

Clamping pins

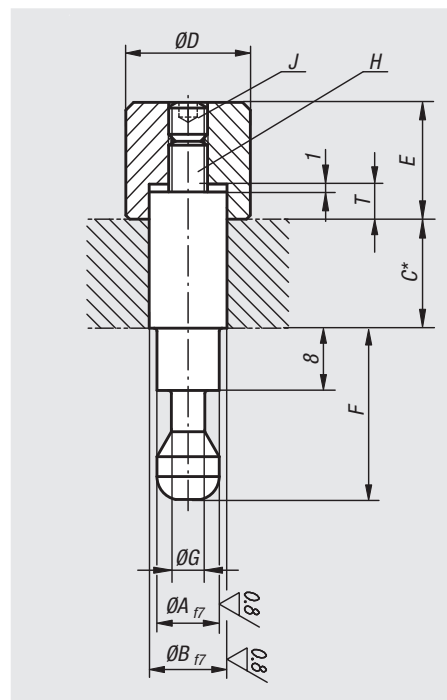
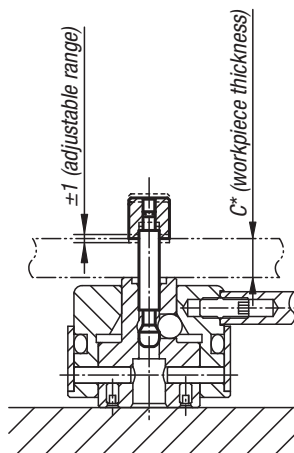


Material:
Carbon steel.

Version:
Pins tempered and ground.
Knurled knob tempered, black oxidised.

Sample order:
nlm 04400-005050

Note:
* The clamping pin can be altered to suit the workpiece thickness.



Order No.	A	B	C	D	E	F	G	H	J	T
04400-005050	5	5	50	10	10	17	3	M3	M3x4	3
04400-006050	5	6	50	10	10	17	3	M3	M3x4	3
04400-008080	8	8	80	16	15	22	4,3	M5	M5x5	4,5
04400-010080	8	10	80	16	15	22	4,3	M5	M5x5	4,5

Clamping pins (high force)

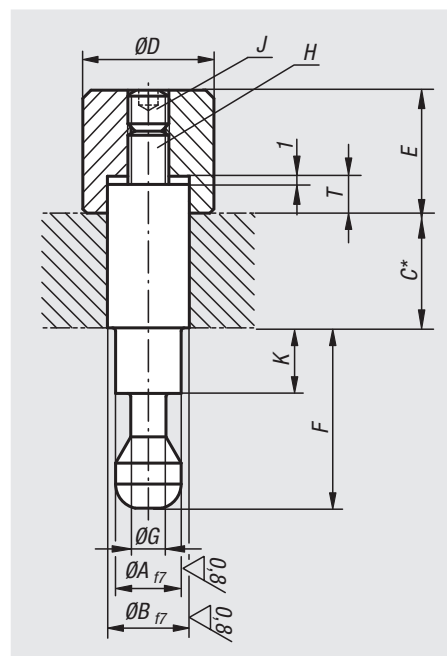
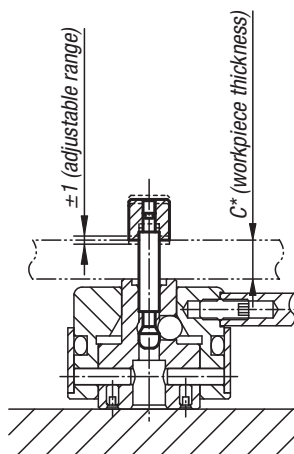


Material:
Carbon steel.

Version:
Pins tempered and ground.
Knurled knob tempered, black oxidised.

Sample order:
nlm 04400-412100

Note:
* The clamping pin can be altered to suit the workpiece thickness.



