ROYAL
WELDING WIRES PRIVATE LIMITED

WIRED TO RULE.

Not all wires are born equal.
Ours wear a crown.

Royal Welding Wires isn't just metal — it's monarchy. Meet the empire that leads, not follows.

Royal Welding Wires

All Hail The Spark

SUMMARY

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JACKSUN ULTRA-13S

A MEDIUM HEAVY COATED RUTILE TYPES ALL POSITION WELDING ELECTRODE

BASIC ALLOY: C, FE, MN
AWS/SFA-5.1: E 6013
EN ISO 2560-A 38 0 R 11

KEY FEATURES:

A medium heavy coated rutile types all position welding electrode with weld deposit of radiographic quality. The electrode can be subjected to low OCV, offer smooth rippled bead appearance coupled with low spatter and fumes

APPLICATIONS

- Suitable for storage tanks.
- Rail coaches.
- Pressure vessels.
- Heavy structures and pipe welding works.
- Ship construction
- Structure works, Boilers etc.

RE-DRY CONDITION:

- Re-Dry the electrode at 120°C for 30-60 minutes, for best results.

CHEMICAL COMPOSITION:

C	Mn	Si	S	P	Mo
0.10 max.	0.40-0.60	0.30 Max	0.30 Max	0.30 Max	2.00-3.00

MECHANICAL PROPERTIES:

YS (N/mm2)	UTS (N/mm)	EL % (l=5d)	CHARPY "V" NOTCH IMPACT @
350-470	450-540	22-30	0C : 50-80 J

WELDING POSITION


1G/1F


2G/2F


3G UP


3G DOWN


4G

DIEMENSION, CURRENT CONDITION & PACKING DATA

Size (mm) (Dia)	Size (inch) (Dia)	Current Condition (DC+/ AC) Amps	Kg/pkt.	Kg/Case
2.00 X 300	5/ 64"	50-75	5	20
2.50/ 2.40	3/ 32"	60-90	5	20
3.15/ 3.20	1/ 8"	**100-130**	5	20
4.00	5/ 32"	150-180	5	20
5.00	3/ 16"	190-230	5	20

JACKSUN ULTRA-14

RUTILE TYPE ELECTRODES DESIGNED FOR HIGH EFFICIENCY WELDING JOBS

BASIC ALLOY: FE, MN, SI
AWS/SFA-5.1: E7014
EN ISO 2560-A E 42 0 R 14

KEY FEATURES:

Medium heavy coated, iron powder, rutile type electrodes designed for high efficiency welding jobs. Deposition efficiency exceeds 115% and weld are of radiographic quality.

APPLICATIONS

- Suitable for thicker sections machinery components.
- Heavy mild steel Structure's.
- Boilers and pressure vessels.
- Bridges, wagons, tanks and vessels.
- Ships, girders, barges etc

RE-DRY CONDITION:

- Re-Dry the electrode at 120°C for one hour, for best results.

CHEMICAL COMPOSITION:

C	Mn	Si	S	P
0.15 max.	1.25Max.	0.90 Max	0.035 Max	0.035 Max

MECHANICAL PROPERTIES:

YS (N/mm2)	UTS (N/mm2)	EL % (l=5d)	CHARPY "V" NOTCH IMPACT AT
400 Min.	490	17min	0C : 80-100 J

WELDING POSITION

1G/1F

2G/2F

DIEMENSION, CURRENT CONDITION & PACKING DATA

Size (mm) (Dia)	Size (inch) (Dia)	Current Condition (DC-/AC) Amps	Kg/pkt.	Kg/Case
2.50/ 2.40	3/ 32"	**70-110**	5	20
3.15/ 3.20	1/ 8"	**100-150**	5	20
4.00	5/ 32"	160-200	5	20
5.00	3/ 16"	200-250	5	20

JACKSUN ULTRA-24

EXTRA HEAVY COATED, IRON POWDER & RUTILE TYPE WELDING ELECTRODE FOR HIGH DEPOSITION EFFICIENCY 140% MIN.

BASIC ALLOY: FE, MN, SI

EN ISO 2560-A E 42 0 R 24

KEY FEATURES:

An extra heavy coated, iron powder, rutile type electrodes for achieving high deposition efficiency 140% Min. Electrode is touch welding type, gives smooth arc, least spatter losses, reduces welding time and gives increased productivity and output by using high current. Welds are of radiographic quality

APPLICATIONS

- Heavy sections machinery components.
- Heavy Structural works like cranes and bridges.
- Assembly of earthmoving equipment.
- Welding heavy columns, locomotive.
- Heavy machinery parts, in shipbuilding, pressure vessels etc..

RE-DRY CONDITION:

- Re-Dry the electrode at 120°C for one hour, for best results

CHEMICAL COMPOSITION:

C	Mn	Si	S	P
0.10 max.	0.50-1.25	0.50 Max	0.030 Max	0.030 Max

MECHANICAL PROPERTIES:

YS (N/mm2)	UTS (N/mm2)	EL % (l=5d)	CHARPY "V" NOTCH IMPACT AT
400 Min.	500	22 min	0C : 100-120 J

WELDING POSITION

1G/1F

2G/2F

DIEMENSION, CURRENT CONDITION & PACKING DATA

Size (mm) (DXL)	Size (inch) (DXL)	Current Condition (DC-/AC) Amps	Kg./pkt.	KG/Case
2.50/ 2.40	3/ 32"	70-110	5	20
3.15/ 3.20	1/ 8"	100-150	5	20
4.00	5/ 32"	160-200	5	20
5.00	3/ 16"	200-250	5	20

JACKSUN XCEL-10

HIGH CELLULOSIC ELECTRODE FOR PIPE WELDING

BASIC ALLOY: C, FE, MN
AWS/SFA-5.1:E6010
EN ISO 2560-A E 42 3 C 25

KEY FEATURES:

A medium coated, cellulosic type electrode with forceful and spray arc, ensures deep penetration in all position including vertical down hand. Weld metal is of radiographic quality coupled with easy slag detachability, weld metal is ductile

APPLICATIONS

- Suitable for tank & vessels.
- General fabrication
- Vehicles, Storage tanks
- Railway wagons and machinery.
- Ship construction, light structural steel works

RE-DRY CONDITIONS:

- Not recommended

CHEMICAL COMPOSITION:

C	Mn	Si	S	P
0.20 max.	0.40-0.80	0.30 Max	0.030 Max	0.030 Max

MECHANICAL PROPERTIES

YS (N/mm2)	UTS (N/mm2)	EL % (l=5d)	CHARPY "V" NOTCH IMPACT AT
330-450	430-560	22-30	- 3C : 50-80 J

WELDING POSITION


1G/1F


2G/2F


3G UP


3G DOWN


4G

DIEMENSION, CURRENT CONDITION & PACKING DATA

Size (mm) (Dia)	Size (inch) (Dia)	Current Condition (DC+/ AC) Amps	Kg /pkt.	Kg/Case
2.50/ 2.40	3/ 32"	50-80	5	20
3.15/ 3.20	1/ 8"	90-130	5	20
4.00	5/ 32"	110-160	5	20

JACKSUN XCEL-11

HIGH CELLULOSIC ELECTRODE FOR PIPE WELDING

BASIC ALLOY: C, FE, MN
AWS/SFA-5.1: E6011
EN ISO 2560-A E 42 3 C 15

KEY FEATURES:

High cellulose coated, potassium type electrode for pipe welding in DC (+) as well as AC current condition. Forceful and spray arc, ensures deep penetration and Weld metal is of radiographic quality. Slag system that is a fast freezing, thin and easy removable

APPLICATIONS

- site welding of pipes and pipelines in all positions
- using stove pipe and conventional techniques particularly for root bead.

RE-DRY CONDITIONS:

- Not recommended

CHEMICAL COMPOSITION:

C	Mn	Si	S	P
0.20 max.	0.40-0.80	0.30 Max	0.030 Max	0.030 Max

MECHANICAL PROPERTIES

YS (N/mm2)	UTS (N/mm2)	EL % (l=5d)	CHARPY "V" NOTCH IMPACT AT
330-450	430-560	22-30	- 3C : 50-80 J

WELDING POSITION


1G/1F


2G/2F


3G UP


3G DOWN


4G

DIEMENSION, CURRENT CONDITION & PACKING DATA

Size (mm) (Dia)	Size (inch) (Dia)	Current Condition (DC+/ AC) Amps	Kg/pkt.	Kg/Case
2.50/ 2.40	3/ 32"	50-80		
3.15/ 3.20	1/ 8"	80-130		
4.00	5/ 32"	110-160		

JACKSUN XCEL710 P1

AN EXCELLENT ALL-POSITION, CELLULOSIC COATED ELECTRODE FOR HIGH YIELD PIPE WELDING

BASIC ALLOY: FE, MN, NI
AWS/SFA-5.5: E 7010-P1
EN ISO 2560-A E 46 3 C 25

KEY FEATURES:

An excellent all-position electrode with cellulose coating provides good welder appeal and smooth arc characteristics. This electrode has been specially designed for high-yield pipeline steels. It delivers great arc stability and the best penetration possible when welding 5L, 5LX, and X52-X65 pipes.

APPLICATIONS

- High-yield pipe steels
- Drill platforms
- Ship-building
- Storage tanks

RE-DRY CONDITION:

- Not recommended

CHEMICAL COMPOSITION:

C	Mn	Si	S	P	Ni	Cr	Mo	V
0.20	1.2	0.60	0.030	0.030	1.00	0.30	0.50	0.10

(Single value maximum)

MECHANICAL PROPERTIES:

YS (N/mm2)	UTS (N/mm2)	EL % (l=5d)	CHARPY "V" NOTCH IMPACT AT
415 min.	490 min.	22 min	- 30°C : 27 J min

WELDING POSITION

1G/1F 2G/2F 3G UP 3G DOWN 4G

DIEMENSION, CURRENT CONDITION & PACKING DATA

Size(mm) (Dia	Size(inch) (Dia)	Current Condition (DC+/AC) Amps	Kg./pkt.	KG/Case
2.50/ 2.40	3/ 32"	**50-80**	5	20
3.15/ 3.20	1/ 8"	**80-130**	5	20
4.00	5/ 32"	110-160	5	20

JACKSUN ULTRA-15

BASIC ALLOY: FE, MN, SI
AWS/SFA-5.1: E7015-1

LIME-TYPE COATED, HYDROGEN-CONTROLLED
ELECTRODE FOR HIGH-CARBON AND SULPHUR STEELS.

KEY FEATURES:

A medium heavy coated, basic coated electrode, hydrogen controlled for welding unknown composition steels, difficult to weld steels with high carbon and high sulphur, cast steels. Weld metal is highly crack resistant and is of radiographic quality.

APPLICATIONS

- Suitable for welding unknown composition steels.
- Low alloy steels.
- Mild steel to high-carbon steel.
- Steel components with high carbon and high sulfur.
- Cast iron repairs etc.
- Armor plants

RE-DRY CONDITION:

- Re-Dry the electrode at 350□C for one hour, for best results.

CHEMICAL COMPOSITION:

C	Mn	Si	S	P
0.10 max	0.80-1.50	0.50 max	0.030 max	0.030 max

MECHANICAL PROPERTIES:

YS (N/mm2)	UTS (N/mm2)	EL % (l=5d)	CHARPY "V" NOTCH IMPACT AT
400-500	490-600	22 min	- 50°C : 50-80 J

WELDING POSITION

1G/1F 2G/2F 3G UP 4G

DIEMENSION, CURRENT CONDITION & PACKING DATA

Size(mm) (Dia	Size(inch) (Dia)	Current Condition (DC+/AC) Amps	Kg./pkt.	KG/Case
2.50/ 2.40	3/ 32"	**60-100**	5	20
3.15/ 3.20	1/ 8"	**90-140**	5	20
4.00	5/ 32"	130-180	5	20
5.00	3/ 16"	180-250	5	20

JACKSUN ULTRA-16

BASIC COATED, LOW HYDROGEN ELECTRODE FOR WELDING HIGH AND MEDIUM CARBON SULPHUR STEELS.

BASIC ALLOY: FE, MN, SII
AWS/SFA-5.1: E 7016
EN ISO 2560-A E 42 3B 12

KEY FEATURES:

An electrode for welding medium and high tensile structures, grey cast iron components, low and medium carbon steels. The deposits are of radiographic quality coupled with excellent mechanical properties.

APPLICATIONS

- joining mild steel to carbon steel
- Overlaying buffer layer before hard-facing
- Boilers, Flat forms and offer drilling rigs
- Pressures vessels tanks
- Blast furnace sells

RE-DRY CONDITION:

- Re-dry the electrode at 350°C for one hour, for best results

CHEMICAL COMPOSITION:

C	Mn	Si	S	P
0.10	0.80-1.50	0.75	0.030	0.030

(Single value maximum)

MECHANICAL PROPERTIES:

YS (N/mm2)	UTS (N/mm2)	EL % (l=5d)	CHARPY "V" NOTCH IMPACT AT
420 min	490 min.	22 min	- 30°C : 27 J min

WELDING POSITION

1G/1F 2G/2F 3G UP 3G DOWN 4G

DIEMENSION, CURRENT CONDITION & PACKING DATA

Size(mm) (Dia	Size(inch) (Dia)	Current Condition (DC+/AC) Amps	Kg./pkt.	KG/Case
2.50/ 2.40	3/ 32"	70-100	5	20
3.15/ 3.20	1/ 8"	100-130	5	20
4.00	5/ 32"	140-180	5	20
5.00	3/ 16"	190-230	5	20

JACKSUN ULTRA 16W

SPECIAL DESIGNED COVERED ELECTRODE FOR
MELT-THROUGH ROOT-PASS WELDING

BASIC ALLOY: FE, MN, SI
AWS/SFA-5.1: E7016,
EN SIO 2560-A E 42 2 B

KEY FEATURES:

ROWELD-LB52U is a special design covered electrode for melt-through root pass welding or one side root pass welding with penetration weld beads, electrode feature is very smooth and stable arc with low spatter over variables welding current,

APPLICATIONS

- H S½k ab e f ® ® ® ½ e kde f Õe dk g «k«e a d ge e®a ®½c
- HR½®a Mak e a ce a d fab®kca k
- H P®e½®e Ôe e

RE-DRY CONDITION:

- Re]D®Û he e ec® de a °C f ® e h ½® f ® be ®e

CHEMICAL COMPOSITION:

C	Mn	Si	S	P
H	H	H	H	H

MECHANICAL PROPERTIES:

YS WNU	UTS WNU	EL % W =	CHARPY "V" NOTCH IMPACT AT
k	k H	k	]C J J k

WELDING POSITION

1G/1F 2G/2F 3G UP 3G DOWN 4G

DIEMENSION, CURRENT CONDITION & PACKING DATA

SkäeW WDkaX	SkäeWk c WDkaX	C½®®e C dk k WDC+UAC VX	KgHU«~	KGUCa e
H U H	U e	70-100	U	U
H U H	U e	90-130	U	U
H	U e	]	U	U
H	U e	]	U	U

JACKSUN-18

A HEAVY COATED, HYDROGEN CONTROLLED, BASIC COATED, IRON POWDER TYPEELECTRODE

BASIC ALLOY: FE, MN, SI
AWS/SFA-5.1: E 7018
EN ISO 2560-A E 42 3 B 32

KEY FEATURES:

A Heavy coated, hydrogen controlled, basic coated, iron powder type electrode specially designed for restrained joints subjected to dynamic loading and to achieve minimum 110% metal recovery, possess, excellent mechanical properties, weld deposits are highly ductile, crack resistant and of radiographic quality

APPLICATIONS

-) Blast furnace, Offers Drilling rigs and flat forms.
- 2) Penstocks heavy structures subjected to dynamic loading and impact.
- 3) Rail wagons, coaches.
- 4) Industrial & mining machinery, bridges, boiler fabrication.
- 5) Steels subjected to service at -30°C down sub-zero temperature.
- 6) Machinery for Earth moving and road equipment's.
- 7) Atomic reactor shell and pipe work.
- 8) Frigates & submarines

RE-DRY CONDITION:

- Re-Dry the electrode at 250°C-300°C for one hour before use.

CHEMICAL COMPOSITION:

C	Mn	Si	S	P
0.10 max.	0.80-1.60	0.75 Max	0.030 Max	0.030 Max

MECHANICAL PROPERTIES:

YS (N/mm2)	UTS (N/mm2)	EL % (l=5d)	CHARPY "V" NOTCH IMPACT AT
450 Min.	510-620	22 min	-30C : 60-100 J

WELDING POSITION


1G/1F


2G/2F


3G UP


4G

DIEMENSION, CURRENT CONDITION & PACKING DATA

Size (mm) (Dia)	Size (inch) (Dia)	Current Condition (DC±/AC) Amps	No. of Pcs./pkt.	No. of Pcs./Case
2.50/ 2.40	3/ 32"	**70-100**	5	20
3.15/ 3.20	1/ 8"	**100-130**	5	20
4.00	5/ 32"	140-180	5	20
5.00	3/ 16"	190-230	5	20

JACKSUN -18 SPL

HYDROGEN CONTROLLED, BASIC COATED, IRON POWDER TYPE ELECTRODE FOR OUTSTANDING TOUGHNESS IMPACT PROPERTIES

BASIC ALLOY: FE, MN, SI
AWS/SFA-5.1: E 7018
EN ISO 2560-A E 42 4 B 32

KEY FEATURES:

An iron powder, hydrogen controlled electrode producing tough & ductile weld metal for welding heavy & rigid structure subjected to dynamic loading. The weld metal is of radiographic quality and displays remarkable mechanical properties like toughness resistance even at -50°C temperature

APPLICATIONS

- Suitable for high pressure boilers vessels.
- Carbon steel rigid and heavy structures.
- Steels sensitive to hydrogen embrittlement and prone to crack.
- ndustrial equipment subjected to severe impact.
- off-shore drilling rigs and flat forms
- Equipment's require heavy impact at minus 46°C.
- Thick plate of carbon steels

RE-DRY CONDITION:

- Re-Dry the electrode at 250°C-300°C for one hour before use

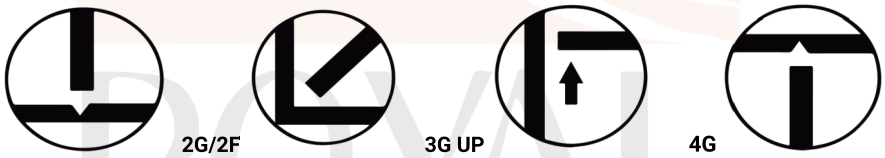
CHEMICAL COMPOSITION:

C	Mn	Si	S	P
0.10 max	1.00-1.60	0.50 Max	0.030 Max	0.030 Max

MECHANICAL PROPERTIES:

YS (N/mm2)	UTS (N/mm2)	EL % (l=5d)	CHARPY "V" NOTCH IMPACT AT
460-520	520-620	24-32	-46C : 50-80J

WELDING POSITION



1G/1F 2G/2F 3G UP 4G

DIEMENSION, CURRENT CONDITION & PACKING DATA

Size (mm) (DXL)	Size (inch) (DXL)	Current Condition (DC+/AC 90V)	Kg./pkt.	KG/Case
2.50/ 2.40	3/ 32"	**80-100**	5	20
3.15/ 3.20	1/ 8"	**110-140**	5	20
4.00	5/ 32"	150-180	5	20
5.00	3/ 16"	210-260	5	20

JACKSUN 18 SPECIAL H4R

MOISTURE RESISTANT, HYDROGEN CONTROLLED,
VACUUM PACKED, BASIC COATED ELECTRODE

BASIC ALLOY: FE, MN, SI
AWS A/ SFA 5.1 E 7018 H4R
EN ISO 2560-A E 42 3 B 32 H5

KEY FEATURES:

Truly the first indigenous moisture resistant, hydrogen controlled, vacuum packed, basic coated electrode which is welder friendly and is recommended for Welding of mild and medium carbon steel, high strength steel, cast steel and problematic steels. The electrode is vacuum packed and hence does not require expensive redrying at 250°C for 2 hours or a higher temperature. The weld metal is clean and has lowest level of impurities thus having unique properties of resistance to ageing

APPLICATIONS

- All maintence applications including welding of all types of carbon-manganese steels, high tensile, heavy structures, plants and subject to static or dynamic loading. Can be used as a buffer layer before hard facing

RE-DRY CONDITION:

- No need of drying. The electrodes are vacuum packed hence can be used straight on the job.

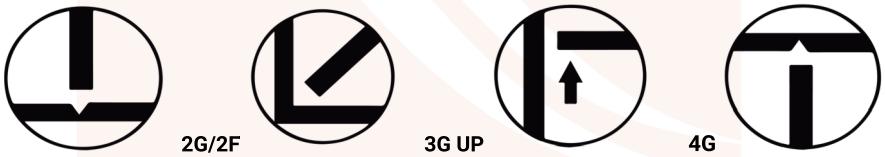
CHEMICAL COMPOSITION:

C	Mn	Si	S	P
0.050-0.095	0.80-1.40	0.30-0.70	0.030 Max	0.035 Max

MECHANICAL PROPERTIES:

YS (N/mm2)	UTS (N/mm2)	EL % (l=5d)	CHARPY "V" NOTCH IMPACT AT
450 -520	520-600	24-32min	-40C : >60J

WELDING POSITION



1G/1F 2G/2F 3G UP 4G

DIEMENSION, CURRENT CONDITION & PACKING DATA

Size (mm) (Dia)	Size (inch) (Dia)	Current Condition (DC+/AC 70V)	Kg/pkt.	Kg/Case
2.50/ 2.40	3/ 32"	**70-100**	5	20
3.15/ 3.20	1/ 8"	**100-130**	5	20
4.00	5/ 32"	140-180	5	20
5.00	3/ 16"	190-230	5	20

JACKSUN ULTRA-18M

A HEAVY COATED, HYDROGEN CONTROLLED, BASIC COATED, IRON POWDER TYPEELECTRODE

BASIC ALLOY: FE, MN, SI, MO
AWS/SFA-5.5: E 7018 A1
EN ISO 3580 E MO B 32

KEY FEATURES:

An iron powder, hydrogen controlled medium heavy coated electrode producing 0.50% Mo weld deposit. Electrode has high welding efficiency coupled with creep resistance properties at 525°C temperature and has excellent mechanical properties

APPLICATIONS

- Suitable for high pressure boiler tubes and plates.Fabrication for welding 0.50% Mo and 1% Cr-0.5% Mo steels used for elevated temperature services up to 525°C. Suitable for fine grained and creep resistant steel welding.

RE-DRY CONDITION:

- Re-Dry the electrode at 350°C for one hour before use.

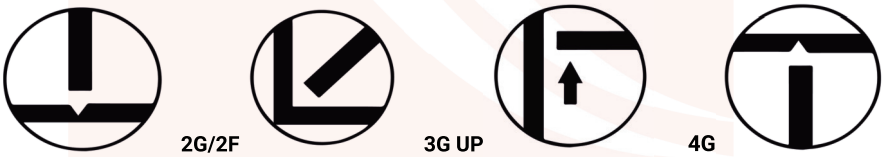
CHEMICAL COMPOSITION:

C	Mn	Si	S&P	Mo
0.12 max.	0.90 Max	0.60 Max	0.030 Max	0.40-0.65

MECHANICAL PROPERTIES:

YS (N/mm2)	UTS (N/mm2)	EL % (l=5d)	CHARPY "V" NOTCH IMPACT AT
390 Min.	490 Min	22 min	+27C : 140 J

WELDING POSITION



1G/1F 2G/2F 3G UP 4G

DIEMENSION, CURRENT CONDITION & PACKING DATA

Size (mm) (Dia)	Size (inch) (Dia)	Current Condition (DC±/AC) Amps	No. of Pcs./pkt.	No. of Pcs./Case
2.50/ 2.40	3/ 32"	70-100	5	20
3.15/ 3.20	1/ 8"	100-130	5	20
4.00	5/ 32"	140-180	5	20
5.00	3/ 16"	190-230	5	20

JACKSUN ULTRA-8018 (NI)SPL

BASIC TYPE, IRON POWDER TYPE ELECTRODE YIELDING A WELD METAL CONTAINING 1.5MN AND 0.7NI.

BASIC ALLOY: FE, MN, SI,NI
AWS/SFA-5.1: E8018-G
EN ISO 2560-A-E 46 5 1NI B 12

KEY FEATURES:

ROWELD-8018 (Ni) Spl is an iron powder low hydrogen type electrode, and provides good usability with direct current applications in all-positions. The weld metal has good crack resistability and X-ray soundness. Also it is suitable for multi-layer fillet welding in large leg length.

APPLICATIONS

- 1. Welding of 55kgf/mm2 class high tensile strength steel for ships, bridges, buildings, and boilers
- 2. Welding of ALDUR 45/60, ASTM SA-841/841M
- 3. Joining steels containing 1% Ni

RE-DRY CONDITION:

- Re-Dry the electrode at -350°C for one hour before use.

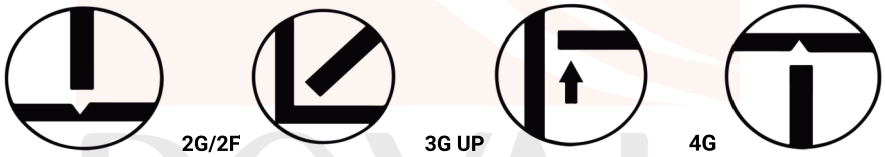
CHEMICAL COMPOSITION:

C	Mn	Si	S&P	Ni
0.12 max	1.3-1.80	0.60 Max	0.020 Max	1.00 Max

MECHANICAL PROPERTIES:

YS (N/mm2)	UTS (N/mm2)	EL % (l=5d)	CHARPY "V" NOTCH IMPACT AT
460 min.	550 min.	22 Min.	51C : 30-60J

WELDING POSITION



1G/1F 2G/2F 3G UP 4G

DIEMENSION, CURRENT CONDITION & PACKING DATA

Size(mm) (DIA)	Size(inch) (DIA)	Current Condition (DC+/AC 90V)	Kg./pkt.	KG/Case
2.50/ 2.40	3/ 32"	80-100	5	20
3.15/ 3.20	1/ 8"	110-140	5	20
4.00	5/ 32"	150-180	5	20
5.00	3/ 16"	210-260	5	20

JACKSUN ULTRA-8018 D3

EXTRA LOW HYDROGEN CONTROLLED ELECTRODE
YIELDING A WELD DEPOSIT CONTAINING MN-MO

BASIC ALLOY: FE, MN, SI, MO,NI
AWS/SFA-5.1: E8018-D3

KEY FEATURES:

Extra Low Hydrogen type, Medium-heavy coated electrode Mn-Mo type low alloy steel welds,Exhibit good toughness at subzero temperatures, all position capability Weld metal gives radiography quality, ultrasonic and other code requirementsSuitable for fully killed fine grained steels,

APPLICATIONS

- 1. Suitable for Welding of Mn-Mo type steels and equivalent grades Penstocks,
- 2. Pressure vessels Welding low alloy high strengths steels in 540 MPa UTS range
- 3. Earth moving equipment's

RE-DRY CONDITION:

- Re-Dry the electrode at -350°C for one hour before use.

