

Clamping knobs



Lobe knobs

Star knobs

Knurled knobs

Wing knobs

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Lobe Knobs



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quarter-turns



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Wing
Knobs



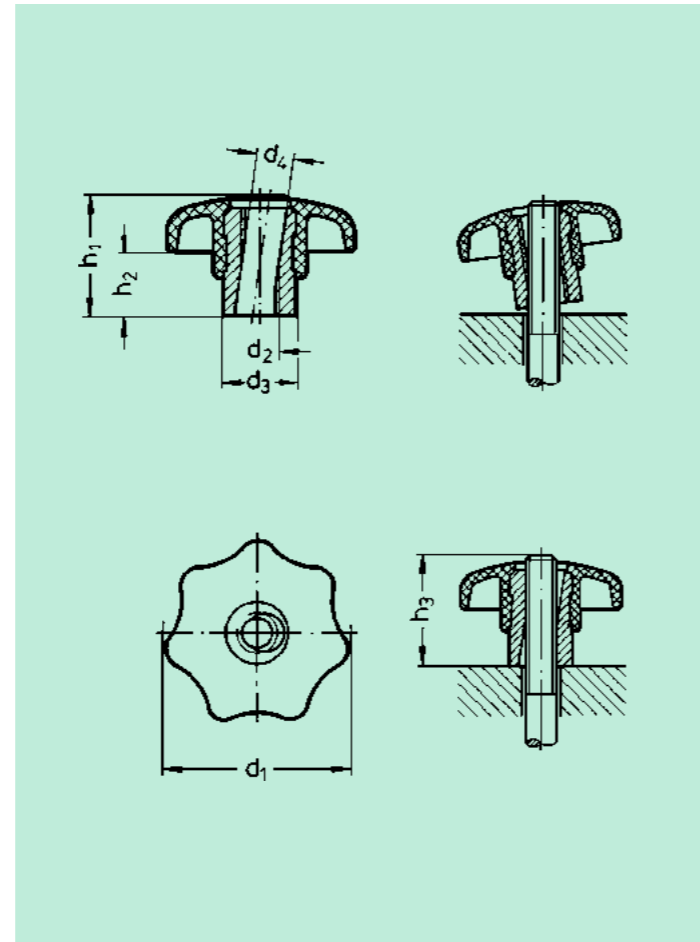
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Note: Pages refer to document pages (not catalogue)

Product examples



Quick Acting Star Knobs



Quick acting star knobs are used in such applications where the knob has to be completely removed after the releasing operation and refitted very rapidly for re-clamping.

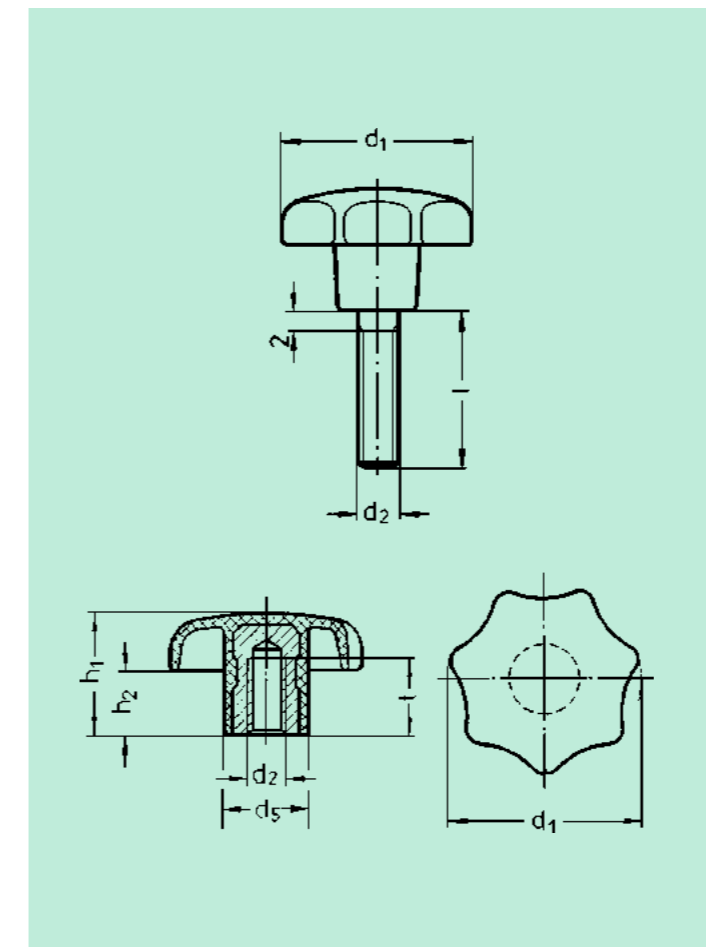
The knob is tilted over the threaded spindle. When in position, the knob is brought into a straight position for meshing of the two threads on nut and spindle. The knob will then have to be turned only by fraction of a rotation to achieve clamping.

The use of this knob is, however, limited to such applications where relatively low clamping forces are required.

Model: Body from reinforced polyamide, black matt. Bush from steel, zinc-plated.

Quick Acting Star Knobs

Order No.	Internal Thread d ₂	Size d ₁ mm	d ₄ mm	d ₅ mm	h ₁ mm	h ₂ ⊕ mm	h ₃ min. mm	Weight approx. g
25 40 08	M 8	40	8,4	16	26	13	24	31
25 50 10	M 10	50	10,5	20	34	17	30	61
25 63 12	M 12	63	13	26	42	21	37	130



Star Knobs

similar to DIN 6336



Zimmermann Star Knobs for various applications and individual solutions. Zimmermann star knobs offer high flexibility and captivate by their modern design and nice surface finish.

Model: Body from reinforced polyamide, black matt. Bush resp. screw from steel, zinc-plated.

Star knobs with fitting hole H7 and star knobs from cast iron, stainless steel or aluminium are available on request.

Star Knobs similar to DIN 6336

Order No.	Internal Thread d ₂	t mm	Weight approx. g	Order No.	External Thread d ₂	Length of Screw l (mm)				Size d ₁ mm	d ₅ mm	h ₁ mm	h ₂ mm	
24 25 04	M 4	7,5		24 25 05 ...	M 5	10	15	20	25	30	25	12	16	8
24 25 05	M 5	8,5	5	24 25 06 ...	M 6	10	15	20	25	30				
24 25 06	M 6	9		24 32 05	M 5	8,5								
24 32 05	M 5	8,5		24 32 06 ...	M 6	11	16	21	26	31	32	14	20	10
24 32 06	M 6	9	8	24 32 08 ...	M 8	15	20	25	30	40				
24 40 05	M 5	8,5	15								40	18	25	13
24 40 06	M 6	9	16											
24 40 08	M 8	14	17	24 40 08 ...	M 8	15	20	25	30	40				
24 50 08	M 8	14	31	24 50 08 ...	M 8	14	19	24	29	39	50	22	32	17
24 50 10	M 10	21	30	24 50 10 ...	M 10	20		30	40	50				
24 63 10	M 10	23	85								63	26	40	21
24 63 12	M 12	23	82	24 63 12 ...	M 12	25	30	40		60				

... Please indicate here the desired length of screw e.g. 025 for l = 25 mm.

Star Knobs

with Projecting Steel or
Stainless Steel Bush

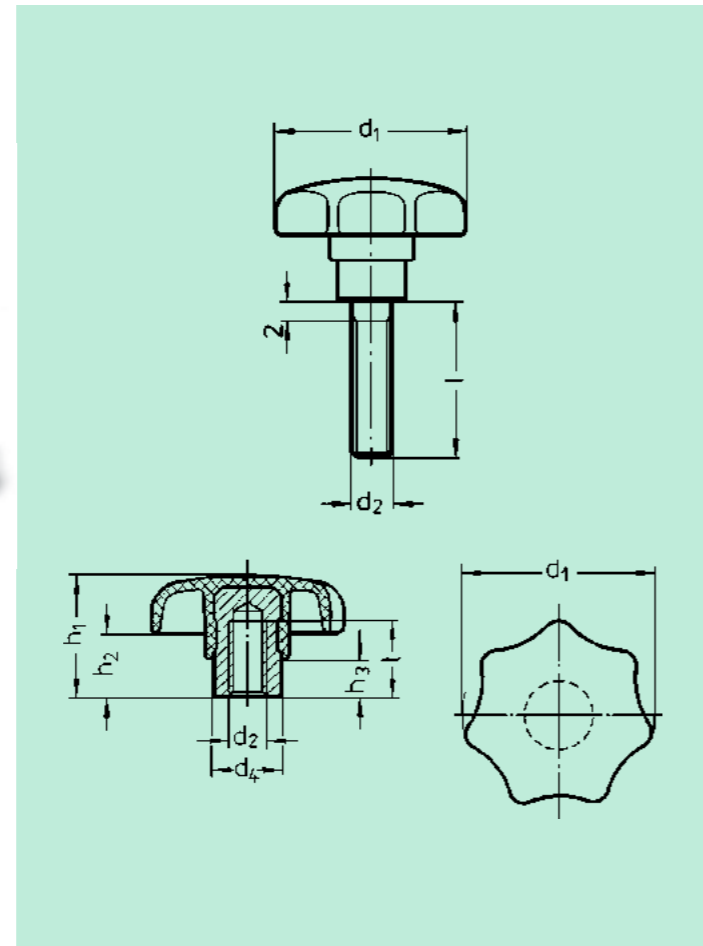
INOX



Zimmermann Star Knobs with projecting steel bush. Especially suitable for cross pin connections.

Model: Body from reinforced polyamide, black matt. Bush resp. screw from steel, zinc-plated resp. from stainless steel, material no. 1.4305.

Star knobs with fitting hole H7 are available on request.



Star Knobs with Projecting Bush - Steel

Order No.	Internal Thread d ₂	t mm	Order No.	External Thread d ₂	Length of Screw l (mm)			Size d ₁ mm	d ₄ mm	h ₁ mm	h ₂ mm	h ₃ mm
26 32 06	M 6	12	26 32 06 ...	M 6	16	25	30	32	12	21	11	8,5
26 40 06	M 6	14						40	14	26	14	10
26 40 08	M 8		26 40 08 ...	M 8	16	30	40					
26 50 08	M 8	18						50	18	32	17	10
26 50 10	M 10		26 50 10 ...	M 10	25	35	55					
26 63 10	M 10	22						63	20	40	21	14
26 63 12	M 12		26 63 12 ...	M 12		30	60					

... Please indicate here the desired length of screw e.g. 025 for l = 25 mm.

Star Knobs with Projecting Bush - Stainless Steel

Order No.	Internal Thread d ₂	t mm	Size d ₁ mm	d ₄ mm	h ₁ mm	h ₂ mm	h ₃ mm
26 32 06 E0A	M 6	12	32	12	21	11	8,5
26 40 08 E0A	M 8	14	40	14	26	14	10
26 50 10 E0A	M 10	18	50	18	32	17	10
26 63 12 E0A	M 12	22	63	22	40	21	14

Star Knobs

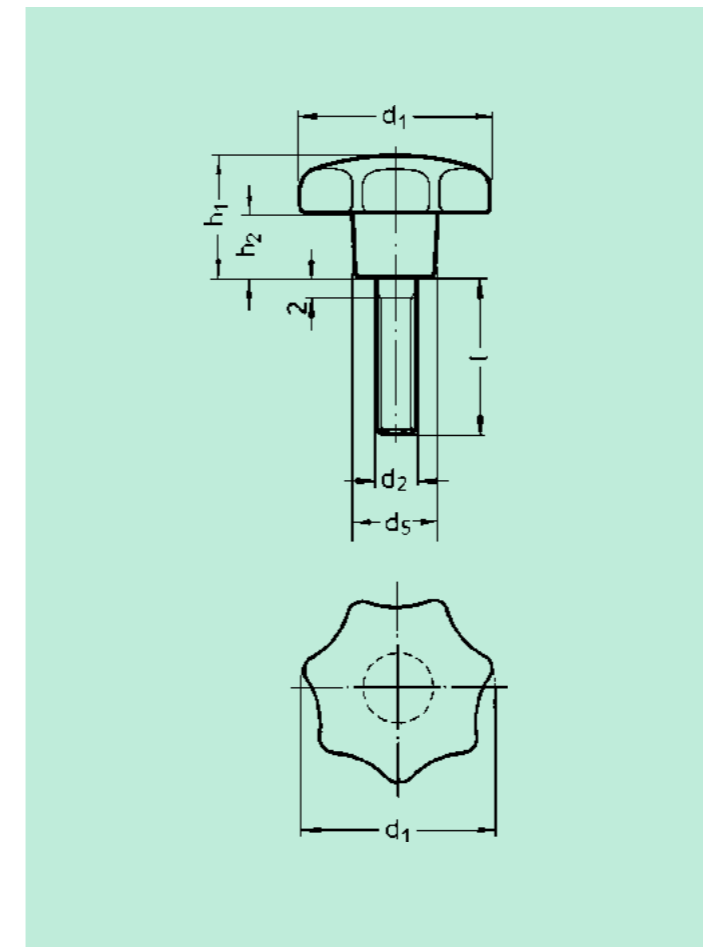
Steel Parts from Stainless Steel
Similar to DIN 6336

INOX

27



Model: Body from reinforced polyamide, black matt. Screw from stainless steel, material no. 1.4567.



Star Knobs similar to DIN 6336 - Stainless Steel

Order No.	External Thread d ₂	Length of Screw l (mm)				Size d ₁ mm	d ₅ mm	h ₁ mm	h ₂ mm
24 25 05 ... E0A	M 5	10	15	25	25	12	16	8	
24 32 06 ... E0A	M 6		21	26	31	32	14	10	
24 40 08 ... E0A	M 8		20	30	40	40	18	13	
24 50 10 ... E0A	M 10		25	30	45	50	22	17	
24 63 12 ... E0A	M 12		30	40	50	63	26	21	

... Please indicate here the desired length of screw e.g. 025 for l = 25 mm.

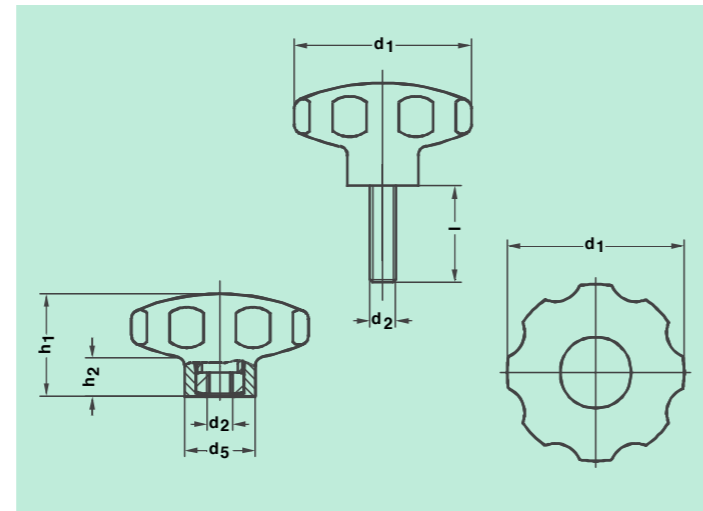
Star Knobs Closed Shape



Due to their closed shape and smooth surface these star knobs meet great demands on hygiene. Knobs size 55 are also available as safety star knobs.

Model: Body from glass-fibre reinforced polyamide, black matt. Nut resp. screw acc. to DIN 934.

Knobs are also available disassembled or without nuts/screws.



Star Knobs closed shape

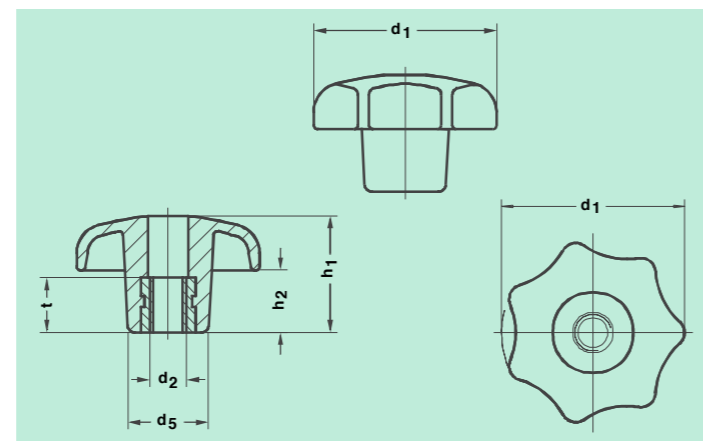
Order No.	Internal Thread	Order No.	External Thread	Length of Screw l (mm)	Size d1 mm	d5 mm	h1 mm	h2 mm
29 32 05	M 5	29 32 05 ...	M 5	10 14 28	32	19	19	10
29 32 06	M 6	29 32 06 ...	M 6	14 23 28	39	23	27	11
29 39 06	M 6	29 39 06 ...	M 6	14 23 28	39	23	27	11
29 39 08	M 8	29 39 08 ...	M 8	18 23 33 38	55	22	32	13
29 55 08	M 8	29 55 08 ...	M 8	18 23 33 38	55	22	32	13

... Please indicate here the desired length of screw e.g. 023 for l = 23 mm.

similar to DIN 6336 threaded through-bore



Model: Body from glass-fibre reinforced polyamide, black matt. Bush from steel, zinc-plated.



Star Knobs similar to DIN 6336, threaded through-bore

Order No.	Internal Thread d2	t mm	Size d1 mm	d5 mm	h1 mm	h2 mm	Weight approx. g
71 32 06	M 6	11	32	14	20	10	9
71 40 08	M 8	14	40	18	25	13	17
71 50 10	M 10	15	50	22	32	17	33
71 63 12	M 12	20	63	26	40	21	60

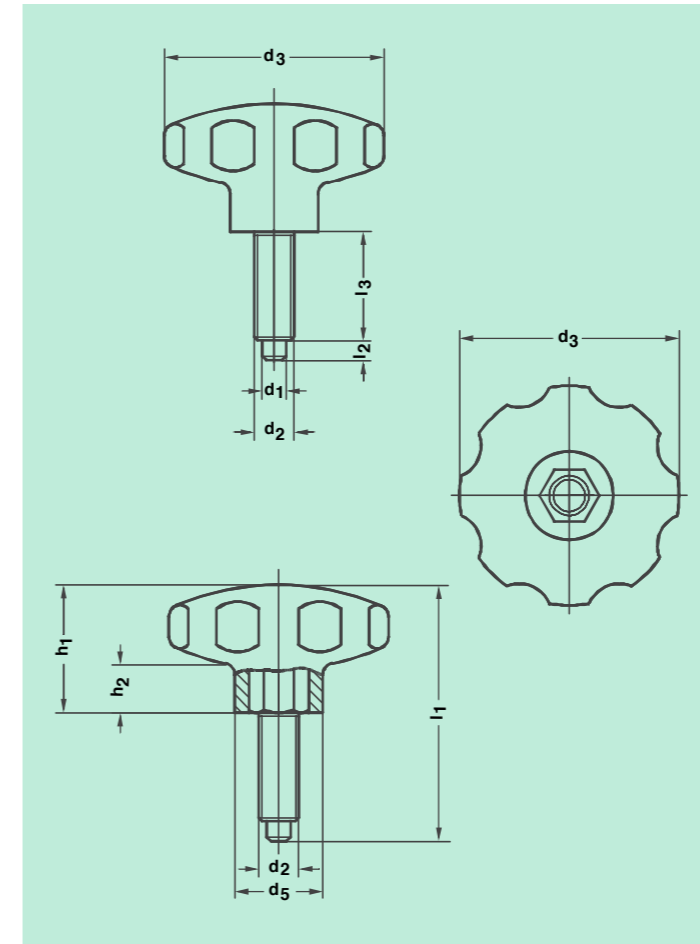
Fixing and Clamping Knobs



Fixing and Clamping Knobs allow for quick and precise positioning, securing and clamping of adjusting elements.

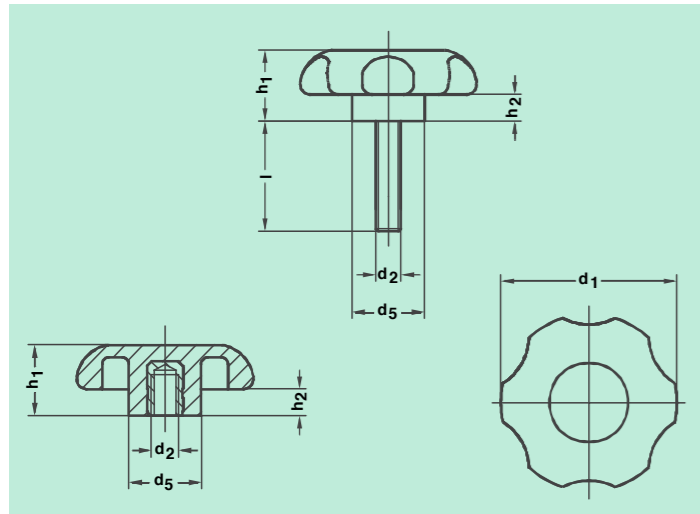
Especially efficient for moving telescopes or similar applications.

Model: Body from polyamide, black. Screw from steel, zinc-plated.



Fixing- and Clamping Knobs

Order No.	External Thread d2	Size d3 mm	d1 mm	d5 mm	l1 mm	l2 mm	l3 mm	h1 mm	h2 mm
49 025 08 04	M8 x 1	25	4	12	35	5	10	20	8
49 025 10 05	M10 x 1	25	5	12	38	5	13	20	8
49 025 12 06	M12 x 1,5	25	6	12	43	6	17	20	8
49 035 10 05	M10 x 1	35	5	17	47	5	15	27	10
49 055 10 05	M10 x 1	55	5	25	52	5	15	32	12
49 055 12 06	M12 x 1,5	55	6	25	58	6	20	32	12
49 055 16 08	M16 x 1,5	55	8	25	68	9	27	32	12
49 065 16 08	M16 x 1,5	65	8	30	70	8	22	40	14



Star Knobs



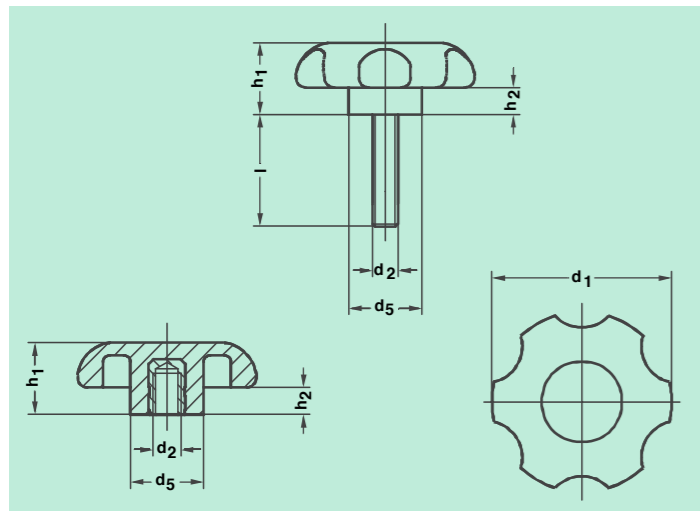
At excellent prices.

Model: Body from polyamide, black. Bush resp. screw from steel, zinc-plated.

Star Knobs

Order No. Internal Thread	Internal Thread d ₂	t mm	Order No. External Thread	External Thread d ₂	Length of Screw l (mm)		Size d ₁ mm	d ₅ mm	h ₁ mm	h ₂ mm
68 32 06	M 6	9	68 32 06 ...	M 6	15	20	30	12	16	5
68 32 08	M 8		68 32 08 ...	M 8	15	20	30			
68 40 06	M 6	15	68 40 06 ...	M 6	18	28	40	17	25	10
68 40 08	M 8		68 40 08 ...	M 8	18	28				

... Please indicate here the desired length of screw e.g. 020 for l = 20 mm.



Star Knobs



At excellent prices.

Model: Body from polyamide, black. Bush resp. screw from steel, zinc-plated.

