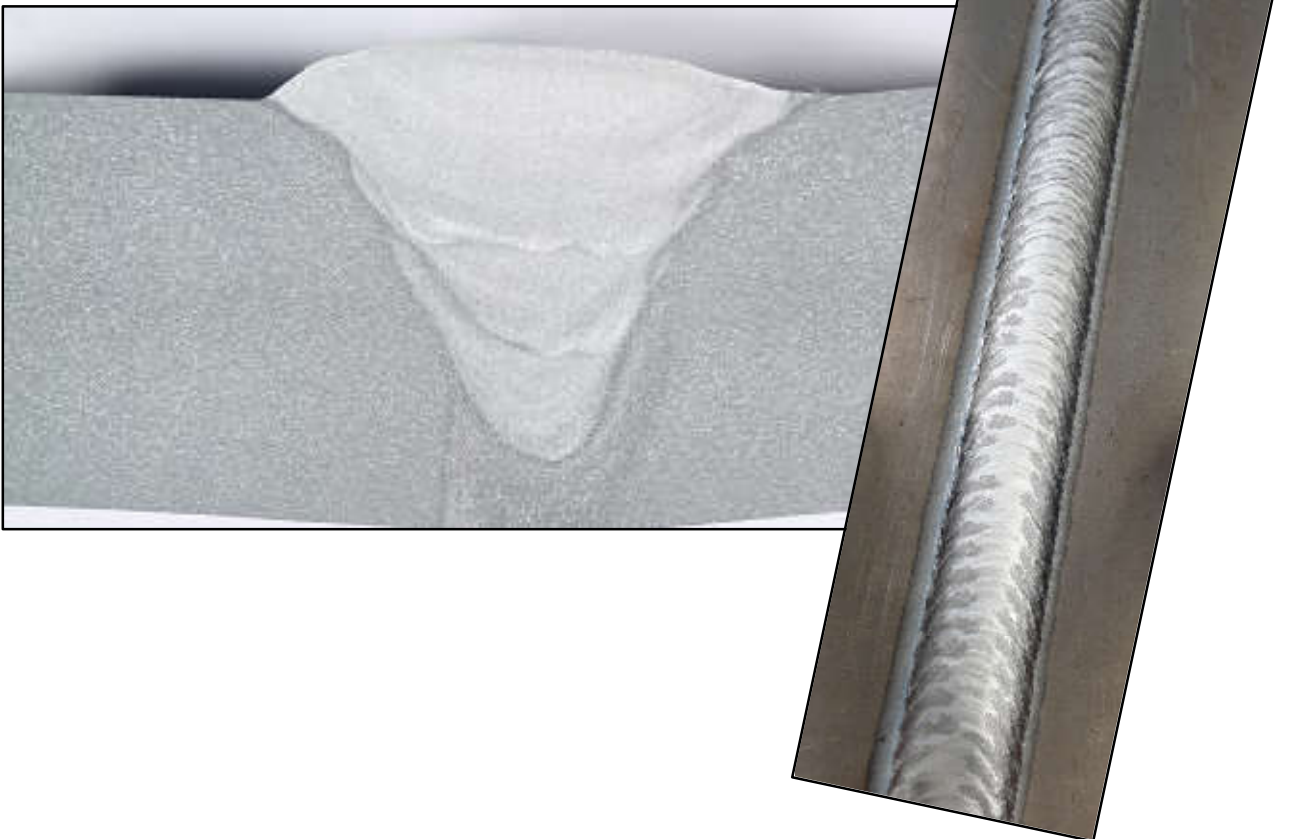


Welding Aluminium with consideration of quality and productivity

Our extensive product portfolio of Aluminium wire electrodes, TIG welding rods, and various types of packaging



Your benefit—our capabilities





We will join the future.

Aluminium MIG wire electrodes and TIG rods by Safran®

As Europe's largest manufacturer and global supplier of aluminum welding and brazing wire, Safran is consistently the leader in manufacturing, quality, and production technology. We provide the entire product program for Aluminium welding and brazing filler materials, as well as accessories to support you in your daily tasks. Our technical service is able to provide fast, unbureaucratic assistance in every region of the world.

X-ray proof welding of Aluminium components with high mechanical quality values begins with the selection and chemical specification of the raw materials. That is why we use raw materials with the least possible hydrogen content and a very narrow chemical composition. For the user, this means no rework due to pores or low mechanical quality values.

In order to minimize down time times for spool changes, we have spools ranging from 7 – 40 kg and bulk packaging systems ranging from 40 – 250 kg in our product portfolio. With this enormous selection of packaging systems and pay off solutions, you can decide how to increase productivity in your manufacturing facility.

Our packages are robust, making them excellent for rough daily use in production facilities. The packaging can be recycled without limitation.



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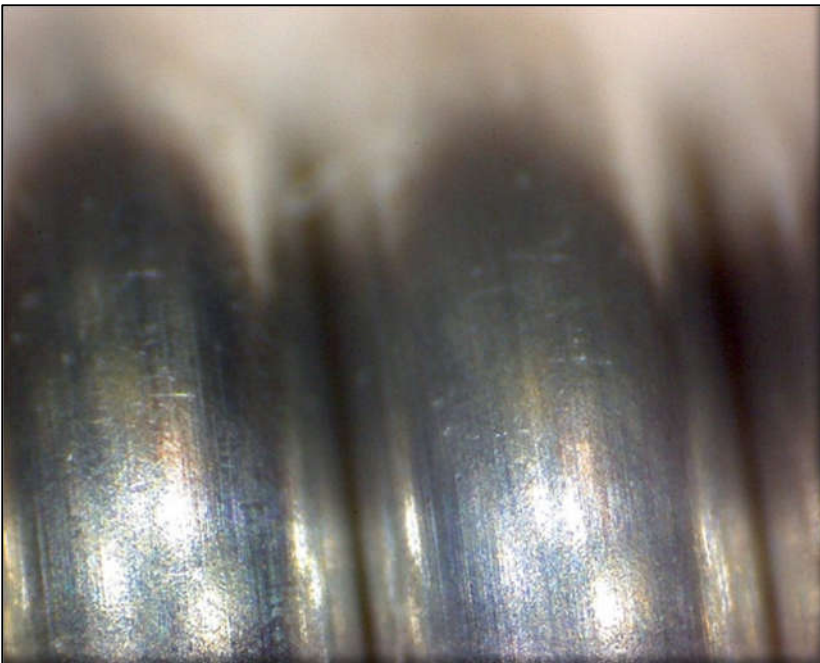
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www.safraspa.it

We will join the future.

Customers and users in the Aluminium industry around the world value the consistent high quality, high productivity, and reliability of Safra.

