

Consumables for Manual and Gravity Metal Arc Welding.

(Approved in Accordance with Section 3)

This list was compiled on 6 October 2008 and is subject to subsequent alterations, additions and deletions. If further information is required about the approval status of a specific consumable, enquiries should be made to the Materials & Non-destructive Examination Department.

SECTION 3 Manual and Gravity Electrodes

Supplier Type Trade Name of Consumable	Welding Position	Joint Type	Grade+Technique	Low Hydrogen
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ARGENTINA**CONARCO S.A.**

Conarco 10	DXVuO	BF	2m	NR
Conarco 11	DXVuO	BF	2m	NR
Conarco 11AC	DXVu	BF	2m	NR
Conarco 15	DXVuO	BF	3m	H15
Conarco 18	DXVuO	BF	3Ym	H10
Conarco 18E	DXVuO	BF	3m	H10
Conarco 24	DX	BF	2m	NR

AUSTRALIA**WELDING INDUSTRIES OF AUSTRALIA**

Austarc 11	DXVudO	BF	3m	NR
Austarc 12P	DXVuO	BF	2m, 2Ym	No
Austarc 13S	DXVuO	BF	2m	NR
Austarc 16TC	DXVuO	BF	3m, 4Ym	H10
Austarc 24	D	BF	2m, 2Ym	No
Austarc 77	DXVuO	BF	3m, 4Ym	H5

AUSTRIA**BOHLER SCHWEISSTECHNIK AUSTRIA GMBH**

Bohler Fox 2.5Ni	DXVuO	BF	5Y42m	H15
Bohler Fox 4800	DXVuO	BF	3m, 3Ym	H15
Bohler Fox 7018	DXVuO	BF	3m, 3Ym	H15
Bohler Fox ETI	DXVuO	BF	2m	NR
Bohler Fox EV 47	DXVuO	BF	3m	H5
Bohler Fox EV 50	DXVuO	BF	3m, 3Ym	H5
Bohler Fox KE	DXVuO	BF	2m	NR
Bohler Fox KES	DXVuO	BF	2m	NR
Bohler Fox OHV	DXVuO	BF	2m	NR
Bohler Fox TMF	DXVudO	BF	2m	NR
Fox HL 180 Ti	D	BF	2m	NR
Phoenix CEL 70	DXVdO	BF	3m, 3Ym	No
Phoenix CEL 75	DXVdO	BF	3Ym	No
Phoenix CEL 80	DXVdO	BF	3Ym	No

BANGLADESH**BANGLADESH WELDING ELECTRODES LTD**

Volta Marine	DXVudO	BF	3m	NR
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**BOC BANGLADESH LIMITED
DHAKA PLANT**

Bolcraft	DXVudO	BF	2m	NR
Ferrocrafft 11	DXVuO	BF	3m	NR
Ferrocrafft 61	DXVuO	BF	3m, 3Ym	H15
Ferrocrafft 7016	DXVuO	BF	3Ym	H10
Ferrospeed	DXVuO	BF	1m	NR
Ferroweld 1	DXVuO	BF	3Ym	H15
Vortic Marine	DXVuO	BF	3m	NR

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Supplier Type Trade Name of Consumable	Welding Position	Joint Type	Grade+Technique	Low Hydrogen
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BELGIUM**LASTEK BELGIUM N.V.**

Lastek 001	DXVuO	BF	2m	NR
Lastek 005	DXVuO	BF	2m	NR
Lastek 006	DXVuO	BF	3Ym	No
Lastek 007	DXVudO	BF	2m	NR
Lastek 008	DXVu	BF	2m	NR
Lastek 009	DXVuO	BF	3m	No
Lastek 1130	DXVuO	BF	2m, 2Ym	No
Lastek 20	DXVuO	BF	3m, 3Ym	No

BOSNIA & HERZEGOVINA, REPUBLIC OF**ELVACO**

EL E27R	DXVuO	BF	3m	NR
EL E61B	DXVuO	BF	3Ym	H15

BRAZIL**ESAB S/A - INDUSTRIA E COMERCIO**

OK 22.45 P	DXVudO	BF	3m	NR
OK 22.46P	DXVudO	BF	3m, 3Ym	NR
OK 22.47P	DXVudO	BF	3m, 3Ym	No
OK 22.65P	DXVudO	BF	3m	NR
OK 33.80	D	BF	2m, 2Ym	No
OK 46.00	DXVuO	BF	2m	NR
OK 48.04	DXVuO	BF	3m, 3Ym	H15
OK 55.00	DXVuO	BF	3m, 3Ym	H5
Pipeweld 6010 Plus	DXVudO	BF	3m	NR

BULGARIA**"ELECTRODES" JSC**

MARTA M	DXVuO	BF	3m, 3Ym	H15
NORD	DXVuO	BF	3m, 4Ym	H5
OK 48.60	DXVuO	BF	3m, 3Ym	H5
VEJEN	DXVuO	BF	2m	NR

CANADA**AIR LIQUIDE CANADA INC**

LA 7018	DXVuO	BF	3m, 3Ym	H5
LA 7024	D	BF	2m, 2Ym	No
LA 7028	D	BF	3m, 3Ym	H10
LA 8018-C1	DXVuO	BF	5Y40m	H5
LA ULTRA 11	DXVuO	BF	3m	NR

COREX CANADA INC.

Cor-Arc 7024	D	BF	3m, 3Ym	No
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LINCOLN ELECTRIC CO. OF CANADA LTD

Jetweld No. 1	D	BF	1m	NR
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Supplier Type Trade Name of Consumable	Welding Position	Joint Type	Grade+Technique	Low Hydrogen
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LINCOLN ELECTRIC COMPANY OF CANADA LTD (ARCWELD)

Arcweld Easy Arc 528 MR	DXVuO	BF	3m, 3Ym	H10
Easy Arc 12	D	BF	1m	NR
Easy Arc 14	DXVuO	BF	1m	NR

CHILE**INDURA S.A. INDUSTRIA Y COMERCIO**

170-LA	DXVuO	BF	3m, 3Ym	H10
AP-100	DXVuO	BF	2m	NR
Indura 230P(E6011)	DXVuO	BF	2m	NR
Indura 230S	DXVuO	BF	2m	NR
Indura 6010	DXVuO	BF	2m	NR
Indura 6011	DXVuO	BF	2m	NR
Indura 7018 AR-1	DXVuO	BF	2m, 2Ym	H5
Indura 7018RH	DXVuO	BF	3m, 3Ym	H15
Indura 8018/CO ₂	DXVuO	BF	3m, 3Ym	H10

M & H COMERCIAL E INDUSTRIAL LTDA

170-LA	DXVuO	BF	3m, 3Ym	H10
AP-100	DXVuO	BF	2m	NR

CHINA, PEOPLE'S REPUBLIC OF**ATLANTIC CHINA WELDING CONSUMABLES, INC.**

CHE40	DXVuO	BF	2m	NR
CHE42	DXVuO	BF	3m	NR
CHE421 Fe18	D	BF	2m	NR
CHE43	DXVuO	BF	2m	NR
CHE47	DXVuO	BF	3m	H15
CHE50	DXVuO	BF	3m, 3Ym	H15
CHE501 Fe18	D	BF	2Ym, 2m	NR
CHE56	DXVuO	BF	3m, 3Ym	H15
CHE58-1	DXVuO	BF	3m, 3Ym	H15

DANDONG JINXIUXIANG WELDING CONSUMABLES CO LTD

DD-J422	DXVuO	BF	3m	NR
DD-J507	DXVuO	BF	3m, 3Ym	H15

GUILIN WELDING ELECTRODE FACTORY

GH 421	DXVuO	BF	2m	NR
GH 422	DXVuO	BF	3m	NR
GH J507	DXVuO	BF	3m, 3Ym	H15
SR-018(J506)	DXVuO	BF	3m, 3Ym	H15

HANGZHOU WELDING ELECTRODES CO LTD

HH422	DXVuO	BF	3m	NR
HH507	DXVuO	BF	3Ym	H15
MT-12HH	DXVuO	BF	2m	NR

JINZHOU JIN TAI WELDING & METAL CO LTD

JL-50	DXVuO	BF	3m, 3Ym	H15
JL-507	DXVuO	BF	3m, 3Ym	H15
JL-508	DXVuO	BF	3m, 3Ym	H15

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Supplier Type Trade Name of Consumable	Welding Position	Joint Type	Grade+Technique	Low Hydrogen
JL-50D	DXVdO	BF	3m, 3Ym	H15
JL-56	D	BF	3m	NR
JINZHOU SWAN WELDING CONSUMABLE CO LTD				
JH-J422	DXVuO	BF	3m	NR
JH-J507	DXVuO	BF	3m, 3Ym	H15
JIUQUAN IRON & STEEL GROUP LANZHOU CHANGHONG WELDING MATERIAL CO LTD				
LHJ422	DXVuO	BF	3m	NR
KUNSHAN GINTUNE WELDING CO LTD				
GEL - 57	DXVuO	BF	3Ym	H10
MAGNA INDUSTRIAL CO LTD				
Magna 307	DXVuO	BF	1m	NR
SHANGHAI ATLANTIC WELDING CONSUMABLES CO LTD				
CHE 50	DXVuO	BF	3m, 3Ym	H15
CHE 58-1	DXVuO	BF	3m, 3Ym	H15
SHANGHAI WELDING EQUIPMENTS AND CONSUMABLES CO LTD				
SE 421	DXVuO	BF	2m	NR
SH 421.01	DXVuO	BF	2m	NR
SH 422.01	DXVuO	BF	3m	NR
SH 427.01	DXVuO	BF	3m	H15
SH 501.02	D	F	3m, 3Ym	No
SH 507.01	DXVuO	BF	3m, 3Ym	H15
SH E6013	DXVuO	BF	2m	NR
SH E7018	DXVuO	BF	3m, 3Ym	H15
SHENZHEN ATLANTIC WELDING ELECTRODE CO LTD				
CHE 40	DXVuO	BF	2m	NR
CHE 42	DXVuO	BF	3m	NR
CHE 50	DXVuO	BF	3m, 3Ym	H15
CHE 56	DXVuO	BF	3m, 3Ym	H15
SHIJIAZHUANG MAGIC WELDING CONSUMABLES CO LTD				
Magic MT-12(TJ421)	DXVuO	BF	2m	NR
SUNLI E4303(TJ422)	DXVuO	BF	3m	NR
SHIJIAZHUANG SPECIAL WELDING ELECTRODE FACTORY				
Magic MT-12 (TJ421)	DXVuO	BF	2m	NR
SUNLI E4303 (TJ422)	DXVuO	BF	3m	NR
SUPERTECH (KUNSHAN) CO LTD				
S-4301.I	DXVuO	BF	3m	NR
S-6013.LF	DXVuO	BF	2m	NR
S-7016.H	DXVuO	BF	3Ym	H15
S-7018.G	DXVuO	BF	3Ym	H15
S-7024.F	DX	BF	2Ym	No
TAIZHOU UNIVERSE WELDING MATERIAL CO LTD				
UNIVERSE J421 Fe18	D	BF	2m	NR
UNIVERSE J501 Fe18	D	BF	2m, 2Ym	NR