Star Knobs

Order No. Internal Thread	Internal Thread d ₂	t mm	Order No. External Thread	External Thread d ₂	Length of Screw l (mm)			Size d ₁ mm	d ₅ mm	h ₁ mm	h ₂ mm
69 55 06	M 6	9	69 55 06 ...	M 6	17	22	32	55	22,5	22,5	9
69 55 08	M 8	15	69 55 08 ...	M 8	17	32	47	55	22,5	22,5	9
69 55 10	M10	15	69 55 10 ...	M10	32	42	47	55	22,5	22,5	9

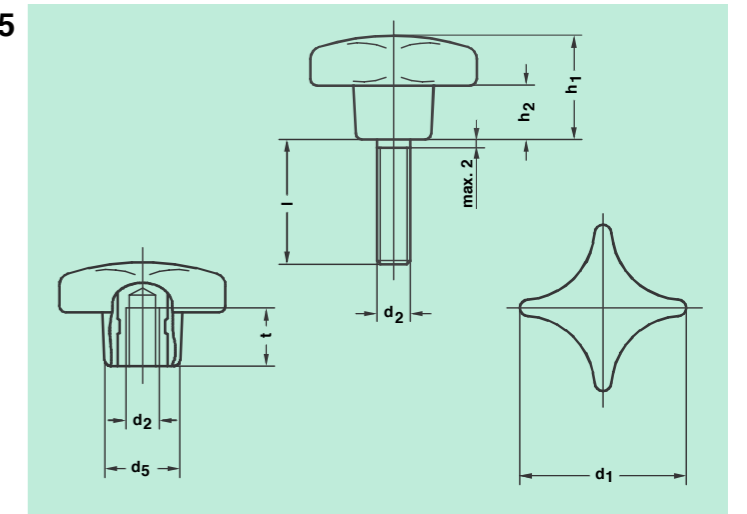
... Please indicate here the desired length of screw e.g. 032 for l = 32 mm.

Cross Knobs similar to DIN 6335



Model: Body from duroplastic FS 31. Bush resp. screw from steel, zinc-plated.

Cross knobs from cast iron, stainless steel or aluminium are available on request (some also from stock).



Cross Knobs similar to DIN 6335

Order No. Internal Thread	Internal Thread d ₂	t mm	Weight approx. kg	Order No. External Thread	External Thread d ₂	Length of Screw l (mm)			Size d ₁ mm	d ₅ mm	h ₁ mm	h ₂ mm
21 25 05	M 5	10,5	0,006	21 25 05 ...	M 5	10	15	20	25	11	17	9
21 32 06	M 6	13,5	0,010	21 32 06 ...	M 6	15	20	30	32	14	20	10
21 40 08	M 8	16	0,018	21 40 08 ...	M 8	15	20	30	40	18	26	15
21 50 10	M 10	21	0,033	21 50 10 ...	M 10	20	30	40	50	22	23	20
21 63 12	M 12	25	0,061	21 63 12 ...	M 12	25	40		63	27	40	23

... Please indicate here the desired length of screw e.g. 020 for l = 20 mm.

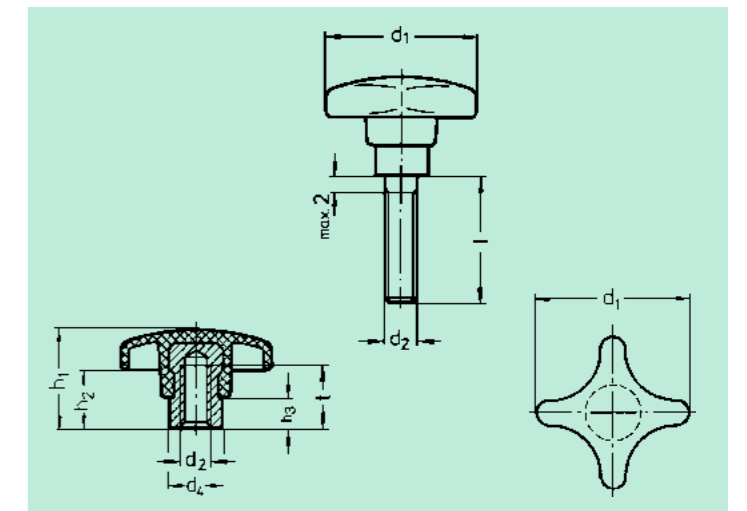
Cross Knobs

with Projecting Steel Bush



Cross Knobs with projecting steel bush. Especially suitable for cross pin connections.

Model: Body from polyamide, black matt. Bush resp. screw from steel, zinc-plated.



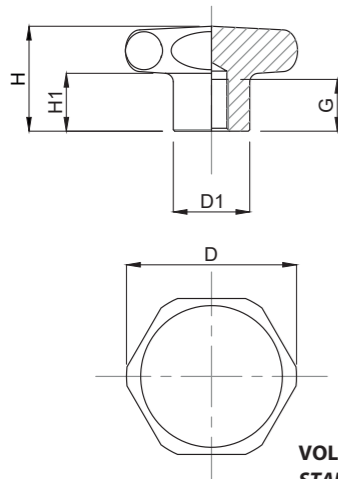
Cross Knobs with fitting hole H7 are available on request.

Cross Knobs with Projecting Steel Bush

Order No. Internal Thread	Internal Thread d ₂	t mm	Order No. External Thread	External Thread d ₂	Length of Screw l (mm)			Size d ₁ mm	d ₄ mm	h ₁ mm	h ₂ mm	h ₃ mm
23 32 06	M 6	12	23 32 06 ...	M 6	16	20	30	32	12	20	10	9
23 40 08	M 8	14	23 40 08 ...	M 8	16	25	40	40	14	25	13	10
23 50 10	M 10	18	23 50 10 ...	M 10	25	35	55	50	18	32	20	12
23 63 12	M 12	22	23 63 12 ...	M 12	30	40		60	20	40	25	14

... Please indicate here the desired length of screw e.g. 020 for l = 20 mm.

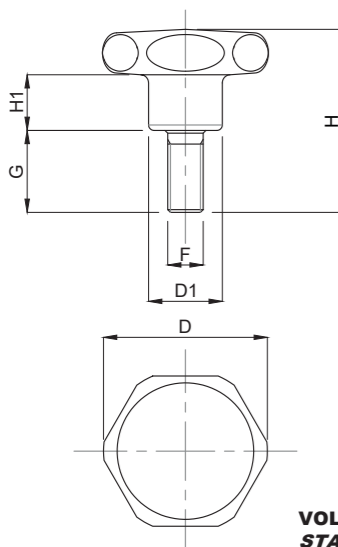
Stainless steel Star Knobs



VOLANTINI INOX A LOBI - FILETTO FEMMINA
STAINLESS STEEL KNOBS - FEMALE



CODICE - CODE	descrizione - description	DIMENSIONI PRINCIPALI - MAIN DIMENSIONS					
		D	D1	H	H1	G	F
30000E/27	VOLANTINO D27 M5	27	15	19	10	10	M5
30010E/33	VOLANTINO D33 M6	33	19	23	12	12	M6
30020E/40	VOLANTINO D40 M8	40	21	27	15	13	M8
30030E/50	VOLANTINO D50 M10	50	25	33	17,5	17	M10
30040E/60	VOLANTINO D60 M12	60	27	37	20	20	M12



VOLANTINI INOX A LOBI - FILETTO MASCHIO
STAINLESS STEEL KNOBS - MALE

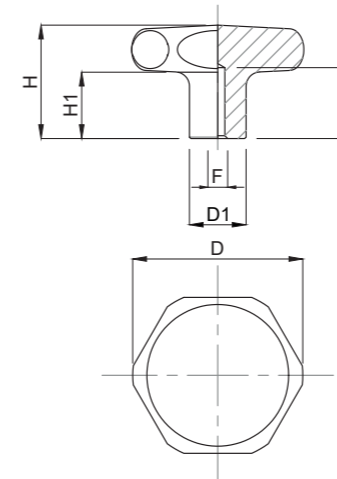


CODICE - CODE	descrizione - description	DIMENSIONI PRINCIPALI - MAIN DIMENSIONS					
		D	D1	H	H1	G	F
30060E/27	VOLANTINO D27 M6	27	15	30	10	10	M6
30070E/33	VOLANTINO D33 M8	33	19	43	11	20	M8
30080E/40	VOLANTINO D40 M8	40	21	47	15	20	M8
30090E/50	VOLANTINO D50 M10	50	25	63	17,5	30	M10
30100E/60	VOLANTINO D60 M12	60	27	77	20	40	M12

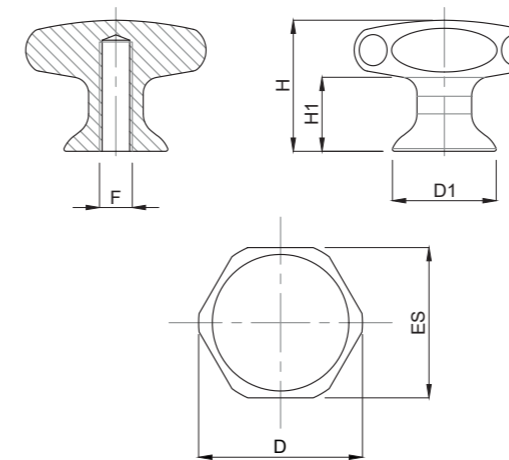
- Volantini dal design privo di cavità e pertanto non depositari di sporco e impurità. Settori d'impiego: industria farmaceutica, chimica, beverage, alimentare e del packaging
- Materiale: acciaio inox AISI 304 (a richiesta AISI 316). Superficie lucidata a specchio o, a richiesta, sabbiata

- Material: 1.4301 (1.4401 request). Polished surface (sandblasted treatment on request). Thanks to their design the knobs avoid any dirt and dust deposit.
- Applications: pharmaceutical, chemical, food, wine and packaging industry.

Stainless steel Star Knobs



CODICE - CODE	descrizione - description	DIMENSIONI PRINCIPALI - MAIN DIMENSIONS					
		D	D1	H	H1	G	F
30000/40	VOLANTINO D40 FORO D5	40	14	25	12,5	18	5
30010/50	VOLANTINO D50 FORO D5	50	18	32	17,5	21	5
30020/60	VOLANTINO D60 FORO D5	60	20	40	20	25	5
30030/65	VOLANTINO D65 FORO D5	65	20	40	20	25	5

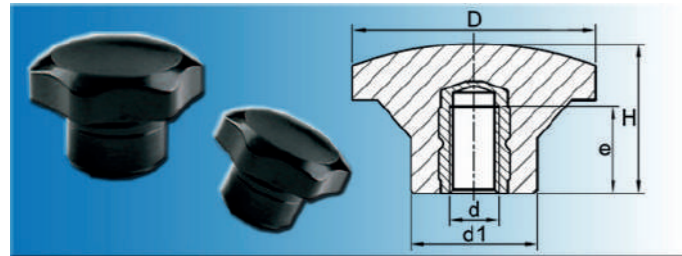


CODICE - CODE	descrizione - description	DIMENSIONI PRINCIPALI - MAIN DIMENSIONS					
		D	D1	ES	F	H	H1
30005/27SL20	VOLANTINO D27 M5	27	15	24	M5x15	20	13
30010E/33SL24	VOLANTINO D33 M6	33	19	30	M6x20	24	13
30020E/40SL28	VOLANTINO D40 M8	40	24	36	M8x20	28	16
30030E/50SL30	VOLANTINO D50 M10	50	24	46	M10x25	30	16
30050E/65SL40	VOLANTINO D65 M12	65	31	60	M12x25	40	24

- Volantini dal design privo di cavità e pertanto non depositari di sporco e impurità. Settori d'impiego: industria farmaceutica, chimica, beverage, alimentare e del packaging
- Materiale: acciaio inox AISI 304 (a richiesta AISI 316). Superficie lucidata a specchio o, a richiesta, sabbiata

- Material: 1.4301 (1.4401 request). Polished surface (sandblasted treatment on request). Thanks to their design the knobs avoid any dirt and dust deposit.
- Applications: pharmaceutical, chemical, food, wine and packaging industry.

Star grip nuts | Star grip nuts - threaded insert of brass



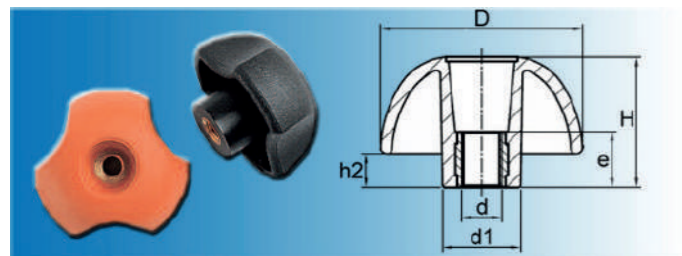
Material: thermoset material FS 31 DIN 7708
Colour: black

Threaded insert of brass

Part no.	D	d1	d	e	H
6111822303	22	12	M5	9	19
6111822302	22	12	M6	10	19
6111833303	33	19	M8	14	24
6111833304	33	19	M6	10	24
6111844303	44	23	M8	14	27

Part no.	D	d1	d	e	H
6111844305	44	23	M10	17	27
6111855306	55	25	M8	14	34
6111855308	55	25	M10	17	34
6111866302	66	30	M12	19	42
6111877303	77	30	M12	19	46

Star grip nuts | Star grip nuts with threaded through-hole

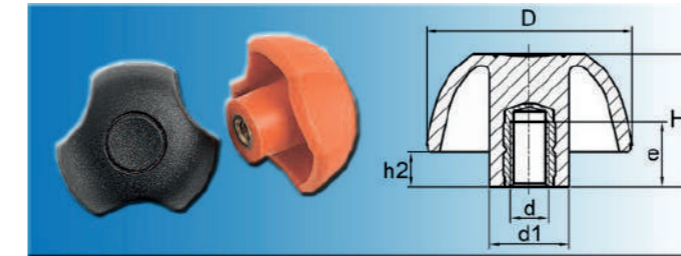


Material: PA-glass fibre reinforced threaded brass insert

Colours (F):
black RAL 7021
orange RAL 2004

Part no.	d	D	H	d1	h2	e	F
6113825401	M6	25	17	12	5	11,5	black
6113825441	M6	25	17	12	5	11,5	orange
6113832401	M6	32	20	14	6	11,5	black
6113832441	M6	32	20	14	6	11,5	orange
6113840401	M6	40	25	17	7	11,5	black
6113840441	M6	40	25	17	7	11,5	orange
6113840403	M8	40	25	17	7	13,8	black
6113840443	M8	40	25	17	7	13,8	orange
6113840402	M10	40	25	17	7	13,8	black
6113840442	M10	40	25	17	7	13,8	orange
6113850401	M8	50	32	19	8	13,8	black
6113850441	M8	50	32	19	8	13,8	orange
6113850402	M10	50	32	19	8	13,8	black
6113850443	M10	50	32	19	8	13,8	orange
6113863401	M10	63	40	23	11	13,8	black
6113863441	M10	63	40	23	11	13,8	orange
6113863402	M12	63	40	23	11	13,8	black
6113863442	M12	63	40	23	11	13,8	orange

Star grip nuts | Star grip nuts PA-glass fibre reinforced

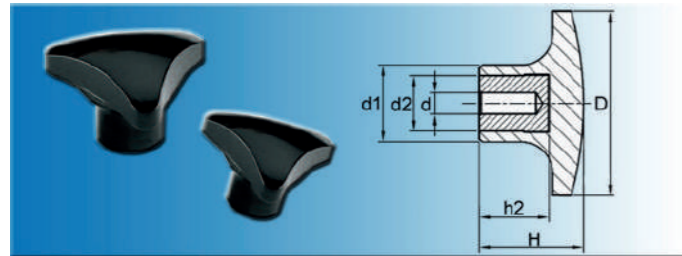


Material: PA-glass fibre reinforced threaded brass insert

Colours (F):
black RAL 7021
orange RAL 2004

Part no.	d	D	H	d1	e	h2	F
6113825302	M4	25	17	12	8,5	6	black
6113825342	M4	25	17	12	8,5	6	orange
6113825303	M5	25	17	12	9,0	6	black
6113825343	M5	25	17	12	9,0	6	orange
6113825301	M6	25	17	12	10,0	6	black
6113825341	M6	25	17	12	10,0	6	orange
6113832303	M5	32	20	14	9,0	6	black
6113832343	M5	32	20	14	9,0	6	orange
6113832301	M6	32	20	14	10,0	6	black
6113832341	M6	32	20	14	10,0	6	orange
6113840301	M6	40	25	17	10,0	7	black
6113840341	M6	40	25	17	10,0	7	orange
6113840302	M8	40	25	17	14,0	7	black
6113840342	M8	40	25	17	14,0	7	orange
6113840303	M10	40	25	17	17,0	7	black
6113840343	M10	40	25	17	17,0	7	orange
6113850301	M8	50	32	19	14,0	8	black
6113850341	M8	50	32	19	14,0	8	orange
6113850302	M10	50	32	19	17,0	8	black
6113850342	M10	50	32	19	17,0	8	orange
6113850308	M12	50	32	19	19,0	8	black
6113850345	M12	50	32	19	19,0	8	orange
6113863301	M10	63	40	23	17,0	11	black
6113863341	M10	63	40	23	17,0	11	orange
6113863302	M12	63	40	23	19,0	11	black
6113863342	M12	63	40	23	19,0	11	orange
6113863306	M16	63	40	23	27,0	11	black
6113863344	M16	63	40	23	27,0	11	orange

Star grip nuts | 3-star grip nuts

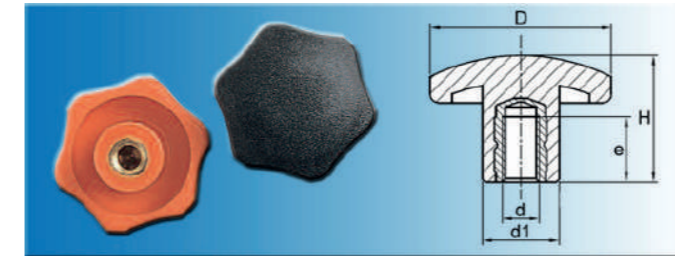


Material:
thermoset material FS 31 DIN 7708, black
Insert of treated steel

Part no.	D	H	h2	d	d1	d2
6113330305	30	17	12	5,25	11	8
6113340305	40	22	14	5,25	15	10

Part no.	D	H	h2	d	d1	d2
6113350305	50	26	17	5,25	20	14
6113360305	60	30	21	5,25	25	16

Star grip nuts | Star grip nuts PA-glass fibre reinforced



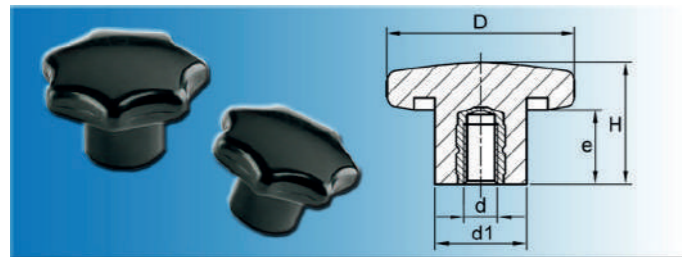
Material: PA-glass fibre reinforced
brass insert

Colours (F):
Colour code 0 = black RAL 7021
Colour code 4 = orange RAL 2004

Part no.	d	D	H	e	d1	F
6113933301	M6	33	22	10	14	0
6113933341	M6	33	22	10	14	4

Part no.	d	D	H	e	d1	F
6113933302	M8	33	22	14	14	0
6113933342	M8	33	22	14	14	4

Star grip nuts | similar to DIN 6336

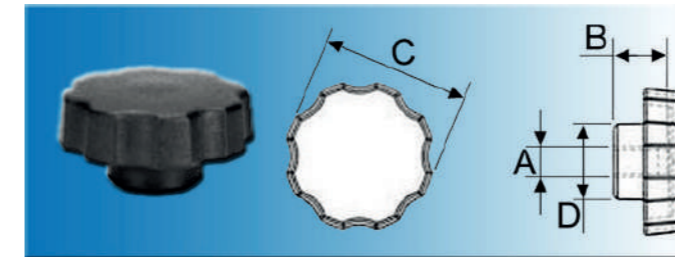


Material: thermoset material FS 31 DIN 7708
Colour: black
Threaded brass insert

Part no.	D	H	d	e	d1
6112620301	20	13	M4	8,5	10
6112625301	25	16	M5	9,0	12
6112632301	32	20	M6	10,0	13
6112640301	40	25	M8	14,0	19

Part no.	D	H	d	e	d1
6112650301	50	32	M10	17,0	20
6112663301	63	40	M12	19,0	23
6112680301	80	50	M16	27,0	30

Star grip nuts | PA, with brass insert - light version



Knurled nuts with female thread of brass.

Material: PA 6
Colour: black

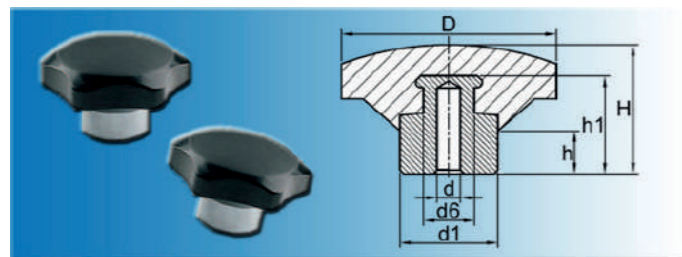
E = stem length

Further dimensions, special colours, bicoloured and stainless steel types on written request.

Part no.	A	B	C	D	E
1060630	M6	15	30	16	4
1060840	M8	21	40	20	10

Part no.	A	B	C	D	E
1061050	M10	22	50	20	10

Star grip nuts | Star grip nuts with blind hole, zinc-plated stem

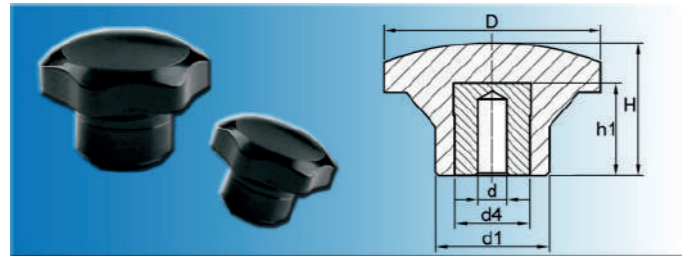


Material: thermoset material FS 31 DIN 7708
Colour: black

With blind hole and stem of zinc-plated steel.

Part no.	d	d6	d1	h	h1	D	H
6111844601	5,25	19	23	10	20	44	26
6111855601	5,25	19	25	11	29	55	32
6111866601	5,25	18	30	16	26	66	41
6111877601	5,25	18	30	16	26	77	43

Star grip nuts | Star grip nuts with blind hole, insert of steel



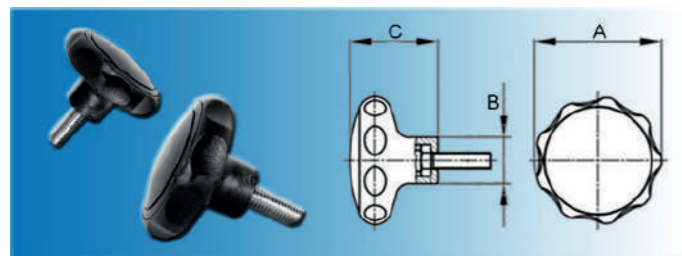
Material: thermoset material FS 31 DIN 7708
Colour: black

With blind hole, steel insert.

Part no.	D	H	d	d1	d4	h1
6111822301	22	19	5,25	12	8	12
6111833301	33	24	5,25	19	14	17
6111844301	44	27	5,25	23	18	22

Part no.	D	H	d	d1	d4	h1
6111855301	55	34	5,25	25	18	22
6111866301	66	42	5,25	30	18	22
6111877301	77	46	5,25	30	18	22

Star grip screws | Star grip screws, composite



Two-part head (base and cap), screw DIN 933 zinc-plated pressed-in. Threepart, very tight fit.

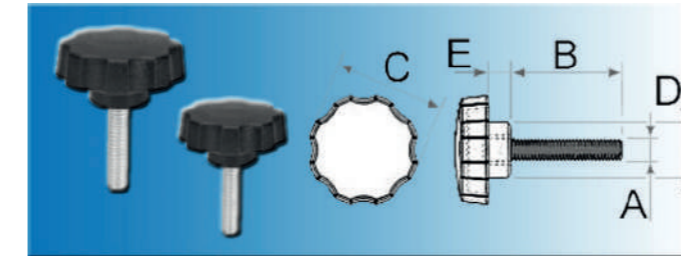
Material: PA 6
Colour: black

Further dimensions, special colours, bicoloured and stainless steel types on written request.