- Trouble-free wire feed
- X-ray proof weld seams with flawless seam optics
- Robust and attractive packaging to increase your productivity
- Precise wire diameter and permanent inline measurement, critical for automation
- Constant welding parameters and reproducible results
- Strictly controlled chemistry, which results in high mechanical quality values
- Large selection of naturally hard and precipitation hardening Aluminium alloys,
- Unbureaucratic technical assistance around the world



Safra ER5356 1.2 mm, mandrel test.

The lack of surface defects despite the high stress at the wire electrode surface confirms that wire drawing and shaving process is very good.



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Safra product program

Solid Aluminium wire electrodes and TIG welding rods

Overview of all Safra Aluminium alloys

SAFRA	ISO 18273	AWS A5.10	Natural hard	Hardenable
Al 99,5 Ti	S Al 1450	ER 1450	X	
Al 99,7	S Al 1070	ER 1070	X	
AlCu6MnZrTi	S Al 2319	ER 2319		X
AlMn1	S Al 3103	ER 3103	X	
AlSi5	S Al 4043	ER 4043	X	
--	--	ER 4943		X
AlSi12	S Al 4047	ER 4047	X	
AlSi7Mg	S Al 4008	ER 4008		X
AlSi10Cu4	S Al 4145	ER 4145		X
AlMg2,7Mn	S Al 5554	ER 5554	X	
AlMg3	S Al 5754	ER 5754	X	
AlMg4,5Mn	S Al 5183	ER 5183	X	
AlMg5Cr A	S Al 5356	ER 5356	X	
AlMg4,5MnZr	S Al 5087	ER 5087	X	
AlMg5Mn1Ti	S Al 5556	ER 5556	X	
AlMg5Mn	S Al 5556A	ER 5556A	X	
AlMg6Zr	--	--	X	
AlMg6	--	--	X	

All Safra Aluminium alloys meet international standards

We produce solid wire electrodes from \varnothing 0,8 – 4,80 mm.

TIG rods from \varnothing 1,6 – 5,00 mm in 2 kg, 5 kg, and 10 kg packaging.

(Additional diameters and packaging on request)



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Safra bulk packaging systems - Aluminium

The solution to increase productivity



Aluminium Welding Wires Alloys																			
Package System 1	Volume [kg]	Ø [mm]	1070	1450	4043	4047	4145	4008	2319	5554	5754	5356	5183	5087	5556A	5556	2319	AlMg6Zr	AlMg6
Quadro	140	1,00	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Ø 600 mm	140	1,20	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
H = 900 mm	140	1,60	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Package System 2	Volume [kg]	Ø [mm]	1070	1450	4043	4047	4145	4008	2319	5554	5754	5356	5183	5087	5556A	5556	2319	AlMg6Zr	AlMg6
Nano	40	1,00	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Ø 520 mm	40	1,20	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
H = 390 mm	40	1,60	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Package System 3	Volume [kg]	Ø [mm]	1070	1450	4043	4047	4145	4008	2319	5554	5754	5356	5183	5087	5556A	5556	2319	AlMg6Zr	AlMg6
Mezzo	80	1,00	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Ø 520 mm	80	1,20	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
H = 780 mm	80	1,60	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Package System 4	Volume [kg]	Ø [mm]	1070	1450	4043	4047	4145	4008	2319	5554	5754	5356	5183	5087	5556A	5556	2319	AlMg6Zr	AlMg6
Piccolo	100	1,00	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Ø 650 mm	100	1,20	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
H = 560 mm	100	1,60	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Package System 5	Volume [kg]	Ø [mm]	1070	1450	4043	4047	4145	4008	2319	5554	5754	5356	5183	5087	5556A	5556	2319	AlMg6Zr	AlMg6
Grande	200	1,00	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Ø 650 mm	200	1,20	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
H = 950 mm	200	1,60	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Package System 6	Volume [kg]	Ø [mm]	1070	1450	4043	4047	4145	4008	2319	5554	5754	5356	5183	5087	5556A	5556	2319	AlMg6Zr	AlMg6
Gigante L	120	1,00	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Ø 750 mm	120	1,20	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
H = 550 mm	120	1,60	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Package System 7	Volume [kg]	Ø [mm]	1070	1450	4043	4047	4145	4008	2319	5554	5754	5356	5183	5087	5556A	5556	2319	AlMg6Zr	AlMg6
Gigante XL	250	1,00	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Ø 750 mm	250	1,20	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
H = 1100 mm	250	1,60	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

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Safra bulk packing system

All Safra bulk packing systems are ideally suited for manual and robotic applications. They are used with a footprint from \varnothing 520 to \varnothing 750 mm.

The benefits of paying off wire from Safra bulk packing systems are:

- + Stable arc due to uniform wire feeding
 - + No tangling wire out of the contact tip
 - + No contamination of wire guidance
 - + Longer service life due to lower wear of contact tips and liners
 - + Low torsion when paying off the wire out of the drum
 - + Transport over long distances
 - + Straight weld seams for long distances
- = constant weld seam quality with constant weld penetration

You determine your spool changeout time and productivity between 7 kg and 250 kg.

Compare spool changeover times and savings for a demand of 10.000 kg of welding materials per year.



We will join the future.