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UNIVERSE J506	DXVuO	BF	3m, 3Ym	H15
UNIVERSE TH 110	DXVuO	BF	2m	NR
UNIVERSE TH 112	DXVuO	BF	3m	NR
UNIVERSE TH 216 Fe	DXVuO	BF	3m, 3Ym	H15
UNIVERSE TH 217	DXVuO	BF	3m, 3Ym	H15
THE LINCOLN ELECTRIC (INNER MONGOLIA) WELDING CO LTD				
EASYARC 4301	DXVuO	BF	2m	NR
EASYARC 6012	DXVuO	BF	2m	
EASYARC 6013	DXVuO	BF	2m	No
EASYARC 7018	DXVuO	BF	3Ym	H10
EASYARC 7018-1	DXVuO	BF	3Ym	H5
JBS 6012	DXVuO	BF	2m	
THE NANJING LINCOLN ELECTRIC CO LTD				
EASYARC 6013	DXVuO	BF	2m	NR
EASYARC 7016	DXVuO	BF	3m, 3Ym	H15
NJ 421Fe18	D	BF	2m	NR
NJ-422	DXVuO	BF	3m	NR
NJ-507	DXVuO	BF	3m, 3Ym	H15
TIANJIN BRIDGE WELDING MATERIAL GROUP CO. LTD				
Bridge J421	DXVuO	BF	2m	NR
Bridge THJ422	DXVuO	BF	3m	NR
Bridge THJ506	DXVuO	BF	3m, 3Ym	H15
Bridge THJ506Fe	DXVuO	BF	3m, 3Ym	H15
Bridge THJ507	DXVuO	BF	3m, 3Ym	H15
TIANJIN GOLDEN BRIDGE WELDING MATERIALS GROUP CO LTD				
J 38.12 (J421)	DXVuO	BF	2m	NR
J 38.62 Fe 18 (J501 Fe 18)	D	BF	2m, 2Ym	NR
J 40.50 (J422)	DXVuO	BF	3m	NR
J 48.56 (J506)	DXVuO	BF	3m, 3Ym	H15
J 48.56 Fe (J506 Fe)	DXVuO	BF	3m, 3Ym	H15
J 48.56 Fe-1 (J506 Fe-1)	DXVuO	BF	3m, 4Ym	H5
J 48.57 (J507)	DXVuO	BF	3m, 3Ym	H15
TIANJIN GOLDEN BRIDGE WELDING MATERIALS GROUP CO LTD WUXI SHUOFANG BRANCH CO				
J40.50 (J422)	DXVuO	BF	3m	NR
TIANJIN MINMETALS CO LTD				
MT Brand MT6013	DXVuO	BF	2m	NR
Permanent (CENMET)(TJWELD) MT-12	DXVuO	BF	2m	NR
Permanent (CENMET)(TJWELD) MT-52	D	BF	2Ym	NR
Permanent(CENMET) (TJWELD) MT-48	DXVuO	BF	3m, 3Ym	H15
Permanent(CENMET) (TJWELD) MT-50	DXVuO	BF	3m	NR
TIANJIN PERMANENT WELDING CONSUMABLES CO LTD				
MT Brand MT6013	DXVuO	BF	2m	NR
RED TRIANGLE E5024	D	BF	2Ym	NR
Red Triangle E4303	DXVuO	BF	3m	NR

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Red Triangle E4313	DXVuO	BF	2m	NR
Red Triangle E5018	DXVuO	BF	3m, 3Ym	H15
TIANJIN YANQIAO WELDING MATERIALS CO LTD				
J 38.12 (J421)	DXVuO	BF	2m	NR
J 48.56 Fe (J506 Fe)	DXVuO	BF	3m, 3Ym	H15
TIEN TAI ELECTRODE (KUNSHAN) CO LTD				
TL-50	DXVuO	BF	3m, 3Ym	H15
TL-507	DXVuO	BF	3m, 3Ym	H10
TL-508	DXVuO	BF	3m, 3Ym	H15
TL-50D	DXVd	BF	3m, 3Ym	H15
TL-56	D	BF	3Ym, 3YG	H15
WUHAN ANCHOR WELDING CONSUMABLE CO. LTD. DALIAN BRANCH				
BH422	DXVuO	BF	2m	NR
BH507	DXVuO	BF	3m, 3Ym	H15
E5024	D	F	2m, 2Ym	H10
WUHAN ANCHOR WELDING CONSUMABLES CO LTD				
CJ 421	DXVuO	BF	2m	NR
CJ 421 FeZ	D	BF	2m	NR
CJ 422	DXVuO	BF	3m	NR
CJ 427	DXVuO	BF	3m	H15
CJ 501 FeZ	D	BF	2m, 2Ym	No
CJ 506	DXVuO	BF	3m, 3Ym	H15
CJ 506 Fe	DXVuO	BF	3m, 3Ym	H15
CJ 507	DXVuO	BF	3m, 3Ym	H15
XIAMEN LUGUANG WELDING CONSUMABLES CO LTD				
LGE 4303	DXVuO	BF	2m	NR
XUZHOU ZHENG GUANG WELDING MATERIAL FACTORY				
ZGHE 5016	DXVuO	BF	3m, 3Ym	H15
ZGHE 5018	DXVuO	BF	4Ym	H15
ZGHE 5024	D	BF	2m, 2Ym	H15
ZGHE 6013	DXVuO	BF	2m	NR
ZHUZHOU XIANGJIANG WELDING ELECTRODE CO LTD				
ZE J422	DXVuO	BF	3m	NR
ZIBO QILU WELDING INDUSTRY CO LTD				
QILU E4303	DXVuO	BF	3m	NR
QILU E4313	DXVuO	BF	2m	NR
QILU E5016	DXVuO	BF	3m, 3Ym	H15
QILU E5018	DXVuO	BF	3m, 3Ym	H15
QILU E5024	D	BF	2m	NR
COLOMBIA				
ELECTROMANUFACTURAS S.A.				
ACP 611SS	DXVuO	BF	2m	NR
WIZ 18	DXVuO	BF	3m, 3Ym	H15
XL 610	DXVuO	BF	2m	NR
ZIP 10T (E-6010)	DXVuO	BF	2m	NR

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ZIP 24	DX	BF	1m	NR
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CROATIA**ELEKTRODA ZAGREB D.D**

EZ-11F	DXVuO	BF	2m	NR
EZ-130	D	BF	2m, 2Ym	No
EZ-180R	DX	BF	2m	NR
EZ-50 B	DXVuO	BF	3m, 3Ym	H15
EZ-8 RC	DXVudO	BF	2m	NR

CYPRUS**A. EPIPHANIOU INDUSTRIES LTD.**

Inter-Round	DXVudO	BF	1m	NR
Intercito 6010	DXVudO	BF	1m	NR
Intercito 7018	DXVuO	BF	3m, 3Ym	H15
Intercord 180	D	BF	1m	NR
Intercord-M	DXVuO	BF	2m	NR
Interfixe	DXVuO	BF	1m	NR

EGYPT, ARAB REPUBLIC OF**EGYPTIAN SWEDISH WELDING ELECTRODES CO., S.A.E.**

ES 32.00 (E6013)	DXVuO	BF	2m	NR
ES 45.00 (E7018)	DXVuO	BF	3m, 3Ym	H15
OK 46.50 (E6013)	DXVuO	BF	2m	NR
OK 48.04EG	DXVuO	BF	3m, 3Ym	H15
OK 53.68 EG	DXVuO	BF	3Y40m	H15
OK 55.00 EG	DXVuO	BF	3m, 3Ym	H15

INDUSTRIAL GASES CO.

El-Sharara	DXVuO	BF	1m	NR
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KADESIA ENGINEERING INDUSTRIES "BOHLER EGYPT"

Bohler Kadesia EV50I-E7018	DXVuO	BF	3m, 3Ym	H5
Bohler Kadesia CEL-E6010	DXVudO	BF	3m, 3Ym	NR
Bohler Kadesia CEL75-E7010G, P1	DXVudO	BF	3m, 3Ym	No
Bohler Kadesia CEL85-E8010G, P1	DXVudO	BF	3m, 3Ym	No
Bohler Kadesia EV47-E7016-1	DXVuO	BF	3m, 3Ym	H15
Bohler Kadesia EV50IM-E7018	DXVuO	BF	3m, 3Ym	H15
Bohler Kadesia EV60-E8018G, C3	DXVuO	BF	3m, 3Ym	H15
Bohler Kadesia OHVI-E6013	DXVuO	BF	3m, 3Ym	No
Kadesia EG60-6010	DXVudO	BF	3m, 3Ym	No
Kadesia EG70-E7010-P1	DXVudO	BF	3m, 3Ym	No
Kadesia EG80-E8010-P1	DXVudO	BF	3m, 3Ym	No

OERLIKON EGYPT FOR ELECTRODES AND WELDING EQUIPMENT

FINCITO E E7018	DXVuO	BF	3m, 3Ym	H15
FINCORD (M) E E6013	DXVuO	BF	2m	NR
OVERCORD E E6012	DXVuO	BF	1m	NR

THE UNITED FOR TRADING & INDUSTRY (E. EL - GHAZAWI)

ELB 26	DXVuO	BF	2m	NR
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ELH 7018	DXVuO	BF	3m, 3Ym	H15
FINLAND				
WALLIUS HITSASKONEET OY				
KW 4600	DXVuO	BF	2m	NR
KW 4800	DXVuO	BF	3m, 3Ym	H15
FRANCE				
AIR LIQUIDE WELDING / BRAND OERLIKON				
OVERCORD Z	DXVudO	BF	2m	NR
LA SOUDURE AUTOGENE FRANCAISE				
FLEXAL 60	DXVudO	BF	3m	NR
FLEXAL 70	DXVudO	BF	3m, 3Ym	No
FLEXAL 80	DXVudO	BF	3m, 3Ym	No
SAFDRIY 510	DXVuO	BF	3m, 3Ym	H15
SAFDRIY 510A	DXVuO	BF	3m, 3Ym	H15
SAFDRIY 52	D	BF	3m, 3Ym	H15
SAFDRIY 58	DXVuO	BF	3m, 3Ym	H15
SAFDRIY PRESTIGE	DXVuO	BF	3m, 3Ym	H15
SAFER G47N	DXVu	BF	2m	NR
SAFER G53	DXVudO	BF	2m	NR
SAFER GF 200	D	BF	3Ym	No
SAFER GF130S	D	BF	2m, 2Ym	No
SAFER GTI	DXVudO	BF	3m, 3Ym	NR
SAFER L51	DXVudO	BF	2m	NR
SAFER MD 56	DXVuO	BF	4Y40m	H15
SAFER NF 510	DXVuO	BF	3m, 3Ym	H15
SAFER NF 510A	DXVuO	BF	3m, 3Ym	H15
SAFER NF 52	D	BF	3m, 3Ym	H15
SAFER NF 58	DXVuO	BF	3m, 3Ym	H15
SAFER Ni55	DXVuO	BF	5Y42m	H15
SAFER PRESTIGE	DXVuO	BF	3m, 3Ym	H15
Safer NF 510 P	DXVuO	BF	3m, 3Ym	H5
Safer NF 510 S	DXVuO	BF	3m, 3Ym	H5
OERLIKON SOUDURE FRANCE				
SUPERCITO 7018S	DXVuO	BF	3m, 3Ym	H15
SAUVAGEAU COMMERCY SOUDURE				
CY 2051	DXVuO	BF	3m, 3Ym	H15
Cymeta 17	DXVuO	BF	3m, 3Ym	H15
Cyruti R10	DXVudO	BF	2m	NR
Cyruti R15	DXVudO	BF	2m	NR
SELECTARC INDUSTRIES - FORGES DE SAINT-HIPPOLYTE				
Selectarc 51	D	BF	1m	NR
Selectarc 54	D	BF	1m	NR
Selectarc 55	D	BF	1m	NR
Selectarc D6	DXVd	BF	2m	NR

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GERMANY, FEDERAL REPUBLIC OF

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Firma 5520	DXVuO	BF	3m, 3Ym	H15
Firma 5520K	DXVuO	BF	3m	H15
Fox EV 51	DXVuO	BF	3m, 3Ym	H15
Fox HL 140 Ti	D	BF	2m, 2Ym	No
Fox HL 150 Ti	D	BF	2m, 2Ym	No
Fox HL 160	D	BF	3m, 3Ym	No
Fox HL 160 Ti	D	BF	2m	No
Fox MST	DXVudO	BF	2m	NR
Fox SPE	DXVuO	BF	2m, 2Ym	No
Fox SPEM	DXVuO	BF	2m, 2Ym	No
Hera Blau N	DXVudO	BF	2m	NR
Hera Rot N	DXVuO	BF	2m, 2Ym	No
Magna 5410S	DXVuO	BF	2m	NR
Optima 5312	DXVuO	BF	2m	NR
Rekord 510	DXVuO	BF	2m, 2Ym	No
Rekord Z 508	DXVudO	BF	2m	NR
Rekord Z 509	DXVudO	BF	2m, 2Ym	No

