				690	740	BAG-10
BAG25CuZnSn	Remain	24-26	39-41	1.5-2.5			680	760	BAG-37
BAG30CuZnSn	Remain	29-31	35-37	1.5-2.5			665	755	
BAG34CuZnSn	Remain	33-35	35-37	2.0-3.5			630	730	
BAG37CuZnSnSi	Remain	36-38	30-32	0.8-1.5			650	740	
BAG38CuZnSn	Remain	37-39	35-37	1.5-2.5			650	720	BAG-34
BAG40CuZnSn	Remain	39-41	29-31	1.5-2.5			650	710	BAG-28
BAG45CuZnSn	Remain	44-46	26-28	2.0-3.0			640	680	BAG-36
BAG55CuZnSn	Remain	54-56	20-22	1.5-2.5			630	660	
BAG56CuZnSn	Remain	55-57	21-23	4.5-5.5			620	655	BAG-7
BAG60CuZnSn	Remain	59-61	22-24	2.0-4.0			620	685	
BAG30CuZnIn	Remain	29-31	37-39		4.5-5.5		640	755	
BAG34CuZnIn	Remain	33-35	34-36		0.8-1.2		660	740	
BAG40CuZnIn	Remain	39-41	29-31		4.5-5.5		635	715	
BAG40CuZnNi	Remain	39-41	29-31			1.5-2.5	670	780	BAG-4
BAG50CuZnNi	Remain	49-51	19-21			1.5-2.5	660	705	BAG-24
BAG54CuZnNi	Remain	53-55	37.5-42.5			0.5-1.5	720	855	BAG-13
BAG34CuZnNiSn	Remain	33-35	31-33	1.2-2.2		0.3-0.8	630	730	
BAG40CuZnNiSn	Remain	39-41	24-26	2.7-3.3		1.3-1.65	630	640	
BAG50CuZnNiSn	Remain	49-51	20.5-22.5	0.7-1.3		0.3-0.65	650	670	

Various specification and forms available: rod, ring, wire, strip

Silver Cadmium Alloys Brazing Filler Metals

The solder with high silver and cadmium content has high humidity, good fluidity, and the melting point is the lowest among all silver based solders. However, cadmium and its oxides are toxic. Special safety measures must be taken during welding, such as excellent exhaust system and protective cover.

Code	Composition %					Melting Range °C		Density	Standard
	Ag	Cu	Zn	P	Cd	SOL	LIQ	g/cm³	AWS A5.8
BAG20Cd	20	40	25		15	620	750	8.7	
BAG25Cd	25	30	27.5		17.5	605	710	8.8	BAG-33
BAG30Cd	30	28	21		21	610	690	9.1	BAG-2a
BAG34Cd	34	22	24		20	610	670	9.1	BAG-2
BAG40Cd	40	19	21		20	595	630	9.3	
BAG45Cd	45	15	16		24	605	630	9.4	BAG-1
BAG50Cd	50	15	16		19	620	640	9.5	BAG-1a



Silver Copper Alloys Brazing Filler Metals

Silver Copper Alloys is a kind of silver-based solid solution, copper-based solid solution, or Ag+Cu based brazing filler metals. It has good properties such as appropriate melting point, excellent wettability and ability to fill the clearances, high mechanical strength of brazing joints, good plasticity and electrical conductivity. It is applied to the brazing of ferrous metals and non-ferrous metals, such as copper alloys, titanium alloys, stainless steel, carbon steel and hard alloys. The product is used widely in the industries of vacuum electric, refrigeration, lighting, machinery, electric appliance, instrument, tools aerospace, etc. Brazing with silver flux is necessary to get good brazing joint except vacuum brazing or protective atmosphere brazing.

Code	Composition %						Melting Range °C		Standard
	Ag	Cu	Si/In	Ni	Ge	Co	SOL	LIQ	AWS A5.8
BAG50Cu	49-51	49-51					779	850	
BAG72Cu	71-73	27-29					779	779	BAG-8
BAG71CuNi	70-72	Remain		0.5-1.0			779	795	
BAG70CuGeCo	69-71	Remain			1.0-3.0	0.1-0.5			
BAG60CuSn	59-61	29-31	9.5-10.5				600	730	BAG-18
BAG56CuNi	55-57	41-43		1.5-2.5			770	895	BAG-13a
BAG56CuInNi	55-57	26.25-28.25	13.5-15.5	2.0-2.5			600	710	
BAG63CuSnNi	62-64	27.5-29.5	5.0-7.0	2.0-3.0			690	800	BAG-21

Various specification and forms available: brazing rods, rings, wires, strips, pastes, etc.

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Copper Phosphorus Alloys Brazing Filler Metals

The product has good fluidity and is applied in the resistance brazing, flame brazing and high frequency brazing. It is used in brazing of copper and copper alloys, but not in brazing of ferrous metals. The product is applied widely in the industries of refrigeration, household appliances, electric machinery, electric appliance and instrument etc. Flux is unnecessary when brazing copper as phosphorus plays a role of flux.

Code	Composition %						Melting Range °C		Standard
	Cu	P	Sn	Si	Sb	Ni	SOL	LIQ	
BCu95P	Remain	4.8-5.3					710	925	
BCu94P	Remain	5.9-6.5					710	890	
BCu93P	Remain	6.8-7.5					710	793	BCuP-2
BCu92P	Remain	7.5-8.1					710	770	
BCu87PSn(Si)	Remain	6.0-7.0	6.0-7.0	0.01-0.40			635	675	BCuP-9
BCu86SnP	Remain	6.4-7.2	6.5-7.5				650	700	
BCu86SnPNI	Remain	4.8-5.8	7.0-8.0			0.4-1.2	620	670	
BCu90PSn	Remain	6.5-7.0	2.0-4.0				650	730	
BCu92PSb	Remain	5.6-6.4			1.8-2.2		690	825	
Various specification and forms available: rod, ring, wire									

Copper-phosphorus-silver Alloys Brazing Filler Metals

Copper phosphorus solder is widely used in brazing copper and copper alloy. It has good fluidity, good brazing properties and low melting point, which can replace some high silver solder. The brazing joint has high mechanical strength and smooth surface. Flux is unnecessary when brazing copper. However an appropriate flux is recommended when brazing copper alloys in order to get a high quality brazing joint. The product is applied widely in the industries of refrigeration, machinery, electro mechanical, electric appliance and instrument etc.

Code	Composition %						Melting Range °C		
	Cu	P	Ag	Sn	In	Ni	SOL	LIQ	
BCu92AgP	Remain	5.9-6.7	1.5-2.5				645	825	
BCu91AgP	Remain	6.8-7.2	1.8-2.2				643	788	BCuP-6
BCu89AgP	Remain	5.8-6.2	4.8-5.2				645	815	BCuP-3
BCu88AgP	Remain	6.5-7.0	4.8-5.2				643	771	BCuP-7
BCu87AgP	Remain	7.0-7.5	5.8-6.2				643	813	BCuP-4
BCu80AgP	Remain	4.8-5.2	14.5-15.5				645	800	BCuP-5
BCu75AgPSn	Remain	6.0-7.0	17.0-19.0	0.3-0.8			640	676	
BCu75AgP	Remain	5.8-6.3	19.0-21.0				645	645	
BCuAg5PSn	Remain	4.8-5.8	4.5-5.5	9.5-10.5			560	650	
BCuAg2PNiSn	Remain	5.8-7.8	2.5-5.0	0.05-0.08		0.01-0.1	630	710	
BCuAg2PInNi	Remain	6.5-7.5	1.8-2.2		0.8-1.2	0.1-0.5	640	690	
BCu89PAgIn	Remain	6.8-7.5	2.0-3.0		0.8-1.2		630	680	
Various specification and forms available: rod, ring, wire, strip									

High Copper Brazing Filler Metals

The product is applied to the brazing of carbon steel work pieces, applied extensively in industries of mechanical, electronic, electric appliance, instrument meter, electronic device, household appliance, refrigeration, automobile accessory and bicycle etc.