Cost comparison of various types of packaging

Cost comparison in between Standard Spools of 7 kg, 20 kg Spool, Speed Pac "Nano" 40 kg until Speed Pac "Gigante XL" - 250 kg								
Type of Packaging:	Spool B300-7 kg	Big Spool D350-20 kg	Speed Pac 52 "Nano"	Speed Pac 65 "Piccolo"	Speed Pac 52 "Standard"	Speed Pac 60 "Square"	Speed Pac 65 "Grande"	Speed Pac 75 "Gigante XL"
Weight of wire per packaging [kg]	7 kg	20 kg	40 kg	100 kg	80 kg	140 kg	200 kg	250 kg
Weld wire consumption per year [kg]	10.000 kg							
Number of spool replacements per year [units]	1429	500	250	100	125	71	50	40
Time of replacement per type of packaging [min]	10	10	15	15	15	15	15	15
Time of replacement per year [min] for a yearly consumption of 10.000 kg	14.285,71	5.000,00	3.750,00	1.500,00	1.875,00	1.071,43	750,00	600,00
Total spool-change time [h] for	238,10	83,33	62,50	25,00	31,25	17,86	12,50	10,00
1. Costs related to spool replacements :								
Operational costs for robot and operator [€/h]	85,00 €							
Costs for spool replacement per year	20.238,10 €	7.083,33 €	5.312,50 €	2.125,00 €	2.656,25 €	1.517,86 €	1.062,50 €	850,00 €
2. Additional costs related to the use of drum packages :								
Purchasing price [€/kg]	8,50 €	8,61 €	8,79 €	8,79 €	8,79 €	8,79 €	8,79 €	8,79 €
Welding wire costs per year [€/year]	85.000,00 €	86.100,00 €	87.900,00 €	87.900,00 €	87.900,00 €	87.900,00 €	87.900,00 €	87.900,00 €
Total cost per year (Welding wire cost + spool replacement cost)	105.238,10 €	93.183,33 €	93.212,50 €	90.025,00 €	90.556,25 €	89.417,86 €	88.962,50 €	88.750,00 €
3. Quality / Using grade								
Cost per hour for manual repair work	36 €							
Manual re-work quantity [%]	5,00%	4,00%	3,80%	0,50%	3,80%	1,20%	0,50%	0,20%
Cost for repair work per year	2.880,00 €	2.304,00 €	2.188,80 €	288,00 €	2.188,80 €	691,20 €	288,00 €	115,20 €
4. Effort for replacements of wear parts								
Parts cost for the replacement of contact tip and liner	15,00 €							
Contact tip or liner or both [€]								
Perform maintenance after a wire volume of [kg]	3	7	30	50	30	40	50	60
Amount of maintenances [Maintenance]	3333	1429	333	200	333	250	200	167
Time to replace wear parts / components [min]	10	10	10	10	10	10	10	10
Time to replace wear parts / components [h]	0,17	0,17	0,17	0,17	0,17	0,17	0,17	0,17
Total effort in hours [h]	555,56	238,10	55,56	33,3	55,6	41,7	33,3	27,8
Total effort in money [€]	70.000,00 €	30.000,00 €	7.000,00 €	4.200,00 €	7.000,00 €	5.250,00 €	4.200,00 €	3.500,00 €
5. Financial lost due to not welded parts because of maintenance, spool exchange time / per station								
Possible amount of welded parts / Station per hour [Pcs]	50							
Loss of profit per part [€]	1,00 €							
Loss of profit per hour [€]	50,00 €	50,00 €	50,00 €	50,00 €	50,00 €	50,00 €	50,00 €	50,00 €
Loss of profit per year [€]	27.777,78 €	11.904,76 €	2.777,78 €	1.666,67 €	2.777,78 €	2.083,33 €	1.666,67 €	1.388,89 €
TOTAL COST	205.895,87 €	137392,10 €	105179,08 €	96179,67 €	102522,83 €	97442,39 €	95117,17 €	93754,09 €
Cost savings with the use of 20 kg Spool, Speed Pac 52 Nano 40 kg until Speed Pac 75 Gigante XL 250 kg compared to 7 kg Spools								
Savings for a yearly consumption of 10.000 kg		68503,78 €	100716,80 €	109716,21 €	103373,05 €	108453,48 €	110778,71 €	112141,78 €

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Our approvals for MIG/TIG welding

Gas: EN ISO 14175 - I1											
										*** = also Gas EN ISO 14175 - I3 only for Lloyd's Register	
APPROVAL											
Alloy	type	diameter mm	ABS	BV	DNVGL	LR	RINA	NKK	VdTUV	DB	
5356	MIG	0,8	X		X	X	X	X	X	X	
		1,0	X		X	X	X	X	X	X	
		1,2	X	X	X	X	X	X	X	X	
		1,6	X	X	X	X	X	X	X	X	
		2,0							X	X	
		2,4							X	X	
	TIG	1,6							X		X
		2,0							X	X	X
		2,4							X	X	X
		3,2							X	X	X
		4,0							X	X	X
		5,0							X	X	X
	5183	MIG	0,8	X		X	X	X	X	X	X
			1,0	X		X	X	X	X	X	X
*** 1,2			X	X	X	X	X	X	X	X	
1,6			X	X	X	X	X	X	X	X	
2,0									X	X	
2,4									X	X	
TIG		1,6							X		X
		2,0							X	X	X
		2,4							X	X	X
		3,2							X	X	X
		4,0							X	X	X
		5,0							X	X	X
5087		MIG	0,8								X
			1,0								X
	1,2									X	
	1,6									X	
	2,0									X	
	2,4									X	
	TIG	1,6									X
		2,0									X
		2,4									X
		3,2									X
		4,0									X
		5,0									X



Our approvals for MIG/TIG welding

Gas: EN ISO 14175 - I1											
*** = also Gas EN ISO 14175 - I3 only for Lloyd's Register											
APPROVAL											
Alloy	type	diameter mm	ABS	BV	DNVGL	LR	RINA	NKK	VdTUV	DB	
4043	MIG	0,8							X	X	
		1,0							X	X	
		1,2							X	X	
		1,6							X	X	
		2,0								X	
		2,4									X
TIG		1,6							X	X	
		2,0							X	X	
		2,4								X	X
		3,2								X	X
		4,0								X	X
		5,0								X	X
1450	MIG	0,8							X	X	
		1,0							X	X	
		1,2								X	X
		1,6								X	X
		2,0								X	X
		2,4								X	X
TIG		1,6								X	
		2,0							X	X	
		2,4								X	X
		3,2								X	X
		4,0								X	X
		5,0								X	X
5554	MIG	0,8							X	X	
		1,0							X	X	
		1,2								X	X
		1,6								X	X
		2,0									
		2,4									
TIG		1,6							X	X	
		2,0							X	X	
		2,4								X	X
		3,2								X	X
		4,0								X	X
		5,0								X	X
5556A	MIG	0,8									
		1,0									
		1,2								X	

Types of Safra packaging

D100 Spool

0,453 Kg spool - Aluminium available for diameters 0,8-1,6 mm

Customer advantage:

- Continuous straight wire feeding for longitudinal and
- uninterrupted welding seams. (no wire tangling)
- Simple and fast replacement,
- Precision layer wound

Perfect for orbital welding applications and for MIG spool guns



D 200 Spool

2 Kg spool – Aluminium available for diameters 0,8-1,6 mm
Central hole (52mm)

Customer advantage:

- Continuous straight wire feeding for longitudinal and
- uninterrupted welding seams. (no wire tangling)
- Simple and fast replacement,
- Precision layer wound
- packed in VCI protecting films



Types of Safra packaging

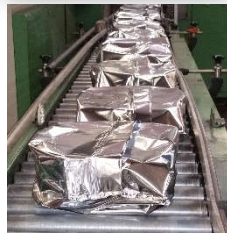
D 300 Spool

5,6 and 7 Kg (9kg US) Spools Aluminium available for diameters 0,8-2,4 mm

- Spools with central hole (52mm) and for spool adapter
- Customers can choose between D, BS and KS 300 spools
- Precision layer wound
- packed in VCI protecting films

- Vacuum packaging (optional)
Long shelf life and difficult storage conditions are possible (optional)

- Packaged under inert conditions < 0.3 % O
Longer shelf life and difficult storage conditions are possible (optional)



D350 Spool 20 kg (44 Lbs)

available for diameters 1,2, 1,6-2,4 mm
Spindle diameter like the 7 kg spool, available in our stock