BOHLER SCHWEISSTECHNIK DEUTSCHLAND GMBH, HAMM

Kestra Blau	DXVuO	BF	2m	NR
Kestra Fe R 160	D	BF	3m, 3Ym	No
Kestra Fe Ti 160	D	BF	2m, 2Ym	No
Kestra Gelb	DXVudO	BF	2m	NR
Kestra Gelb S	DXVuO	BF	1m	NR
Kestra Kb AC	DXVuO	BF	3m, 3Ym	H15
Kestra Kb SE	DXVuO	BF	3m, 3Ym	H15
Kestra Kb Schwarz AN	DXVuO	BF	3m, 3Ym	H15
Phoenix 120 K	DXVuO	BF	3m, 3Ym	H15
Phoenix 6013	DXVudO	BF	2m, 2Ym	No
Phoenix 7018	DXVuO	BF	3m, 3Ym	H15
Phoenix Blau	DXVudO	BF	2m, 2Ym	No
Phoenix CEL 70	DXVdO	BF	3m, 3Ym	No
Phoenix CEL 75	DXVdO	BF	3Ym	No
Phoenix CEL 80	DXVdO	BF	3Ym	No
Phoenix E 7018 LH	DXVuO	BF	3m, 3Ym	H15
Phoenix Grun T	DXVuO	BF	2m	NR
Phoenix K 50	DXVuO	BF	3m, 3Ym	H15
Phoenix K 50 R	DXVuO	BF	3m	H15
Phoenix Rot AR 160	D	BF	3m, 3Ym	No
Phoenix Rot AR 160	D	F	3G, 3YG	No
Phoenix Rot BR 160	D	BF	3m, 3Ym	No
Phoenix Rot BR 160	D	F	3G, 3YG	No
Phoenix Rot R 160	D	BF	2m	NR
Phoenix Rot R 160S	D	BF	2m, 2Ym	No
Phoenix SH Blau	DXVuO	BF	2m	NR
Phoenix SH Gelb B	DXVuO	BF	3m	NR
Phoenix SH Gelb R	DXVuO	BF	3m, 3Ym	No
Phoenix SH Gelb S	DXVuO	BF	2m	NR
Phoenix SH Gelb T	DXVuO	BF	3m	NR
Phoenix SH Grun K 50 W	DXVuO	BF	3m, 3Ym	H15
Phoenix SH Grun K 52 W	DXVuO	BF	3m, 3Ym	H15
Phoenix SH Grun K 70	DXVuO	BF	3m, 3Ym	H15
Phoenix SH Lila R	DXVuO	BF	2m	NR
Phoenix SH Multifer 130	D	BF	2m, 2Ym	No

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Supplier Type Trade Name of Consumable	Welding Position	Joint Type	Grade+Technique	Low Hydrogen
Phoenix SH Multifer 180	D	BF	2m, 2Ym	No
Phoenix SH Ni 2K 70	DXVuO	BF	3Ym	H15
Phoenix SH Schwarz 3MK	DXVuO	BF	3Y40m	No
Phoenix SH V1	DXVuO	BF	5Y40m	H5
Phoenix Spezial D	DXVuO	BF	3m, 3Ym	H15
KJELLBERG ELEKTRODEN & MASCHINEN GMBH				
"LLOYD"	DXVuO	BF	2m	NR
Garant	DXVuO	BF	3m, 3Ym	H10
Garant K	DXVuO	BF	4Y40m	H10
Impuls	DXVu	BF	3m, 3Ym	H10
Kontakt 160	D	BF	2m, 2Ym	No
Lloyd Grun	DXVuO	BF	2m	NR
Optimal	DXVuO	BF	2m, 2Ym	No
Progress	DXVuO	BF	3m, 3Ym	H10
Titan	DXVuO	BF	2m	NR
Titan Rot	DXVuO	BF	2m	NR
OERLIKON SCHWEISSTECHNIK GMBH				
AC Blau-Rot P	DXVuO	BF	2m	NR
Citorapid	DXVuO	BF	3m	NR
Citorex	DXVuO	BF	3m	NR
OVERCORD Z	DXVuO	BF	2m	NR
Tenacito 38R	DXVuO	BF	5Y42m	H5
Tenacito 70	DXVuO	BF	5Y42m	H10
Tenacito R (Tenacito)	DXVuO	BF	3m, 3Ym	H15
UTP SCHWEISSMATERIALIEN GMBH/SOUDOKAY				
Comet J 50	DXVuO	BF	3m, 3Ym	H15
Comet J 50N	DXVuO	BF	3m, 3Ym	H15
Primafixe	DXVuO	BF	2m	NR
Soudorecord	DXVuO	BF	2m	NR
GREECE				
ERLIKON WIRE PROCESSING S.A.				
Ferrocito R	D	BF	2m	NR
Fincito	DXVuO	BF	3m, 3Ym	H10
Fincord M	DXVuO	BF	2m	NR
Fino	DXVuO	BF	2m, 2Ym	NR
Navacito	DXVuO	BF	3m	NR
Overcord S	DXVuO	BF	2m	NR
Rex	DXVuO	BF	2m	NR
Sidemar	DXVuO	BF	3m	NR
Super B	DXVuO	BF	3Y40m	H15
Supercito	DXVuO	BF	3m, 3Ym	H15
Tenacito	DXVuO	BF	3m, 3Ym	H15
HUNGARY				
ESAB-MOR KFT - ARCOS				
Navalend 25	DXVuO	BF	2m	NR
Navalend 30	DXVuO	BF	2m	NR

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Supplier Type Trade Name of Consumable	Welding Position	Joint Type	Grade+Technique	Low Hydrogen
ESAB-MOR KFT - ESAB				
Fortrex 7018	DXVuO	BF	3m, 3Ym	H15
OK 43.32	DXVuO	BF	1m	NR
OK 46.00	DXVuO	BF	2m	NR
OK 46.00 Mildtrode	DXVuO	BF	2m	NR
OK 46.06	DXVuO	BF	1m	NR
OK 46.16	DXVuO	BF	2m	NR
OK 46.44	DXVuO	BF	2m	NR
OK 46.64	DXVuO	BF	2m	NR
OK 48.00	DXVuO	BF	3m, 3Ym	H5
OK 48.05	DXVuO	BF	3m, 3Ym	H5
OK 48.30	DXVuO	BF	3m, 3Ym	H15
OK 48.60	DXVuO	BF	3m, 3Ym	H5
OK 50.40	DXVuO	BF	2m	NR
OK 53.00	DXVuO	BF	3Ym	H15
OK 53.05	DXVuO	BF	3m, 3Ym	H10
OK 53.16 Spezial	DXVuO	BF	3Ym	H15
OK 55.00	DXVuO	BF	3Ym	H5
OK Femax 33.80	D	BF	2m, 2Ym	No
ESAB-MOR KFT - FILARC				
Filarc 36D	DXVuO	BF	3m, 3Ym	H10
Filarc 48	DXVuO	BF	2m	NR
ESAB-MOR KFT - MUREX				
Vodex	DXVuO	BF	3m, 3Ym	No
Vortic Marine	DXVuO	BF	3m, 3Ym	No
Zodian Universal	DXVuO	BF	2m	NR
ESAB-MOR KFT- VAMBERK				
E-B 121	DXVuO	BF	3m	NR
E-B 123	DXVuO	BF	3m, 3Ym	No
E-B 124	DXVuO	BF	3Ym	H15
E-B 125	DXVuO	BF	3Ym	No
INDIA				
ADOR WELDING LIMITED				
BHANDUP PLANT				
Celwel-60	DXVuO	BF	3m	NR
Supabase	DXVuO	BF	3m, 3Ym	H5
Supabase-X-Plus	DXVuO	BF	3m, 3Ym	H5
Superbond	DXVuO	BF	2m	NR
Superbond-S	DXVuO	BF	2m	NR
Superbond-SS	DXVuO	BF	2m	NR
Tenacito-Z-Plus	DXVuO	BF	4Y40m	H5
Tenalloy-70A-S-Plus	DXVuO	BF	5Y46m	H5
Tenalloy-Z-Plus	DXVuO	BF	4Y40m	H5
Topstar 140	D	BF	2m	NR
ADOR WELDING LIMITED				
CHENNAI PLANT				
MAGNABOND	DXVuO	BF	2m	
MAXBOND	DXVuO	BF	1m	NR
METALBOND-S	DXVuO	BF	2m	NR

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Supplier Type Trade Name of Consumable	Welding Position	Joint Type	Grade+Technique	Low Hydrogen
Metalbond	DXVudO	BF	1m	NR
Supabase	DXVuO	BF	3m, 3Ym	H15
Supabase-X-Plus	DXVuO	BF	3m, 3Ym	H15
Superbond	DXVuO	BF	2m	NR
Superbond-S	DXVuO	BF	2m	NR
Superbond-SS	DXVuO	BF	2m	NR
Tenalloy S Plus	DXVuO	BF	4Y40m	H5
Tenalloy-16	DXVuO	BF	3m, 3Ym	H15
Tenalloy-Z-Plus	DXVuO	BF	4Y40m	H5
X-BOND	DXVudO	BF	3Ym	H5

**ADOR WELDING LIMITED
RAIPUR PLANT**

MAGNABOND	DXVudO	BF	2m	
MAXBOND	DXVudO	BF	1m	NR
METALBOND-S	DXVudO	BF	2m	NR
Metalbond	DXVudO	BF	1m	NR
Supabase	DXVuO	BF	3m, 3Ym	H15
Superbond	DXVuO	BF	2m	NR
Superbond-S	DXVuO	BF	2m	NR
Superbond-SS	DXVuO	BF	2m	NR
Tenalloy-16	DXVuO	BF	3m, 3Ym	H15
X-BOND	DXVudO	BF	3Ym	H5

**ADOR WELDING LIMITED
SILVASSA PLANT**

Metalbond	DXVudO	BF	1m	NR
Supabase	DXVuO	BF	3m, 3Ym	H5
Supabase-X-Plus	DXVuO	BF	3m, 3Ym	H5
Superbond	DXVuO	BF	2m	NR
Superbond-S	DXVuO	BF	2m	NR
Superbond-SS	DXVuO	BF	2m	NR
Tenalloy-16	DXVuO	BF	3m, 3Ym	H5
Tenalloy-Z-Plus	DXVuO	BF	4Y40m	H5

ANAND ARC ELECTRODES (P) LTD

ANAND S	DXVuO	BF	2m	NR
ANANDTHERME	DXVuO	BF	3m, 3Ym	H15

CALCUTTA ELECTRODES PRIVATE LIMITED, RAIPUR

SHIVA THERME-18	DXVuO	BF	3m, 3Ym	H5
SHIVA-S	DXVudO	BF	2m	NR
SUPERWELD	DXVudO	BF	2m	NR

D & H SECHERON ELECTRODES PRIVATE LTD, DAKACHYA PLANT

Medio	DXVuO	BF	2m	NR
Norma	DXVuO	BF	2m	NR
Supratherme	DXVuO	BF	3m, 3Ym	H15

D & H SECHERON ELECTRODES PRIVATE LTD, KILAMAIDAN PLANT

Exobel	DXVuO	BF	2m	NR
Indotherme	DXVuO	BF	3m, 3Ym	H15
Medio	DXVuO	BF	2m	NR
Norma	DXVuO	BF	2m	NR
P4	DXVuO	BF	3m, 3Ym	H15
Rapidex	DXVuO	BF	2m	NR