Part no.	M	L	A	B	C
2040614	M6	13/14	40	17	22
2040616	M6	16	40	18	26
2040618	M6	17/18	40	17	22
2040620	M6	20	40	18	26
2040628	M6	27/28	40	17	22
2040630	M6	30	40	18	26
2040638	M6	37/38	40	17	22
2040640	M6	40	40	18	26
2040650	M6	50	40	18	26
2040660	M6	60	40	18	26
2040670	M6	70	40	18	26
2040680	M6	80	40	18	26
2040814	M8	13/14	40	17	22
2040816	M8	16	40	18	26
2040820	M8	20	40	18	26

Part no.	M	L	A	B	C
2040828	M8	27/28	40	17	22
2040830	M8	30	40	18	26
2040838	M8	37/38	40	17	22
2040840	M8	40	40	18	26
2040843	M8	42/43	40	17	22
2040850	M8	50	40	18	26
2040890	M8	90	40	18	26
2051016	M10	16	50	23	34
2051020	M10	20	50	23	34
2051028	M10	27/28	50	22	23
2051030	M10	30	50	23	34
2051038	M10	37/38	50	22	23
2051040	M10	40	50	23	34
2051050	M10	46	50	23	34

Star grip screws | PA with steel thread, light version



Due to their extra large head diameter these star grips offer a very good handling. With zinc-plated steel screw.

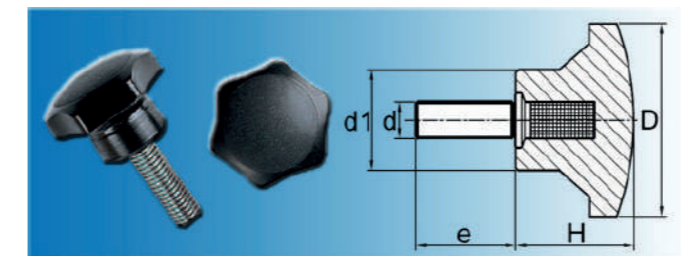
Material: PA 6
Colour: black

Further dimensions, special colours, bicoloured and stainless steel types on written request.

Part no.	A	B	C	D	E
1050615	M6	15	30	16	4
1050620	M6	20	30	16	4
1050630	M6	30	30	16	4
1050640	M6	40	30	16	4
1050650	M6	50	30	16	4
1050820	M8	20	40	20	10
1050830	M8	30	40	20	10
1050840	M8	40	40	20	10

Part no.	A	B	C	D	E
1050850	M8	50	40	20	10
1050860	M8	60	40	20	10
1051020	M10	20	50	20	10
1051030	M10	30	50	20	10
1051040	M10	40	50	20	10
1051050	M10	50	50	20	10
1051060	M10	60	50	20	10

Star grip screws | Star grip screws - thread of treated steel



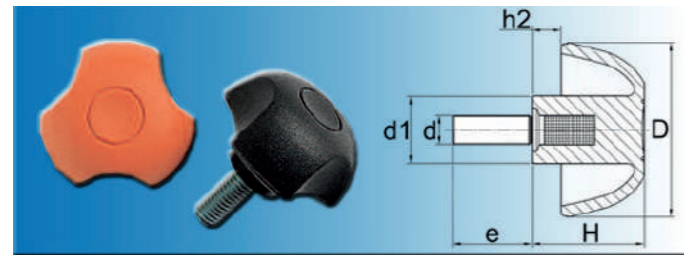
Material: thermoset material FS 31 DIN 7708
Colour: black

Thread of treated steel

Part no.	D	H	d	e	d1
6111822513	22	19	M5	10	12
6111822502	22	19	M5	20	12
6111822511	22	19	M6	10	12
6111822501	22	19	M6	20	12
6111822514	22	19	M6	30	12
6111833502	33	24	M6	15	19
6111833538	33	24	M6	20	19
6111833539	33	24	M6	25	19
6111833505	33	24	M6	30	19
6111833520	33	24	M6	40	19
6111833501	33	24	M8	27	19
6111833512	33	24	M8	20	19
6111833540	33	24	M8	33	19
6111833541	33	24	M8	40	19
6111866508	66	42	M12	40	30
6111866507	66	42	M12	60	30

Part no.	D	H	d	e	d1
6111844504	44	27	M8	15	23
6111844502	44	27	M8	27	23
6111844513	33	27	M8	33	23
6111844516	44	27	M8	40	23
6111844523	44	27	M8	47	23
6111844508	44	27	M10	20	23
6111844501	44	27	M10	33	23
6111844524	44	27	M10	44	23
6111844525	44	27	M10	64	23
6111855511	55	34	M10	20	25
6111855502	55	34	M10	33	25
6111855512	55	34	M10	44	25
6111855513	55	34	M10	64	25
6111855501	55	34	M12	40	25
6111877502	77	46	M12	40	30

Star grip screws | Star grip screws PA-glass fibre reinforced



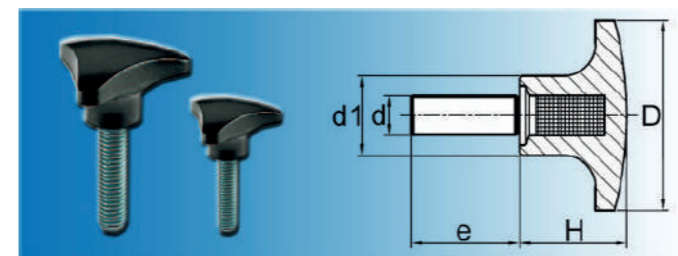
Material: PA-glass fibre reinforced thread of zinc-plated steel

Colours (F):
black RAL 7021
orange RAL 2004

Part no.	d	D	H	d1	e	h2	F
6113825502	M4	25	16	13	15	5	black
6113825542	M4	25	16	13	15	5	orange
6113825503	M5	25	16	13	18	5	black
6113825543	M5	25	16	13	18	5	orange
6113825501	M6	25	16	13	20	5	black
6113825541	M6	25	16	13	20	5	orange
6113832503	M6	32	20	15	10	6	black
6113832543	M6	32	20	15	10	6	orange
6113832501	M6	32	20	15	20	6	black
6113832541	M6	32	20	15	20	6	orange
6113832504	M6	32	20	15	30	6	black
6113832544	M6	32	20	15	30	6	orange
6113832502	M8	32	20	15	27	6	black
6113832542	M8	32	20	15	27	6	orange
6113840511	M6	40	25	16	15	8	black
6113840552	M6	40	25	16	15	8	orange
6113840501	M6	40	25	16	20	8	black
6113840541	M6	40	25	16	20	8	orange
6113840504	M6	40	25	16	30	8	black
6113840544	M6	40	25	16	30	8	orange
6113840505	M6	40	25	16	40	8	black
6113840545	M6	40	25	16	40	8	orange
6113840515	M8	40	25	16	15	8	black
6113840553	M8	40	25	16	15	8	orange
6113840506	M8	40	25	16	20	8	black
6113840546	M8	40	25	16	20	8	orange
6113840507	M8	40	25	16	33	8	black
6113840547	M8	40	25	16	33	8	orange

Part no.	d	D	H	d1	e	h2	F
6113840508	M8	40	25	16	47	8	black
6113840548	M8	40	25	16	47	8	orange
6113840509	M10	40	25	16	20	8	black
6113840549	M10	40	25	16	20	8	orange
6113840503	M10	40	25	16	33	8	black
6113840543	M10	40	25	16	33	8	orange
6113840510	M10	40	25	16	44	8	black
6113840542	M10	40	25	16	44	8	orange
6113850505	M8	50	31	21	15	9	black
6113850547	M8	50	31	21	15	9	orange
6113850502	M8	50	31	21	27	9	black
6113850542	M8	50	31	21	27	9	orange
6113850501	M8	50	31	21	40	9	black
6113850541	M8	50	31	21	40	9	orange
6113850503	M10	50	31	21	33	9	black
6113850543	M10	50	31	21	33	9	orange
6113850504	M10	50	31	21	50	9	black
6113850544	M10	50	31	21	50	9	orange
6113863503	M10	63	39	26	33	12	black
6113863543	M10	63	39	26	33	12	orange
6113863504	M12	63	39	26	40	12	black
6113863544	M12	63	39	26	40	12	orange

Star grip screws | 3-star grip screws

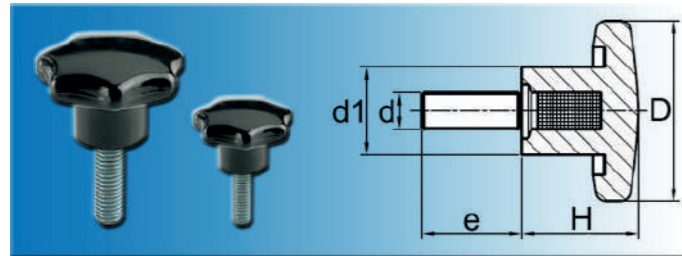


Material: thermoset material FS 31 DIN 7708
Colour: black

Thread of treated steel

Part no.	d	D	H	e	d1	Part no.	d	D	H	e	d1
6113330501	M6	30	17	25	11	6113350525	M10	50	26	33	20
6113340511	M8	40	22	33	15	6113360525	M12	60	30	40	25

Star grip screws | similar to DIN 6336

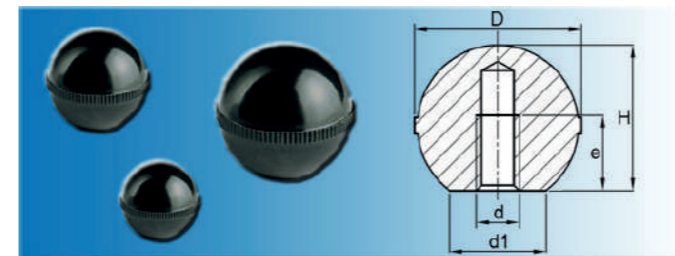


Material: thermoset material FS 31 DIN 7708
Colour: black
Thread of zinc-plated steel

Part no.	d	D	H	e	d1
6112620501	M4	20	13	15	10
6112625501	M5	25	16	20	12
6112632501	M6	32	20	20	13
6112632502	M6	32	20	40	13
6112640501	M8	40	25	27	19
6112640502	M8	40	25	47	19

Part no.	d	D	H	e	d1
6112650501	M10	50	32	44	20
6112650502	M10	50	32	64	20
6112663501	M12	63	40	40	23
6112663502	M12	63	40	60	23
6112680501	M16	80	50	55	30
6112680502	M16	80	50	75	30

Ball knobs / round | knurled, with threaded hole

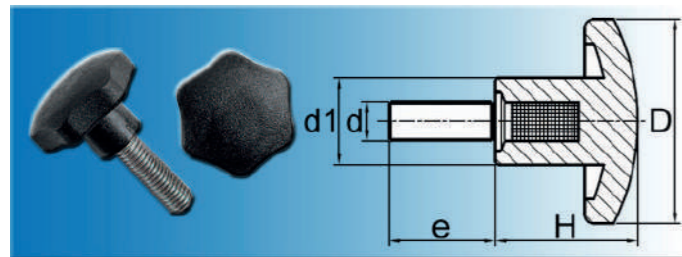


Material: thermoset material FS 31 DIN 7708
Colour: black

Part no.	D	d	d1	e	H
6111120101	20	M5	12	8	18
6111125101	25	M6	15	10	23
6111130101	30	M8	16	14	27
6111135101	35	M10	19	16	32

Part no.	D	d	d1	e	H
6111140101	40	M10	22	16	37
6111145101	45	M12	20	18	43
6111150101	50	M12	20	18	47
6111155101	55	M12	20	18	53

Star grip screws | Star grip screws PA-glass fibre reinforced

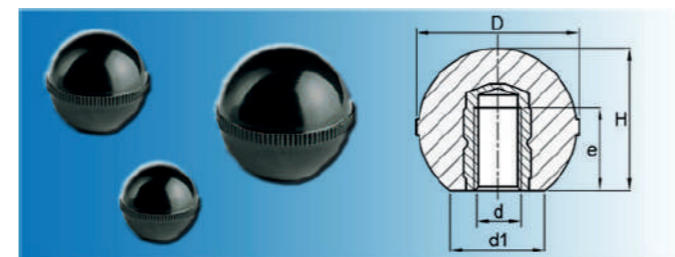


Material: PA-glass fibre reinforced
thread of zinc-plated steel
Colours (F):
Colour code 0 = black RAL 7021
Colour code 4 = orange RAL 2004

Part no.	d	D	H	e	d1	F
6113933504	M6	33	22	15	14	0
6113933544	M6	33	22	15	14	4
6113933501	M6	33	22	20	14	0
6113933541	M6	33	22	20	14	4
6113933505	M6	33	22	30	14	0
6113933545	M6	33	22	30	14	4
6113933506	M6	33	22	40	14	0

Part no.	d	D	H	e	d1	F
6113933546	M6	33	22	40	14	4
6113933507	M8	33	22	20	14	0
6113933547	M8	33	22	20	14	4
6113933502	M8	33	22	27	14	0
6113933542	M8	33	22	27	14	4
6113933508	M8	33	22	47	14	0
6113933548	M8	33	22	47	14	4

Ball knobs / round | knurled, with brass insert



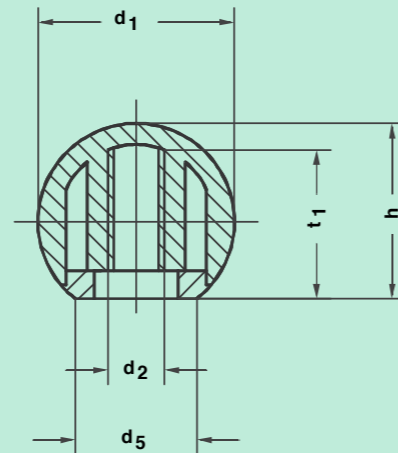
Material: thermoset material FS 31 DIN 7708
Colour: black

Part no.	D	d	d1	e	H
6111120301	20	M5	12	9	18
6111125301	25	M6	15	10	23
6111130301	30	M8	16	14	27
6111135301	35	M10	19	17	32

Part no.	D	d	d1	e	H
6111140301	40	M10	22	17	37
6111145301	45	M12	20	19	43
6111150301	50	M12	20	19	47
6111155301	55	M12	20	19	53

Ball Knobs

from reinforced ABS



Model: ABS, black.

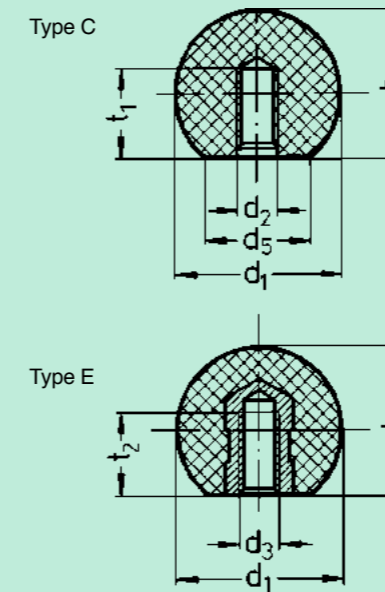
Other colours on request.

Ball Knobs from ABS

Order No.	Thread d ₂	t ₁ mm	Size d ₁ mm	d ₅ mm	h mm
22 20 05 C	M 5	15,5	20	12	18
22 20 06 C	M 6				
22 25 06 C	M 6	20	25	15	22,5
22 25 08 C	M 8				
22 32 06 C	M 6				
22 32 08 C	M 8	26,5	32	18,6	29
22 32 10 C	M 10				
22 40 08 C	M 8				
22 40 10 C	M 10	34,5	40	21	37
22 40 12 C	M 12				

Ball Knobs

similar to DIN 319



Model: Duroplastic FS 31, black, deburred and polished. Bush from steel, zinc plated.

Type C: with plastic thread.

Type E: with bush thread.

Ball Knobs similar to DIN 319

Order No.	Thread d ₂	t ₁ mm	Order No.	Thread d ₃	t ₂ mm	Size d ₁ mm	d ₅ mm	h mm
Type C			Type E					
* 20 10 03 C	M 3	5				10	5	9,5
20 12 04 C	M 4	8				12	6	11
20 16 04 C	M 4	8				16	8	15
20 20 05 C	M 5	10,5	20 20 05 E	M 5	10,5	20	12	18
20 20 06 C	M 6	13,5						
20 25 06 C	M 6	13,5	20 25 06 E	M 6	13,5	25	15	22,5
20 25 08 C	M 8	16						
20 32 06 C	M 6	13,5						
20 32 08 C	M 8	16	20 32 08 E	M 8	16	32	18	29
20 32 10 C	M 10	21						
20 36 08 C	M 8	16	20 36 08 E	M 8	16	36	16	34
20 36 10 C	M 10	21	20 36 10 E	M 10	21			
20 40 10 C	M 10	21	20 40 10 E	M 10	21	40	22	37
20 40 12 C	M 12	25	20 40 12 E	M 12	25			
20 50 12 C	M 12	25	20 50 12 E	M 12	25	50	29	46

Knurl Nuts

DIN 6303 from Steel respectively
Stainless Steel

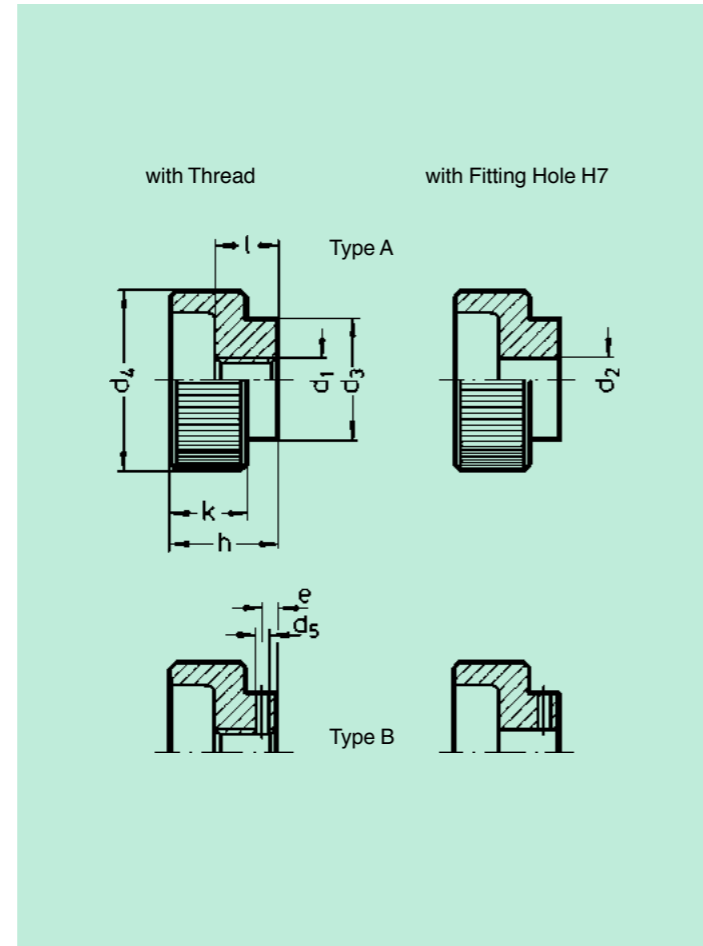
INOX



Model: Steel black oxide finished resp.
stainless steel. With thread or fitting hole H7.

Type A: without Pin Hole.

Type B: with Pin Hole.

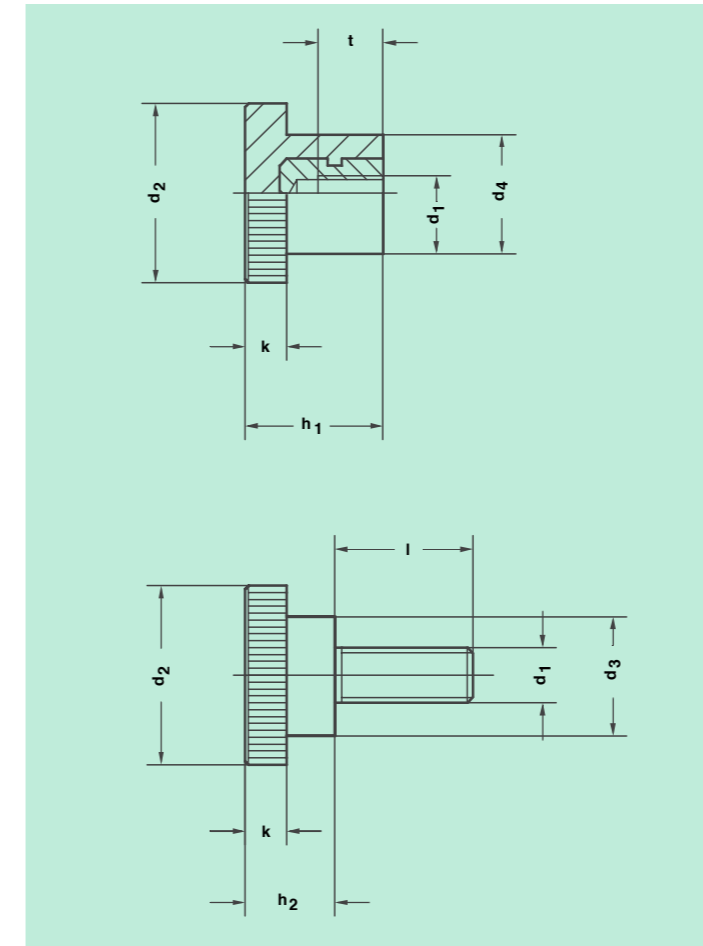


Knurl Nuts DIN 6303 with Thread

Order No. Steel Type A	Order No. Steel Type B	Order No. Stainless Steel, Material No. 1.4305 Type A	Thread d ₁ mm	d ₃ mm	d ₄ mm	d ₅ H11 mm	e mm	h mm	k mm	l mm
32 20 05 A	32 20 05 B	32 20 05 A E0A	M 5	14	20	1,5	2,5	12	8	7
32 24 06 A	32 24 06 B	32 24 06 A E0A	M 6	16	24	1,5	2,5	14	10	8
32 30 08 A	32 30 08 B	32 30 08 A E0A	M 8	20	30	2	3	17	12	10
32 36 10 A	32 36 10 B	32 36 10 A E0A	M 10	28	36	3	4	20	14	12
32 40 12 A	32 40 12 B		M 12	32	40	4	4	24	16	14

Knurl Nuts DIN 6303 with Fitting Hole H7

Order No. Steel Type A	Order No. Steel Type B	Fitting Hole d ₂ H7 mm	d ₃ mm	d ₄ mm	d ₅ H11 mm	e mm	h mm	k mm	l mm
32 20 05 PBGA	32 20 05 PBGB	B 5	14	20	1,5	2,5	12	8	7
32 24 06 PBGA	32 24 06 PBGB	B 6	16	24	1,5	2,5	14	10	8
32 30 08 PBGA	32 30 08 PBGB	B 8	20	30	2	3	17	12	10
32 36 10 PBGA	32 36 10 PBGB	B 10	28	36	3	4	20	14	12
32 40 12 PBGA	32 40 12 PBGB	B 12	32	40	4	4	24	16	14



Knurl Nuts/Screws



Model: Body from duroplastic FS 31, black. Bush
resp. screw from steel, zinc-plated.

Knurl Nuts/Screws

Order No. Internal Thread	Internal Thread d ₁	t mm	d ₄ mm	h ₁ mm	Order No. External Thread	External Thread d ₁	Length of Screw l (mm)	l max mm	Size d ₂ mm	d ₃ mm	h ₂ mm	k mm
					67 18 04 ...	M 4	12	45	18	10	12	5,5
					67 22 05 ...	M 5	10	70	22	12	13	6
					67 22 06 ...	M 6	15 20 30					
67 26 06	M 6	13,5	17	20	67 26 06 ...	M 6	15 20 30	70	26	15	13	6
67 26 08	M 8	11	17	20	67 26 08 ...	M 8	15 20 30					

... Please indicate here the desired length of screw e.g. 020 for l = 20 mm.