Customer advantage

- Continuous straight wire feeding for longitudinal and uninterrupted welding seams. (no wire tangling)
- Simple and fast replacement,
- Increase productivity because of reduction of spool exchanging time
- Precision layer wound
- Bigger cast at the 5XXX series Aluminium alloys on 7 kg spools
- simple solution for automation with a pay-off stand



Types of Safra packaging

K400 Spool 40kg

available for diameters 0,8-2,4 mm

Customer advantage

- Continuous straight wire feeding for longitudinal and
- uninterrupted welding seams. (no wire tangling)
- Simple and fast replacement,
- Increase productivity because of reduction of spool exchanging time
- Precision layer wound
- Bigger cast at the 5XXX series Aluminium alloys on 7 kg spools

Optional

- Pay-off Machine
- Pay-off stand for a simple setup for automatic welding



7 kg Ring for thermal spraying

7 Kg Ring for Aluminium alloys for diameters 1,6 – 3,17 mm

Customer advantage

- very good wire feeding for spraying operations because of the smooth Aluminium wire surface
- packed in VCI protecting films



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Types of Safra packaging

TIG rods

Available 2 Kg, 5 Kg and 10 Kg packages for Aluminium alloys for rod diameters \varnothing 1,6 – 5,0 mm (\varnothing 1,2 mm or 500 mm length only of request)

Customer advantage

- very clean wire surface for x-ray quality welds
- always straight rods
- packed in VCI protecting films
- Embosses on one side with double stamp as standard
(Option - customers can have embosses on both sides with double stamp)
- 1000 mm length / 36in (914 mm).


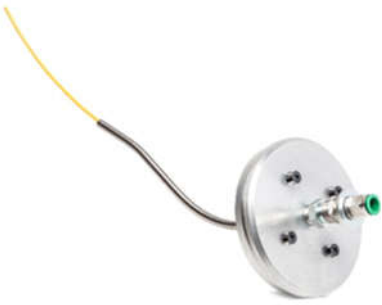



Safra standard accessories for every setup independent from any Aluminium alloy

Product	Item Number	Image
Lifting Yoke for Safra drums. For drum \varnothing 520 mm – \varnothing 750 mm Max. weight of 500 kg	9910000001	
Plastic hood for the 520 mm drum	9910000003	
650 mm drum	9910000005	
750 mm drum	9910000027	
Plastic hood for the Square 600 mm drum	9910000004	
Wire connector for all drums (Plastic hood - wire conduit) with ceramic for the Safra HDPE \varnothing 12 mm wire conduit <i>Consider to use for the further installation of HDPE wire conduits, connectors for Fronius TPSi item no 9910000047</i>	9910000009	
Trolley for Safra round and square drums \varnothing 520 mm – 80 kg	9910000029	
\varnothing 650 mm – 100kg / 140 kg / 200 kg	9910000029	
\varnothing 750 mm – 125kg / 250 kg	9910000033	





Safra standard accessories for a setup of 4XXX Series Aluminium alloys

Product	Item Number	Image
Wooden balls small \varnothing 40 mm not fumigated, for \varnothing 520 mm drums (70 Balls per Set)	9910000006	
Wooden balls small \varnothing 40 mm fumigated (outside of the EU) (70 Balls per Set)	9910000024	
Inner orbital arm incl. PTFE liner For drums with \varnothing 520 mm Aluminium wire diameter 0,8 – 1,60 mm	9910000018	
<p><i>Further installation by usage of an HDPE wire conduit with an OD 12 mm Quick connector already available</i></p> <p><i>Only for drums with an inner cylinder/core</i></p>		
Wire pay off system - Doppel cone For Aluminium wire diameter 0,8 – 1,60 mm		
\square 600 mm – Square drum	9910000077	
\varnothing 650 mm – Round drum	9910000077	
\varnothing 750 mm – Round drum	9910000079	
<i>Only for drums without an inner cylinder/core</i>		








Safra standard accessories for a setup of 5XXX Series Aluminium alloys

Product	Item Number	Image
<p>Inner orbital arm incl. HDPE Liner For drums \varnothing 650 mm and \square 600 mm included connector for the Safra wire conduit.</p> <p>Aluminium wire diameter 0,8 – 1,60 mm <i>Only for drums with an inner cylinder/core Consider to use for the further installation of HDPE wire conduits, the fittings for Fronius</i></p>	9910000019	
<p>Wire pay-off system for 0,8 – 1,60 mm wires</p> <p>\varnothing 520 mm – Round drum \square 600 mm – Square drum \varnothing 650 mm – Round drum \varnothing 750 mm – Round drum Single cone with orbital arm</p> <p><i>Drum without inner cylinder/core</i></p>	<p>9910000010 9910000015 9910000014 9910000026</p>	



Safra standard accessories

for trouble free wire feeding of all Aluminium Alloys - wire diameter 1,20 mm and 1,60 mm


Product	Item Number	Image
<p>Wire straightener (Seven rollers in each direction) for all aluminum and copper wire alloys without adapter screwing (item no. 9910000054) for mounting in the mounting plate. Suitable for wire electrode diameters \varnothing 1.00 mm, \varnothing 1.20 mm and \varnothing 1.60 mm (Seven rollers in each direction)</p> <p><i>Patent Pending E010876</i></p>	9910000017	
<p>Mounting plate for wire straightener (9910000017) mountable on all Safra available plastic hoods <u>without Nylon inlet piece and swivel arm</u></p> <p><i>Patent Pending E010876</i></p>	9910000028	
<p>Nylon inlet piece To be screwed into the mounting plate (9910000028) for smooth wire guiding</p>	9910000002	
<p>One set of rolls with bearing, ready to use for \varnothing 1,20 mm for \varnothing 1,00 mm for Aluminium or Copper wires for Safra wire straighteners</p> <p>Set contains: 14 Rolls for Safra wire straightener</p>	<p>9910000049 9910000071</p>	
<p>Wire straightener dust protection Poly carbonat cover</p>	9910000069	



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Safra standard accessories to use D350 (20 kg) and K400 (40 kg) spools

Product	Item Number	Image
Wire feeder for K400 (40 kg Spool)	9910000020	

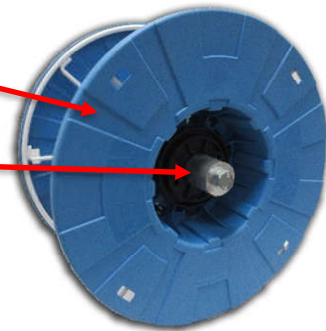
Spool adapter for the K400 (40 kg) spool.
Simple application for automatic welding on
Robots or welding gantries

9910000038

Spindle with spool brake for holding the
spool adapter

9910000037

*Both articles are necessary so that you can safely operate
the spool on a frame or on the Safra stand*





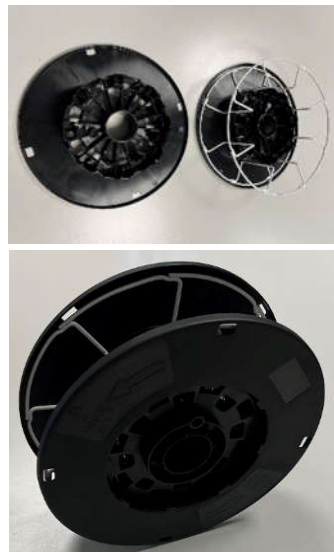
Spindle with spool brake for holding up the
D350 (20 kg) spool on the Safra pay-off
stand (article no. 9910000039).

