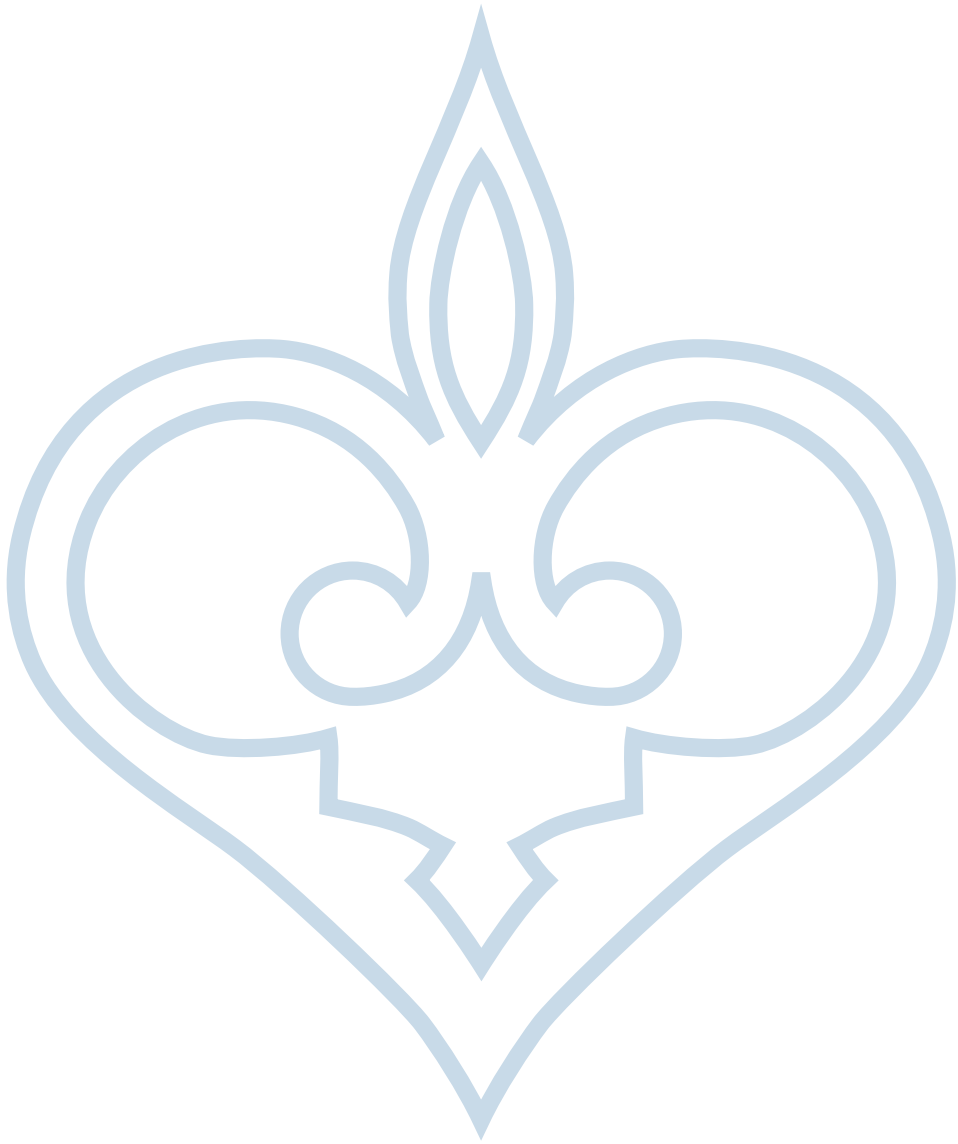




**Pins for all applications**



# Production Programme / Material

Dear business partners and friends,

We are very proud to look back on a company history of more than 230 years. In the year 1783 Johann Jakob Staedtler began to manufacture pins in Schwabach and chose the "Flaming Heart" as his personal trademark which remains our emblem up to today. Ever since then we have been producing pins and pinned systems and achieved to be an important part of the global textile industry. Due to our knowhow we are able to promise that this history will go on.

