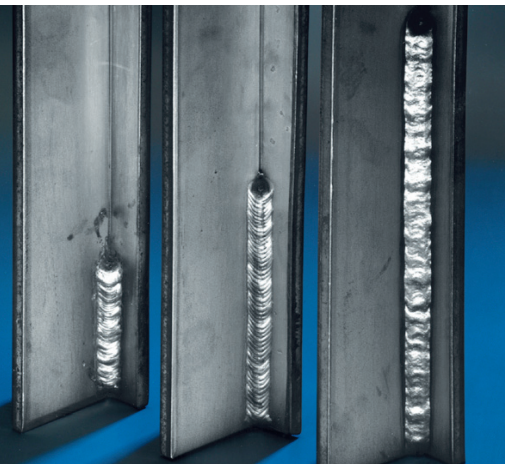


Shield-Bright – cored wires for stainless steel.

VERSATILE, PRODUCTIVE AND EASY TO WELD.



Shield-Bright for the most productive all-positional welding....



Deposition rate from Shield-Bright cored wires in positional welding outperforms MMA electrodes and solid wires, shown here for one minute welding in the PF (3F) position.

The Shield-Bright series of stainless cored wires are rutile types with an excellent weldability on conventional non-pulsing power sources under Ar/CO₂ mixed gas but also CO₂ shielding gas. Always operating in the smooth spray arc mode they are “welder-friendly” wires with a very low spatter level. The slag is self-lifting or easily detached, leaving behind clean flat weld surface with a good penetration and very smooth wetting onto the plate edges.

There are two series of wires. The all-positional Shield-Bright wires have a fast freezing slag to support the weld metal. This enables deposition rates in positional welding that cannot be equalled by stick electrodes or solid wires. Typical positional welding defects, such as lack of fusion and slag inclusions are avoided due to the spray arc operation.

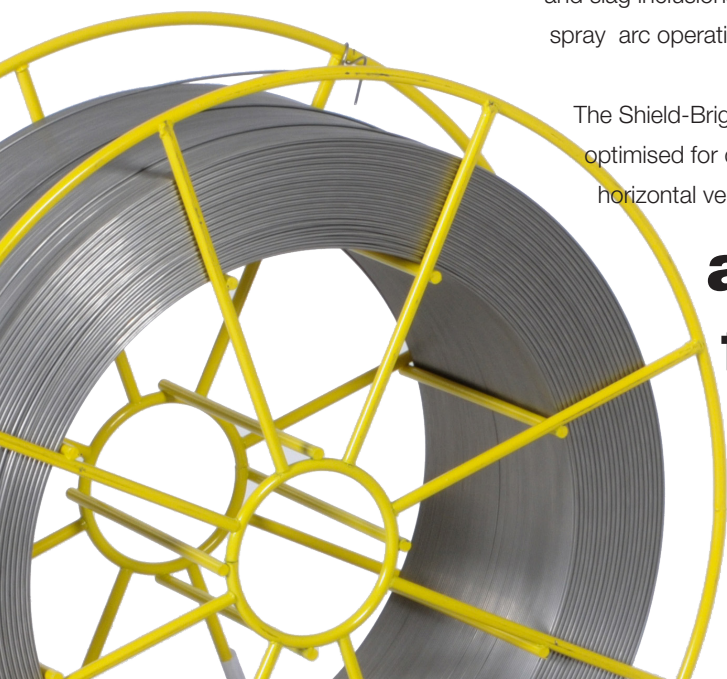
The Shield-Bright X-tra range is optimised for downhand and horizontal vertical fillet welding,

having a slow freezing fluid slag to allow high travel speeds. A great advantage lies in the ease of use of the Shield-Bright and Shield-Bright X-tra wires which are welded using simple non-pulsing power sources and parameter settings. They can be welded in standard Ar/15-25%CO₂ mixed gas and also provide low-carbon weld metal in CO₂.

