

SPLIT PINS

CATALOGUE

ISO 1234

DIN 11024 BETA/R-CLIPS

IEC 372

HUMPBACK

LINCH PINS

OTHER BENT-WIRE ITEMS



DELL'ERA GIUSEPPE
MINUTERIA METALLICA DAL 1850

YOUR RELIABLE PARTNER, SINCE 1850

Where tradition merges into innovation

Dell'Era Giuseppe is an historical Italian family-run business, now in its seventh generation, whose core business is the manufacturing of mechanical industry fasteners and fixing systems. Its name is recognized mostly for the production and distribution of **UNI EN ISO 1234 (DIN 94) Split Pins**, item for which Dell'Era is **European market**

leader but also well-known all around the globe. To complete the range, the company also produces other kinds of split pins such as Beta/R-Clips Cotter Pins (sim. DIN 11024 single and double ring), IEC 372 for insulators, Humpback Split Pins, Linch Pins and other bent-wire articles on customer's drawing.





PERSONALIZATION

IS OUR SPECIALIZATION

We will always make you feel special

Buying from Dell'Era doesn't only mean purchasing a product but also receiving a full-blown **service**. This includes the possibility of getting a **tailor-made treatment** based on the specific needs of the customer.

The service of personalization concerns different aspects of the production.

Any kind of standard and out-of-standard dimension can be purchased, together with a significant inventory of the most ordinary range available for immediate delivery.

Dell'Era benefits from a large stock of **raw materials** which is composed by low/medium carbon steel, inox/stainless steel (AISI 304 & 316), copper, brass, aluminium but is also able to provide other special materials such as duplex and special inox stainless steels.

Every product, despite the possibility of having it plain, usually undergoes a **surface treatment** which protects it from rust. It can be a 3 to 12 MY zinc-plating (white, yellow, black, iridescent), zinc-nickel plating, tin-plating, and even zinc-flake or paint coating.

Highly rated and recognized is the possibility to have several options of different **packaging**. The most common and used is the carton box packaging, made with neutral strong paperboard and compliant to European standards. The products can also come in bulk, inside big carton packs, sacks or plastic poly bags. Upon specific request we always provide personalized labels and quantity-per-box.

Whenever needed, quality certificates according to EN10204 can also be issued.