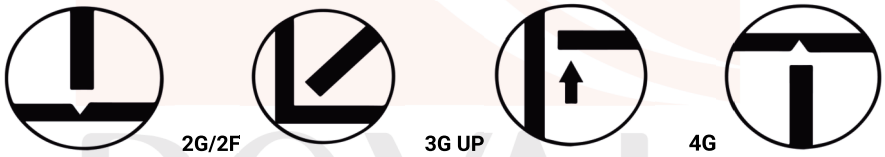
CHEMICAL COMPOSITION:

C	Mn	Si	S&P	Ni	Mo
0.12 max	1.00-1.80	0.80 Max	0.020 Max	0.90 Max	0.40-0.65

MECHANICAL PROPERTIES:

YS (N/mm2)	UTS (N/mm2)	EL % (l=5d)	CHARPY "V" NOTCH IMPACT AT
460 min.	550 min.	19 Min.	51C : 30-60J

WELDING POSITION



1G/1F 2G/2F 3G UP 4G

DIEMENSION, CURRENT CONDITION & PACKING DATA

Size(mm) (DXL)	Size(inch) (DXL)	Current Condition (DC+/AC 90V)	Kg./pkt.	KG/Case
2.50/ 2.40	3/ 32"	80-100	5	20
3.15/ 3.20	1/ 8"	110-140	5	20
4.00	5/ 32"	150-180	5	20
5.00	3/ 16"	210-260	5	20

JACKSUN ULTRA-9016 B3

LOW HYDROGEN TYPE ELECTRODE FOR ALL-POSITION WELDING WHICH PROVIDES THE WELD METAL 2.25% CR-1% MO

BASIC ALLOY: FE, CR,MO
AWS/SFA-5.5: E E 9016 B3
EN ISO 3580-A E CRMO2B 12 H5

KEY FEATURES:

ROWELD-9016-B3 is a low hydrogen type electrode for all-position welding which provides the weld metal 2.25% Cr-1% Mo

APPLICATIONS

- Suitable Welding of 2.25% Cr-1% Mo steel used for super-heater tubes and steam pipes of boilers for electric power plant and marine use, equipment's for oil refining industries and high temperature synthetic chemical industries

RE-DRY CONDITION:

- Re-Dry the electrode at -350°C for one hour before use.

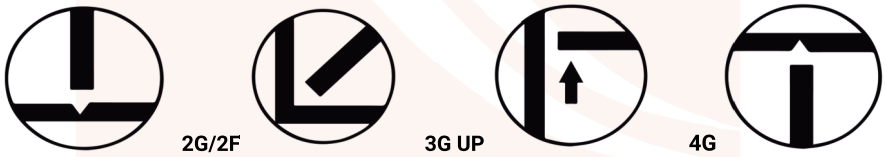
CHEMICAL COMPOSITION:

C	Mn	Si	Cr	Mo	S&P
0.05-0.12	0.90 Max.	0.60 Max	2.00-2.50	0.90-1.20	0.030 Max

MECHANICAL PROPERTIES:

YS (N/mm2)	UTS (N/mm2)	EL % (l=5d)
530 min.	620 Min.	20 min

WELDING POSITION



1G/1F 2G/2F 3G UP 4G

DIEMENSION, CURRENT CONDITION & PACKING DATA

Size(mm) (Dia	Size(inch) (Dia)	Current Condition (DC+/AC) Amps	Kg./pkt.	KG/Case
2.50/ 2.40	3/ 32"	**70-100**	5	20
3.15/ 3.20	1/ 8"	**100-130**	5	20
4.00	5/ 32"	140-180	5	20
5.00	3/ 16"	190-230	5	20

JACKSUN ULTRA-8016 C3

A BASIC COATED, HYDROGEN CONTROLLED, 1.00% NI ALLOYED ELECTRODE FOR WELDING LOW ALLOY STEELS.

BASIC ALLOY: FE, MN, SI, NI,
AWS/SFA-5.5: E 8016 C3
EN ISO 3580-A E CRMO2B
12 H5

KEY FEATURES:

ROWELD-8016-C3 A Hydrogen controlled, basic coated electrode presence 1.0% Ni applications. Usually where notch toughness at temperatures as low as -40°C. These electrodesprovide excellent puddle control with goodwetting action

APPLICATIONS

- applications include storage tanks for liquefied gases, distillers in coke oven batteries and in petrochemical industries. Ideal for welding high strength and fine grained steels subject to severe stress and heavy impact at subzero temperatures

RE-DRY CONDITION:

- Re-Dry the electrode at -350°C for one hour before use

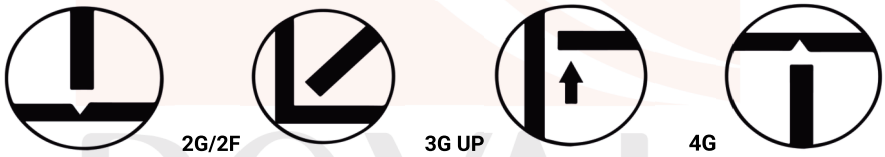
CHEMICAL COMPOSITION:

C	Mn	Si	S&P	Cr	Mo
0.12 max	0.40-1.25	0.80 Max	0.030 Max	0.15 Max.	0.15 Max

MECHANICAL PROPERTIES:

YS (N/mm2)	UTS (N/mm2)	EL % (l=5d)	CHARPY "V" NOTCH IMPACT AT
470 min.	550 Min.	24 min	-40C: 50-80 Joules

WELDING POSITION



1G/1F 2G/2F 3G UP 4G

DIEMENSION, CURRENT CONDITION & PACKING DATA

Size (mm) (DIA)	Size (inch) (DIA)	Current Condition (DC+) Amps	Kg./pkt.	KG/Case
2.50/ 2.40	3/ 32"	70-100	5	20
3.15/ 3.20	1/ 8"	100-130	5	20
4.00	5/ 32"	140-180	5	20
5.00	3/ 16"	190-230	5	20

JACKSUN ULTRA-HTH4R

BASIC-TYPE HYDROGEN CONTROLLED ELECTRODE FOR WELDING HIGH TENSILE STRUCTURAL STEEL

BASIC ALLOY: FE, MN, SI, NI, CR
AWS/SFA-5.5: E 9018 G H4R
EN ISO 18275-B E 62 18-G A H5

KEY FEATURES:

A basic type, medium-heavy coated, hydrogen-controlled iron powder electrode for heavy-section, constrained joints in high-tensile structural steels.

APPLICATIONS

- Welding high tensile steels.
- Oil refinery components
- Structural fabrication
- Equipment such as penstocks to be subjected to -50°C
- Power house construction
- Boiler fabrication

RE-DRY CONDITION:

- No need of drying. The electrodes are vacuum packed hence can be used straight on the job.

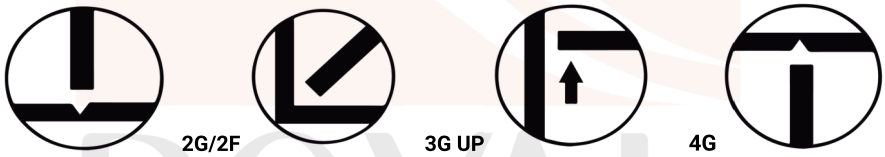
CHEMICAL COMPOSITION:

C	Mn	Si	Ni	Mo	S&P
0.10 max	1.20-1.80	0.50 Max	0.80-1.50	0.60 Max	0.025 Max

MECHANICAL PROPERTIES:

YS (N/mm2)	UTS (N/mm2)	EL % (l=5d)	CHARPY "V" NOTCH IMPACT AT	Hydrogen contains
520min.	620min.	17 min	-50C: 50-80 Joules	less than 4mL/100g

WELDING POSITION



1G/1F 2G/2F 3G UP 4G

DIEMENSION, CURRENT CONDITION & PACKING DATA

Size (mm) (DIA)	Size (inch) (DIA)	Current Condition (DC+/AC 70V) Amps	Kg./pkt.	KG/Case
2.50/ 2.40	3/ 32"	70-100	5	20
3.15/ 3.20	1/ 8"	100-130	5	20
4.00	5/ 32"	140-180	5	20
5.00	3/ 16"	190-230	5	20

JACKSUN NOVA-307

AUSTENITIC STAINLESS STEEL WELDING WIRE FOR MIG/TIG WELDING

BASIC ALLOY: FE, CR, MN, NI
AWS/SFA-5.9: ER307 NR
EN ISO 14343-A 18 8 MN

KEY FEATURES:

The ER307 welding wire is a high-alloy austenitic stainless steel filler material primarily used for welding stainless steels of similar composition. It contains higher manganese (Mn) and chromium (Cr) compared to standard stainless steels, providing superior toughness and ductility. This electrode is especially suitable for applications requiring high resistance to corrosion, oxidation, and heat.

APPLICATIONS

- Suitable for joining and overlaying austenitic manganese steels
- Ideal for high-temperature and cryogenic applications
- Commonly used in petrochemical, food processing, and nuclear industries

SHEILDING GAS:

- welding with 100% Ar gas Or Ar+2%O2 gas.

CHEMICAL COMPOSITION:

C	Mn	Si	S	P	Ni	Cr	Mo	Cu
0.04-0.014	6.00-8.00	1.00 max	0.03 Max	0.03 Max	9.00-11.00	18.5 - 21.5	1.5 max	0.5 Max

MECHANICAL PROPERTIES:

UTS (N/mm)	EL % (l=5d)
590 min	35 min

WELDING POSITION

1G/1F 2G/2F 3G UP 3G DOWN 4G

DIEMENSION, CURRENT CONDITION & PACKING DATA (FOR MIG WELDING)

Size (mm)	Size (inch)	Current Condition (DC+)	Voltage (V)	Gas Flow Rate L/min	Spool packing 12.5 kg	Spool packing 15 kg	Drum packing 100/200kg
0.80	0.031	70-150	18-22	15-20	√	√	X
1.20	0.047	120-250	22-28	15-20	√	√	√
1.60	1/16"	150-300	24-30	15-20	√	√	√

DIEMENSION, CURRENT CONDITION & PACKING DATA (FOR TIG WELDING)

Size (mm)	Size (inch)	Length (mm)	Length (Inch)	Current Condition (DC+)	Voltage (V)	Tube packing 5 kg	Box packing 20 kg
1.60	1/ 16"	1000	36"	40-80	10-16	√	√
2.0	5/ 64"	1000	36"	50-100	12-18	√	√
2.4/ 2.5	3/ 32"	1000	36"	60-120	14-20	√	√
3.2	1/ 8"	1000	36"	**100-150**	16-24	√	√
4.0	5/ 32	1000	36"	**140-200**	18-28	√	√

Royale Weldwell also offers Ronox-307 Si Mig Welding wire

JACKSUN NOVA-308L

LOW CARBON STAINLESS STEEL ELECTRODE WELDING
FOR MAXIMUM RESISTANCE TO CORROSION

BASIC ALLOY: MN, CR, NI
AWS/SFA-5.4: E308L-16
EN ISO: 3851-A E 199 LR 32

KEY FEATURES:

An extra low carbon 19/10 stainless steel electrode with properties like resistance to oxidation, resistance to cracking at high temperature. The extra low carbon decreases the possibility of intra-granular corrosion. The electrode gives smooth arc, fine bead appearance and shiny finish

APPLICATIONS

- Suitable for joining AISI 301L, 302L, 304L and 308L steel having 18Cr/8Ni with low carbon content
- Welding for clad ste1) Overlays in Un-alloyed, low alloy steels etc..
- els of similar composition

RE-DRY CONDITION:

- Re-Dry the electrode at 250°Cfor one hour before use.

CHEMICAL COMPOSITION:

C	Mn	Si	S	P	Cr	Ni
0.04 max.	0.50-2.50	1.00 Max	0.035 Max	0.040 Max	18.00-21.00	9.00-11.00

MECHANICAL PROPERTIES:

UTS (N/mm)	EL % (l=5d)	CHARPY "V" NOTCH IMPACT @	FERRITE (FN)
520-660	35-45	+20C : 60-100 J	3-10

WELDING POSITION


1G/1F


2G/2F


3G UP


3G DOWN


4G

DIEMENSION, CURRENT CONDITION & PACKING DATA

Size (mm) (Dia)	Size (inch) (Dia)	Current Condition (DC+/ AC) Amps	Kg/pkt.	Kg/Case
2.00	5/ 64"	40-60	1.5	7.5
2.50/ 2.40	3/ 32"	50-80	2	10
3.15/ 3.20	1/ 8"	75-100	2	10
4.00	5/ 32"	110-140	2	10
5.00	3/ 16"	150-180	2	10

Royale Weldwell also offers in 15 and 17 Version of same grade electrodes

JACKSUN NOVA-309L

EXTRA LOW CARBON 23CR/12NI TYPE STAINLESS STEEL ELECTRODE

BASIC ALLOY: MN, CR, NI
AWS/SFA-5.4: E 309L-16
EN ISO-3581-A E 23 12 LR 32

KEY FEATURES:

An extra low carbon, all position electrode giving 24/12 deposit with excellent resistance to chemical corrosion, corrosion at elevated temperature and oxidation. Gives stable arc, low spatter, smooth weld profile, easily removable slag. The weld deposits are radiographically sound.

APPLICATIONS

- Suitable for welding 24/12 stainless steel grades of AISI 309L
- Welding similar and dissimilar steels eg. Stainless steel to carbon steel and low alloy steels
- Straight chrome steels

RE-DRY CONDITION:

- Re-Dry the electrode at 250°Cfor one hour before use.

CHEMICAL COMPOSITION:

C	Mn	Si	S	P	Cr	Ni
0.04 max.	0.50-2.50	1.00 Max	0.030 Max	0.040 Max	22.00-25.00	12.00-14.00

MECHANICAL PROPERTIES:

UTS (N/mm)	EL % (l=5d)	CHARPY "V" NOTCH IMPACT @	FERRITE (FN)
520-660	35-45	+2C : 60-100 J	8-14

WELDING POSITION


1G/1F


2G/2F


3G UP


3G DOWN


4G

DIEMENSION, CURRENT CONDITION & PACKING DATA

Size (mm) (Dia)	Size (inch) (Dia)	Current Condition (DC+/ AC) Amps	Kg/pkt.	Kg/Case
2.50/ 2.40	3/ 32"	50-80	2	10
3.15/ 3.20	1/ 8"	75-100	2	10
4.00	5/ 32"	110-140	2	10
5.00	3/ 16"	150-180	2	10

Royale Weldwell also offers in 15 and 17 Version of same grade electrodes

JACKSUN NOVA- 310

RUTILE TYPE 25CR/20NI FULLY AUSTENITIC STAINLESS STEEL ELECTRODE

BASIC ALLOY: MN, CR, NI
AWS/SFA-5.4: E310-16
EN ISO 3581- A E 25 20 R 32

KEY FEATURES:

A rutile type all position electrode made of core wire 25Cr/20Ni to have deposits of 25Cr/20Ni. The electrode is specially designed for oxidation and scaling resistance at elevated temperatures at 1200°C with excellent weld metal finish, low spatter and easily removable slag deposit.

APPLICATIONS

- Suitable for weld AISI 310 type steel and DIN Nr. 1.4848, 1.4841, 1.4845
- German steels like 4762,4828,4841,4846 and 4848
- Clad side of cladded steels
- High temperature furnace part
- Gas turbine combustion chambers
- Hardenable steel and dissimilar steels

RE-DRY CONDITION:

- Re-Dry the electrode at 250°Cfor one hour before use.

CHEMICAL COMPOSITION:

C	Mn	Si	S	P	Cr	Ni
0.08-0.20	1.00-2.50	0.75 Max	0.030 Max	0.040 Max	25.00-28.00	20.00-22.50

MECHANICAL PROPERTIES:

UTS (N/mm)	EL % (l=5d)	CHARPY "V" NOTCH IMPACT @	FERRITE (FN)
520-660	35-45	+2C : 60-100 J	Nil

WELDING POSITION

1G/1F 2G/2F 3G UP 3G DOWN 4G

DIEMENSION, CURRENT CONDITION & PACKING DATA

Size (mm) (Dia)	Size (inch) (Dia)	Current Condition (DC+/ AC) Amps	Kg/pkt.	Kg/Case
2.50/ 2.40	3/ 32"	60-90	2	20
3.15/ 3.20	1/ 8"	80-110	2	20
4.00	5/ 32"	100-135	2	20
5.00	3/ 16"	140-180	2	20

JACKSUN NOVA- 312

A HIGH ALLOY "UNIVERSAL" ELECTRODE FOR JOINING STEELS OF UNKNOWN COMPOSITION

BASIC ALLOY: C, MN, CR, NI
AWS/SFA-5.4: E312-16
EN ISO 3581-A E 29 9 R 32

KEY FEATURES:

It is an electrodes gives 30/10 deposit, it has two phase structure with high nos. of ferrites in austenitic matrix. It is suitable for carbon steel, low alloy steel, dissimilar materials etc. electrode is recommended also for unknown steel, leaf springs and difficult-to-weld with higher strength

APPLICATIONS

- It is ideally suitable for welding difficult-to-weld e.g. high hardenable tool, die & sparing steel, 13% Mn steels, free cutting steels, high temperature steels..
- Dissimilar joints between stainless steel and high carbon steels.
- Surfacing to metal to metal wear areas, hot working tools, furnace components etc.
- Suitable rebuilding chemical agitator blades, shafts, rolling mill spindles, bucket lips

RE-DRY CONDITION:

- Re-Dry the electrode at 250°Cfor one hour before use.

CHEMICAL COMPOSITION:

C	Mn	Si	S	P	Cr	Ni
0.15 max.	0.50-2.50	1.00 Ma	0.030 Max	0.040 Max	28.00-32.00	8.00-10.50

MECHANICAL PROPERTIES:

UTS (N/mm)	EL % (l=5d)	CHARPY "V" NOTCH IMPACT @	Hardness	FERRITE (FN)
660-850	22-28	+20C : 30-60 J	220 BHN	40 FN

WELDING POSITION


1G/1F


2G/2F


3G UP


3G DOWN


4G

DIEMENSION, CURRENT CONDITION & PACKING DATA

Size (mm) (Dia)	Size (inch) (Dia)	Current Condition (DC+/ AC) Amps	Kg/pkt.	Kg/Case
2.50/ 2.40	3/ 32"	50-80	2	10
3.15/ 3.20	1/ 8"	75-100	2	10
4.00	5/ 32"	110-140	2	10
5.00	3/ 16"	150-180	2	10

Royale Weldwell also offers in 15 and 17 Version of same grade electrodes

JACKSUN NOVA - 312R

MULTI-PURPOSE ELECTRODE FOR ALL MATERIALS

BASIC ALLOY: C, MN, CR, NI
AWS/SFA-5.4: E312-17
EN ISO 3581-A E 29 9 R 32

KEY FEATURES:

An electrode which is to be considered as a problem solver for all kinds of steel grades including stainless and difficult-to-weld steels.

APPLICATIONS

- Rebuilding chemical agitator blades
- Rebuilding rolling mill spindles.
- high hardenable tool, die & sparing steel
- free cutting steels and high temperature steels..

RE-DRY CONDITION:

- Re-Dry the electrode at 250°Cfor one hour before use.

CHEMICAL COMPOSITION:

C	Mn	Si	S	P	Cr	Ni
0.15 max.	0.50-2.50	1.00 Max	0.030 Max	0.040 Max	28.00-32.00	8.00-10.50

MECHANICAL PROPERTIES:

UTS (N/mm)	EL % (l=5d)	CHARPY "V" NOTCH IMPACT @	HARDNESS	FERRITE (FN)
660-850	22-28	+20C : 30-60J	220BHN	40FN

WELDING POSITION


1G/1F


2G/2F


3G UP


3G DOWN


4G

DIEMENSION, CURRENT CONDITION & PACKING DATA

Size (mm) (Dia)	Size (inch) (Dia)	Current Condition (DC+/ AC) Amps	Kg/pkt.	Kg/Case
2.00	5/ 64"	40-60	1.5	7.5
2.50/ 2.40	3/ 32"	50-80	2	10
3.15/ 3.20	1/ 8"	75-100	2	10
4.00	5/ 32"	110-140	2	10
5.00	3/ 16"	150-180	2	10

JACKSUN NOVA-316L

EXTRA LOW CARBON, RUTILE COATED 18/12/2.3 MO
STAINLESS STEEL ELECTRODE

BASIC ALLOY: FE, CR, NI, MO
AWS/SFA-5.4: E 316L-16
EN ISO 3581-A E 19 12 3 R 32

KEY FEATURES:

An extra low carbon, rutile coated 18/12/2.3 Mo stainless steel electrode with excellent resistance to corrosion, heat and cracking. The weld metal has properties of creep resistance and is of radiographic quality with stable and smooth arc, easy slag detachability and almost spatter free welding

APPLICATIONS

- Suitable for AISI 316L and 317L grades of stainless steels.
- Chemical, dyes, paint, petrochemical, pharmaceutical and fertilizer industries.
- Commonly used in chemical tanks, paper mill equipment's, bleaching equipment.
- Chemical plants, textile plants.
- Suitable for welding titanium and Niobium stabilized 18-12 steels of the type SS 2344 & 2345 except when the corrosive conditions are severe

RE-DRY CONDITION:

- Re-Dry the electrode at 250°Cfor one hour before use.

CHEMICAL COMPOSITION:

C	Mn	Si	S	P	Cr	Ni	Mo
0.04 max.	0.50-2.50	1.00 Max	0.030 Max	0.040 Max	**17.00-20.00**	11.00-14.00	2.00-3.00

MECHANICAL PROPERTIES:

YS (N/mm2)	UTS (N/mm)	EL % (l=5d)	CHARPY "V" NOTCH IMPACT @
330-450	430-560	22-30	- 30C : 50-80 J

WELDING POSITION

1G/1F 2G/2F 3G UP 3G DOWN 4G

DIEMENSION, CURRENT CONDITION & PACKING DATA

Size (mm) (Dia)	Size (inch) (Dia)	Current Condition (DC+/ AC) Amps	Kg/pkt.	Kg/Case
2.50/ 2.40	3/ 32"	50-80	2	10
3.15/ 3.20	1/ 8"	**80-100**	2	10
4.00	5/ 32"	110-140	2	10
5.00	3/ 16"	140-170	2	10

Royale Weldwell also offers in 15 and 17 Version of same grade electrodes

JACKSUN NOVA 318

FERRITE CONTROLLED, LOW CARBON, 18/13/2.3 MO
WITH NB STAINLESS STEEL ELECTRODE.

BASIC ALLOY: FE, CR, NI, MO, NB
AWS/SFA-5.4: E 318-17
EN ISO 3581-A E 19 12 3 NBR 32

KEY FEATURES:

A ferrite controlled, low carbon, 18/13/2.3 Mo with Nb electrode. Weld deposit is resistant to inter granular corrosion cracking, resistant to pitting. The electrode gives smooth arc, fine and rippled bead appearance and easy slag detachability

APPLICATIONS

- Suitable to weld Niobium and Titanium based stainless steels.
- Maximum resistance to cracking, corrosion and scaling.
- Stabilized with Niobium to resist intergranular corrosion between 425°C and 845°C

RE-DRY CONDITION:

- -Dry the electrode at 300°C for 1 hrs. before use

CHEMICAL COMPOSITION:

C	Mn	Si	S	P	Cr	Ni	Mo	Nb
0.08 max.	0.50-2.50	1.00 Max	0.030 Max	0.040 Max	17.00-20.00	11.00-14.00	2.00-3.00	6XC min.-1.00 max

MECHANICAL PROPERTIES:

YS (N/mm2)	UTS (N/mm)	EL % (l=5d)	CHARPY "V" NOTCH IMPACT @	FERRITE (FN)
450 Min.	550 min.	25-40	+27C : 80-120 J	5-9

WELDING POSITION


1G/1F


2G/2F


3G UP


3G DOWN


4G

DIEMENSION, CURRENT CONDITION & PACKING DATA

Size (mm) (Dia)	Size (inch) (Dia)	Current Condition (DC+/ AC) Amps	Kg/pkt.	Kg/Case
2.50/ 2.40	3/ 32"	60-80	2	10
3.15/ 3.20	1/ 8"	80-100	2	10
4.00	5/ 32"	110-140	2	10
5.00	3/ 16"	140-170	2	10

JACKSUN NOVA-347

LOW CARBON, 19CR-10NI-NB STAINLESS STEEL ELECTRODE

BASIC ALLOY: CR, NI , NB
AWS/SFA-5.4: E347-16
EN ISO: 3851-A E 19 9 NB B 2 2

KEY FEATURES:

An electrode made of 19Cr-10Ni-Cb, which has a low carbon content and deposits stable weld metal. Excellent protection against intergranular corrosion is provided by weld metal. The electrode produces a smooth arc, facilitates slag detachability, and nearly produces no spatter with a fine finish weld deposit.

APPLICATIONS

- Process Piping
- Power generation equipment
- Petrochemical
- Chemical and pharmaceutical industries

RE-DRY CONDITION:

- Re-Dry the electrode at 300°Cfor one hour before use.