Order No.	A	B	C	D	E	F	G	H	J	K	T	Suitable for
04400-412100	12	12	100	18	23	38	6,5	M8	M8x8	21,5	7	04400-506501
04400-416100	12	16	100	24	23	38	6,5	M8	M8x8	21,5	7	04400-506501
04400-516120	16	16	120	24	29	48	9,5	M10	M10x10	28	9	04400-638001
04400-520120	16	20	120	30	29	48	9,5	M10	M10x10	28	9	04400-638001

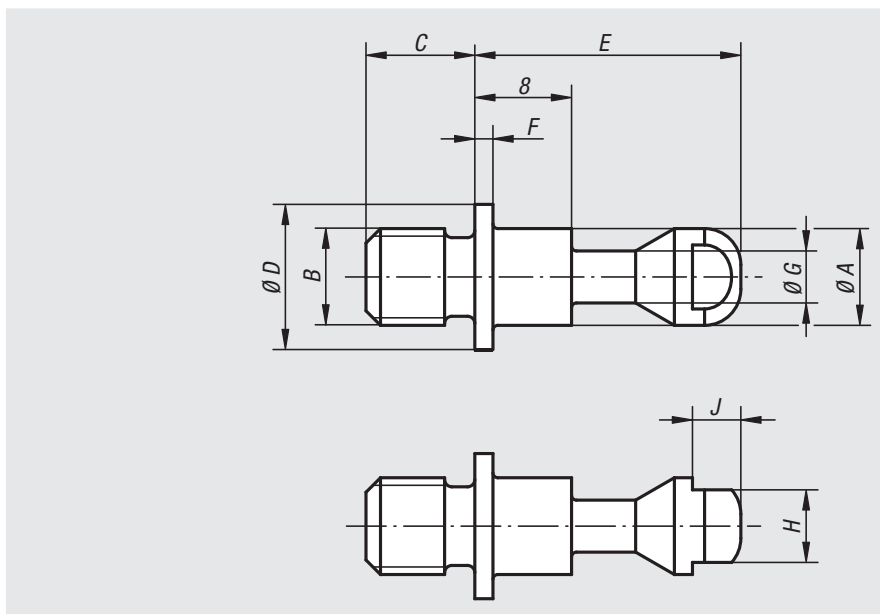
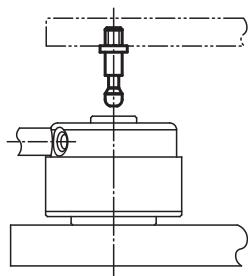
Clamping screws



Material:
Carbon steel.

Version:
Tempered and black oxidised.

Sample order:
nlm 04400-105060



Order No.	A	B	C	D	E	F	G	H	J
04400-105060	5	M5	6	8	17	1,2	3	4	2,5
04400-106070	5	M6	7	8	17	1,2	3	4	2,5
04400-108090	8	M8	9	12	22	1,5	4,3	6	4
04400-110110	8	M10	11	12	22	1,5	4,3	6	4

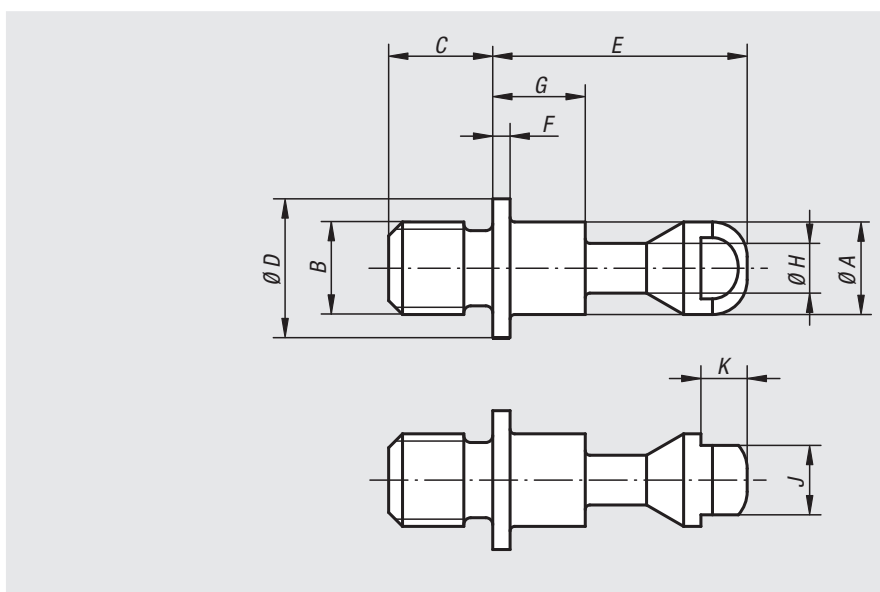
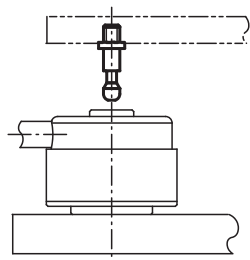
Clamping screws (high force)



Material:
Carbon steel.

