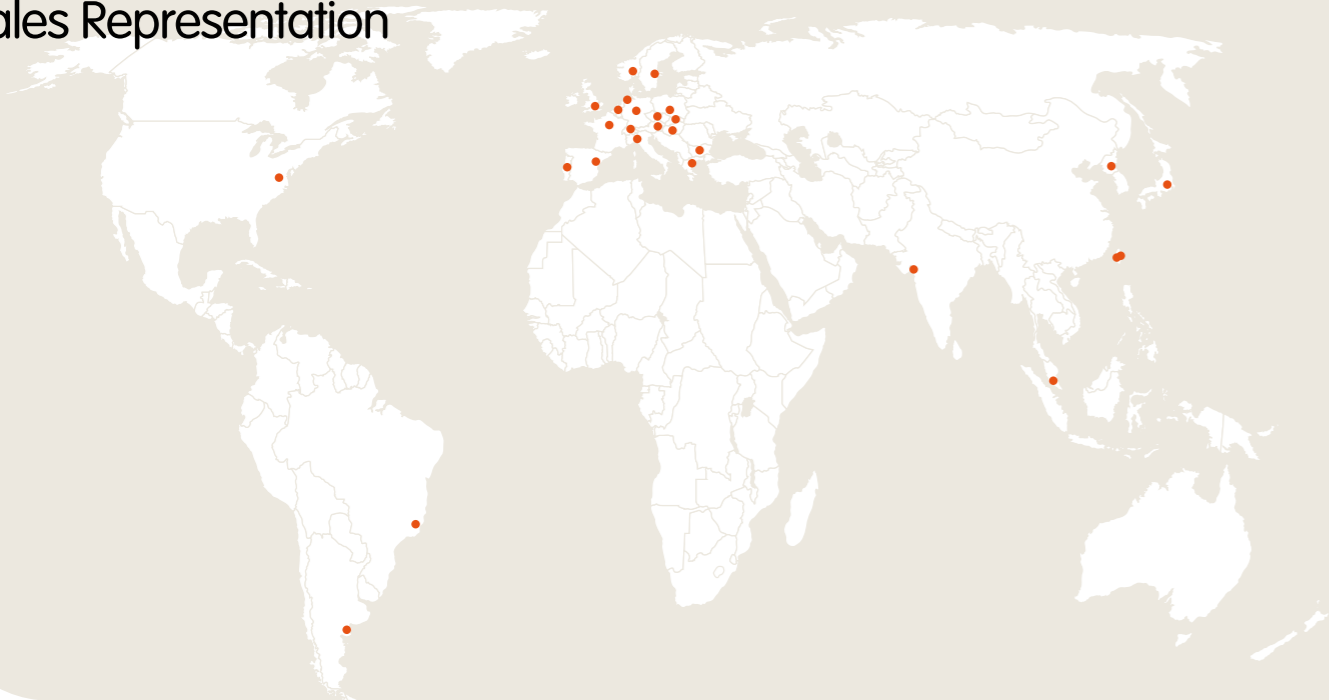


Sales Representation



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Stainless & Nickel Alloys



Welding Alloys Wire Rods

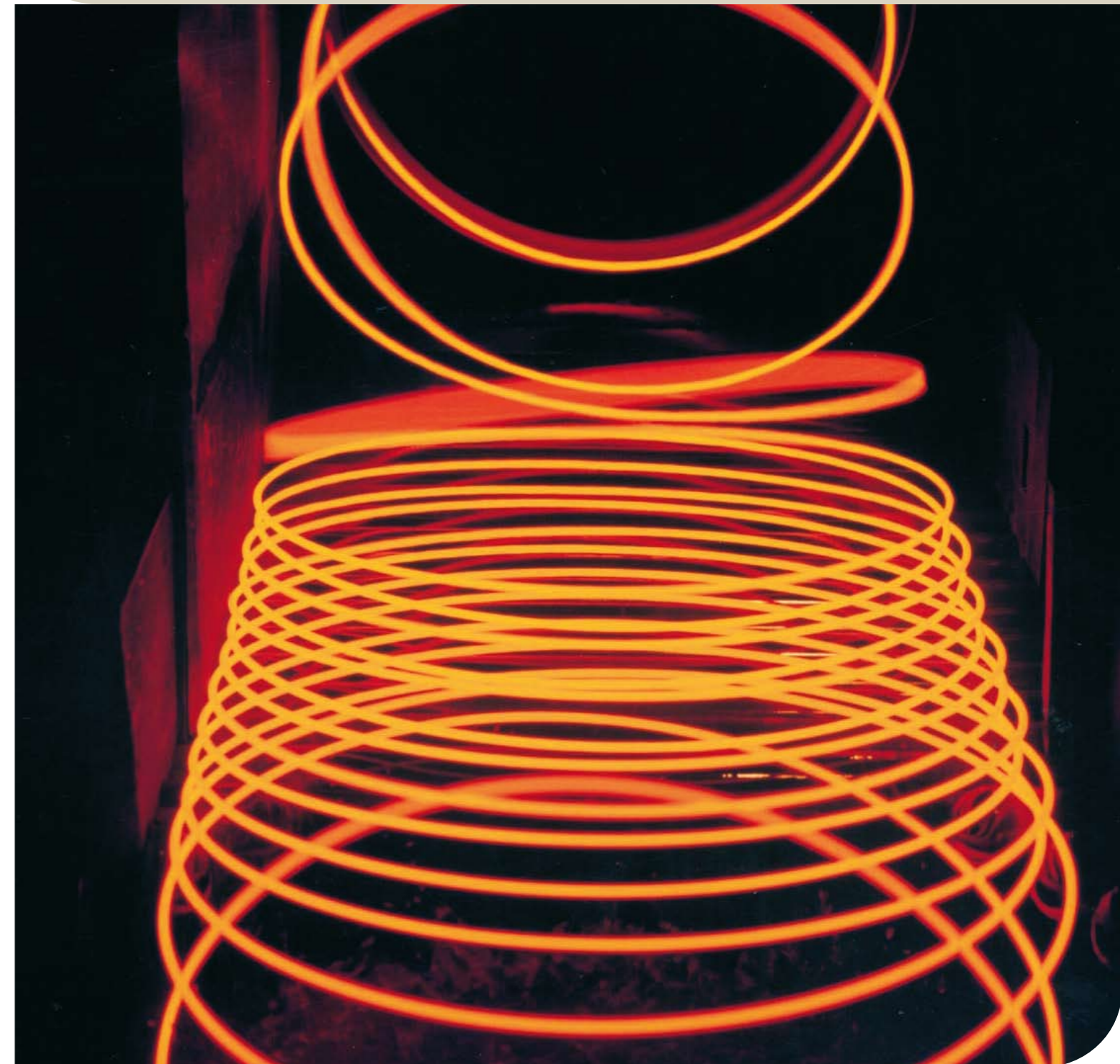
Other available specialties:

- Corrosion and Oxidation Resistant grades
- Controlled expansion grades
- Magnetic grades
- Resistance grades
- Cold heading grades



Stainless and Nickel Alloys Wire:

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TRADE NAMES of PHYWELD	CHEMICAL ANALYSIS												STANDARDS			WELDING TYPE				Main Applications
	C	Si	Mn	Ni	Cr	Mo	Cu	Co	Cb	S	P	Others	AWS	DIN 1736 Part 1	B.S.2901 Part 5	CORE	GMAW	GTAW	SAW	
PHYWELD 200	0,1	0,25	0,35	99,2			0,25			0,015	0,02	Fe < 0.40	SFA 5.15 E Ni-CI UNS W82001	2.4066	NA 46	■				Welding of ductile, malleable and gray cast irons - Dissimilar welding of cast irons to low-alloy and carbon steels Weld metal: easily machinable
PHYWELD 301				95								Al 4,0 / 5,0								Thermal Spray application
PHYWELD 61	0,05	0,80	0,80	94			0,2	0,2		0,015	0,015	Ti 2,52/3.5	SFA 5.14 ER Ni-1	2.4155	NA 32	■	■			Welding of Nickel 200 and 201, surfacing of steel - Dissimilar welding (joining Nickel 200 & 201 to stainless steels, carbon steels, corrosion & oxidation resistant alloys, copper-nickel & nickel-copper alloys - joining of copper-nickel & nickel-copper alloys to carbon steels and corrosion resistant alloys) Weld metal: good corrosion resistance, particularly in alkalies
PHYWELD 55	0,05	0,3	0,5	54 56			0,5	0,5		0,015	0,02	Fe Bal.	SFA 5.15 E NiFe-CI UNS W82002	2.4420	NA 47	■	■	■		Welding of gray, ductile, malleable cast irons Dissimilar welding of cast irons to carbon steels, low-alloy steels and nickel alloys
PHYWELD 92			2,0 2,5	68	15 17		0,5			0,015	0,030	Ti 2,5 / 3,5 Fe < 8	SFA 5.14 ER NiCrFe-6		NA39		■	■		Welding of austenitic & ferritic steels and Nickel alloys Dissimilar welding of Corrosion-resistant alloys to stainless steels, carbon steels and Nickel-Copper alloys, of Nickel-Copper alloys & Nickel 200 to stainless steels, of stainless steels to carbon steels Weld metal: high strength and corrosion resistance at temperatures ranging from cryogenic to 980°C (1800°F)
PHYWELD 82	0,05	0,5	2,5 3,5	67	18 22		0,5	0,2	2,0 3,0	0,015	0,015	Fe <3.0	SFA 5.14 ER NiCr-3	2.4806	NA 35	▲	■	■	■	Welding of NY 600, 601, 690 & 800 - Surfacing of steels - Dissimilar welding (joining of corrosion resistant alloys to Nickel, nickel-copper alloys, stainless steels and carbon steels - joining of stainless steels to nickel alloys and carbon steels) Weld metal: high strength, creep-rupture strength at elevated temperatures and good corrosion resistance
PHYWELD 625	0,03	0,5	0,5	60	21 23	8,5 9,5	0,2	0,2	3,2 4,0	0,015	0,015	Fe < 1.0	SFA 5.14 ER NiCrMo-3	2.4831	NA 43	■	■	■	■	Welding of SY 625, 825, 926, various corrosion-resistant alloys, Molybdenum-containing stainless steels, Nickel Steels Surfacing of steels - Dissimilar welding of corrosion-resistant alloys, carbon steels, low-alloy steels and stainless steels Weld metal: high strength over a large temperature range and resistance to pitting and crevice corrosion
PHYWELD 22	0,015	0,08	0,5	Bal	21,0 22,5	12,5 14,5	0,3	2,5		0,010	0,015	Al<0,4 - V<0,35 W 2,5 / 3,5 Fe 2,0 / 5,0	SFA 5.14 ER NiCrMo-10	2.4635 2.4602		■	■	■	■	Welding of SY 22, 625, 926 & 825 - Dissimilar welding of corrosion resistant alloys, carbon steels, low-alloy steels and stainless steels Weld metal: good resistance to pitting and crevice corrosion
PHYWELD 16Mo	0,03	0,5	0,5	Bal	24 26	14 16	0,3	0,2		0,015	0,015	Al < 0,4 Ti < 0,4 Fe < 1,0	SFA 5.14 (ER NiCrMo13)	(2.4607)		■	■	■	■	Welding of duplex, super-duplex and super-austenitiques stainless steels, superalloys (SY22, 625, 276, 686) Surfacing of steels in particularly aggressive environments when higher properties than Phyweld 625 are necessary Weld metal: exceptional resistance to pitting, crevice and general corrosion provided by high Mo & Cr contents