CHEMICAL COMPOSITION:

C	Mn	Si	S	P	Cr	Ni	Cb
0.08 max.	0.50-2.50	1.00 Max	0.030 Max	0.040 Max	18.00-21.00	9.00-11.00	8xC min - 1.00 max

MECHANICAL PROPERTIES:

UTS (N/mm)	EL % (l=5d)	CHARPY "V" NOTCH IMPACT @	FERRITE (FN)
550-660	30-42	+20C : 60-80 J	4-10

WELDING POSITION


1G/1F


2G/2F


3G UP


3G DOWN


4G

DIEMENSION, CURRENT CONDITION & PACKING DATA

Size (mm) (Dia)	Size (inch) (Dia)	Current Condition (DC+/ AC) Amps	Kg/pkt.	Kg/Case
2.00	5/ 64"	40-60	1.5	7.5
2.50/ 2.40	3/ 32"	60-90	2	10
3.15/ 3.20	1/ 8"	80-110	2	10
4.00	5/ 32"	110-150	2	10
5.00	3/ 16"	150-180	2	10

Royale Weldwell also offers in 15 and 17 Version of same grade electrodes

JACKSUN NOVA-13/4

A SPECIAL PURPOSE ELECTRODE DEPOSITING13CR - 4NI - 0.5MO WELD METAL

BASIC ALLOY: FE, CR, NI, MO,
AWS/SFA-5.4: E410NIMO-15
EN ISO CODE: 3581-A E 13 4 R 3 2

KEY FEATURES:

ROWELD-13/4 is a special purpose electrode depositing13Cr - 4Ni - 0.5Mo weld metal, which has excellent resistance to corrosion, erosion, pitting and impact. Ideally suited for joining of similar composition materials,

APPLICATIONS

- welding and surfacing applications.
- Typical applications include surfacing of high pressure valves, turbine blades, valve seats, pulp & paper plant equipment, etc.

RE-DRY CONDITION:

- Re-Dry the electrode at 300°Cfor one hour before use.

CHEMICAL COMPOSITION:

C	Mn	Si	S	P	Cr	Ni	Mo	Cu
0.060max	0.60 Max.	0.50Max	0.030 Max	0.030 Max	11.00- 12.50	4.00-5.00	0.40-0.70	0.70 max.

MECHANICAL PROPERTIES:

UTS (N/mm)	EL % (l=5d)	CHARPY "V" NOTCH IMPACT @	Hardness
760 min.	15.00Min.	+27C : 47 J min.	320-360 BHN

WELDING POSITION


1G/1F


2G/2F


3G UP


3G DOWN


4G

DIEMENSION, CURRENT CONDITION & PACKING DATA

Size (mm) (Dia)	Size (inch) (Dia)	Current Condition (DC+/ AC) Amps	Kg/pkt.	Kg/Case
2.50/ 2.40	3/ 32"	60-80	2	10
3.15/ 3.20	1/ 8"	80-100	2	10
4.00	5/ 32"	110-140	2	10
5.00	3/ 16"	140-170	2	10

JACKSUN ULTRA-HT 75

BASIC COATED, EXTRA LOW HYDROGEN ELECTRODE IDEALLY SUITED FOR WELDING HIGH STRENGTH STEELS, Q&T STEELS.

BASIC ALLOY: FE, MN, SI, NI, CR
AWS/SFA-5.5: E 10016 G
EN ISO 18275-B E 62 18-G A H5

KEY FEATURES:

A basic type, medium-heavy coated, hydrogen-controlled iron powder electrode for heavy-section, constrained joints in high-tensile structural steels. This electrode produces weld deposits of good notch toughness, extremely low hydrogen content and good crack resistance. It provides good X-ray and soundness

APPLICATIONS

- Welding of 80kgf/mm2 class high tensile steel for pressure vessels, penstocks, bridges, offshore constructions, and industrial machinery and construction machinery.

RE-DRY CONDITION:

- Dry the electrodes at 350℃ 400℃(662~752℉) for about one hour before use

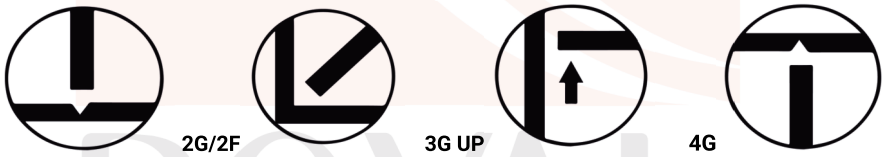
CHEMICAL COMPOSITION:

C	Mn	Si	Ni	Mo	S&P	Cr
0.1 max	1.00 - 1.60	0.60 Max	1.00-2.00	0.60 Max	0.025 Max	0.4 max

MECHANICAL PROPERTIES:

YS (N/mm2)	UTS (N/mm2)	EL % (l=5d)	CHARPY "V" NOTCH IMPACT AT	Hydrogen contains
590min.	690min.	17 min	-50C: 50-80 Joules	less than 4mL/100g

WELDING POSITION



1G/1F 2G/2F 3G UP 4G

DIEMENSION, CURRENT CONDITION & PACKING DATA

Size (mm) (DIA)	Size (inch) (DIA)	Current Condition (DC+/AC 70V) Amps	Kg./pkt.	KG/Case
2.50/ 2.40	3/ 32"	70-100	5	20
3.15/ 3.20	1/ 8"	100-130	5	20
4.00	5/ 32"	140-180	5	20
5.00	3/ 16"	190-230	5	20

JACKSUN ULTRA-CR2

LOW HYDROGEN TYPE ELECTRODE FOR ALL-POSITION WELDING WHICH PROVIDES THE WELD METAL 2.25% CR-1% MO.

BASIC ALLOY: FE, CR,MO
AWS/SFA-5.5: E 9018 B3
EN ISO 3580-A E CRMO2B 32 H5

KEY FEATURES:

A medium heavy coated, hydrogen controlled, iron powder type, all position radiographic quality electrode to weld 2.25% Cr-1.00% Mo steel, having increased working efficiency. Electrode has properties of creep resistance up to 575°C.

APPLICATIONS

- Suitable to weld high tensile.
- Low alloy steels with 2.25% Cr and 1% Mo used in oil refinery/ power plants, steam boilers.
- Equipment's subjected at high temperatures in synthetic chemical units.
- Repairs of cast steel components.
- Parts of automobiles / earthmoving machineries.
- Includes marine applications

RE-DRY CONDITION:

- Re-Dry the electrode at -350°C for one hour before use.

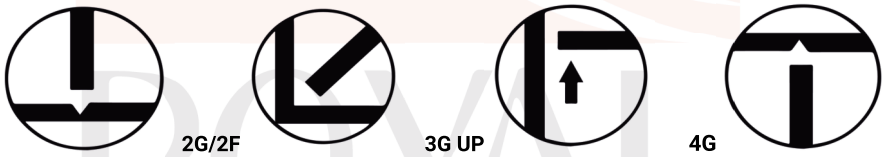
CHEMICAL COMPOSITION:

C	Mn	Si	Cr	Mo	S&P
0.05-0.12	0.90 Max.	0.60 Max	2.00-2.50	0.90-1.20	0.030 Max

MECHANICAL PROPERTIES:

YS (N/mm2)	UTS (N/mm2)	EL % (l=5d)
530 min.	620 Min.	20 min

WELDING POSITION



1G/1F 2G/2F 3G UP 4G

DIEMENSION, CURRENT CONDITION & PACKING DATA

Size(mm) (Dia	Size(inch) (Dia)	Current Condition (DC+/AC) Amps	Kg./pkt.	KG/Case
2.50/ 2.40	3/ 32"	**70-100**	5	20
3.15/ 3.20	1/ 8"	**100-130**	5	20
4.00	5/ 32"	140-180	5	20
5.00	3/ 16"	190-230	5	20

BASIC ALLOY: FE, CR, MO, N, CB, V
AWS/SFA-5.5: E 9015 B9
EN 1599 ECRMO91 B 4 2 H5

JACKSUN ULTRA-CR9 SPL

LOW HYDROGEN TYPE ELECTRODE IS DESIGNED TO WELD EQUIVALENT 'TYPE 91' 9CR1MO STEELS

KEY FEATURES:

ROWELD-CR9 Spl is low hydrogen type electrode is designed to weld equivalent 'type 91' 9CrMo steels modified with small additions of niobium, vanadium and nitrogen give improved long term creep properties. Its usability is good performance by DCEP current and very low hydrogen electrode. (HDM ≤ 5ml/100g)

APPLICATIONS

- Used for Welding of 9%Cr-1%Mo heat resistant steel.
- Used for pipes of boilers for power plant, equipment for oil refining industries, and high temperature synthetic chemical industries.
- Suitable for fabricating which made by martensitic heatre siting steels.
- Both preheating and interpass temperature should be 232-288℃ and the weld zone should be tempered at 730-760℃ for 6 hours after welding

RE-DRY CONDITION:

- Re-Dry the electrode at -350°C for one hour before use.

CHEMICAL COMPOSITION:

C	Mn	Si	S	P	Cu	Cr	Mo
0.070- 0.13	1.20 max.	0.15-0.50	0.010 Max	0.010 Max	0.20 Max	8.00-10.50	0.85-1.20
N	Nb	V	Ni	Al			
0.07-0.07	0.02-0.10	0.15-0.30	0.80 max	0.040 max.			

MECHANICAL PROPERTIES:

YS (N/mm2)	UTS (N/mm2)	EL % (l=5d)
540 min.	620 Min.	17 min

WELDING POSITION

1G/1F 2G/2F 3G UP 4G

DIEMENSION, CURRENT CONDITION & PACKING DATA

Size(mm) (Dia	Size(inch) (Dia)	Current Condition (DC+) Amps	Kg./pkt.	KG/Case
2.50/ 2.40	3/ 32"	**70-100**	5	20
3.15/ 3.20	1/ 8"	**100-130**	5	20
4.00	5/ 32"	140-180	5	20
5.00	3/ 16"	190-230	5	20

JACKSUN-7018W

BASIC COATED, LOW ALLOY STEEL ELECTRODE
DESIGNED FOR WELDING OF WEATHERING STEELS.

BASIC ALLOY: FE, MN, SI, CR, NI, CUI
AWS/SFA-5.5: E 7018-W1
UNS NO. W20018

KEY FEATURES:

ROWELD 7018W is an all position iron powder low hydrogen type electrode which exhibits high crack resistibility and superior notch toughness of depositing weld metal. Its is suitable for welding comparatively thick plates of weather proof steel.

APPLICATIONS

- Welding of weathering steels like SAILCOR-A & CORTEN A & B steels & equivalent.
- Medium tensile corrosion resistant structure steels and welding of high tensile steels.
- Electrode suitable for typical weathering steels, such as ASTM A 242 and A 588

RE-DRY CONDITION:

- Re-dry the electrode at -350°C for one hour, for best results

CHEMICAL COMPOSITION:

C	Mn	Si	S&P	Cu	Ni	Cr	V
0.12 max	0.40-0.70	0.40-0.70	0.025max	0.030-0.60	0.20-0.40	0.15-0.30	0.080 max

(Single value maximum)

MECHANICAL PROPERTIES:

YS (N/mm2)	UTS (N/mm2)	EL % (l=5d)	CHARPY "V" NOTCH IMPACT AT
415 min	490 min.	22 min	- 20°C : 80-100 J

WELDING POSITION

1G/1F 2G/2F 3G UP 4G

DIEMENSION, CURRENT CONDITION & PACKING DATA

Size(mm) (DXL)	Size(inch) (DXL)	Current Condition (DC+/AC 90V)	Kg./pkt.	KG/Case
2.50/ 2.40	3/ 32"	**80-100**	5	20
3.20	1/ 8"	**110-140**	5	20
4.00	5/ 32"	150-180	5	20
5.00	3/ 16"	210-260	5	20

JACKSUN ARMOUR 350

BASIC COATED LOW HYDROGEN TYPE HARD FACING ELECTRODE

BASIC ALLOY: C, CR, FE
DIN-8555: E1 –UM-400-S

KEY FEATURES:

A high Nickel alloy electrode specially designed to resist crack, oxidation and corrosion. Equally provides high strength at elevated temperature. Gives smooth arc, excellent operating characteristics, easy slag detachability.

APPLICATIONS

- A medium-heavy coated hydrogen controlled electrode for hard facing applications on mild steel, carbon steel and low alloy steel where approximately 300 Brinell hardness is required.The weld deposit is machinable with carbide tools

RE-DRY CONDITION:

- Re-Dry the electrode at 250°Cfor one hour.

CHEMICAL COMPOSITION:

C	Mn	Si	Cr
0.20-0.40	1.00 Max	0.60 max	2.50-3.50

MECHANICAL PROPERTIES:

Hardness
350-400 BHN

WELDING POSITION

1G/1F 2G/2F 3G UP 3G DOWN 4G

DIEMENSION, CURRENT CONDITION & PACKING DATA

Size (mm) (Dia)	Size (inch) (Dia)	Current Condition (DC+/ AC) Amps	Kg/pkt.	Kg/Case
3.15/ 3.20	1/ 8″	**100-130**	5	20
4.00	5/ 32″	150-180	5	20
5.00	3/ 16″	210-260	5	20

JACKSUN ARMOUR

BASIC COATED LOW HYDROGEN TYPE HARD FACING ELECTRODE

BASIC ALLOY: C, FE, CR, MO. V
DIN-8555: E1-UM-60-S
EN ISO 14700 E FE-8

KEY FEATURES:

A medium heavy coated hydrogen controlled, iron powder, air hardening type hard facing electrode with weld deposits are hard and cannot be machined. Weld dressing is possible by grinding, can withstand friction and moderate impact.

APPLICATIONS

- Suitable to work on high carbon and high sulphur steels without cracks.
- Crane wheels, drill bits, crusher hammers, shear blades, rock drill cane cutting knifes.
- Impellers, oil expeller worms, conveyor buckets, sockets etc.
- Unique in its versatility of applications in areas of building-up worn out parts and hardfacing

RE-DRY CONDITION:

- Re-Dry the electrode at 250°Cfor one hour.

CHEMICAL COMPOSITION:

C	Mn	Si	Cr	Mo	V
0.50-0.80	1.00 Max	0.75 max	6.00-8.00	0.40-0.60	0.20-0.40

MECHANICAL PROPERTIES:

Hardness
550-650 BHN

WELDING POSITION

1G/1F 2G/2F 3G UP

DIEMENSION, CURRENT CONDITION & PACKING DATA

Size (mm) (Dia)	Size (inch) (Dia)	Current Condition (DC+) Amps	Kg/pkt.	Kg/Case
3.15/ 3.20	1/ 8"	100-130	5	20
4.00	5/ 32"	150-180	5	20
5.00	3/ 16"	210-260	5	20

JACKSUN ALLOY NI 59

NICKEL-BASED NICRMOALLOY ELECTRODE FOR WELDING ALLOY 59.

BASIC ALLOY: NI, CR, MO
AWS/SFA-5.11: ENICRMO-13
EN ISO 14172 E NI 6059
(NICR23MO16) UNS NO. W86059

KEY FEATURES:

ENiCrMo-13 Special basic flux covering on high purity NiCrMo core wire to give clean homogenous weld metal. Very low levels of "C" and "Si" minimize the occurrence of deleterious precipitates in the aswelded condition. The special flux coating provides exceptional operability, optimized for DC+ welding in all positions

APPLICATIONS

- Suitable for welding low carbon Ni-Cr-Mo alloys, clad side of joints in steel clad with low carbon Ni -Cr- Mo alloys and for welding low carbon Ni- Cr- Mo alloy to steel and to other nickel base alloys.

RE-DRY CONDITION:

- Re-Dry the electrode at 350□C for 1 hrs. before use.

CHEMICAL COMPOSITION:

C	Mn	Si	Ni	Mo	Cr	Fe	Cu
0.20 max.	1.00 Max	0.20 Max	57.00 Min.	15.00-16.50	22.00-24.00	1.50 Max.	0.50 max

MECHANICAL PROPERTIES:

YS (N/mm2)	EL % (l=5d)	CHARPY "V" NOTCH IMPACT @
690 Min	25 Min.	- 50C : 30 J Min.

WELDING POSITION


1G/1F


2G/2F


3G UP


3G DOWN


4G

DIEMENSION, CURRENT CONDITION & PACKING DATA

Size (mm) (Dia)	Size (inch) (Dia)	Current Condition (DC+/ AC) Amps	Kg/pkt.	Kg/Case
2.50/ 2.40	3/ 32"	60-80	2	10
3.15/ 3.20	1/ 8"	90-120	2	10
4.00	5/ 32"	110-160	2	10
5.00	3/ 16"	150-180	2	10

JACKSUN ALLOY NI 65

SPECIALLY DESIGNED A HIGH NICKEL ALLOY ELECTRODE

BASIC ALLOY: NI, CR, NB, MO
AWS/SFA-5.11: ENICRFE-2
EN ISO 14172 E NI 6133
(NICR16FE12NBMO)

KEY FEATURES:

A high Nickel alloy electrode specially designed to resist crack, oxidation and corrosion. Equally provides high strength at elevated temperature. Gives smooth arc, excellent operating characteristics, easy slag detachability.

APPLICATIONS

- Suitable to weld dissimilar metals viz carbon steel, stainless steel, Ni and Ni based alloy. Base materials: Inconel 600, Incoloy 800, Incoloy DS, Cryogenic vessels & pipe work of 3-9 % Ni steels for temperatures down to -196°C, Elevated temperatures services in furnace equipment & petrochemical plants involving temperatures up to 1000°C,Joining and Surfacing in fabrications

RE-DRY CONDITION:

- -Dry the electrode at 300°C for 1 hrs. before use

CHEMICAL COMPOSITION:

C	Mn	Si	Ni	Mo	Cr	Fe	Nb
0.10 max.	1.00-3.50	0.75 Max	62.00 Min.	0.50-2.50	13.00-17.00	12.00 Max.	0.50-3.00

MECHANICAL PROPERTIES:

YS (N/mm2)	UTS (N/mm)	EL % (l=5d)	CHARPY "V" NOTCH IMPACT @
450 Min	550 Min.	30 Min.	- 196C : 50 J Min.

WELDING POSITION


1G/1F


2G/2F


3G UP


3G DOWN


4G

DIEMENSION, CURRENT CONDITION & PACKING DATA

Size (mm) (Dia)	Size (inch) (Dia)	Current Condition (DC+/ AC) Amps	Kg/pkt.	Kg/Case
2.50/ 2.40	3/ 32"	60-80	2	10
3.15/ 3.20	1/ 8"	90-120	2	10
4.00	5/ 32"	110-160	2	10
5.00	3/ 16"	150-180	2	10

JACKSUN ALLOY NI 70

ELECTRODES ARE USED FOR THE WELDING OF NICKEL-CHROMIUM-IRON ALLOYS TO THEMSELVES AND FOR DISSIMILAR WELDING

BASIC ALLOY: MN, NI, CR, NB,
AWS/SFA-5.11: ENICRFE-3
EN ISO 14172 E NI 6182
(NICR15FE6MN)

KEY FEATURES:

ROWELD B Ni70 electrodes are used for the welding of nickel-chromium-iron alloys to themselves and for dissimilar welding between nickel-chromium-iron alloys and steels. Its high manganese content lessens the possibility of micro fissures and also reduces creep strength which limits its usage to 900°F.

APPLICATIONS

- Applications for this alloy include surfacing as well as clad-side welding.
- Welding Suitable for desalination plants, petrochemical facilities and power generation plants.
- Low temperatures applications such as 5% & 9 % steels used for Cryogenic vessels & pipe work for temperatures down to -100°C

RE-DRY CONDITION:

- Re-Dry the electrode at 350C for 1 hrs. before use.

CHEMICAL COMPOSITION:

C	Mn	Si	Ni	Ti	Cr	Fe	Nb
0.80 max.	5.00-9.50	0.75 Max	59.00 Min.	1.00 max	13.00-17.00	10.00 Max.	1.00-2.50

MECHANICAL PROPERTIES:

YS (N/mm2)	UTS (N/mm)	EL % (l=5d)	CHARPY "V" NOTCH IMPACT @
450 Min	550 Min.	30 Min.	- 196C : 50 J Min.

WELDING POSITION


1G/1F


2G/2F


3G UP


3G DOWN


4G

DIEMENSION, CURRENT CONDITION & PACKING DATA

Size (mm) (Dia)	Size (inch) (Dia)	Current Condition (DC+/ AC) Amps	Kg/pkt.	Kg/Case
2.50/ 2.40	3/ 32"	60-80	2	10
3.15/ 3.20	1/ 8"	90-120	2	10
4.00	5/ 32"	110-160	2	10
5.00	3/ 16"	150-180	2	10

JACKSUN ALLOY NI 80

NICKEL-BASED NICRMOALLOY SUPER AUSTENITIC STAINLESS STEELS ELECTRODE.

BASIC ALLOY: NI, CR, NB, MO
AWS/SFA-5.11: ENICRMO-3
EN ISO 14172 E NI 6625
(NICR22MO9NB) UNS NO. W86112

KEY FEATURES:

ENiCrMo-3 is Balanced formulated special basic flux system, pleasing behavior in terms of smooth arc, low spatter and easy de-slagging. Weld metal gives of radiographic quality.

APPLICATIONS

- Cryogenic vessels & pipe work of 9% Ni steel (Q&T grade) for temperatures down to -196°C.
- Repair & Maintenance welding, especially in reclamation of dies.
- Elevated temperature services in furnace equipment and petrochemical plants & power generation plants, involving temperatures above 900°C

RE-DRY CONDITION:

- Re-Dry the electrode at 350C for 1 hrs. before use.

CHEMICAL COMPOSITION:

C	Mn	Si	Ni	Mo	Cr	Fe	Nb
0.10 max.	1.00 Max	0.75 Max	55.00 Min.	8.00-10.00	20.50-23.00	7.00 Max.	3.15-4.15

MECHANICAL PROPERTIES:

YS (N/mm2)	EL % (l=5d)	CHARPY "V" NOTCH IMPACT @
760 Min	30 Min.	- 196C : 30 J Min.

WELDING POSITION


1G/1F


2G/2F


3G UP


3G DOWN


4G

DIEMENSION, CURRENT CONDITION & PACKING DATA

Size (mm) (Dia)	Size (inch) (Dia)	Current Condition (DC+/ AC) Amps	Kg/pkt.	Kg/Case
2.50/ 2.40	3/ 32"	60-80	2	10
3.15/ 3.20	1/ 8"	90-120	2	10
4.00	5/ 32"	110-160	2	10
5.00	3/ 16"	150-180	2	10

JACKSUN ALLOY - NICU

LOW HYDROGEN BASIC COATED MONEL ELECTRODE

BASIC ALLOY: NI, CU
AWS/SFA-5.11: E NICU-7
EN ISO 14172 E NI 4060

KEY FEATURES:

A low hydrogen basic coated monel electrode. Electrode has extensive corrosion resistance properties due to minimum iron content in the weld deposit

APPLICATIONS

- Seawater corrosion resistance applications.
- Petrochemical
- Daily beverage industries.
- Monel to carbon steel or stainless steel.
- Chemical industries

RE-DRY CONDITION:

- Re-Dry the electrode at 250°Cfor one hour before use.

CHEMICAL COMPOSITION:

C	Mn	Fe	P	S	Si	Cu	Ni	Al	Ti
0.15 max.	4.00	2.5	0.02	0.015	1.5	Rem	62.0-69.0	0.75	1.0

(Single value maximum)

MECHANICAL PROPERTIES:

UTS (N/mm)	EL % (l=5d)
480min	30min

WELDING POSITION


1G/1F


2G/2F


3G UP


3G DOWN


4G

DIEMENSION, CURRENT CONDITION & PACKING DATA

Size (mm) (Dia)	Size (inch) (Dia)	Current Condition (DC+/ AC) Amps	Kg/pkt.	Kg/Case
2.50/ 2.40	3/ 32"	80-100	2	10
3.15/ 3.20	1/ 8"	100-130	2	10
4.00	5/ 32"	140-180	2	10
5.00	3/ 16"	170-200	2	10

JACKSUN 8500CGS

BASIC ALLOY: C, MN, CR, NII

FINE CARBON GRAIN STRUCTURES WITH SUPERIOR CRAKES
RESISTIVELY UNIVERSAL WELDING ELECTRODES

KEY FEATURES:

Electrode is formulated in such a way that it allows welding steels of widely varied composition including "DIFFICULT-TO-WELD" steels,.controlled grain structure and control ferrite low heat input austenitic-ferritic stainless steel welding electrode.

APPLICATIONS

- Difficult-to-weld steel
- Dissimilar steels
- Dies, tool and spring steels
- Joining steel to unknown composition
- cushion layer on difficult steels to weld steel

RE-DRY CONDITION:

- Re-Dry the electrode at 300°Cfor one hour before use.

MECHANICAL PROPERTIES:

UTS (N/mm)	EL % (l=5d)	HARDNESS
800	22	220BHN

WELDING POSITION

1G/1F 2G/2F 3G UP 3G DOWN 4G

DIEMENSION, CURRENT CONDITION & PACKING DATA

Size (mm) (Dia)	Size (inch) (Dia)	Current Condition (DC+/ AC) Amps	Kg/pkt.	Kg/Case
2.50/ 2.40	3/ 32"	50-80	2	10
3.15/ 3.20	1/ 8"	75-100	2	10
4.00	5/ 32"	110-140	2	10
5.00	3/ 16"	150-180	2	10

JACKSUN CAST-FN

ELECTRODE DEPOSITING FE-NI FOR MACHINABLE WELDING OF CAST IRON

BASIC ALLOY: C, FE, NI
AWS/SFA-5.15: ENI FE-CI
EN ISO 1071 E C NIFE-CI3

KEY FEATURES:

A medium coated, ferro-nickel core wire electrodes specially designed to weld cast iron components in cold conditions. The deposit is soft and machinable, retrains strength, enable to weld large cast iron castings, and produces crack free joints.

APPLICATIONS

- Suitable to weld and repair all types of Cast Iron components
- Broken casting, joining cast iron to steel
- Cast iron components subjected to wear and tear etc
- Also suitable for underplaying of Hardfacing

RE-DRY CONDITION

- Re-Dry the electrode at 150°C for 1 hour.

WELDING NOTE:

1. Clean the weld area free of any surface contaminations.
2. Preheating of the job between 250°C - 500°C may be necessary according to the amount ofweld metal to be deposited and the size and type of casting.
3. After the welding is completely with a layer of asbestos or dry lime until it attains room temperature.