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Supplier Type Trade Name of Consumable	Welding Position	Joint Type	Grade+Technique	Low Hydrogen
Supratherme	DXVuO	BF	3m, 3Ym	H15
D & H WELDING ELECTRODES (INDIA) LTD				
STANDARD	DXVudO	BF	2m	NR
SUPER LH	DXVudO	BF	3m, 3Ym	H15
SUPER LH (SPECIAL)	DXVudO	BF	3m, 3Ym	H15
DIFFUSION ENGINEERS LIMITED				
CA-7018	DXVuO	BF	2m, 2Ym	No
Supermatic	DXVuO	BF	1m, 1Ym	No
DWEKAM ELECTRODES PRIVATE LIMITED				
DK-13S	DXVuO	BF	2m	NR
DK-18	DXVuO	BF	3m, 3Ym	H10
ESAB INDIA LIMITED, AMBATTUR PLANT, CHENNAI				
ESAB 28	DXVuO	BF	2m	NR
ESAB 36H	DXVuO	BF	3m, 3Ym	H15
ESAB 46	DXVuO	BF	2m	NR
ESAB 6013L	DXVuO	BF	2m	NR
ESAB 7018	DXVuO	BF	3m, 3Ym	H15
ESAB Ferroarc	DXVuO	BF	2m	NR
ESAB Ferrospeed	DXVuO	BF	1m	NR
ESAB Ferrospeed Plus	DXVudO	BF	2m	NR
ESAB Vordian	DXVuO	BF	2m	NR
ESAB INDIA LTD. INDARC PRODUCTS DIVISION KHARDAH PLANT				
ESAB 28	DXVuO	BF	2m	NR
ESAB Ferrospeed	DXVuO	BF	1m	NR
ESAB Ferrospeed Plus	DXVudO	BF	2m	NR
ESAB Ferroweld 1	DXVuO	BF	3m, 3Ym	H15
ESAB Ferroweld 2	DXVuO	BF	3m, 3Ym	H15
ESAB Vordian	DXVuO	BF	2m	NR
ESAB Vortic	DXVuO	BF	2m	NR
Esab Ferroarc	DXVuO	BF	2m	NR
GEE LIMITED				
Geecon Pink	DXVu	BF	2m	NR
Gricon Black	DXVudO	BF	2m	NR
Gricon Blue	DXVuO	BF	2m	NR
Gricon Green	DXVu	BF	3m, 3Ym	H15
Gricon Green (Spl) H4R	DXVuO	BF	4Y40m	H5
GLOBAL ELECTRODES PRIVATE LTD				
SUNNY WELD 'S'	DX	BF	1Ym	H15
HONAVAR ELECTRODES LTD				
Regular S	DXVuO	BF	2m	NR
ULTIMATE 18	DXVuO	BF	3m, 3Ym	H10
KM CROWN WELDING CONSUMABLES PVT LTD				
CROWN 18	DXVuO	BF	3Ym	H5
Crown 13S	DXVuO	BF	2m	NR
Crown 18-SPL	DXVuO	BF	3Ym	H5

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Supplier Type Trade Name of Consumable	Welding Position	Joint Type	Grade+Technique	Low Hydrogen
MAGNARC ELECTRODES PVT LTD				
Magnarc 63	DXVuO	BF	2m	NR
Magnarc LH	DXVuO	BF	3m, 3Ym	H15
MAILAM INDIA LIMITED				
MAILARC 13 PLUS	DXVuO	BF	1m	NR
MAILARC 13 R	DXVuO	BF	2m	NR
MAILARC 13 RR	DXVuO	BF	2m	NR
MAILARC 18	DXVuO	BF	4Ym, 4Y40m	H5
MAILARC-18 PLUS	DXVuO	BF	3m, 3Ym	H15
MAILARC-24	D	BF	2m	NR
MARUTHI ELECTRODES PVT LTD				
Maruthi 6013 X	DXVuO	BF	2m	NR
Maruthi 7018	DXVuO	BF	3m, 3Ym	H10
MARUTI WELD LIMITED				
MARUTI ULTRA-7018	DXVuO	BF	3m, 3Ym	H10
MARUTI-44	DXVuO	BF	2m	NR
Maruti-6013	DXVuO	BF	1m	NR
MODI ARC ELECTRODES CO				
Modi 7014	DXVuO	BF	2m, 2Ym	No
Modi 7018	DXVuO	BF	3m, 3Ym	H5
Modi 7024	DX	BF	2m, 2Ym	No
Steelton Standard	DXVuO	BF	2m	NR
Steelton Ultra	DXVuO	BF	2m	NR
NOWELCO INDUSTRIES PRIVATE LIMITED RAIPUR PLANT				
Ferron - S	DXVuO	BF	2m, 2Ym	No
Ferron - SS	DXVuO	BF	2m, 2Ym	No
Marvel - 7018	DXVuO	BF	3m, 3Ym	H5
RAAJRATNA ELECTRODES PVT LTD				
RATNA 7018	DXVuO	BF	3Y40m	H10
RATNA 8018(Ni)Spl	DXVuO	BF	4Y46m	H10
RAJ KESARI ELECTRODES PVT LTD				
Rajcord-13S	DXVuO	BF	2m	NR
Superlet-18	DXVuO	BF	3m, 3Ym	H5
ROYAL ARC ELECTRODES LTD				
Royal S	DXVuO	BF	2m	NR
Royal Therm	DXVuO	BF	3m, 3Ym	H10
Royal Therm (SPL)	DXVuO	BF	3m, 3Ym	H10
SETH ELECTRODES CO LTD				
Kaynotherme	DXVuO	BF	3m, 3Y40m	H10
SHARP ELECTRODES PVT LTD				
Sharp 50	DXVuO	BF	2m	NR
SUPERON SCHWEISSTECHNIK INDIA LTD				
Garant	DXVuO	BF	3m, 3Ym	H10

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Supplier Type Trade Name of Consumable	Welding Position	Joint Type	Grade+Technique	Low Hydrogen
Titan	DXVuO	BF	2m	NR
UNIWELD ELECTRODES				
Captain 6013	DXVudO	BF	2m	NR
Captain 7018	DXVudO	BF	3m, 3Ym	H5
VARUN ELECTRODES PVT LTD				
PRIMA 6013S	DXVuO	BF	2m	NR
PRIMA 7018	DXVuO	BF	3m, 3Ym	H10
VOLTARC ELECTRODES PRIVATE LTD				
Smootharc	DXVuO	BF	2m	NR
Superarc	DXVuO	BF	3m, 3Ym	No
Superarc (SPL)	DXVuO	BF	3m, 3Ym	No
WELD ALLOY PRODUCTS				
WA 6013S	DXVuO	BF	2m	NR
WA 7018	DXVuO	BF	4Ym, 4Y40m	H5
WA 7018-1	DXVuO	BF	3m, 4Ym	H5
WELD EXCEL INDIA LIMITED, LUDHIANA				
Excel 123	DXVudO	BF	2m	NR
Excel 13S	DXVudO	BF	2m	NR
Excel 18	DXVuO	BF	3m, 3Ym	H5
WELDCRAFT PVT LTD				
Maxidure 7018	DXVuO	BF	3m, 3Ym	H5
Maxima 6013-X	DXVuO	BF	2m	NR
WELDWELL ELECTRODES				
WELDFAST LH18	DXVudO	BF	3m, 3Ym	H5
WELDFAST QUALITY	DXVudO	BF	2m	NR
WELDFAST SUPER	DXVudO	BF	1m	NR
WELDFAST SUPREME	DXVudO	BF	2m	NR
INDONESIA				
PT. ALAM LESTARI UNGGUL				
Nikko Steel C-10	DXVudO	BF	1p	NR
Nikko Steel C-11	DXVuO	BF	3m	NR
Nikko Steel RD-260	DXVudO	BF	2m	NR
Nikko Steel RD-360	DXVuO	BF	3Ym	H15
Nikko Steel RD-460	DXVuO	BF	2m	NR
Nikko Steel RD-718	DXVuO	BF	3Ym	H15
Sumico 13-D	DXVuO	BF	2m	NR
PT. INTAN PERTIWI INDUSTRI				
B-14	DXVuO	BF	3m	NR
B-17	DXVuO	BF	3m	NR
Kobe 6010	DXVuO	BF	2m	NR
LB-26	DXVuO	BF	3m, 3Ym	H15
LB-52	DXVuO	BF	3m, 3Ym	H15
LB-52-18	DXVuO	BF	3m, 3Ym	H15
LB-52U	DXVuO	BF	3m, 3Ym	H15
RB-26	DXVuO	BF	2m	NR

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Supplier Type Trade Name of Consumable	Welding Position	Joint Type	Grade+Technique	Low Hydrogen
PT. KARYA YASANTARA CAKTI				
ESAB 4301	DXVuO	BF	3m	NR
ESAB 6013	DXVuO	BF	2m	NR
OK 46.00	DXVuO	BF	2m	NR
OK 48.04	DXVuO	BF	3m, 3Ym	H15
OK 48.08	DXVuO	BF	4Y40m	H5
OK 53.04	DXVuO	BF	3m, 3Ym	H15
OK 53.70	DXVuO	BF	3m, 3Ym	H15
OK 55.00	DXVuO	BF	3m, 3Ym	H5
OK Femax 33.80	D	BF	2m, 2Ym	No
PT. LINCOLN ELECTRIC INDONESIA				
Easyarc ID 6013	DXVuO	BF	2m, 2Ym	No
Easyarc ID 7016 P	DXVuO	BF	3m, 3Ym	H5
Easyarc ID 7016-1	DXVuO	BF	3m, 3Ym	H5
Easyarc ID 7018	DXVuO	BF	3m, 3Ym	H5
Easyarc ID 7018-1	DXVuO	BF	4Y40m	H5
Easyarc ID 7024	D	BF	2m	NR
Jet LH 8018 C1MR	DXVuO	BF	3m, 3Ym	H5
Jetweld LH-70	DXVuO	BF	3m, 3Ym	H5
Jetweld LH-75MR	DXVuO	BF	3m, 3Ym	H5
Lincoln 6013	DXVuO	BF	2m, 2Ym	No
Lincoln 7016 P	DXVuO	BF	3m, 3Ym	H5
Lincoln 7016-1	DXVuO	BF	3m, 3Ym	H5
Lincoln 7018	DXVuO	BF	3m, 3Ym	H5
Lincoln 7018-1	DXVuO	BF	4Y40m	H5
Lincoln 7024	D	BF	2m	NR
PT. ONTOREJA KANCA SEJAHTERA				
N 26 R	DXVuO	BF	2m	NR
PT. THYSINDO SEJATI UTAMA				
Weltec 63	DXVuO	BF	2m	NR
Weltec 78	DXVuO	BF	3m, 3Ym	H15
IRAN				
AMA INDUSTRIAL C				
AMA 1047P	DXVuO	BF	2m	NR
AMA 1118K	DX	BF	2m	No
AMA 1177F	DXVuO	BF	3Y40m	H10
AMA 1230F E7018	DXVuO	BF	3Y40m	H10
AMA 1282N E8018G	DXVuO	BF	4Y40m	H5
AMA 1420N	DXVuO	BF	5Y40m	H5
AMA 1422N	DXVuO	BF	5Y40m	H5
AMA 2000	DXVuO	BF	1m	NR
JOUSH VA OXYGEN IRAN CO (I.W.O.C.)				
Electrode Reza	DXVuO	BF	2m	NR
Joush 1000	DXO	BF	2m	NR
Joush 1001	DXVuO	BF	2m	NR
Joush 1100	DXVuO	BF	2m	NR
Joush 1300G	DXVdO	BF	2m, 2Ym	No
Joush 1300P1 (E 8010P1)	DXVuO	BF	2Ym	No
Joush 2015	DX	BF	2m, 2Ym	No