## Production Programme

- › Comb pins
- › Pins for porcupines
- › Temple pins
- › Gill pins
- › Fibrillating pins
- › Flat pins
- › Round and flat pins bent
- › Hackle pins
- › Card pins
- › Perforating pins
- › Pins for drawing instruments
- › Pins for tattooing
- › Steel pins of all kinds
- › Pins for tire remoulding
- › Pins for Air-Brush
- › Axles and shafts
- › Special executions according to sample or drawing

## Material

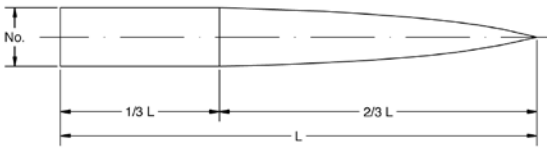
For the standard types of textile pins we use electric steel with a maximum purity and a very high percentage of carbon. The wire used as basic material is selected with utmost care and only used if it unconditionally meets our specific requirements: maximum accuracy in diameter, perfect roundness, absence of scores and pores on the surface, and perfect structure given by even distribution of the fine carbide grain as result of careful annealing. For special purposes we also manufacture pins from rust- and acidproof chrome nickel steel alloys, for example V2A, V3M extra and V4A. Another special steel is used for fibrillating pins and perforating pins which enables us to offer them in high wear resistant quality. Further steel qualities can be processed on customer request.



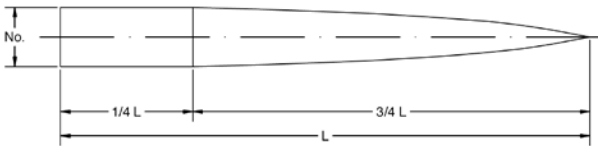
"Rubbing the Pins",  
(Engraving, London 1860)



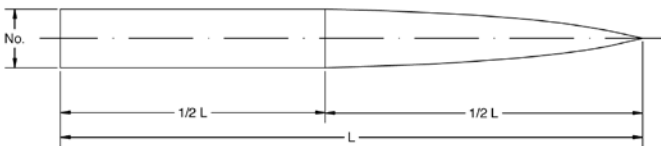
# Round Pins / Flat Pins



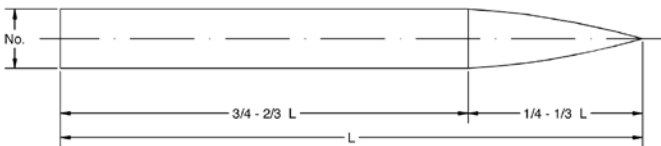
Sketch 1: Comb pin



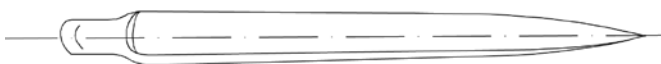
Sketch 2: Gill pin



Sketch 3: Hackle pin



Sketch 4: Card pin



Sketch 5: Flat pin with head



Sketch 6: Flat pin without head

## Round Pins

### Taper and Cylindrical Length

Sketches 1–4 show the standard length of the taper and the cylindrical part. These values have been adopted for the four main types of textile pins. Regardless of these standards, however, we can provide any other lengths and tapers as well.

### Angle of Taper

The standard angle of the taper of our different types of pins which has proven to be ideal for fibre guidance and longevity is the result of our decades of experience. If desired, we can also supply pins with more or less taper. In addition, thanks to our modern optical and digital measuring equipment and control instruments we are able to produce any pin according to sample and/or drawing with maximum accuracy.

### Hardness

Our various types of round pins are supplied in degrees of hardness depending on their intended use, with special importance on an even hardness and temper.

### Rounding

Besides of the standard pin point we offer a vast variety of differently rounded pin points: ball point, great ball point, chased point, rounded point and combinations thereof.

### Keyed pins

On request all pins can be produced in different executions, keyed or with notch.

## Flat Pins

### Shape

We produce flat pins with head (see sketch 5) and flat pins without head (see sketch 6). The numbering of their width (no. 1) and thickness (no. 2) is similar to the numbering used for round pins.

The standard angle of the taper of our different types of pins which has proven to be ideal for fibre guidance and longevity is the result of our decades of experience. If desired, we also supply pins with more or less taper. In addition, thanks to our modern optical and digital measuring equipment and control instruments we are able to produce any pin according to sample and/or drawing with maximum accuracy.

For further technical details please refer to DIN ISO 9904.

### Hardness

Our various types of flat pins are supplied in degrees of hardness depending on their intended use, with special importance on an even hardness and temper.

# Dimensions of Pins

## Dimensions of Pins

The following table shows the pin diameter in inches and millimeters for whole numbers, halves and quarters as well as the permissible tolerances. The table shows our factory standard. Further dimensions are available on request.

