Mostly used for positional welding, the fast solidification of the slag enables high current welding in all positions leading to a significant improvement in productivity. The slag is very easily removed. The range of applications is extremely wide, and modifying the welding parameters is simplicity itself. Some cored wires are designed for very high current welding (1.6 or 2.4 mm diameter) in conjunction with remarkable handling properties (in particular slag removal and fillet weld profile).

SAFDUAL 100

The flux-cored wire for welding in all positions:
- flat, vertical up (stringer or weaved), downhand (flat) welding,
- good impact properties (CVN) at -20°C.

SAFDUAL 127

The structural steelworks flux-cored wire:
- high deposition rate,
- excellent profile in fillet welding
- excellent slag removal at root pass.

SAFDUAL 128 sr

The offshore cored wire:
- excellent handling characteristics,
- very good joint mechanical properties at temperatures down to -50°C.

Flux cored wire for welding non and low alloyed steels

SAFDUAL 100
Standards:
- **EN 758**
  T 42 3 P M 1 H5
- **AWS A 5.20**
  E 71 T1 MJ
  Symbolization with Ø 1.2 mm with gas M21 (Ar/CO2 - 82/18)

Main applications:
- Shipyards.
- For general use for as-welded: large, non positionable parts;
- Corresponding steel grades: A, B, D to EN

Characteristics:
- Can be used in all positions, with good impact at – 20 °C.
- The best compromise for welding in all positions [up (straight or weaving), down, etc] and for downhand welding. Very good wetting of beads (fatigue resistance).
- High deposition in vertical up position, using gas C1 (CO_2) or mixture M21 (Ar/CO2 - 82/18).

Approvals:

	B.V.	A.B.S.	L.R.S.	D.N.V.	Controlas	SVEJSE	T.Ü.V.	G.L.	F.I.
With gas M21 (Ar/CO_2 - 82/18)	■	■	■	■	■	-	■	■	■
With gas C1 (CO_2)	■	■	■	■	-	■	-	■	-

Typical mecanical characteristics (1):

As welded	UTS (MPa)	YS 0.2 (MPa)	Elongation (l=5d) %	CVN at 0 °C (J)	CVN at – 20 °C (J)
With gas M21 (Ar/CO_2 - 82/18)	580	515	27	115	90
With gas C1 (CO_2)	545	475	28	105	80

(1) ISO all metal weld test, without dilution, 250 A, 28 V, 26 cm/min. Average heat input: 16 kJ/cm, diameter 1.2 mm.

Typical chemical analysis: (weld metal)

	C	Mn	Si	S	P
With gas M21 (Ar/CO_2 - 82/18)	0.05	1.40	0.50	0.014	0.012

To order

Ø (mm)	Packaging	Weight of wire (kg)	Cat. no.
1.2	D 200	5	1090-5120
1.2	K 300	16	1090-5058
1.6	K 300	16	1090-5060

SAFDUAL 100 C

Standards:

- **AWS A 5.20**
  E 71 T1

Main applications:

- Shipyards.
- For general use for as-welded: large, non-positional parts.
- Corresponding steel grades: A, B, D, to EH.

Characteristics:

- Welding in all positions with impact at – 20 °C.
- The best compromise for welding in all positions (up, straight or weaving, down, etc.) and for down hand welding. Very good wetting of beads (fatigue resistance).
- High deposition in vertical up positions, CO2 gas.
- Good porosity resistance on primer plates.

Approvals:

	B.V.	A.B.S.	L.R.S.	D.N.V.	G.L.
With gas C1 (CO_2)	■	■	■	■	■

Typical mecanical characteristics (1):

	UTS (MPa)	YS 0.2 (MPa)	Elongation (l=5d) %	CVN at 0 °C (J)	CVN at – 20 °C (J)
As welded	550	500	28	120	70

(1) ISO all-metal weld tests, without dilution: 250 A, 28 V, 26 cm/min, diameter 1.2 mm, gas CO_2.

Typical chemical analysis: (weld metal)

	C	Mn	Si	S	P
Gas: CO_2	0.05	1.20	0.35	0.014	0.012

To order

Ø (mm)	Packaging	Weight of wire (kg)	Cat. no.
1.2	K 200	5	1090-5139
1.2	K 300	16	1090-5138
1.6	K 300	16	1090-5137

SAFDUAL 105 PRIMER

Standards:

- **EN 758**
  T 46 2 R C2 H5
- **AWS A 5.20**
  E 70 T 1

Main applications:

- Generally corner assemblies. Impact at – 20 °C on joint.
- Shipyards. Construction and mechanical assemblies. Metallic framework (manufacturing of reconstructed welded girders, beams or of bridges).