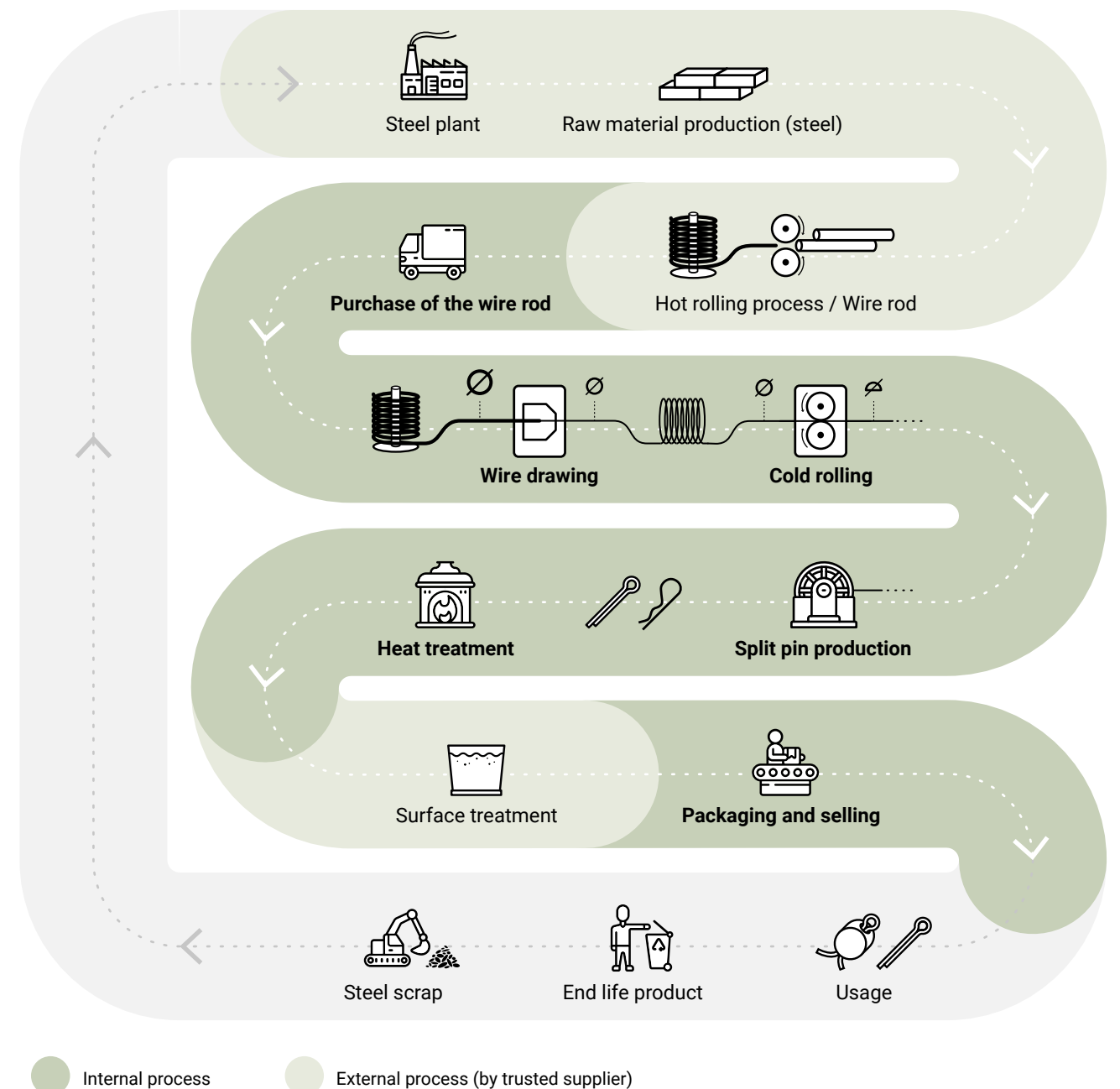
PROCUREMENT VERTICALIZATION AND KNOW HOW

Metal market expertise

The company owns total control over the process of raw materials purchasing. Being born as iron-wire drawers, Dell'Era has maintained a strong open channel with steel wire rod manufacturers and the direct source of all the main commodities employed for the production. This permits to overlap crucial phases of the transformation by doing it by itself under the roof of its own factory.

The company is in fact equipped with special machines able to roll the wire, transforming it for example into a half-round wire used for the manufacturing of split pins. This know-how, jealously kept inside by the Dell'Era Family, allows to provide a very high-quality final product and also a more efficient and **cost-saving supply chain process**.

Total control over the manufacturing process





QUALITY

IS OUR TOP PRIORITY

A seven generations-long commitment

Each step of the manufacturing process is strictly monitored by the quality department and is documented according to the **ISO 9001:2015** certification. The manufacturing facility is equipped with high level technology machines which permits a consistency in keeping high quality standards.

The quality managers are constantly on the field and provide maximum support to the very well-trained production staff, passing on a know-how developed in more than 170 years by the Dell'Era Family.

The company finds its roots in Lecco, which is known as one of the main hubs of the mechanical industry district in Italy. Within this industrial environment the company is surrounded by highly rated partners and suppliers, all of whom follow the same quality procedures and requirements.

ISO 9001

BUREAU VERITAS
Certification





1. RAW MATERIAL



2. PROCESSING



3. HEAT TREATMENT



4. SURFACE TREATMENT



5. PACKAGING



6. STORAGE



OUR PRODUCTS

- **UNI EN ISO 1234 (DIN 94) Split pins/Cotter pins**
- **SIM. DIN 11024 Single Ring Beta Split Pins/R-Clips**
- **DIN 11024 Double Ring Beta Split Pins/R-Clips**
- **IEC 372 Split Pins for insulators**
- **Humpback Split Pins**

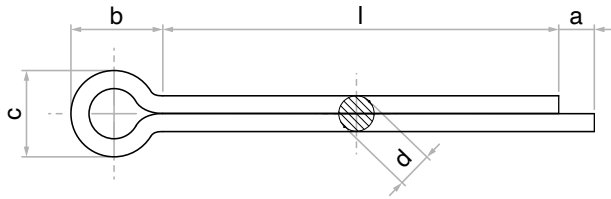
UNI EN ISO 1234 (DIN 94) Split pins/Cotter pins



Dimensions	Materials	Surface treatments	Packaging
ISO 1234	Low carbon steel (also annealed black)	Zinc plating 3 to 12 MY (white, yellow, black, iridescent)	Carton boxes
Sim. ISO 1234 (not normed)	Stainless steel A2 (AISI 304) 	Zinc-Nickel plating	Bulk
Specific national standards (ANSI, NF 27-484, NF 23-310, R934-02, BS 1574, AS 1236, etc)	Stainless steel A4 (AISI 316) 	Tin plating	Poly bags
Personalized drawing	Brass 	Zinc flake coating	Sacks
	Copper 		
	Aluminium 		

Please note:

- Low carbon steel split pins are, when possible, formerly subjected to an annealing treatment to improve the folding operation.
- Every surface treatment is ensured only on the visible part of the pin.
- The average provided thickness for white zinc-plating is 3MY.
- The purchase of standard packaging quantities ensures the fastest delivery service.