Code	Composition %						Melting Range °C		Standard
	Cu	Ag	Ni	Si	Mn	Impurity	SOL	LIQ	
BCu100-A	≥99.95					≤0.03	1083	1150	BCu-3
BCu100-B	≥99.9					≤0.04	1083	1150	BCu-1b
BCu100(P)	≥99.9					≤0.06	1083	1150	BCu-1
BCu99(Ag)	Remain	0.8-1.2				≤0.15	1070	1080	
BCu97Ni	Remain		2.5-3.5			≤0.15	1083	1100	

Copper-zinc Alloys Brazing Filler Metals

The product is applied to brazing by rapid heating, such as flame brazing, high frequency brazing, resistance brazing, and is used for brazing of copper, copper alloys, steel, cast iron and hard alloys.

Code	Composition %						Melting Range °C		Standard
	Zn	Cu	Sn	Si	Mn	Ni	SOL	LIQ	
BCu36Zn	Remain	34-38					800	823	
BCu48Zn	Remain	46-50					860	870	
BCu54Zn	Remain	53-55					885	888	
BCu58ZnMn	Remain	57-59			3.7-4.3		880	909	
BCu60ZnSn(Si)	Remain	59-61	0.8-1.2	0.15-0.35			890	905	
BCu60Zn(Si)	Remain	58.5-61.5		0.2-0.4			875	895	
BCu59Zn(Sn)	Remain	57-61	0.2-0.5				875	895	
BCu58ZnSn(Ni)(Mn)(Si)	Remain	56-60	0.8-1.1	0.1-0.2	0.2-0.5	0.2-0.8	870	890	
BCu48ZnNi(Si)	Remain	46-50		0.15-0.20		9.0-11.0	890	920	

Special Copper-based Alloys Brazing Filler Metals

The product is applied to brazing of steel and hard alloys, applied in the industries of machinery, electromechanical, refrigeration, automobile and bicycle etc. It is a product tailor-made for different customers to meet special needs.

Code	Composition %									Melting Range °C	
	Cu	Al	Fe	Mn	Ni	P	Si	Sn	Zn	SOL	LIQ
BCu88Sn(P)	Remain					0.01-0.04		11.0-13.0		825	990
BCu98Sn(Si)(Mn)	Remain	≤0.01	≤0.03	0.1-0.4	≤0.10	≤0.015	0.1-0.4	0.5-1.0		1020	1050
BCu97SiMn	Remain	≤0.01	≤0.10	0.5-1.5		≤0.02	1.5-2.0	0.1-0.3	≤0.20	1030	1050
BCu96SiMn	Remain	≤0.05	≤0.20	0.7-1.3		≤0.05	2.7-3.2		≤0.40	980	1035
BCu92AlNi(Mn)	Remain	4.5-5.5	≤0.50	0.1-1.0	1.0-2.5		≤0.10		≤0.20	1040	1075
BCu92Al	Remain	7.0-9.0	≤0.50	≤0.50	≤0.50		≤0.20	≤0.10	≤0.20	1030	1040
BCu89AlFe	Remain	8.5-11.5	0.5-1.5				≤0.10		≤0.02	1030	1040
BCu74MnAlFeNi	Remain	7.0-8.5	2.0-4.0	11.0-14.0	1.5-3.0		≤0.10		≤0.15	945	985
BCu84MnNi	Remain	≤0.05	≤0.50	11.0-14.0	1.5-5.0		≤0.10	≤1.00	≤1.00	965	1000

Powder/ Paste

Component	Silver Solder Powder, Aluminum Solder Powder, Copper Solder Powder, Nickel Solder Powder
Usage	The brazing alloy paste is made with special adhesive for brazing, so as to be applied to the welding area of the parts to be welded. In addition, the powder can be directly coated to the welding area by spraying, screening and covering.

Strip

Component	Silver Alloy Brazing Filler Metals, Copper Alloy Brazing Filler Metals, Aluminum Alloy Brazing Filler Metals
Thickness	0.1 mm, 0.2 mm and 0.3 mm, and the minimum amorphous band is 0.03 mm
Form	Rectangular or Rolled
Packing	1 Kg / bag, 10 Kg / box
Usage	1. Manual feeding: the solder patch is adhered to the area to be welded under the action of flux paste. 2. Use with automation equipment: automatic film feeding equipment and cutting equipment are used together. 3. Suitable for welding in furnace: preset and welded surface in advance.

Wire

Component	Silver alloy Brazing Filler Metals, copper alloy Brazing Filler Metals, aluminum alloy Brazing Filler Metals, nickel alloy Brazing Filler Metals
Diameter	Generally, it is between 0.5mm-2.5mm
Packing	5 kg / plate, 10 kg / plate, 20 kg / plate
Usage	1. Solder wire dipped with flux paste 2. Heat solder wire with fire and dip solder powder 3. Solder wire shall be used after the flux is pre coated on the welded part 4. Automation

Rod

Component	Silver Alloy Brazing Filler Metals, Aluminum Alloy Brazing Filler Metals, Copper Alloy Brazing Filler Metals, Nickel Alloy Brazing Filler Metals
Diameter	Generally between 0.2mm-6mm, commonly used are 0.5mm, 0.8mm, 1.0mm, 1.5mm, 2.0mm, 2.5mm, 3.0mm
Length	500mm / 1000mm
Packing	500mm-1kg / bag, 20kg / box 1000mm-5kg / bag, 30kg / box
Usage	1. Solder bar dipped with flux paste 2. Heat solder bar with fire and dip solder powder 3. Solder bar is used after flux is pre coated on the welded part 4. Automation

Ring

Component	Silver Alloy Brazing Filler Metals, Aluminum Alloy Brazing Filler Metals, Copper Alloy Brazing Filler Metals, Nickel Alloy Brazing Filler Metals
Diameter	0.5mm-2.0mm
Turns	Generally 1-5 turns, the wire diameter and the number of turns should be adjusted according to the heating speed
Packing	1 kg / bag, 10 kg / box
Usage	1. Manual flame welding 2. High frequency welding (best application) 3. Cooperate with the automatic ring machine

Flux has lower melting point than brazing filler metal, good surface activity. It can break or dissolve metallic oxides on the surface of work and brazing alloys and remove residues generated during the process, which is good for the liquid brazing alloy wetting the surfaces to permit adequate migration of the filler metal in order to get good quality joint. Flux is used in most of cases. It is widely applied in brazing of copper-based and silver filler metals.