Characteristics:

- Downhand welds on pre-painted and rusted sheet metal.
- Excellent resistance to porosity on pre-painted and rusted sheet metal.
- Welding with mix gas (80-20) without spatters. Very good fillet weld behaviour and self-removal slag.

Approvals:

	B.V.	A.B.S.	L.R.S.	D.N.V.	G.L.
With gas C1 (CO_2)	■	■	■	■	■

Typical mecanical characteristics (1):

	UTS (MPa)	YS 0.2 (MPa)	Elongation (l=5d) %	CVN at 0 °C (J)	CVN at – 20 °C (J)
With gas C1 (CO_2)	590	505	27	60	47

(1) ISO all-metal weld tests, without dilution, 250 A, 28 V, 26 cm/min, diameter 1.2 mm, gas CO_2.

Typical chemical analysis: (weld metal)

	C	Mn	Si	S	P
With gas C1 (CO_2)	0.04	1.7	0.6	0.013	0.013

To order

Ø (mm)	Packaging	Weight of wire (kg)	Cat. no.
1.2	K 300	16	1090-5015

SAFDUAL 105 A PRIMER

Standards:

- **EN 758**
  T 46 2 R M2 H5
- **AWS A 5.20**
  E 71 T 1

Main applications:

- Generally corner assemblies. Impact at – 20 °C on joint.
- Shipyards. Construction and mechanical assemblies. Metallic framework (manufacturing of reconstructed welded girders, beams or of bridges).
- Corresponding classes of steel: Grade A/E and AH/EH

. Characteristics:

- Downhand welds on pre-painted and rusted sheet metal.
- Excellent resistance to porosity on pre-painted and rusted sheet metal.
- Welding with mix gas (80-20) without spatters. Very good fillet weld behaviour and self-removal slag.

Approvals:

	B.V.	A.B.S.	L.R.S.	D.N.V.
With gas M21 (Ar/CO2 - 82/18)	■	■	■	■

Typical mecanical characteristics (1):

	UTS (MPa)	YS 0.2 (MPa)	Elongation (l=5d) %	CVN at 0 °C (J)	CVN at – 20 °C (J)
With gas	550	480	28	90	60

(1) ISO all-metal weld tests, without dilution, 250 A, 28 V, 26 cm/min, diameter 1.2 mm.

Typical chemical analysis: (weld metal)

	C	Mn	Si	S	P
With gas M21 (Ar/CO2 - 82/18)	0.04	1.7	0.6	0.013	0.013

To order

Ø (mm)	Packaging	Weight of wire (kg)	Cat. no.
1.2	K 300	16	1090-5017
1.2	ENDURO	200	on request

SAFDUAL 127

Standards:

- **EN 758**
  T 42 2 R M 3 H10
  Symbolization with Ø 1.2 mm with gas M21 (Ar/CO2 - 82/18)
- **EN 758**
  T 38 0 R C 3 H10
  Symbolization with Ø 1.2 mm with gas C1 (CO2)
- **AWS A 5.20**
  E 70 T 1
  Symbolization with Ø 1.2 mm with gas M21 (Ar/CO2 - 82/18)

Main applications:

• Mechanized welding, mechanical parts, earth moving equipment, agricultural equipment.

Characteristics:

• Flux cored wire with slag. High deposition rate.

Approvals:

	T.V.U.
With gas M21 (Ar/CO_2 - 82/18)	■
With gas C1 (CO_2)	■

Typical mecanical characteristics (1):

	UTS (MPa)	YS 0.2 (MPa)	Elongation (l=5d) %	CVN at 0 °C (J)	CVN at – 20 °C (J)
As welded with gas C1	550	480	27	75	50

(1) On ISO all-metal weld test, without dilution: 300 A, 28 V, 26 cm/min. Average heat input: 19 kJ/cm, diameter 1.6 mm, gas C1 (CO_2).

Typical chemical analysis: (weld metal)

	C	Mn	Si	S	P
With gas C1 (CO_2)	0.06	1.6	0.50	≤ 0.025	≤ 0.025

To order

Ø (mm)	Packaging	Weight of wire (kg)	Cat. no.
1.2	BE	16	1090-5089
1.4	BE	16	1090-5165
1.6	BE	16	1090-5087
1.6	GBE	25	1090-5081
1.6	ENDURO DRUM	200	1090-5226
2.4	Reel	250	1090-5084

SAFDUAL 128
SAFDUAL 128 SR

Standards:

- **EN 758**
  T 46 5 1 Ni P M 1 H5
- **AWS A 5.29**
  E 81 T 1 Ni 1
  Symbolization with Ø 1.2 mm with gas M21 (Ar/CO2 - 82/18)

Main applications:

- Offshore work, shipbuilding, bridges and structures, pressure vessels.