CHEMICAL COMPOSITION:

C	Mn	Si	Ni	Fe
0.80-2.00 Max	1.00 Max	1.00 max	50 Min	Balance

WELD METAL HARDNESS:

UTS	Yield Strength	Elongation
400–579	296–434	6–18%

WELDING POSITION

DIEMENSION, CURRENT CONDITION & PACKING DATA

Size (mm) (Dia)	Size (inch) (Dia)	Current Condition (DC+/ AC) Amps	Wt. of /pkt.	Wt. of Case
2.50/ 2.40	3/ 32″	50-70	2	10
3.15/ 3.20	1/ 8″	80-100	2	10
4.00	5/ 32″	110-140	2	10
5.00	3/ 16″	130-180	2	10

JACKSUN CAST-

A SPECIAL THIN COATED BRONZE ELECTRODE
FOR JOINING AND SURFACING

BASIC ALLOY: C, CU, SN, P
AWS/SFA-5.6: ECUSN-C
DIN 1733 EL- CUSN-7

KEY FEATURES:

ROCAST BRONZE is one copper alloy electrode with tin and phosphor bronze as the core and low hydrogen flux coating. It has certain strength, good plasticity, impact resistance, wear resistance and corrosion resistance. The welding process has good performance and versatility. DC power supply and electrode are used to connect the positive electrode. used short arc and control interpass temperature

APPLICATIONS

- It is suitable for welding pure copper, brass, phosphor bronze and other kinds of metal.
- It can be widely used for surfacing welding of phosphor bronze bushing, ship propeller blade, etc.
- It can also be used for welding repair of cast iron and welding

RE-DRY CONDITION

- Re-Dry the electrode at 150°C for 1 hour.

WELDING NOTE:

1. Clean the weld area free of any surface contaminations.
2. Preheating of the job between 250°C - 500°C may be necessary according to the amount ofweld metal to be deposited and the size and type of casting.
3. After the welding is completely with a layer of asbestos or dry lime until it attains room temperature.

CHEMICAL COMPOSITION:

P	Pb	Sn	Cu	Other
0.30 Max	0.020 Max	7.00-9.00	Rest.	0.50 max

WELD METAL HARDNESS:

UTS (N/mm2)	EL % (l=5d)	Hardness
280 min.	20.00 min.	85-100 HB

WELDING POSITION

DIEMENSION, CURRENT CONDITION & PACKING DATA

Size (mm) (Dia)	Size (inch) (Dia)	Current Condition (DC+) Amps	Wt. of /pkt.	Wt. of Case
2.50/ 2.40	3/ 32"	50-70	2	10
3.15/ 3.20	1/ 8"	80-100	2	10
4.00	5/ 32"	110-140	2	10
5.00	3/ 16"	130-180	2	10

JACKSUN CAST-NI

ELECTRODE DEPOSITING PURE NICKEL FOR MACHINABLE WELDING OF CAST IRON

BASIC ALLOY: C, NI
AWS/SFA-5.15: E Ni CI
EN ISO 1071 E C NI-CI 3

KEY FEATURES:

A light coated electrode depositing pure Nickel in weld metal to work on cold conditions without pre-heating the jobs. The nickel content in weld metal deposit allows to achieving a soft and tough weld. The tensile strength is good enough to match parent metals tensile strength. Deposits are machinable.

APPLICATIONS

- Suitable to weld carbon steel to cast iron.
- Repairs on cast iron castings.
- Filling up casting defects.
- Building up worn out surfaces..
- Engine blocks, pump casing, impellers, Gears and valve bodies.

RE-DRY CONDITIONS:

- Re-Dry the electrode at 150°C for 1 hour.

WELDING NOTE:

1. clean the weld area free of any surface contaminations.
2. Bevel broken part or cracks to 70-80° Vee.
3. Use the short arc and as possible as low current.
4. preheat the part, if necessary.

CHEMICAL COMPOSITION:

C	Mn	Si	Ni	Fe
1.20 Max	1.00 Max	1.00 max	96 Min	Balance

WELD METAL HARDNESS
140-160VPN

WELDING POSITION

1G/1F 2G/2F 3G UP 3G DOWN 4G

DIEMENSION, CURRENT CONDITION & PACKING DATA

Size (mm) (Dia)	Size (inch) (Dia)	Current Condition (DC+/ AC) Amps	Wt. of /pkt.	Wt. of Case
2.50/ 2.40	3/ 32"	60-80	2	20
3.15/ 3.20	1/ 8"	80-110	2	20
4.00	5/ 32"	110-130	2	20
5.00	3/ 16"	140-180	2	20

JACKSUN CUT

METAL ARC CUTTING FOR ALL SS, FERROUS AND NON-FERROUS METALS

KEY FEATURES:

An electrode with a medium-heavy coating that is intended for cutting practically all ferrous and non-ferrous metals. gives clean, quick cutting and piercing with the least amount of waste and slag.

APPLICATIONS

- Cutting of plain carbon steel
- Alloy steels
- Cast iron
- Manganese steel
- All types of ferrous and non-ferrous metals

RE-DRY CONDITION:

- Not recommended

WELDING POSITION

1G/1F 2G/2F 3G UP 3G DOWN 4G

DIEMENSION, CURRENT CONDITION & PACKING DATA

Size(mm) (Dia	Size(inch) (Dia)	Current Condition (DC-/AC) Amps	Kg./pkt.	KG/Case
3.15/3.20	1/8"	150-200	5	20
4.00	5/32"	200-270	5	20
5.00	3/16"	270-350	5	20

JACKSUN MIG-70SA1

A COPPER COATED THAT CONTAINS A WELL BALANCE CHEMISTRY LEVEL AND 0.5%MO

BASIC ALLOY: FE, MN, MO, SI
AWS: SFA/A 5.18: ER70S-A1
EN ISO 21952-B-W 52 I1 1M3

KEY FEATURES:

ROMIG-70S-A1 is commonly a copper coated carbon steel that contains a well balance chemistry level and 0.5% molybdenum added to increase the strength at elevated temperatures while yielding an improved corrosion resistance.

APPLICATIONS

- Suitable welding of Carbon Molybdenum steels such as, ASTM Grade F1 of SA-182 & SA-336, Grade A of SA-204, Grade T1/T1a/T1b of SA-209, Grade WC1 of SA-217, Grade A of SA-302, Grade P1 of SA335, Class 1 of A grades of SA-533, etc.

SHEILDING GAS:

- MIG welding with CO2 gas and Ar+ CO2 gas mixture, TIG welding with Argon gas

CHEMICAL COMPOSITION:

C	Mn	Si	S	P	Cu	Mo
0.12 max	1.30 max.	0.30-0.70	0.025 Max	0.025 Max	0.50 Max	0.40-0.65

MECHANICAL PROPERTIES:

YS (N/mm2)	UTS (N/mm)	EL % (l=5d)
400 min.	480 min.	22 min.

WELDING POSITION


1G/1F


2G/2F


3G UP


3G DOWN


4G

DIEMENSION, CURRENT CONDITION & PACKING DATA (FOR MIG WELDING)

Size (mm)	Size (inch)	Current Condition (DC+)	Voltage (V)	Gas Flow Rate L/min	Spool packing 12.5 kg	Spool packing 15 kg	Drum packing 100/200kg
0.80	0.031	70-220	16-24	10-20	√	√	X
1.20	0.047	150-300	24-34	15-25	√	√	√
1.60	1/16"	150-350	28-36	15-30	√	√	√

DIEMENSION, CURRENT CONDITION & PACKING DATA (FOR TIG WELDING)

Size (mm)	Size (inch)	Length (mm)	Length (Inch)	Current Condition (DC-)	Voltage (V)	Tube packing 5 kg	Box packing 20 kg
1.60	1/ 16"	1000	36"	40-80	10-16	√	√
2.0	5/ 64"	1000	36"	50-100	12-18	√	√
2.4/ 2.5	3/ 32"	1000	36"	60-120	14-20	√	√
3.2	1/ 8"	1000	36"	**100-150**	16-24	√	√
4.0	5/ 32	1000	36"	**140-200**	18-28	√	√

JACKSUN MIG-70SG

COPPER COATED CONTINUOUS OR CUT LENGTH
SOLID WIRE FOR TIG/MIG WELDING

DIN 8559: SG3
BASIC ALLOY: FE, MN, SI
AWS: SFA/A 5.18: ER70S-G
EN ISO 14341-B G 49A Z C SZ

KEY FEATURES:

A copper coated, manganese-silicon alloyed GTAW wire for welding of all general engineering and structural steels with minimum yield strength of max 400 MPa High levels of silicon and manganese for use on slightly contaminated base materials

APPLICATIONS

- low alloys steels and piping and boiler,
- suitable all kind of 500 MPA steels structural
- containers and offshore structures.

SHEILDING GAS:

- MIG welding with CO2 gas and Ar+ CO2 gas mixture, TIG welding with Argon gas

CHEMICAL COMPOSITION:

C	Mn	Si	S	P	Cu
0.07-0.15	1.50-1.90	0.60-1.00	0.035 Max	0.025 Max	0.50 Max

MECHANICAL PROPERTIES:

YS (N/mm2)	UTS (N/mm)	EL % (l=5d)	CHARPY "V" NOTCH IMPACT @
400 min.	500 min.	22 min.	Minus 30C : 80-100J

WELDING POSITION


1G/1F


2G/2F


3G UP


3G DOWN


4G

DIEMENSION, CURRENT CONDITION & PACKING DATA (FOR MIG WELDING)

Size (mm)	Size (inch)	Current Condition (DC+)	Voltage (V)	Gas Flow Rate L/min	Spool packing 12.5 kg	Spool packing 15 kg	Drum packing 100/200kg
0.80	0.031	70-220	16-24	10-20	√	√	X
1.20	0.047	150-300	24-34	15-25	√	√	√
1.60	1/16"	150-350	28-36	15-30	√	√	√

DIEMENSION, CURRENT CONDITION & PACKING DATA (FOR TIG WELDING)

Size (mm)	Size (inch)	Length (mm)	Length (Inch)	Current Condition (DC-)	Voltage (V)	Tube packing 5 kg	Box packing 20 kg
1.60	1/ 16"	1000	36"	40-80	10-16	√	√
2.0	5/ 64"	1000	36"	50-100	12-18	√	√
2.4/ 2.5	3/ 32"	1000	36"	60-120	14-20	√	√
3.2	1/ 8"	1000	36"	**100-150**	16-24	√	√
4.0	5/ 32	1000	36"	**140-200**	18-28	√	√

JACKSUN MIG-70S2

COPPER COATED CONTINUOUS OR CUT LENGTH
SOLID WIRE FOR TIG/MIG WELDING

BASIC ALLOY: FE, MN, SI WITH
TRIPLE OXIDE
AWS: SFA/A 5.18: ER70S-2
EN ISO 14341-B G 49A 3 C/M S6

KEY FEATURES:

Copper coated Triple oxidized solid mild steel wire, smooth flow, stable arc and minimum spatter under optimum welding conditions. Gives radiographic quality welds.

APPLICATIONS

- structural steel
- pressure vessels and boilers
- micro alloyed structural steels with specified tensile strength up to 520 N/mm2 to meet sub-zero impact requirements down to -51°C.

SHEILDING GAS:

- MIG welding with CO2 gas and Ar+ CO2 gas mixture, TIG welding with Argon gas

CHEMICAL COMPOSITION:

C	Mn	Si	S	P	Cu	Ti	Zr	Al
0.07 max	0.90-1.40	0.40-0.70	0.035 Max	0.025 Max	0.50 Max	0.05-0.15	0.02-0.12	0.05-0.15

MECHANICAL PROPERTIES:

YS (N/mm2)	UTS (N/mm)	EL % (l=5d)	CHARPY "V" NOTCH IMPACT @
420 Min.	510 Min.	22.0 Min.	Minus 30C : 27 J Min

WELDING POSITION

DIEMENSION, CURRENT CONDITION & PACKING DATA

Size (mm)	Size (inch)	Length (mm)	Length (Inch)	Current Condition (DC+)	Voltage (V)	Tube packing 5 kg	Box packing 20 kg
1.60	1/ 16"	1000	36"	40-80	10-16	√	√
2.0	5/ 64"	1000	36"	50-100	12-18	√	√
2.4/ 2.5	3/ 32"	1000	36"	60-120	14-20	√	√
3.2	1/ 8"	1000	36"	**100-150**	16-24	√	√
4.0	5/32"	1000	36"	**140-200**	18-28	√	√

JACKSUN MIG-70S 3

COPPER COATED CONTINUOUS OR CUT LENGTH
SOLID WIRE FOR TIG/MIG WELDING

DIN 8559: SG3
BASIC ALLOY: FE, MN, SI
AWS: SFA/A 5.18: ER70S3
EN ISO 14341-B G2SI

KEY FEATURES:

ER70S 3 copper coated solid welding wire for suitable all types of general fabrication and carbon steels applications, its si and Mn deoxidized making a good welding performance ,

APPLICATIONS

- General Fabrication
- Metal fabrication and sheet metals
- General form equipment's

SHEILDING GAS:

- MIG welding with CO2 gas and Ar+ CO2 gas mixture, TIG welding with Argon gas

CHEMICAL COMPOSITION:

C	Mn	Si	S	P	Cu
0.06-0.15	0.90-1.45	**0.45-0.75**	0.035 Max	0.025 Max	0.50 Max

MECHANICAL PROPERTIES:

YS (N/mm2)	UTS (N/mm)	EL % (l=5d)	CHARPY "V" NOTCH IMPACT @
420 min.	520 min.	22 min.	Minus 30C : 50-60 J

WELDING POSITION


1G/1F


2G/2F


3G UP


3G DOWN


4G

DIEMENSION, CURRENT CONDITION & PACKING DATA (FOR MIG WELDING)

Size (mm)	Size (inch)	Current Condition (DC+)	Voltage (V)	Gas Flow Rate L/min	Spool packing 12.5 kg	Spool packing 15 kg	Drum packing 100/200kg
0.80	0.031	70-220	16-24	10-20	√	√	X
1.20	0.047	150-300	24-34	15-25	√	√	√
1.60	1/16"	150-350	28-36	15-30	√	√	√

DIEMENSION, CURRENT CONDITION & PACKING DATA (FOR TIG WELDING)

Size (mm)	Size (inch)	Length (mm)	Length (Inch)	Current Condition (DC-)	Voltage (V)	Tube packing 5 kg	Box packing 20 kg
1.60	1/ 16"	1000	36"	40-80	10-16	√	√
2.0	5/ 64"	1000	36"	50-100	12-18	√	√
2.4/ 2.5	3/ 32"	1000	36"	60-120	14-20	√	√
3.2	1/ 8"	1000	36"	**100-150**	16-24	√	√
4.0	5/ 32	1000	36"	**140-200**	18-28	√	√

JACKSUN MIG-70S4

COPPER COATED CONTINUOUS OR CUT LENGTH
SOLID WIRE FOR TIG/MIG WELDING

BASIC ALLOY: FE, MN, SI
AWS: SFA/A 5.18: ER70S-4

KEY FEATURES:

It has excellent welding performance. It has good one-time shaping performance. When used in argon-rich mixed gas arc welding, the bead is delicate and beautiful.

APPLICATIONS

- Used for welding low-carbon steel and some low-alloy steel structures

SHEILDING GAS:

- MIG welding with CO2 gas and Ar+ CO2 gas mixture, TIG welding with Argon gas

CHEMICAL COMPOSITION:

C	Mn	Si	S	P	Cu
0.06-0.15	1.00-1.50	0.65-0.85	0.035 Max	0.025 Max	.50 Max

MECHANICAL PROPERTIES:

YS (N/mm2)	UTS (N/mm)	EL % (l=5d)	CHARPY "V" NOTCH IMPACT @
400 min.	480 min.	22 min.	Minus 20C : 60-80 J

WELDING POSITION


1G/1F


2G/2F


3G UP


3G DOWN


4G

DIEMENSION, CURRENT CONDITION & PACKING DATA (FOR MIG WELDING)

Size (mm)	Size (inch)	Current Condition (DC+)	Voltage (V)	Gas Flow Rate L/min	Spool packing 12.5 kg	Spool packing 15 kg	Drum packing 100/200kg
0.80	0.031	70-220	16-24	10-20	√	√	X
1.20	0.047	150-300	24-34	15-25	√	√	√
1.60	1/16"	150-350	28-36	15-30	√	√	√

DIEMENSION, CURRENT CONDITION & PACKING DATA (FOR TIG WELDING)

Size (mm)	Size (inch)	Length (mm)	Length (Inch)	Current Condition (DC-)	Voltage (V)	Tube packing 5 kg	Box packing 20 kg
1.60	1/ 16"	1000	36"	40-80	10-16	√	√
2.0	5/ 64"	1000	36"	50-100	12-18	√	√
2.4/ 2.5	3/ 32"	1000	36"	60-120	14-20	√	√
3.2	1/ 8"	1000	36"	**100-150**	16-24	√	√
4.0	5/ 32	1000	36"	**140-200**	18-28	√	√

JACKSUN MIG-70S6

COPPER COATED CONTINUOUS OR CUT LENGTH
SOLID WIRE FOR TIG/MIG WELDING

DIN 8559: SG2
BASIC ALLOY: FE, MN, SI
AWS: SFA/A 5.18: ER70S-6
EN ISO 14341-B G 49A 3 C/M S6

KEY FEATURES:

Copper coated double oxidized solid wire for all position CO2 welding. The special characteristics are smooth and stable arc low spatter Thin and uniform copper coating ensure good Conductivity useful for high speed feeding

APPLICATIONS

- structural steel& pipe welding
- sheet metal Carbon steel and low alloy steels

SHEILDING GAS:

- MIG welding with CO2 gas and Ar+ CO2 gas mixture, TIG welding with Argon gas

CHEMICAL COMPOSITION:

C	Mn	Si	S	P	Cu
0.06-0.15	1.40-1.85	0.80-1.15	0.035 Max	0.025 Max	0.50 Max

MECHANICAL PROPERTIES:

YS (N/mm2)	UTS (N/mm)	EL % (l=5d)	CHARPY "V" NOTCH IMPACT @
420-480.	510-610	22-32	Minus 30C : 40-60 J

WELDING POSITION


1G/1F


2G/2F


3G UP


3G DOWN


4G

DIEMENSION, CURRENT CONDITION & PACKING DATA (FOR MIG WELDING)

Size (mm)	Size (inch)	Current Condition (DC+)	Voltage (V)	Gas Flow Rate L/min	Spool packing 12.5 kg	Spool packing 15 kg	Drum packing 100/200kg
0.80	0.031	70-220	16-24	10-20	√	√	X
1.20	0.047	150-300	24-34	15-25	√	√	√
1.60	1/16"	150-350	28-36	15-30	√	√	√

DIEMENSION, CURRENT CONDITION & PACKING DATA (FOR TIG WELDING)

Size (mm)	Size (inch)	Length (mm)	Length (Inch)	Current Condition (DC-)	Voltage (V)	Tube packing 5 kg	Box packing 20 kg
1.60	1/ 16"	1000	36"	40-80	10-16	√	√
2.0	5/ 64"	1000	36"	50-100	12-18	√	√
2.4/ 2.5	3/ 32"	1000	36"	60-120	14-20	√	√
3.2	1/ 8"	1000	36"	**100-150**	16-24	√	√
4.0	5/ 32	1000	36"	**140-200**	18-28	√	√

JACKSUN MIG-70S7

COPPER COATED CONTINUOUS OR CUT LENGTH
SOLID WIRE FOR TIG/MIG WELDING

BASIC ALLOY: FE, MN, SI
AWS: SFA/A 5.18: ER70S-7

KEY FEATURES:

Copper coated double oxidized solid wire for all position CO2 welding. The special characteristics are smooth and stable arc low spatter Thin and uniform copper coating ensuring good Conductivity useful for high speed feeding

APPLICATIONS

- structural steels up to UTS 500 N/mm2
- Carbon steel and low alloy steels for single and malti pass

SHEILDING GAS:

- MIG welding with CO2 gas and Ar+ CO2 gas mixture, TIG welding with Argon gas

CHEMICAL COMPOSITION:

C	Mn	Si	S	P	Cu
0.07-0.15	1.50-2.00	0.50-0.80	0.035 Max	0.025 Max	0.50 Max

MECHANICAL PROPERTIES:

YS (N/mm2)	UTS (N/mm)	EL % (l=5d)	CHARPY "V" NOTCH IMPACT @
420 Min	510 Min.	22 Min	Minus 40C : 50-80 J

WELDING POSITION


1G/1F


2G/2F


3G UP


3G DOWN


4G

DIEMENSION, CURRENT CONDITION & PACKING DATA (FOR MIG WELDING)

Size (mm)	Size (inch)	Current Condition (DC+)	Voltage (V)	Gas Flow Rate L/min	Spool packing 12.5 kg	Spool packing 15 kg	Drum packing 100/200kg
0.80	0.031	70-220	16-24	10-20	√	√	X
1.20	0.047	150-300	24-34	15-25	√	√	√
1.60	1/16"	150-350	28-36	15-30	√	√	√

DIEMENSION, CURRENT CONDITION & PACKING DATA (FOR TIG WELDING)

Size (mm)	Size (inch)	Length (mm)	Length (Inch)	Current Condition (DC+)	Voltage (V)	Tube packing 5 kg	Box packing 20 kg
1.60	1/ 16"	1000	36"	40-80	10-16	√	√
2.0	5/ 64"	1000	36"	50-100	12-18	√	√
2.4/ 2.5	3/ 32"	1000	36"	60-120	14-20	√	√
3.2	1/ 8"	1000	36"	**100-150**	16-24	√	√
4.0	5/ 32	1000	36"	**140-200**	18-28	√	√

JACKSUN MIG-45

BASIC ALLOY: FE, MN,
AWS: SFA/A 5.2 RG45

COPPER COATED OR WITHOUT COATED CUT LENGTH SOLID WIRE FOR OXYFUEL WELDING

KEY FEATURES:

RG45 is a copper coated low carbon steel rod which is widely used for oxyfuel welding on mild steel. It has good ductility and good machinability. Its typical minimum weld tensile strength is 45 ksi and it conforms to AWS A5.2.

APPLICATIONS

- suitable for tensile strength requirement of the steel does not exceed 300 N/mm2.
- welding sheet and pipe where high strength is not required.

SHEILDING GAS:

- Oxyfuel Gas

CHEMICAL COMPOSITION:

C	Mn	Si	S	P	Cu
0.080 Max,	0.50 Max.	**0.10 Max.**	0.040 Max	0.035 Max.	0.30 Max

MECHANICAL PROPERTIES:

YS (N/mm2)	UTS (N/mm)	EL % (l=5d)	CHARPY "V" NOTCH IMPACT @
270 min.	300 min.	22 min.	0C : 27-50 J

WELDING POSITION


1G/1F


2G/2F


3G UP


3G DOWN


4G

DIEMENSION, CURRENT CONDITION & PACKING DATA (FOR TIG WELDING)

Size (mm)	Size (inch)	Length (mm)	Length (Inch)	Current Condition (DC-)	Voltage (V)	Tube packing 5 kg	Box packing 20 kg
1.60	1/ 16"	1000	36"	40-80	10-16	√	√
2.0	5/ 64"	1000	36"	50-100	12-18	√	√
2.4/ 2.5	3/ 32"	1000	36"	60-120	14-20	√	√
3.2	1/ 8"	1000	36"	**100-150**	16-24	√	√
4.0	5/ 32	1000	36"	**140-200**	18-28	√	√

JACKSUN MIG-60

COPPER COATED OR WITHOUT COATED CUT LENGTH SOLID WIRE FOR OXYFUEL WELDING

BASIC ALLOY: FE, MN, SI,
AWS: SFA/A 5.2 RG60

KEY FEATURES:

RG60 is a high strength steel rod which is used for oxyfuel welding on castings, steel plates, structural pipe and shapes with a minimum weld deposit strength of 60 ksi. RG60 conforms to AWS A5.2 R 60.

APPLICATIONS

- suitable for tensile strength requirement of the steel does not exceed 400 N/mm2.
- welding on castings, steel plates, structural pipe and shapes

SHEILDING GAS:

- Oxyfuel Gas

CHEMICAL COMPOSITION:

C	Mn	Si	S	P	Cu
0.15 Max,	0.90-1.35	**0.10-0.35**	0.035 Max	0.035 Max.	0.30 Max

MECHANICAL PROPERTIES:

YS (N/mm2)	UTS (N/mm)	EL % (l=5d)	CHARPY "V" NOTCH IMPACT @
370 min.	400 min.	22 min.	Minus 30C : 47J min.

WELDING POSITION


1G/1F


2G/2F


3G UP


3G DOWN


4G

DIEMENSION, CURRENT CONDITION & PACKING DATA (FOR TIG WELDING)

Size (mm)	Size (inch)	Length (mm)	Length (Inch)	Current Condition (DC-)	Voltage (V)	Tube packing 5 kg	Box packing 20 kg
1.60	1/ 16"	1000	36"	40-80	10-16	√	√
2.0	5/ 64"	1000	36"	50-100	12-18	√	√
2.4/ 2.5	3/ 32"	1000	36"	60-120	14-20	√	√
3.2	1/ 8"	1000	36"	**100-150**	16-24	√	√
4.0	5/ 32	1000	36"	**140-200**	18-28	√	√

JACKSUN MIG-80SG

COPPER COATED CONTINUOUS OR CUT LENGTH
SOLID WIRE FOR TIG/MIG WELDING

DIN 8559: SG4MO
BASIC ALLOY: FE, MN, SI ,MO
AWS: SFA/A 5.28: ER80SG
EN ISO 14341-B G 55A C1 Z 4MO

KEY FEATURES:

ER80SG copper-coated solid wire for GMAW, available in bright finish, gives smooth flow, stable arc and spatter free under optimum welding conditions. It gives radiographic quality welds. Thin and uniform copper coating ensure good Conductivity useful for high speed feeding.