- Downhand and all-positional wires
- Productive
- Welder-friendly
- Superb weld appearance
- No pulse equipment needed
- Ar/CO₂ mixed gas and CO₂
- Vacuum packed

The superb “rutile” weld appearance is another favourable aspect. Welds are flat to concave with an excellent wetting and have a positive penetration. This is particularly beneficial in areas with high cosmetic or corrosion

requirements such as the food processing and paper & pulp industries. Light brushing is normally sufficient to obtain a clean weld. Unlike solid wires no silica islands are produced, therefore time is saved on cleaning the welds. Welds have an excellent X-ray quality. One-sided root runs in open joints can be welded on ceramic weld metal supports at high speeds.



and Shield-Bright X-tra for the best downhand and horizontal vertical fillet welding

Product	Classifications				Approvals					Available diameters				
All position	EN ISO 17633-A	SFA A5.22	ABS BV	CCS CWBDNV	GL	JIS	KR	LR	NK	TÜV	mm	inches		
Shield-Bright 308L	T 19 9 L P M 2	E308LT1-1 / T1-4	X	X	X	X	X		X	X	X	X	0.9. 1.2. 1.6	0.35. 0.045. 1/16
Shield-Bright 316L	T 19 12 3 L P M 2	E316LT1-1 / T1-4	X	X		X	X				X	X	0.9. 1.2. 1.6	0.35. 0.045. 1/16
Shield-Bright 309L	T 23 12 L P C 2 / T 23 12 L P M 2	E309LT1-1 / T1-4	X	X	X	X	X	X	X	X	X	X	0.9. 1.2. 1.6	0.35. 0.045. 1/16
Shield-Bright 2209	T 22 9 3 N L P C M 2	E2209T1-1/ T1-4	X	X	X	X	X	X		X			0.9. 1.2. 1.6	0.35. 0.045. 1/16
Shield-Bright 2507*	not applicable	E2553T1-G											1.2	0.045
Shield-Bright 2594**	not applicable	E2594T1-4											1.2	0.045
Shield-Bright 308H	not applicable	E308HT1-1/ T1-4											1.2	0.045
Shield-Bright 309LMo	T 23 12 2 L P C 2 / T 23 12 2 L P M 2	E309LMoT1-1/T1-4				X		X	X				0.9. 1.2	0.035. 0.045
Shield-Bright 312	T 29 9 P C 2 / T 29 9 P M 2	E312T1-1/T1-4						X					1.2	0.045
Shield-Bright 316H	not applicable	E316HT1-1/ T1-4						X					1.2	0.045
Shield-Bright 317L	not applicable	E317LT1-1/ T1-4						X					1.2	0.045
Shield-Bright 347	not applicable	E347T1-1/ T1-4						X					1.2	0.045
Shield-Bright 347H	not applicable	E347HT1-1/T1-4						X					1.2	0.045
Shield-Bright 410NiMo	T 13 4 P C 2 / T 13 4 P M 2	E410NiMoT1-1/T1-4						X					1.2. 1.6	0.045. 1/16
Flat or horizontal														
Shield-Bright 308L X-tra	T 19 9 L R C 3 / T 19 9 L R M 3	E308LT0-1 / T0-4	X	X		X	X			X	X	X	1.2. 1.6	0.045. 1/16
Shield-Bright 316L X-tra	T 19 12 3 L R C 3 / T 19 12 3 L R M 3	E316LT0-1 / T0-4	X			X	X			X	X	X	1.2. 1.6	0.045. 1/16
Shield-Bright 309L X-tra	T 23 12 L R C 3 / T 23 12 L R M 3	E309LT0-1 / T0-4	X	X	X	X	X	X				X	1.2. 1.6	0.045. 1/16

* Super Duplex wire designed for 100 % **CO2** Shielding gas
 **Super Duplex wire designed for mixed gas