The nominal diameter of the split pin is, according to standards, the diameter of the hole where the split pin must be inserted.
Diameters with * are not in UNI EN ISO 1234 norm.

- Dell'Era production possibilities (to be evaluated case by case)
- Dell'Era production history
- ISO 1234 standard

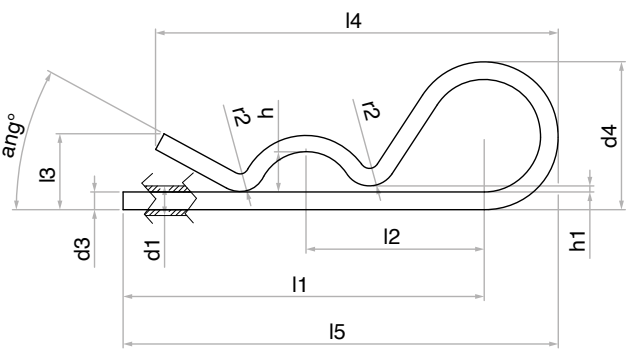
Dimensions in mm

Nominal Diameter	0,6	0,8	1	1,2	1,6	2	2,5	3,2	3,5*		4	4,5*	5	5,5*	6,3	7*	8	9*	10	12*	13	16
d min.	0,40	0,60	0,80	0,90	1,30	1,70	2,10	2,70	2,90		3,50	3,90	4,40	4,90	5,70	6,40	7,30	8,20	9,30	11,00	12,10	15,10
d max.	0,50	0,70	0,90	1,00	1,40	1,80	2,30	2,90	3,10		3,70	4,10	4,60	5,10	5,90	6,60	7,50	8,40	9,50	11,40	12,40	15,40
a min.	0,80	0,80	0,80	1,25	1,25	1,25	1,25	1,60	2,00		2,00	2,00	2,00	2,00	2,00	2,00	2,00	3,15	3,15	3,15	3,15	3,15
a max.	1,60	1,60	1,60	2,50	2,50	2,50	2,50	3,20	4,00		4,00	4,00	4,00	4,00	4,00	4,00	4,00	6,30	6,30	6,30	6,30	6,30
b ≈	2,00	2,40	3,00	3,00	3,20	4,00	5,00	6,40	8,00		8,00	10,00	10,00	12,60	12,60	17,00	16,00	20,00	20,00	26,00	26,00	32,00
c min.	0,90	1,20	1,60	1,70	2,40	3,20	4,00	5,10	6,50		6,50	8,00	8,00	10,30	10,30	12,50	13,10	16,60	16,60	21,70	21,70	27,00
c max.	1,00	1,40	1,80	2,00	2,80	3,60	4,60	5,80	7,40		7,40	9,20	9,20	11,80	11,80	14,40	15,00	19,00	19,00	24,80	24,80	30,80
Standard packaging qty. (pcs)	1.000	1.000	1.000	1.000	1.000	1.000	1.000	500	500		500	250	250	250	250	100	100	100	100	50	25	25
I (Lenght)	4 - 12	5 - 32	5 - 45	6 - 45	6 - 56	6 - 63	8 - 63	10 - 140	16 - 140		16 - 140	16 - 140	16 - 140	16 - 140	18 - 140	32 - 140	32 - 200	32 - 200	40 - 200	50 - 200	50 - 280	90 - 280

Nom.	min.	max.																				
4,0	3,5	4,5																				
5,0	4,5	5,5																				
6,0	5,5	6,5																				
8,0	7,5	8,5																				
10,0	9,5	10,5																				
12,0	11,0	13,0																				
14,0	13,0	15,0																				
16,0	15,0	17,0																				
18,0	17,0	19,0																				
20,0	19,0	21,0																				
22,0	21,0	23,0																				
25,0	24,0	26,0																				
28,0	27,0	29,0																				
32,0	30,5	33,5																				
36,0	34,5	37,5																				
40,0	38,5	41,5																				
45,0	43,5	46,5																				
50,0	48,5	51,5																				
56,0	54,5	57,5																				
63,0	61,5	64,5																				
71,0	69,5	72,5																				
80,0	78,5	81,5																				
90,0	88,0	92,0																				
100,0	98,0	102,0																				
112,0	110,0	114,0																				
125,0	123,0	127,0																				
140,0	138,0	142,0																				
160,0	158,0	162,0																				
180,0	178,0	182,0																				
200,0	198,0	202,0																				
224,0	222,0	226,0																				
250,0	248,0	252,0																				
280,0	278,0	282,0																				