APPLICATIONS

. Suitable for carbon steel and low alloy Steel. • **It is suitable for welding high strength fine-grained structural steels containing ~0.5%Mo** . ASTM grade SA-36,SA-36M and SA-283 SA-283M

SHEILDING GAS:

- MIG welding with CO2 gas and Ar+ CO2 gas mixture, TIG welding with Argon gas

CHEMICAL COMPOSITION:

C	Mn	Si	S &P	Mo	Cu
0.06-0.15	1.40-2.10	**0.40-0.90**	0.030 Max	0.40-0.60	0.50 Max

MECHANICAL PROPERTIES:

YS (N/mm2)	UTS (N/mm)	EL % (l=5d)	CHARPY "V" NOTCH IMPACT @
500 min.	550 min.	20 min.	Minus 30C : 80-100 J

WELDING POSITION


1G/1F


2G/2F


3G UP


3G DOWN


4G

DIEMENSION, CURRENT CONDITION & PACKING DATA (FOR MIG WELDING)

Size (mm)	Size (inch)	Current Condition (DC+)	Voltage (V)	Gas Flow Rate L/min	Spool packing 12.5 kg	Spool packing 15 kg	Drum packing 100/200kg
0.80	0.031	70-220	16-24	10-20	√	√	X
1.20	0.047	150-300	24-34	15-25	√	√	√
1.60	1/16"	150-350	28-36	15-30	√	√	√

DIEMENSION, CURRENT CONDITION & PACKING DATA (FOR TIG WELDING)

Size (mm)	Size (inch)	Length (mm)	Length (Inch)	Current Condition (DC-)	Voltage (V)	Tube packing 5 kg	Box packing 20 kg
1.60	1/ 16"	1000	36"	40-80	10-16	√	√
2.0	5/ 64"	1000	36"	50-100	12-18	√	√
2.4/ 2.5	3/ 32"	1000	36"	60-120	14-20	√	√
3.2	1/ 8"	1000	36"	**100-150**	16-24	√	√
4.0	5/ 32	1000	36"	**140-200**	18-28	√	√

JACKSUN MIG-90S B9

COPPER COATED LOW ALLOYS(9CR/1MO) SOLID CUT LENGTH WIRE FOR TIG WELDING

BASIC ALLOY: FE, MN, SI, CR, MO, CB, V

AWS: SFA/A 5.28: ER90S-B9

EN ISO 21952-B-W |1 9C1MV

KEY FEATURES:

ROMIG 90S-B9 is a 9% Cr & 1 Mo wire modified with niobium (CB) and vanadium designed to provide creep-rupture strength, toughness, fatigue life, oxidation and corrosion resistance at elevated service temperature and high pressures.

APPLICATIONS

- This wire is suitable for 9% Chromium steels such as P91, T91, F91 and ASTM A-213, A-335, A-387.
- Applications include fabrication of turbines, header systems, steam piping, electric generation, and petrochemical equipment. Controlled preheat, interpass and post heat treatment may be needed to avoid cracking.

SHEILDING GAS:

- TIG welding with Argon gas

CHEMICAL COMPOSITION:

C	Mn	Si	S	P	Cu	Cr	Mo
0.070- 0.13	1.20 max.	0.15-0.50	0.010 Max	0.010 Max	0.20 Max	8.00-10.50	0.85-1.20
N	Nb	V	Ni	Al			
0.02-0.07	0.02-0.10	0.15-0.30	0.80max	0.040 max			

MECHANICAL PROPERTIES (PWHT 690°C/1HRS)

YS (N/mm2)	UTS (N/mm2)	EL % (l=5d)	CHARPY "V" NOTCH IMPACT AT
540 Min.	620 Min.	17 Min.	+20C : 100 J

WELDING POSITION

1G/1F

2G/2F

DIEMENSION, CURRENT CONDITION & PACKING DATA

Size (mm) (Dia)	Size (inch) (Dia)	Length (mm)	Length (inch)	Current Condition (DC+)	Voltage (V)	Tube packing5 kg	Box packing 20 kg
1.60	1/ 16"	1000	36"	40-80	10-16	√	√
2.0	5/ 64"	1000	36"	50-100	12-18	√	√
2.4/ 2.5	5/ 32"	1000	36"	60-120	14-20	√	√
3.2	1/ 8"	1000	36"	100-150	16-24	√	√
4.0	5/ 32	1000	36"	140-200	18-28	√	√

JACKSUN MIG-RCI

COPPER COATED CONTINUOUS OR CUT LENGTH
SOLID WIRE FOR TIG/MIG WELDING

BASIC ALLOY: C, FE, MN, SI, P
AWS: SFA/A 5.15: R-CI
UNS NO. F10090

KEY FEATURES:

ROTIG-RCI is a high-quality gray iron oxyacetylene welding rod, designed for gas welding of cast iron, general fabrication or building up new or worn surfaces on castings. Deposits are easily machined and have excellent color match to grey cast iron. They also rust like cast iron and, therefore, machined repairs are not noticeable

APPLICATIONS

- Commonly used on parts where color match is critical such as filling of surface defects and building up worn or missing sections. Also used to repair machine bases, engine blocks, cylinder heads, and gear housings.

SHEILDING GAS:

- TIG welding with Argon oxyacetylene gas

CHEMICAL COMPOSITION:

C	Mn	Si	S	P
3.20-3.50	0.60-0.75	2.70-3.00	0.10 Max	0.50-0.75

MECHANICAL PROPERTIES:

UTS (N/mm)	Hardness (BHN)
138-172	150-210

WELDING POSITION

1G/1F

2G/2F

DIEMENSION, CURRENT CONDITION & PACKING DATA

Size (mm)	Size (inch)	Length (mm)	Length (Inch)	Current Condition (DC+)	Voltage (V)	Tube packing 5 kg	Box packing 20 kg
1.60	1/ 16″	1000	36″	40-80	10-16	√	√
2.0	5/ 64″	1000	36″	50-100	12-18	√	√
2.4/ 2.5	3/ 32″	1000	36″	60-120	14-20	√	√
3.2	1/ 8″	1000	36″	**100-150**	16-24	√	√
4.0	5/32"	1000	36"	**140-200**	18-28	√	√

JACKSUN NOVA-308L

STAINLESS STEEL CONTINUOUS & CUT LENGTH
SOLID WELDING WIRE FOR MIG/TIG WELDING

BASIC ALLOY: FE, CR, NI
AWS/SFA-5.9: ER308L, BS 19.9.L
EN ISO 14343-A 19 9 L

KEY FEATURES:

ER308L is austenitic Stainless steel welding wire, the weld metal contains ferrite and resistance to crack is extremely good. Low carbon assists austenitic arc stability and improves corrosion resistance such as intergranuler type. The mechanical properties of the weld metal are good

APPLICATIONS

- Automobiles and Chemical Industries
- Oil, Medical
- Fertilizer Textile and Railway Industries
- SS 301, 302, 304, 304L, 308, 308L, 321 and 347 grades

SHEILDING GAS:

- welding with 100% Ar gas Or Ar+2%O2 gas

CHEMICAL COMPOSITION:

C	Mn	Si	S	P	Ni	Cr	Mo	Cu
0.030 max.	1.00-2.50	0.30-0.65	0.030 Max	0.030 Max	9.00-11.00	19.50-22.00	0.75 max	0.75 Max

MECHANICAL PROPERTIES:

UTS (N/mm)	Proof strength (N/mm2)	EL % (l=5d)	CHARPY "V" NOTCH IMPACT @	FERRITE Qty.(FN)
520-660	360-450	35-45	+20C : 100-150 J -196C : 50-70 J	8-10

WELDING POSITION


1G/1F


2G/2F


3G UP


3G DOWN


4G

DIEMENSION, CURRENT CONDITION & PACKING DATA (FOR MIG WELDING)

Size (mm)	Size (inch)	Current Condition (DC+)	Voltage (V)	Gas Flow Rate L/min	Spool packing 12.5 kg	Spool packing 15 kg	Drum packing 100/200kg
0.80	0.031	70-220	16-24	10-20	√	√	X
1.20	0.047	150-300	24-34	15-25	√	√	√
1.60	1/16"	150-350	28-36	15-30	√	√	√

DIEMENSION, CURRENT CONDITION & PACKING DATA (FOR TIG WELDING)

Size (mm)	Size (inch)	Length (mm)	Length (Inch)	Current Condition (DC+)	Voltage (V)	Tube packing 5 kg	Box packing 20 kg
1.60	1/ 16"	1000	36"	40-80	10-16	√	√
2.0	5/ 64"	1000	36"	50-100	12-18	√	√
2.4/ 2.5	3/ 32"	1000	36"	60-120	14-20	√	√
3.2	1/ 8"	1000	36"	**100-150**	16-24	√	√
4.0	5/ 32	1000	36"	**140-200**	18-28	√	√

Royale Weldwell also offers Ronox-308LSi Mig Welding wire

JACKSUN NOVA-309L

STAINLESS STEEL CONTINUOUS & CUT LENGTH
SOLID WELDING WIRE FOR MIG/TIG WELDING

BASIC ALLOY: FE, CR, NI
AWS/SFA-5.9: ER309L
EN ISO 14343-A 23 12 L

KEY FEATURES:

ER309L is austenitic Stainless steel welding wire, the weld metal contains ferrite and resistance to crack is extremely good. Due to its high level of alloy, it has excellent resistance to heat.

APPLICATIONS

- ER 309L welding wire of22%Cr-12%Ni steel for joining ferrite to austenite stainless steel for services temperature up to 300°C. Heat resistance cast steel clad side of 18% Cr-8% Ni clad steel and stainless steel to Cr-Mo steel or carbon steel

SHEILDING GAS:

- welding with 100% Ar gas Or Ar+2%O2 gas.

CHEMICAL COMPOSITION:

C	Mn	Si	S	P	Ni	Cr	Mo	Cu
0.030 max.	1.00-2.50	0.30-0.65	0.030 Max	0.030 Max	12.00-14.0	23.00-25.00	0.75 max	0.75 Max

MECHANICAL PROPERTIES:

UTS (N/mm)	Proof strength (N/mm2)	EL % (l=5d)	CHARPY "V" NOTCH IMPACT @	FERRITE Qty.(FN)
540-660	400-490	30-40	+20C : 50-80 J	10-14

WELDING POSITION


1G/1F


2G/2F


3G UP


3G DOWN


4G

DIEMENSION, CURRENT CONDITION & PACKING DATA (FOR MIG WELDING)

Size (mm)	Size (inch)	Current Condition (DC+)	Voltage (V)	Gas Flow Rate L/min	Spool packing 12.5 kg	Spool packing 15 kg	Drum packing 100/200kg
0.80	0.031	70-220	16-24	10-20	√	√	X
1.20	0.047	150-300	24-34	15-25	√	√	√
1.60	1/16"	150-350	28-36	15-30	√	√	√

DIEMENSION, CURRENT CONDITION & PACKING DATA (FOR TIG WELDING)

Size (mm)	Size (inch)	Length (mm)	Length (Inch)	Current Condition (DC+)	Voltage (V)	Tube packing 5 kg	Box packing 20 kg
1.60	1/ 16"	1000	36"	40-80	10-16	√	√
2.0	5/ 64"	1000	36"	50-100	12-18	√	√
2.4/ 2.5	3/ 32"	1000	36"	60-120	14-20	√	√
3.2	1/ 8"	1000	36"	**100-150**	16-24	√	√
4.0	5/ 32	1000	36"	**140-200**	18-28	√	√

JACKSUN NOVA-316L

STAINLESS STEEL CONTINUOUS & CUT LENGTH
SOLID WELDING WIRE FOR MIG/TIG WELDING

BASIC ALLOY: FE, CR, NI, MO
AWS/SFA-5.9: ER308L, BS 19.9.L3L
EN ISO 14343-A 19 9 3L

KEY FEATURES:

ER316L is austenitic Stainless steel low carbon welding wire of 18 Cr%, 12 Ni% and 2 Mo%.The weld metal contains ferrite and resistance to crack is extremely good. Low carbon assists austenitic arc stability and improves corrosion resistance such as intergranuler type. The mechanical properties of the weld metal are good.

APPLICATIONS

- ER 316L molybdenum type grade for the MIG,TIG and SA welding of similar type stainless steels. The molybdenum vastly improves the resistance of pitting corrosion, particularly in chloride solutions and the low carbon grades further improves resistance to intergranular corrosion.Suitable for welding SS 316L, SS 318 grades. The weld metal is recommended for high temperature service up to 350C

SHEILDING GAS:

- welding with 100% Ar gas Or Ar+2%O2 gas.

CHEMICAL COMPOSITION:

C	Mn	Si	S	P	Ni	Cr	Mo	Cu
0.030 max.	1.00-2.50	0.30-0.65	0.030 Max	0.030 Max	11.00-14.00	18.00-20.00	2.00-3.00	0.75 Max

MECHANICAL PROPERTIES:

UTS (N/mm)	Proof strength (N/mm2)	EL % (l=5d)	CHARPY "V" NOTCH IMPACT @	FERRITE Qty.(FN)
550-680	390-480	30-40	+20C : 80-120 J -196C : 50-70 J	7-9

WELDING POSITION


1G/1F


2G/2F


3G UP


3G DOWN


4G

DIEMENSION, CURRENT CONDITION & PACKING DATA (FOR MIG WELDING)

Size (mm)	Size (inch)	Current Condition (DC+)	Voltage (V)	Gas Flow Rate L/min	Spool packing 12.5 kg	Spool packing 15 kg	Drum packing 100/200kg
0.80	0.031	70-220	16-24	10-20	√	√	X
1.20	0.047	150-300	24-34	15-25	√	√	√
1.60	1/16"	150-350	28-36	15-30	√	√	√

DIEMENSION, CURRENT CONDITION & PACKING DATA (FOR TIG WELDING)

Size (mm)	Size (inch)	Length (mm)	Length (Inch)	Current Condition (DC+)	Voltage (V)	Tube packing 5 kg	Box packing 20 kg
1.60	1/ 16"	1000	36"	40-80	10-16	√	√
2.0	5/ 64"	1000	36"	50-100	12-18	√	√
2.4/ 2.5	3/ 32"	1000	36"	60-120	14-20	√	√
3.2	1/ 8"	1000	36"	**100-150**	16-24	√	√
4.0	5/ 32	1000	36"	**140-200**	18-28	√	√

Royale Weldwell also offers Ronox-316LSi Mig Welding wire

JACKSUN NOVA-410

FERRITE STEEL CONTINUOUS & CUT LENGTH
SOLID WELDING WIRE FOR MIG/TIG WELDING

BASIC ALLOY: FE, CR,
AWS/SFA-A5.9: ER410
EN ISO 14343-A: G 13

KEY FEATURES:

RONOX-410 is a martensitic stainless steel that is heat-treatable. It has a nominal weld metal composition of 12% Chromium. These weld deposits are air-hard enable that can normally be heat treated after welding.

APPLICATIONS

- ER410 is a solid wire electrode for GMAW, suitable for welding 13% chromium steels, overlay carbon steels for improved corrosion, erosion and abrasion resistance. Service temperature up to +450 °C.

SHEILDING GAS:

- welding with 100% Ar gas Or Ar+2%O2 gas

CHEMICAL COMPOSITION:

C	Mn	Si	S	P	Ni	Cr	Mo	Cu
0.12 max.	0.60 max.	0.50 max	0.030 Max	0.030 Max	0.60 max.	11.50-13.50	0.75 max	0.75 Max

MECHANICAL PROPERTIES:

UTS (N/mm)	Proof strength (N/mm2)	EL % (l=5d)	CHARPY "V" NOTCH IMPACT @
450 min.	350 min.	17.00 min	+20C : 47 J min

WELDING POSITION

1G/1F 2G/2F 3G UP 3G DOWN 4G

DIEMENSION, CURRENT CONDITION & PACKING DATA (FOR MIG WELDING)

Size (mm)	Size (inch)	Current Condition (DC+)	Voltage (V)	Gas Flow Rate L/min	Spool packing 12.5 kg	Spool packing 15 kg	Drum packing 100/200kg
0.80	0.031	70-220	16-24	10-20	√	√	X
1.20	0.047	150-300	24-34	15-25	√	√	√
1.60	1/16"	150-350	28-36	15-30	√	√	√

DIEMENSION, CURRENT CONDITION & PACKING DATA (FOR TIG WELDING)

Size (mm)	Size (inch)	Length (mm)	Length (Inch)	Current Condition (DC+)	Voltage (V)	Tube packing 5 kg	Box packing 20 kg
1.60	1/ 16"	1000	36"	40-80	10-16	√	√
2.0	5/ 64"	1000	36"	50-100	12-18	√	√
2.4/ 2.5	3/ 32"	1000	36"	60-120	14-20	√	√
3.2	1/ 8"	1000	36"	**100-150**	16-24	√	√
4.0	5/ 32	1000	36"	**140-200**	18-28	√	√

JACKSUN NOVA-ERNICU

NICKEL-COPPER BARE WELDING RODS FOR MIG/TIG WELDING

BASIC ALLOY: NI, CU, MN, TI, AL
AWS/SFA-514: ERNICU-7
UNS NO. N04060

KEY FEATURES:

The nominal composition (wt %) of filler metal of this classification is 65 Ni, 30 Cu, 3 Mn, and 2 Ti. The presence of titanium helps to control the porosity in the welding. ERNiCu-7 is a smart choice as the weld metal has good corrosion-resistant properties

APPLICATIONS

- It is used for welding nickel-copper alloy (ASTM B 127, B 163, B164 and B 165.
- It is also used for welding in salt, sea water and reducing acid environment.
- Dissimilar welding applications, including joining nickel copper and copper nickel alloys to Nickel 200 series

SHEILDING GAS:

- Welding with 100% Ar gas.

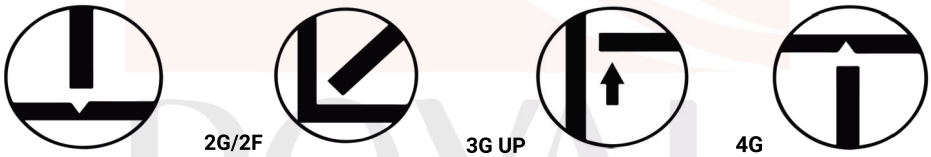
CHEMICAL COMPOSITION:

C	Mn	Si	Cu	Ni	P
0.15 max.	4.00 max	1.25 max	Rem	62.00-69.00	0.020Max
Ti	Al	Fe	S		
1.5-3.00	1.25 max	2.50 max	0.015 max		

TYPICAL MECHANICAL PROPERTIES (UNDER AS WELDED CONDITION)

UTS (N/mm2)	EL% (l=5d)
500 min	33 min

WELDING POSITION



1G/1F 2G/2F 3G UP 4G

DIEMENSION, CURRENT CONDITION & PACKING DATA (FOR TIG WELDING)

Size (mm)	Size (inch)	Length (mm)	Length (Inch)	Tube packing 5 kg	Box packing 20 kg
1.60	1/ 16″	1000	36″	√	√
2.0	5/ 64″	1000	36″	√	√
2.4/ 2.5	3/ 32″	1000	36″	√	√
3.2	1/ 8″	1000	36″	√	√

JACKSUN NOVA-2509

SUPER DUPLEX CUT LENGTH SOLID WELDING WIRE FOR TIG WELDING

BASIC ALLOY: FE, CR, NI, MO
AWS/SFA-5.9: ER2594
EN 12072- W25 9 4 NL

KEY FEATURES:

Alloy2509 is a bare, corrosion resistant, "super duplex" rod for welding austenitic-ferritic stainless alloys of the 25% Cr, 7% Ni, 4% Mo, low C type.ER2509 has high intergranular corrosion, pitting and stress corrosion resistance.

APPLICATIONS

- The alloy is frequently utilised in industries including pulp and paper
- It is used in offshore, and gas where corrosion resistance is crucial
- Also utilized in forPumps,Valvesand Pressure Vessels

SHEILDING GAS:

- Welding with 100% Ar gas.

CHEMICAL COMPOSITION:

C	Mn	Si	Cr	Ni	N	W	Cu	PREN
0.03 max.	2.50max	1.00max	24.00-27.00	8.00-10.50	2.5 - 4.50	1.00max	1.50Max	40min

MECHANICAL PROPERTIES:

UTS (N/mm)	Proof strength (N/mm2)	EL % (l=5d)	CHARPY "V" NOTCH IMPACT @	FERRITE Qty.(FN)
760min	550min	18min	+20C : 100-150 J -40C : 50-70 J	30-60

WELDING POSITION


1G/1F


2G/2F


3G UP


4G

DIEMENSION, CURRENT CONDITION & PACKING DATA (FOR TIG WELDING)

Size (mm)	Size (inch)	Length (mm)	Length (Inch)	Current Condition (DC+)	Voltage (V)	Tube packing 5 kg	Box packing 20 kg
1.60	1/ 16"	1000	36"	40-80	10-16	√	√
2.0	5/ 64"	1000	36"	50-100	12-18	√	√
2.4/ 2.5	3/ 32"	1000	36"	60-120	14-20	√	√
3.2	1/ 8"	1000	36"	**100-150**	16-24	√	√

JACKSUN NOVA-STELLITE 6

BASIC ALLOY: C, CO, CR, W
AWS/SFA-521: ERCOCR-A
UNS NO. R30006

STELLITE 6 PROVIDES STRONG RESISTANCE TO CHEMICAL AND MECHANICAL DEGRADATION OVER A WIDE TEMPERATURE RANGE.

KEY FEATURES:

Stellite6 alloy, because of its excellent hardness, exhibits exceptional wear, scratch and abrasion resistance at ambient and elevated temperatures. The exceptional wear properties chartered by this material are inherently unique and are associated with the dispersion of complex carbide phases within the CoCr alloy matrix

APPLICATIONS

- Protection from mechanical and chemical degradation over a wide temperature range, saw teeth and acid resistant machine tools Poppet valves, valve seats and gate valves Pump shafts, impellers, bearings and rolling couples.

SHEILDING GAS:

- Welding with 100% Ar gas.

CHEMICAL COMPOSITION:

C	Mn	Si	Co	Cr	Mo	W	Fe	Other
0.90-1.40	1.00max	2.00max	Rem	26.00-32.00	1.00max	3.00-6.00	2.50Max	0.50max

HARDNESS PROPERTIES (UNDER AS WELDED CONDITION)

All Weld Metal Hardness
40-47 HRS

WELDING POSITION

1G/1F

2G/2F

DIEMENSION, CURRENT CONDITION & PACKING DATA (FOR TIG WELDING)

Size (mm)	Size (inch)	Length (mm)	Length (Inch)	Tube packing 5 kg	Box packing 20 kg
1.60	1/ 16″	1000	36″	√	√
2.0	5/ 64″	1000	36″	√	√
2.4/ 2.5	3/ 32″	1000	36″	√	√
3.2	1/ 8″	1000	36″	√	√

JACKSUN ALLOY-4043

ALUMINIUM FILLER WIRE WITH 5% SILICON FOR HIGHER STRENGTH WELDING

BASIC ALLOY: AL, SI, MN
AWS/SFA-5.10: ER4043
UNS A94043

KEY FEATURES:

Roalloy-4043 is a 5% Silicon, all position aluminum welding wire. It is one of the oldest and most widely used welding and brazing alloys. Silicon with this alloy gives improved wetting action yielding a less crack sensitive bright weld bead.

APPLICATIONS

- It can be used to weld heat treatable alloys such as the 6XXX base metals and cast alloys.
- It can be found in many common welding applications, such as bicycles, trucks, trailers, and automotive

SHEILDING GAS:

- Welding with 100% Ar gas

WELDING NOTE:

Maintaining a proper welding procedure, including pre-heat and interpass temperatures, may be critical depending on the type and thickness of material being welded

CHEMICAL COMPOSITION:

Si	Mn	Mg	Cr	Al	Others
4.50-6.00	0.05 max.	0.050 max	00.30 max	Balance	0.15
Fe	Zn	Ti			
0.80 max.	0.10 max	0.20 max			

MECHANICAL PROPERTIES:

UTS (N/mm)	Proof strength (N/mm2)	EL % (l=5d)
15-23	7-19	5-12

WELDING POSITION

DIEMENSION, CURRENT CONDITION & PACKING DATA (FOR MIG WELDING)

Size (mm)	Size (inch)	Current Condition (DC+)	Voltage (V)	Gas Flow Rate L/min	Spool packing 12.5 kg	Spool packing 15 kg	Drum packing 100/200kg
0.80	0.031	70-220	16-24	10-20	√	√	X
1.20	0.047	150-300	24-34	15-25	√	√	√
1.60	1/16"	150-350	28-36	15-30	√	√	√

DIEMENSION, CURRENT CONDITION & PACKING DATA (FOR TIG WELDING)

Size (mm)	Size (inch)	Length (mm)	Length (Inch)	Current Condition (DC-)	Voltage (V)	Tube packing 5 kg	Box packing 20 kg
1.60	1/ 16"	1000	36"	40-80	10-16	√	√
2.0	5/ 64"	1000	36"	50-100	12-18	√	√
2.4/ 2.5	3/ 32"	1000	36"	60-120	14-20	√	√
3.2	1/ 8"	1000	36"	**100-150**	16-24	√	√

JACKSUN ALLOY-5183

BASIC ALLOY: AL, MG, MN
AWS/SFA-5.10: ER5183

ALUMINIUM FILLER WIRE WITH 5% MAGNESSIUM
FOR HIGHER STRENGHT WELDING

KEY FEATURES:

ROALLOY-5183 is similar to ER5356 with a 5% magnesium aluminum fillerly used on similar base metal as the ER5356, but may give higher strengths onsuch base metals like 5083 and other magnesium-containing base metals. with0.5-1.0% manganese as well as chromium and titanium.

APPLICATIONS

- Marine Components
- Drilling Rigs
- Cryogenics
- Railroad Carss
- Unfired Pressure /vessels

SHEILDING GAS:

- Welding with 100% Ar gas

WELDING NOTE:

Maintaining a proper welding procedure, including pre-heat and interpass temperatures, may be critical depending on the type and thickness of material being welded

CHEMICAL COMPOSITION:

Si	Mn	Mg	Cr	Al	Others
0.40	0.5-1.00	4.30-5.30	0.05-0.20	Balance	0.15
Fe	Zn	Ti	Cu		
0.40	0.25	0.15	0.10		

MECHANICAL PROPERTIES:

UTS (N/mm)	Proof strength (N/mm2)	EL % (l=5d)
275-330	125-225	12-16

WELDING POSITION


1G/1F


2G/2F


3G UP


4G

DIEMENSION, CURRENT CONDITION & PACKING DATA (FOR MIG WELDING)

Size (mm)	Size (inch)	Current Condition (DC+)	Voltage (V)	Gas Flow Rate L/min	Spool packing 12.5 kg	Spool packing 15 kg	Drum packing 100/200kg
0.80	0.031	70-220	16-24	10-20	√	√	X
1.20	0.047	150-300	24-34	15-25	√	√	√
1.60	1/16"	150-350	28-36	15-30	√	√	√

DIEMENSION, CURRENT CONDITION & PACKING DATA (FOR TIG WELDING)

Size (mm)	Size (inch)	Length (mm)	Length (Inch)	Current Condition (DC-)	Voltage (V)	Tube packing 5 kg	Box packing 20 kg
1.60	1/ 16"	1000	36"	40-80	10-16	√	√
2.0	5/ 64"	1000	36"	50-100	12-18	√	√
2.4/ 2.5	3/ 32"	1000	36"	60-120	14-20	√	√
3.2	1/ 8"	1000	36"	**100-150**	16-24	√	√

JACKSUN ALLOY-5356

ALUMINIUM FILLER WIRE WITH 5% MAGNESSIUM

BASIC ALLOY: AL, MG,
AWS/SFA-5.10: ER5356
UNS A95356

KEY FEATURES:

Roalloy-5356 is a 5% magnesium, all position, non-heat treatable wirewhich is ly chosen for its relatively high shear strength. In addition, it also offers excellent corrosion resistance when exposed to salt water.