Version:
Tempered and black oxidised.

Sample order:
nlm 04400-1412013

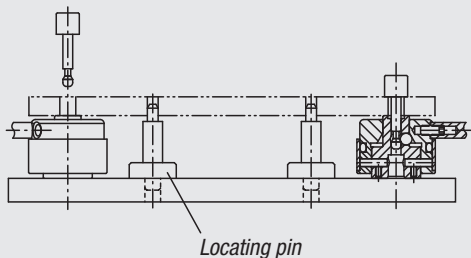


Order No.	A	B	C	D	E	F	G	H	J	K	Suitable for
04400-1412013	12	M12	13	20	38	2	21,5	6,5	10	4	04400-506501
04400-1416017	12	M16	17	20	38	2	21,5	6,5	10	4	04400-506501
04400-1516017	16	M16	17	25	48	2,5	28	9,5	13	5	04400-638001
04400-1520021	16	M20	21	25	48	2,5	28	9,5	13	5	04400-638001

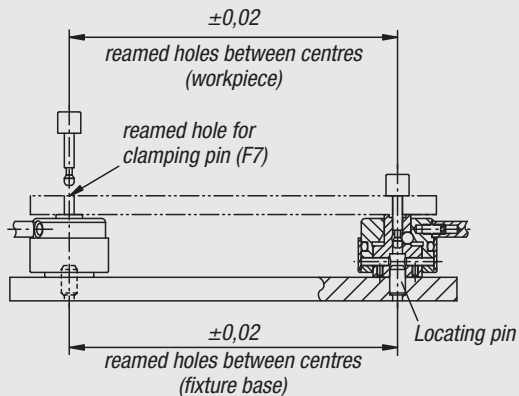
Technical information for pull clamps

Workpiece positioning

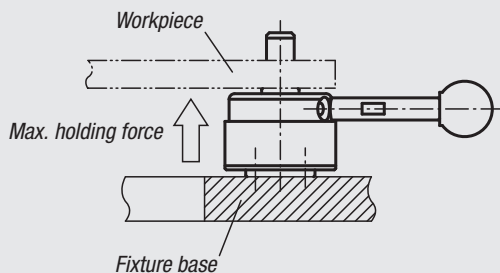
Clamping using a pull clamp and clamping pin



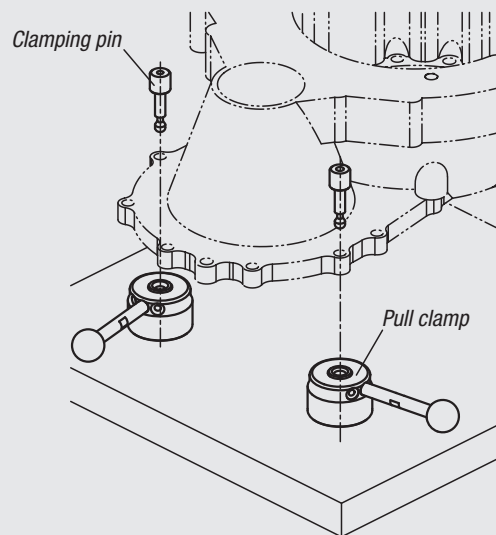
Simultaneous clamping and positioning of a workpiece



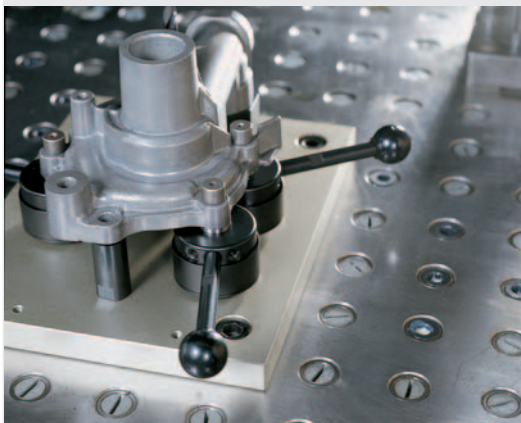
Holding forces for workpiece processing



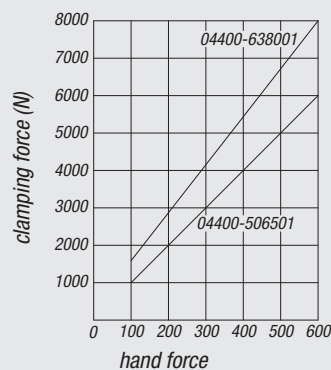
Make sure that no force on the underside of the workpiece exceeds the values given in the table.