SIM. DIN 11024

Single Ring Beta Split Pins/R-Clips



Dimensions	Materials	Surface treatments	Packaging
Dell'Era Drawing sim. DIN 11024	Spring carbon steel <i>* low carbon steel diam. 7 only</i>	Zinc plating 3 to 12 MY (white, yellow, black, iridescent)	Carton boxes
Personalized drawing	Stainless steel A2 (AISI 304)	Zinc flake coating	Bulk
	Stainless steel A4 (AISI 316)	Zinc-Nickel plating	Sacks

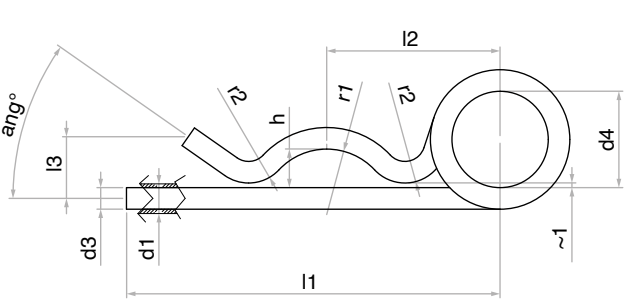
Dimensions in mm

Real wire diameter d3	Through hole diameter d1	d4	h	h1	l1	l2	l3	l4	l5	r2	ang°	Standard packaging qty.
± 0,02	H13	± 1,00	± 1,00	~	~	~	± 1,50	± 1,50	± 1,50	~	± 10°	
2	2,50	15,50	3,50	1,50	39,00	19,00	11,00	45,00	47,00	4,50	40°	500
2,5	3,00	20,50	5,00	2,00	53,00	24,00	14,00	63,00	65,00	5,00	40°	200
3	3,50	27,50	6,00	2,00	55,00	30,00	14,00	68,00	70,00	5,50	40°	200
± 0,02	H13	± 1,50	± 1,50	~	~	~	± 1,50	± 1,50	± 1,50	~	± 10°	
3,5	4,00	29,00	6,00	2,50	60,00	33,00	15,00	73,00	75,00	6,00	40°	100
4	4,50	30,00	6,00	2,50	70,00	36,00	20,00	84,00	86,00	7,00	40°	100
4,5	5,00	32,00	6,00	2,50	75,00	38,00	20,00	87,00	90,00	7,50	40°	100
5	6,00	34,00	6,00	2,50	77,00	38,00	20,00	94,00	97,00	9,00	40°	50
6	7,00	38,00	7,50	2,50	90,00	45,00	24,00	105,00	108,00	10,00	40°	50
7*	8,00	40,00	9,00	2,50	105,00	50,00	26,00	116,00	124,00	10,00	40°	25

Out of standard diameters available upon request: mm. 1,2 – 1,3 – 1,5 – 1,8 – 8,0

DIN 11024

Double Ring Beta Split Pins/R-Clips



Dimensions	Materials	Surface treatments	Packaging
DIN 11024	Spring carbon steel	Zinc plating 3 to 12 MY (white, yellow, black, iridescent)	Carton boxes
Personalized drawing	Stainless steel A2 (AISI 304)	Zinc flake coating	Bulk
	Stainless steel A4 (AISI 316)	Zinc-Nickel plating	Sacks

Dimensions in mm

Through hole diameter d1	Real wire diameter d3	d4	l1	l2	l3	h	r1	r2	ang°	Standard packaging qty.
H13	± 0,02	± 0,50	± 1,50	± 2,00	± 1,50	± 1,00	~	~	± 10°	
2,5	2,25	20,00	42,00	24,00	5,50	2,50	5,60	4,00	35°	25
3,2	2,80	20,00	48,00	26,00	7,00	3,00	7,00	5,00	35°	20
4	3,60	20,00	64,00	32,00	10,00	4,50	10,00	6,50	35°	20
5	4,50	25,00	80,00	39,00	12,50	7,00	13,00	8,00	35°	10
6,3	5,60	25,00	97,00	45,00	16,00	9,00	17,00	10,00	35°	10
7	6,30	30,00	125,00	56,00	21,00	12,50	22,50	11,50	35°	10
8	7,00	30,00	150,00	63,00	25,50	17,50	28,00	12,50	35°	10