No.	Diameter		Tolerance		No.	Diameter		Tolerance	
	inch	mm	inch	mm		inch	mm	inch	mm
6	0,192	4,88			18 1/4	0,047	1,200		
6 1/2	0,184	4,67			18 1/2	0,045	1,140		
7	0,176	4,47			18 3/4	0,044	1,120	-0,0007	-0,018
7 1/2	0,168	4,26			19	0,042	1,070		
8	0,160	4,06	-0,001	-0,025	19 1/4	0,041	1,050		
8 1/2	0,154	3,90			19 1/2	0,041	1,030		
9	0,148	3,76			19 3/4	0,039	1,000		
9 1/2	0,140	3,56			20	0,039	0,990		
10	0,132	3,35			20 1/2	0,037	0,933		
10 1/2	0,124	3,15			21	0,035	0,880		
11	0,116	2,95			21 1/2	0,033	0,830		
11 1/2	0,110	2,78			22	0,031	0,790		
12	0,103	2,62			22 1/2	0,030	0,750	-0,0006	-0,015
12 1/2	0,098	2,48			23	0,028	0,710		
13	0,092	2,34			23 1/2	0,026	0,667		
13 1/2	0,085	2,16			24	0,025	0,620		
14	0,078	1,98			24 1/2	0,023	0,578		
14 1/2	0,074	1,88			25	0,021	0,533		
15	0,071	1,79	-0,0007	-0,018	25 1/2	0,020	0,515		
15 1/4	0,069	1,75			26	0,020	0,500		
15 1/2	0,068	1,72			26 1/2	0,019	0,470		
15 3/4	0,065	1,65			27	0,018	0,440		
16	0,064	1,63			27 1/2	0,016	0,413		
16 1/4	0,061	1,56			28	0,015	0,380		
16 1/2	0,060	1,52			28 1/2	0,015	0,368		
16 3/4	0,057	1,45			29	0,014	0,355	-0,0004	-0,01
17	0,056	1,420			29 1/2	0,014	0,343		
17 1/4	0,053	1,350			30	0,013	0,330		
17 1/2	0,052	1,320			31	0,012	0,300		
17 3/4	0,049	1,250			32	0,011	0,280		
18	0,048	1,220			33	0,010	0,250		

The Pin Factory Staedtler+Uhl  
(Painting around 1880)



In 1794 Jakob Staedtler  
chose the Flaming Heart  
as his Trademark

# Length of Pins / Production

## Length of Pins

The standard lengths of textile pins in inches and millimeters together with their permissible tolerances can be found on the next table. The most current lengths are printed in red. Besides the standard lengths we produce other lengths on request.

## Production

We continually advance the quality of our products by keeping all production and testing equipment on the latest technical development. Many intermediate controls in the production process with the respective optical and digital testing devices ensure that exclusively products of highest quality are delivered to our customers throughout the world.

Length		Tolerance		Length		Tolerance		Length		Tolerance		Length		Tolerance	
inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm
1/64	0,40			37/64	14,68			1 9/16	39,69			3 13/16	96,84		
1/32	0,79			19/32	15,08			1 5/8	41,28			3 7/8	98,43		
3/64	1,19			39/64	15,48			1 11/16	24,86			3 15/16	100,01		
1/16	1,59			5/8	15,88			1 3/4	44,45			4"	101,60		
5/64	1,98			41/64	16,27			1 13/16	46,04			4 1/16	103,19		
3/32	2,38			21/32	16,67			1 7/8	47,63			4 1/8	104,78		
7/64	2,78			43/64	17,07			1 15/16	49,21			4 3/16	106,36		
1/8	3,18			11/16	17,46			2"	50,80			4 1/4	107,95		
9/64	3,57			45/64	17,86			2 1/16	52,39			4 5/16	109,54		
5/32	3,97			23/32	18,26			2 1/8	53,98			4 3/8	111,13		
11/64	4,37			47/64	18,65			2 3/16	55,56			4 7/16	112,71		
3/16	4,76			3/4	19,05			2 1/4	57,15			4 1/2	114,30		
13/64	5,16			49/64	19,45			2 5/16	58,74			4 9/16	115,89		
7/32	5,56			25/32	19,84			2 3/8	60,33			4 5/8	117,48		
15/64	5,95			51/64	20,24			2 7/16	61,91			4 11/16	119,06		
1/4	6,35			13/16	20,64			2 1/2	63,50			4 3/4	120,65		
17/64	6,75			53/64	21,03			2 9/16	65,09			4 13/16	122,24		
9/32	7,14	0,004	0,1	27/32	21,43	0,004	0,1	2 5/8	66,68	0,004	0,1	4 7/8	123,83	0,004	0,1
19/64	7,54	-0,004	-0,1	55/64	21,83	-0,004	-0,1	2 11/16	68,26	-0,004	-0,1	4 15/16	125,41	-0,004	-0,1
5/16	7,94			7/8	22,23			2 3/4	69,85			5"	127,00		
21/64	8,33			57/64	22,62			2 13/16	71,44			5 1/16	128,59		
11/32	8,73			29/32	23,02			2 7/8	73,03			5 1/8	130,18		
23/64	9,13			59/64	23,42			2 15/16	74,61			5 3/16	131,76		
3/8	9,53			15/16	23,81			3"	76,20			5 1/4	133,35		
25/64	9,92			61/64	24,21			3 1/16	77,79			5 5/16	134,94		
13/32	10,32			31/32	24,61			3 1/8	79,38			5 3/8	136,53		
27/64	10,72			63/64	25,00			3 3/16	80,96			5 7/16	138,11		
7/16	11,11			1"	25,40			3 1/4	82,55			5 1/2	139,70		
29/64	11,51			1 1/16	26,99			3 5/16	84,14			5 9/16	141,29		
15/32	11,91			1 1/8	28,58			3 3/8	85,73			5 5/8	142,88		
31/64	12,3			1 3/16	30,16			3 7/16	87,31			5 11/16	144,46		
1/2	12,7			1 1/4	31,75			3 1/2	88,9			5 3/4	146,05		
33/64	13,1			1 5/16	33,34			3 9/16	90,49			5 13/16	147,64		
17/32	13,49			1 3/8	34,93			3 5/8	92,08			5 7/8	149,23		
35/64	13,89			1 7/16	36,51			3 11/16	93,66			5 15/16	150,81		
9/16	14,29			1 1/2	38,10			3 3/4	95,25			6"	152,40		