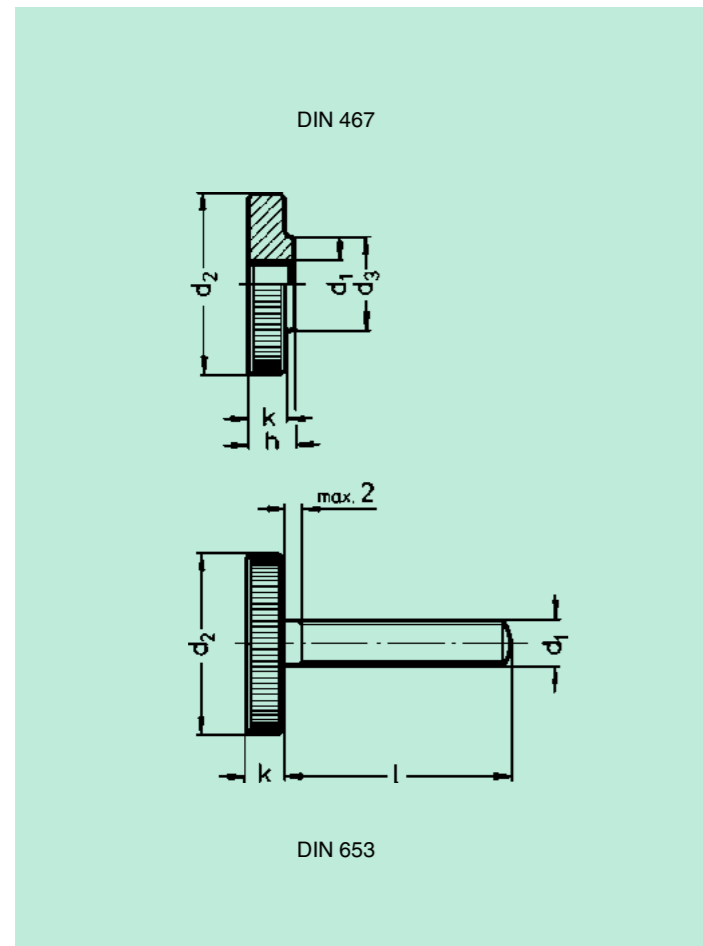
Flat Knurl Nuts/Screws

DIN 467 resp. DIN 653



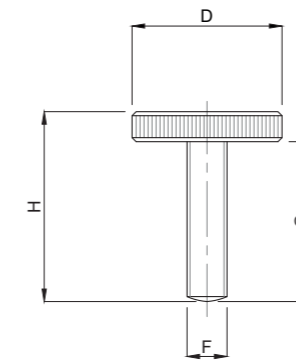
Model: Steel, stability class 5.8, visible fine turning end surface, black oxide finished.

Also available from polyamide.



Stainless steel Flat Knurl Nuts/Screws

DIN 467 resp. DIN 653



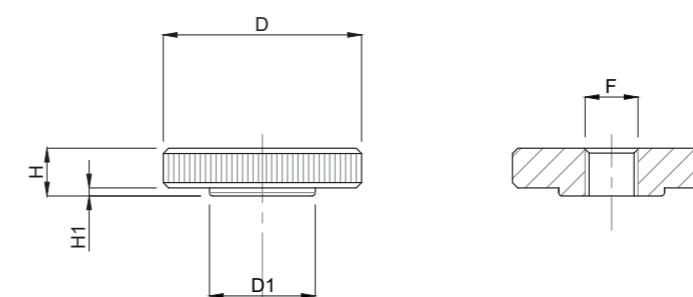
CODICE - CODE	descrizione - description	DIMENSIONI PRINCIPALI - MAIN DIMENSIONS			
		D	F	G	H
3017	VOLANTINO MASCHIO M5x10	20	M5	10	14
3018	VOLANTINO MASCHIO M5x12	20	M5	12	16
3019	VOLANTINO MASCHIO M5x16	20	M5	16	20
3020	VOLANTINO MASCHIO M5x20	20	M5	20	24
3021	VOLANTINO MASCHIO M6x12	24	M6	12	17
3022	VOLANTINO MASCHIO M6x16	24	M6	16	21
3023	VOLANTINO MASCHIO M6x20	24	M6	20	25
3024	VOLANTINO MASCHIO M6x25	24	M6	25	30
3025	VOLANTINO MASCHIO M6x30	24	M6	30	35
3026	VOLANTINO MASCHIO M8x12	30	M8	12	18
3027	VOLANTINO MASCHIO M8x16	30	M8	16	22
3028	VOLANTINO MASCHIO M8x20	30	M8	20	26
3029	VOLANTINO MASCHIO M8x25	30	M8	25	31
3030	VOLANTINO MASCHIO M8x30	30	M8	30	36

• Treatment: Sandblasting

Flat Knurl Nuts/Screws

Order No.	Internal Thread	Order No.	External Thread	External Thread	Length of Screw l (mm)	Size	d ₂	d ₃	h	k
Internal Thread	d ₁	External Thread	d ₁			mm	mm	mm	mm	mm
52 12 03	M 3	52 12 03 ...	M 3	6	10	12	6	3	2,5	
52 16 04	M 4	52 16 04 ...	M 4	8	10 12 16 20	16	8	4	3,5	
52 20 05	M 5	52 20 05 ...	M 5		10 12 16 20	20	10	5	4	
52 24 06	M 6	52 24 06 ...	M 6		12 16 20 30 40	24	12	6	5	
52 30 08	M 8	52 30 08 ...	M 8		16 20 25 30 40	30	16	8	6	
52 36 10	M 10	52 36 10 ...	M 10		20 25 30 40	36	20	10	8	

... Please indicate here the desired length of screw e.g. 020 for l = 20 mm.



CODICE - CODE	descrizione - description	DIMENSIONI PRINCIPALI - MAIN DIMENSIONS				
		D	D1	F	H1	H
3034	VOLANTINO FEMMINA M5	20	10	M5	1	5
3035	VOLANTINO FEMMINA M6	24	12	M6	1	6
3036	VOLANTINO FEMMINA M8	30	16	M8	2	8

• Trattamento: Sabbiatura • Treatment: Sandblasting

• Volantini di manovra per l'industria farmaceutica, chimica, beverage, alimentare e del packaging.
• Materiale: acciaio inox AISI 303 (a richiesta AISI 304 e 316)

• Knobs for pharmaceutical, chimica, berage and food industry
• Material: stainless steel 1.4305 (1.4301 and 1.4401 on request)

Elevated Knurl Nuts/Screws

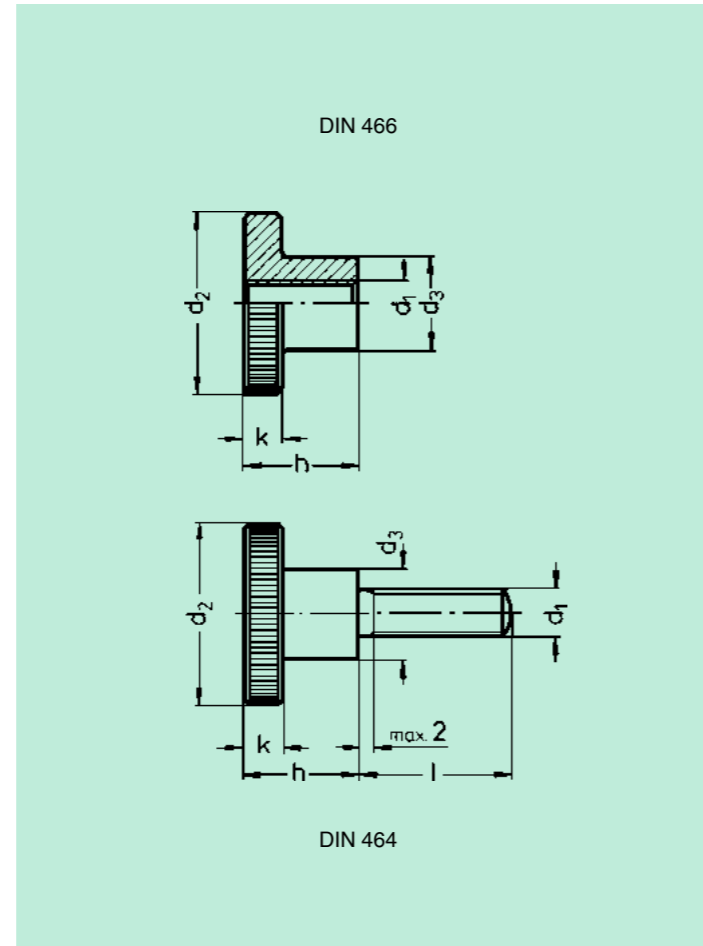
from Steel resp. Stainless Steel
DIN 466 resp. 464

INOX



Model: Steel, stability class 5.8, visible fine turning end surface, black oxide finished. Stainless steel 1.4305, matt finished.

Also available from polyamide.



Elevated Knurl Nuts/Screws - Steel

Order No.	Internal Thread	Order No.	External Thread	Length of Screw l (mm)	Size	d ₂ mm	d ₃ mm	h mm	k mm
Internal Thread	d ₁	External Thread	d ₁						
36 12 03	M 3	36 12 03 ...	M 3	6 10 12 16	12	6	7,5	2,5	
36 16 04	M 4	36 16 04 ...	M 4	5 8 10 12 16 20	16	8	9,5	3,5	
36 20 05	M 5	36 20 05 ...	M 5	6 8 10 12 16 20	20	10	11,5	4	
36 24 06	M 6	36 24 06 ...	M 6	8 10 12 16 20 25	24	12	16	5	
36 30 08	M 8	36 30 08 ...	M 8	12 16 20 25 30 40	30	16	18	6	
36 36 10	M 10	36 36 10 ...	M 10	16 20 25 30 40	36	20	23	8	

... Please indicate here the desired length of screw e.g. 020 for l = 20 mm.

Elevated Knurl Nuts/Screws - Stainless Steel

Order No.	Internal Thread	Order No.	External Thread	Length of Screw l (mm)	Size	d ₂ mm	d ₃ mm	h mm	k mm
Internal Thread	d ₁	External Thread	d ₁						
36 16 04 E0A	M 4	36 16 04 ... E0A	M 4	8 10 12 16	16	8	9,5	3,5	
36 20 05 E0A	M 5	36 20 05 ... E0A	M 5	10 12 16 20	20	10	11,5	4	
36 24 06 E0A	M 6	36 24 06 ... E0A	M 6	12 16 20 30 24	24	12	15	5	
36 30 08 E0A	M 8	36 30 08 ... E0A	M 8	16 20 30 30	30	16	18	6	

... Please indicate here the desired length of screw e.g. 020 for l = 20 mm.

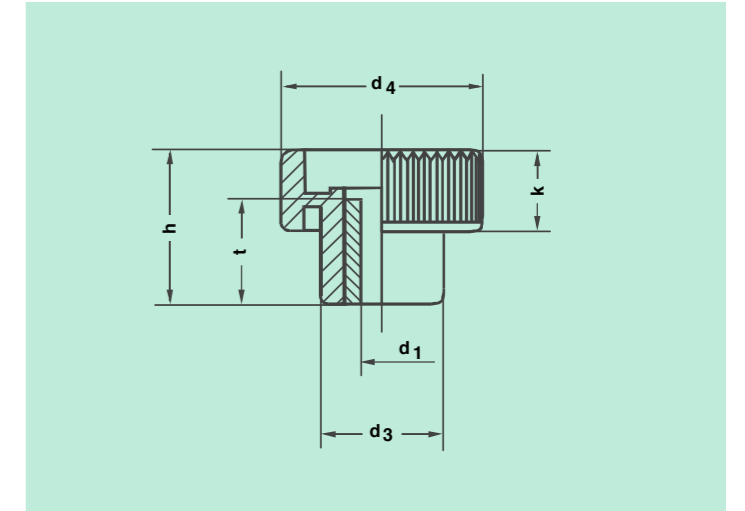
Knurl Nuts

threaded through-bore

INOX



Model: Body from polyamide PA 6. Bush from brass resp. from stainless steel.



Knurl Nuts threaded through-bore

Order No. Bush from brass	Order No. Bush from Stainless Steel	Internal Thread d ₁	d ₃ mm	d ₄ mm	h mm	t mm	k mm
57 20 04 E5A		M 4	12	20	13	11	8
57 20 05 E5A	57 20 05 E0A	M 5					
57 25 06 E5A	57 25 06 E0A	M 6	15	25	19	14	9
57 30 08 E5A	57 30 08 E0A	M 8	18	30	21	14	11
57 35 10 E5A	57 35 10 E0A	M 10	21	35	28	17	13

Knurl Nuts/Screws

resp. Height Adjusters rough



Model: Body from plastic PA 6, black polished. Bush from brass. Screw from steel, zinc-plated.

Other colours on request.

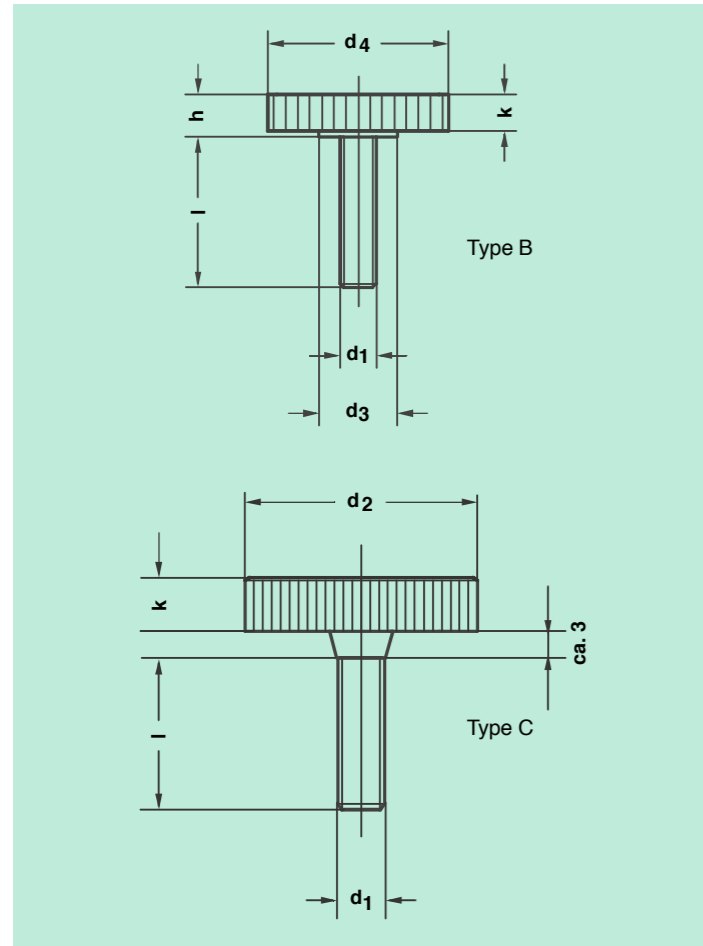
Knurl Nuts/Screws resp. Height Adjusters, rough knurl

Order No. Internal Thread	Internal Thread d ₂	Thread Depth t	d ₃ mm	h mm	Order No. External Thread	External Thread d ₁	Length of Screw l (mm)	Size d ₄ mm	k mm
					27 30 05 ... A	M 5	20	30	10
27 30 06 A	M 6	9	16	14	27 30 06 ... A	M 6	16 20 30	40	30 10
27 30 08 A	M 8	12	16	14	27 30 08 ... A	M 8	16 20 30	40	30 10

... Please indicate here the desired length of screw e.g. 020 for l = 20 mm.

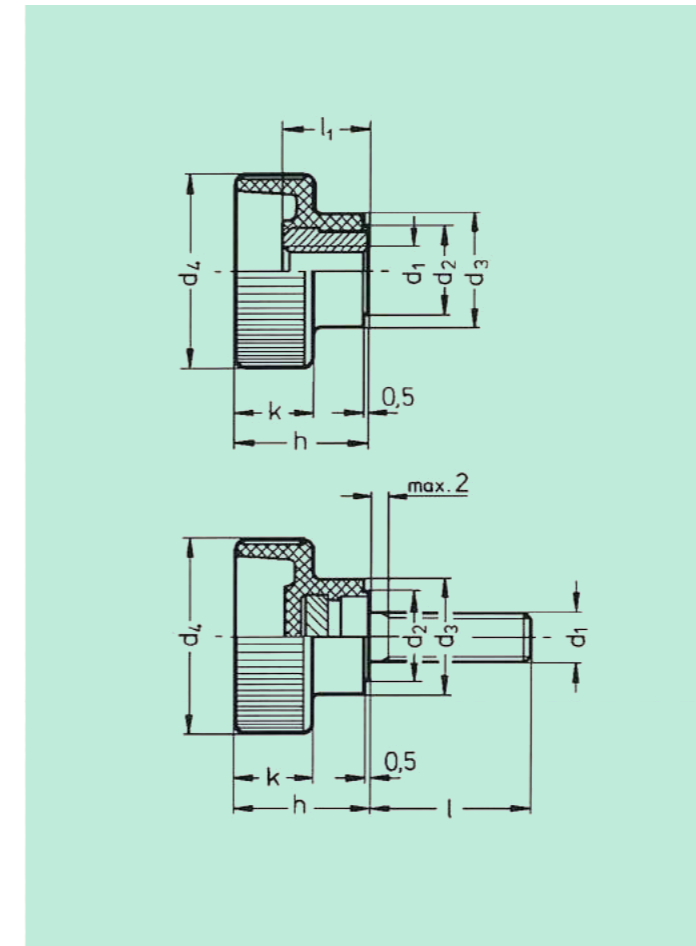
Knurl Screws

resp. Height Adjusters



Model: Body from polyamide, black. Screw from steel, zinc-plated.

Other colours on request.



Knurl Nuts / Screws

INOX



Model: Body Termoplast (Polyamid)
Black, Polished

Socket Screw made of galvanized steel or stainless steel
Nirosta 1.4305.

Knurl Screws resp. Height Adjusters Type B

Order No.	External Thread d_1	Length of Screw l (mm)			Size				
		d_4 mm	d_3 mm	h mm	k mm	d_4 mm	d_3 mm	h mm	k mm
27 14 04 ... B	M 4	14	15	19	14	10	6	5	
27 20 04 ... B	M 4	10	15						
27 20 05 ... B	M 5	10	15	20	20	13	7	6	
27 20 06 ... B	M 6	10	15	20	20	13	7	6	

... Please indicate here the desired length of screw e.g. 020 for $l = 20$ mm.

Knurl Screws resp. Height Adjusters Type C

Order No.	External Thread d_1	Length of Screw l (mm)			Size	
		d_2 mm	k mm	d_2 mm	k mm	
27 25 06 ... C	M 6	17	27	25	7	
27 30 06 ... C	M 6	17	27	30	7	
27 30 08 ... C	M 8	16	26	36	7	
27 35 08 ... C	M 8	16	26	36	7	
27 35 10 ... C	M 10	15	35	45	7	

... Please indicate here the desired length of screw e.g. 016 for $l = 16$ mm.

Knurl Nuts / Screws

Order No. Internal Thread	Internal Thread d_1	l_1 mm	Order No. External Thread	External Thread d_1	Length of Screw l (mm)					d_2 mm	d_3 mm	d_4 mm	h mm	k mm
					16	20	25	30	40					
33 19 04	M 4	9	33 19 04 ...	M 4	10	15	20			9	12	19	14	8
33 19 05	M 5		33 19 05 ...	M 5	10	15	20	25						
33 24 06	M 6	10,5	33 24 06 ...	M 6	10	16	20	25	30	11	14	24	16,5	9,5
33 30 08	M 8	11,5	33 30 08 ...	M 8	16	20	25	30	40	13	16	30	19,5	11
33 36 10	M 10	14	33 36 10 ...	M 10	20	25	30	40	15	18	36	22,5	12,5	

... Please indicate here the desired length of screw e.g. 020 for $l = 20$ mm.

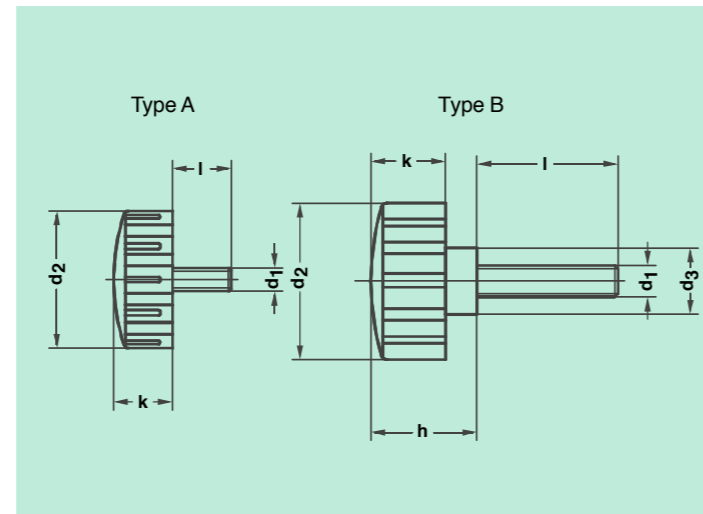
Knurl Nuts / Screws - Nirosta - Stainless steel

Order No. Internal Thread	Internal Thread d_1	l_1 mm	Order No. External Thread	External Thread d_1	Length of Screw l (mm)					d_2 mm	d_3 mm	d_4 mm	h mm	k mm
					16	20	25	30	40					
33 19 05 E0A	M 5	9	33 19 05 ... E0A	M 5	10	15	20	25		9	12	19	14	8
33 24 06 E0A	M 6	10,5	33 24 06 ... E0A	M 6	16	20	25	30	40	11	14	24	16,5	9,5
33 30 08 E0A	M 8	11,5	33 30 08 ... E0A	M 8	20	25	30	40	15	13	16	30	19,5	11

... Please indicate here the desired length of screw e.g. 020 for $l = 20$ mm.

Knurl Screws

46



Model: Body from polyamide, black. Screw from steel, zinc-plated.

Type A: without collar.
Type B: with collar.

Internal Thread on request.

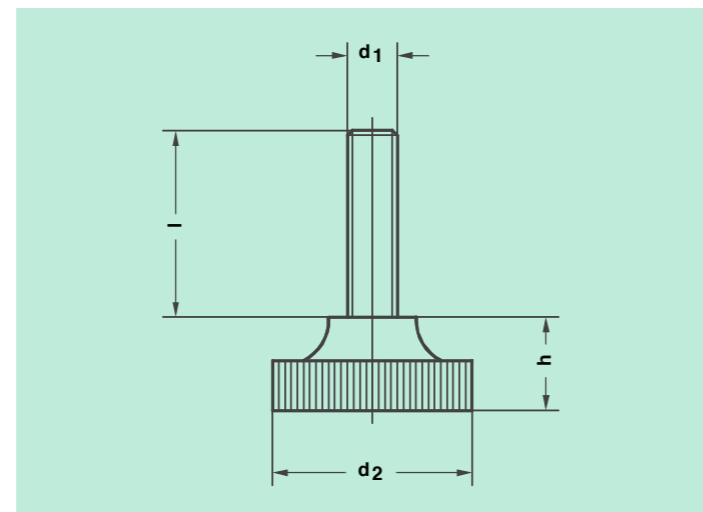
Knurl Screws

Order No.	Order No.	External Thread	Length of Screw l (mm)			Size	k	h
Type A	Type B	d ₁				d ₂ mm	mm	mm
86 30 06 ...		M 6	12	15	20	30	12	-
86 35 06 ...		M 6		15	20	30	15	-
86 35 08 ...		M 8			20	30		
	86 40 06 ...	M 6	16	21	31	40	19	27
	86 40 08 ...	M 8		21	26	31		

... Please indicate here the desired length of screw e.g. 020 for l = 20 mm.

Knurl Screws

resp. Height Adjusters



Model: No-slip body from rubber, black. Screw from steel, zinc-plated.

Knurl Screws resp. Height Adjusters

Order No.	External Thread	Length of Screw l (mm)			Size	h
	d ₁				d ₂ mm	mm
78 32 06 ...	M 6	20	30	40	32	14,5
78 32 08 ...	M 8	20	30	40	32	14,5
78 32 10 ...	M 10	30	40		32	14,5

... Please indicate here the desired length of screw e.g. 020 for l = 20 mm.