Code	Composition %					Temperature Range applicable / °C		Form
	K3BO3	KF	KBF4	K2O3	K2CO3			
FB101	29-31		69-71			550	850	Powder
FB102		41-43	22-24	34-36		600	850	Powder
FB103			94-96		4.0-6.0	550	750	Powder
FB105G	< 50	> 20	> 25			550	850	Paste
QJ501Y	Boric acid, methyl borate, methanol, surfactant etc					650	850	Powder
QJ403	methyl borate, methanol, surfactant etc					> 450		Powder



INFORMACIÓN: 444-209-4335 Y 444-8298-274



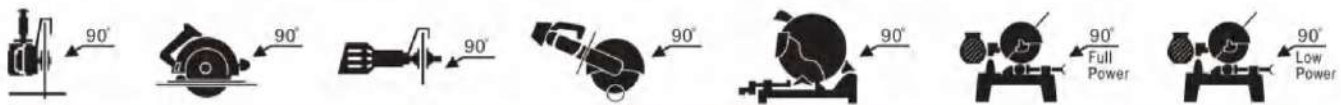
Flap discs

Art no. 116.00

MATERIAL	Aluminium oxide, Zirconium oxide, Ceramic aluminium oxide or Black silicon carbide abrasives. Fiber or plastic body. Flat or tapered profile.
APPLICATION	Removing materials, edges, chamferings, burrs rust, trimming of weld joints, surface cleaning and finishing.
FEATURES	Powerful and quick sharpening, preventing workpieces from being burnt. High grinding efficiency, good safety in use and long service life.
GRIT RANGE	24-120
DISCS	Dia. 50mm, Dia. 75mm, Dia. 100mm, Dia. 115mm, Dia. 125mm, Dia. 150mm, Dia. 180mm.

Working Angle

The only permitted angle for cutting wheels is 90° to the material (Type 41-flat).



Type 42-depressed centered



Type 27grinding ideal angle varies from 15° to 30°



Safety hints for using cut-off wheel

-Be stored in dry environment to keep from moisture;
-Be gentle while fetching or putting down to avoid falling off or being hurt;
-Check the rated revolution and make sure not exceed the maximum operating rate;
-Shut off the power or compress the air while installing the abrasion wheel;
-Do not take down the protective cover of the grinding equipment while grinding;
-Keep the job site in clean environment and in good order, to protect workman from being tripped by electric wires or gas pipes;
-Fix the workpieces to be grinded, to prevent them from sliding and hurting workman;
-Do not twist the flange too tightly while installing;
-Spin without grinding anything for 30 seconds after start the equipment to check if there is any abnormal condition;
-Wear earphone, mouth-muffle and safety glasses, and it is strictly forbidden to handle and grind the workpiece on the side of the cutting disc.



Common problem and solution for cut-off wheel



Possible causes

The cutting wheel consumption fast
The hardness level of wheel is low
The grinding pressure is too huge



Solution

Select and adopt the models with high hardness level
Decrease the grinding pressure

The inner bores of cutting disc craze
The cutting disc gets stuck in the workpiece
The cutting disc is used to grind
The pressure of side direction is too huge
The diameter of inner side and outer side is inconsistent

Move forward and backward evenly, and exert pressure along the diametrical direction.
Use the grinding disc in grinding process
Avoid to exert pressure in side direction
Apply the flange plate with the same diameter in inner side and outer side

The edge crazes while the abrasion wheel is cutting
The diameter of the flange plate is too small

Replace the flange plate with large diameter and generally the diameter of flange plate should be required to reach 1/3 of that of the abrasion wheel

The loading pressure of the flange is so huge that the flange edge of abrasion wheel deforms.

Adjust the pressure of the flange and abrasion wheel to a reasonable level

It is used with improper force while cutting.
The diameter of the flange plate is too small.

Decrease the load while cutting and reduce the pressure in side direction

The fracture of workpieces is burnt severely
The hardness of abrasion wheel is over high
The work rate of the equipment is low

Adopt the abrasion wheel of low hardness level and high efficiency.
Replace it with high work rate

Fibreglass Reinforced Flat Cut-off Wheel

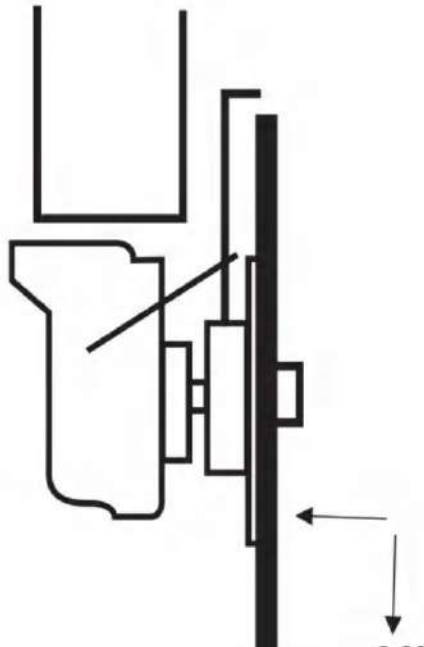
Art no.200.00

Operation symbol
The products of this series are suitable for cutting and fluting stainless steel tubes, steel plates, walled tubes

Key points for best results
Hold your right angle grinder at 90° for cutting or fluting
Run the cut-off wheel according to the highest possible speed marked on the wheel.

Choose the abrasive grain as follow:
a) A—for general metal
b) ZA or WA—for stainless steel
c) C or GC—for non metal, stone etc

Features:
Made of special sharp abrasive material
Owning long service life and high performance
High security and universal application