Product	Typical All Weld Metal Chemistry (Ar/25% CO2)										Typical Mechanical Properties(Ar/25% CO2)			
All position	C	Mn	Si	P	S	Cr	Ni	Mo	Cu	Other	FN	Yield - MPa (ksi)	Tensile - MPa (ksi)	Elongation - %
Shield-Bright 308L	0.03	1.2	0.9	0.025	0.007	19.0	10.0	0.1	0.15		8-15	410 (59)	580 (84)	44
Shield-Bright 316L	0.03	1.2	0.9	0.027	0.010	18.5	12.0	2.7	0.15		8-15	450 (65)	580 (84)	40
Shield-Bright 309L	0.03	1.3	0.9	0.024	0.007	24.0	12.5	0.1	0.10		15-25	480 (70)	600 (87)	35
Shield-Bright 2209	0.03	0.9	0.4	0.025	0.012	22.5	9.2	3.2	0.10	N - 0.16	35-50	650 (94)	820 (119)	25
Shield-Bright 2507*	0.03	1.1	0.6	0.010	0.008	25.0	9.5	3.8	0.10	N - 0.22	40-65	630 (91)	860 (125)	28
Shield-Bright 2594	0.03	0.9	0.6	0.020	0.010	25.0	9.7	4.0	0.10		40-65	690 (100)	900 (131)	28
Shield-Bright 308H	0.06	1.2	0.9	0.020	0.007	19.5	9.8	0.1	0.15		3-8	430 (62)	600 (87)	42
Shield-Bright 309LMo	0.03	1.2	0.8	0.024	0.008	23.5	13.0	2.6	0.10		15-25	570 (83)	750 (109)	30
Shield-Bright 312	0.10	1.3	0.8	0.025	0.006	29.0	9.6	0.3	0.15			630 (91)	830 (120)	24
Shield-Bright 316H	0.06	1.1	0.7	0.020	0.006	19.0	12.0	2.6	0.15		3-8	460 (67)	620 (90)	35
Shield-Bright 317L	0.03	1.2	0.9	0.021	0.009	19.5	13.0	3.5	0.15		8-15	480 (70)	620 (90)	35
Shield-Bright 347	0.03	1.2	0.9	0.020	0.007	19.5	10.0	0.4	0.10		3-8	520 (75)	650 (94)	35
Shield-Bright 347H	0.06	1.1	0.9	0.020	0.010	19.5	9.7	0.4	0.10		3-8	520 (75)	650 (94)	35
Shield-Bright 410NiMo	0.03	0.5	0.7	0.020	0.004	11.3	4.5	0.5	0.03			770 (112)	930 (135)	17
Flat or horizontal														
Shield-Bright 308L X-tra	0.02	1.4	0.9	0.020	0.004	19.6	9.9	0.1	0.15		8-15	410 (59)	580 (84)	40
Shield-Bright 316L X-tra	0.03	1.3	0.6	0.020	0.008	19.0	12.0	2.7	0.15		8-15	450 (65)	580 (84)	36
Shield-Bright 309L X-tra	0.03	1.4	0.8	0.020	0.004	24.5	12.5	0.1	0.10		20-30	480 (70)	600 (87)	35

* Typical chemical and mechanical data produced using 100 % **CO2** Shielding gas

Deposition data, stick-out: 20mm, recovery: 85%

	ø mm (inch)	Welding current (A)	Arc voltage (V)	V wire m/min (in/min)	Dep. Rate kg/h (lb/h)
Shield-Bright types	0.9 (0.035)	100-170	23-26	6.7-13.5 (265-530)	1.3-2.6 (2.9-5.7)
	1.2 (0.045)	170-300	25-30	6.0-14.0 (235-550)	1.9-4.6 (4.2-10.1)
	1.6 (1/16)	170-300	25-29	4.0-8.0 (157-315)	2.4-5.2 (5.3-11.5)
Shield-Bright X-tra types	1.2 (0.045)	150-300	25-32	8.0-18.0 (315-708)	2.5-7.7 (5.5-17)
	1.6 (1/16)	200-350	26-34	4.0-11.0 (157-433)	3.0-7.5 (6.6-16.5)

World leader in welding and cutting technology and systems.



The paper and pulp and food processing industries are typical application areas for Shield-Bright stainless flux-cored wires.