Naziv / Name:

Material / Material:

Skupina izdelkov / Product Group:

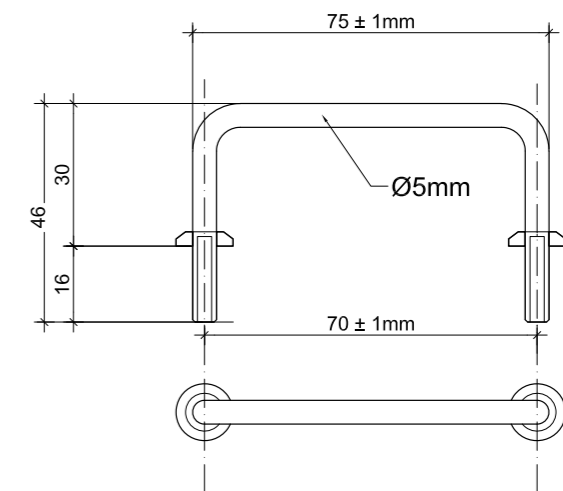
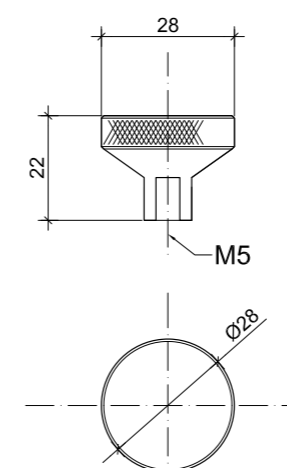
Metalika Handle

Medenina / Brass - Raw

Z66 - 67



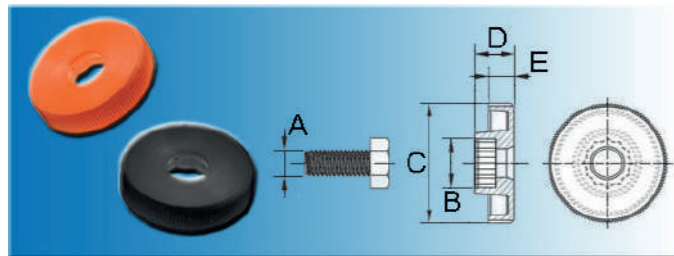
Metalika Brass Pull Handles



Naročniška številka Order nr.	Tip Model	Cena / Kos / Brez DDV Price / Piece / VAT. excl.
Z 67 28 05	①	12,21 €
Z 66 05 70	②	12,21 €

... po naročilu je možna dobava ročajev iz INOX-a, alumininja ali jekla. / INOX, aluminium or steel handles available on request.

Knurled knobs | Flat type



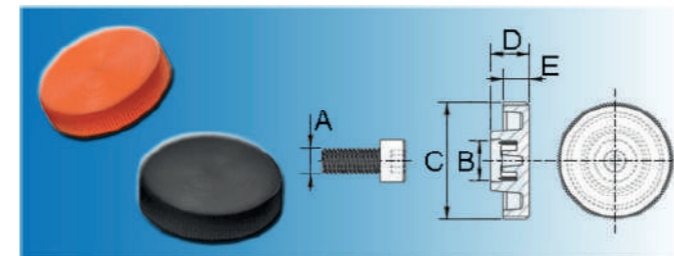
You can produce your own knurled screws and nuts with help of these knobs.
Easy assembly on bolts and nuts with only one hammer stroke.

Material: POM
Colours:
last digits 599 = black
last digits 009 = orange

Part no.	A	B	C	D	E
0370400009	M4	7	13	4,5	3,5
0370400599	M4	7	13	4,5	3,5
0370402009	M4	7	17	5,5	4,5
0370402599	M4	7	17	5,5	4,5
0370500009	M5	8	17	5,5	4,5
0370500599	M5	8	17	5,5	4,5
0370502009	M5	8	20	6,5	5,0
0370502599	M5	8	20	6,5	5,0
0370600009	M6	10	20	6,5	5,0

Part no.	A	B	C	D	E
0370600599	M6	10	20	6,5	5,0
0370602009	M6	10	25	8,0	6,0
0370602599	M6	10	25	8,0	6,0
0370800009	M8	13	25	8,0	6,0
0370800599	M8	13	25	8,0	6,0
0370802009	M8	13	36	10,0	8,0
0370802599	M8	13	36	10,0	8,0
0371000009	M10	17	36	10,0	8,0
0371000599	M10	17	36	10,0	8,0

Knurled knobs | with hexagon socket



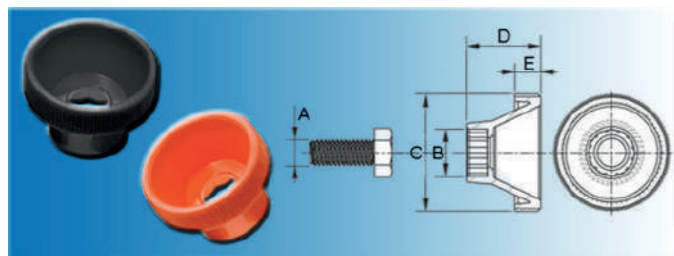
You can produce your own knurled screws and nuts with help of these knobs.
Easy assembly on bolts and nuts with only one hammer stroke.

Material: POM
Colours:
last digits 599 = black
last digits 009 = orange

Part no.	A	B	C	D	E
0380300009	M3	5,5	11	4,5	3,0
0380300599	M3	5,5	11	4,5	3,0
0380400009	M4	7,0	13	5,5	3,5
0380400599	M4	7,0	13	5,5	3,5
0380401009	M4	7,0	17	5,5	4,5
0380401599	M4	7,0	17	5,5	4,5
0380500009	M5	8,5	17	6,5	4,5
0380500599	M5	8,5	17	6,5	4,5
0380501009	M5	8,5	20	6,5	5,0
0380501599	M5	8,5	20	6,5	5,0

Part no.	A	B	C	D	E
0380600009	M6	10,0	20	7,5	5,0
0380600599	M6	10,0	20	7,5	5,0
0380601009	M6	10,0	25	7,5	6,0
0380601599	M6	10,0	25	7,5	6,0
0380800009	M8	13,0	25	9,5	6,0
0380800599	M8	13,0	25	9,5	6,0
0380801009	M8	13,0	36	8,5	8,0
0380801599	M8	13,0	36	9,5	8,0
0381000009	M10	16,0	36	12,0	8,0
0381000599	M10	16,0	36	12,0	8,0

Knurled knobs | Tall type



You can produce your own knurled screws and nuts with help of these knobs.
Easy assembly on bolts and nuts with only one hammer stroke.

Material: POM
Colours:
last digits 599 = black
last digits 009 = orange

Part no.	A	B	C	D	E
0370401009	M4	7	13	9,5	3,5
0370401599	M4	7	13	9,5	3,5
0370403009	M4	7	17	11,5	4,5
0370403599	M4	7	17	11,5	4,5
0370501009	M5	8	17	11,5	4,5
0370501599	M5	8	17	11,5	4,5
0370503009	M5	8	20	15,0	5,0
0370503599	M5	8	20	15,0	5,0
0370601009	M6	10	20	15,0	5,0

Part no.	A	B	C	D	E
0370601599	M6	10	20	15,0	5,0
0370603009	M6	10	25	18,0	6,0
0370603599	M6	10	25	18,0	6,0
0370801009	M8	13	25	18,0	6,0
0370801599	M8	13	25	18,0	6,0
0370803009	M8	13	36	23,0	8,0
0370803599	M8	13	36	23,0	8,0
0371001009	M10	17	36	23,0	8,0
0371001599	M10	17	36	23,0	8,0

Knurled nuts | PA 6.6-glass fibre reinforced black



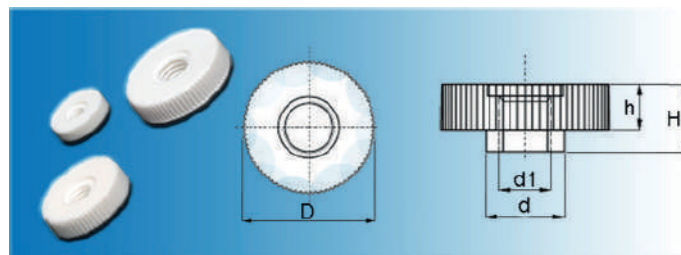
All-plastic knurled nuts
Material: PA 6.6-glass fibre reinforced
Colour: black
Further types on written request.

Part no.	A	B	C
1410030	M3	8,0	3,5
1410040	M4	10,0	4,2

Part no.	A	B	C
1410050	M5	13,0	5,2
1410060	M6	12,5	6,0

Part no.	A	B	C
1410080	M8	17,5	8,3
1410100	M10	21,5	10,0

Knurled nuts | DIN 467 flat



Non-corroding, resistant to moisture, steam and seawater.
Electrically isolating, stable to creepage.
High mechanical strength, up to 600 kg/cm².
Frost and heat resistant: -30°C up to +120°C.

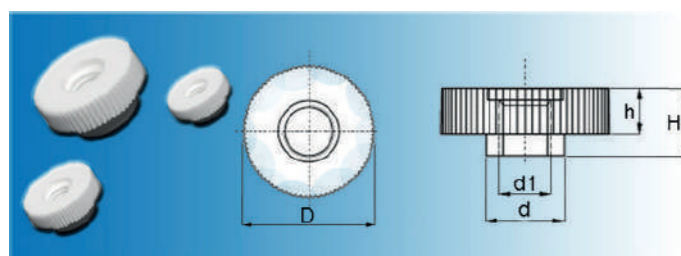
Knurling 1 = fine / knurling 2 = raw (R = knurling type)

Material: PA 6.6
Colour: white ~RAL 9010

Part no.	d1	D	H	h	d	R
0720312	M3	12	5,0	3,5	8,5	1
0720414	M4	14	5,0	3,5	8,5	1
0720416	M4	16	6,0	4,5	10,0	1
0720516	M5	16	6,0	4,5	10,0	1
0720519	M5	19	7,5	6,0	10,0	1
0720616	M6	16	6,0	4,5	10,0	1
0720619	M6	19	7,5	6,0	10,0	1
0720800	M8	24	7,5	6,0	13,0	1

Part no.	d1	D	H	h	d	R
0721416	M4	16	6,0	4,5	10,0	2
0721420	M4	20	6,5	5,0	10,0	2
0721516	M5	16	6,0	4,5	10,0	2
0721520	M5	20	6,5	5,0	10,0	2
0721524	M5	24	7,5	5,7	10,0	2
0721616	M6	16	6,0	4,5	10,0	2
0721620	M6	20	6,5	5,0	10,0	2
0721624	M6	24	7,5	5,7	10,0	2

Knurled nuts | DIN 466 tall



Non-corroding, resistant to moisture, steam and seawater.
Electrically isolating, stable to creepage.
High mechanical strength, up to 600 kg/cm².
Frost and heat resistant: -30°C up to +120°C.

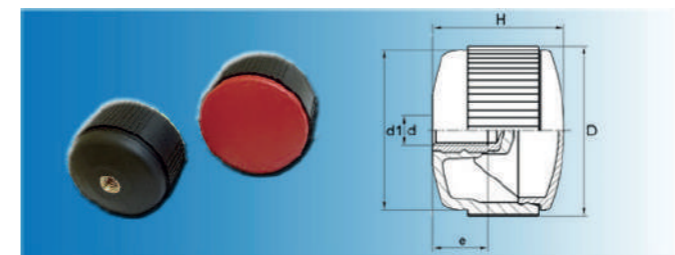
Knurling 1 = fine / knurling 2 = raw (R = knurling type)

Material: PA 6.6
Colour: white ~RAL 9010

Part no.	d1	D	H	h	d	R
0730300	M3	12	7,0	3,5	7,0	1
0730400	M4	16	8,0	4,5	9,5	1
0730412	M4	12	7,0	3,5	7,0	1
0730500	M5	20	11,0	6,0	13,0	1
0730514	M5	14	7,0	3,5	8,8	1
0730516	M5	16	8,0	4,5	9,5	1

Part no.	d1	D	H	h	d	R
0730600	M6	20	11,0	6,0	13,0	1
0730616	M6	15	8,0	4,5	9,5	1
0731416	M4	16	8,0	4,5	9,5	2
0731516	M5	16	8,6	4,8	9,5	2
0731616	M6	16	8,0	4,5	9,5	2
0731624	M6	24	11,0	6,0	13,0	2

Knurled nuts | coloured

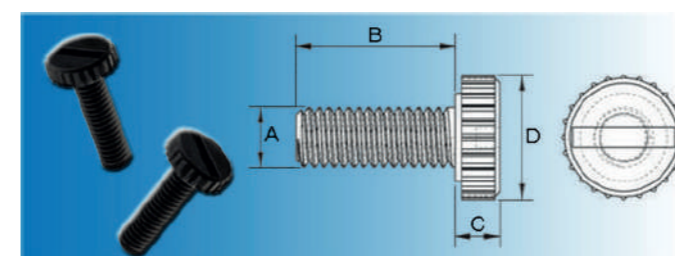


Material: reinforced PA
Thread: brass
Colours (F):
1 = black RAL 7021
2 = blue RAL 5005
3 = yellow RAL 1021
4 = orange RAL 2004
5 = red RAL 3001
9 = silver RAL 9006

Part no.	D	H	d1	d	e	F
6119641301	40	28	37	M6	10	1
6119642301	40	28	37	M6	10	2
6119643301	40	28	37	M6	10	3
6119644301	40	28	37	M6	10	4
6119645301	40	28	37	M6	10	5
6119649301	40	28	37	M6	10	9
6119641302	40	28	37	M8	14	1
6119642302	40	28	37	M8	14	2
6119643302	40	28	37	M8	14	3

Part no.	D	H	d1	d	e	F
6119644302	40	28	37	M8	14	4
6119645302	40	28	37	M8	14	5
6119649302	40	28	37	M8	14	9
6119641303	40	28	37	M10	17	1
6119642303	40	28	37	M10	17	2
6119643303	40	28	37	M10	17	3
6119644303	40	28	37	M10	17	4
6119645303	40	28	37	M10	17	5
6119649303	40	28	37	M10	17	9

Knurled screws | PA black



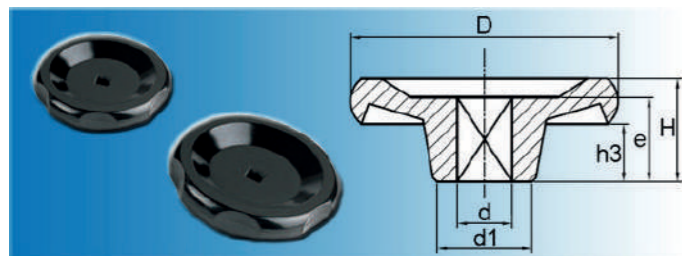
All-plastic knurled screws
Material: PA
Colour: black

Further types on written request.

Part no.	A	B	C	D
1400406	M4	6	4,0	13,0
1400410	M4	10	4,0	13,0
1400415	M4	15	4,0	13,0
1400420	M4	20	4,0	13,0
1400510	M5	10	3,8	13,0
1400515	M5	16	3,8	13,0
1400520	M5	20	3,8	13,0
1400610	M6	10	3,8	13,0
1400615	M6	16	3,8	13,0

Part no.	A	B	C	D
1400620	M6	20	3,8	13,0
1400625	no longer available!			
1400810	M8	10	3,8	13,0
1400816	M8	16	3,8	13,0
1400820	M8	20	3,8	13,0
1401010	M10	10	3,8	13,0
1401016	M10	16	3,8	13,0
1401020	M10	20	3,8	13,0

Handwheels | smooth with square drive

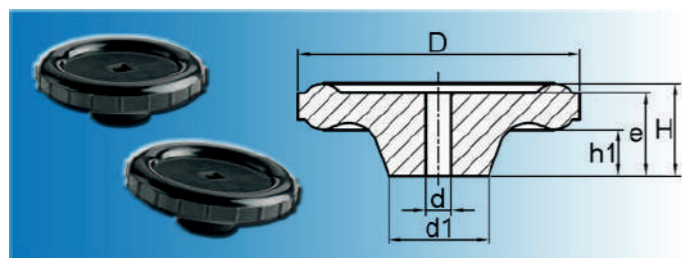


Material: thermoset material FS 31 DIN 7708
Colour: black

Part no.	D	d	d1	H	h3	e
6113206401	65	10	26	20	11	15
6113208401	80	10	34	21	9	15
6113210401	100	10	44	23	5	15

Part no.	D	d	d1	H	h3	e
6113212401	125	12	40	31	10	21
6113215401	150	12	50	32	7	21

Handwheels | knurled with square drive

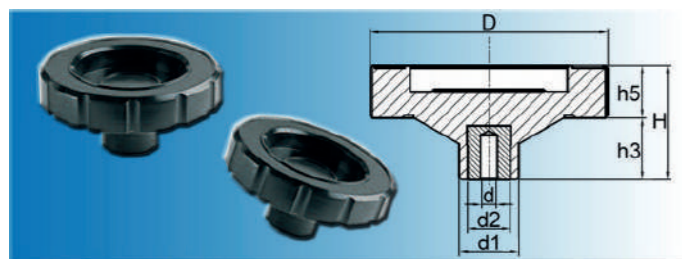


Material: thermoset material FS 31 DIN 7708
Colour: black

Part no.	D	d	d1	h1	H	e
6117335201	35	5	13	9	15	13
6117350201	50	7	21	10	22	17
6117361201	61	7	21	10	20	18

Part no.	D	d	d1	h1	H	e
6117371201	71	7	27	12	24	22
6117386203	86	8	31	15	28	24

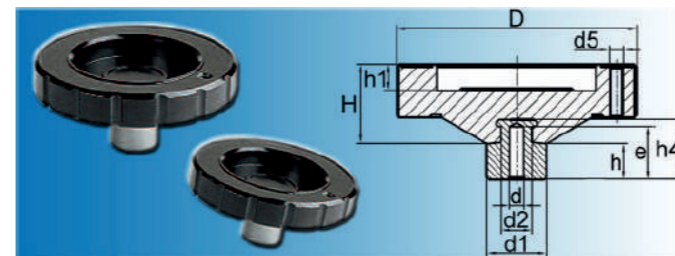
Handwheels | type H



Material: thermoset material FS 31 DIN 7708
Insert of treated steel
Colour: black

Part no.	d	D	H	d2	d1	h3	h5
6118306301	5,25	65	36	18	25	22	15
6118308301	5,25	80	38	18	25	22	16

Handwheels | type A

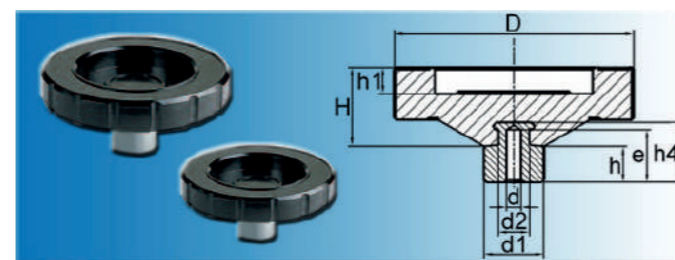


Material: thermoset material FS 31 DIN 7708
Insert of treated steel
Colour: black

Optionally you can combine type A with tapered knobs from product group 61141 (page 67), 61136 (page 65) or 61137 (page 66).

Part no.	d5	d	D	h4	d2	d1	h	e	H	h1
6118310651	M6	5,25	100	29	19	25	15	15	33	11
6118313651	M8	5,25	130	36	20	30	25	24	33	11

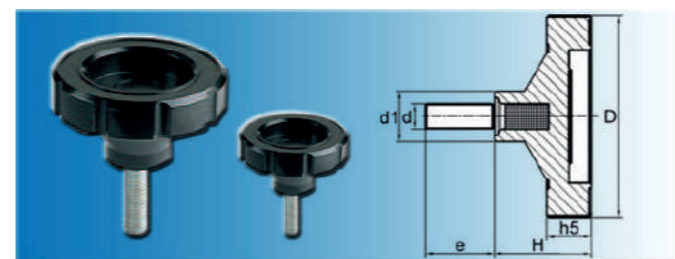
Handwheels | type N



Material: thermoset material FS 31 DIN 7708
Insert of treated steel
Colour: black

Part no.	d	D	h4	d2	d1	h	H	h1	e
6118306601	5,25	65	29	19	25	25	30	10	15
6118308601	5,25	80	29	19	25	15	30	10	15
6118310601	5,25	100	29	19	25	15	33	11	15
6118313601	5,25	130	36	20	30	25	33	11	24

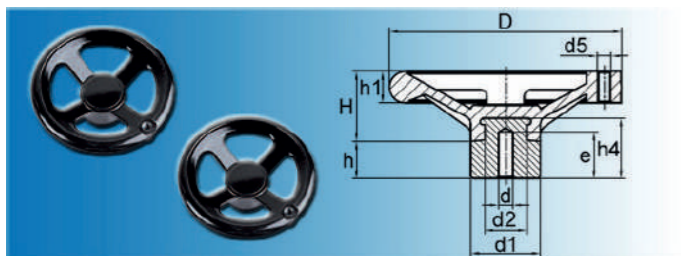
Handwheels | type T



Material: thermoset material FS 31 DIN 7708
Thread of treated steel
Colour: black

Part no.	d	D	e	H	h5	d1
6118306501	M10	65	33	37	15	25
6118308502	M12	80	40	38	16	25

4-spoke handwheels | type A

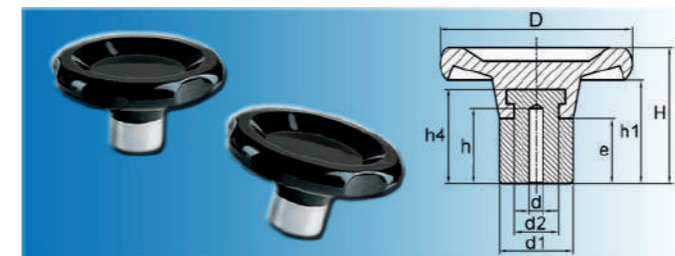


Material: thermoset material FS 31 DIN 7708
Insert of treated steel
Colour: black

Optionally you can combine type A with tapered knobs from product group 61141 (page 67), 61136 (page 65) or 61137 (page 66).

Part no.	d	d5	D	H	h	d2	h4	d1	e	h1
6113110651	5,25	M6	100	30	20	18	26	30	16	15
6113112651	8,00	M6	125	28	25	28	32	40	22	14
6113115651	10,00	M8	150	48	30	30	55	50	30	18
6113117651	10,00	M10	175	49	30	30	55	50	30	20
6113120651	10,00	M12	200	70	30	30	55	50	30	26

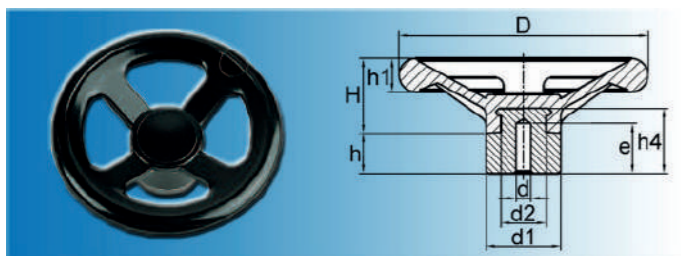
Disc handwheels | type N



Material: thermoset material FS 31 DIN 7708
Insert of treated steel
Colour: black

Part no.	D	H	h	h1	h4	e	d	d1	d2
6113204601	45	33	18	21	20	11	5,25	20	11
6113206601	65	39	22	28	29	22	5,25	25	19
6113208601	80	43	20	31	26	25	5,25	30	18
6113210601	100	52	25	34	32	25	8,00	35	28
6113212601	125	64	25	43	32	25	8,00	40	28
6113215601	150	82	30	57	50	30	10,00	50	35
6113217601	175	84	30	64	50	30	10,00	50	35
6113220601	200	86	30	64	50	30	10,00	50	35

4-spoke handwheels | type N



Material: thermoset material FS 31 DIN 7708
Insert of treated steel
Colour: black

Part no.	d	D	H	h	d2	h4	d1	e	h1
6113110601	5,25	100	30	20	18	26	30	16	15
6113112601	8,00	125	28	25	28	32	40	22	14
6113115601	10,00	150	48	30	30	55	50	30	18
6113117601	10,00	175	49	30	30	55	50	30	20
6113120601	10,00	200	70	30	30	55	50	30	26
6113130601	10,00	300	86	30	34	60	60	18	30

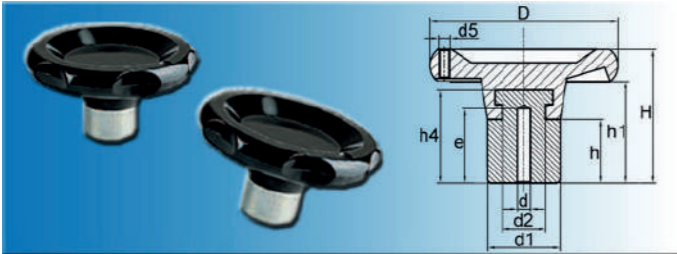
Disc handwheels | type H



Material: thermoset material FS 31 DIN 7708
Insert of treated steel
Colour: black

Part no.	D	H1	h2	h6	d1	d	d4
6113204301	45	26	17	17	20	5,25	14
6113206302	65	30	19	21	25	5,25	16
6113208302	80	37	24	22	30	5,25	18

Disc handwheels | type A

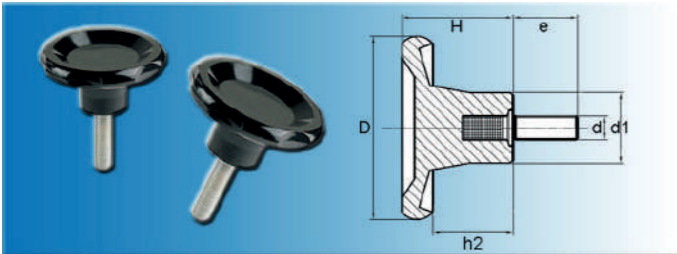


Material: thermoset material FS 31 DIN 7708
Insert of treated steel
Colour: black

Optionally you can combine type A with tapered knobs from product group 61141 (page 67), 61136 (page 65) or 61137 (page 66).