Size(mm) (DiaxDepthxHole)	Max Speed Rounds/Minute	Application		
		Metal	Stone	Stainless steel
100x1.0/1.2x16	15300	Art no.200.001	Art no.200.101	Art no.200.201
100x1.0/1.6x16	15300	Art no.200.002	Art no.200.102	Art no.200.202
100x1.0/2.0x16	15300	Art no.200.003	Art no.200.103	Art no.200.203
100x1.0/2.5x16	15300	Art no.200.004	Art no.200.104	Art no.200.204
100x1.0/3.0x16	15300	Art no.200.005	Art no.200.105	Art no.200.205
115x0.8x22.23	13300	Art no.200.006	Art no.200.106	Art no.200.206
115x1.0x22.23	13300	Art no.200.007	Art no.200.107	Art no.200.207
115x1.6x22.23	13300	Art no.200.008	Art no.200.108	Art no.200.208
115x2.0x22.23	13300	Art no.200.009	Art no.200.109	Art no.200.209
115x2.5x22.23	13300	Art no.200.010	Art no.200.110	Art no.200.210
115x3.0x22.23	13300	Art no.200.011	Art no.200.111	Art no.200.211
125x0.8x22.23	12250	Art no.200.012	Art no.200.112	Art no.200.212
125x1.0x22.23	12250	Art no.200.013	Art no.200.113	Art no.200.213
125x1.6x22.23	12250	Art no.200.014	Art no.200.114	Art no.200.214
125x2.0x22.23	12250	Art no.200.015	Art no.200.115	Art no.200.215
125x2.5x22.23	12250	Art no.200.016	Art no.200.116	Art no.200.216
125x3.0x22.23	12250	Art no.200.017	Art no.200.117	Art no.200.217
150x1.6x22.23	10200	Art no.200.019	Art no.200.119	Art no.200.219
150x2.0x22.23	10200	Art no.200.020	Art no.200.120	Art no.200.220
150x2.5x22.23	10200	Art no.200.021	Art no.200.121	Art no.200.221
150x3.0x22.23	10200	Art no.200.022	Art no.200.122	Art no.200.222
180x1.6x22.23	8500	Art no.200.024	Art no.200.124	Art no.200.224
180x1.8x22.23	8500	Art no.200.025	Art no.200.125	Art no.200.225
180x2.0x22.23	8500	Art no.200.026	Art no.200.126	Art no.200.226
180x2.5x22.23	8500	Art no.200.027	Art no.200.127	Art no.200.227
180x3.0x22.23	8500	Art no.200.028	Art no.200.128	Art no.200.228
230x1.6x22.23	6650	Art no.200.030	Art no.200.130	Art no.200.230
230x2.0x22.23	6650	Art no.200.031	Art no.200.131	Art no.200.231
230x2.5x22.23	6650	Art no.200.032	Art no.200.132	Art no.200.232
230x3.0x22.23	6650	Art no.200.033	Art no.200.133	Art no.200.233
300x3.0x25.4	5100	Art no.200.034	Art no.200.134	Art no.200.234
350x3.0x25.4	4400	Art no.200.035	Art no.200.135	Art no.200.235
400x3.0x25.4	3850	Art no.200.036	Art no.200.136	Art no.200.236
300x3.5x25.4	5100	Art no.200.037	Art no.200.137	Art no.200.237
350x3.5x25.4	4400	Art no.200.038	Art no.200.138	Art no.200.238
400x3.5x25.4	3850	Art no.200.039	Art no.200.139	Art no.200.239
300x4.0x25.4	5100	Art no.200.040	Art no.200.140	Art no.200.240
350x4.0x25.4	4400	Art no.200.041	Art no.200.141	Art no.200.241
400x4.0x25.4	3850	Art no.200.042	Art no.200.142	Art no.200.242
300x3.0x30	5100	Art no.200.043	Art no.200.143	Art no.200.243
350x3.0x32	4400	Art no.200.044	Art no.200.144	Art no.200.244
400x3.0x32	3850	Art no.200.045	Art no.200.145	Art no.200.245
300x3.5x32	5100	Art no.200.046	Art no.200.146	Art no.200.246
350x3.5x32	4400	Art no.200.047	Art no.200.147	Art no.200.247
400x3.5x32	3850	Art no.200.048	Art no.200.148	Art no.200.248
300x4.0x32	5100	Art no.200.049	Art no.200.149	Art no.200.249
350x4.0x32	4400	Art no.200.050	Art no.200.150	Art no.200.250

Fibreglass Reinforced Depressed Center Cutting Wheels

Art no.201.00

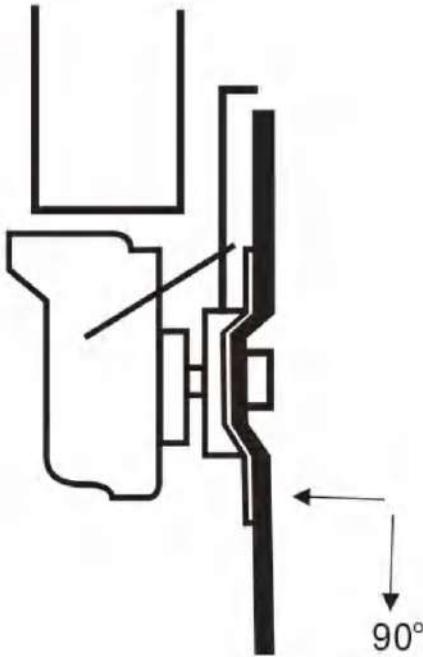
The products of this series are suitable for grinding welding points, welding line and grinding surface of common metals, stainless steels, non-metals, non-ferrous metals, etc

Key points for best results Hold your right angle grinder at 90° with notcher.
Run the gringer according to the highest possible speed marked on the wheel
Higher power and speed of the grinder, higher efficiency

Choose the abrasive grain as follow:

Choose the abrasive grain as follow:

- a) A—for general metal
- b) ZA or WA—for stainless steel
- c) C or GC-for non metal , stone etc



Size(mm) (DiaxDepthxHole)	Max Speed Rounds/Minute	Application		
		Metal	Stone	Stainless steel
100x1.6x16	15300	Art no.201.000	Art no.201.100	Art no.201.200
100x2.0x16	15300	Art no.201.001	Art no.201.101	Art no.201.201
100x2.5x16	15300	Art no.201.002	Art no.201.102	Art no.201.202
100x3.0x16	15300	Art no.201.003	Art no.201.103	Art no.201.203
100x3.5x16	15300	Art no.201.004	Art no.201.104	Art no.201.204
115x1.6x22.23	13300	Art no.201.005	Art no.201.105	Art no.201.205
115x2.0x22.23	13300	Art no.201.006	Art no.201.106	Art no.201.206
115x2.5x22.23	13300	Art no.201.007	Art no.201.107	Art no.201.207
115x3.0x22.23	13300	Art no.201.008	Art no.201.108	Art no.201.208
125x1.6x22.23	12250	Art no.201.009	Art no.201.109	Art no.201.209
125x2.0x22.23	12250	Art no.201.010	Art no.201.110	Art no.201.210
125x2.5x22.23	12250	Art no.201.011	Art no.201.111	Art no.201.211
125x3.0x22.23	12250	Art no.201.012	Art no.201.112	Art no.201.212
150x1.6x22.23	10200	Art no.201.013	Art no.201.113	Art no.201.213
150x2.0x22.23	10200	Art no.201.014	Art no.201.114	Art no.201.214
150x2.5x22.23	10200	Art no.201.015	Art no.201.115	Art no.201.215
150x3.0x22.23	10200	Art no.201.016	Art no.201.116	Art no.201.216
180x1.6x22.23	8500	Art no.201.017	Art no.201.117	Art no.201.217
180x2.0x22.23	8500	Art no.201.018	Art no.201.118	Art no.201.218
180x2.5x22.23	8500	Art no.201.019	Art no.201.119	Art no.201.219
180x3.0x22.23	8500	Art no.201.020	Art no.201.120	Art no.201.220
230x1.6x22.23	6650	Art no.201.021	Art no.201.121	Art no.201.221
230x2.0x22.23	6650	Art no.201.022	Art no.201.122	Art no.201.222
230x2.5x22.23	6650	Art no.201.023	Art no.201.123	Art no.201.223
230x3.0x22.23	6650	Art no.201.024	Art no.201.124	Art no.201.224
300x3.0x25.4	5100	Art no.201.025	Art no.201.125	Art no.201.225
350x3.0x25.4	4400	Art no.201.026	Art no.201.126	Art no.201.226
400x3.0x25.4	3850	Art no.201.027	Art no.201.127	Art no.201.227
300x3.5x25.4	5100	Art no.201.028	Art no.201.128	Art no.201.228
350x3.5x25.4	4400	Art no.201.029	Art no.201.129	Art no.201.229
400x3.5x25.4	3850	Art no.201.030	Art no.201.130	Art no.201.230
300x4.0x25.4	5100	Art no.201.031	Art no.201.131	Art no.201.231
350x4.0x25.4	4400	Art no.201.032	Art no.201.132	Art no.201.232
400x4.0x25.4	3850	Art no.201.033	Art no.201.133	Art no.201.233
300x3.0x30	5100	Art no.201.034	Art no.201.134	Art no.201.234
350x3.0x32	4400	Art no.201.035	Art no.201.135	Art no.201.235
400x3.0x32	3850	Art no.201.036	Art no.201.136	Art no.201.236
300x3.5x32	5100	Art no.201.037	Art no.201.137	Art no.201.237
350x3.5x32	4400	Art no.201.038	Art no.201.138	Art no.201.238
400x3.5x32	3850	Art no.201.039	Art no.201.139	Art no.201.239
300x4.0x32	5100	Art no.201.040	Art no.201.140	Art no.201.240
350x4.0x32	4400	Art no.201.041	Art no.201.141	Art no.201.241
400x4.0x32	3850	Art no.201.042	Art no.201.142	Art no.201.242