9910000035

*Here is no spool adapter necessary
The spindle with the spool is mounted directly on the
Safra pay-off stand
(Article No. 9910000039) or on a frame.*




Safra standard accessories to use D350 (20 kg) and K400 (40 kg) spools

Product	Item Number	Image
<p data-bbox="105 470 670 548">Wire pay-off stand for K 400 or D 350 spools and holder for wire conduit</p> <p data-bbox="105 582 670 683">Will be delivered without spool adapter item no 9910000038 and spindle Item no 9910000037.</p> 	<p data-bbox="670 470 989 515">9910000039</p>	
<p data-bbox="105 1008 670 1086">Spool adapter for the B300 (7 kg) basket spool</p>	<p data-bbox="670 1008 989 1052">9910000072</p>	



Safra standard accessories

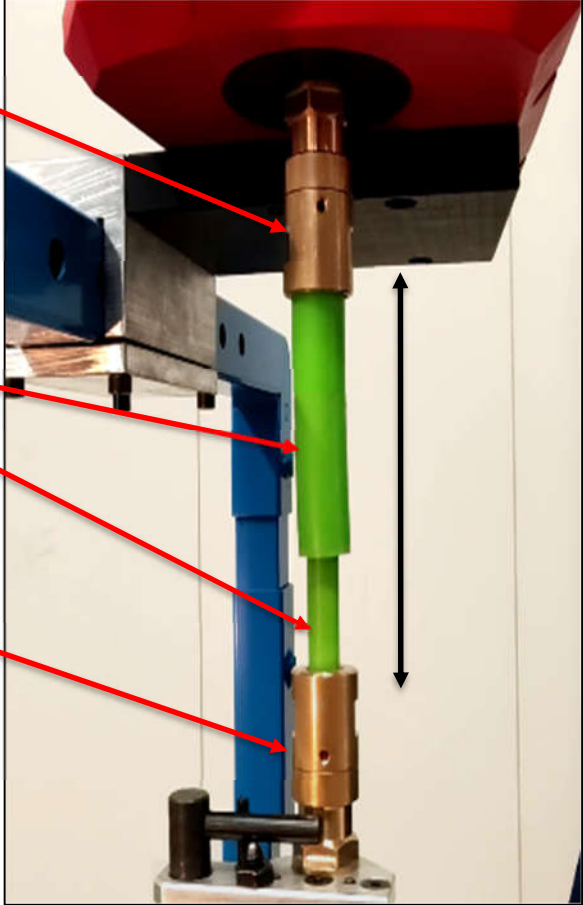

for using an additional con-centric TPSi Fronius wire feeder (Fronius WF R2/R4 SA) installation above the drum

Product	Item Number	Image
Complete rack for Ø 520 mm – 650 mm drums <i>(Without wire feeding system Incl. 9910000021, 9910000029</i>	9910000031	
Complete stand for Ø 750 mm drums <i>(Without wire feeding system Incl. 9910000032, 9910000033)</i>	9910000034	
Drum rack for Ø 520 - 650 mm drums	9910000021	
Drum rack for Ø 750 mm drums	9910000032	
Mounting Plate for the Fronius WF25 R2 and R4 feeding unit to add it on the Ø 520 – 650 drum and Ø 750 mm stand	9910000030	
Trolley for Ø 520 - 650 mm drums	9910000029	
Trolley for Ø 750 mm drum	9910000033	



Safra standard accessories for Fronius TPSi wire feeder Installation



for connecting to Fronius TPSi, WF25R2A feeding systems and Safra quick drum exchange system

Product	Item Number	Image
Safra - Telescope adapter Quick drum changing tool		
Connector M20 x 2,5 thread for Fronius TPSi feeding device and self-cutting thread for HDPE wire conduit with an OD of 19 mm	9910000050	
HDPE wire conduit OD Ø 19 mm	9910000060	
HDPE wire conduit OD Ø 12 mm	9910000061	
Connector male M14 for wire straightener and female self-cutting thread for OD 12 mm HDPE wire conduit	9910000056	
Connector M20 x 2,5 male thread for Fronius feeding device and female self-thread for HDPE wire conduit with an OD of 12 mm	9910000063	
		



Safron standard accessories

NEW for existing other installations for HDPE wire conduits \varnothing 12 mm





Product	Item Number	Image
Quick connector (Male) DN 7 with female thread 1/4"	9910000050	
Quick connector to join HDPE wire conduits with to ends - only for \varnothing 12 mm HDPE wire conduits	9910000051	
Quick connector (female) DN7 and male thread 1/4"	9910000052	
Quick connector for HDPE Liner with an OD \varnothing 12 and male thread 1/4"	9910000066	

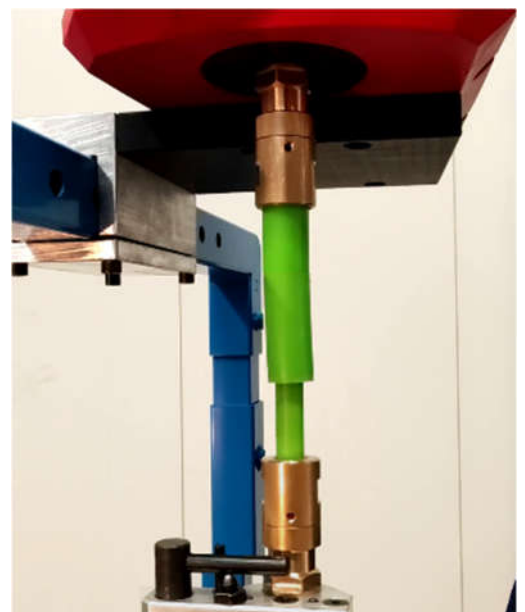
possible application by usage of DN7 connectors



Safra standard accessories




New Safra connectors Quick drum exchange system for HDPE wire conduits \varnothing 12 mm and \varnothing 19 mm