IEC 372

Split pins for insulators

Materials:	stainless steel AISI 304 (or 316 upon request)
Surface treatments:	none
Packaging:	industrial carton boxes or bulk



HUMPBACK

Split pins

Materials:	stainless steel (AISI 304 or 316)
Surface treatments:	none
Packaging:	industrial carton boxes or bulk



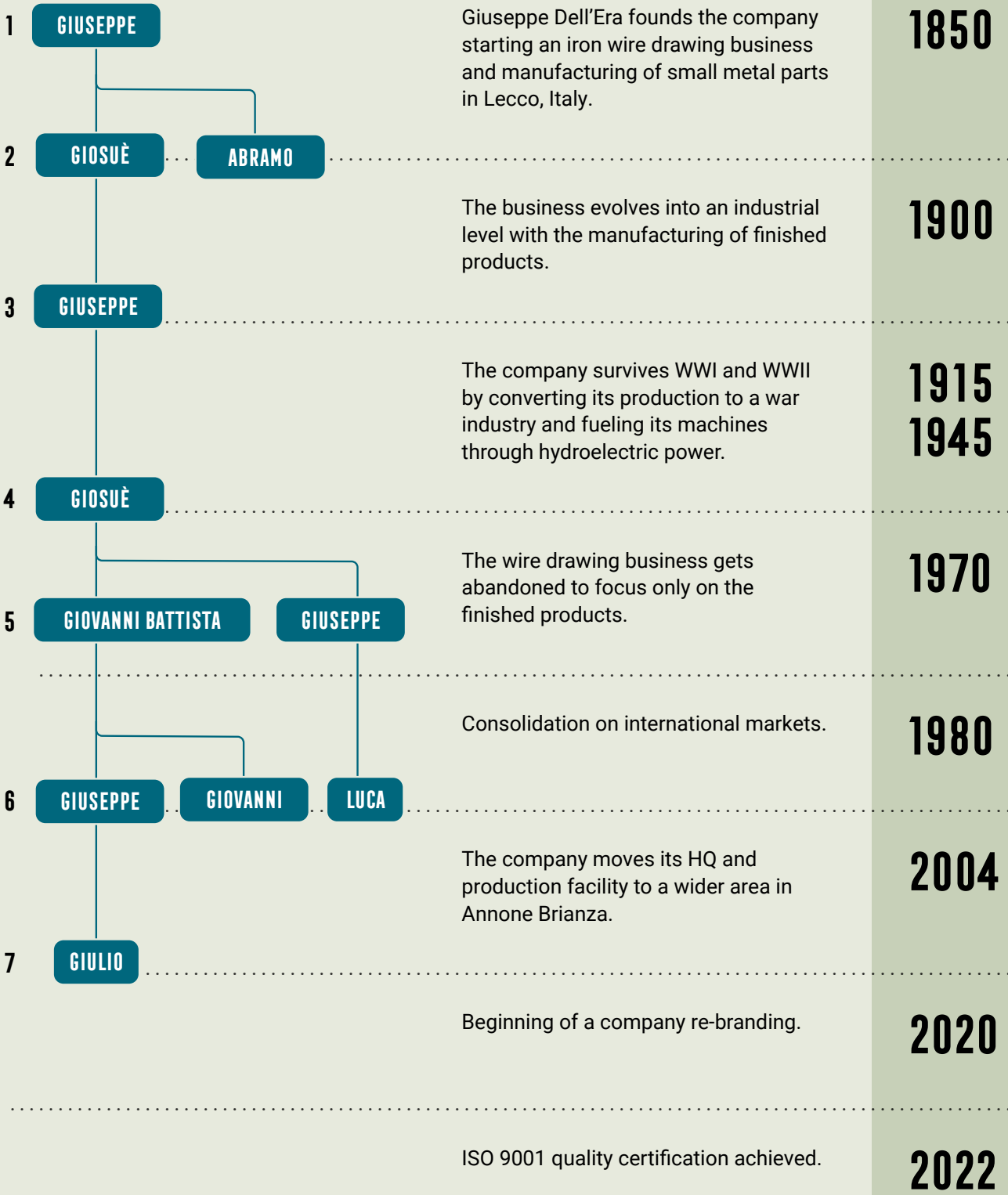
Upon request, we also provide lynch pins (sim. DIN 11023) and any bent-wire item upon customer’s drawing



OUR LONG HISTORY

GENERATIONS

EVENTS



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