Fibreglass Reinforced Depressed Center Grinding Wheels

Art no.202.00

Application

Used for grinding and polishing soldered dots, weld joints and the surface of common metals, stainless steel, nonmetal and nonmagnetic cast iron. Apply to steel structure, construction, casting, etc

Choose the abrasive grain as follow:

- a) A—for general metal
- b) ZA or WA—for stainless steel
- c) C or GC-for non metal, stone etc

Features:

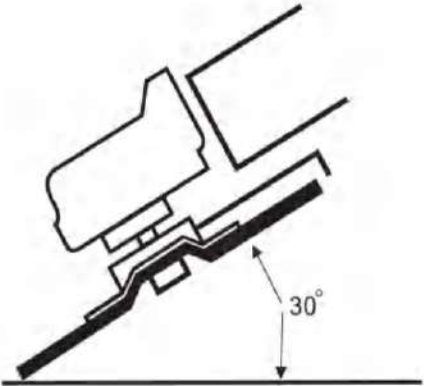
Sharp, with long service life and superior cost performance

Key points for best results

Hold your right angle grinder at 30° with notcher

Run the grinder according to the highest possible speed marked on the wheel.

Higher power and speed of the grinder, higher efficiency.



Size(mm) (DiaxDepthxHole)	Max Speed Rounds/Minute	Application		
		Metal	Stone	Stainless steel
100x3.0x16	15300	Art no.202.000	Art no.202.100	Art no.202.200
100x4.0x16	15300	Art no.202.001	Art no.202.101	Art no.202.201
100x6.0x16	15300	Art no.202.003	Art no.202.103	Art no.202.203
100x7.0x16	15300	Art no.202.004	Art no.202.104	Art no.202.204
115x3.0x22.23	13300	Art no.202.006	Art no.202.106	Art no.202.206
115x4.0x22.23	13300	Art no.202.007	Art no.202.107	Art no.202.207
115x6.0x22.23	13300	Art no.202.009	Art no.202.109	Art no.202.209
115x7.0x22.23	13300	Art no.202.010	Art no.202.110	Art no.202.210
125x3.0x22.23	12250	Art no.202.012	Art no.202.112	Art no.202.212
125x4.0x22.23	12250	Art no.202.013	Art no.202.113	Art no.202.213
125x6.0x22.23	12250	Art no.202.015	Art no.202.115	Art no.202.215
125x7.0x22.23	12250	Art no.202.016	Art no.202.116	Art no.202.216
150x3.0x22.23	10200	Art no.202.018	Art no.202.118	Art no.202.218
150x6.0x22.23	10200	Art no.202.021	Art no.202.121	Art no.202.221
180x3.0x22.23	8500	Art no.202.024	Art no.202.124	Art no.202.224
180x6.0x22.23	8500	Art no.202.027	Art no.202.127	Art no.202.227
180x7.0x22.23	8500	Art no.202.028	Art no.202.128	Art no.202.228
180x8.0x22.23	8500	Art no.202.029	Art no.202.129	Art no.202.229
230x3.0x22.23	6650	Art no.202.030	Art no.202.130	Art no.202.230
230x6.0x22.23	6650	Art no.202.033	Art no.202.133	Art no.202.233

Warrior

Extra - thin disc
Incomparable Durability

Features:

High speed cutting	Lower heat output
Incomparable durability	Less wastage of raw material
Easily control and comfortable cut	Excellent sharpness and availability
Reduce the consumer of the energy	Excel in grain retention and fray resistance

Size(mm):115x1 .0 / 1.2 / 1.6x22.23, 125x1 .0 / 1.2 / 1.6x22.23
Dia x Depth x Hole : 180x1 .6x22.23, 230x1 .8x22.23

Excalibur

Features:
Permanently sharp, when high-Performance is required.
Self-sharpening cutting and grinding tools for longer lifetime in the toughest conditions

Size(mm): (Dia x Depth x Hole) 105x1.2x16, 115x1 .0x22.23, 125x1 .0x22.23

Monkey King

Features:
• Shorter working times
• Less physical
• Longer lifetime
• Shorter set-up time

Size(mm): (Dia x Depth x Hole) 105x1.2x16, 115x1 .0x22.23, 125x1 .0x22.23



Extended +30% Performance

Art no.200.530

Application:
Stainless steel & Metal.

Extremely Powerful--30% higher efficiency
Extremely Economical-- Minimum costs per cut

Size(mm):105x1.2x16, 115x1 .2 / 1.6x22.23, 125x1 .2 / 1.6x22.23,
Dia x Depth x Hole : 1 50x1 .6x22 .23, 180x 1.6x22 .23, 230x 1.6 / 1 .9x22.23

Multiuse

Art no.200.CGF

Features:
It combines three operations in one product-Cutting, Grinding and Finishing.
Run the grinding according to the highest possible speed marked on the wheel.
Higher power and speed of the grinder, higher efficiency.
Made of special sharp abrasive materials
Long service life.
High security and universal application.

Size(mm):
(Dia x Depth x Hole) 100x2.2x16, 115x2.2x22.23, 125x2.5x22.23

Multicorte

Art no.200.511

Application:
Metal, Stainless steel, Aluminium, Stone, PVC, Tiles

Extremely Powerful--Multicore
Extremely Economical-- Minimum costs per cut

Size(mm):

Cup Brush



Art no.600.00



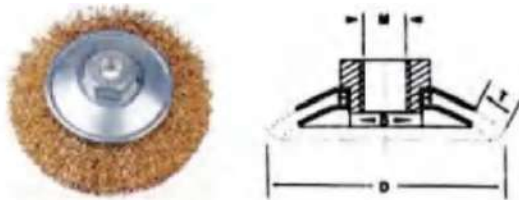
D	M	Rpm.max	Qty	Carton Dimension	NW/GW
mm/inch	mm	mm	pcs/ctn	cm	kgs
65/2 - 1/2"	10x1.25/10x1.5/14x2	12500	100	39x39x28	12/14
75/3"	10x1.25/10x1.5/14x2 5/8" - 11NC	12500	100	42x42x31	18/20
85/3- 2/5"	10x1.5/14x2 5/8" - 11NC	12500	100	42x42x31	20/22
100/4"	14x2/16x2 5/8" - 11NC	8500	60	43x33x42	21/23
125/5"	14x2/16x2 5/8" - 11NC	6500	40	54x50x27	21/23
150/6"	14x2/16x2 5/8" - 11NC	4500	20	49x32x32	18/20