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Supplier Type Trade Name of Consumable	Welding Position	Joint Type	Grade+Technique	Low Hydrogen
Joush 2210	DXO	BF	3Ym	NR
Joush 2217	DXVuO	BF	3m, 3Ym	No
PARS ELECTRODE MANUFACTURING CO				
ER-5IFE	D	BF	1Ym	NR
NEPTUNE 16	DXVuO	BF	1m	NR
NEPTUNE 18	DXVuO	BF	2m	NR
NEPTUNE 20	DXVuO	BF	2Ym	NR
PARS E7010-A1	DXVuO	BF	3m, 3Ym	
Pars E 6010-C1	DXVuO	BF	3m, 3Ym	NR
Pars E 7016	DXVuO	BF	3m, 3Ym	H15
S.S. KARKHANEJAT SANYA-YE FELEZI VA MIKHSAZI PARS				
MICA E7024	D	BF	1Ym	No
SUPER MICA ELECTRODE	DXVu	BF	2m	
WELDING INDUSTRIES & ELECTRODE MANUFACTURING CO				
OK 46.00 ECC	DXVuO	BF	2m	NR
OK 48.00 ECC	DXVuO	BF	3m, 3Ym	H5
Pipeweld 6010 ECC	DXVuO	BF	3m	NR
ISRAEL				
ZIKA INDUSTRIES LTD				
ZIKA Z18	D	BF	2Ym	NR
ZIKA Z4	DXVuO	BF	3Ym	H10
ITALY				
ESAB SALDATURA S.P.A.				
Arcos Navalend GC	D	BF	2m, 2Ym	No
Arcos Tensilend 48	DXVuO	BF	3m, 3Ym	H5
ESAB OK 48.00	DXVuO	BF	3m, 3Ym	H5
ESAB OK 48.50	DXVuO	BF	3m, 3Ym	H5
ESAB OK 48.50T	DXVuO	BF	3m, 3Ym	H15
ESAB OK 55.10	DXVuO	BF	3m, 3Ym	H15
ESAB OK Femax 33.80	D	BF	2m, 2Ym	No
ESAB Pipeweld 6010	DXVuO	BF	3m	NR
Filarc 35S	DXVuO	BF	3m, 3Ym	H15
OK 46.00	DXVuO	BF	2m	NR
Siderotermica Citobasico	DXVuO	BF	3m, 3Ym	H15
ESARC S.P.A.				
ESARC 180 AR	D	BF	2m	NR
ESARC 185 ARB	D	BF	3m, 3Ym	H15
ESARC 55LT	DXVuO	BF	4Y40m	H15
ESARC 70	DXVuO	BF	3m, 3Ym	H15
ESARC SPK	DXVuO	BF	3m, 3Ym	H15
ETC ELETTROTERMOCHIMICA S.R.L.				
ETC PH 35S	DXVuO	BF	3m, 3Ym	H5
ETC PH 35S DRY	DXVuO	BF	3m, 3Ym	H5
ETC PH 36S	DXVuO	BF	3m, 3Ym	H10
ETC PH 37	DXVuO	BF	3m, 3Ym	H15

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Supplier Type Trade Name of Consumable	Welding Position	Joint Type	Grade+Technique	Low Hydrogen
ETC PH 55H/ TENAX55H	DXVuO	BF	3m, 3Ym	H5
ETC PH 56S/TENAX56S	DXVuO	BF	3m, 4Ym	H5
ETC PH 58	DXVuO	BF	3m, 4Ym	H5
ETC PH 58S	DXVuO	BF	3m, 4Ym	H5
ETC PH 76S/TENAX76S	DXVuO	BF	5Y42m	H5
ETC PH 77	DXVuO	BF	3m, 4Ym	H5
ETC PH 88S/TENAX88S	DXVuO	BF	5Y42m	H5
Extra	DXVuO	BF	3m, 3Ym	H10
FLEXAL 60	DXVuO	BF	3m	NR
FLEXAL 70	DXVuO	BF	3m, 3Ym	No
FLEXAL 80	DXVuO	BF	3m, 3Ym	No
FRO S.R.L. DUE CARRARE				
Basicord A	DXVuO	BF	3m, 4Ym	H5
TENSILFRO 70	DXVuO	BF	3m, 3Ym	H5
Tensilfro 2000	DXVuO	BF	3m, 4Ym	H5
FRO S.R.L., VERONA				
Alflex CNF1	DXVuO	BF	3m, 4Ym	H5
Arcum Tensil 2000	DXVuO	BF	3m, 4Ym	H5
FRO R 160	D	BF	2m	NR
Tensilfro 70E	DXVuO	BF	3m, 4Ym	H5
I.N.E.-INDUSTRIA NAZIONALE ELETTRODI S.P.A.				
INE 50 B	DXVuO	BF	3m, 3Ym	H10
INE 55 B	DXVuO	BF	4Y40m	H10
SIDERARCO S.P.A.				
E 40	DXVu	BF	2m	NR
E 46	DXVuO	BF	2m	NR
E 48	DXVuO	BF	4Ym	No
JAPAN				
KOBE STEEL LIMITED, IBARAKI PLANT				
BL-76	DXVuO	BF	3m, 3Ym	H15
LB-24	DXVuO	BF	3m, 3Ym	H15
LB-52-18	DXVuO	BF	3m, 3Ym	H15
LB-52NS	DXVuO	BF	5Y40m	H15
LB-52V	DXVdO	BF	3m, 3Ym	H15
LB-62	DXVuO	BF	3m, 3Ym	H15
LB-7018-1	DXVuO	BF	4Y40m	H10
LB-M52	DXVuO	BF	3m, 3Ym	H15
NB-1SJ	DXVuO	BF	5Y40m	H15
NB-A52V	DXVd	BF	5Y40m	H15
Z-44	DXVuO	BF	3m	NR
Z-52	DXVuO	BF	3m, 3Ym	H15
KOBE STEEL LIMITED, SAIJO PLANT				
B-14	DXVuO	BF	3m	NR
B-17	DXVuO	BF	3m	NR
BI-14	DXVuO	BF	3m	NR
KS-03R	DXVuO	BF	3m	NR

SECTION 3 Manual and Gravity Electrodes

Supplier Type Trade Name of Consumable	Welding Position	Joint Type	Grade+Technique	Low Hydrogen
KS-300	D	BF	2m, 2G	NR
KS-7	DXVuO	BF	3m	NR
KS-76	DXVuO	BF	3m, 3Ym	H15
KS-76T	DXVd	BF	3m, 3Ym	H15
KS-76V	DXVd	BF	3m, 3Ym	H15
KS-78	D	F	2m, 2Ym	No
KS-8	DXVuO	BF	3m	NR
LB-26	DXVuO	BF	3m, 3Ym	H15
LB-26V	DXVuO	BF	3m, 3Ym	H15
LB-47	DXVuO	BF	3m	H15
LB-50A	DXVuO	BF	3m, 3Ym	H15
LB-52	DXVuO	BF	3m, 3Ym	H15
LB-52-28	D	BF	3m, 3Ym, 3YG	H15
LB-52NS	DXVuO	BF	5Y40m	H15
LB-52T	DXVdO	BF	3m, 3Ym	H15
LB-52U	DXVuO	BF	3m, 3Ym	H15
LB-152H	D	BF	3m, 3Ym, 3YG	H15
LB-M52	DXVuO	BF	3m, 3Ym	H15
LT-B50	D	BF	3m, 3Ym	No
LT-B50	D	F	3YG	No
LT-B52A	DXVuO	BF	3m, 3Ym	H15
LT-B52A	D	BF	3G, 3YG	H15
NB-A52F	D	F	3YG, 5Y40m, 5Y40G	H15
RB-26	DXVuO	BF	2m	NR
TB-24	DXVuO	BF	3m	NR
TB-124	DXVuO	BF	3m	NR
Z-1	DXVuO	BF	3m	NR
Z-27	D	BF	3m, 3G	NR
Z-43F	D	BF	3m, 3G	NR
Z-44	DXVuO	BF	3m	NR
Z-6V	DXVdO	BF	3m, 3Ym	H15

NIPPON STEEL & SUMIKIN WELDING CO LTD HIKARI PLANT

EX-4	DX	BF	3m	NR
EX-4	D	BF	3G	NR
EX-50F	D	F	2m, 2Ym, 2YG	No
EX-55	DXVuO	BF	3m, 3Ym	H15
EX-7	D	BF	3m, 3G	NR
Nittetsu 16	DXVuO	BF	3m, 3Ym	H15
Nittetsu 16V	DXVdO	BF	3m, 3Ym	H15
Nittetsu A-200	DXVuO	BF	3m	NR
Nittetsu FI-120G	D	BF	3m, 3G	NR
Nittetsu FT-51	DXVuO	BF	1m	NR
Nittetsu G-200	DXVuO	BF	3m	NR
Nittetsu G-300	DXVuO	BF	3m	NR
Nittetsu L-55	DXVuO	BF	3m, 3Ym	H15
Nittetsu L-55SN	DXVuO	BF	5Y40m	H15
Nittetsu L-60	DXVuO	BF	3m, 3Ym	H15
Nittetsu LM-55G	DXVuO	BF	3m, 3Ym	H15
Nittetsu LM-55G	D	BF	3G, 3YG	H15
Nittetsu N-5F	D	F	5Y40m, 5Y40G	H15
Nittetsu NS-03Hi	DXVuO	BF	3m	NR
Nittetsu RS-55	DXVuO	BF	3m, 3Ym	H15
Nittetsu TW-50	DXVuO	BF	3m, 3Ym	H15
Nittetsu Weld 196	DXVuO	BF	9Nim	NR

SECTION 3 Manual and Gravity Electrodes

Supplier Type Trade Name of Consumable	Welding Position	Joint Type	Grade+Technique	Low Hydrogen
S-03Z	DXVuO	BF	2m	NR
Yawata Weld B(M)	DXVuO	BF	9Nim	H15
SHIKOKU WELDING ELECTRODE CO. LTD				
KS-03R	DXVuO	BF	3m	NR
KS-300	D	BF	2m, 2G	NR
KS-7	DXVuO	BF	3m	NR
KS-76	DXVuO	BF	3m, 3Ym	H15
KS-76T	DXVd	BF	3m, 3Ym	H15
KS-76V	DXVd	BF	3m, 3Ym	H15
KS-78	D	F	2m, 2Ym	No
KS-8	DXVuO	BF	3m	NR
Shikoku-rode No 8	DXVuO	BF	3m	NR
Shikoku-rode SB-27	D	BF	3m, 3G	NR
Shikoku-rode SL-50T	DXVdO	BF	3m, 3Ym	H15
Shikoku-rode SL-55	DXVuO	BF	3m, 3Ym	H15
Shikoku-rode SLV-16	DXVdO	BF	3m, 3Ym	H15
Shikoku-rode SM-50G	D	F	2m, 2Ym	No
Shikoku-rode SM-50G	D	F	2G, 2YG	No
Shikoku-rode SR-1	DXVuO	BF	3m	NR
Shikoku-rode SR-2	DXVuO	BF	3m	NR
KOREA				
CHOSUN WELDING CO LTD				
POHANG PLANT				
CL-100	DXVudO	BF	2m	NR
CL-101	DXVudO	BF	2m	NR
CR-13	DXVuO	BF	2m	NR
CR-24	D	BF	2m, 2Ym	No
CS-200	DXVuO	BF	3m	NR
LC-300	DXVuO	BF	3m, 3Ym	H15
LC-300NS	DXVuO	BF	5Y42m	H15
LC-318	DXVuO	BF	3m, 3Ym	H15
LC-328	D	BF	3m, 3Ym	H15
LH-100	DXVuO	BF	3m, 3Ym	H15
HYUNDAI WELDING CO. LTD				
S-4301 I	DXVuO	BF	3m	NR
S-4301 I (HYUNDAI)	DXVuO	BF	3m	NR
S-4303 V	DXVuO	BF	3m	NR
S-6010 D	DXVuO	BF	2m	NR
S-6011 D	DXVuO	BF	2m	NR
S-6013 LF	DXVuO	BF	2m	NR
S-6013 LF (HYUNDAI)	DXVuO	BF	2m	NR
S-6013 V	DXVudO	BF	2m	NR
S-6027 LF	D	BF	3m	NR
S-6027 LF	D	F	3G	NR
S-7010 A1	DXVuO	BF	2Ym	No
S-7014 F	DXVuO	BF	2m, 2Ym	No
S-7016 H	DXVuO	BF	3m, 3Ym	H15
S-7016 H (HYUNDAI)	DXVuO	BF	3m, 3Ym	H15
S-7016 LF	DXVuO	BF	3m, 3Ym	H15
S-7016 O	DXVuO	BF	3m, 3Ym	H15
S-7016.LS	DXVuO	BF	5Y40m	H15