Characteristics:

- Welding in all positions with good impact at – 50 °C (even after P.W.H.T.).
- Very easy to use for vertical up welding.
- Good Charpy V notch level at – 50 °C on joint of adapted grade with heat input controlled to 18 kJ/cm, and at – 40 °C with heat input controlled to 30 kJ/cm.
- Good Charpy CVN notch level at – 40 °C after P.W.H.T.

Approvals:

	L.R.S.	D.N.V.	Controlas	F.I.
With gas M21 (Ar/CO_2 - 82/18)	■	■	■	■

Typical mecanical characteristics (1):

	UTS (MPa)	YS 0.2 (MPa)	Elongation (l=5d) %	CVN at – 40 °C (J)	CVN at – 50 °C (J)
As welded	670	560	23	120	80
After heat treatment 50 °C/h ↗ 580 °C/2h ↘ 50 °C/h	600	540	24	80	-

(1) On ISO all-metal weld test, without dilution: 300 A, 28 V, 34 cm/min. Average heat input: 15 kJ/cm, diameter 1.2 mm, gas M21 (Ar/CO_2 - 82/18).

Typical chemical analysis: (weld metal)

	C	Mn	Si	S	P	Ni	N_2
With gas M21 (Ar/CO_2 - 82/18)	0.07	1.45	0.30	≤ 0.02	≤ 0.02	≤ 0.8	< 40 ppm*

** SAFDUAL 128 SR only*

To order SAFDUAL 128

Ø (mm)	Packaging	Weight of wire (kg)	Cat. no.
1.2	D 200	5	1090-5077
1.2	K 300	16	1090-5078
1.6	K 300	16	1090-5080

To order SAFDUAL 128 SR

Ø (mm)	Packaging	Weight of wire (kg)	Cat. no.
1.2	D 300	16	1090-5223

SAFDUAL 162

Standards:

- **NF (A 81 352)**
  TGS Y 62 5 1 BH
- **AWS A 5.29**
  E 101 T 1-G-H4
  Symbolization with Ø 1.2 mm with gas M21 (Ar/CO2 - 82/18)

Main applications:

- Lifting equipment (cranes, gantries, fork-lift trucks). Pressure water pipes, turbines.
- Armour plating, public works, offshore works.
- Corresponding steel classes:

E 450	E 460	CIN
	E 520	CREUSABRO
	E 620	

Characteristics:

- Flux cored wire with slag. Welding of high yield strength steels.
- Flux cored wire for welding in all positions. Excellent operability and slag removal.
- Good resistance to cracking (preheating necessary according to thickness and type of steel to weld).
- Vacuum packed spool for keeping very low nitrogen level.

Approvals:

	L.R.S.	D.N.V.	A.B.S.
With gas M21 (Ar/CO_2 - 82/18)	■	■	■

Typical mecanical characteristics (1):

	UTS (MPa)	YS 0.2 (MPa)	Elongation (l=5d) %	CVN at – 40 °C (J)	CVN at – 50 °C (J)
With gas M21 (Ar/CO_2 - 82/18)	695	635	22	95	80

(1) On ISO all-metal weld test, without dilution: 250 A, 26 V, 26 cm/min.

Typical chemical analysis: (weld metal)

	C	Mn	Si	S	P	Ni
With gas M21 (Ar/CO_2 - 82/18)	0.08	1.35	0.35	0.008	0.008	1.6

To order

Ø (mm)	Packaging	Weight of wire (kg)	Cat. no.
1.2	K 300	16	1090-5029

Carbon Steel Flux Cored Wires

Gas-shielded Flat and Horizontal Flux Cored Wires

Select 70TR	E70T-1C, E70T-1M, E70T-9C, E70T-9M per AWS A5.20, ASME SFA 5.20	Select 70TR has a unique slag system which allows multiple weld beads to be stacked in a horizontal fillet with a minimum of "roll" or convexity.
Select Super 70	E70T-1C per AWS A5.20, ASME SFA 5.20	Select Super 70 is a good choice for deep groove weldments such as J-grooves, where slag removal between each pass can be a problem.
Select 71	E70T-1C, E70T-9C per AWS A5.20, ASME SFA 5.20	Select 71 has higher level of deoxidation and it facilitates welding over mill scale, rust and other contaminants.
Select 71A	E70T-1C, E70T-9C per AWS A5.20, ASME SFA 5.20	Select 71A has excellent wetting characteristics, resulting in superior bead shape and the slag is typically self peeling
Select 71P	E70T-1C, E70T-1M per AWS A5.20, ASME SFA 5.20, MIL 70T- 1C per MIL-E-24403/1	Select 71P is specially designed to weld over zinc-based and organic primers in the shipbuilding industry.
Select 72	E70T-2C per AWS A5.20, ASME SFA 5.20	Select 72 contains a high level of deoxidizers that allow it to weld over heavier levels of rust and mill scale.
Select Super 72	E70T-2C per AWS A5.20, ASME SFA 5.20	Select Super 72 is a superb selection for high speed welds on thin gauge carbon steels, particularly lap and butt welds.
Select 75	E70T-5C, E70T-5M per ANSI/AWS A5.20, ASME SFA 5.20	Select 75 is a flux cored wire designed with a basic slag system which provides better mechanical properties and lower diffusible hydrogen levels in the weld deposit than E70T-1 wires.
Select 97	E70T-1C, E70T-1M, E70T-9C, E70T-9M per AWS A5.20, ASME SFA 5.20	Select 97 is intended for welding of carbon steels where a minimum tensile strength of 70,000 psi is required.