APPLICATIONS

- Boats, Ships
- Bicycles
- Trucks
- Pressure Vessels
- Automotive
- Equipments

SHEILDING GAS:

- Welding with 100% Ar gas

WELDING NOTE:

Maintaining a proper welding procedure, including pre-heat and interpass temperatures, may be critical depending on the type and thickness of material being welded

CHEMICAL COMPOSITION:

Si	Mn	Mg	Cr	Al	Others
0.25	0.05-0.20	4.50-5.50	0.05-0.20	Remainder	0.15
Fe	Zn	Ti			
0.40	0.10	0.06-0.20			

MECHANICAL PROPERTIES:

UTS (N/mm)	Proof strength (N/mm2)	EL % (l=5d)
200-310	83-207	10-18

WELDING POSITION


1G/1F


2G/2F


3G UP


4G

DIEMENSION, CURRENT CONDITION & PACKING DATA (FOR MIG WELDING)

Size (mm)	Size (inch)	Current Condition (DC+)	Voltage (V)	Gas Flow Rate L/min	Spool packing 12.5 kg	Spool packing 15 kg	Drum packing 100/200kg
0.80	0.031	70-220	16-24	10-20	√	√	X
1.20	0.047	150-300	24-34	15-25	√	√	√
1.60	1/16"	150-350	28-36	15-30	√	√	√

DIEMENSION, CURRENT CONDITION & PACKING DATA (FOR TIG WELDING)

Size (mm)	Size (inch)	Length (mm)	Length (Inch)	Current Condition (DC-)	Voltage (V)	Tube packing 5 kg	Box packing 20 kg
1.60	1/ 16"	1000	36"	40-80	10-16	√	√
2.0	5/ 64"	1000	36"	50-100	12-18	√	√
2.4/ 2.5	3/ 32"	1000	36"	60-120	14-20	√	√
3.2	1/ 8"	1000	36"	**100-150**	16-24	√	√

JACKSUN ALLOY-CuAl

BASIC ALLOY: CU, AL,
AWS/SFA-5.7: ERCUAL-A2

ALUMINUM BRONZE WELDING WIRE FOR TIG/MIG WELDING

KEY FEATURES:

ERCuAl-A2 aluminum bronze is the most versatile welding electrode inthis family of alloys. It is intended for deposition with electric arc welding processes. It is excellent for building up or overlaying metal for wear and corrosion resistant surfaces. Weld deposits exhibit high mechanical properties, tensile strength, yield strength and hardness

APPLICATIONS

- Marine maintenance and repair
- wear surface reconstruction
- Tractor gear housings, idler pulleys, pickling hooks
- cast repair
- joining aluminum bronze of similar composition
- paper mill rolls, motor bases, tin platemill rolls
- bearings, bushings, pump housings
- condenser boxes, hydraulic pistons, brake drums
- impellers, valve seats, gears, mixer arms
- press rams
- ship propellers
- andlance heads

SHEILDING GAS:

- Welding with 100% Ar gas

WELDING NOTE:

All parameters are suggested as basic guidelines and will vary depending on join design, number of passes, and other factors

CHEMICAL COMPOSITION:

Si	Fe	Al	Zn	Cu	Pb	Others
0.10	1.50	8.50-11.00	0.02	Remainder	0.020	0.50

MECHANICAL PROPERTIES:

UTS (N/mm)	Proof strength (N/mm2)	EL % (l=5d)	Hardness (HB)
420 Min.	---	20 min.	130-150

WELDING POSITION


1G/1F


2G/2F


3G UP


4G

DIEMENSION, CURRENT CONDITION & PACKING DATA (FOR MIG WELDING)

Size (mm)	Size (inch)	Current Condition (DC+)	Voltage (V)	Gas Flow Rate L/min	Spool packing 12.5 kg	Spool packing 15 kg
0.80	0.031	70-220	24-26	15-25	√	√
1.20	0.047	150-300	24-34	20-30	√	√
1.60	1/16"	150-350	28-36	20-30	√	√

DIEMENSION, CURRENT CONDITION & PACKING DATA (FOR TIG WELDING)

Size (mm)	Size (inch)	Length (mm)	Length (Inch)	Current Condition (DC-)	Voltage (V)	Tube packing 5 kg	Box packing 20 kg
1.60	1/ 16"	1000	36"	40-80	10-16	√	√
2.0	5/ 64"	1000	36"	50-100	12-18	√	√
2.4/ 2.5	3/ 32"	1000	36"	60-120	14-20	√	√
3.2	1/ 8"	1000	36"	**100-150**	16-24	√	√

JACKSUN ALLOY-CuNiAl

NICKEL-ALUMINUM-BRONZE SOLID WELDING WIRE FOR TIG/MIG WELDING

BASIC ALLOY: AL, MG,
AWS/SFA-5.7: ERCUNIAL
ISO 24373: CUAL9NI5FE3MN2

KEY FEATURES:

Nickel- aluminum- bronze cast and forge parts in shipbuilding (e.g. shippropeller), for power plants including valves, sifter, pumps, tube systems as well as for theapparatus engineering and food receptacle. Weld surfacing on steel and AlBz includingmulti alloys.The welding material is seawater-, corrosion- and wear- resistant (e.g. when seawater,cavitation and erosion are simultaneously affecting the welding material).

APPLICATIONS

- shipbuilding (e.g. shippropeller)
- power plants including valves, sifter, pumps, tube systems
- the apparatus engineering
- Weld surfacing on steel and AlBz
- food receptacle

SHEILDING GAS:

- Welding with 100% Ar gas

WELDING NOTE:

All parameters are suggested as basic guidelines and will vary depending on joint design, number of passes, and other factors.

CHEMICAL COMPOSITION:

Ni	Fe	Al	Mn	Si	Cu	Others	Zn
4.00-5.50	3.0-5.00	8.50-9.50	0.60-3.50	0.10	Balance	0.50	0.10

MECHANICAL PROPERTIES:

UTS (N/mm)	Proof strength (N/mm2)	EL % (l=5d)	Hardness (HB)
520 Min.	---	20 min	160-200

WELDING POSITION


1G/1F


2G/2F


3G UP


4G

DIEMENSION, CURRENT CONDITION & PACKING DATA (FOR MIG WELDING)

Size (mm)	Size (inch)	Current Condition (DC+)	Voltage (V)	Gas Flow Rate L/min	Spool packing 12.5 kg	Spool packing 15 kg
0.80	0.031	70-220	24-26	15-25	√	√
1.20	0.047	150-300	24-34	20-30	√	√
1.60	1/16″	150-350	28-36	20-30	√	√

DIEMENSION, CURRENT CONDITION & PACKING DATA (FOR TIG WELDING)

Size (mm)	Size (inch)	Length (mm)	Length (Inch)	Current Condition (DC-)	Voltage (V)	Tube packing 5 kg	Box packing 20 kg
1.60	1/ 16″	1000	36″	40-80	10-16	√	√
2.0	5/ 64″	1000	36″	50-100	12-18	√	√
2.4/ 2.5	3/ 32″	1000	36″	60-120	14-20	√	√
3.2	1/ 8″	1000	36″	**100-150**	16-24	√	√

JACKSUN ALLOY-CUSN-A

BASIC ALLOY: CU, SN, P
AWS/SFA-5.7: ERCUSN-A

PHOS-BRONZE WELDING WIRE FOR TIG/MIG WELDING

KEY FEATURES:

Roalloy-CuSn-A is a copper-zinc bronze containing approximately 5% tin and up to 0.35% phosphorus added as a deoxidizer used to weld bronze and brass. It can also be used to weld copper if the presence of tin in the weld metal is not objectionable.

APPLICATIONS

- Suitable for the welding of copper with Cu-Sn alloy, especially for the joining welding of Cu-Zn alloy with steel. Can also be used in repairing cast copper product.
- Pre-heat suggested for large size products, and pulsed arc welding is recommended for multilayer on steel.

SHEILDING GAS:

- Welding with 100% Ar gas

WELDING NOTE:

All parameters are suggested as basic guidelines and will vary depending on joint design, number of passes, and other factors.

CHEMICAL COMPOSITION:

Al	Sn	P	Cu	Pb	Others
0.010	4.00-6.00	0.10-0.35	Remainder	0.20	0.50

MECHANICAL PROPERTIES:

UTS (N/mm)	Proof strength (N/mm2)	Hardness (HB)
320-360	20-25	80-90

WELDING POSITION


1G/1F


2G/2F


3G UP


4G

DIEMENSION, CURRENT CONDITION & PACKING DATA (FOR MIG WELDING)

Size (mm)	Size (inch)	Current Condition (DC+)	Voltage (V)	Gas Flow Rate L/min	Spool packing 12.5 kg	Spool packing 15 kg
0.80	0.031	70-220	24-26	15-25	√	√
1.20	0.047	150-300	24-34	20-30	√	√
1.60	1/16"	150-350	28-36	20-30	√	√

DIEMENSION, CURRENT CONDITION & PACKING DATA (FOR TIG WELDING)

Size (mm)	Size (inch)	Length (mm)	Length (Inch)	Current Condition (DC-)	Voltage (V)	Tube packing 5 kg	Box packing 20 kg
1.60	1/ 16"	1000	36"	40-80	10-16	√	√
2.0	5/ 64"	1000	36"	50-100	12-18	√	√
2.4/ 2.5	3/ 32"	1000	36"	60-120	14-20	√	√
3.2	1/ 8"	1000	36"	**100-150**	16-24	√	√

JACKSUN ALLOY-RBCUZN-C

BASIC ALLOY: CU, ZN, SN
AWS/SFA-5.8: EBCUZN-C

LOW FUMING BRONZE BARE IS A GENERAL-PURPOSE

KEY FEATURES:

RBCuZn-C Low fuming bronze (bare and flux coated) is a general-purpose, copper base alloy brazing rod used extensively for gas brazing steel, copper alloys, cast iron, nickel alloys and stainless steel. Its low fuming characteristic and good mechanical properties make this alloy a widely used general-purpose product.

APPLICATIONS

- It is especially suitable for brazing cemented carbide, and can be used for brazing applications with high corrosion requirements, such as the brazing of steels and nickel alloys.

SHEILDING GAS:

- No Gas required, Brazing temperature range- 910°C - 955°C (Low-Fuming Bronze and Flux Coated Bronze

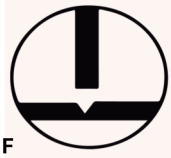
CHEMICAL COMPOSITION:

Cu	Sn	Fe	Zn	Pb	Al	Mn	Si	Others
56.0-60.0	0.80-1.10	0.20-1.20	Remainder	0.050	0.10	0.01-0.50	0.04-0.15	0.50

MECHANICAL PROPERTIES:

UTS (N/mm)	Proof strength (N/mm2)	Solids-Temperature	Liquids-Temperature
330-400	80-100	866℃	888℃

WELDING POSITION



1G/1F

2G/2F

DIEMENSION, CURRENT CONDITION & PACKING DATA (FOR TIG WELDING)

Size (mm)	Size (inch)	Length (mm)	Length (Inch)	Tube packing 5 kg	Box packing 20 kg
1.60	1/ 16″	1000	36″	√	√
2.0	5/ 64″	1000	36″	√	√
2.4/ 2.5	3/ 32″	1000	36″	√	√
3.2	1/ 8″	1000	36″	√	√

BASIC ALLOY: NI , CR, MO, NB, TI
AWS/SFA-A5.14: ER NICR-3
EN ISO: 18274 S NI 6082

JACKSUN ALLOY -NICR3

MIG/TIG WELDING RODS MADE OF NICKEL AND CHROMIUM ALLOY

KEY FEATURES:

ROALLOY-NICR3 is a solid wire for GTA or TIG welding produces a smooth flow, a stable arc, and is spatter-free. It produces welds of radiographic quality.

APPLICATIONS

- Used in the power generation
- Petrochemical industries
- Used for welding a range of Inconel 600, 601, 690, Incoloy 800, 800H and 800HT
- Used for dissimilar applications with carbon steel to stainless steels
- Used in the applications ranging from cryogenic to high temperatures

SHEILDING GAS:

- Welding with 100% Ar gas

WELDING NOTE:

All parameters are suggested as basic guidelines and will vary depending on join design, number of passes, and other factors

CHEMICAL COMPOSITION:

C	Mn	Fe	P	S	Si	Ni	Cu	Co	Ti	Cr	Nb
0.10	3.0	3.0	0.030	0.015	0.50	67.0min	0.50	0.12	0.75	18.0 - 22.0	2.0 - 3.0

(Single value maximum)

MECHANICAL PROPERTIES:

UTS (N/mm)	EL % (l=5d)
660	40

WELDING POSITION


1G/1F


2G/2F


3G UP


4G

DIEMENSION, CURRENT CONDITION & PACKING DATA (FOR MIG WELDING)

Size (mm)	Size (inch)	Current Condition (DC+)	Voltage (V)	Gas Flow Rate L/min	Spool packing 12.5 kg	Spool packing 15 kg
0.80	0.031	70-220	24-26	15-25	√	√
1.20	0.047	150-300	24-34	20-30	√	√
1.60	1/16"	150-350	28-36	20-30	√	√

DIEMENSION, CURRENT CONDITION & PACKING DATA (FOR TIG WELDING)

Size (mm)	Size (inch)	Length (mm)	Length (Inch)	Current Condition (DC-)	Voltage (V)	Tube packing 5 kg	Box packing 20 kg
1.60	1/ 16"	1000	36"	40-80	10-16	√	√
2.0	5/ 64"	1000	36"	50-100	12-18	√	√
2.4/ 2.5	3/ 32"	1000	36"	60-120	14-20	√	√
3.2	1/ 8"	1000	36"	**100-150**	16-24	√	√

JACKSUN ALLOY-625

BASIC ALLOY: NI, CR, MO, CB
AWS/SFA-5.14: ERNICRMO-3
UNS N06625

NICKEL ALLOY BARE WIRE IS USED FOR GMAW, GTAW, AND SAW WELDING

KEY FEATURES:

ROALLOY-625 a nickel-chromium-molybdenum wire primarily utilized for welding alloys 625, 601, 802, and 9% nickel using the gas arc metal and gas tungsten arc, It gives radiographic quality welds. It is ideal for welding Ni-Cr-Mo alloys to themselves and to steel, and for surfacing steel. The wires are use in applications where the temperature ranges from cryogenic to 540°C. It is also suitable for welding Ni base alloys to steel

APPLICATIONS

- This wire is well suited for welding piping systems and reactor components in the power generation industry and for high-temperature service in a wide variety of other engineering applications including furnace equipment petrochemical plants and marine and offshore environments.
- Ideal for valves, valve seats, impellers, guide points, bushing, bearings, journals, hot working tools like hot shear blades, forging dies, trimming dies, piercing punches, etc.

SHEILDING GAS:

- Welding with 100% Ar gas

WELDING NOTE:

Maintaining a proper welding procedure, including pre-heat and interpass temperatures, may be critical depending on the type and thickness of material being welded

CHEMICAL COMPOSITION:

C	Mn	S	Si	P	Ni	Cr
0.10max	3.0	0.015 max	0.50 max	0.020 max	58 min	20.00-23.00
Mo	Cb	Fe	Al	Ti		
8.00-10.00	3.15-4.15	5.00 max	0.40 max	0.40 max		

MECHANICAL PROPERTIES:

UTS (N/mm^2)	Proof Strength (N/mm^2)	EL % (l=5d)	CHARPY "V" NOTCH IMPACT AT
690.00 min	550.00 Min.	35.00 min	- 196° C : 50 J Min

WELDING POSITION

1G/1F 2G/2F 3G UP 4G

DIEMENSION, CURRENT CONDITION & PACKING DATA (FOR MIG WELDING)

Size (mm)	Size (inch)	Current Condition (DC+)	Voltage (V)	Gas Flow Rate L/min	Spool packing 12.5 kg	Spool packing 15 kg	Drum packing 100/200 kg
0.80	0.031	70-220	16-24	10-20	√	√	X
1.20	0.047	150-300	24-34	15-25	√	√	√
1.60	1/16"	150-350	28-36	15-30	√	√	√

DIEMENSION, CURRENT CONDITION & PACKING DATA (FOR TIG WELDING)

Size (mm)	Size (inch)	Length (mm)	Length (Inch)	Current Condition (DC-)	Voltage (V)	Tube packing 5 kg	Box packing 20 kg
1.60	1/ 16"	1000	36"	40-80	10-16	√	√
2.0	5/ 64"	1000	36"	50-100	12-18	√	√
2.4/ 2.5	3/ 32"	1000	36"	60-120	14-20	√	√
3.2	1/ 8"	1000	36"	**100-150**	16-24	√	√

ROYAL PRIME-71GS

ALL-POSITION, SELF-SHIELDED FCAW WIRE FOR SINGLE-PASS FILLET AND LAP WELDING.

BASIC ALLOY: FE, MN, SI, AL
AWS/SFA-5.20: E71TGS
EN ISO 17632-A-T 42 3 Y NO 2 H10

KEY FEATURES:

Rofil-71GS an all-position, self-shielded flux-cored wire designed for single-pass fillet and lap welding on galvanized or carbon steel as thin as 0.9mm, without burn-through. Gasless wire E71T-GS is commonly used on small portable 240v Single Phase MIG welding machines, offering smooth arc action with very little spatter.

APPLICATIONS

- Suitable for Lap and butt welds on galvanized sheet metal, Repair of automobile sheet metal, Joining of galvanized roofing sheet metal, Prefab building fabrication, Tanks, Ornamental iron, Farm implement repairs, General fabrication

SHEILDING GAS

- No gas required

CHEMICAL COMPOSITION:

C	Mn	Si	S & P	Al	Cr	Mo
0.30 max	1.75 Max	0.60 max.	0.030 max	1.80 max.	0.20 Max	0.50 max.

MECHANICAL PROPERTIES

YS (N/mm2)	UTS (N/mm2)	EL % (l=5d)	CHARPY "V" NOTCH IMPACT AT
390 min.	490-670	22 min.	-30C : 27 J min.

WELDING POSITION


1G/1F


2G/2F


3G UP


3G DOWN


4G

DIEMENSION, CURRENT CONDITION & PACKING DATA

Size (mm)	Size (inch)	Current Condition (DC+)	Voltage (V)	Spool packing 12.5 kg.	Spool packing 1.0, 2.0,5.0 Kg
0.80	0.030"	50-175	15-18	√	√
0.90	0.035"	75-200	16-20	√	√
1.20	3/ 64"	120-300	18-22	√	√
1.40	1/18"	160-340	18-22	√	√
1.60	1/16"	180-360	18-22	√	√
2.00	5/64"	200-380	18-22	√	√

Customer packing on request

ROYAL PRIME-71 GS

BASIC ALLOY: FE, MN, SI
AWS/SFA-5.20: E71T-5C/5M
EN ISO 17632 B T493T1-1CA-K

ALL POSITION SEMI BASIC TYPE FLUX CORED WIRE FOR WELDING490N/MM2 HIGH TENSILE STEELS

KEY FEATURES:

Rofil-71 spl is a semi-basic mild steel flux cored wire designed for all position welding. its designed to be used with C02 gas for 490N/mm2 grade high tensile steel. Its low temperature impact toughness is better than AWS A5.20 E71T-1C

APPLICATIONS

- **Structural and pressure vessel grades.**
- **Welding of low and medium carbon steels grades**
- **Machinery and shipbuilding.**
- **Steels of SA-516 and equivalent grade steels, etc.**

SHEILDING GAS

- **Welding with CO2 gas and Ar+ CO2 gas mixture.**

CHEMICAL COMPOSITION:

C	Mn	Si	S	P
0.065	1.25	0.42	0.030 Max	0.030 Max

MECHANICAL PROPERTIES

YS (N/mm2)	UTS (N/mm2)	EL % (l=5d)	CHARPY "V" NOTCH IMPACT AT
390 Min.	490 min.	22 min.	Minus 30C : 40-70 J

WELDING POSITION


1G/1F


2G/2F


3G UP


3G DOWN


4G

DIEMENSION, CURRENT CONDITION & PACKING DATA

Size (mm)	Size (inch)	Current Condition (DC+)	Voltage (V)	Gas Flow Rate L/min	Spool packing 12.5 kg.	Spool packing 15kg	Drum packing 100/200kg
1.20	3/ 64"	120-300	24-34	15-25	√	√	√
1.40	1/ 18"	160-340	26-34	15-25	√	√	√
1.60	1/ 16"	180-360	28-36	15-30	√	√	√

ROYAL PRIME-71T8

LOW-ALLOY STEEL SELF-SHIELDED FLUX-CORED WELDING WIRE

BASIC ALLOY: FE, MN, SI, NI
AWS/SFA-5.29: E71T8-K6 JH8
EN ISO 17632-A T42 4 1NI Y N 1 H10

KEY FEATURES:

ROFIL-71T8-K6 is a kind of low-alloy steel self-shielded flux-cored welding wire, which needs no shielding gas. The weld has excellent low temperature toughness. It has high deposition efficiency. The arc has strong penetration power with spurting appearance.High deposition rate

APPLICATIONS

- structure welding in open air
- pipe laying
- offshore oil rig
- bridges

SHEILDING GAS

- No Gas Required

CHEMICAL COMPOSITION:

C	Mn	Si	S&P	Ni	Al	Cr	Mo
0.15 Max.	0.50-1.50	0.80 max.	0.030 Max	0.40-1.00	1.80 max	0.20 max.	0.15 max.

MECHANICAL PROPERTIES

YS (N/mm2)	UTS (N/mm2)	EL % (l=5d)	CHARPY "V" NOTCH IMPACT AT	Diffusible Hydrogen Ml/100g
400 Min.	490-620	20 Min.	- 40C : 27 J min.	8.00 ml max.

WELDING POSITION


1G/1F


2G/2F


3G UP


3G DOWN


4G

DIEMENSION, CURRENT CONDITION & PACKING DATA

Size (mm)	Size (inch)	Current Condition (DC-)	Voltage (V)	Spool packing 12.5 kg.	Spool packing 15kg
1.20	3/ 64"	120-300	18-22	√	√
1.40	1/ 18"	160-340	18-22	√	√
1.60	1/ 16"	180-360	18-22	√	√
2.00	5/64"	200-380	18-22	√	√

- offshore oil rig
- bridges

ROYAL PRIME-7108

A FAST FREEZING SLAG, SELF-SHIELDED, FCAW FOR CARBON AND LOW ALLOY STEEL

BASIC ALLOY: FE, MN, SI, AL
AWS/SFA-5.20: E71T8
EN ISO 17632-A-T 42 3 Y NO 2 H10

KEY FEATURES:

Rofil-7108 is intended for the welding without a shielding gas of carbon and certain low alloy steels where excellent low temperature toughness is required. A fast freezing slag facilitates welding in all positions, designed for applications requiring high impact toughness at low temperatures.

APPLICATIONS

- Designed for structural applications such as bridge fabrication, ship and barge construction, as well as other general fabrication.

SHEILDING GAS

- No gas required

CHEMICAL COMPOSITION:

C	Mn	Si	S&P	Al	Cr	Mo
0.30 Max.	01.75 Max	0.60 max	0.030 Max	1.80 max	0.20 max	0.15 max

MECHANICAL PROPERTIES

YS (N/mm2)	UTS (N/mm2)	EL % (l=5d)	CHARPY "V" NOTCH IMPACT AT
390 Min.	490-670	22 Min.	- 30C : 27 J min.

WELDING POSITION


1G/1F


2G/2F


3G UP


3G DOWN


4G

DIEMENSION, CURRENT CONDITION & PACKING DATA

Size (mm)	Size (inch)	Current Condition (DC-)	Voltage (V)	Spool packing 12.5 kg.	Spool packing 1.0,2.0, 5.0 kg
0.80	0.030"	50-175	15-18	√	√
0.90	0.035"	75-200	16-20	√	√
1.20	3/ 64"	120-300	18-22	√	√
1.40	1/ 18"	160-340	18-22	√	√
1.60	1/ 16"	180-360	18-22	√	√
2.00	5/64"	200-380	18-22	√	√

ROYAL PRIME-71

AN ALL POSITION RUTILE TYPE FLUX CORED WIRE FOR MAG/MIG WELDING

BASIC ALLOY: FE, MN, SI
AWS/SFA-5.20: E71T-1C/1M
EN ISO 17632 B T492 T1-1C/MA-H5

KEY FEATURES:

Titania type Flux-cored welding wire suitable for all welding position of mild steel and structure steel, suitable for high tensile steel up to 510 N/mm2. The slag full coverage on weld bead and easy to remove. The smooth and stable arc and wire surface special coating provided for very long shelf life and smooth wire feeding. Weld metal is gives radio graphically sound

APPLICATIONS

- for chemical machinery equipment
- shipbuilding
- Automobile industry
- bridges, towers, rolling stocks etc

SHEILDING GAS

- Welding with CO2 gas and Ar+ CO2 gas mixture.