SECTION 3 Manual and Gravity Electrodes

Supplier Type Trade Name of Consumable	Welding Position	Joint Type	Grade+Technique	Low Hydrogen
S-7018 G	DXVuO	BF	3m, 3Ym	H15
S-7018 G (HYUNDAI)	DXVuO	BF	3m, 3Ym	H15
S-7018.1	DXVuO	BF	3m, 3Ym	H15
S-7024 F	D	BF	2m, 2Ym, 2YG	No
S-7024.F (HYUNDAI)	DX	BF	2Ym	No
S-7028 F	D	BF	3m, 3Ym, 3YG	NR
S-7048 V	DXVudO	BF	3m, 3Ym	H15

INTERCOWEL CO. LTD, IKSAN PLANT

GE 7016	DXVudO	BF	3m, 3Ym	H15
GE 7018	DXVudO	BF	3m, 3Ym	H15
GE-6013	DXVudO	BF	2m	NR

KISWEL LTD

K 7014	DXVuO	BF	2m, 2Ym	No
K 7018	DXVuO	BF	3m, 3Ym	H15
K 7024	D	BF	2m, 2Ym	No
K 8018 B2	DXVuO	BF	3m, 3Ym	H15
K 8018 C1	DXVuO	BF	3m, 3Ym	H15
K 8018 C3	DXVuO	BF	3m, 3Ym	H15
K-7018N	DXVuO	BF	5Y40m	H15
K-7028LF	D	BF	3m, 3Ym	H15
KCL 10	DXVuO	BF	3m	NR
KCL 11	DXVuO	BF	3m	NR
KF-300LF	D	BF	3m	NR
KH-500LF	DXVuO	BF	3m, 3Ym	H15
KH-500T	DXVudO	BF	3m, 3Ym	H15
KH-500VLF	DXVudO	BF	3m, 3Ym	H15
KI-101LF	DXVuO	BF	3m	NR
KK-50LF	DXVuO	BF	3m, 3Ym	H15
KK-50N	DXVuO	BF	5Y40m	H15
KR-3000	DXVuO	BF	2m	NR
KR-3000V	DXVudO	BF	2m	NR
KT-303	DXVuO	BF	3m	NR

MALAYSIA**KISWEL SDN. BHD.**

K 7018	DXVuO	BF	3Ym	H15
KI-101LF	DXVuO	BF	3m	NR
KK-50LF	DXVuO	BF	3Ym	H15
KR-3000	DXVuO	BF	2m	NR

KOBEWEL KOGYO MARKETING SDN. BHD

Kobewel K7018	DXVuO	BF	3m, 3Ym	H15
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KUNCI QUANTUM SDN. BHD.

Gading GA-76	DXVuO	BF	3m, 3Ym	H15
Gading GA-78	DXVuO	BF	3m, 3Ym	H15

MOX GASES SDN BHD

MOX MR 70	DXVuO	BF	3m, 3Ym	H15
MOX MS 6010	DXVuO	BF	3m	NR
MOX MS 6013	DXVuO	BF	2m	NR
MR 7016s	DXVuO	BF	3m, 3Ym	H15

SECTION 3 Manual and Gravity Electrodes

Supplier Type Trade Name of Consumable	Welding Position	Joint Type	Grade+Technique	Low Hydrogen
MR 70s	DXVuO	BF	3m, 3Ym	H15
POWER WELD SENDIRIAN BERHAD				
NICHIA SK-260-M	DXVuO	BF	2m	NR
Power Weld S-12	DXVuO	BF	2m	NR
Stablearc 18	DXVuO	BF	3m, 3Ym	H15
S T KOBE WELDING (MALAYSIA) SDN. BHD				
RB-26	DXVuO	BF	2m	NR
UNITY SALES AND SERVICES SDN. BHD				
UNIARC	DXVuO	BF	2m	NR
MEXICO				
ELECTRODOS INFRA S.A.				
Infra 10S	DXVuO	BF	3m	NR
Infra 11	DXVuO	BF	3m, 3Ym	NR
Infra 718	DXVuO	BF	3m, 3Ym	H15
Infra 718 Plus	DXVuO	BF	3m, 3Ym	H15
NETHERLANDS				
HILARIUS HAARLEM HOLLAND B.V.				
Basic Directa	DXVuO	BF	3m, 3Ym	H15
HILCO Basic 55	DXVuO	BF	3m, 3Ym	H15
Hilco Basic	DXVuO	BF	3m, 3Ym	H15
Hilco Basic Super	DXVuO	BF	3m, 3Ym	H15
Hilco Brown	DXVuO	BF	2m, 2Ym	No
Hilco Regina 150	D	BF	3m, 3Ym	No
Hilco Regina 160	D	BF	2m	NR
LINCOLN ELECTRIC EUROPE/LINCOLN SMITWELD B.V.				
Baso 100	DXVuO	BF	3m, 3Ym	H5
Baso 120	DXVuO	BF	3m, 3Ym	H5
Baso 26V	Vd	BF	3m, 3Ym	H10
Baso G	DXVuO	BF	3m, 3Ym	H5
Conarc 49	DXVuO	BF	3m, 3Ym	H5
Conarc 49C	DXVuO	BF	3m, 3Ym	H5
Conarc 51	DXVuO	BF	3m, 3Ym	H5
Conarc 55CT	DXVuO	BF	4Y42m	H5
Conarc 80	DXVuO	BF	4Y69m	H5
Conarc One	DXVuO	BF	3m, 3Ym	H5
Conarc V180	D	BF	3m, 3Ym	H5
Conarc V250	D	BF	4Y40m	H5
Cumulo	DXVuO	BF	2m	NR
FERROD 120T	D	BF	1m	NR
Ferrod 135T	D	BF	2m, 2Ym	No
Ferrod 160T	D	BF	2m, 2Ym	No
Ferrod 165A	D	BF	3m, 3Ym	No
Gonia 180	D	BF	2m	NR
Gricon 33	DXVuO	BF	2m	NR
Kryo 1	DXVuO	BF	5Y40m	H5
Kryo 1-180	D	BF	3m, 4Ym	H5

SECTION 3 Manual and Gravity Electrodes

Supplier Type Trade Name of Consumable	Welding Position	Joint Type	Grade+Technique	Low Hydrogen
Kryo 3	DXVuO	BF	5Y40m	H5
Omnia	DXVudO	BF	2m	NR
Omnia 50	DXVu	BF	2m, 2Ym	No
Panta	DXVud	BF	2m	NR
Resistens 100	DXVuO	BF	3m	NR
Resistens 160	D	BF	3m, 3Ym	No
Supra	Vd	BF	2m	NR
Universalis	DXVuO	BF	2m	NR

NEW ZEALAND**FLETCHER EASYSTEEL**

FES 28	DXVuO	BF	2m	NR
FES 48A	DXVuO	BF	2m, 2Ym	No
FES 56S	DXVuO	BF	3m, 4Ym	H5
FES 68	DXVuO	BF	1m	NR
FES 7024	D	BF	2m, 2Ym	No
FES 77	DXVuO	BF	3m, 4Ym	H5
FES C6H	D	BF	3m, 3Ym	H5

WELDWELL NEW ZEALAND

Austarc 12P	DXVuO	BF	2m, 2Ym	No
Austarc 13S	DXVuO	BF	2m	NR
Austarc 16TC	DXVuO	BF	3m, 4Ym	H10
Austarc 18TT	DXVuO	BF	3m, 3Ym	H5
Austarc 24	D	BF	2m, 2Ym	No
Weldwell PH 22	D	BF	2m, 2Ym	No
Weldwell PH 26	DXVu	BF	2m	NR
Weldwell PH 27	DXVd	BF	3m, 3Ym	H15
Weldwell PH 27P	DXVdO	BF	3m, 3Ym	H5
Weldwell PH 28	DXVuO	BF	2m	NR
Weldwell PH 31A	DXVudO	BF	3m	NR
Weldwell PH 46	DXVu	BF	2m	NR
Weldwell PH 48A	DXVuO	BF	2m, 2Ym	No
Weldwell PH 56S	DXVuO	BF	3m, 4Ym	H5
Weldwell PH 68	DXVuO	BF	1m	NR
Weldwell PH 7024	D	BF	2m, 2Ym	No
Weldwell PH 75	DXVuO	BF	5Y40m	H10
Weldwell PH 77	DXVuO	BF	3m, 4Ym	H5
Weldwell PH C18	DXVuO	BF	2m	NR
Weldwell PH C6H	D	BF	3m, 3Ym	H5

NORWAY**WILHELMSSEN MARITIME SERVICES AS**

Ecoweld 6013	DXVuO	BF	2m	NR
Ecoweld 7018	DXVuO	BF	3m, 3Ym	H15
LHV-316N	DXVdO	BF	4Y40m	H10
Unitor GPO-302N	DXVuO	BF	2m	NR
Unitor GPR-300H	D	BF	2m, 2Ym	No
Unitor LH-314N	DXVuO	BF	3m, 3Ym	H15
Unitor LHH-314H	D	BF	3m, 3Ym	H15
Unitor LHL-319N	DXVuO	BF	5Y40m	H15
Unitor LHR-320N	DXVuO	BF	3m, 3Ym	H15
Unitor Special-303N	DXVuO	BF	3m, 3Ym	H15

SECTION 3 Manual and Gravity Electrodes

Supplier Type Trade Name of Consumable	Welding Position	Joint Type	Grade+Technique	Low Hydrogen
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PAKISTAN**BOC PAKISTAN LIMITED**

Fortrex 7018	DXVuO	BF	3m, 3Ym	H15
Zodian Universal Super	DXVuO	BF	2m	NR

PAKISTAN WELDING ELECTRODES LTD

PAWELCITO E 7018 SPECIAL	DXVuO	BF	3m, 3Ym	H15
PAWELCORD E 6013	DXVuO	BF	1m	NR

PERU**EXSA S.A. DIVISION SOLDADURAS**

Cellocord AP	DXVuO	BF	3m	NR
Cellocord P	DXVuO	BF	3m	NR
Ferrocito 24	DXVuO	BF	1m	NR
Ferrocito 27	D	BF	3m	NR
Overcord	DXVuO	BF	1m	NR
Overcord M	DXVuO	BF	1m	NR
Supercito	DXVuO	BF	3m, 3Ym	H15

PHILIPPINES**INDUSTRIAL WELDING CORPORATION**

NIHONWELD Type N-18	DXVuO	BF	3m, 3Ym	H15
NIHONWELD Type N-6011	DXVuO	BF	2m, 2Ym	NR
Nihonweld N-101	DXVuO	BF	3m	NR
Nihonweld N-6012	DXVuO	BF	2m	NR
Nihonweld N-7016	DXVuO	BF	3m, 3Ym	H15
Nihonweld N-7024	D	BF	2m, 2Ym	NR
Nihonweld Special N-6013	DXVuO	BF	2m	NR
Starweld 6012	DXVuO	BF	2m	NR

WELDING INDUSTRIES OF THE PHILIPPINES INC.