Art no.600.01

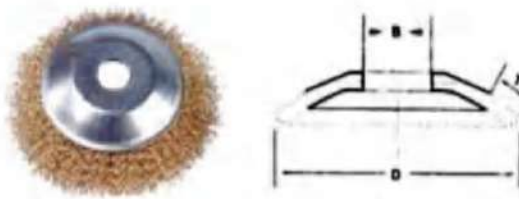
D	M	Rpm.max	Qty	Carton Dimension	NW/GW
mm/inch	mm	mm	pcs/ctn	cm	kgs
65/2 - 1/2"	10x1.25/10x1.5/14x2	12500	100	39x39x28	12/14
75/3"	10x1.25/10x1.5/14x2 5/8" - 11NC	12500	100	42x42x31	18/20
85/3- 2/5"	10x1.5/14x2 5/8" - 11NC	12500	100	42x42x31	20/22
100/4"	14x2/16x2 5/8" - 11NC	8500	60	43x33x42	21/23
125/5"	14x2/16x2 5/8" - 11NC	6500	40	54x50x27	21/23
150/6"	14x2/16x2 5/8" - 11NC	4500	20	49x32x32	18/20

Bevel Brush



Art no.600.03

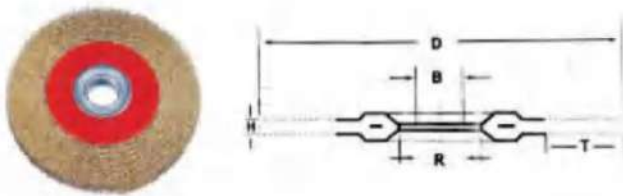
D	M	Rpm.max	Qty	Carton Dimension	NW/GW
mm/inch	mm	mm	pcs/ctn	cm	kgs
100/4"	14x2/16x2 5/8" - 11NC	10000	100	54x46x23	18/20
115/4 - 1/2"	14x2/16x2 5/8" - 11NC	10000	80	49x46x26	18/20



Art no.600.04

D	M	Rpm.max	Qty	Carton Dimension	NW/GW
mm/inch	mm	mm	pcs/ctn	cm	kgs
100/4"	14x2/16x2 5/8" - 11NC	10000	100	54x46x23	18/20
115/4 - 1/2"	14x2/16x2 5/8" - 11NC	10000	80	49x46x26	18/20

Machinery Circular Brush



Art no.600.05

D	B	R	T	H	Rpm.max	Qty	Carton Dimension	NW/GW
mm/inch	mm	mm	mm	mm		pcs/ctn	cm	kgs
100/4"	1/2" 5/8"	20	20	18	6000	100	53x33x23	18/20
125/5"	1/2" 5/8"	20	33	18	6000	60	41x35x27	18/20
150/6"	1/2" 5/8" 3/4" 7/8" 1"	32	30	20	6000	40	37x33x33	20/22
175/7"	1/2" 5/8" 3/4" 7/8" 1"	32	42	22	6000	20	37x37x20	15/17
200/8"	1/2" 5/8" 3/4" 7/8" 1"	32	42	22	4500	20	43x38x22	17/19
250/10"	1/2" 5/8" 3/4" 7/8" 1"	32	47	25	3600	20	53x38x27	25/27
300/12"	1/2" 5/8" 3/4" 7/8" 1"	32	50	25	3000	10	40x32x32	15/17

Cup Brush



Art no.600.00



D	M	Rpm.max	Qty	Carton Dimension	NW/GW
mm/inch	mm	mm	pcs/ctn	cm	kgs
65/2 - 1/2"	10x1.25/10x1.5/14x2	12500	100	39x39x28	12/14
75/3"	10x1.25/10x1.5/14x2 5/8" - 11NC	12500	100	42x42x31	18/20
85/3- 2/5"	10x1.5/14x2 5/8" - 11NC	12500	100	42x42x31	20/22
100/4"	14x2/16x2 5/8" - 11NC	8500	60	43x33x42	21/23
125/5"	14x2/16x2 5/8" - 11NC	6500	40	54x50x27	21/23
150/6"	14x2/16x2 5/8" - 11NC	4500	20	49x32x32	18/20

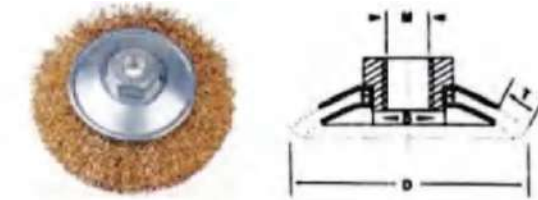


Art no.600.01

D	M	Rpm.max	Qty	Carton Dimension	NW/GW
mm/inch	mm	mm	pcs/ctn	cm	kgs
65/2 - 1/2"	10x1.25/10x1.5/14x2	12500	100	39x39x28	12/14
75/3"	10x1.25/10x1.5/14x2 5/8" - 11NC	12500	100	42x42x31	18/20
85/3- 2/5"	10x1.5/14x2 5/8" - 11NC	12500	100	42x42x31	20/22
100/4"	14x2/16x2 5/8" - 11NC	8500	60	43x33x42	21/23
125/5"	14x2/16x2 5/8" - 11NC	6500	40	54x50x27	21/23
150/6"	14x2/16x2 5/8" - 11NC	4500	20	49x32x32	18/20

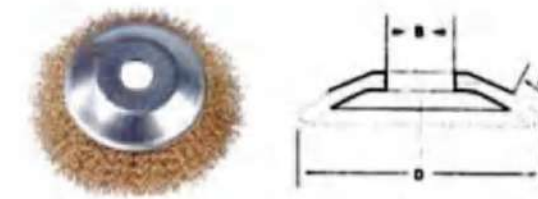
Bevel Brush

Art no.600.03



D	M	Rpm.max	Qty	Carton Dimension	NW/GW
mm/inch	mm	mm	pcs/ctn	cm	kgs
100/4"	14x2/16x2 5/8" - 11NC	10000	100	54x46x23	18/20
115/4 - 1/2"	14x2/16x2 5/8" - 11NC	10000	80	49x46x26	18/20

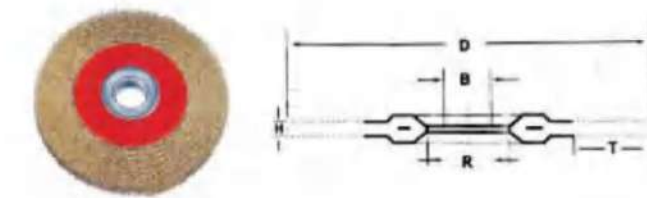
Art no.600.04



D	M	Rpm.max	Qty	Carton Dimension	NW/GW
mm/inch	mm	mm	pcs/ctn	cm	kgs
100/4"	14x2/16x2 5/8" - 11NC	10000	100	54x46x23	18/20
115/4 - 1/2"	14x2/16x2 5/8" - 11NC	10000	80	49x46x26	18/20

Machinery Circular Brush

Art no.600.05



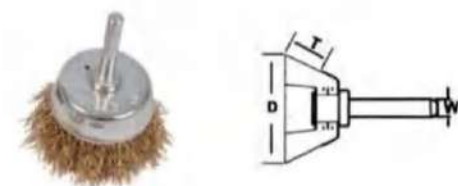
D	B	R	T	H	Rpm.max	Qty	Carton Dimension	NW/GW
mm/inch	mm	mm	mm	mm		pcs/ctn	cm	kgs
100/4"	1/2" 5/8"	20	20	18	6000	100	53x33x23	18/20
125/5"	1/2" 5/8"	20	33	18	6000	60	41x35x27	18/20
150/6"	1/2" 5/8" 3/4" 7/8" 1"	32	30	20	6000	40	37x33x33	20/22
175/7"	1/2" 5/8" 3/4" 7/8" 1"	32	42	22	6000	20	37x37x20	15/17
200/8"	1/2" 5/8" 3/4" 7/8" 1"	32	42	22	4500	20	43x38x22	17/19
250/10"	1/2" 5/8" 3/4" 7/8" 1"	32	47	25	3600	20	53x38x27	25/27
300/12"	1/2" 5/8" 3/4" 7/8" 1"	32	50	25	3000	10	40x32x32	15/17



