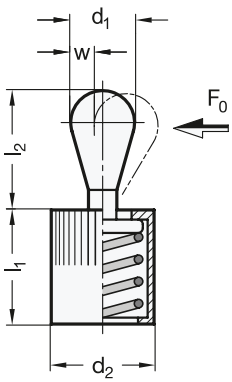
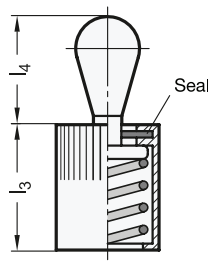
Press-Fit Side Thrust Pins

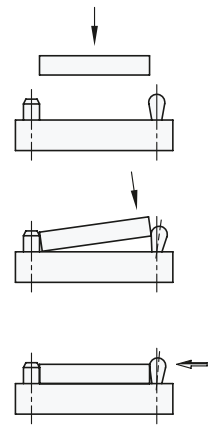
Housing Aluminum, Thrust Pin Steel / Plastic

Type **SA / KA**



Type **SB / KB**





Inch | Metric

4 Type

SA Steel thrust pin, without seal
KA Plastic thrust pin, without seal
SB Steel thrust pin, with seal
KB Plastic thrust pin, with seal

Specification

Housing
Aluminum, plain finish

Thrust pin
- Steel (Type SA / SB)
  - Hardedned
  - Zinc plated, blue passivated finish
- Plastic, polyacetal (POM) (Type KA / KB)

Thrust spring
- Side thrust force light
  Stainless steel AISI 301
- Side thrust force medium
  Spring steel, blackened finish
- Side thrust force heavy
  Spring steel, zinc plated, blue passivated finish

Seal
Chloroprene rubber (CR)

RoHS

Press-fit side thrust pins GN 715 are versatile and practical elements for holding, positioning and clamping of workpieces.
They eliminate costly alternatives, are space saving and easy to install. The knurled body requires only a hole tolerance of H8.
Version with seal used in applications involving a fluid or liquid.
For easy insertion a suitable installation tool GN 715.1 is available (see table).

see also...	Page
GN 713 Side Thrust Pins (with Threaded Body)	QVX

Technical Information

Technical and Assembly Instructions GN 713 / GN 715	QVX
ISO Fundamental Tolerances	QVX
Plastic Characteristics	QVX

Accessory

GN 715.1 Installation Tools	QVX
GN 715.2 Eccentric Bushings	QVX

How to order (Inch)

GN 715-8-1/2-50-SA

1	Diameter d_1
2	Diameter d_2
3	Side thrust force F_0 in N
4	Type

How to order (Metric)

GN 715-6-10-40-KB

1	Diameter d_1
2	Diameter d_2
3	Side thrust force F_0 in N
4	Type

Inch table

Dimensions in: inches / millimeters

1 d_1	2 d_2	3 Side thrust force F_0 Type SA / SB			Type KA / KB	a_1 Page XYZ	a_2 Page XYZ	d_3 H8 Page XYZ	h min. Page XYZ
0.12 3	1/4	2.25 lbf 10 N	4.50 lbf 20 N	8.99 lbf 40 N	2.25 lbf 10 N	0.06 1.5	0.14 3.5	0.24 6	0.28 7
0.20 5	7/16	4.50 lbf 20 N	11.24 lbf 50 N	22.48 lbf 100 N	4.50 lbf 20 N	0.10 2.5	0.22 5.7	0.39 10	0.47 12
0.24 6	7/16	8.99 lbf 40 N	16.86 lbf 75 N	22.48 lbf 100 N	8.99 lbf 40 N	0.12 3	0.30 7.7	0.39 10	0.47 12
0.31 8	1/2	11.24 lbf 50 N	22.48 lbf 100 N	33.72 lbf 150 N	11.24 lbf 50 N	0.16 4	0.35 8.9	0.47 12	0.55 14
0.39 10	5/8	22.48 lbf 100 N	33.72 lbf 150 N	46.09 lbf 205 N	22.48 lbf 100 N	0.20 5	0.42 10.7	0.63 16	0.71 18

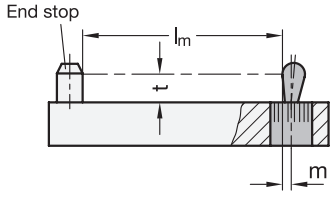
d_1	l_1 −0.04	l_2 ±0.02	l_3 −0.08	l_4	w	x_1 Page XYZ	x_2 Page XYZ	Part number installation tool
0.12 3	0.28 7	0.16 4	0.28 7	0.16 4	0.04 1	0.04 1	0.03 0.75	715.1-3
0.20 5	0.43 11	0.26 6.7	0.45 11.5	0.24 6	0.06 1.6	0.07 1.7	0.05 1.3	715.1-5.6
0.24 6	0.43 11	0.42 10.7	0.45 11.5	0.39 10	0.08 2	0.07 1.9	0.06 1.4	715.1-5.6
0.31 8	0.51 13	0.55 13.9	0.55 14	0.51 13	0.10 2.6	0.11 2.7	0.08 2.1	715.1-8
0.39 10	0.67 17	0.66 16.7	0.71 18	0.63 16	0.13 3.2	0.13 3.4	0.11 2.7	715.1-10