Part no.	D	d5	H	h	h1	h4	e	d	d1	d2
6113210651	100	M6	52	25	34	32	25	8	35	28
6113212651	125	M8	64	25	43	32	25	8	40	28
6113215651	150	M10	82	30	57	50	30	10	50	35
6113217651	175	M10	84	30	64	50	30	10	50	35
6113220651	200	M12	86	30	64	50	30	10	50	35

Disc handwheels | type T



Material: thermoset material FS 31 DIN 7708
Thread of treated steel
Colour: black

Part no.	D	H	d	e	d1	h2
6113204501	45	26	M8	27	20	16
6113206506	65	30	M10	33	25	19

Part no.	D	H	d	e	d1	h2
6113208502	80	37	M12	40	30	24



Advantages

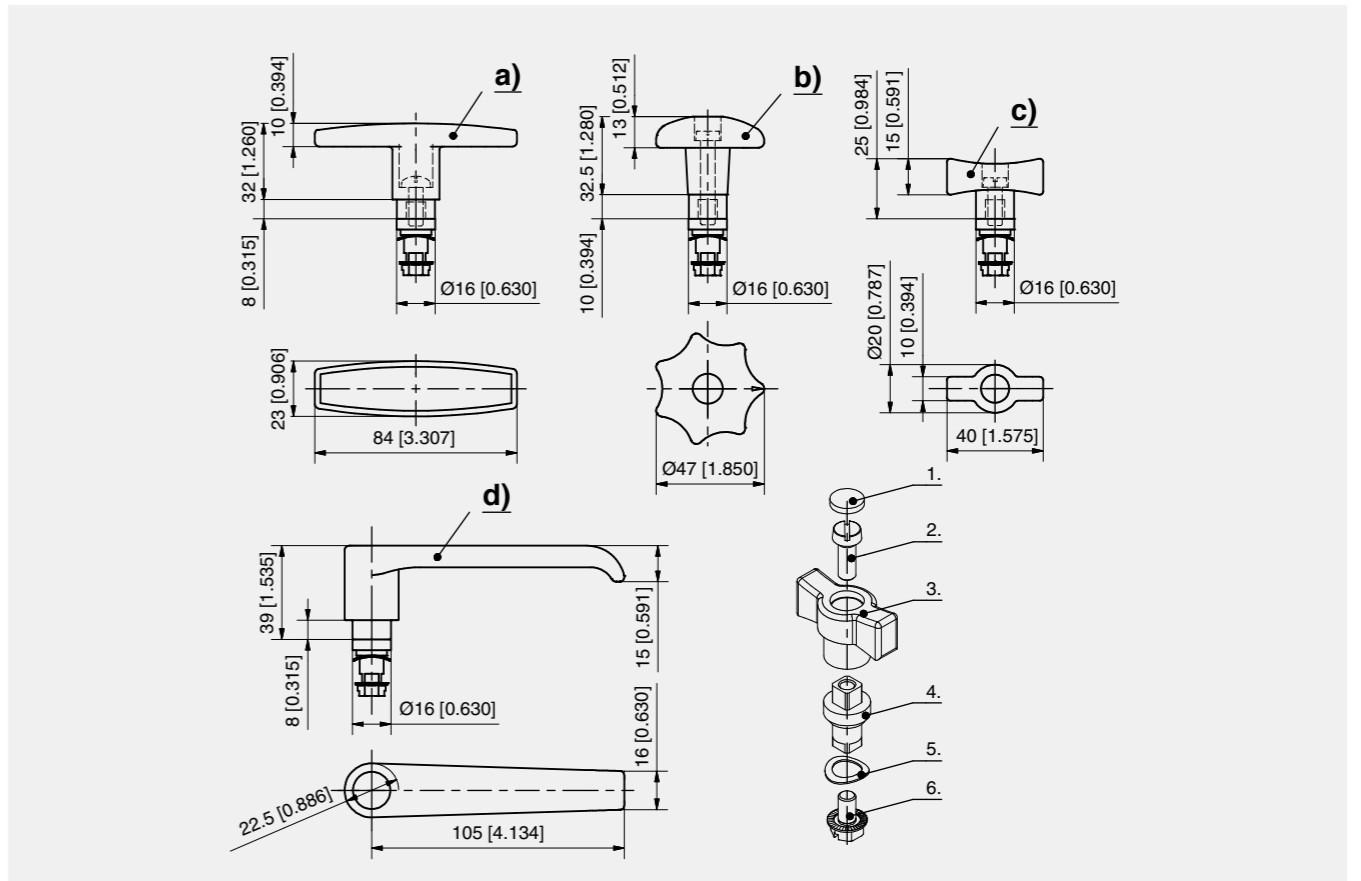
- Can be assembled afterwards for easier transport and packaging (flush).
- Inserts and screws are included.

Materials

- Handle: PA, black
- Inserts: zinc die, zinc plated

Remarks

- Handles consist of:
- cover
 - screw M6
 - handle element
 - insert with thread
 - spring washer
 - serrated screw



Handles for quarter-turns Pr20.1

	Part Number	Handle element	Delivery Unit
a)	200-9134.00-09137	T-handle with insert	1 pc.
b)	200-9135.00-09137	Star knob with insert	1 pc.
c)	200-9136.00-09137	Wing knob with insert	1 pc.
d)	200-9144.00-09137	L-handle with insert	1 pc.

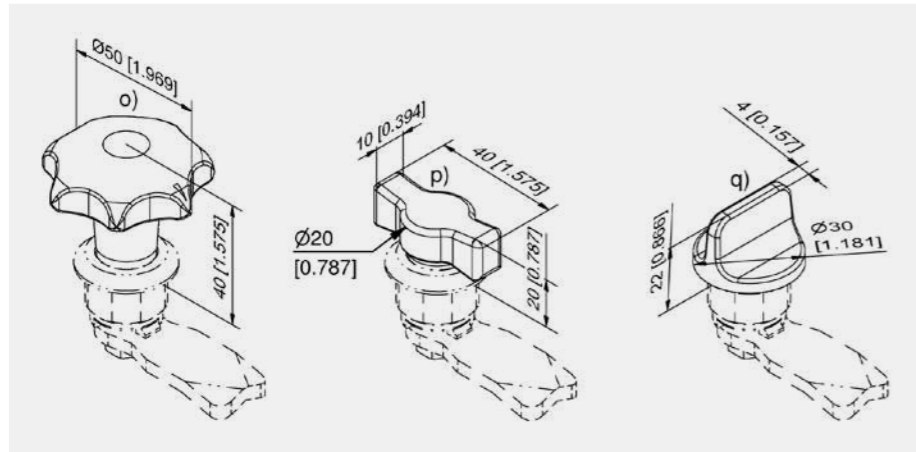


Advantages

- For quarter-turn cutout 20.1

Remarks

1. inserts zinc die, consisting of: insert, spring washer and self locking screw
 2. inserts PA, consisting of: insert, spring washer and self-tapping screw
- Suitable keys see product-system 6-100 and 6-101.



Insert, zinc die, black

Part Number	Insert	Indicator	Delivery Unit
q) 100-9115.00-00000	Wing knob (only for housings Ø28)		10 pcs.

Insert, PA / zinc die comb. black

Part Number	Insert	Delivery Unit
o) 200-9114.00-00000	Star knob	10 pcs.
p) 200-9115.00-00000	Wing knob	10 pcs.

Insert, PA black

Part Number	Insert	Delivery Unit
p) 200-9173.00-00000	Wing knob	10 pcs.

Advantages

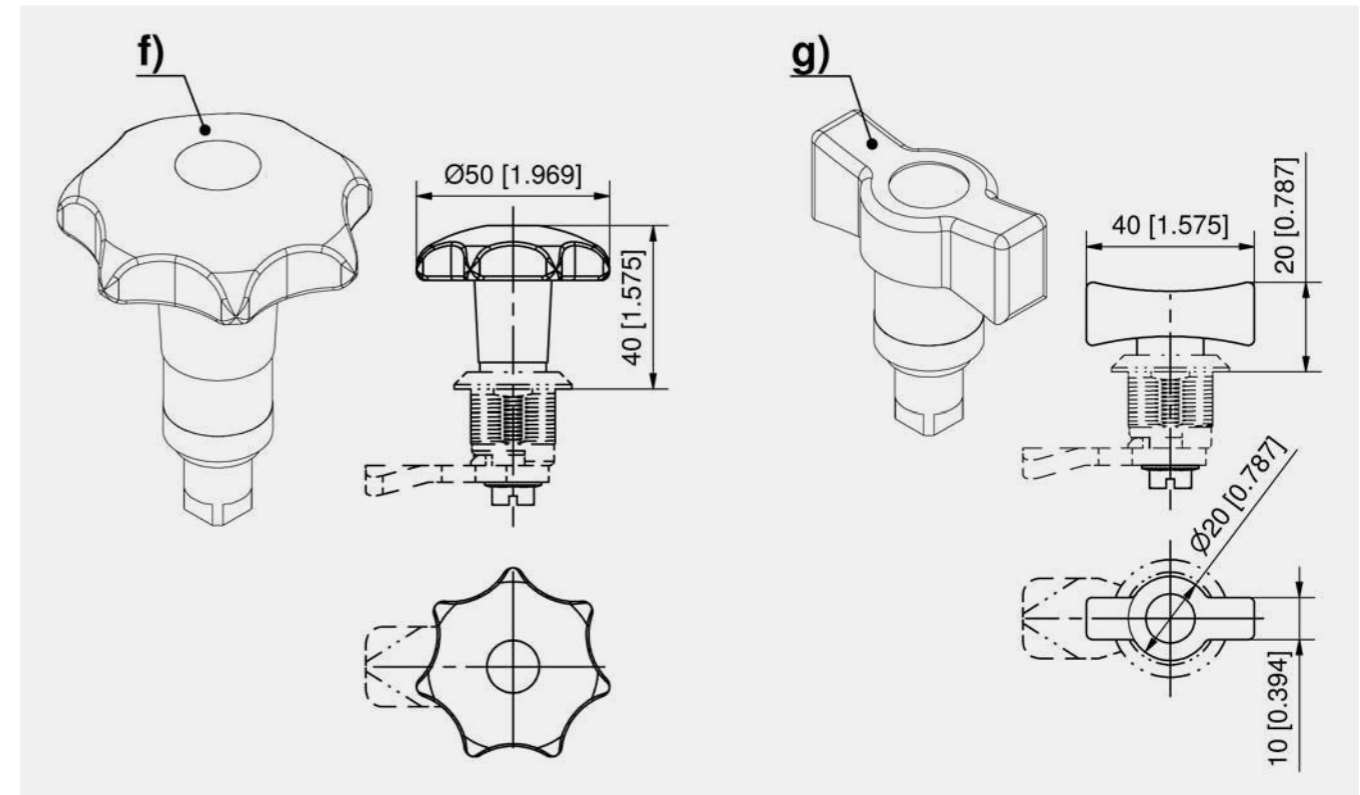
- Insert with screw, wave washer and o-ring.

Remarks

1. insert
2. wave washer
3. screw
4. o-ring

Materials

- Inserts: AISI 316
- Inserts f)+g): PA with stainless steel insert



Inserts

Part Number	Insert	Indicator	Delivery Unit
f) 200-9125.00-00000	Star knob		1 pc.
g) 200-9179.00-00000	Wing knob		1 pc.



Three-arm knobs

Technopolymer

MATERIAL

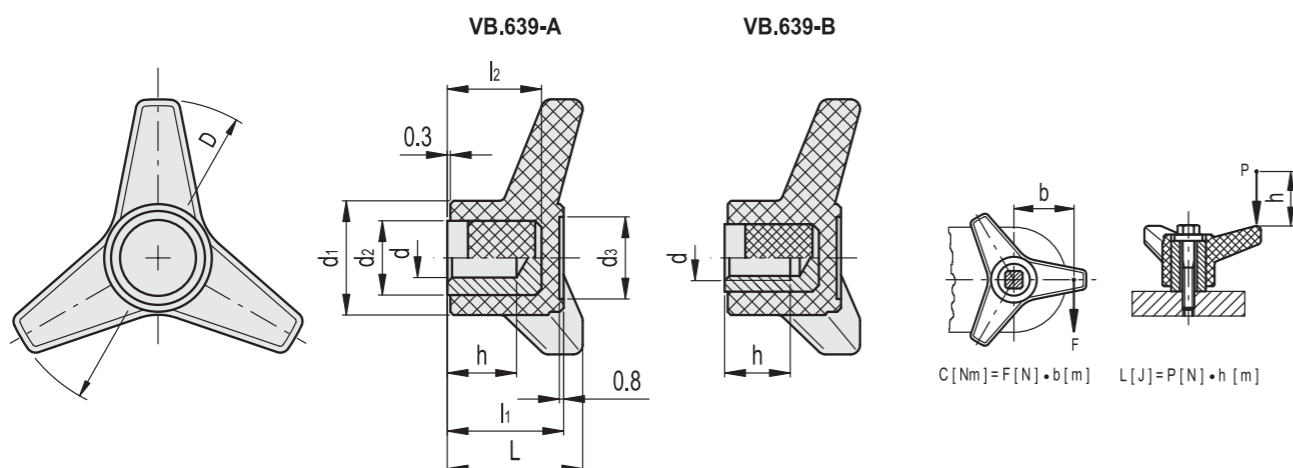
Glass-fibre reinforced polyamide based (PA) technopolymer, black colour, matte finish.
VB.639/130: glass-fibre reinforced polypropylene based (PP) technopolymer, black colour, matte finish.

STANDARD EXECUTIONS

- **VB.639-A**: black-oxide steel boss, plain blind hole.
- **VB.639-B**: brass boss, threaded blind hole.
- **VB.639-FP**: brass boss, threaded pass-through hole.
- **VB.639-p**: zinc-plated steel threaded stud with chamfered flat end as in UNI 947 : ISO 4753 (see Technical data on page A11).
- **VB.639-SST**: AISI 303 stainless steel boss, threaded blind hole.

APPLICATIONS

This knob has been designed for heavy duty work where the use of a hammer for a firmer clamping action is required.



VB.639-A

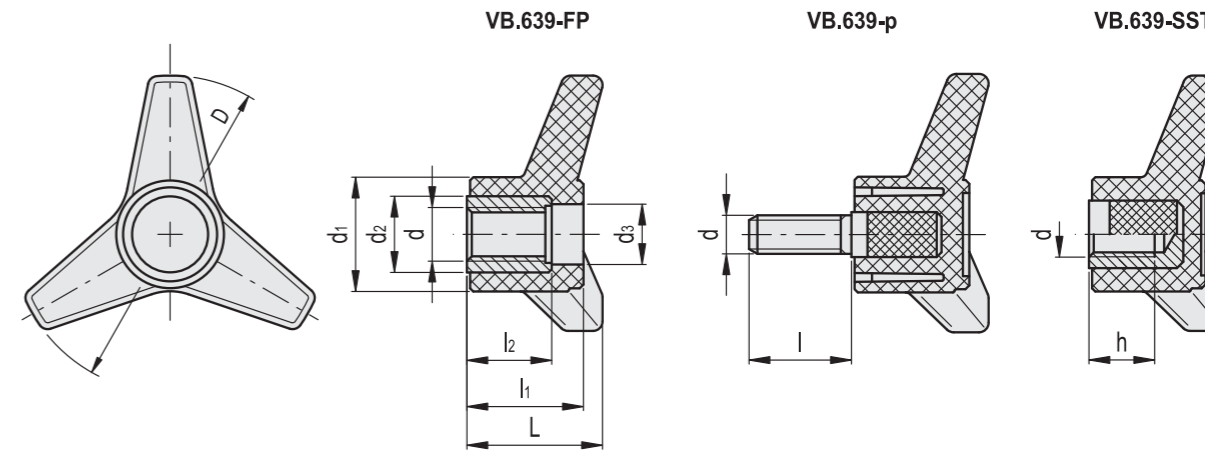
Code	Description	D	dH9	L	d1	d2	d3	l1	l2	h	C# [Nm]	L* [J]	Δ
65531	VB.639/45 A-6	45	6	25	19	12	12	22.5	17	14	11	2	40
65631	VB.639/63 A-6	63	6	28	26	15	18	25	23	18	30	7	55
65672	VB.639/80 A-8	80	8	35	32	15	21	30	25	20	80	6	75
65702	VB.639/100 A-10	100	10	42	36	20	25	36	25	21	110	8	130
65742	VB.639/130 A-12	130	12	47	43	20	29	40	31	24	135	9	180

VB.639-B

Code	Description	D	d6H	L	d1	d3	l1	h	C# [Nm]	L* [J]	Δ
65541	VB.639/45 B-M6	45	M6	25	19	12	22.5	12	11	2	33
65545	VB.639/45 B-M8	45	M8	25	19	12	22.5	13	11	2	30
65635	VB.639/63 B-M8	63	M8	28	26	18	25	15	30	7	48
65636	VB.639/63 B-M10	63	M10	28	26	18	25	17	30	7	40
65675	VB.639/80 B-M10	80	M10	35	32	21	30	17	80	6	60
65676	VB.639/80 B-M12	80	M12	35	32	21	30	17	80	6	67
65705	VB.639/100 B-M12	100	M12	42	36	25	36	20	110	8	96
65706	VB.639/100 B-M14	100	M14	42	36	25	36	20	110	8	105
65745	VB.639/130 B-M16	130	M16	47	43	29	40	22	135	9	162

"Max limit Tightening torque" means the max torque value at which the metal insert, in normal conditions of use, is perfectly and strongly anchored to the plastic material.

*For impact strength (L) see Technical Data on page A3.



VB.639-FP

Code	Description	D	d6H	L	d1	d2	d3	l1	l2	C# [Nm]	L* [J]	Δ
65551	VB.639/45 FP-M6	45	M6	25	19	8	9	22.5	12	11	2	30
65555	VB.639/45 FP-M8	45	M8	25	19	11	10	22.5	12	11	2	27
65641	VB.639/63 FP-M10	63	M10	28	27	16	13	25	21	30	7	47
65642	VB.639/63 FP-M12	63	M12	28	27	16	13	25	21	30	7	50
65681	VB.639/80 FP-M12	80	M12	35	32	18	17	30	25	80	7	77
65711	VB.639/100 FP-M16	100	M16	42	36	20	20	37	31	110	8	105
65751	VB.639/130 FP-M16	130	M16	47	43	24	22	40	34	135	9	157

VB.639-p

Code	Description	D	d6g	L	d1	d3	l	l1	C# [Nm]	L* [J]	Δ
65561	VB.639/45 p-M6x20	45	M6	25	19	12	20	22.5	10	2	29
65565	VB.639/45 p-M8x25	45	M8	25	19	12	25	22.5	23	2	31
65652	VB.639/63 p-M8x25	63	M8	28	26	18	25	25	30	7	44
65692	VB.639/80 p-M10x30	80	M10	35	32	21	30	30	80	7	78
65722	VB.639/100 p-M12x40	100	M12	42	36	25	40	36	110	8	126

VB.639-SST

STAINLESS STEEL

Code	Description	D	d6H	L	d1	d3	l1	h	C# [Nm]	L* [J]	Δ
65548	VB.639/45 SST-M6	45	M6	25	19	12	22.5	12	11	2	34
65638	VB.639/63-SST-M8	63	M8	28	26	18	25	15	30	7	49
65678	VB.639/80-SST-M10	80	M10	35	32	21	30	17	80	6	61
65708	VB.639/100-SST-M12	100	M12	42	36	25	36	20	110	8	97
65748	VB.639/130-SST-M16	130	M16	47	43	29	40	22	135	9	164

"Max limit Tightening torque" means the max torque value at which the metal insert, in normal conditions of use, is perfectly and strongly anchored to the plastic material.

*For impact strength (L) see Technical Data on page A3.

Knobs with solid section

Technopolymer, easy cleaning

MATERIAL

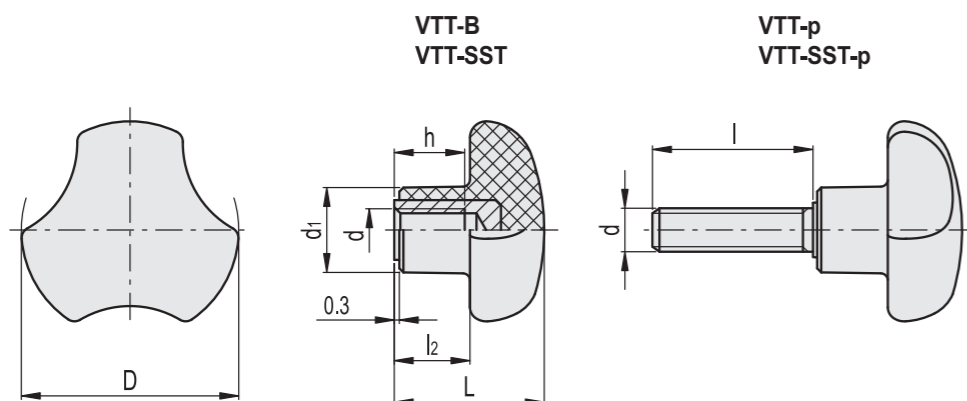
Glass-fibre reinforced polyamide based (PA) technopolymer, black colour, matte finish.

STANDARD EXECUTIONS

- **VTT**: brass boss, threaded blind hole.
- **VTT-SST**: AISI 304 stainless steel boss, threaded blind hole.
- **VTT-p**: zinc-plated steel threaded stud, chamfered flat end according to UNI 947 : ISO 4753 (see Technical data on page A11).
- **VTT-SST-p**: AISI 304 stainless steel threaded stud, chamfered flat end according to UNI 947 : ISO 4753 (see Technical data on page A11).

FEATURES AND APPLICATIONS

The three-lobe shape with large recesses is particularly ergonomic also for smaller knobs, ensuring an effective grip even with work gloves. The design without rear recesses, generally suitable for reducing thickness, prevents unhealthy residues from depositing, ensuring maximum easy cleaning. Particularly suitable for applications on machines and equipment whose parts must be frequently cleaned by using water jets or steam.