Gas-shielded All Position Flux Cored Wires

Select 71 Supreme	E71T-1C, E71T-1M, E71T-9C, E71T-9M per AWS A5.20, ASME SFA 5.20	Select 71 Supreme is a flux cored, gas shielded wire designed to provide improved CVN toughness at lower temperatures.
Select 710	E71T-1C, E71T-1M per AWS A5.20, ASME SFA 5.20	Select 710 is an all position, flux cored wire which is intended for welding of carbon and certain low alloy steels where a minimum tensile strength of 70,000 psi is required.
Select 711	E71T-1C, E71T-1M, E71T-9C, E71T-9M per AWS A5.20, ASME SFA 5.20	Select 711 is a carbon steel wire intended for welding of carbon steel and certain low alloy steels where a minimum tensile strength of 70,000 psi is required.
Select 712	E71T-1C, E71T-1M, E71T-9C, E71T-9M per AWS A5.20, ASME SFA 5.20	Select 712 is an improved E71T-1C, featuring lower spatter and fume emissions than conventional products in this class.
Select 717	E71T-1M, E71T-9M per AWS A5.20, ASME SFA 5.20	Select 717 is best suited for situations where lower fume levels are required or higher out of position productivity is desired.
Select 720	E71T-1C, E71T-1M, E71T-9C, E71T-9M, E71T-12C, E71T-12M per AWS A5.20, ASME SFA 5.20, MIL-7IT-1 HYC, MIL-7IT-1 HYM and MIL-71T-1C per MIL-E-24403/1	Select 720 is an ideal choice for those weldments requiring good CVN toughness.
Select 720A	E71T-1C, E71T-1M, E71T-9C, E71T-9M per AWS A5.20, SFA 5.20	Select 720A is an ideal choice for those weldments requiring good CVN toughness and high welder appeal.
Select 720HP	E71T-1C, E71T-1M, E71T-9C, E71T-9M, E71T-12CJ, E71T-12MJ per AWS A5.20, ASME SFA 5.20	Select 720HP excels in welding where requirements are stringent, such as offshore platforms and pipe systems, pressure vessels, oil and gas pipelines, petrochemical pipelines, structural steel, bridge fabrication and many others.
Select 721	E71T-1M, E71T-9M per AWS A5.20, ASME SFA 5.20, MIL-71T-1 HYM per MIL-E-24403/1	Select 721 is designed with Naval shipbuilding in mind.
Select 727	E71T-1C, E71T-1M, E71T-9C, E71T-9M per AWS A5.20, ASME SFA 5.20	Select 727 was developed to provide improved deposition rates and enhanced welder appeal, compared to conventional wires.
Select 737	E71T-1M, E71T-9M, E71T-12MJ per AWS A5.20, ASME SFA 5.20	Select 737 is a carbon steel wire for welding of carbon and certain low alloy steels, utilized where a minimum of 70,000 psi is required

Gas-shielded Metal Cored wires

Select 70C-3	E70C-3M per AWS A5.18, ASME SFA 5.18	70C-3 makes it an ideal choice for those applications where solid wire is inadequate or the slag from flux cored wire is unwanted.
Select 70C-6	E70C-6M per AWS A5.18, ASME SFA 5.18	Select 70C-6 is well suited to applications where higher manganese and silicon levels are essential.
Select 70C-6LS	E70C-6M per AWS A5.18, ASME SFA 5.18	Select 70C-6LS is a carbon steel, gas shielded, composite metal cored wire which produces substantially fewer slag islands than typical metal cored wires.
Select 70C-7	E70C-6M per AWS A5.18, ASME SFA 5.18	Select 70C-7 exceptionally smooth arc and low spatter level and minimize postweld cleanup, making it ideal for weldments that are to be painted.
Select 70C-8	E70C-6M per AWS A5.18, ASME SFA 5.18	Select 70C-8 is ideal for those difficult-to-weld items such as heavily rusted or scaled surfaces or when steel is coated with oil or paint.
Select 70C-10	E70C-6M per AWS A5.18, ASME SFA 5.18	Select 70C-10 is ideally suited for those applications which require higher travel speeds on thin gauge carbon steels.
Select 70C-T	E70C-6M per AWS A5.18, ASME SFA 5.18	Select 70C-T has excellent toughness and it an ideal selection for welding fine grained steels and many low alloy steels
Select EH12KS	EC1 per AWS A5.17, ASME SFA 5.17	Select EH12KS is to be used for submerged arc welding only. It is a metal cored, carbon steel wire intended for the welding of carbon and certain low alloy steels.
Select EM12KS	EC1 per AWS A5.17, ASME SFA 5.17	Select EM12KS is a metal cored, carbon steel wire designed for submerged arc welding only.