Cup Brush with Shaft

Art no.600.06

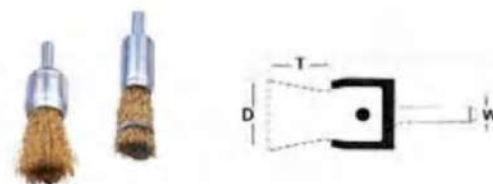
D	W	T	Rpm.max	Qty	Carton Dimension	NW/GW
mm/inch	mm	mm		pcs/ctn	cm	kgs
50/2"	50/2"	16	4500	120	34x23x34	8/10
65/2 1/2"	65/2 1/2"	18	4500	120	55x34x39	11/13
75/3"	75/3"	20	4500	120	55x34x39	13/15



End Brush

Art no.600.07

D	W	T	Rpm.max	Qty	Carton Dimension	NW/GW
mm/inch	mm	mm		pcs/ctn	cm	kgs
12/1/2"	6	20	4500	300	57x23x34	6/8
17/17/25"	6	22	4500	300	57x23x34	9/11
25/1"	6	26	4500	250	57x23x34	15/17
28/1 - 1/8"	6	30	4500	200	57x23x34	13/15



Circular Brush with Shaft

Art no.600.08

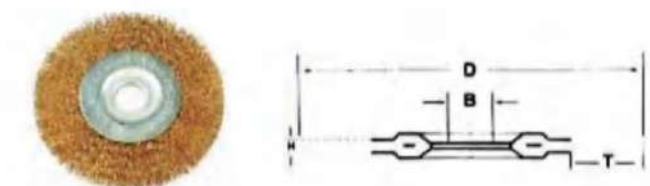
D	W	T	H	Rpm.max	Qty	Carton Dimension	NW/GW
mm/inch	mm	mm	mm		pcs/ctn	cm	kgs
40/1 - 3/5"	6	10	8	4500	300	57x23x34	7/8
50/2"	6	10	8	4500	300	57x23x24	12/14
65/2 1/2"	6	13	8	4500	200	68x34x39	11/13
75/3"	6	15	10	4500	200	68x34x39	15/17
100/4"	6	23	13	4500	120	54x45x38	13/15



Circular Brush

Art no.600.09

D	B	T	H	Rpm.max	Qty	Carton Dimension	NW/GW
mm/inch	mm	mm	mm		pcs/ctn	cm	kgs
75/3"	1/2"	15	10	4500	200	68x34x39	16/18
100/4"	1/2" 5/8"	23	12	4500	160	62x37x41	16/18
125/5"	1/2" 5/8"	19	18	4500	120	56x45x34	20/22
150/6"	1/2" 5/8"	33	20	3750	60	54x31x41	15/17
200/8"	1/2" 5/8"	42	22	3750	40	53x44x33	15/17



Used for polishing, removing rust, burr etc

Cup Brush, Knotted

Art no.600.10

D	M	T	Rpm.max	Qty	Carton Dimension	NW/GW
mm/inch	mm	mm		pcs/ctn	cm	kgs
65/2 1/2"	10x1.5/10x1.25 5/8" - 11NC	20	12500	60	42x34x23	16/18
75/3"	10x1.5/10x1.25 5/8" - 11NC	22	12500	45	42x34x23	21/23
100/4"	14x2/16x2 5/8" - 11NC	26	8500	30	43x33x19	21/23
125/5"	14x2 5/8" - 11NC	30	6500	24	51x38x22	24/26



Bevel Brush, Knotted with Shaft

Art no.600.11(A)



D	M	T	Rpm.max	Qty	Carton Dimension	NW/GW
mm/inch	mm	mm		pcs/ctn	cm	kgs
75/3"	6	17	4500	120	55x34x39	13/15
100/4"	6	21	4500	120	62x37x41	16/18

Bevel Brush, Knotted

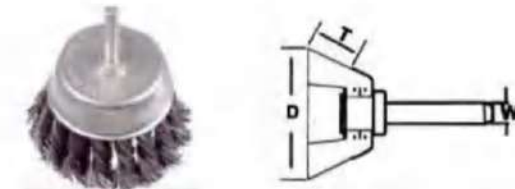
Art no.600.11(B)



D	M	T	Rpm.max	Qty	Carton Dimension	NW/GW
mm/inch	mm	mm		pcs/ctn	cm	kgs
65/2 1/2"	14x2 / 16x2	24	12500	120	37x37x26	22/26
75/3"	14x2 / 16x2	24	12500	120	43x43x32	25/29
100/4"	14x2 / 16x2	24	10000	50	58x25x43	20/22
125/5"	14x2 / 16x2	24	10000	30	41x28x42	16/18

Cup Brush, Knotted with Shaft

Art no.600.12



D	M	T	Rpm.max	Qty	Carton Dimension	NW/GW
mm/inch	mm	mm		pcs/ctn	cm	kgs
65/2 1/2"	6	18	4500	120	55x34x39	18/20
75/3"	6	20	4500	120	55x34x39	20/22

Used for removing stain, rust, paint etc

Cup Brush, Knotted

Art no.600.13



D	M	T	Rpm.max	Qty	Carton Dimension	NW/GW
mm/inch	mm	mm		pcs/ctn	cm	kgs
65/2 1/2"	14x2 / 16x2	23	12500	100	39x39x27	19/21
75/3"	14x2 / 16x2	22	12500	100	42x42x31	23/25
100/4"	14x2 / 16x2	24	8500	60	43x33x42	24/26
125/5"	14x2 / 16x2	25	6500	40	54x50x27	24/26
150/6"	14x2 / 16x2	26	4500	20	40x22x22	22/25

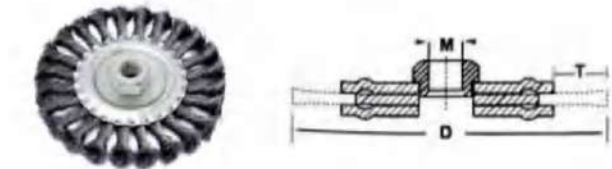
Wheel Brush, Knotted

Art no.600.15



D	M	T	Rpm.max	Qty	Carton Dimension	NW/GW
mm/inch	mm	mm		pcs/ctn	cm	kgs
100/4"	13 / 16 / 22.2	20.5	11000	100	53x33x23	20/22
125/5"	10x1.5/10x1.25 5/8" - 11NC	31	11000	60	41x35x27	18/20
150/6"	22.2 / 25.4	30	9000	40	37x33x33	20/22
175/7"	22.2 / 25.4 / 40 / 50.38	38	9000	20	37x37x20	16/18
200/8"	22.2 / 25.4 / 40 / 50.38	40	6500	20	43x38x22	20/22