Example using pull clamps



Performance curve



01000
02000
03000
04000
05000
06000
07000
08000
09000
10000
12000

Pull clamps



Material:

Housing and cam tool steel.
Grip carbon steel.
Ball knob thermoset PF 31.

Version:

Housing and cam hardened and black oxidised.
Grip black oxidised.
Ball knob black.

Sample order:

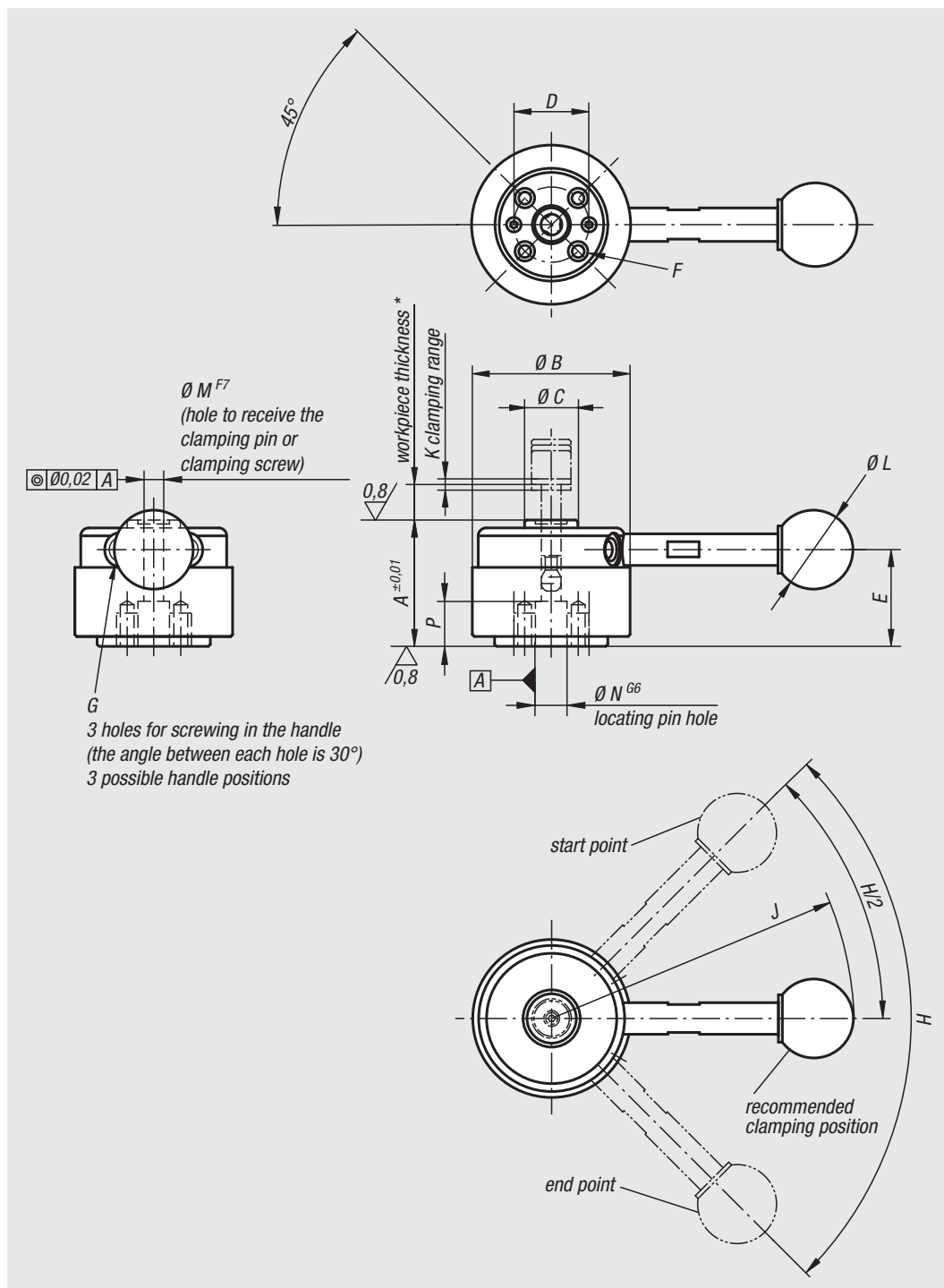
nIm 04400-324001

Note:

* Max. workpiece thickness see clamping pin 04400 (dimension C).
** Admissible hand force for the handle.