Carbon Steel Flux Cored Wires

Flux Cored Self-Shielded Flat and Horizontal wires

Select 73	E70T-3 per AWS A5.20, ASME SFA 5.20	Select 73 is a self-shielded, flux cored wire, make it perfect for applications involving high travel speeds (60-120 ipm) and lower penetration such as lap and butt welds on thin gauge steel plate.
Select 73R	E70T-3 per AWS A5.20, ASME SFA 5.20	Select 73R is a self-shielded, flux cored wire and has a special slag system allowing it to be used in circumferential, or roundabout, welds on thin gauge steels at relatively high travel speeds.
Select 74	E70T-4 per AWS A5.20, ASME SFA 5.20	Select 74 is a self-shielded, flux cored wire ideally suited for welding applications where gas-shielded wires may have problems, such as outdoors or in windy conditions. These would typically be light gauge steel plate fabrication or general purpose fabrication of carbon steels.

Flux Cored Self-Shielded All Position wires

Select 78	E71T-8J per AWS A5.20, SFA 5.20	Select 78 is intended for use in critical structural fabrication. This wire is suitable for Demand Critical Welds under AWS D1.8.
Select 701	E71T-11 per AWS A5.20, ASME SFA 5.20	Select 701 is designed for those applications where the use of shielding gas is inappropriate and where CVN toughness is not of prime concern.
Select 700GS	E71T-GS, E71T-14 per AWS A5.20, ASME SFA 5.20	Select 700GS make it the smart choice for the “hobbyist” welder, as it works very well on the small 110 volt power source/ feeders which have become so popular. Select 700GS is designed for welding of thin-gauge carbon steel.

Solid Copper wire

Select 70S-3	ER70S-3 per AWS/ ANSI A5.18. ASME SFA 5.18	Select 70S-3 is a premium copper-coated, solid wire, or MIG wire, designed for gas metal arc welding of a wide selection of carbon steels.
Select 70S-6	ER70S-6 per AWS/ ANSI A5.18, ASME SFA 5.18	Select 70S-6 is well suited for steels containing medium to high levels of mill scale and mild amounts of contaminants. The wire’s copper coating promotes excellent feeding characteristics.

Copper –Free wire

Select 70S-3NC	ER70S-3 per AWS/ ANSI A5.18, ASME SFA 5.18	Select 70S-3NC is free of copper coating, hence the “NC” designator signifying “no copper”. This truly premium solid wire, or “MIG” wire, is intended for gas metal arc welding of carbon steels which require minimum yield strength of 50,000 psi. There is no copper to vaporize into the welding fume other than the trace amounts within the wire itself.
Select 70S-6NC	ER70S-6 per AWS/ ANSI A5.18, ASME SFA 5.18	Select 70S-6NC contains higher amounts of manganese and silicon than a 70S- 3 wire, making it more tolerant to mill scale and mild contaminants.

Nickel Bearing Flat and Horizontal Flux Cored wires

Select 81-Ni1	E80T1-Ni1C per AWS A5.29, ASME SFA 5.29	Select 81-Ni1 is a gas-shielded wire intended for horizontal fillet and flat position welding of carbon and low alloy steels requiring a minimum tensile strength of 80,000 psi and good CVN toughness at subzero temperatures.
Select 81-Ni2	E80T1-Ni2C per AWS A5.29, ASME SFA 5.29	Select 81-Ni2 is a low alloy steel, gas shielded, flux cored wire intended for the welding of carbon and low alloy steels requiring a minimum tensile strength of 80,000 psi and good CVN toughness at subzero temperatures.
Select 85-Ni3	E80T5-Ni3M per AWS A5.29, ASME SFA 5.29	Select 85-Ni3 is a low alloy, gas shielded, flux cored wire for welding of certain HSLA steels. It provides a weld deposit that contains about 3.5% nickel to enhance low temperature toughness