Product	Item Number	Image
Adapter for female M14 thread and male 1/4" thread to connect Safra wire straightener with female 1/4" thread in the end plates of wire straightener. You need this adapter to connect them to the adapter with the item no 9910000054 in order to use the former Safra wire straightener type with 1/4" female thread.	9910000053	
Adapter for M14 male thread and male M18 thread to connect mounting plate (9910000028) to Safra wire straightener (9910000017) with M14 thread end plates	9910000054	 
Connector M20 x 2,5 male thread for Fronius feeding device and female self cutting tread for HDPE wire conduit with an OD of 19 mm	9910000055	



Safra standard accessories

for the **New** Safra connectors for HDPE wire conduits \varnothing 12 mm and \varnothing 19 mm

Product	Item Number	Image
Connector male M14 for wire straightener with M14 female thread at the end plates and female self-cutting thread for OD 12 mm HDPE wire conduit	991000056	
Connector for mounting plate (991000028) and female self-cutting thread for OD 12 mm HDPE wire conduit	991000057	
PG Connector ID 9-13 mm for HDPE wire conduit OD 12 mm	991000062	




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Safra standard accessories

for the **New** Safra connectors for HDPE wire conduits \varnothing 12 mm and \varnothing 19 mm

Product	Item Number	Image
Connector M20 x 2,5 male thread for Fronius feeding device and female self-cutting tread for HDPE wire conduit with an OD of 12 mm	9910000063	
Connector male M14 for wire straightener and female self-cutting thread for OD 19 mm HDPE wire conduit	9910000064	
Adapter for male M14 thread and female 1/4" thread - from that point you can go ahead by the old system by usage of the quick connector item no. 9910000048, 9910000052, 9910000066	9910000065	 



Safra standard accessories

for the **New** Safra connectors Spare parts for the new Safra connectors

Product	Item Number	Image
Bronze insert for PTFE liner side 12 mm HDPE (as spare part only)	9910000067	
Bronze insert for PTFE liner side 19 mm HDPE (as spare part only)	9910000068	
PTFE liner for spare wire guide for connectors to be sold as MOQ - 1 mt length OD 5 mm – ID 2 mm	9910000059	
Orbital arm as spare part for all Safra wire pay off systems for 5XXX series Aluminium wires by the item no 9910000010, 9910000015, 9910000014, 9910000026	9910000070	
Replacement swivel arm for part number 9910000018 <i>without PTFE wire conduit for wire diameter 0.80 mm - 1.60 mm and mounting plate</i>	9910000011	



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Safron Aluminium packaging system

A complete range of accessories for a successful setup of the Safron spool and drum packages

Accessories for every setup - independent from the Aluminium alloy		B300 Spool Adapter Ø 300 mm	D 350 Spool Ø 350 mm	K 400 Spool Ø 400 mm	Speed Pac Nano Ø 520 mm	Speed Pac Piccolo Ø 650 mm	Speed Pac Square 600 mm	Speed Pac Standard Ø 520 mm	Speed Pac Grande Ø 650 mm	Speed Pac Gigante L Ø 750 mm	Speed Pac Gigante XL Ø 750 mm
Item no.	Product description	7 kg	20 kg	40 kg	40 kg	100 kg	140 kg	80 kg	200 kg	120 kg	250 kg
9910000001	Lifting yoke up to 500 kg for drum Ø 520 mm - Ø 750 mm	-	-	-	X	X	X	X	X	X	X
9910000003	Plastic hood Ø 520 mm (round) - 80 kg drum	-	-	-	X	-	-	X	-	-	-
9910000004	Plastic hood 600 mm (square) - 140 kg drum	-	-	-	-	-	X	-	-	-	-
9910000005	Plastic hood Ø 650 mm (round) - 100 kg/200 kg drum	-	-	-	-	X	-	-	X	-	-
9910000027	Plastic hood Ø 750 mm (round) - 125 kg/250 kg drum	-	-	-	-	-	-	-	-	X	X
9910000009	Wire connector with ceramic inlet, for the Ø 520 / 600 / Ø 650 mm / Ø 750 mm drum (plastic hood - wire conduit)	-	-	-	X	X	X	X	X	X	X
9910000029	Trolley for drum diameter Ø 520 and 650 mm - 80 kg - 200 kg drum	-	-	-	X ²	X ²	X ²	X ²	X ²	-	-
9910000033	Trolley for drum diameter Ø 750 mm 125 kg - 250 kg	-	-	-	-	-	-	-	-	X	X
X ² more mobility in production, use a trolley											
Accessories for a successful setup of 4XXX Series Aluminium alloys		B300 Spool Adapter Ø 300 mm	D 350 Spool Ø 350 mm	K 400 Spool Ø 400 mm	Speed Pac Nano Ø 520 mm	Speed Pac Piccolo Ø 650 mm	Speed Pac Square 600 mm	Speed Pac Standard Ø 520 mm	Speed Pac Grande Ø 650 mm	Speed Pac Gigante L Ø 750 mm	Speed Pac Gigante XL Ø 750 mm
Item no.	Product description	7 kg	20 kg	40 kg	40 kg	100 kg	140 kg	80 kg	200 kg	120 kg	250 kg
9910000006	Wooden balls small Ø 40 mm (70 balls per Set) - non fumigated - 80 kg drum	-	-	-	X	-	-	X	-	-	-
9910000024	Wooden balls small Ø 40 mm (70 balls per Set) - fumigated - 80 kg drum	-	-	-	X	-	-	X	-	-	-
9910000018	Inner orbital arm incl. PTFE Liner (Ø 520 mm) for drums with an inner cylinder and wooden balls - 80 kg drum	-	-	-	X	-	-	X	-	-	-
9910000011	Replacement swivel arm for part number 9910000018	-	-	-	-	-	-	-	-	-	-
9910000077	Wire pay off system (Ø 600 mm - square drum) - doppel cone, without inner cylinder in the drum - 140 kg drum	-	-	-	-	-	X	-	-	-	-
9910000077	Wire pay off system (Ø 650 mm - round drum) - doppel cone, without inner cylinder in the drum - 100 kg/200 kg drum	-	-	-	-	X	-	-	X	-	-
9910000079	Wire pay off system (Ø 750 mm - round drum) - doppel cone, without inner cylinder in the drum - 125 kg/250 kg drum	-	-	-	-	-	-	-	-	X	X
Accessories for a successful setup of 5XXX Series Aluminium alloys		B300 Spool Adapter Ø 300 mm	D 350 Spool Ø 350 mm	K 400 Spool Ø 400 mm	Speed Pac Nano Ø 520 mm	Speed Pac Piccolo Ø 650 mm	Speed Pac Square 600 mm	Speed Pac Standard Ø 520 mm	Speed Pac Grande Ø 650 mm	Speed Pac Gigante L Ø 750 mm	Speed Pac Gigante XL Ø 750 mm
Item no.	Product description	7 kg	20 kg	40 kg	40 kg	100 kg	140 kg	80 kg	200 kg	120 kg	250 kg
9910000019	Inner orbital arm incl. PTFE Liner (Ø 650 mm, Square 600 mm drum) for drums with an inner cylinder - 100 kg/200 kg and 140 kg drum	-	-	-	-	X	X	-	X	-	-
9910000010	Wire pay off system (Ø 520 mm) - single Cone with spinner arm and without inner cylinder in the drum - 80 kg drum	-	-	-	X	-	-	X	-	-	-
9910000015	Wire pay off system (Square drum 600 mm) - single Cone with spinner arm and without inner cylinder in the drum - 140 kg drum	-	-	-	-	-	X	-	-	-	-
9910000014	Wire pay off system (Ø 650 mm) - single Cone with spinner arm and without inner cylinder in the drum - 100 kg/200 kg drum	-	-	-	-	X	-	-	X	-	-
9910000026	Wire pay off system (Ø 750 mm) - single Cone with spinner arm and without inner cylinder in the drum - 125 kg/250 kg drum	-	-	-	-	-	-	-	-	X	X
9910000070	Spare orbital arm for the item no. 9910000010, 9910000015, 9910000014, 9910000026	-	-	-	X	X	X	X	X	X	X