ESAB operates at the forefront of welding and cutting technology. Over one hundred years of continuous improvement in products and processes enables us to meet the challenges of technological advance in every sector in which ESAB operates.

Quality and environment standards

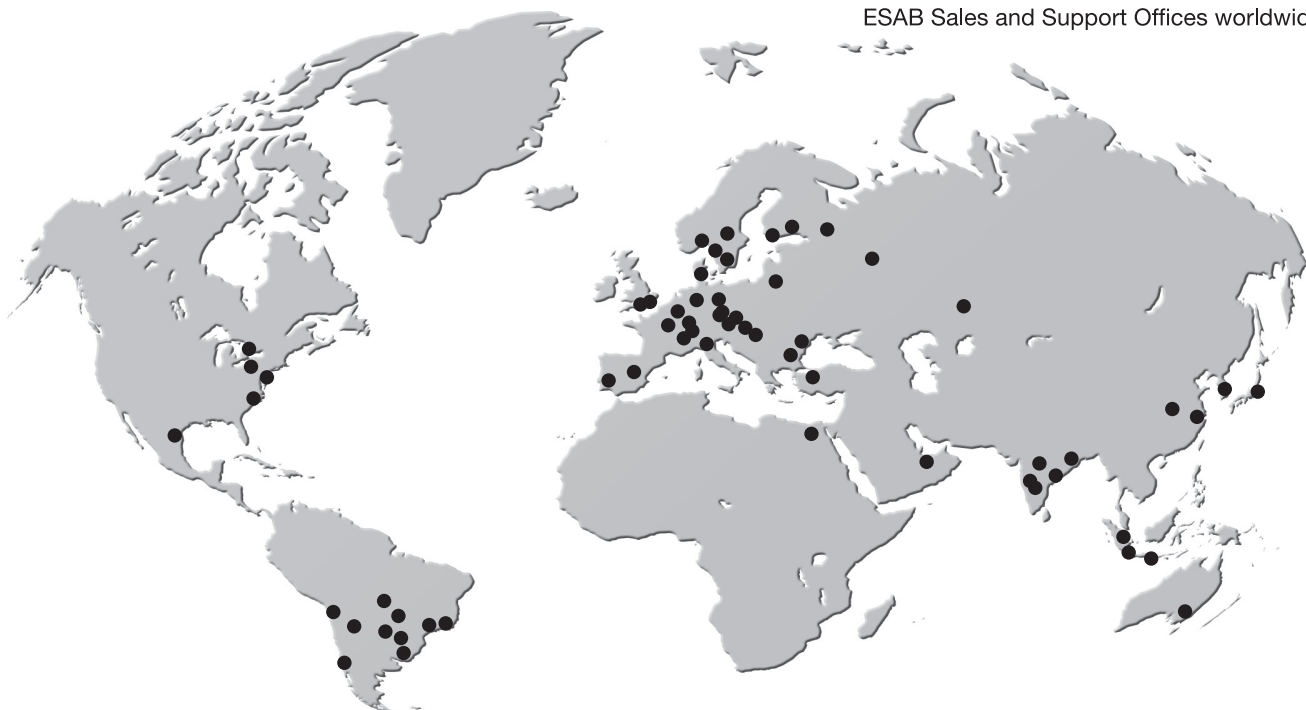
Quality and the environment are two key areas of focus. ESAB is one of few international companies to have achieved the new ISO 14001 standard in Environmental

Management Systems across all our global manufacturing facilities.

At ESAB, quality is an ongoing process that is at the heart of all our production processes and facilities worldwide.

Multinational manufacturing, local representation and an international network of independent distributors brings the benefits of ESAB quality and unrivalled expertise in materials and processes within reach of all our customers, wherever they are located.

ESAB Sales and Support Offices worldwide



* Includes manufacturing facilities of ESAB North America.
A wholly owned subsidiary of Anderson Group Inc.

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**COMPANY WITH
MANAGEMENT SYSTEM
CERTIFIED BY DNV**
= ISO 9001 =
= ISO 14001 =
= OHSAS 18001 =