VTT

Code	Description	D	d6H	L	d1	l2	h	△
167106	VTT.25-B-M5	25	M5	20	12	10	10	9
167216	VTT.32-B-M6	32	M6	23	14	11.5	10	19
167336	VTT.40-B-M8	40	M8	27	16	13.5	13	23
167466	VTT.50-B-M10	50	M10	30	19	15	17	36

VTT-SST

STAINLESS STEEL

Code	Description	D	d6H	L	d1	l2	h	△
167116	VTT.25-SST-M5	25	M5	20	12	10	10	9
167226	VTT.32-SST-M6	32	M6	23	14	11.5	10	19
167346	VTT.40-SST-M8	40	M8	27	16	13.5	13	24
167476	VTT.50-SST-M10	50	M10	30	19	15	17	37

VTT-p

Code	Description	D	d6g	L	d1	l	l2	△
167151	VTT.25-p-M5x10	25	M5	20	12	10	10	8
167152	VTT.25-p-M5x16	25	M5	20	12	16	10	9
167252	VTT.32-p-M6x16	32	M6	23	14	16	11.5	15
167253	VTT.32-p-M6x20	32	M6	23	14	20	11.5	16
167254	VTT.32-p-M6x30	32	M6	23	14	30	11.5	19
167371	VTT.40-p-M8x20	40	M8	27	16	20	13.5	27
167373	VTT.40-p-M8x30	40	M8	27	16	30	13.5	31
167375	VTT.40-p-M8x40	40	M8	27	16	40	13.5	35
167481	VTT.50-p-M10x20	50	M10	30	19	20	15	46
167483	VTT.50-p-M10x30	50	M10	30	19	30	15	56
167485	VTT.50-p-M10x40	50	M10	30	19	40	15	66

VTT-SST-p

STAINLESS STEEL

Code	Description	D	d6g	L	d1	l	l2	△
167161	VTT.25-SST-p-M5x10	25	M5	20	12	10	10	8
167162	VTT.25-SST-p-M5x16	25	M5	20	12	16	10	9
167262	VTT.32-SST-p-M6x16	32	M6	23	14	16	11.5	15
167263	VTT.32-SST-p-M6x20	32	M6	23	14	20	11.5	16
167264	VTT.32-SST-p-M6x30	32	M6	23	14	30	11.5	19
167381	VTT.40-SST-p-M8x20	40	M8	27	16	20	13.5	28
167383	VTT.40-SST-p-M8x30	40	M8	27	16	30	13.5	32
167385	VTT.40-SST-p-M8x40	40	M8	27	16	40	13.5	36
167491	VTT.50-SST-p-M10x20	50	M10	30	19	20	15	47
167493	VTT.50-SST-p-M10x30	50	M10	30	19	30	15	57
167495	VTT.50-SST-p-M10x40	50	M10	30	19	40	15	67

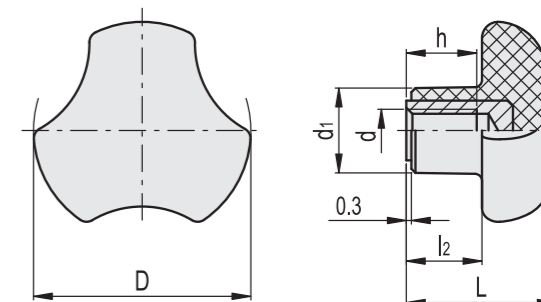
Ergonomic Design

Three ample lobes to offer a safe and effective grip to the operator even with smaller diameters when wearing gloves too.



Easy cleaning

The absence of recesses prevent unhealthy residues or dust from depositing ensuring maximum cleaning.



STAINLESS STEEL

Code	Description	D	d6H	L	d1	l2	h	△
151752	VTT.25-SST-M5 CLEAN	25	M5	20	12	10	10	9
151762	VTT.32-SST-M6 CLEAN	32	M6	23	14	11.5	10	19
151772	VTT.40-SST-M8 CLEAN	40	M8	27	16	13.5	13	24
151782	VTT.50-SST-M10 CLEAN	50	M10	30	19	15	17	37

Knobs with solid section

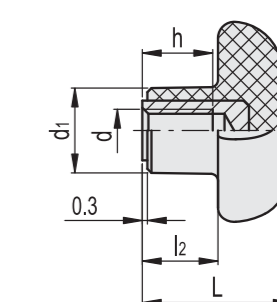
Technopolymer, easy cleaning

MATERIAL

Glass-fibre reinforced polyamide based (PA) technopolymer, white colour similar to RAL 9002, matte finish.

STANDARD EXECUTION

AISI 304 stainless steel boss, threaded blind hole.



STAINLESS STEEL

Code	Description	D	d6H	L	d1	l2	h	△
151752	VTT.25-SST-M5 CLEAN	25	M5	20	12	10	10	9
151762	VTT.32-SST-M6 CLEAN	32	M6	23	14	11.5	10	19
151772	VTT.40-SST-M8 CLEAN	40	M8	27	16	13.5	13	24
151782	VTT.50-SST-M10 CLEAN	50	M10	30	19	15	17	37

Knobs with solid section

with retaining chain, technopolymer

MATERIAL

Glass-fibre reinforced polyamide based (PA) technopolymer, black colour, matte finish.

Elastic fork in acetal based technopolymer (POM), black colour.

RETAINING CHAIN

Ball cable and coupling heads in acetal resin based (POM) technopolymer, black colour.

NERINOX treated stainless steel ring with two coils.

Head fastening by means of a self-tapping screw $\varnothing 4.8$ mm UNI EN ISO 7050 or a M5 countersunk-head screw UNI EN ISO 10642.

STANDARD EXECUTIONS

- **VTT-B-LP**: brass boss, threaded blind hole.
- **VTT-SST-LP**: AISI 304 stainless steel boss, threaded blind hole.
- **VTT-p-LP**: zinc-plated steel threaded stud, chamfered flat end according to UNI 947 : ISO 4753 (see Technical Data on page A11).
- **VTT-SST-p-LP**: AISI 304 stainless steel threaded stud, chamfered flat end according to UNI 947 : ISO 4753 (see Technical Data on page A11).

FEATURES AND APPLICATIONS

Suitable where it is necessary to prevent the loss of the knob.

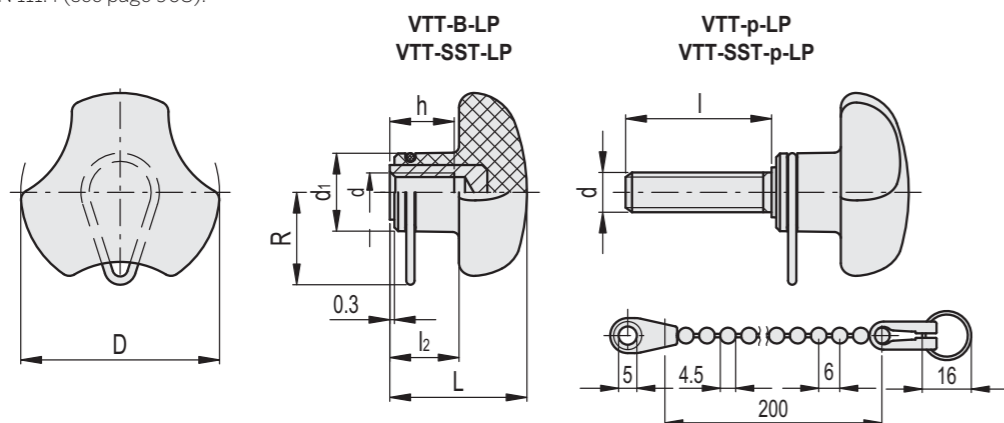
The elastic fork, housed in the groove of the knob can turn freely. The coiled ring connects the fork to the chain.

The three-lobe shape with large recesses is particularly ergonomic also for smaller knobs, ensuring an effective grip even with work gloves.

The design without rear cavities, generally suitable for reducing thickness, prevents unhealthy residues from depositing, ensuring easy cleaning. Particularly suitable for applications on machines and equipment whose parts must be frequently cleaned by using water jets or steam.

SPECIAL EXECUTIONS ON REQUEST

- Chain in different lengths.
- Knob with stainless steel cable GN 111 (see page 904), GN 111.2 (see page 906) and GN 111.4 (see page 908).



VTT-B-LP		VTT-SST-LP		STAINLESS STEEL							
Code	Description	Code	Description	D	d6H	L	d1	l2	h	R	Δ
168106	VTT.25-B-M5-LP	168116	VTT.25-SST-M5-LP	25	M5	20	12	10	10	20	12
168216	VTT.32-B-M6-LP	168226	VTT.32-SST-M6-LP	32	M6	23	14	11.5	10	21	22
168336	VTT.40-B-M8-LP	168346	VTT.40-SST-M8-LP	40	M8	27	16	13.5	13	21.5	26
168466	VTT.50-B-M10-LP	168476	VTT.50-SST-M10-LP	50	M10	30	19	15	17	22.5	39

VTT-p-LP		VTT-SST-p-LP		STAINLESS STEEL							
Code	Description	Code	Description	D	d6g	L	d1	l	l2	R	Δ
168152	VTT.25-p-M5x16-LP	168162	VTT.25-SST-p-M5x16-LP	25	M5	20	12	16	10	20	12
168253	VTT.32-p-M6x20-LP	168263	VTT.32-SST-p-M6x20-LP	32	M6	23	14	20	11.5	21	19
168373	VTT.40-p-M8x30-LP	168383	VTT.40-SST-p-M8x30-LP	40	M8	27	16	30	13.5	21.5	34
168485	VTT.50-p-M10x40-LP	168495	VTT.50-SST-p-M10x40-LP	50	M10	30	19	40	15	22.5	69

Stainless Steel- Three lobe knobs

Material AISI 303 (A2)

SPECIFICATION

Types

- Type **A**: without bore
- Type **E**: with threaded blind bore
- Type **D**: with threaded through bore
- Type **C**: with plain blind bore H7

Stainless Steel AISI 303

Stainless Steel AISI 316L (A4)

matt shot-blasted

INFORMATION

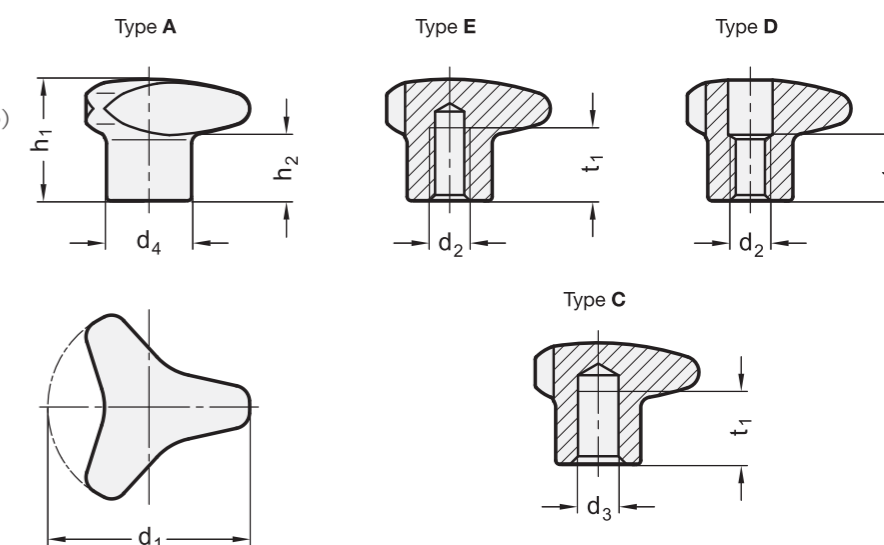
Stainless Steel-Three lobe knobs GN 5345 have a smooth and sealed surface. They are particularly suitable for use where hygiene requirements are high. Their shape allows relatively high torques to be applied.

ON REQUEST

- highly polished (PL)

TECHNICAL INFORMATION

- Cross holes GN 110 (see page A17)
- ISO-Fundamental Tolerances (see page A21)
- Stainless Steel characteristics (see page A26)



GN 5345

STAINLESS STEEL

Description	d1	d2	d3 H7	d4	h1	h2	t1 min.	t2	Δ
GN 5345-40-A	40	-	-	18	26	15	-	-	76
GN 5345-50-A	50	-	-	21	30	17	-	-	127
GN 5345-60-A	60	-	-	25	35	18	-	-	216
GN 5345-40-B8-C	40	-	B 8	18	26	15	15	-	70
GN 5345-50-B10-C	50	-	B 10	21	30	17	18	-	114
GN 5345-60-B12-C	60	-	B 12	25	35	18	22	-	195
GN 5345-40-M6-D	40	M 6	-	18	26	15	-	13	70
GN 5345-40-M8-D	40	M 8	-	18	26	15	-	13	67
GN 5345-50-M8-D	50	M 8	-	21	30	17	-	16	115
GN 5345-50-M10-D	50	M 10	-	21	30	17	-	16	109
GN 5345-60-M10-D	60	M 10	-	25	35	18	-	20	193
GN 5345-60-M12-D	60	M 12	-	25	35	18	-	20	185
GN 5345-40-M6-E	40	M 6	-	18	26	15	12	-	74
GN 5345-40-M8-E	40	M 8	-	18	26	15	15	-	70
GN 5345-50-M8-E	50	M 8	-	21	30	17	15	-	119
GN 5345-50-M10-E	50	M 10	-	21	30	17	18	-	115
GN 5345-60-M10-E	60	M 10	-	25	35	18	18	-	202
GN 5345-60-M12-E	60	M 12	-	25	35	18	22	-	195

GN 5345.4

STAINLESS STEEL

Description	d1	d2	d3 H7	d4	h1	h2	t1 min.	t2	Δ
GN 5345.4-40-A	40	-	-	18	26	15	-	-	96
GN 5345.4-50-A	50	-	-	21	30	17	-	-	128
GN 5345.4-60-A	60	-	-	25	35	18	-	-	219
GN 5345.4-40-B8-C	40	-	B 8	18	26	15	15	-	70
GN 5345.4-50-B10-C	50	-	B 10	21	30	17	18	-	115
GN 5345.4-60-B12-C	60	-	B 12	25	35	18	22	-	192
GN 5345.4-40-M6-D	40	M 6	-	18	26	15	-	13	60
GN 5345.4-40-M8-D	40	M 8	-	18	26	15	-	13	67
GN 5345.4-50-M8-D	50	M 8	-	21	30	17	-	16	117
GN 5345.4-50-M10-D	50	M 10	-	21	30	17	-	16	111
GN 5345.4-60-M10-D	60	M 10	-	25	35	18	-	20	197
GN 5345.4-60-M12-D	60	M 12	-	25	35	18	-	20	188
GN 5345.4-40-M6-E	40	M 6	-	18	26	15	12	-	77
GN 5345.4-40-M8-E	40	M 8	-	18	26	15	15	-	71
GN 5345.4-50-M8-E	50	M 8	-	21	30	17	15	-	120
GN 5345.4-50-M10-E	50	M 10	-	21	30	17	18	-	115
GN 5345.4-60-M10-E	60	M 10	-	25	35	18	18	-	202
GN 5345.4-60-M12-E	60	M 12	-	25	35	18	22	-	195

Lobe knobs

Technopolymer

MATERIAL

High-resilience polypropylene based (PP) technopolymer, black colour, matte finish. VCT.25: glass-fibre reinforced polyamide based (PA) technopolymer, black colour, matte finish.

COLOURED CENTRE CAP

Technopolymer, matte finish. Not available for VCT.25. To order, add the index of the desired colour (C9, ..., C6) to the code and the description.

On request and for sufficient quantities it can be supplied in other colours or with customised graphic symbols, marks or writings.

STANDARD EXECUTIONS

- **VCT-A:** black-oxide steel boss, plain blind hole.
- **VCT-B:** brass boss, threaded blind hole (VCT.25 - 95) or threaded pass-through hole (VCT.32 - 40 - 50 - 63 - 74).
- **VCT.FP:** brass boss, threaded pass-through hole.
- **VCT-p:** zinc-plated steel threaded stud, chamfered flat end according to UNI 947 : ISO 4753 (see Technical data on page A11).

ACCESSORIES ON REQUEST

Coloured centre caps (see table).

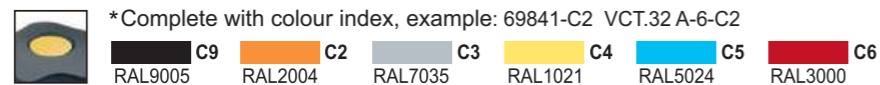
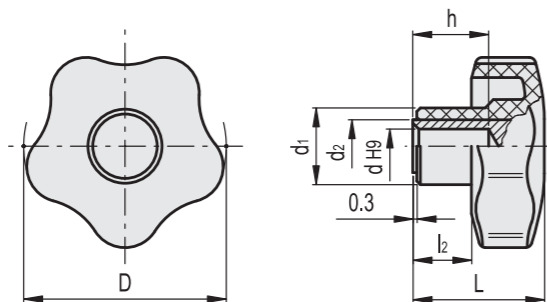


Cap for	C9	C2	C3	C4	C5	C6	Description
	Code						
VCT.32	6900	6903	6904	6905	6906	6901	CA.VCT.32-*
VCT.40	6910	6913	6914	6915	6916	6911	CA.VCT.40-*
VCT.50	6920	6923	6924	6925	6926	6921	CA.VCT.50-*
VCT.63-74-95	6930	6933	6934	6935	6936	6931	CA.VCT.63-74-95-*

* Complete with colour index (C9, ..., C6).

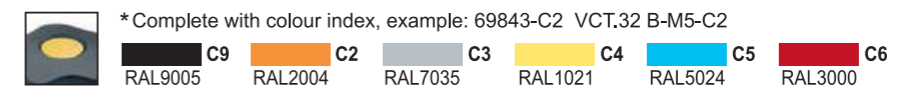
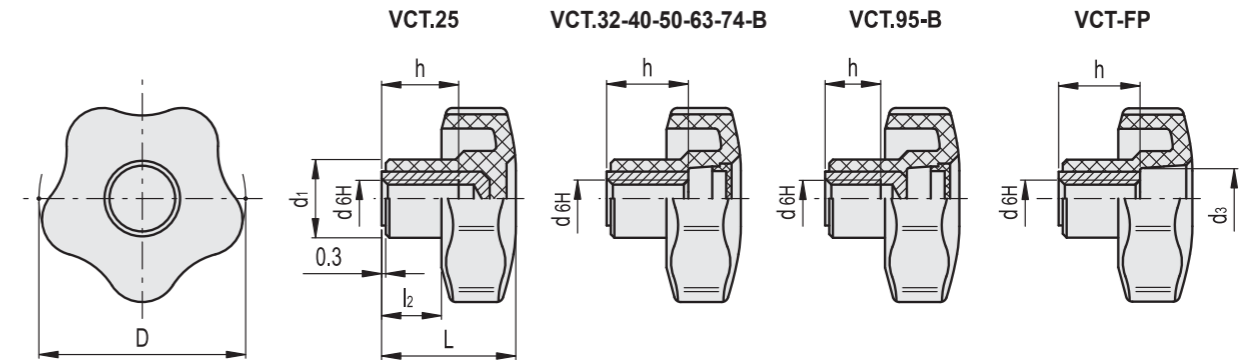


VCT-A



VCT-A

Code	Description	D	dH9	L	d1	d2	l2	h	⚠
69892-*	VCT.40 A-8-*	40	8	27	17	12	12	14	36
69951-*	VCT.50 A-8-*	50	8	32	19	12	14	14	37
69952-*	VCT.50 A-10-*	50	10	32	19	15	14	16	34
70001-*	VCT.63 A-8-*	63	8	37	22	15	16	20	52
70002-*	VCT.63 A-10-*	63	10	37	22	16	16	21	49
70051-*	VCT.74 A-8-*	74	8	43.5	26	15	22	20	65



VCT-B

Code	Description	D	d6H	L	d1	l2	h	C# [Nm]	⚠
69811-C9	VCT.25 B-M4-C9	25	M4	19	13	8	10	6	7
69812-C9	VCT.25 B-M5-C9	25	M5	19	13	8	10	7	6
69813-C9	VCT.25 B-M6-C9	25	M6	19	13	8	10	7	5
69843-*	VCT.32 B-M5-*	32	M5	23	15	10	12	10	11
69844-*	VCT.32 B-M6-*	32	M6	23	15	10	12	10	10
69845-*	VCT.32 B-M8-*	32	M8	23	15	10	12	10	9
69893-*	VCT.40 B-M6-*	40	M6	27	17	12	18	16	26
69894-*	VCT.40 B-M8-*	40	M8	27	17	12	18	18	24
69895-*	VCT.40 B-M10-*	40	M10	27	17	12	17	18	23
69953-*	VCT.50 B-M8-*	50	M8	32	19	14	20	25	38
69954-*	VCT.50 B-M10-*	50	M10	32	19	14	20	27	34
69955-*	VCT.50 B-M12-*	50	M12	32	19	14	20	27	30
70012-*	VCT.63 B-M8-*	63	M8	37	22	16	26	48	45
70013-*	VCT.63 B-M10-*	63	M10	37	22	16	26	50	42
70014-*	VCT.63 B-M12-*	63	M12	37	22	16	26	50	40
70062-*	VCT.74 B-M12-*	74	M12	43.5	26	22	26	60	57
70063-*	VCT.74 B-M14-*	74	M14	43.5	26	22	26	65	53
70064-*	VCT.74 B-M16-*	74	M16	43.5	26	22	31	69	55
70097-*	VCT.95 B-M16-*	95	M16	46	32	21	22	100	109

VCT.FP

Code	Description	D	d6H	L	d1	d3	l2	h	⚠
69847	VCT.32 FP-M5	32	M5	23	15	10	10	12	11
69848	VCT.32 FP-M6	32	M6	23	15	10	10	12	10
69849	VCT.32 FP-M8	32	M8	23	15	10	10	12	9
69897	VCT.40 FP-M6	40	M6	27	17	12	12	18	26
69898	VCT.40 FP-M8	40	M8	27	17	12	12	18	24
69899	VCT.40 FP-M10	40	M10	27	17	12	12	17	23
69956	VCT.50 FP-M8	50	M8	32	19	15	14	20	38
69957	VCT.50 FP-M10	50	M10	32	19	15	14	20	34
69958	VCT.50 FP-M12	50	M12	32	19	15	14	20	30
70016	VCT.63 FP-M8	63	M8	37	22	19	16	26	44
70017	VCT.63 FP-M10	63	M10	37	22	19	16	26	42
70018	VCT.63 FP-M12	63	M12	37	22	19	16	26	40
70067	VCT.74 FP-M12	74	M12	43.5	26	17	22	26	56
70068	VCT.74 FP-M14	74	M14	43.5	26	17	22	26	52
70069	VCT.74 FP-M16	74	M16	43.5	26	17	22	31	54

"Max limit Tightening torque" means the max torque value at which the metal insert, in normal conditions of use, is perfectly and strongly anchored to the plastic material.

Lobe knobs

with retaining chain, technopolymer

MATERIAL

High-resilience polypropylene based (PP) technopolymer, black colour, matte finish.

Technopolymer centre cap, black colour, matte finish. Not available for VCT.25.

Elastic fork in acetal based technopolymer (POM), black colour.

RETAINING CHAIN

Ball cable and coupling heads in acetal resin based (POM) technopolymer, black colour.

NERINOX treated stainless steel ring with two coils.

Head fastening by means of a self-tapping screw $\phi 4.8$ mm UNI EN ISO 7050 or a M5 countersunk-head screw UNI EN ISO 10642.

STANDARD EXECUTION

- **VCT-B-LP**: brass boss, threaded pass-through hole.

- **VCT-p-LP**: zinc-plated steel threaded stud chamfered flat end according to UNI 947: ISO 4753 (see Technical data on page A11).

FEATURES AND APPLICATIONS

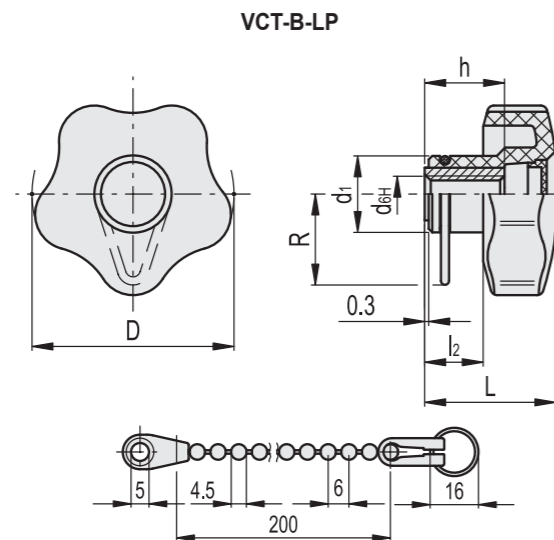
The elastic fork, housed in the groove of the knob can turn freely. The coiled ring connects the fork to the chain.