CHEMICAL COMPOSITION:

C	Mn	Si	S	P
0.055	1.42	0.58	0.030 Max	0.030 Max

MECHANICAL PROPERTIES

YS (N/mm2)	UTS (N/mm2)	EL % (l=5d)	CHARPY "V" NOTCH IMPACT AT
460-550	550-640	22-32	0C : 80-100 J Minus 20C : 50-80

WELDING POSITION


1G/1F


2G/2F


3G UP


3G DOWN


4G

DIEMENSION, CURRENT CONDITION & PACKING DATA

Size (mm)	Size (inch)	Current Condition (DC+)	Voltage (V)	Gas Flow Rate L/min	Spool packing 12.5 kg.	Spool packing 15kg	Drum packing 100/200kg
1.20	3/ 64"	120-300	24-34	15-25	√	√	√
1.40	1/ 18"	160-340	26-34	15-25	√	√	√
1.60	1/ 16"	180-360	28-36	15-30	√	√	√

ROYAL PRIME-70

BASIC ALLOY: FE, MN, SI
AWS/SFA-5.20: E70T-1C/1M
EN ISO 17632-B: T55 2 T1 0 C1 A H10

DESIGNED FOR SINGLE OR MULTI PASS WELDING HAVING A SPRAY-TYPE TRANSFER

KEY FEATURES:

This flux cored welding wire produces smoother arc characteristics and lower welding fumes than many competitive flux cored wires. Also designed to have a greater tolerance of mill scale and surface oxides. The notch toughness in the as welded condition is also improved. Bead contour is flat to slightly convex and slag coverage is complete

APPLICATIONS

- Designed for flat and horizontal single or multi-pass applications. Areas of application include railcar, heavy equipment, and general fabrication
- With its high deposition rate and easy removal, slag is a good choice for mild steel as well as low-alloy steel

SHEILDING GAS

- Welding with CO2 gas and Ar+ CO2 gas mixture.

CHEMICAL COMPOSITION:

C	Mn	Si	S	P	Others
0.055	1.50	0.50	0.030 Max	0.030 Max	--

MECHANICAL PROPERTIES

YS (N/mm2)	UTS (N/mm2)	EL % (l=5d)	CHARPY "V" NOTCH IMPACT AT
400 min.	490-670	22 min.	-20C : 60-80J -30C : 40-60

WELDING POSITION


1G/1F


2G/2F


3G UP


3G DOWN


4G

DIEMENSION, CURRENT CONDITION & PACKING DATA

Size (mm)	Size (inch)	Current Condition (DC+)	Voltage (V)	Gas Flow Rate L/min	Spool packing 12.5 kg.	Spool packing 15kg	Drum packing 100/200kg
1.20	3/ 64"	120-300	24-34	15-25	√	√	√
1.40	1/ 18"	160-340	26-34	15-25	√	√	√
1.60	1/ 16"	180-360	28-36	15-30	√	√	√

Customer packing on request

ROYAL PRIME-711

BASIC ALLOY: FE, MN, SI, AL

AWS/SFA-5.20: E7111

EN ISO 17632-A-T 42 3 Y NO 2 H10

A SELF-SHIELDING, ALL-POSITION FLUX-CORED WIRE FOR SINGLE OR MULTI-PASS WELDS ON MILD OR GALVANIZED STEEL.

KEY FEATURES:

E71T-11 is a self-shielding flux cored wire designed for single or multi pass welding while having a spray type transfer commonly used for carbon/mild steels less than ¾" thick. This all position wire can be used in the field where.

APPLICATIONS

- Use 71T-11 for general fabrication, prefab construction, tank and railcar repair, and light structural work.
- Multi-pass welds should be used on plate thickness up to 3/8"(9.5mm). Also a great choice for field repair of fences, parts and machinery

SHEILDING GAS

- No gas required

CHEMICAL COMPOSITION:

C	Mn	Si	S & P	Al	Cr	Mo
0.30 max	1.75 Max	0.60 max.	0.030 max	1.80 max.	0.020 Max	0.50 max.

MECHANICAL PROPERTIES

YS (N/mm2)	UTS (N/mm2)	EL % (l=5d)	CHARPY "V" NOTCH IMPACT AT
390 min.	490-670	20 min.	-30C : 27 J min.

WELDING POSITION


1G/1F


2G/2F


3G UP


3G DOWN


4G

DIEMENSION, CURRENT CONDITION & PACKING DATA

Size (mm)	Size (inch)	Current Condition (DC+)	Voltage (V)	Spool packing 12.5 kg.	Spool packing 1.0, 2.0,5.0 Kg
0.80	0.030"	50-175	15-18	√	√
0.90	0.035"	75-200	16-20	√	√
1.20	3/ 64"	120-300	18-22	√	√
1.40	1/18"	160-340	18-22	√	√
1.60	1/16"	180-360	18-22	√	√
2.00	5/64"	200-380	18-22	√	√

Customer packing on request

ROYAL PRIME-81T8-G

DESIGN FOR VERTICAL DOWN, HOT, FILL AND CAP PASSES ON STANDARD COUNTRY PIPELINE

BASIC ALLOY: FE, MN, SI, NI
AWS/SFA-5.29: E818T-G
EN ISO 17632-A, T46 Z2NI Y NO 1 H10

KEY FEATURES:

ROFIL-818T-G Flux-cored self-shielded (FCAW-S) Wire, It is capable of producing impact value of 27J (20ft lbf) @-29C (-20F). Recommended for hot, fill and cap pass welding of up to X80 grade pipe

APPLICATIONS

- Hot, fill and cap pass welding of up to X80 grade pipe
- Warm weather cross country pipe welding applications

SHIELDING GAS

- No gas required

CHEMICAL COMPOSITION:

C	Mn	Si	S&P	Ni	Al	Cr	Mo
0.15 max	1.00-2.50	0.80 max	0.030 max	1.00-2.50	1.80 max.	0.20 max	0.50 max

MECHANICAL PROPERTIES:

YS (N/mm2)	UTS (N/mm2)	EL % (l=5d)	CHARPY "V" NOTCH IMPACT AT	Diffusible Hydrogen Ml/100g
470 min	550-690	19 min	-40C : 47J min	8.00 ml max.

WELDING POSITION

1G/1F 2G/2F 3G UP 3G DOWN 4G

DIEMENSION, CURRENT CONDITION & PACKING DATA

Size(mm)	Size(inch)	Current Condition (DC-)	Voltage (V)	Spool Packing 12.5 kg	Spool packing 15 kg
1.20	3/ 64"	120-300	18-22	√	√
1.40	1/ 18"	160-340	18-22	√	√
1.60	1/ 16"	180-360	18-22	√	√
2.00	5/ 64"	200-380	18-22	√	√

ROYAL PRIME-81

LOW-ALLOY FLUX-CORED WELDING WIRE FOR LOW TEMPARATURE SERVICES

BASIC ALLOY: FE, MN, SI, NI
AWS/SFA-5.29: E81T1-K2
EN ISO 17632-A T46 6 1.5NI P C1 1

KEY FEATURES:

ROFIL-81 K2 is titania type flux cored wire for all position welding with CO2 shielding gas. This wire provide excellent notch toughness at low temperature. suitable for single and multiple pass welding of low alloy steels, in all positions, where moderate tensile strength and exceptional low temperature CVN values are required.

APPLICATIONS

- This electrode is well suited to applications such as low temperature storage tanks, offshore drilling rigs, shipbuilding, and construction machinery.
- Ship building, offshore oilrigs,
- Heavy equipment construction.

SHEILDING GAS

- Welding with CO2 gas and Ar+ CO2 gas mixture.

CHEMICAL COMPOSITION:

C	Mn	Si	S&P	Ni	Cr	Mo
0.15 Max.	0.50-1.75	0.80 max.	0.030 Max	1.00-2.00	0.20 max.	0.15 max.

MECHANICAL PROPERTIES

YS (N/mm2)	UTS (N/mm2)	EL % (l=5d)	CHARPY "V" NOTCH IMPACT AT
470 Min.	550-690	19 Min.	- 30C : 27 J min.

EL % (l=5d)

WELDING POSITION

1G/1F 2G/2F 3G UP 3G DOWN 4G

DIEMENSION, CURRENT CONDITION & PACKING DATA

Size (mm)	Size (inch)	Current Condition (DC+)	Voltage (V)	Spool packing 12.5 kg.	Spool packing 15kg
1.20	3/ 64"	120-300	18-22	√	√
1.40	1/ 18"	160-340	18-22	√	√
1.60	1/ 16"	180-360	18-22	√	√
2.00	5/64"	200-380	18-22	√	√

ROYAL PRIME-81W

AN ALL POSITION LOW-ALLOY FLUX-CORED WELDING WIRE FOR WEATHERING STEELS

BASIC ALLOY: CR, CU,NI
AWS/SFA-5.29: E81T1-W2 C
EN ISO 17632-B T553T1-1CA NCC1

KEY FEATURES:

ROFIL-81W all position low alloy steel flux cored wire designed for welding of high strength weather resistant grade steels. it has a nominal composition (wt-%) of 0.5 Cu with additions of Cr and Ni to increase strength ductility and notch toughness in the weld metal. Weld metal is free from porosity and conforms to X-ray soundness.

APPLICATIONS

- welding of weather resistant steels - Corten steels grade A/B, Class 1 steels of type A of SA-533, etc.
- These steels are typically used in bridge construction and other structural components used in highway construction.

SHEILDING GAS

- Welding with CO2 gas and Ar+ CO2 gas mixture.

CHEMICAL COMPOSITION:

C	Mn	Si	S&P	Ni	Cr	Cu
0.12 Max.	0.50-1.30	0.30-0.80	0.030 Max	0.40-0.80	0.45-0.70	0.30-0.75

MECHANICAL PROPERTIES

YS (N/mm2)	UTS (N/mm2)	EL % (l=5d)	CHARPY "V" NOTCH IMPACT AT
470 Min.	550-690	19 Min.	- 20C : 27 J min.

WELDING POSITION


1G/1F


2G/2F


3G UP


3G DOWN


4G

DIEMENSION, CURRENT CONDITION & PACKING DATA

Size (mm)	Size (inch)	Current Condition (DC+)	Voltage (V)	Spool packing 12.5 kg.	Spool packing 15kg
1.20	3/ 64"	120-300	18-22	√	√
1.40	1/ 18"	160-340	18-22	√	√
1.60	1/ 16"	180-360	18-22	√	√
2.00	5/64"	200-380	18-22	√	√

ROYAL PRIME-81

BASIC ALLOY: FE, MN,, MO
AWS/SFA-5.29: E81T1-A1 1C/1M
EN ISO 17632-B T55ZT1-1CP 2M3

AN ALL POSITION LOW-ALLOY FLUX-CORED WELDING WIRE FOR 0.50MO STEEL

KEY FEATURES:

ROFIL-81 A1 is a low alloy steel electrode for flux cored arc welding that is intended for single and multiple pass welding, in all positions, of certain carbon molybdenum steels where the addition of 1/2% molybdenum is required in the deposited weld metal.The wire gives optimum performance under 100% CO2 shielding with radiographic quality weld deposits. The wire produces full slag covering. Slag detachability is very good and is of fast freezing nature.

APPLICATIONS

- Welding for single and multi-pass welding of similar composition steels and equivalent grade steels
- suited for welding certain C-Mo steels used in the fabrication of boilers and pressure vessels such as ASTM A161, A204, and A302 Gr A plate and A335-P1 pipe..

SHEILDING GAS

- Welding with CO2 gas and Ar+ CO2 gas mixture.

CHEMICAL COMPOSITION:

C	Mn	Si	S&P	Mo
0.12 max.	1.25 Max.	0.80 Max.	0.030 Max	0.40-0.60

MECHANICAL PROPERTIES (PWHT 620 FOR 1HRS)

YS (N/mm2)	UTS (N/mm2)	EL % (l=5d)
470 Min.	550 Min.	17 Min.

WELDING POSITION


1G/1F


2G/2F


3G UP


3G DOWN


4G

DIEMENSION, CURRENT CONDITION & PACKING DATA

Size (mm)	Size (inch)	Current Condition (DC+)	Voltage (V)	Spool packing 12.5 kg.	Spool packing 15kg
1.20	3/ 64"	120-300	18-22	√	√
1.40	1/ 18"	160-340	18-22	√	√
1.60	1/ 16"	180-360	18-22	√	√
2.00	5/64"	200-380	18-22	√	√

ROYAL PRIME-81

BASIC ALLOY: FE, MN,CR, MO
AWS/SFA-5.29: E81T1-B2 1C/1M
EN ISO 17632-B T55ZT1-1CA-G

AN ALL POSITION LOW-ALLOY FLUX-CORED WELDING WIRE FOR 1CR-0.50MO STEEL

KEY FEATURES:

ROFIL-81 B2 an all position low alloy steel (1.25% Cr-0.5% Mo) flux cored wire especially designed to achieve the desired all-weld metal mechanical properties even in as-weld condition. These creep resistant steels are typically used in chemical industries for heat exchangers, boilers, piping and pressure vessels at service temperatures up to 1000°F.

APPLICATIONS

- Used to weld ½Cr-½Mo steels for elevated temperatures and corrosive service.
- The wire is suitable for high temperature and pressure service conditions in steam pipes, boilers, etc.

SHEILDING GAS

- Welding with CO2 gas and Ar+ CO2 gas mixture.

CHEMICAL COMPOSITION:

C	Mn	Si	S&P	Cr	Mo
0.05-0.12	1.25 Max.	0.80 Max.	0.030 Max	1.00-1.50	0.40-0.65

MECHANICAL PROPERTIES

YS (N/mm2)	UTS (N/mm2)	EL % (l=5d)
470 Min.	550-690	20Min.

WELDING POSITION

1G/1F 2G/2F 3G UP 3G DOWN 4G

DIEMENSION, CURRENT CONDITION & PACKING DATA

Size (mm)	Size (inch)	Current Condition (DC+)	Voltage (V)	Spool packing 12.5 kg.	Spool packing 15kg
1.20	3/ 64″	120-300	18-22	√	√
1.40	1/ 18″	160-340	18-22	√	√
1.60	1/ 16″	180-360	18-22	√	√
2.00	5/64″	200-380	18-22	√	√

ROYAL PRIME-81

BASIC ALLOY: FE, MN, SI, NI
AWS/SFA-5.29: E81T1-K2 C H4
EN ISO 17632-A T46 6 1.5NI P C1 1 H5

LOW-ALLOY FLUX-CORED WELDING WIRE FOR LOW TEMPARATURE SERVICES

KEY FEATURES:

ROFIL-81 K2 is titania type flux cored wire for all position welding with CO2 shielding gas. This wire provide excellent notch toughness at low temperature. suitable for single and multiple pass welding of low alloy steels, in all positions, where moderate tensile strength and exceptional low temperature CVN values are required.

APPLICATIONS

- This electrode is well suited to applications such as low temperature storage tanks, offshore drilling rigs, shipbuilding, and construction machinery.
- Ship building, offshore oilrigs,
- Heavy equipment construction.

SHEILDING GAS

- Welding with CO2 gas and Ar+ CO2 gas mixture.

CHEMICAL COMPOSITION:

C	Mn	Si	S&P	Ni	Cr	Mo
0.15 Max.	0.50-1.75	0.80 max.	0.030 Max	1.00-2.00	0.20 max.	0.15 max.

MECHANICAL PROPERTIES

YS (N/mm2)	UTS (N/mm2)	EL % (l=5d)	CHARPY "V" NOTCH IMPACT AT	Diffusible Hydrogen ml/100g
470 Min.	550-690	19 Min.	- 60C : 27 J min.	4.00 ml max.

WELDING POSITION


1G/1F


2G/2F


3G UP


3G DOWN


4G

DIEMENSION, CURRENT CONDITION & PACKING DATA

Size (mm)	Size (inch)	Current Condition (DC+)	Voltage (V)	Spool packing 12.5 kg.	Spool packing 15kg
1.20	3/ 64"	120-300	18-22	√	√
1.40	1/ 18"	160-340	18-22	√	√
1.60	1/ 16"	180-360	18-22	√	√
2.00	5/64"	200-380	18-22	√	√

ROYAL PRIME-81 NI1

FLUX-CORED WELDING WIRE SUITABLE FOR LOW TEMPERATURES SERVICES

BASIC ALLOY: FE, MN, SI, NI
AWS/SFA-5.29: E81T1-NI1C/M-JH4
EN ISO 17632-A: T 50 6 1NI P M 1 H5

KEY FEATURES:

ROFIL-81 Ni1Designed for high strength, low-alloy applications using 75% Argon/25% CO2. The use of mixed shielding gas stabilizes arc characteristics, reduces spatter levels, and washes out the weld bead for a flat appearance.
Capable of producing weld deposits with impact toughness exceeding 80 J at -40°C

APPLICATIONS

- Suitable for offshore and similar applications

SHEILDING GAS

- Welding with CO2 gas and Ar+ CO2 gas mixture.

CHEMICAL COMPOSITION:

C	Mn	Si	S&P	Ni	Al	Cr	Mo
0.12 Max.	01.50 Max	0.80 max	0.030 Max	0.80-1.10	1.80 max	0.15 max	0.15 max

MECHANICAL PROPERTIES

YS (N/mm2)	UTS (N/mm2)	EL % (l=5d)	CHARPY "V" NOTCH IMPACT AT	Diffusible Hydrogen Ml/100g
470 Min.	550-690	19 Min.	- 40C : 80 J	4.00 ml max

WELDING POSITION


1G/1F


2G/2F


3G UP


3G DOWN


4G

DIEMENSION, CURRENT CONDITION & PACKING DATA

Size (mm)	Size (inch)	Current Condition (DC+)	Voltage (V)	Gas Flow Rate L/min.	Spool packing 12.5 kg.	Spool packing 15kg	Drum packing 100/200kg
1.20	3/ 64"	120-300	24-34	15-25	√	√	√
1.40	1/ 18"	160-340	26-34	15-25	√	√	√
1.60	1/ 16"	180-360	28-36	15-30	√	√	√

ROYAL PRIME-81 NI2

FLUX-CORED WELDING WIRE SUITABLE FOR LOW TEMPERATURES SERVICES

BASIC ALLOY: FE, MN, SI, NI
AWS/SFA-5.29: E81T1-NI2 C/M-JH4
EN ISO 17632-A: T 50 6 2NI P M 1 H5

KEY FEATURES:

ROFIL-81 Ni2 is a premium low alloy steel, flux cored electrode that produces a weld deposit with 2.2-2.5% nickel. This wire is intended for the all position welding of carbon and certain low alloy steels which require good v-notch toughness and tensile strength in the 80,000-100,000 psi range.

APPLICATIONS

- Welding ideal for offshore platform construction,
- Earthmoving and mining machinery, and shipbuilding
- Welding used extensively in the fabrication,
- erection, and repair of structural fabrication of higher strength.

SHEILDING GAS

- Welding with CO2 gas and Ar+ CO2 gas mixture.

CHEMICAL COMPOSITION:

C	Mn	Si	S&P	Ni	Al	Cr	Mo
0.12 Max.	1.50 Max	0.80 max	0.030 Max	1.75-2.75	1.80 max	0.15 max	0.15 max

MECHANICAL PROPERTIES

YS (N/mm2)	UTS (N/mm2)	EL % (l=5d)	CHARPY "V" NOTCH IMPACT AT	Diffusible Hydrogen Ml/100g
470 Min.	550-690	19 Min.	- 40C : 80 J	4.00 ml max

WELDING POSITION


1G/1F


2G/2F


3G UP


3G DOWN


4G

DIEMENSION, CURRENT CONDITION & PACKING DATA

Size (mm)	Size (inch)	Current Condition (DC+)	Voltage (V)	Gas Flow Rate L/min.	Spool packing 12.5 kg.	Spool packing 15kg	Drum packing 100/200kg
1.20	3/ 64"	120-300	24-34	15-25	√	√	√
1.40	1/ 18"	160-340	26-34	15-25	√	√	√
1.60	1/ 16"	180-360	28-36	15-30	√	√	√

ROYAL PRIME-85G

BASIC ALLOY: FE, MN, SI, NI MO
AWS/SFA-5.29: E80T5-G

LOW-ALLOY FLUX-CORED WELDING WIRE FOR
LOW TEMPARATURE SERVICES

KEY FEATURES:

ROFIL-85G a low alloy steel flux cored wire designed for welding of medium & high tensile strength steel, quenched & tempered steels, etc. where sub-zero impact resistance property of the weld metal is desired. The weld has excellent bead appearance and easy slag removal.

APPLICATIONS

- Weldingsingle and multi-pass welding of similar composition steels and equivalent grade steels like; NAXTRA-60/65, Sumiten-610, A/B grades of SA-203, D/ E/ F/ G grades of SA-414, steel grades conforming to SA-455, Gr.60 & Gr.65 steels of SA-515 & SA-516, etc.

SHEILDING GAS

- Welding with CO2 gas and Ar+ CO2 gas mixture.

CHEMICAL COMPOSITION:

C	Mn	Si	S&P	Ni	Mo
0.10 Max.	0.50-1.50	0.80 max.	0.030 Max	0.60-1.20	0.60 max.

MECHANICAL PROPERTIES

YS (N/mm2)	UTS (N/mm2)	EL % (l=5d)	CHARPY "V" NOTCH IMPACT AT
470Min.	550 min,	20 Min	- 40C : 27 J min.

WELDING POSITION

1G/1F 2G/2F  3G UP  3G DOWN  4G 

DIEMENSION, CURRENT CONDITION & PACKING DATA

Size (mm)	Size (inch)	Current Condition (DC+)	Voltage (V)	Spool packing 12.5 kg.	Spool packing 15kg
1.20	3/ 64"	120-300	18-22	√	√
1.40	1/ 18"	160-340	18-22	√	√
1.60	1/ 16"	180-360	18-22	√	√

ROYAL PRIME-91

AN ALL POSITION LOW-ALLOY FLUX-CORED WELDING WIRE FOR 2CR-1.0MO STEEL

BASIC ALLOY: FE, MN,CR, MO
AWS/SFA-5.29: E91T1-B3 1C/1M
EN ISO 17632-B T57ZT1-1CA-G

KEY FEATURES:

ROFIL-91-B3 3 is specifically designed for welding materials subjected to high temperature service and provides single and multipass. all position welding of certain 2.25CR-1.0Mo steels. This is an all-position wire however when used for horizontal fillet joints the weld bead has equal leg lengths with flat faced fillets with fine ripples.

APPLICATIONS

- Welding for single or multi-pass welds on 2.25% Cr 1.0% Mo steels used for high pressure steam pipes of boilers,
- Power generation plant equipment, oil refining processing equipment, pressure vessels and castings of the same alloy content.

SHEILDING GAS

- Welding with CO2 gas and Ar+ CO2 gas mixture.

CHEMICAL COMPOSITION:

C	Mn	Si	S&P	Cr	Mo
0.05-0.12	1.25 Max.	0.80 Max.	0.030 Max	2.00-2.50	0.90-1.20

MECHANICAL PROPERTIES

YS (N/mm2)	UTS (N/mm2)	EL % (l=5d)
520 Min.	620 Min.	17 Min.

WELDING POSITION

1G/1F 2G/2F 3G UP 3G DOWN 4G

DIEMENSION, CURRENT CONDITION & PACKING DATA

Size (mm)	Size (inch)	Current Condition (DC+)	Voltage (V)	Spool packing 12.5 kg.	Spool packing 15kg
1.20	3/ 64″	120-300	18-22	√	√
1.40	1/ 18″	160-340	18-22	√	√
1.60	1/ 16″	180-360	18-22	√	√
2.00	5/64″	200-380	18-22	√	√

ROYAL PRIME-308L

STAINLESS STEEL FLUX-CORED WELDING WIRE
FOR WELDING 18/8 STEEL

BASIC ALLOY: FE, MN, CR, NI
AWS/SFA-5.22: E308L T 1/4
EN ISO 17633-A : T 19 9 L P C1 2

KEY FEATURES:

ROFIL-308L wire for 18%Cr - 8%Ni stainless steel, For all-position welding. Austenitic structure weld metal, smooth and stable arc, low spatter loss and easy slag remove. Low carbon content in weld metal to get good crack and inter-granular corrosion resistance. Good bead appearance, easy to get smooth fillet size,

APPLICATIONS

- For welding types 301, 302, 304, 304L, 308 and 308L of stainless steel.
- May be used for welding types 321 and 347 if service temperature does not exceed 500°F(260°C).

SHEILDING GAS

- Welding with CO2 gas and Ar+ CO2 gas mixture

CHEMICAL COMPOSITION:

C	Mn	Si	S&P	Ni	Cr	Mo
0.030 Max.	0.50-2.50	1.00max.	0.030 Max	9.00-11.00	18.00-21.00	0.17 max.

MECHANICAL PROPERTIES

UTS (N/mm2)	EL % (l=5d)	CHARPY "V" NOTCH IMPACT AT	Ferrite Content
490 Min.	35 Min.	- 30C : 27 J min.	4-10 FN

WELDING POSITION


1G/1F


2G/2F


3G UP


3G DOWN


4G

DIEMENSION, CURRENT CONDITION & PACKING DATA

Size (mm)	Size (inch)	Current Condition (DC+)	Voltage (V)	Spool packing 12.5 kg.	Spool packing 15kg
1.20	3/ 64"	120-300	18-22	√	√
1.40	1/ 18"	160-340	18-22	√	√
1.60	1/ 16"	180-360	18-22	√	√
2.00	5/64"	200-380	18-22	√	√

- offshore oil rig
- bridges

ROYAL PRIME-309L

STAINLESS STEEL FLUX-CORED WELDING WIRE
FOR WELDING 24/12 STEEL

BASIC ALLOY: FE, MN, CR, NI
AWS/SFA-5.22: E309L T 1/4
EN ISO 17633-A : T 23 12 L P C1 2

KEY FEATURES:

ROFIL-309L is a titania type, all-position, flux-cored wire designed for MAG welding of low carbon 24%Cr-12%Ni stainless steels. . The wire have smooth and stable arc with good slag detachability. The weld metal contains comparatively much more ferrite in their austenitic, therefore providing better weldability together with superior heat and corrosion resistance.

APPLICATIONS

- It is used for dissimilar weld joints between high strength, mild steels and low-alloyed QT-steels, stainless, ferritic Cr and austenitic Cr-Ni steels, manganese steels

SHEILDING GAS

- Welding with CO2 gas and Ar+ CO2 gas mixture

CHEMICAL COMPOSITION:

C	Mn	Si	S&P	Ni	Cr	Mo
0.030 Max.	0.50-2.50	1.00max.	0.030 Max	12.00-14.00	22.00-26.00	0.75 max.