PHYWELD 276	0,02	0,08	0,3 1,0	Bal	15 16,5	15 17	0,3	1,0		0,015	0,015	Fe 4,0 / 7,0 V < 0,35 W 3,2 / 4,2	SFA 5.14 ER NiCrMo 4	2.4886 2.4819	NA 48	■	■	■	■	Welding of SY 276 and Nickel-Chromium-Molybdenum alloys - Surfacing of Steels - Dissimilar welding of SY 276 to other Nickel alloys, to stainless steels and to low-alloy steels Weld metal: excellent corrosion resistance, especially resistance to pitting and crevice corrosion
PHYWELD W	0,12	1,0	1,0	Bal	4,0 6,0	23 26	0,5	2,5		0,030	0,040	Fe 4,0 / 7,0 V < 0,60 W < 1,0	SFA 5.14 ER NiMo-3 UNS N10004			■	■	■		Welding of high temperature application alloys by all conventional welding methods Dissimilar welding as a filler metal for the joining of high strength families of nickel-base alloys Weld metal: high temperature strength, oxidation resistance and metallurgical stability
PHYWELD X	0,05 0,10	1,0	0,5	Bal	20,5 22	8,0 9,0	0,5	0,5 2,5		0,015	0,020	W 0,2 / 1,0 Fe 17 / 20	SFA 5.14 ER NiCrMo 2	2.4665	NA 40		■	■	■	Welding of PHY X and Nickel-Chromium-Molybdenum alloys - Surfacing of steels Dissimilar welding of PHY X to other Nickel alloys, stainless steels, carbon steels and low-alloy steels Weld metal: outstanding strength and oxidation resistance at temperatures up to 1200°C (2200°F)
PHYWELD 617	0,05 0,10	0,5	0,5	Bal	21 24	8,5 9,5	0,3	11 13		0,015	0,015	Al 1/1.5 Ti < 0.6 Fe < 1	ER NiCrCoMo 1	2.4627	NA 50		■	■	■	Welding of PHY 617 - Dissimilar welding of high-temperature alloys Weld metal: high temperature strength, oxidation resistance and metallurgical stability
PHYWELD 718	0,08	0,35	0,35	50 55	17 21	2,8 3,3	0,3		4,75 5,50	0,015	0,015	Al 0,2 / 0,8 Ti 0,65 / 1,15 Fe bal.	ER NiFeCr 2	2.4667	NA 51		■	■		Welding of SY 718, 750 and 706 Weld metal: age hardenable
PHYWELD 920 SLR	0,025	0,15	1,5 2,0	32 34	19 21	2,0 3,0	3,0 4,0		8xC 0,4	0,020	0,015		SFA 5.9 ER 320LR	2.4660		■	■	■	■	Welding: austenitic stainless steel by all practices such as gas tungsten arc and gas metal arc Weld metal: compared with ER320, the lower C, Si, P, and S levels & controlled Nb and Mn reduce the cracking tendency of austenitic stainless steel weld metals, maintaining the corrosion resistance
PHYWELD 25-9-4	0,030	1,0	1,0	9,0 10	24 27	3,5 4,5	1,5			0,010	0,025	N 0,20 / 0,30 W < 1,5 Fe Bal.	NL 12072 : 25 9 4 L				■	■		Welding: all duplex and superduplex steels when the highest possible corrosion resistance is required Weld metal: excellent resistance to intergranular corrosion, pitting and stress corrosion cracking
PHYWELD 413	0,05	0,15	1,0	30 32			Bal			0,010	0,010	Al < 0,03 Ti 0,2 / 0,5 Fe 0,4 / 0,7	SFA 5.7 ER Cu Ni	2.0837	C 18		■	■	■	Welding of Copper-Nickel alloys - Surfacing of steels - Dissimilar welding of Nickel-Copper alloys or Nickel 200 to Copper-Nickel alloys Weld metal: excellent resistance to corrosion in sea water
PHYWELD 418	0,15	1,0	3,0 4,0	63 68			Bal			0,010	0,015	Al < 0,5 Ti < 1,5 / 3,0	SFA 5.14 ER Ni Cu 7	2.4377	NA 33		■	■	■	Welding of PHY 400 - Surfacing of steels Weld metal: properties similar to those of PHY 400, good strength corrosion resistance to sea water, salts and reducing acids

▲ Possible
■ Recommended