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Safron Aluminium packaging system

A complete range of accessories for a successful setup of the Safron spool and drum packages

Accessories for trouble free wire feeding of all Aluminium alloys Wire diameter 1,20 mm and 1,60 mm

Item no.	Product description	B 300 Spule Ø 300 mm	D 350 Spool Ø 350 mm	K 400 Spool Ø 400 mm	Speed Pac Nano Ø 520 mm	Speed Pac Piccolo Ø 650 mm	Speed Pac Square 600 mm	Speed Pac Standard Ø 520 mm	Speed Pac Grande Ø 650 mm	Speed Pac Gigante L Ø 750 mm	Speed Pac Gigante XL Ø 750 mm
		7 kg	20 kg	40 kg	40 kg	100 kg	140 kg	80 kg	200 kg	120 kg	250 kg
9910000017	Wire straightener two plan for 2XXX, 4XXX and 5XXX series Aluminium alloys	-	-	-	X	X	X	X	X	X	X
9910000028	Mounting plate for wire straightener on all Safron plastic hood	-	-	-	X	X	X	X	X	X	X
9910000006	Nylon inlet piece	-	-	-	X	X	X	X	X	X	X
9910000071	Bearing roller set for Ø 1,00 mm Aluminium wire for Safron wire straightener - two plan (14 pcs)	-	-	-	X	X	X	X	X	X	X
9910000049	Bearing roller set for Ø 1,20 mm Aluminium wire for Safron wire straightener - two plan (14 pcs)	-	-	-	X	X	X	X	X	X	X

Accessories for D350 and K400 spools

Item no.	Product description	B 300 Spule Ø 300 mm	D 350 Spool Ø 350 mm	K 400 Spool Ø 400 mm	Speed Pac Nano Ø 520 mm	Speed Pac Piccolo Ø 650 mm	Speed Pac Square 600 mm	Speed Pac Standard Ø 520 mm	Speed Pac Grande Ø 650 mm	Speed Pac Gigante L Ø 750 mm	Speed Pac Gigante XL Ø 750 mm
		7 kg	20 kg	40 kg	40 kg	100 kg	140 kg	80 kg	200 kg	120 kg	250 kg
9910000020	Wire feeder for K400 (40 kg spool)	-	-	X	-	-	-	-	-	-	-
9910000038	Spool adapter for the K 400 spool	-	-	X	-	-	-	-	-	-	-
9910000037	Spindel with spindel brake for spool adapter K 400 spool	-	-	X	-	-	-	-	-	-	-
9910000072	Spool adapter for the B 300 spool	X	X	-	-	-	-	-	-	-	-
9910000039	Pay-off stand for K 400 or D 350 spools	-	X	X	-	-	-	-	-	-	-
9910000035	Spindle with spindle brake for holding the D 350 spool	-	X	-	-	-	-	-	-	-	-

Accessories for using an additional wire feeder (Fronius) above the drum

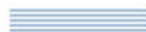
Item no.	Product description	B 300 Spule Ø 300 mm	D 350 Spool Ø 350 mm	K 400 Spool Ø 400 mm	Speed Pac Nano Ø 520 mm	Speed Pac Piccolo Ø 650 mm	Speed Pac Square 600 mm	Speed Pac Standard Ø 520 mm	Speed Pac Grande Ø 650 mm	Speed Pac Gigante L Ø 750 mm	Speed Pac Gigante XL Ø 750 mm
		7 kg	20 kg	40 kg	40 kg	100 kg	140 kg	80 kg	200 kg	120 kg	250 kg
9910000021	Drum rack for drum diameter Ø 520 - 650 mm - 80 kg, 100 kg/200 kg drum	-	-	-	X	X	X	X	X	-	-
9910000032	Drum rack for drum diameter Ø 750 mm - 125 kg/250 kg drum	-	-	-	-	-	-	-	-	X	X
9910000030	Mounting plate for the Fronius wire feeder WF25 R2 and R4	-	-	-	X	X	X	X	X	X	X
9910000031	Complete drum rack for the drum diameter Ø 520 - 650 mm, von 40 - 200 kg Aluminium wire volume (without Fronius feeding unit) (Item number 9910000021, 9910000029, 9910000030 - deliverable as single item)	-	-	-	X	X	X	X	X	-	-
9910000034	Complete drum rack for the drum diameter Ø 750 mm and 250 kg Aluminium wire volume (without Fronius feeding unit) (Item number 9910000032, 9910000033, 9910000030 - deliverable as single item)	-	-	-	-	-	-	-	-	X	X

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Safron Aluminium packaging system

A complete range of accessories for a successful setup of the Safron spool and drum packages