Art no.600.16



D	M	T	Rpm.max	Qty	Carton Dimension	NW/GW
mm/inch	mm	mm		pcs/ctn	cm	kgs
100/4"	14x2 5/8" - 11NC	20.5	11000	60	34x29x23	12/14
125/5"	14x2 5/8" - 11NC	31	11000	60	40x29x27	18/20
150/6"	14x2 5/8" - 11NC	30	9000	40	33x29x34	20/22
175/7"	14x2 5/8" - 11NC	38	9000	20	39x29x20	14/16
200/8"	14x2 5/8" - 11NC	40	6000	20	43x29x22	19/21

Knife Brush / Wooden(Plastic) Handle Brush

Art no.600.17



D	Qty	Carton Dimension	NW/GW
mm/inch	pcs/ctn	cm	kgs
260x140	120	61x28x26	15/16
3row	120	43x31x38	13/14
4row	120	43x31x40	
5row	120	43x31x42	

Used for polishing, removing rust, burrs etc

Steel Wire Wheel Assortment

Art no.600.18



Spec	Qty	Qty	Qty
inch/no.	set/ctn	cm	kgs
3" Art no.600.06	120	55x34x39	13/15
4" Art no.600.09	120	54x45x38	13/15



Art no.600.19

Spec	Qty	Qty	Qty
inch/no.	set/ctn	cm	kgs
2" Art no.600.06 / 3" Art no.600.08	80	45x31x42	11/13
3" Art no.600.06 / 4" Art no.600.08	48	52x42x27	10/12



Art no.600.20

Spec	Qty	Qty	Qty
inch/no.	set/ctn	cm	kgs
2" 2.5" 3" Art no.600.09	120	55x34x39	18/20
1" Art no.600.07 / 2" Art no.600.08 / 2" Art no.600.06	120	46x33x35	18/20



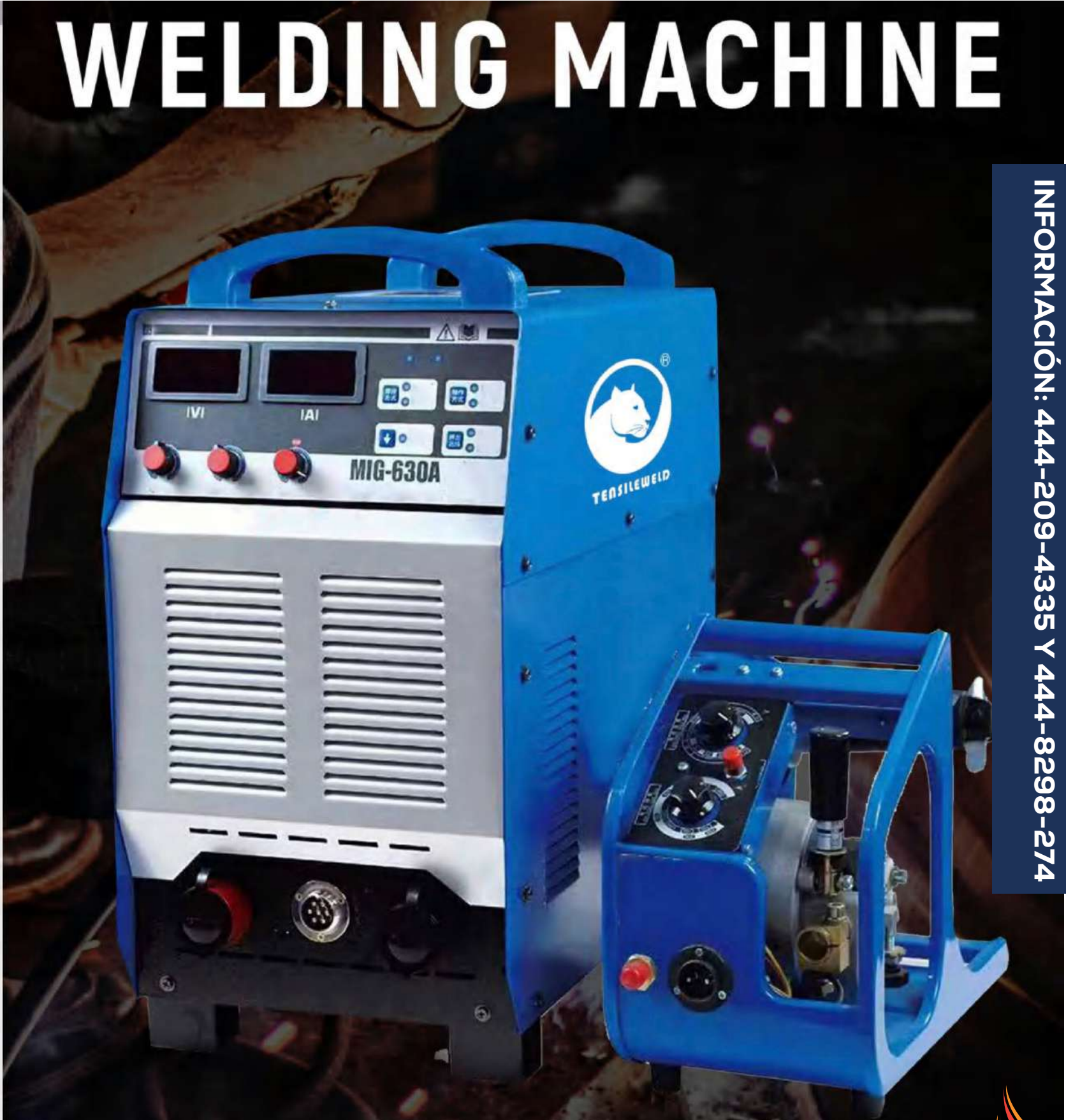
Art no.600.21

Spec	Qty	Qty	Qty
inch/no.	set/ctn	cm	kgs
1" 1.5" 2" 2.5" 3" Art no.600.09	100	57x23x34	20/22
1" Art no.600.07 / 2" Art no.600.08 / 2" Art no.600.06	48	54x50x41	16/18



Art no.600.22

Spec	Qty	Qty	Qty
inch/no.	set/ctn	cm	kgs
2" Art no. 600.06 / 1.5" 2" 2.5" 3" 4" Art no. 600.08	48	54x40x41	18/20



INFORMACIÓN: 444-209-4335 Y 444-8298-274

MIG-350



MIG-500E



● TECHNICAL PARAMETERS

Model No.	Dimension(mm)	Weight(Kg)	Supply voltage	Input currenton	Current range	Un-load voltage	Rated output	Rated duty cycle	Efficiency
MIG- 350E	572*295*530	39.5	220V	30A	30-350A	75V	14-38V	60%	≥85%
MIG- 500E	610*310*580	49	3-380V	15A-43A	60-500A	70V	14-45V	60%	≥85%

MIG-225D



MIG-270SY



● TECHNICAL PARAMETERS

Model No.	Dimension(mm)	Weight(Kg)	Supply voltage	Input currenton	Current range	Un-load voltage	Rated output	Rated duty cycle	Efficiency
MIG-225D	370*180*230	15	2-220V	9A-15A	60A- 140A	56V	24.5V	40%	≥87%
MIG-270SY	455*260*500	30	220V/380V	13A-20A	60A- 240A	56V	28V	60%	≥87%



MÁS INFORMACIÓN:

FRANCISCO JAVIER JUÁREZ CHÁVEZ

444-209-4335

pjuarez230179@gmail.com

TELÉSFORO ROSALES PAZ

444-8298-274

telesfororosalospaz58@gmail.com

www.cinasa-slp.com



REMAIN

• JC •