MECHANICAL PROPERTIES

UTS (N/mm2)	EL % (l=5d)	Ferrite Content
520 Min.	30 Min.	8-12 FN

WELDING POSITION

1G/1F 2G/2F 3G UP 3G DOWN 4G

DIEMENSION, CURRENT CONDITION & PACKING DATA

Size (mm)	Size (inch)	Current Condition (DC+)	Voltage (V)	Spool packing 12.5 kg.	Spool packing 15kg
1.20	3/ 64″	120-300	18-22	√	√
1.40	1/ 18″	160-340	18-22	√	√
1.60	1/ 16″	180-360	18-22	√	√
2.00	5/64″	200-380	18-22	√	√

ROYAL PRIME-316L

STAINLESS STEEL FLUX-CORED WELDING WIRE
FOR WELDING 20CR-12NI-2.3MO STEEL

BASIC ALLOY: FE, MN, CR, NI, MO
AWS/SFA-5.22: E316L T 1/4
EN ISO 17633-A : T 19 12 3 L P C1 2

KEY FEATURES:

ROFIL-316L is an all position stainless steel flux cored wire designed for welding 20Cr-12Ni-2.3Mo steel and its optimum performance with 100% CO2 gas shielding. This wire is designed with fast freezing slag characteristics and good slag detachability. It has very good deposit efficiency when used for flat, overhead, vertical and fillet welds of medium and heavy thickness plates.

APPLICATIONS

- used extensively in the fabrication of 18% Cr 12% Ni 2% Mo stainless steel structures, pressure vessels, tanks in dairy, pulp and paper, textile dyeing, refinery, and chemical equipment

SHEILDING GAS

- Welding with CO2 gas and Ar+ CO2 gas mixture

CHEMICAL COMPOSITION:

C	Mn	Si	S&P	Ni	Cr	Mo
0.030 Max.	0.50-2.50	1.00max.	0.030 Max	11.00-14.00	18.00-21.00	2.0-3.0

MECHANICAL PROPERTIES

UTS (N/mm2)	EL % (l=5d)	CHARPY "V" NOTCH IMPACT AT	Ferrite Content
490 Min.	35 Min.	- 30C : 27 J min.	4-10 FN

WELDING POSITION


1G/1F


2G/2F


3G UP


3G DOWN


4G

DIEMENSION, CURRENT CONDITION & PACKING DATA

Size (mm)	Size (inch)	Current Condition (DC+)	Voltage (V)	Spool packing 12.5 kg.	Spool packing 15kg
1.20	3/ 64"	120-300	18-22	√	√
1.40	1/ 18"	160-340	18-22	√	√
1.60	1/ 16"	180-360	18-22	√	√
2.00	5/64"	200-380	18-22	√	√

ROYAL FLUX-1

GRAIN SIZE = 8 X 60 BSS (0.25-2.00MM)
AWS: SFA/A 5.17 F7A0-EL8
EN ISO 14174-A S AS 1 67 AC
B.I. = 0.80

ALUMINA-MANGANESE SILICATE TYPE
AGGLOMERATED SUBMERGED ARC WELDING FLUX

KEY FEATURES:

ROFLX-1 is saw flux for welding mild steel and medium tensile steels to get x-ray quality welds. Good mechanical properties with smooth and shiny weld bead. Auto removable slag even in the case of the root runs

APPLICATIONS

- offshore platforms, ships
- , pressure vessels and boilers involving steels
- Machine building
- automobiles, locomotives, earthmoving equipment
- penstocks and pipe works etc

RE-DRY CONDITION

- Re-drying recommended at 350°C for one hour before use.

MAIN CONSTITUTION (%)

SiO2+TiO2	CaO+MgO	Al2O3+MnO	CaF2	S	P
30-40	10-20	30-50	10	≤0.07	≤0.07

CHEMICAL COMPOSITION:

UNDER Wires	C	Mn	Si	S	P
ROSUB-8	0.085	1.10	0.55	0.016	0.020
ROSUB-12K	0.095	1.20	0.45	0.015	0.018

MECHANICAL PROPERTIES

UNDER Wires	YS (N/mm2)	UTS (N/mm2)	EL %	CHARPY "V" NOTCH IMPACT AT 0°C	-20°C
ROSUB-8	450	530	28	60 J	---
ROSUB-12K	460	555	26	80 J	60 J

WELDING POSITION

1G/1F

2G/2F

PACKING SPECIFICATION

PACKED IN POLYTHENE-LINE PAPER BAGS OF 25.00 KG NET WEIGHT.

ROYAL FLUX-2

ALUMINA-BASIC TYPE AGGLOMERATED
SUBMERGED ARC WELDING FLUX

GRAIN SIZE = 8 X 60 BSS (0.25-2.00MM)
AWS: SFA/A 5.17 F7A2-EM12K
EN ISO 14174-A S AB 1 67 AC
B.I. = 1.60

KEY FEATURES:

ROFLX-2 is an agglomerated Si &Mn alloying submerged arc welding flux for the high speed welding of both butt and fillet welds in structural steel components. It is suitable for the single pass, double pass and maltipass welding of steel section up to 25mm thickness.

APPLICATIONS

- low and medium tensile steels
- AC & DC current with single wire, twin wire and multi wire systems
- Pressure vassels
- boilers
- LPG cylinder
- Pipes

RE-DRY CONDITION

- Re-drying recommended at 350°C for one hour before use.

MAIN CONSTITUTION(%)

SiO2+TiO2	CaO+MgO	Al2O3+MnO	CaF2	S	P
25-35	10-20	30-50	10	≤0.07	≤0.07

CHEMICAL COMPOSITION:

UNDER Wires	C	Mn	Si	S	P
ROSUB-8	0.080	1.40	0.50	0.016	0.020
ROSUB-12K	0.080	1.60	0.35	0.014	0.021

MECHANICAL PROPERTIES

UNDER Wires	YS (N/mm2)	UTS (N/mm2)	EL %	CHARPY "V" NOTCH IMPACT AT 0°C	-20°C
ROSUB-8	440	520	26	50 J	---
ROSUB-12K	480	550	24	80 J	50 J

WELDING POSITION

1G/1F

2G/2F

PACKING SPECIFICATION

PACKED IN POLYTHENE-LINE PAPER BAGS OF 25.00 KG NET WEIGHT.

ROYAL FLUX-3

GRAIN SIZE = 8 X 60 BSS (0.25-2.00MM)
AWS: SFA/A 5.17 F7A2-EM14
EN ISO 14174-A S AB 67 AC
B.I. = 1.60

BASIC-ALUMINATE TYPE AGGLOMERATED
SUBMERGED ARC WELDING FLUX

KEY FEATURES:

ROFLX-3an agglomerated Flux designed for Submerged ArcWelding of mild, medium and high tensile steels in combination with ROSUB-3(EH14) Saw wire, to give excellent mechanicalproperties and impacts down to -40 °C with extreme resistance tocracking. Owing to insensitivity to rust, scale, primer on the surface to bewelded, has excellent x-ray characteristics and slag removal.

APPLICATIONS

- mild steel and low alloy steel
- single and multipass welding
- Pressure vassels
- boilers
- fabrications involving medium tensile

RE-DRY CONDITION

- Re-drying recommended at 350°C for one hour before use.

MAIN CONSTITUTION(%)

SiO2+TiO2	CaO+MgO	Al2O3+MnO	CaF2
20	30	30	20

CHEMICAL COMPOSITION:

UNDER Wires	C	Mn	Si	S	P
ROSUB-3	0.12	1.60	0.40	0.012	0.015

MECHANICAL PROPERTIES

UNDER Wires	YS (N/mm2)	UTS (N/mm2)	EL %	CHARPY "V" NOTCH IMPACT AT 0°C	-20°C
ROSUB-3	470	580	24	100 J	60 J

WELDING POSITION

1G/1F

2G/2F

PACKING SPECIFICATION

PACKED IN POLYTHENE-LINE PAPER BAGS OF 25.00 KG NET WEIGHT.

ROYAL FLUX-4

GRAIN SIZE = 8 X 60 BSS (0.25-2.00MM)
AWS: SFA/A 5.17 F7A4-EM12K
EN ISO 14174-A S AB 1 78 AC
B.I. = 1.60

ALUMINA-BASIC TYPE AGGLOMERATED
SUBMERGED ARC WELDING FLUX

KEY FEATURES:

ROFLX-4 is an agglomerated basic type flux for welding general structural steels, pressure vessel steels, pipe steels & fine grained steels. Slag detachability is good. Weld is of radiographic quality with very low diffusible hydrogen content.

APPLICATIONS

- . Pressure vessel
- X70 and X80 grade pipe applications
- X70 and X80 grade pipe applications
- Boilers, Bridges, Ships, Wind Power Equipment
- low alloy high strength steel welding

RE-DRY CONDITION

- Re-drying recommended at 350°C for one hour before use.

MAIN CONSTITUTION(%)

SiO2+TiO2	CaO+MgO	Al2O3+MnO	CaF2
15	35	25	20

CHEMICAL COMPOSITION:

UNDER Wires	C	Mn	Si	S	P
ROSUB-12K	0.080	1.40	0.40	0.016	0.022

MECHANICAL PROPERTIES

UNDER Wires	YS (N/mm2)	UTS (N/mm2)	EL %	CHARPY "V" NOTCH IMPACT AT 0°C	-20°C
ROSUB-12K	470	580	26	100 J	60 J

WELDING POSITION

1G/1F

2G/2F

PACKING SPECIFICATION

PACKED IN POLYTHENE-LINE PAPER BAGS OF 25.00 KG NET WEIGHT.

ROYAL FLUX-10.62

FLUORIDE-BASIC TYPE AGGLOMERATED
SUBMERGED ARC WELDING FLUX

GRAIN SIZE = 10X 60 BSS (0.25-1.60MM)
AWS: SFA/A 5.17 F7A4-EM12K
EN ISO 14174-A S FB 1 55AC H5
B.I. = 2.80-3.20

KEY FEATURES:

ROFLX-10.62Fluoride-Basic flux for suitable high strength fine grain structural steels, as well as cryogenic steels and steels of resistant to aging. Owning its natural behavior as regards pick-up and burn-out of Si and Mn, Neutral metallurgical behavior of this flux when the flux is weldable with almost every wire electrode. .

APPLICATIONS

- tandem and multi-wire welding
- welding offshore compounds
- general structural steels,
- pressure vessels
- pipe steels
- fine grain steels

RE-DRY CONDITION

- Re-drying recommended at 350°C for one hour before use.

MAIN CONSTITUTION(%)

SiO2+TiO2	CaO+MgO	Al2O3+MnO	CaF2
15	40	20	20

CHEMICAL COMPOSITION:

UNDER Wires	C	Mn	Si	S	P
ROSUB-12K	0.080	1.20	0.15	0.011	0.016

MECHANICAL PROPERTIES

UNDER Wires	YS (N/mm2)	UTS (N/mm2)	EL %	CHARPY "V" NOTCH IMPACT AT 0°C	-20°C
ROSUB-12K	490	560	26	120 J	80 J

WELDING POSITION

1G/1F

2G/2F

PACKING SPECIFICATION

PACKED IN POLYTHENE-LINE PAPER BAGS OF 25.00 KG NET WEIGHT.

ROYAL FLUX-61

CA-MN SILICATE TYPE AGGLOMERATED SAW FLUX
FOR HIGH SPEED WELDING

GRAIN SIZE = 10X 60 BSS (0.25-1.60MM)
AWS: SFA/A 5.17 F7A0-EL8
EN ISO 14174-A S MS 1 67 AC
B.I. = 1.00

KEY FEATURES:

ROFLX-61 Calcium-manganese silicate type high speed welding flux with excellent slag detachability and smooth weld bead.it is welding with single and multi-wire procedure. It is active flux with high pick up Si and MN, Radiographic quality welds. Smooth and shiny weld bead. Easy-to-remove slag, even in root runs.

APPLICATIONS

- general construction, welding on structural steel
- pressure vessels and water pipes
- feasible for welding on a little rusty or oily plates also
- twin and multi wire welding
- suited in high speed welding
- spiral pipe mills and also high speed beam welding

RE-DRY CONDITION

- Re-drying recommended at 350°C for one hour before use.

MAIN CONSTITUTION(%)

SiO2+TiO2	CaO+MgO	Al2O3+MnO	CaF2
30	20	40	10

CHEMICAL COMPOSITION:

UNDER Wires	C	Mn	Si	S	P
ROSUB-8	0.085	1.20	0.65	0.015	0.022
ROSUB-12K	0.095	1.40	0.70	0.018	0.020

MECHANICAL PROPERTIES

UNDER Wires	YS (N/mm2)	UTS (N/mm2)	EL %	CHARPY "V" NOTCH IMPACT AT 0°C	-20°C
ROSUB-8	440	520	28	60 J	-----
ROSUB-12K	480	570	26	80 J	60 J

WELDING POSITION

1G/1F

2G/2F

PACKING SPECIFICATION

PACKED IN POLYTHENE-LINE PAPER BAGS OF 25.00 KG NET WEIGHT.

ROYAL FLUX-81

ACIDIC RUTILE-ALUMINATYPE AGGLOMERATED SAW FLUX FOR HIGH SPEED WELDING

GRAIN SIZE = 10X 60 BSS (0.25-1.60MM)
AWS: SFA/A 5.17 F7AZ-EL8
EN ISO 14174-A S RS 1 67 AC
B.I. = 0.80

KEY FEATURES:

ROFLX-81 is an agglomerated Acidic Aluminate Rutile-Silicate Type Flux specially designed for butt and Fillet welding with high speed welding. Excellent slag removal and exceptional bead finish.it is preferably used for welding thin plates at speeds higher then up to 2m/min.
It provides good welding usability, easy slag removal, excellent anti-porosity property and beautiful bead appearance

APPLICATIONS

- high speed beam welding process with twin wires
- general construction
- membrane wall panels, beam fabrications
- automotive etc
- sheet fillet welding and single pass welding with both of sides

RE-DRY CONDITION

- Re-drying recommended at 350°C for one hour before use.

MAIN CONSTITUTION(%)

SiO2+TiO2	CaO+MgO	Al2O3+MnO	CaF2
25	10	50	10

CHEMICAL COMPOSITION:

UNDER Wires	C	Mn	Si	S	P
ROSUB-8	0.070	1.30	0.70	0.018	0.022
ROSUB-12K	0.095	1.40	0.75	0.018	0.020

MECHANICAL PROPERTIES

UNDER Wires	YS (N/mm2)	UTS (N/mm2)	EL %	CHARPY "V" NOTCH IMPACT AT +20°C	0°C
ROSUB-8	400	510	26	60 J	--
ROSUB-12K	450	520	28	60 J	--

WELDING POSITION

1G/1F

2G/2F

PACKING SPECIFICATION

PACKED IN POLYTHENE-LINE PAPER BAGS OF 25.00 KG NET WEIGHT.

ROYAL FLUX-SPL

HIGH -BASIC TYPE AGGLOMERATED SUBMERGED ARC WELDING FLUX

GRAIN SIZE = 8 X 60 BSS (0.25-2.00MM)
AWS: SFA/A 5.17/A5.23
F8A4-F7A4-EM14 F7A2-EA2
B.I. = 2.20

KEY FEATURES:

ROFLX-Spl an agglomerated Highly basic type submerged arc welding flux. It is used with operational properties for single double and multi wire system. It gives impact resistance subzero and minus temperature. The flux can be used with EL8, EM12K, EH14 and EA2

APPLICATIONS

- fillet welding and single or multi pass butt welding with low, medium and high tensile steels
- Single wire tandem and multi-wire welding is possible for increased productivity

RE-DRY CONDITION

- Re-drying recommended at 350°C for one hour before use.

MAIN CONSTITUTION(%)

SiO2+TiO2	CaO+MgO	Al2O3+MnO	CaF2
15	35	20	25

CHEMICAL COMPOSITION:

UNDER Wires	C	Mn	Si	S	P
ROSUB-8	0.080	1.20	0.50	0.015	0.020
ROSUB-12K	0.070	1.40	0.40	0.018	0.022
ROSUB-14	0.11	1.70	0.25	0.012	0.015
ROSUB-A2	0.080	1.10	0.25	0.015	0.018/Mo-0.40

MECHANICAL PROPERTIES

UNDER Wires	YS (N/mm2)	UTS (N/mm2)	EL %	CHARPY "V" NOTCH IMPACT AT JoulesTemperatures(°)	
ROSUB-8	400	500	25	45	-20
ROSUB-12K	450	580	26	50	-40
ROSUB-14	500	600	22	40	-40
ROSUB-A2	520	620	22	40	-20

WELDING POSITION

1G/1F

2G/2F

PACKING SPECIFICATION

PACKED IN POLYTHENE-LINE PAPER BAGS OF 25.00 KG NET WEIGHT.

ROYAL FLUX-SS

GRAIN SIZE = 10X 60 BSS (0.25-1.60MM)
B.I. = 2.80

SPECIAL DESIGNED SAW FLUX USED FOR WELDING STAINLESS STEELS AND HEAT RESISTANT STEELS

KEY FEATURES:

Roflx-SSis a Fluoride basic agglomerated type flux suitable for welding of austenitic stainless steel and heat resistant steels. The flux behaviour to carbon content of the weld metal is neutral combination with the wire electrodes of AWS/SFA 5.9 in respect to the weld metal, Flux has no chromium compensation, despite this there is very little loss of chromium. The metallurgical behaviour in respect to silicon and manganese is neutral.

APPLICATIONS

- welding on high alloy Cr-Ni steels type: AISI 304,304L,316, 316L,347,321,318,410,430 etc.

RE-DRY CONDITION

- Re-drying recommended at 350°C for one hour before use.

MAIN CONSTITUTION(%)

SiO2+TiO2	CaO+MgO	Al2O3+MnO	CaF2
15	40	15	25

CHEMICAL COMPOSITION:

UNDER Wires	C	Mn	Si	Cr	Ni	Mo	Others
ROSUB-308L	0.026	1.450	0.55	19.60	9.11	--	S&P<0.020
ROSUB-316L	0.025	1.40	0.50	18.50	11.20	2.10	S&P<0.020

MECHANICAL PROPERTIES

UNDER Wires	YS (N/mm2)	UTS (N/mm2)	EL %	CHARPY "V" NOTCH IMPACT AT +20°C
ROSUB-308L	450	560	40	100 J
ROSUB-316L	420	540	35	80 J

WELDING POSITION

1G/1F

2G/2F

PACKING SPECIFICATION

PACKED IN POLYTHENE-LINE PAPER BAGS OF 25.00 KG NET WEIGHT.

ROYAL ARCPRO-2

COPPER COATED CONTINUOUS SOLID HIGH MN & SI WIRE FOR SA WELDING

AWS: SFA/A 5.17 EM12K
DIN 8557: S2SI

KEY FEATURES:

Copper coated medium Manganese alloyed steel solid wire for welding of mild, medium and high tensile steels, unalloyed steels in combination with agglomerated SAW flux.

APPLICATIONS

- Suitable for welding continuously weld pipes, thicker steel section, LPG cylinders etc.

CHEMICAL COMPOSITION: (SOLID BARE WIRE CHEMISTRY)

C	Mn	Si	S	P	Cu
0.050-0.15	0.85-1.25	0.15-0.35	0.030 max.	0.035 max.	0.035 max

CHEMICAL COMPOSITION:

Under fluxes	C	Mn	Si	S	P
ROFLX-1	0.080	1.40	0.50	0.016	0.020
ROFLX-2	0.080	1.60	0.35	0.014	0.021

MECHANICAL PROPERTIES:

Under fluxes	YS (N/mm2)	UTS (N/mm)	EL % (l=5d)	CHARPY "V" NOTCH IMPACT @ 0°C-	20°C
ROFLX-1	440	520	26	50 J	-----
ROFLX-2	480	550	24	80 J	50 J

DIEMENSION, CURRENT CONDITION & PACKING DATA

Size (mm)	Size (inch)	Current Condition Amps.(DC+)	Voltage (V)	Electrodes Extension	Travel speed (mm/sec.)±0.5
2.0	5/64"	300-400	26-29	13-19	5.5
2.4/2.5	3/32"	350-450	27-30	19-32	6.0
3.2	1/8"	425-525	27-30	25-38	6.5
4.0	5/32	475-575	27-30	25-38	7.0

PACKING SPECIFICATION

- On MS former: - 25.00 kgs approx. (ID-300mm, W-100mm.
- MS bobbin: - 250 kgs. approx.
- Drum Pack: - 600 kgs. approx.

ROYAL ARCPRO -A2

COPPER COATED CONTINUOUS SOLID HIGH MN & SI WIRE FOR SA WELDING

AWS: SFA/A 5.23EA2
EN ISO 14171-A S2 MO

KEY FEATURES:

Copper coated low alloy steel solid wires with 0.50% Mo.The weld metal has good elevated temperature properties and improved corrosion resistance features.

APPLICATIONS

- Welding Suitable for Mo-alloyed steels and boiler plates of quality 16Mo3, fine grained structural steels up to S460N, P460N, and corresponding pipeline steels up to StE 480 TM

CHEMICAL COMPOSITION: (SOLID BARE WIRE CHEMISTRY)

C	Mn	Si	S	P	Cu
0.070-0.17	0.95-1.35	0.20 Max.	0.025 max	0.45-0.65	0.35 max.

CHEMICAL COMPOSITION:

Under fluxes	C	Mn	Si	S	P	Mo
ROFLX-Spl	0.090	1.25	0.35	0.015	0.022	0.42
ROFLX-2	0.080	1.60	0.35	0.014	0.021	0.45

MECHANICAL PROPERTIES:

Under fluxes	YS (N/mm2)	UTS (N/mm)	EL % (l=5d)	CHARPY "V" NOTCH IMPACT @ 0°C-	20°C
ROFLX-Spl	480	580	25	80 J	50 J
ROFLX-10.62	460	540	26	100 J	70 J

DIEMENSION, CURRENT CONDITION & PACKING DATA

Size (mm)	Size (inch)	Current Condition Amps.(DC+)	Voltage (V)	Electrodes Extension	Travel speed (mm/sec.)±0.5
2.0	5/64"	300-400	26-29	13-19	5.5
2.4/2.5	3/32"	350-450	27-30	19-32	6.0
3.2	1/8"	425-525	27-30	25-38	6.5
4.0	5/32	475-575	27-30	25-38	7.0

PACKING SPECIFICATION

- On MS former: - 25.00 kgs approx. (ID-300mm, W-100mm.
- MS bobbin: - 250 kgs. approx.
- Drum Pack: - 600 kgs. approx.

ROYAL ARCPRO-8

COPPER COATED CONTINUOUS SOLID MILD STEEL WIRE FOR SA WELDING

AWS: SFA/A 5.17 EL8
DIN 8557: S2

KEY FEATURES:

Copper coated mild steel solid wire for welding of mild and medium carbon structural' s steels, unalloyed. steels in combination with agglomerated SAW flux

APPLICATIONS

- Suitable for welding continuously mild steels and low carbon Structural' s steels and pipe welding etc

CHEMICAL COMPOSITION: (SOLID BARE WIRE CHEMISTRY)

C	Mn	Si	S	P	Cu
0.10 max.	0.25-60	0.070 max.	0.030 max.	0.035 max	0.035 max

CHEMICAL COMPOSITION:

Under fluxes	C	Mn	Si	S	P
ROFLX-1	0.085	1.10	0.55	0.016	0.020
ROFLX-2	0.095	1.20	0.45	0.015	0.018

MECHANICAL PROPERTIES:

Under fluxes	YS (N/mm2)	UTS (N/mm)	EL % (l=5d)	CHARPY "V" NOTCH IMPACT @ 0°C-	20°C
ROFLX-1	450	530	28	60 J	-----
ROFLX-2	460	555	26	80 J	60 J

DIEMENSION, CURRENT CONDITION & PACKING DATA

Size (mm)	Size (inch)	Current Condition Amps.(DC+)	Voltage (V)	Electrodes Extension	Travel speed (mm/sec.)±0.5
2.0	5/64"	300-400	26-29	13-19	5.5
2.4/2.5	3/32"	350-450	27-30	19-32	6.0
3.2	1/8"	425-525	27-30	25-38	6.5
4.0	5/32	475-575	27-30	25-38	7.0

PACKING SPECIFICATION

- 1.On MS former: - 25.00 kgs approx. (ID-300mm, W-100mm.
- 2.MS bobbin: - 250 kgs. approx.
- 3.Drum Pac: - 600 kgs. approx.

ROYAL ARCPRO-11K

COPPER COATED CONTINUOUS SOLID HIGH MN & SI WIRE FOR SA WELDING

AWS: SFA/A 5.17 EH11K
EN-ISO 14171-B SU31

KEY FEATURES:

Copper coated Submerged Arc Mild Steel Solid Electrode, A low carbon, high manganese, very high silicon wire

APPLICATIONS

- Can be used with series fluxes for welds requiring 480 MPa (70 ksi) tensile strength in stress relieved conditions

CHEMICAL COMPOSITION: (SOLID BARE WIRE CHEMISTRY)

C	Mn	Si	S	P	Cu
0.060-0.15	1.40-1.85	0.85-1.15	0.030 max.	0.030 max.	0.035 max

CHEMICAL COMPOSITION:

Under fluxes	C	Mn	Si	S	P
ROFLX-B62	0.080	1.50	0.70	0.012	0.018

MECHANICAL PROPERTIES:

Under fluxes	YS (N/mm2)	UTS (N/mm)	EL % (l=5d)	CHARPY "V" NOTCH IMPACT @ 0°C-	20°C
ROFLX-B62	460	580	30	80 J	60 J

DIEMENSION, CURRENT CONDITION & PACKING DATA

Size (mm)	Size (inch)	Current Condition Amps.(DC+)	Voltage (V)	Electrodes Extension	Travel speed (mm/sec.)±0.5
2.0	5/64"	300-400	26-29	13-19	5.5
2.4/2.5	3/32"	350-450	27-30	19-32	6.0
3.2	1/8"	425-525	27-30	25-38	6.5
4.0	5/32	**475-575**	27-30	25-38	7.0

PACKING SPECIFICATION

- On MS former: - 25.00 kgs approx. (ID-300mm, W-100mm.
- MS bobbin: - 250 kgs. approx.
- Drum Pack: - 600 kgs. approx.