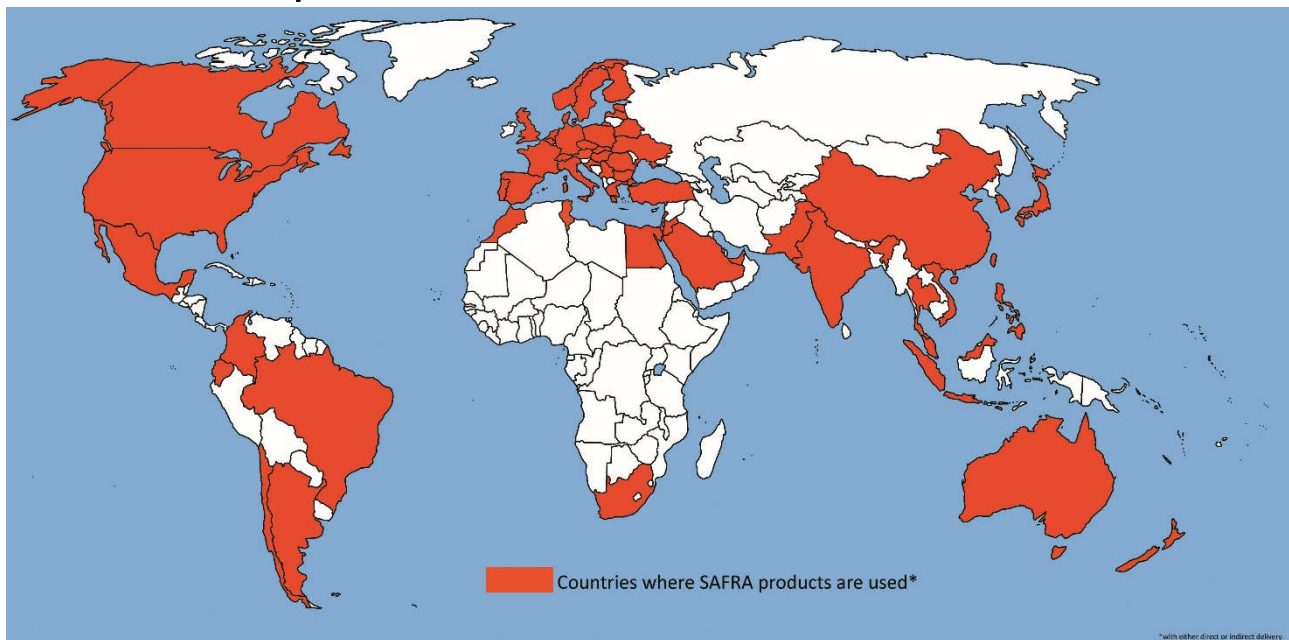
Accessories for wire conduit installation (HDPE Liner Ø 12 and Ø 19 mm)		Net sales Price Ex-Works [€/pcs]	B300 Spool Adapter Ø 300 mm	D 350 Spool Ø 350 mm	K 400 Spool Ø 400 mm	Speed Pac Nano Ø 520 mm	Speed Pac Piccolo Ø 650 mm	Speed Pac Square 600 mm	Speed Pac Standard Ø 520 mm	Speed Pac Grande Ø 650 mm	Speed Pac Gigante L Ø 750 mm	Speed Pac Gigante XL Ø 750 mm
			20 kg	40 kg	40 kg	100 kg	140 kg	80 kg	200 kg	120 kg	250 kg	
Item no.	Product description for SKS, Cloos and others installations											
9910000050	Quick connector (male) DN 7 with female thread 1/4"	5,35 €	-	-	-	X	X	X	X	X	X	X
9910000051	Quick connector to join HDPE wire conduits with to ends - only for Ø 12 mm HDPE wire conduits	13,35 €	-	-	-	X	X	X	X	X	X	X
9910000066	Quick connector for HDPE Liner with OD Ø 12 and male thread 1/4"	10,29 €	-	-	-	X	X	X	X	X	X	X
9910000052	Quick connector (female) DN7 with male thread 1/4"	13,74 €	-	-	-	X	X	X	X	X	X	X
Item no.	Product description - Safron Installation											
9910000050	Quick connector (male) DN 7 with female thread 1/4"	5,35 €	-	-	-	X	X	X	X	X	X	X
9910000051	Quick connector to join HDPE wire conduits with to ends - only for Ø 12 mm HDPE wire conduits	13,35 €	-	-	-	X	X	X	X	X	X	X
9910000052	Quick connector (female) DN7 with male thread 1/4"	13,74 €	-	-	-	X	X	X	X	X	X	X
9910000053	Adapter for female M14 thread and male 1/4" thread to connect wire straightener with female 1/4" thread and adapter (9910000054)	13,50 €	-	-	-	X	X	X	X	X	X	X
9910000054	Adapter for male M14 thread and male M18 thread to connect mounting plate (9910000028) to Safron wire straightener (9910000017)	20,40 €	-	-	-	X	X	X	X	X	X	X
9910000055	Connector M20 x 2,5 thread for Fronius TPSi feeding device and self-cutting thread for HDPE wire conduit with an OD of 19 mm	42,15 €	-	-	-	X	X	X	X	X	X	X
9910000056	Connector male M14 for wire straightener and female self-cutting thread for OD 12 mm HDPE wire conduit	42,15 €	-	-	-	X	X	X	X	X	X	X
9910000057	Connector for mounting plate (9910000028) and female self-cutting thread for OD 12 mm HDPE wire conduit	42,15 €	-	-	-	X	X	X	X	X	X	X
9910000058	Deburring and cutting tool kit		-	-	-	X	X	X	X	X	X	X
9910000059	PTFE liner for wire guide for connectors to be sold as 1 mt length	14,39 €	-	-	-	X	X	X	X	X	X	X
9910000060	Wire conduit - HDPE wire conduit Ø 19 mm - MOQ 1 m	6,90 €/m	-	-	-	X	X	X	X	X	X	X
9910000061	Wire conduit - HDPE wire conduit Ø 12 mm - MOQ 10 m	6,70 €/m	-	X	X	X	X	X	X	X	X	X
9910000062	PG connector ID 9-13 mm	1,50 €	-	-	-	X	X	X	X	X	X	X
9910000063	Connector M20 x 2,5 male thread for Fronius feeding device and female self thread for HDPE wire conduit with an OD of 12 mm	42,15 €	-	-	-	X	X	X	X	X	X	X
9910000064	Connector male M14 for wire straightener and female self-cutting thread for OD 19 mm HDPE wire conduit	42,15 €	-	-	-	X	X	X	X	X	X	X
9910000065	Adapter for male M14 thread and female 1/4" thread - quick connector item no. 9910000048	14,55 €	-	-	-	X	X	X	X	X	X	X
9910000066	Quick connector for HDPE Liner with OD Ø 12 and male thread 1/4"	10,29 €	-	-	-	X	X	X	X	X	X	X
9910000067	Brass insert for PTFE liner side 12 mm HDPE (as spare part only)	4,00 €	-	-	-	X	X	X	X	X	X	X
9910000068	Brass insert for PTFE liner side 19 mm HDPE (as spare part only)	5,00 €	-	-	-	X	X	X	X	X	X	X
9910000069	Wire straightener dust protection polycarbonate cover	115,00 €	-	-	-	X	X	X	X	X	X	X



Our company history

Safra was founded in 1970 by the Sala family in Travagliato near Brescia (Italy).
The Safra group of companies is 100% owned by the Sala family.
In 1997, Safra bought the company MIGWELD in Dijon/France.
With its very high quality and competitiveness, Safra expanded its business worldwide.
In 2001, Safra built the Bralco copper foundry in Salvador de Bahia in Brazil.
This means we control the process chain from strand casting to the finished copper wire electrode alloy.
We can therefore produce customer-specific copper alloys for your application.

Our market presence



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