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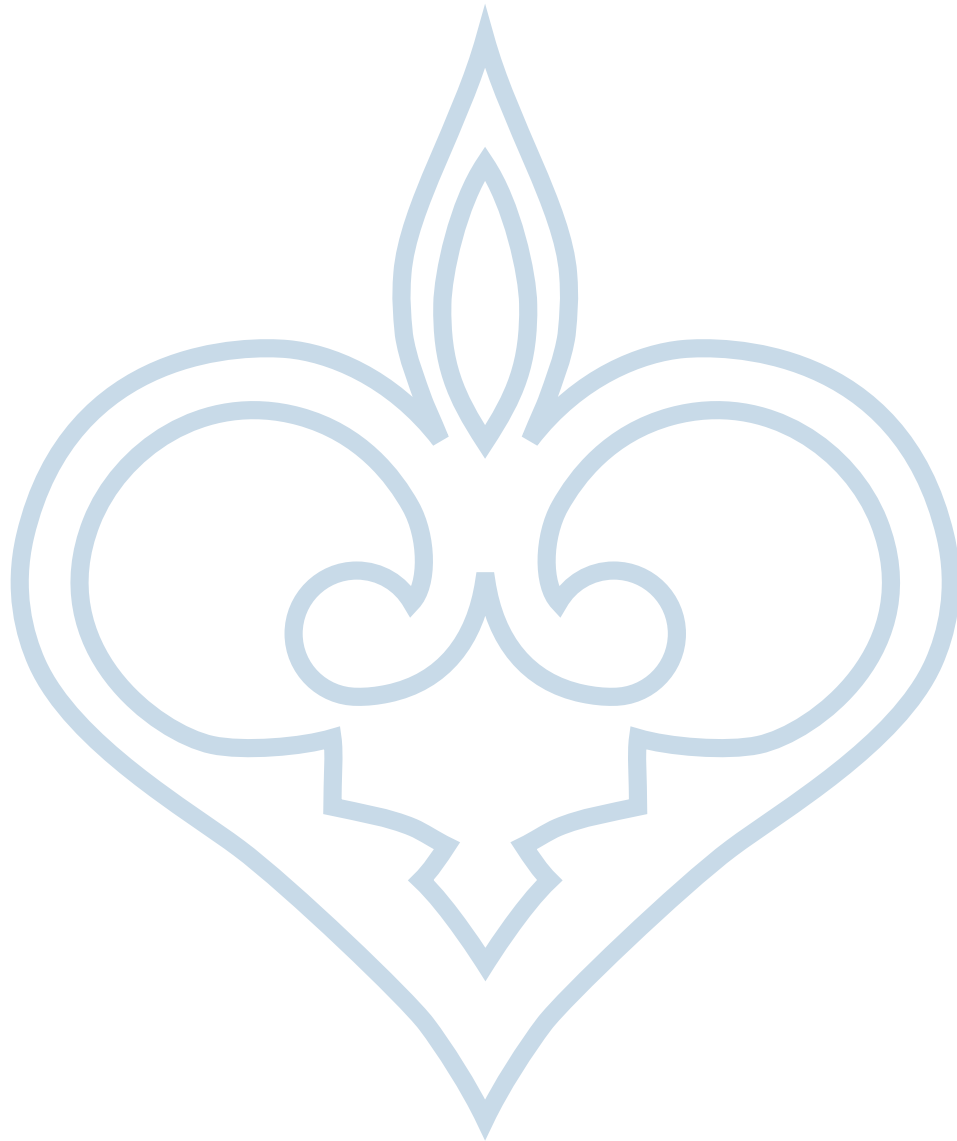


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