Nickel Bearing All Position Flux Cored wires

Select 810-Ni1	E81T1-Ni1C, E81T1- Ni1M per AWS A5.29, ASME SFA 5.29	Select 810-Ni1 is intended for , all position welding on carbon and low alloy steels requiring good CVN toughness at subzero temperatures and tensile strength in excess of 80,000 psi.
Select 820-Ni1	E81T1-Ni1C, E81TNi1M per AWS A5.29, ASME SFA 5.29, MIL-8IT1-Ni1C and 8IT1-Ni1M per MILE- 24403/1	Select 820-Ni1 is a gas-shielded, flux cored wire designed for the all position, welding of carbon and low alloy steels which require moderate tensile strength and good CVN toughness at subzero temperatures.
Select 810-Ni2	E81T1-Ni2C, E81T1- Ni2M per AWS A5.29, ASME SFA 5.29, MIL-81T1-Ni2C and MIL-81T1-Ni2M per MIL-E-24403/1	Select 810-Ni2 is an excellent selection for welding steels which require good CVN toughness and tensile strength in the range of 80,000-100,000 psi. Select 810- Ni2 is designed for welding of carbon and certain low alloy steels in all positions.
Select 820-Ni2	E81T1-Ni2C, E81T1- Ni2M per AWS A5.29, ASME SFA 5.29	Select 820-Ni2 is a premium low alloy steel, flux cored wire which 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.
Select 910-Ni2	E91T1-Ni2C, E91T1- Ni2M per AWS A5.29, ASME SFA 5.29	Select 910-Ni2 is designed for welding, in all positions, of certain low alloy steels and steels with low temperature CVN properties

Carbon Steel Flux Cored Wires

Nickel Bearing Metal Cored wires

Select 80C-Ni1	E80C-Ni1 per AWS A5.28, ASME SFA 5.28	Select 80C-Ni1 is well suited for fine grained or low alloy steels requiring moderate tensile strength and good subzero CVN toughness.
Select 80C-Ni2	E80C-Ni2 per AWS A5.28, ASME SFA 5.28	Select 80C-Ni2 is a composite metal cored wire utilized for welding carbon and low alloy steels requiring 80,000 psi minimum tensile strength and good CVN toughness at subzero temperatures.
Select Ni1S	ECNi1 per AWS A5.23, ASME SFA 5.23. (Meets AWS A5.23, class F7A6-ECNi1-Ni1 when used with OP121TT Flux)	Select Ni1S is a metal cored, low alloy wire, intended for the welding of carbon and low alloy steels, is used for submerged arc welding only. It contains 1% nickel to produce good low temperature toughness.

Nickel-Molybdenum Bearing Flat and Horizontal Flux Cored wires

Select 91-K2	E90T1-K2C per AWS A5.29, ASME SFA 5.29	Select 91-K2 is a premium low alloy, gas shielded, flux cored wire designed for those applications requiring 90,000 psi minimum tensile strength and good low temperature toughness.
Select 95-K2	E90T5-K2C per AWS A5.29, ASME SFA 5.29	Select 95-K2has outstanding mechanical properties, particularly the low temperature CVN values, make this an excellent choice for welding steels requiring a minimum of 90,000 psi tensile strength and good subzero CVN toughness.
Select 100-K3	E100T1-K3C per AWS A5.29, ASME SFA 5.29	Select 100-K3, with a minimum tensile strength of 100 ksi and good CVN toughness levels, is a gas-shielded wire for flux cored arc welding of certain high strength, low alloy steels.
Select 110-K3	E110T1-K3C per AWS A5.29, ASME SFA 5.29	Select 110-K3 is a low alloy steel, gas shielded, flux cored wire intended for high strength steels in horizontal fillets and the flat position. Arc transfer is a smooth spray and the weld bead exhibits clean slag removal with a finely rippled surface.
Select 115-K3	E110T5-K3C per AWS A5.29, ASME SFA 5.29	Select 115-K3 is a basic low alloy steel, gas-shielded, flux cored wire for horizontal fillet and flat position welding of certain HSLA steels. The arc transfer is globular with a convex bead profile due to the nature of a basic slag system.

Nickel-Molybdenum Bearing All Position Flux Cored wires

Select 812-K2	E81T1-K2M per AWS A5.29, ASME SFA 5.29	Select 812-K2 is intended for welding of low alloy steels, in all positions, where moderate tensile strength and exceptional low temperature CVN values are required.
Select 910-K2	E91T1-K2C, E91T1- K2M per AWS A5.29, ASME SFA 5.29	Select 910-K2 proves an ideal selection for weldments requiring 90,000 psi minimum tensile strength and good CVN toughness values. These wires are intended for, all position welding of low alloy steels.
Select 101-K3C, -K3M	E101T1-K3C, E101T1-K3M per AWS A5.29, ASME SFA 5.29	Select 101-K3C and Select 101-K3M are superb choices for those applications requiring 100 ksi minimum tensile strength and good CVN toughness. These wires are intended for all position welding of low alloy steels.
Select 111-K3C, -K3M	E111T1-K3C, E111T1-K3M per AWS A5.29, ASME SFA 5.29	Select 111-K3C and Select 111-K3M are designed for welding, in all positions, of specific high strength, low alloy steels wherein a minimum tensile strength of 110,000 psi is important.
Select 101 SR	E101T1-G per AWS/ ANSI A5.29, ASME SFA 5.29	Select 101 SR is designed to weld oilfield components that require a postweld stress relief.