Accessories:

Standard handles 06355.
Screw-in handles with adjustable torque 06357.



Order No.	Version 1	A	B	C	D	E	F	G	H	J	K	L	M	N	P	Clamping force N	Recommended workpiece thickness tolerance	Hand force FH N	Holding force N
04400-324000	without grip	32	40	13,5	18	24,5	M4x8	M5	90°	-	1,5	-	5	8	10	900	±0,3*	150**	2000
04400-324001	with grip	32	40	13,5	18	24,5	M4x8	M5	90°	76,5	1,5	20	5	8	10	900	±0,3*	150**	2000
04400-405000	without grip	40	50	18	25	30,7	M6x9	M6	110°	-	2	-	8	12	13	2500	±0,5*	200**	5500
04400-405001	with grip	40	50	18	25	30,7	M6x9	M6	110°	111,5	2	25	8	12	13	2500	±0,5*	200**	5500

Pull clamps (high force)



Material:

Housing, clamping ring and handles, carbon steel.
Grip thermoset PF 31.

Version:

Housing and clamping ring hardened and black oxidised.
Handles black oxidised.
Grip black.

Sample order:

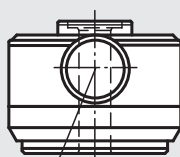
nIm 04400-506501

Note:

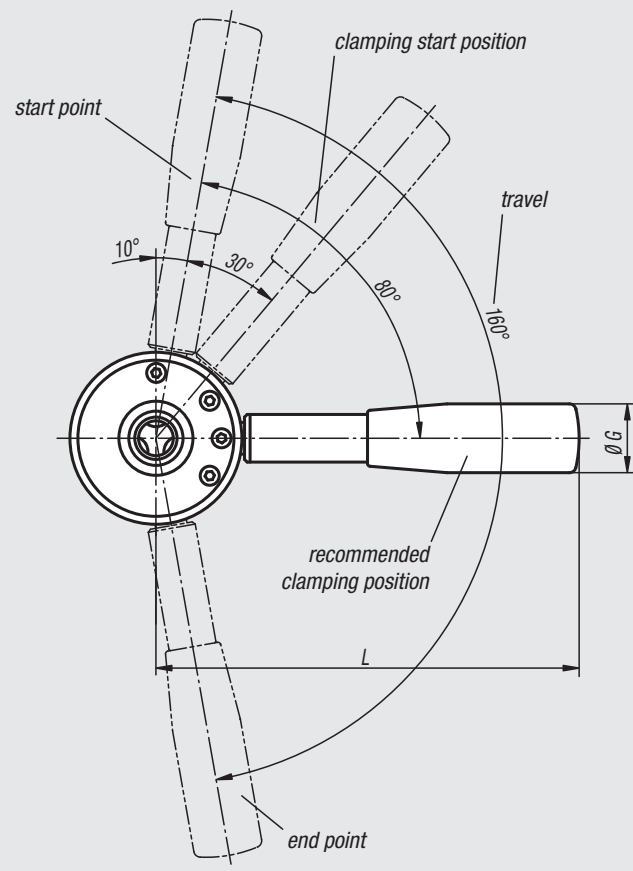
When clamping with a high force clamping pin the recommended workpiece tolerances must be maintained. The grip lever must be lay between the recommended clamping position and end point for safe clamping.

* Max. workpiece thickness see clamping pin 04400 (dimension C).

** Permitted manual force for handle.



3 holes for screwing in the handle
(angle between each hole is 35°)
3 possible handle positions



Order No.	A	B	C	D	E	F	G	H	J	K	L	Clamping force N	Recommended workpiece thickness tolerance	Hand force FH N	Holding force N
04400-506501	50	65	28	12	36	M8x14	26	2	10	40	160	6000	±0,5*	600**	8000
04400-638001	63	80	34	16	45	M10x18	28	2,5	12	50	180	8000	±0,8*	600**	14000

01000
02000
03000
04000
05000
06000
07000
08000
09000
10000
12000