WIPWELD 10	DXVuO	BF	3m	NR
WIPWELD 11	DXVuO	BF	3m	NR
WIPWELD 1100	DXVuO	BF	3m	NR
WIPWELD 12	DXVuO	BF	2m	NR
WIPWELD 16	DXVuO	BF	3m, 3Ym	H15
WIPWELD 18	DXVuO	BF	3m, 3Ym	H15
WIPWELD 24	DX	BF	2m	NR
WIPWELD CELLOFIL	DXVuO	BF	3m, 3Ym	No
WIPWELD CITOFLEX	DXVuO	BF	3m, 3Ym	No
WIPWELD FLEXCORD 19	DXVuO	BF	2m	NR
WIPWELD GENCORD	DXVuO	BF	2m	NR
WIPWELD VERSAFLEX	DXVuO	BF	3m, 3Ym	No
WIPWELD WIPCORDER	DXVuO	BF	2m	NR

POLAND**ESAB SP. Z.O.O.**

EB 146	DXVuO	BF	3m, 3Ym	H5
EB 146	Vd	F	3m, 3Ym	H5
EB 150	DXVuO	BF	3m, 3Ym	H5

SECTION 3 Manual and Gravity Electrodes

Supplier Type Trade Name of Consumable	Welding Position	Joint Type	Grade+Technique	Low Hydrogen
ER 146	DXVuO	BF	2m	NR
ER 246	DXVuO	BF	3m	NR
OK 46.00	DXVuO	BF	2m	NR
OK 48.00	DXVuO	BF	3m, 3Ym	H5
METALWELD - FIPROM				
EVb-50p	DXVuO	BF	3m, 3Ym	H5
RYWAL RHC SP. Z.O.O.				
MOST 6013	DXVuO	BF	2m	NR
MOST 7018	DXVuO	BF	3m, 3Ym	H15
SPAWMET SP. Z.O.O.				
EBP	DXVuO	BF	3m, 3Ym	H5
Omnia 46	DXVuO	BF	2m, 2Ym	No
Rekord 38	DXVu	BF	3m	NR
PORTUGAL				
AIR LIQUIDE SOLDADURA LDA				
Alflex BF 200	DXVuO	BF	3m, 3Ym	H15
ELECTRO PORTUGAL LDA				
EUROTROD BN18	DXVuO	BF	3m, 3Ym	H15
Eurotrode RC14	DXVuO	F	1m, 1Ym	NR
ELECTRO-ARCO SA				
Naval	D	BF	3G, 3YG	No
Numal	DXVuO	BF	2m, 2Ym	No
Rental	DXVu	BF	2m	NR
Vandal	DXVuO	BF	3m, 3Ym	H5
ROMANIA				
MECHEL CAMPIA TURZII S.A.				
ELIS E51B	DXVuO	BF	3Ym, 3Y40m	H15
S.C. DUCTIL S.A.				
Febacito 160S	D	BF	3Ym, 3Y40m	H10
Fincord	DXVuO	BF	2m	NR
Flexal 60	DXVuO	BF	3m	NR
Flexal 70	DXVuO	BF	3m, 3Ym	No
Flexal 80	DXVuO	BF	3m, 3Ym	No
Nibaz 65	DXVuO	BF	4Y50m	H5
Overcord	DXVuO	BF	1m	NR
SAFER NF 510P	DXVuO	BF	3m, 3Ym	H5
SAFER NF 510S	DXVuO	BF	3m, 3Ym	H5
Sanbaz	DXVuO	BF	3m, 4Ym	H5
Spezial	DXVuO	BF	3m, 3Ym	H15
Superbaz	DXVuO	BF	3m, 3Ym	H5
Superblu	DXVuO	BF	2m, 2Ym	H15
Supercito	DXVuO	BF	3m, 3Ym	H5
Supertit	DXVuO	BF	2m	H15
Supertit Fin	DXVuO	BF	2m, 2Ym	H15

SECTION 3 Manual and Gravity Electrodes

Supplier Type Trade Name of Consumable	Welding Position	Joint Type	Grade+Technique	Low Hydrogen
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RUSSIA**"ROTEX" COMPANY LIMITED**

LB-52TRU	DXVuO	BF	3m, 3Ym	H10
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JSC ELECTRODE PLANT, ST. PETERSBURG

ELZ-UONI 13/45A	DXVuO	BF	2m, 2Ym	No
ELZ-UONI-13/55	DXVuO	BF	3m, 3Ym	H15

SYCHEVSKY ELECTRODNY ZAVOD

MTG-01K	DXVuO	BF	2m, 2Ym	H15
MTG-02	DXVuO	BF	2m, 2Ym	H15
MTG-03	DXVuO	BF	3Y40m	H15
SEZ-MP3	DXVuO	BF	1m	NR
SEZ-UONII 13/55	DXVuO	BF	2m, 2Ym	H15
UONII - 13/45L	DXVuO	BF	2m, 2Ym	H10

ZAO ESAB SVEL

ESAB-SVEL-UONII-13/55R	DXVuO	BF	3m, 3Ym	H10
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SINGAPORE**KOBE WELDING (SINGAPORE) PTE LTD**

B-14	DXVuO	BF	3m	NR
LB-52	DXVuO	BF	3m, 3Ym	H15
LB-52-18	DXVuO	BF	3m, 3Ym	H15
LB-52U	DXVuO	BF	3m, 3Ym	H15
RB-26	DXVuO	BF	2m	NR

SLOVENIA**ELEKTRODE JESENICE d.o.o.**

EVB Ni	DXVuO	BF	3m, 4Ym	No
EVB-50	DXVuO	BF	3m, 3Ym	H15
EVB-60	DXVuO	BF	3Y40m	H15
Emona	DXVuO	BF	3m	NR
Rutilen 12	DXVuO	BF	1m	NR
Rutilen 13	DXVu	BF	2m	NR

SOUTH AFRICA**AFRICAN OXYGEN LIMITED**

Afrox 7018-1	DXVuO	BF	3m, 3Ym	H15
Afrox 76S	DXVuO	BF	4Y40m	H15
Afrox 78MR	DXVuO	BF	3m, 3Ym	H15
Afrox Afrolux	D	BF	3m, 3Ym	No
Afrox Ferron 1	DXVuO	BF	3m, 3Ym	No
Afrox Vitemax	DXVuO	BF	2m	NR
Speedcraft	DXVuO	BF	1m	No
Superweld Extra	D	BF	2m, 2Ym	No

CHISA WELDING CONSUMABLES (PTY) LTD

SH.E6013	DXVuO	BF	2m	NR
SH.E7018	DXVuO	BF	3m, 3Ym	H15

SECTION 3 Manual and Gravity Electrodes

Supplier Type Trade Name of Consumable	Welding Position	Joint Type	Grade+Technique	Low Hydrogen
SH.E7018-1	DXVuO	BF	3m, 3Ym	H15
OESA (PTY.) LTD				
Ferromatic	D	BF	1m	NR
Supercito	DXVuO	BF	3m, 3Ym	H15
Tenacito 7018-1	DXVuO	BF	3m, 3Ym	H10
SPAIN				
GEVENSA S.A.				
UZ 18	D	BF	1m	No
UZ 28	DXVuO	BF	3m, 3Ym	H15
UZ 4	DXVuO	BF	3m, 3Ym	H15
UZ 57	DXVuO	BF	3m, 3Ym	H15
LINCOLN-KD S.A.				
BASO 51P	DXVuO	B	3Ym	H10
Baso 48SP	DXVuO	BF	3m, 3Ym	H15
Baso 49	DXVuO	BF	3m, 3Ym	H5
Cumulo	DXVuO	BF	2m	NR
Ferrod 160T	D	BF	2m, 2Ym	No
Ferrod 185T	D	BF	2m, 2Ym	No
Fleetweld 5P+	DXVudO	BF	3m	NR
Fleetweld-5P	DXVudO	BF	3m	NR
Gonia 180	D	BF	2m	NR
Gricon 237	DXVuO	BF	2m, 2Ym	No
Gricon 33 Omnia	DXVuO	BF	1m	NR
Gricon 8A	DXVuO	BF	2m	NR
Lincoln 7018-1	DXVuO	BF	4Y40m	H10
Omnia	DXVudO	BF	2m	NR
Omnia 46	DXVuO	BF	2m, 2Ym	No
Omnia 48	DXVuO	BF	2m	NR
Panta	DXVudO	BF	2m	No
Shield-Arc-Hyp	DXVudO	BF	3m, 3Ym	No
Supra	Vd	BF	2m	NR
Universalis	DXVuO	BF	2m	NR
OERLIKON SOLDADURA S.A.				
Citofix	DXVuO	BF	2m	NR
Ferrocito RS	DXVuO	BF	2m, 2Ym	No
Fincito AC	DXVuO	BF	3m, 3Ym	H15
Overcord S	DXVuO	BF	2m	NR
Spezial	DXVuO	BF	3m, 3Ym	H15
SWEDEN				
ELGA AB				
Elga Maxeta 10	DX	BF	2m, 2Ym	No
Elga Maxeta 11	D	BF	2m, 2Ym	No
Elga Maxeta 11 DC	D	BF	2m, 2Ym	No
Elga Maxeta 110	DX	BF	4Y69m	H5
Elga Maxeta 11S	D	BF	3m, 3Ym	No
Elga Maxeta 16	DX	BF	2m, 2Ym	No
Elga Maxeta 20	DX	BF	3Ym	H10

SECTION 3 Manual and Gravity Electrodes

Supplier Type Trade Name of Consumable	Welding Position	Joint Type	Grade+Technique	Low Hydrogen
Elga Maxeta 21	D	BF	3Ym	H5
Elga Maxeta 22	D	BF	3m, 3Ym	H5
Elga Maxeta 24	DX	BF	4Y40m	H5
Elga Maxeta 5	D	BF	3m, 3Ym	No
Elga P 110 MR	DXVuO	BF	4Y69m	H5
Elga P 52T	DXVdO	BF	3m, 3Ym	H5
Elga P-31	DXVuO	BF	3m, 3Ym	No
Elga P-40	DXVuO	BF	2m, 2Ym	No
Elga P-43	DXVuO	BF	2m	NR
Elga P-44	DXVuO	BF	2m, 2Ym	No
Elga P-45S	DXVudO	BF	2m, 2Ym	No
Elga P-46	D	BF	2m, 2Ym	No
Elga P-47	DXVuO	BF	3m, 3Ym	H5
Elga P-48K	DXVuO	BF	5Y42m	H5
Elga P-48M	DXVuO	BF	4Y42m	H5
Elga P-48P	DXVuO	BF	3Ym	H5
Elga P-48S	DXVuO	BF	3Ym	H5
Elga P-51	DXVuO	BF	3Ym	H5
Elga P-54	DXVd	BF	3m, 3Ym	H5
Elga P-62 MR	DXVuO	BF	5Y42m	H5
Elga P-65 MR	DXVuO	BF	5Y46m	H5

ESAB AB

OK 46.00	DXVuO	BF	2m	NR
OK 48.00	DXVuO	BF	3m, 3Ym	H5
OK 48.04	DXVuO	BF	3m, 3Ym	H15
OK 48.05	DXVuO	BF	3m, 3Ym	H5
OK 48.08	DXVuO	BF	4Y40m	H5
OK 48.15	DXVuO	BF	3m, 3Ym	H15
OK 48.30	DXVuO	BF	3m, 3Ym	H15
OK 48.68	DXVuO	BF	3m, 3Ym	H5
OK 53.70	DXVuO	BF	3m, 3Ym	H15
OK 55.00	DXVuO	BF	3m, 3Ym	H5
OK 73.08	DXVuO	BF	3m, 3Ym	H15
OK 73.68	DXVuO	BF	5Y42m	H5
OK 74.78	DXVuO	BF	3m, 3Ym	H15
OK Femax 33.60	D	BF	2m	NR
OK Femax 33.80	D	BF	2m, 2Ym	No
OK Femax 33.80 Fematic	D	BF	2G, 2YG	No
OK Femax 33.81	D	BF	2m, 2Ym	No
OK Femax 38.48	DX	B	3m, 3Ym	H15
OK Femax 38.48	DXVuO	F	3m, 3Ym	H15
OK Femax 38.65	D	BF	3m, 3Ym	H15
OK Femax 38.95	D	BF	3m, 3Ym	H15
OK Femax 39.50	D	BF	3m, 3Ym	No

ESAB AB - FILARC

Filarc 118	DXVuO	BF	4Y62m	H5
Filarc 27P	DXVdO	BF	4Y40m	H10
Filarc 35	DXVuO	BF	3m, 3Ym	H15
Filarc 35S	DXVuO	BF	3m, 3Ym	H15
Filarc 56S	DXVuO	BF	4Y40m	H10
Filarc 75S	DXVuO	BF	5Y42m	H5
Filarc 76S	DXVuO	BF	5Y42m	H5
Filarc 88S	DXVuO	BF	5Y42m	H15
Filarc C23	D	BF	2m, 2Ym	No

SECTION 3 Manual and Gravity Electrodes

Supplier Type Trade Name of Consumable	Welding Position	Joint Type	Grade+Technique	Low Hydrogen
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Filarc C23S	D	BF	2m, 2Ym	No
Filarc C6HH	D	BF	3m, 3Ym	H10