Nickel-Molybdenum Bearing Metal Cored wires

Select 90C-M2	E90C-G per AWS A5.28, ASME SFA 5.28	Select 90C-M2 is an ideal choice for weldments where distortion must be minimized and de-slagging is not desirable.
Select 100C	E100C-G per AWS A5.28, ASME SFA 5.28	Select 100C is a composite metal cored wire designed for the flat and horizontal positions, where a minimum tensile strength of 100,000 psi is required in the deposited weld metal.
Select 120C	E120C-G per AWS A5.28, ASME SFA 5.28	Select 120C is a low alloy steel, composite metal cored wire which achieves its strength without the use of chromium, greatly reducing the concern over chromium in the welding fume. This wire is utilized to weld certain carbon and low alloy steels where a minimum tensile strength of 120,000 psi is required in the deposited weld metal.

Carbon Steel Flux Cored Wires

Nickel-Chromium-Molybdenum Bearing Flat and Horizontal Flux Cored wires

Select 115-K4	E110T5-K4C per AWS A5.29, ASME SFA 5.29	Select 115-K4 produces a tough, high strength weld metal that is resistant to cracking in highly restrained joints. These characteristics make it an ideal selection to weld high strength, low alloy steels.
Select 125-K4	E120T5-K4C per AWS A5.29, ASME SFA 5.29	Select 125-K4 is a basic low alloy steel, flux cored, gas-shielded wire for welding of HSLA steels requiring a minimum of 120 ksi tensile strength. This wire is intended for welding in horizontal fillets and the flat position using 100% carbon dioxide shielding gas. The arc transfer is globular and the bead shape is convex.
Select 4130LN	No AWS class.	Select 4130LN is a basic flux cored wire designed to closely match the properties of certain low alloy, quench and tempered steels following post weld heat treatment. It is not recommended for as-welded applications. The basic slag system assures low weld metal hydrogen in the weld area, which is critical in preventing cracking in sensitive steels such as 4130.

Nickel-Chromium-Molybdenum Bearing Metal Cored wires

Select 110C-M2	E110C-G per AWS A5.28, ASME SFA 5.28	Select 110C-M2 is designed for those applications where the slag residue and fume emissions of flux cored wires are unwanted. This composite metal cored wire is designed for welding of low alloy steels, in the flat and horizontal positions, where a minimum tensile strength of 110,000 psi is required in the deposited weld metal.
Select 105-D2	E100T5-D2M per AWS A5.29, ASME SFA 5.29	Select 105-D2 is a low alloy steel wire with a basic slag system used to weld certain manganese-molybdenum steels and castings.
Select 91-D3	E90T1-D3C per AWS A5.29, ASME SFA 5.29	Select 91-D3 is a gas-shielded, low alloy steel wire intended to match the mechanical properties and corrosion resistance of certain pressure vessel steels.

Manganese-Molybdenum Bearing Metal Cored wires

Select 80C-D2	E90C-D2 per AWS A5.28, ASME SFA 5.28	Select 80C-D2 is a composite metal cored wire for welding of certain high strength, low alloy steels where a minimum tensile strength of 90,000 psi is required in the deposited metal. This premium wire provides a productivity-enhancing welding alternative to ER80S-D2 solid wires.

Carbon-Manganese Bearing Flat and Horizontal Flux Cored wires

Select 80	E80T-G per AWS A5.29, ASME SFA 5.29.	Select 80 is a low alloy steel wire for flux cored arc welding. It is intended for the welding of carbon and certain low alloy steels.
Select 81-A1	E80T1-A1C per AWS A5.29, ASME SFA 5.29	Select 81-A1 is a low alloy steel wire intended for welding of certain carbon-molybdenum steels where the addition of 1/2% molybdenum is required in the deposited weld metal.

Carbon-Molybdenum Bearing All Position Flux Cored wires

Select 810-A1	E81T1-A1C, E81T1- A1M per AWS A5.29, ASME SFA 5.29	Select 810-A1 is a low alloy steel wire for flux cored arc welding. It is intended for welding, in all positions, of certain carbon-molybdenum steels where the addition of 1/2% molybdenum is required in the deposited weld metal.