Metric table

Dimensions in: millimeters / inches

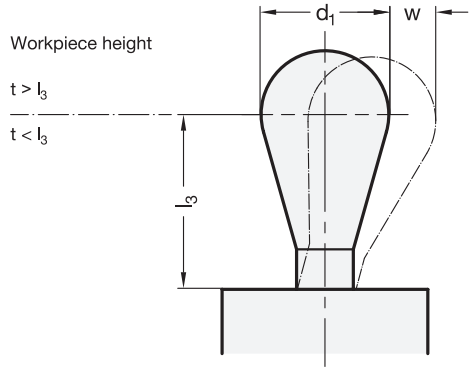
1 d_1	2 d_2	3 Side thrust force F_0 Type SA / SB			Type KA / KB	a_1 Page XYZ	a_2 Page XYZ	d_3 H8 Page XYZ	h min. Page XYZ
3 0.12	6	10 N 2.25 lbf	20 N 4.50 lbf	40 N 8.99 lbf	10 N 2.25 lbf	1.5 0.06	3.5 0.14	6 0.24	7 0.28
5 0.20	10	20 N 4.50 lbf	50 N 11.24 lbf	100 N 22.48 lbf	20 N 4.50 lbf	2.5 0.10	5.7 0.22	10 0.39	12 0.47
6 0.24	10	40 N 8.99 lbf	75 N 16.86 lbf	100 N 22.48 lbf	40 N 8.99 lbf	3 0.12	7.7 0.30	10 0.39	12 0.47
8 0.31	12	50 N 11.24 lbf	100 N 22.48 lbf	150 N 33.72 lbf	50 N 11.24 lbf	4 0.16	8.9 0.35	12 0.47	14 0.55
10 0.39	16	100 N 22.48 lbf	150 N 33.72 lbf	205 N 46.09 lbf	100 N 22.48 lbf	5 0.20	10.7 0.42	16 0.63	18 0.71

d_1	l_1 −1	l_2 ±0.5	l_3 −2	l_4	w	x_1 Page XYZ	x_2 Page XYZ	Part number installation tool
3 0.12	7 0.28	4 0.16	7 0.28	4 0.16	1 0.04	1 0.04	0.75 0.03	715.1-3
5 0.20	11 0.43	6.7 0.26	11.5 0.45	6 0.24	1.6 0.06	1.7 0.07	1.3 0.05	715.1-5.6
6 0.24	11 0.43	10.7 0.42	11.5 0.45	10 0.39	2 0.08	1.9 0.07	1.4 0.06	715.1-5.6
8 0.31	13 0.51	13.9 0.55	14 0.55	13 0.51	2.6 0.10	2.7 0.11	2.1 0.08	715.1-8
10 0.39	17 0.67	16.7 0.66	18 0.71	16 0.63	3.2 0.13	3.4 0.13	2.7 0.11	715.1-10



The position of the mounting hole results from the workpiece length l_m plus the hole offset m, which is calculated as shown below:

w	=	Maximum movement range of the thrust pin
t	=	Workpiece height
m	=	Hole offset



Case 1:

The workpiece height t is greater than the cone height l_3

$$m = \frac{d_1}{2} - \frac{w}{2}$$

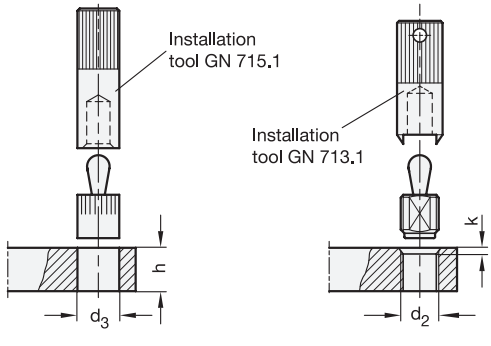
Case 2:

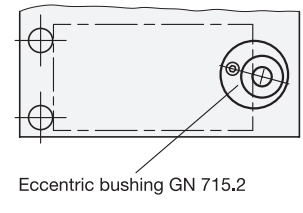
The workpiece height t is smaller than the cone height l_3

$$m = \frac{d_1}{2} - (l_3 - t) \times 0.123$$

If the position of the mounting hole is determined as specified, the full movement of the side thrust pin will be available to cover the tolerance of the workpiece.

In case 1, the lateral clamping force is coupled with a downward pull that presses the workpiece against the contact surface.





The use of a installation tool GN 715.1 or installation tool GN 713.1 is recommended for installation.

Eccentric bushings GN 715.2 are an assembly aid for side thrust pins GN 714 / GN 715. They enable adjustment of the side thrust pins to the most favorable clamping position, e.g. to bridge larger tolerance ranges of a workpiece.