ESAB AB - MUREX

Celtian	DXVuO	BF	2m	NR
Ferex 7016	DXVuO	BF	3m, 3Ym	H15
Ferex 7018LT	DXVuO	BF	3m, 3Ym	H15
Fortrex 7018	DXVuO	BF	3m, 3Ym	H15
Hitrex 7016 C1L	DXVuO	BF	5Y42m	H15

TAIWAN, REPUBLIC OF CHINA**CHINA ELECTRODE & MACHINERY COMPANY LIMITED**

China First C13	DXVuO	BF	1m	NR
China First C41	DXVuO	BF	3m	NR

**GOODWELD CORPORATION
TAINAN WORKS**

D 200	DXVuO	BF	3m	NR
G 03	DXVuO	BF	3m	NR
GL 52	DXVuO	BF	3m, 3Ym	H15
GL 5226	D	BF	3m, 3Ym	No
GOOD EX 55V	DXVuO	BF	3m, 3Ym	H15
GOOD EX-7	D	BF	3m, 3G	NR

TIEN TAI ELECTRODE COMPANY LIMITED

E-10	DXVuO	BF	3m	NR
R-13	DXVuO	BF	2m	NR
T-24	D	BF	2m, 2Ym	H10
TL-118M	DXVuO	BF	4Y69m	H5
TL-50	DXVuO	BF	3m, 3Ym	H10
TL-50D	DXVuO	BF	3m, 3Ym	H10
TL-56	D	BF	3Ym, 3YG	H15
TLH-581	DXVuO	BF	4Y40m	H5

THAILAND**GEMINI (THAILAND) CO. LTD**

GEMINI LD 52 U	DXVuO	BF	3m, 3Ym	H15
Gemini 11	DXVuO	BF	3m, 3Ym	No
Gemini 7018-1	DXVuO	BF	4Ym	H15
Gemini 7018LT	DXVuO	BF	3m, 3Ym	H15
Gemini D-1	DXVuO	BF	2m	NR
Gemini LD 52	DXVuO	BF	3m, 3Ym	H15
Gemini RB 36	DXVuO	BF	2m	NR
Nakata 26	DXVuO	BF	2m	NR

SING SANGUAN & SONS CO., LTD.

6013 WELPRO WP26	DXVuO	BF	2m	NR
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THAI KOBE WELDING CO. LTD

LB 52	DXVuO	BF	3m, 3Ym	H15
LB-52-18	DXVuO	BF	3m, 3Ym	H15
LB-52U	DXVuO	BF	3m, 3Ym	H15

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Supplier Type Trade Name of Consumable	Welding Position	Joint Type	Grade+Technique	Low Hydrogen
RB 26	DXVuO	BF	2m	NR
THAI TOKUDEN CO LTD				
Fujii CX-3	DXVudO	BF	2m	NR
Sumirod LF-52	DXVuO	BF	3m, 3Ym	H15
THAI WELCON INDUSTRY CO LTD				
WELCON GL-52	DXVuO	BF	3m, 3Ym	H15
THAI-SUN WELDING CO. LTD				
The Sun	DXVudO	BF	2m	NR
THANYANORASETH CO LTD				
Yawata 7018	DXVudO	BF	3m, 3Ym	H15
Yawata 7024	D	BF	2m, 2Ym	No
Yawata BT-52	DXVudO	BF	2m	NR
Yawata FT-51	DXVudO	BF	2m	NR
Yawata G-300	DXVuO	BF	3m	NR
Yawata L-55	DXVuO	BF	3m, 3Ym	H15
Yawata RU	DXVudO	BF	2m	NR
TURKEY				
BOHLER KAYNAK CUBUKLARI, ELEKTRODLARI SANAYII VE TICARET A.S.				
Fox EV-47-S	DXVuO	BF	3m, 3Ym	H15
Fox OHV	DXVuO	BF	2m	NR
Fox Sumer	DXVuO	BF	2m	NR
Fox-Cel	DXVuO	BF	3m	NR
Fox-EV-50	DXVuO	BF	3m, 3Ym	H15
BORKIM BORU PROFIL FILMASIN VE KIMYASAL URUNLER SANAYI TICARET LTD.STI.				
ARCTECH UNITECH 48	DXVuO	BF	3m, 3Ym	H10
ELGA ELEKTROD VE GAZ ALTI KAYNAK TELI SAN VE TIC LTD				
Welding BZ	DXVuO	BF	3m, 3Ym	H15
Welding R-13	DXVuO	BF	2m	NR
GEDIK KAYNAK SANAYI VE TICARET A.S.				
GEKA LASER B-47	DXVuO	BF	3m, 3Ym	H15
GEKA LOTUS	DXVuO	BF	2m	NR
GEKA PANTERA	DXVuO	BF	2m	NR
GEKA-ELIT	DXVuO	BF	2m	NR
KAYNAK TEKNIGI SANAYII VE TICARET A.S.				
AS B-204	DXVuO	BF	3m, 3Ym	H15
AS B-248	DXVuO	BF	3m, 3Ym	H5
AS B-248 H5	DXVuO	BF	3m, 3Ym	H5
AS B-255	DXVuO	BF	3m, 3Ym	H5
AS DT-180	DX	BF	2m	NR
AS R-116	DXVuO	BF	2m	NR
AS R-143	DXVuO	BF	2m	NR
AS S-6010	DXVudO	BF	3m	NR

SECTION 3 Manual and Gravity Electrodes

Supplier Type Trade Name of Consumable	Welding Position	Joint Type	Grade+Technique	Low Hydrogen
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OERLIKON KAYNAK ELEKTRODLARI VE SANAYI A.S.

Extracito	DXVuO	BF	3m, 3Ym	H10
Fincord M	DXVuO	BF	2m	NR
HALKALI BAZARK	DXVuO	BF	3m, 3Ym	H10
M4 E7018	DXVuO	BF	3m, 3Ym	H10
Magmaweld ESB-52	DXVuO	BF	3Ym	H5

UKRAINE**UKRAINIAN SOUTHERN COMPANY**

ITS-4S	DXVuO	BF	3m, 3Ym	H15
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UNITED ARAB EMIRATES**TTS ARC INDUSTRIES LLC**

TTS 6013	DXVudO	BF	2m	NR
TTS 7018	DXVuO	BF	3Ym	H5

UNITED KINGDOM**W.B. ALLOY WELDING PRODUCTS LTD**

WB 2000E	DXVuO	BF	1m	NR
WB 2024E	DXVuO	BF	3m, 3Ym	No
WB 2116E/WB 56S	DXVu	BF	4Y40m	H15
WB 2128E/WB 35S	DXVu	BF	3m, 3Ym	H15
WB 7018-G/WB 76S	DXVu	BF	5Y40m	H15

UNITED STATES OF AMERICA**HOBART BROTHERS CO, TUBULAR WIRE BUSINESS - COREX**

Corex 6011	DXVuO	BF	2m, 2Ym	No
Corex 7018	DXVuO	BF	3m, 3Ym	H5

HOBART BROTHERS CO, TUBULAR WIRE BUSINESS - HOBART

HOBART PIPEMASTER 60	DXVudO	BF	3m	NR
HOBART PIPEMASTER 70	DXVudO	BF	3m, 3Ym	No
HOBART PIPEMASTER 80	DXVudO	BF	3m, 3Ym	No
Hobart 335A	DXVuO	BF	2m, 2Ym	No
Hobart 418	DXVuO	BF	3m, 3Ym	H5
PIPEMASTER Pro-60	DXVudO	BF	3m	No

HOBART BROTHERS CO, TUBULAR WIRE BUSINESS - MACKAY

Mackay 7018-1	DXVuO	BF	3m, 3Ym	H5
Mc KAY ES 6013	DXVudO	BF	2m, 2Ym	No
Mc KAY ES 7018-1	DXVuO	BF	4Y42m	H5
Mc KAY ES 7024	DX	BF	2m, 2Ym	No
Mc KAY ES 7048	DXVdO	BF	3m, 3Ym	H5
McKay 6010PM	DXVudO	BF	3m	NR
McKay 6011	DXVuO	BF	2m, 2Ym	No
McKay 7010PM	DXVudO	BF	3m, 3Ym	No
McKay 8010PM	DXVudO	BF	3m, 3Ym	No

SECTION 3 Manual and Gravity Electrodes

Supplier Type Trade Name of Consumable	Welding Position	Joint Type	Grade+Technique	Low Hydrogen
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LINCOLN ELECTRIC COMPANY

Easy Arc 528 MR	DXVuO	BF	3m, 3Ym	H10
Excalibur 7018 MR	DXVuO	BF	3m, 3Ym	H5
Excalibur 7018-1 MR	DXVuO	BF	3m, 3Ym	H5
Fleetweld No 35	DXVuO	BF	3m	NR
Fleetweld No 37	DXVuO	BF	3m	NR
Fleetweld No 47	DXVuO	BF	1m	NR
Fleetweld No 5P	DXVuO	BF	3m	NR
Jet LH-78 MR	DXVuO	BF	3m, 3Ym	H5
Jetweld LH-70	DXVuO	BF	3m, 3Ym	H5
Jetweld No 1	D	BF	1m	NR
Jetweld No 2	D	BF	3m	NR

MEC WEAR AND FUSION TECHNOLOGY

MG 6013 M	DXVuO	BF	1m	NR
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THE ESAB GROUP INC - ALLOY RODS

Atom Arc 7018	DXVuO	BF	3m, 3Ym	H10
Atom Arc 7018-1	DXVuO	BF	3m, 3Ym	H10
Atom Arc 8018	DXVuO	BF	4Y40m	H10
Atom Arc 8018 C1	DXVuO	BF	3m, 3Ym	H15
Atom Arc 9018	DXVuO	BF	3Ym	H15

UNIWELD PRODUCTS, INC

Unipipe 6	DXVuO	BF	3m	NR
Uniweld 7018	DXVuO	BF	3m, 3Ym	H5

VENEZUELA**INVERSIONES ARCOMETAL, C.A.**

AGA B-10	DXVuO	BF	3m	H15
AGA C 11	DXVuO	BF	3m	NR
AGA C-10	DXVuO	BF	3m	NR
AGA R 10	DXVuO	BF	1m	NR
AGA RH 10	DXVuO	BF	2m	NR
AM B-10	DXVuO	BF	3m	H15
AM C-10	DXVuO	BF	3m	NR
AM C-11	DXVuO	BF	3m	NR
AM R-10	DXVuO	BF	1m	NR
AM RH-10	DXVuO	BF	2m	NR

LINCOLN SOLDADURAS DE VENEZUELA C.A.

GRICON 15 (E7018)	DXVuO	BF	3m	H15
GRICON 17 (E7024)	D	BF	1m	NR
GRICON 29 (E6010)	DXVuO	BF	2m, 2Ym	NR
GRICON 290 (E6011)	DXVuO	BF	2Ym	NR
GRIDUCT 5 (E7018-A1)	DXVuO	BF	2Ym	No
Gricon 15H1 (E7018-1)	DXVuO	BF	3m, 3Ym	H5
Griduct 18 (E8018-C1)	DXVuO	BF	3m, 3Ym	H5

VIETNAM**NAM TRIEU WELDING MATERIAL INDUSTRY COMPANY, HAI PHONG**

NA 6013	DXVuO	BF	2m	NR
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SECTION 3 Manual and Gravity Electrodes

Supplier Type Trade Name of Consumable	Welding Position	Joint Type	Grade+Technique	Low Hydrogen
NA 7016	DXVuO	BF	3m, 3Ym	H15
NA 7018	DXVuO	BF	3m, 3Ym	H15
NB 6013	DXVuO	BF	2m	NR
NT 6013	DXVuO	BF	2m	NR

YUGOSLAVIA**DD FEP "PIVA" PLUZINE**

PIVA 130 RR	DXVuO	BF	2m	NR
PIVA 150B	DXVuO	BF	3m, 3Ym	H15
PIVA 160 B	DXVuO	BF	3m, 3Ym	H15

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