Chromium-Molybdenum Bearing Flat and Horizontal Flux Cored wires

Select 81-B2	E80T1-B2C per AWS A5.29, ASME SFA 5.29	Select 81-B2 is a low alloy steel wire for flux cored arc welding. This wire is designed for welding in the flat and horizontal positions of certain chromium-molybdenum steel and pipe grades, where 11/4% Cr and 1/2% Mo are required in the weld deposit.
Select 85-B2	E80T5-B2C per AWS A5.29, ASME SFA 5.29	Select 85-B2 is intended for welding of certain chromium-molybdenum steels, plate and pipe requiring 11/4% chrome and 1/2% molybdenum in the weld deposit. The basic slag limits welding to horizontal fillets and the flat position.
Select 85-B2L	E80T5-B2LC per AWS A5.29, ASME SFA 5.29	Select 85-B2L is designed for welding of certain chromium- molybdenum steels, plate and pipe requiring 11/4% chromium and 1/2% molybdenum in the weld deposit.
Select 91-B3	E90T1-B3C, E90T1- B3M per AWS A5.29, ASME SFA 5.29	Select 91-B3 is a low alloy steel wire for welding of certain high temperature, creep resistant materials in horizontal fillets and the flat position. The rutile slag system provides high welder appeal and good weld bead geometry.

Carbon Steel Flux Cored Wires

Chromium-Molybdenum Bearing All Position Flux Cored wires

Select 810-B2	E81T1-B2C, E81T1- B2M per AWS A5.29, ASME SFA 5.29	Select 810-B2 is a low alloy steel wire designed for welding, in all positions, of certain chromium-molybdenum steel plate and pipe where 11/4% Cr and 1/2% Mo are required in the weld deposit.
Select 810-B2L	E81T1-B2LC per AWS A5.29, ASME SFA 5.29	Select 810-B2L is a premium low alloy steel wire intended for all position welding of certain 11/4% chromium and 1/2% molybdenum steel plate and pipe, where lower carbon levels are required in the weld deposit.
Select 910-B3	E91T1-B3C, E91T1- B3M per AWS A5.29, ASME SFA 5.29	Specifically designed for welding materials subjected to high temperature service, Select 910-B3 provides all position welding of certain chromium-molybdenum steels.
Select 910-B3L	E91T1-B3LC per AWS A5.29, ASME SFA 5.29	Select 910-B3L is a low alloy steel wire intended for all position welding of certain 21/4% chromium and 1% molybdenum steel plate and pipe, where lower carbon levels are required in the weld deposit.
Select 810-B6	E81T1-B6M per AWS A5.29, ASME SFA 5.29	Select 810-B6 is a low alloy steel wire intended for all position welding of certain chromium-molybdenum steels where a weld deposit of 5% chromium and 1/2% molybdenum is required.
Select 810-B8	E81T1-B8M per AWS A5.29, ASME SFA 5.29	Select 810-B8 is an all position, flux cored wire intended for welding of 9% chromium and 1% molybdenum steels.

Chromium-Molybdenum Bearing All Position Flux Cored wires

Select 910-B9	E91T1-B9M per AWS A5.29, ASME SFA 5.29	Select 910-B9 is designed welding of 9 chromium and 1 molybdenum steels in all position. Flux cored wire contains small additions of niobium, vanadium and nitrogen to improve long term creep properties.

Chromium-Molybdenum Bearing Metal Cored wires

Select 80C-B2	E80C-B2 per AWS/ ANSI A5.28, ASME SFA 5.28	Select 80C-B2 is designed for welding of certain chromium and molybdenum steels.
Select 90C-B3	E90C-B3 per AWS A5.28, ASME SFA 5.28	Select 90C-B3 is alloyed with approximately 21/4% chromium and 1% molybdenum. This composite metal cored wire produces a high strength weld deposit which is generally post weld treated.
Select 90C-B9	E90C-G per AWS A5.28, ASME SFA 5.28	Select 90C-B9 is a premium composite metal cored wire intended for welding of 9% chromium and 1% molybdenum steels. Select 90C-B9 contains small additions of niobium, vanadium and nitrogen to improve long term creep properties.

Weathering Steel All Position Flux Cored wires

Select 810-W	E81T1-W2C, E81T1- W2M per AWS A5.29, ASME SFA 5.29	Select 810-W is a gas-shielded, flux cored, low alloy steel wire for all position welding of weathering steels. Welder appeal is excellent with a spray transfer, thin slag which removes easily and cleanly and a smooth bead profile.

Weathering Steel Metal Cored wires

Select 80C-W	E80C-W2 per AWS A5.28, ASME SFA 5.28	Select 80C-W is designed for those applications requiring the coloration and corrosion resistance of the weathering type of structural steels.