Suitable where it is necessary to prevent the loss of the knob.

SPECIAL EXECUTIONS ON REQUEST

- Chain in different lengths.

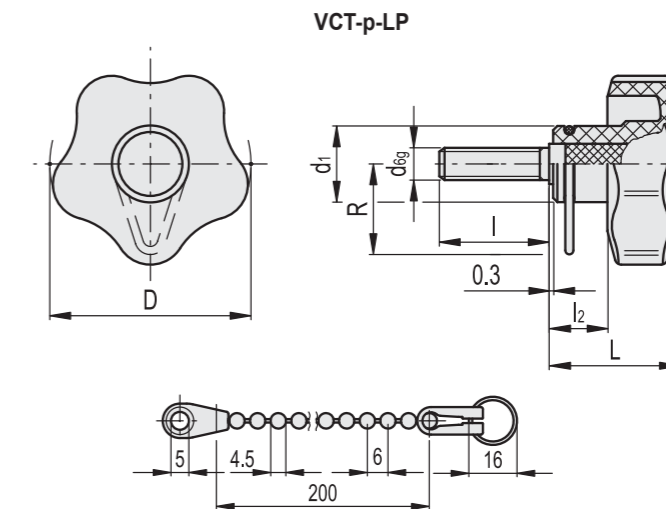
- Knob with stainless steel cable GN 111 (see page 904), GN 111.2 (see page 906) and GN 111.4 (see page 908).



VCT-B-LP

Code	Description	D	d6H	L	d1	l2	h	R	C# [Nm]	⚖
69512-C9	VCT.25 B-M5-LP-C9	25	M5	19	13	8	10	20	7	10
69544-C9	VCT.32 B-M6-LP-C9	32	M6	23	15	10	12	21	10	14
69594-C9	VCT.40 B-M8-LP-C9	40	M8	27	17	12	18	21.5	18	24
69654-C9	VCT.50 B-M10-LP-C9	50	M10	32	19	14	20	22.5	27	34
69714-C9	VCT.63 B-M12-LP-C9	63	M12	37	22	16	26	24	50	44

"Max limit Tightening torque" means the max torque value at which the metal insert, in normal conditions of use, is perfectly and strongly anchored to the plastic material.



VCT-p-LP

Code	Description	D	d6g	L	d1	l	l2	R	C# [Nm]	⚖
69521-C9	VCT.25 p-M5x10-LP-C9	25	M5	19	13	10	8	20	6	9
69522-C9	VCT.25 p-M5x16-LP-C9	25	M5	19	13	16	8	20	6	10
69523-C9	VCT.25 p-M5x20-LP-C9	25	M5	19	13	20	8	20	6	11
69524-C9	VCT.25 p-M5x25-LP-C9	25	M5	19	13	25	8	20	6	12
69551-C9	VCT.32 p-M6x16-LP-C9	32	M6	23	15	16	10	21	8	15
69552-C9	VCT.32 p-M6x20-LP-C9	32	M6	23	15	20	10	21	8	16
69553-C9	VCT.32 p-M6x25-LP-C9	32	M6	23	15	25	10	21	8	17
69554-C9	VCT.32 p-M6x30-LP-C9	32	M6	23	15	30	10	21	8	18
69612-C9	VCT.40 p-M8x20-LP-C9	40	M8	27	17	20	12	21.5	16	26
69613-C9	VCT.40 p-M8x25-LP-C9	40	M8	27	17	25	12	21.5	16	28
69614-C9	VCT.40 p-M8x30-LP-C9	40	M8	27	17	30	12	21.5	16	29
69616-C9	VCT.40 p-M8x40-LP-C9	40	M8	27	17	40	12	21.5	16	32
69671-C9	VCT.50 p-M10x20-LP-C9	50	M10	32	19	20	14	22.5	23	38
69672-C9	VCT.50 p-M10x25-LP-C9	50	M10	32	19	25	14	22.5	23	41
69673-C9	VCT.50 p-M10x30-LP-C9	50	M10	32	19	30	14	22.5	23	43
69675-C9	VCT.50 p-M10x40-LP-C9	50	M10	32	19	40	14	22.5	23	48
69733-C9	VCT.63 p-M12x30-LP-C9	63	M12	37	22	30	16	24	46	69
69735-C9	VCT.63 p-M12x40-LP-C9	63	M12	37	22	40	16	24	46	75
69736-C9	VCT.63 p-M12x50-LP-C9	63	M12	37	22	50	16	24	46	82

"Max limit Tightening torque" means the max torque value at which the metal insert, in normal conditions of use, is perfectly and strongly anchored to the plastic material.

Lobe knobs

“Soft-touch” technopolymer

MATERIAL

High-resilience polypropylene based (PP) technopolymer, coated with thermoplastic elastomer (TPE) "soft-touch" chemically bonded, hardness 70 Shore A.

The coating material is certified according to FDA (U.S. Food and Drug administration), black colour, matte finish.

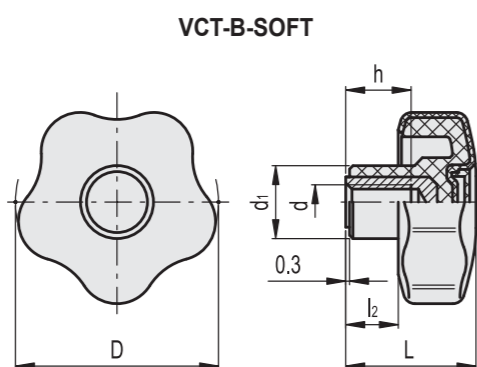
COLOURED CENTRE CAP

Polypropylene based (PP) technopolymer, in the six standard colours, matte finish.

On request and for sufficient quantities, it can be supplied in other colours or with customised graphic symbols, marks or writings.

STANDARD EXECUTIONS

- **VCT-B-SOFT:** brass boss, threaded blind hole.
- **VCT-p-SOFT:** zinc-plated steel threaded stud with chamfered flat end as in UNI 947 : ISO 4753 (see Technical data on page A11).



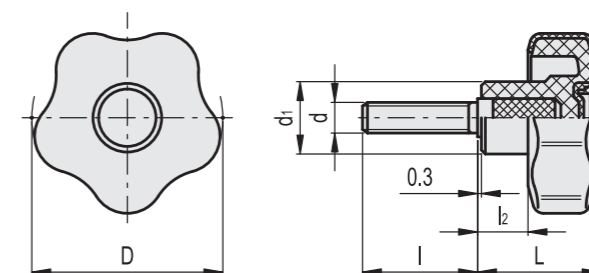
* Complete with colour index, example: 169894-C2 VCT.43 B-M8-SOFT-C2
RAL9005 C9 RAL2004 C2 RAL7035 C3 RAL1021 C4 RAL5024 C5 RAL3000 C6

VCT-B-SOFT

Code	Description	D	d6H	L	d1	l2	h	C# [Nm]	⚠
169892-*	VCT.43 B-M6-SOFT-*	43	M6	29	17	11	12	15	22
169894-*	VCT.43 B-M8-SOFT-*	43	M8	29	17	11	13	18	20
169952-*	VCT.53 B-M8-SOFT-*	53	M8	34	19	13	15	25	33
169954-*	VCT.53 B-M10-SOFT-*	53	M10	34	19	13	17	27	36
170013-*	VCT.66 B-M10-SOFT-*	66	M10	38.5	21.5	15.5	17	50	44
170015-*	VCT.66 B-M12-SOFT-*	66	M12	38.5	21.5	15.5	17	50	42
170062-*	VCT.77 B-M12-SOFT-*	77	M12	46	26	21	20	60	51

"Max limit Tightening torque" means the max torque value at which the metal insert, in normal conditions of use, is perfectly and strongly anchored to the plastic material.

VCT-p-SOFT



* Complete with colour index, example: 169903-C2 VCT.43 p-M6x25-SOFT-C2
RAL9005 C9 RAL2004 C2 RAL7035 C3 RAL1021 C4 RAL5024 C5 RAL3000 C6

VCT-p-SOFT

Code	Description	D	d6g	L	d1	I	l2	C# [Nm]	⚠
169901-*	VCT.43 p-M6x16-SOFT-*	43	M6	29	17	16	11	13	18
169902-*	VCT.43 p-M6x20-SOFT-*	43	M6	29	17	20	11	13	19
169903-*	VCT.43 p-M6x25-SOFT-*	43	M6	29	17	25	11	13	20
169905-*	VCT.43 p-M6x30-SOFT-*	43	M6	29	17	30	11	13	21
169911-*	VCT.43 p-M8x16-SOFT-*	43	M8	29	17	16	11	16	19
169912-*	VCT.43 p-M8x20-SOFT-*	43	M8	29	17	20	11	16	20
169913-*	VCT.43 p-M8x25-SOFT-*	43	M8	29	17	25	11	16	22
169915-*	VCT.43 p-M8x30-SOFT-*	43	M8	29	17	30	11	16	24
169961-*	VCT.53 p-M8x16-SOFT-*	53	M8	34	19	16	13	16	33
169963-*	VCT.53 p-M8x20-SOFT-*	53	M8	34	19	20	13	16	34
169965-*	VCT.53 p-M8x30-SOFT-*	53	M8	34	19	30	13	16	36
169967-*	VCT.53 p-M8x40-SOFT-*	53	M8	34	19	40	13	16	38
169971-*	VCT.53 p-M10x20-SOFT-*	53	M10	34	19	20	13	23	36
169973-*	VCT.53 p-M10x30-SOFT-*	53	M10	34	19	30	13	23	40
169975-*	VCT.53 p-M10x40-SOFT-*	53	M10	34	19	40	13	23	44
169977-*	VCT.53 p-M10x50-SOFT-*	53	M10	34	19	50	13	23	48
170021-*	VCT.66 p-M10x20-SOFT-*	66	M10	38.5	21.5	20	15.5	37	46
170023-*	VCT.66 p-M10x30-SOFT-*	66	M10	38.5	21.5	30	15.5	37	49
170025-*	VCT.66 p-M10x40-SOFT-*	66	M10	38.5	21.5	40	15.5	37	52
170027-*	VCT.66 p-M10x50-SOFT-*	66	M10	38.5	21.5	50	15.5	37	56
170033-*	VCT.66 p-M12x30-SOFT-*	66	M12	38.5	21.5	30	15.5	46	52
170035-*	VCT.66 p-M12x40-SOFT-*	66	M12	38.5	21.5	40	15.5	46	56
170037-*	VCT.66 p-M12x50-SOFT-*	66	M12	38.5	21.5	50	15.5	46	60
170083-*	VCT.77 p-M12x30-SOFT-*	77	M12	46	26	30	21	68	53
170085-*	VCT.77 p-M12x40-SOFT-*	77	M12	46	26	40	21	68	57
170087-*	VCT.77 p-M12x50-SOFT-*	77	M12	46	26	50	21	68	62

"Max limit Tightening torque" means the max torque value at which the metal insert, in normal conditions of use, is perfectly and strongly anchored to the plastic material.

Lobe knobs

Technopolymer, easy cleaning

MATERIAL

Glass-fibre reinforced polyamide based (PA) technopolymer, white colour similar to RAL 9002, matte finish.

STANDARD EXECUTION

AISI 303 stainless steel boss, threaded blind hole.

FEATURES AND APPLICATIONS

The exclusive five-lobe shape offers the operator's fingers a proper grip and prevents unhealthy residues from depositing thanks to its solid shape without cavities.

This knob is particularly suitable for applications on machines and equipment whose parts must be frequently cleaned by using water jets or steam.

The metal insert in AISI 303 stainless steel can be used in sectors where corrosion resistant materials are required.

Lobe knobs

Technopolymer chrome-plate

MATERIAL

Glass-fibre reinforced polyamide based (PA) technopolymer, chrome-plated, glossy finish.

STANDARD EXECUTION

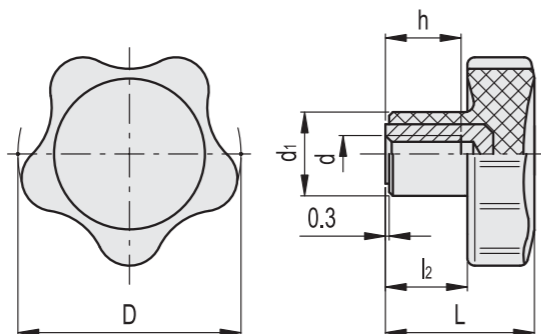
Brass boss, threaded blind hole.

FEATURES AND APPLICATIONS

The exclusive five-lobe shape (ELESA original design) offers the operator's fingers a proper grip and prevents unhealthy residues from depositing thanks to its solid shape without cavities.

CHEMICAL AGENTS RESISTANCE

This knob is particularly suitable for applications on machines and equipment whose parts, for hygienic reasons, must be frequently cleaned also using water or steam jets. The chrome-plating makes the surface finish semi-glossy and homogeneous to facilitate cleaning operations. The chrome-plated surface is resistant to wear, scrapes and shocks. In laboratory tests carried out at ambient temperature (23°C), the chrome-plated surface revealed to be resistant to: sea water, detergents, acetone, ethyl alcohol, formic acid, chlorine solutions.



STAINLESS STEEL

Code	Description	D	d6H	L	d1	l2	h	⚖
151702	VC.692/32-SST-M6-CLEAN	32	M6	22.5	14	12.5	10	15
151712	VC.692/40-SST-M8-CLEAN	40	M8	26	15	14	13	24
151722	VC.692/50-SST-M10-CLEAN	50	M10	31	18	17	17	42
151732	VC.692/60-SST-M12-CLEAN	60	M12	36.5	21	21	20	54

Code	Description	D	d6H	L	d1	l2	h	⚖
152702	VC.692/32-CR-B-M6	32	M6	22.5	14	12.5	10	14
152712	VC.692/40-CR-B-M8	40	M8	26	15	14	13	23
152722	VC.692/50-CR-B-M10	50	M10	31	18	17	17	40
152731	VC.692/60-CR-B-M10	60	M10	36.5	21	21	20	63

Lobe knobs with solid section

Technopolymer, pad

MATERIAL

Glass-fibre reinforced polyamide based (PA) technopolymer, black colour, matte finish.

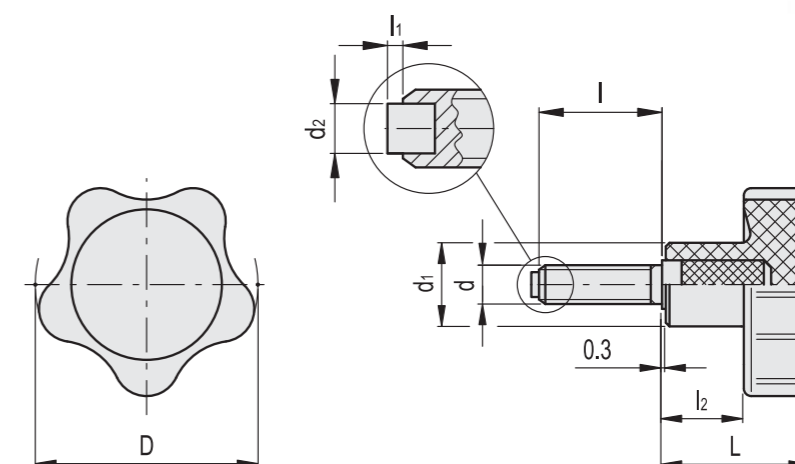
STANDARD EXECUTIONS

- **VC.692-SST-p-PO**: AISI 303 stainless steel threaded stud, chamfered end with acetal resin (POM) pad.
- **VC.692-SST-p-PB**: AISI 303 stainless steel threaded stud, chamfered end with brass pad.

FEATURES AND APPLICATIONS

The chamfered end with bolt avoids to damage the surface of contact even in case of strong clamping.

Standard executions either with brass or acetal resin pad.



VC.692-SST-p-PO

STAINLESS STEEL

Code	Description	D	d6g	L	d1	d2	l	l1	l2	⚖
166282	VC.692/32-SST-p-M6x16-PO	32	M6	22.5	14	4	16	1.5	12.5	15
166283	VC.692/32-SST-p-M6x20-PO	32	M6	22.5	14	4	20	1.5	12.5	16
166284	VC.692/32-SST-p-M6x30-PO	32	M6	22.5	14	4	30	1.5	12.5	19
166401	VC.692/40-SST-p-M8x20-PO	40	M8	26	15	5	20	1.8	14	28
166403	VC.692/40-SST-p-M8x30-PO	40	M8	26	15	5	30	1.8	14	32
166405	VC.692/40-SST-p-M8x40-PO	40	M8	26	15	5	40	1.8	14	36
166511	VC.692/50-SST-p-M10x20-PO	50	M10	31	18	6	20	2	17	47
166513	VC.692/50-SST-p-M10x30-PO	50	M10	31	18	6	30	2	17	57
166515	VC.692/50-SST-p-M10x40-PO	50	M10	31	18	6	40	2	17	66

VC.692-SST-p-PB

STAINLESS STEEL

Code	Description	D	d6g	L	d1	d2	l	l1	l2	⚖
166182	VC.692/25 SST-p-M5x16-PB	25	M5	20	12	3	16	1.5	10	12
166184	VC.692/25 SST-p-M5x25-PB	25	M5	20	12	3	25	1.5	10	12
166292	VC.692/32-SST-p-M6x16-PB	32	M6	22.5	14	4	16	1.5	12.5	16
166293	VC.692/32-SST-p-M6x20-PB	32	M6	22.5	14	4	20	1.5	12.5	17
166294	VC.692/32-SST-p-M6x30-PB	32	M6	22.5	14	4	30	1.5	12.5	20
166411	VC.692/40-SST-p-M8x20-PB	40	M8	26	15	5	20	1.8	14	29
166413	VC.692/40-SST-p-M8x30-PB	40	M8	26	15	5	30	1.8	14	33
166415	VC.692/40-SST-p-M8x40-PB	40	M8	26	15	5	40	1.8	14	37
166521	VC.692/50-SST-p-M10x20-PB	50	M10	31	18	6	20	2	17	48
166523	VC.692/50-SST-p-M10x30-PB	50	M10	31	18	6	30	2	17	58
166525	VC.692/50-SST-p-M10x40-PB	50	M10	31	18	6	40	2	17	67

Shortened lobe knobs

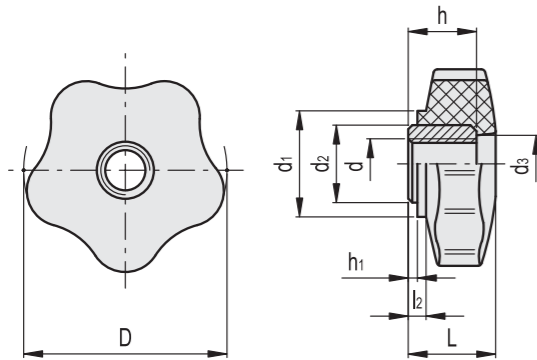
Duroplast

MATERIAL

Phenolic based (PF) Duroplast, black colour, glossy finish.

STANDARD EXECUTION

Black-oxide steel boss, threaded pass-through hole.



Lobe knobs

Duroplast

MATERIAL

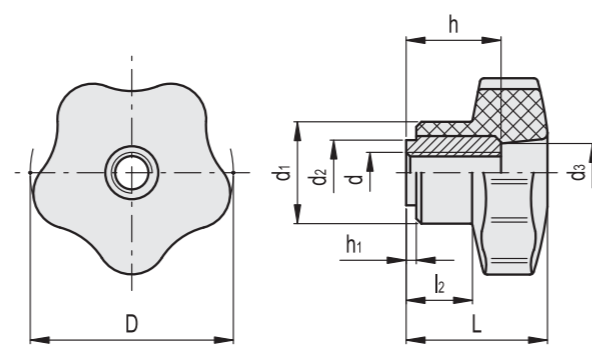
Phenolic based (PF) Duroplast, black colour, glossy finish.

STANDARD EXECUTION

Brass boss, threaded pass-through hole and large metal locking face.

CONFORMITY

UNI 6960-71 type B with pass-through hole.



Code	Description	D	d6H	L	d1	d2	d3	l2	h	h1	Δ
66951	VC.253/40 A-M8	40	M8	19	23	17	14	3	15	1.5	38
67001	VC.253/40 A-M10	40	M10	19	23	17	14	3	15	1.5	34
67011	VC.253/40 A-M12	40	M12	19	23	17	14	3	15	1.5	30
67101	VC.253/50 A-M12	50	M12	21	26	19	14	3	16	1.5	50
67201	VC.253/60 A-M12	60	M12	24	30	19	16	4	16	1.5	75
67301	VC.253/85 A-M14	85	M14	30	32	18	18	6	22	1.5	135

Code	Description	D	d6H	L	d1	d2	d3	l2	h	h1	Δ
67501	VC.254/40 B-M6	40	M6	28	21	14	13	13	18	1.5	42
67511	VC.254/40 B-M8	40	M8	28	21	14	13	13	18	1.5	38
67521	VC.254/40 B-M10	40	M10	28	21	14	13	13	18	1.5	34
67601	VC.254/50 B-M10	50	M10	34	25	16	13	15	22	1.5	62
67611	VC.254/50 B-M12	50	M12	34	25	16	13	15	22	1.5	55
67701	VC.254/60 B-M10	60	M10	38	27	17	15	18	26	1.5	97
67711	VC.254/60 B-M12	60	M12	38	27	17	15	18	26	1.5	90
67721	VC.254/60 B-M14	60	M14	38	27	17	15	18	26	1.5	85
67801	VC.254/70 B-M12	70	M12	45	30	17	17	21	26	1.5	125
67811	VC.254/70 B-M14	70	M14	45	30	17	17	21	26	1.5	115
67901	VC.254/85 B-M16	85	M16	56	35	24	18	32	35	2	210

Stainless Steel-Star knobs

Stainless Steel AISI 304 (A2)

SPECIFICATION

Version with female thread:

Types

- Type **E**: with threaded blind bore
- Type **C**: with plain blind bore H7

Stainless Steel AISI 304 (A2)

Stainless Steel AISI 316L (A4)

- Knob drawn from Stainless Steel sheet
- Hub welded
- matt shot-blasted

Version with threaded bolt:

Stainless Steel AISI 304 (A2)

Stainless Steel AISI 316L (A4)

- Knob drawn from Stainless Steel sheet
- Hub with threaded bolt welded
- matt shot-blasted

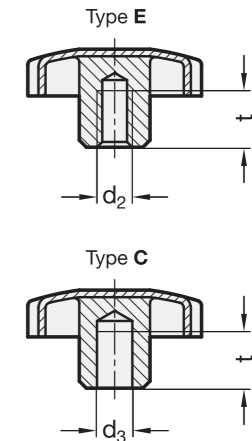
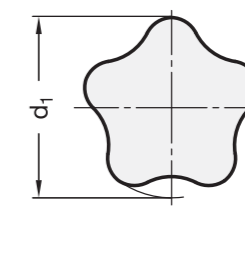
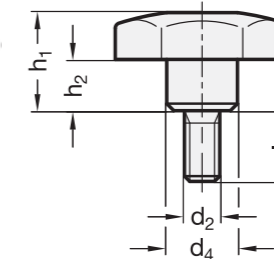
INFORMATION

The original ELESA design with 5 recess grips is typical for GN 5334 star knobs.

This form gives these grips an appealing look and additionally allows a high torque to be achieved.

TECHNICAL INFORMATION

- Cross holes GN 110 (see page A17)
- ISO-Fundamental Tolerances (see page A21)
- Stainless Steel characteristics (see page A26)



GN 5334-with female thread

STAINLESS STEEL

Description	d1	d2	d3 H7	d4	h1 ≈	h2 ≈ t min.	Δ	
GN 5334-40-B8-C	40	-	B 8	14	24	12	15	36
GN 5334-50-B10-C	50	-	B 10	18	30	16.5	18	67
GN 5334-60-B12-C	60	-	B 12	20	37.5	20	22	110
GN 5334-40-M8-E	40	M 8	-	14	24	12	15	38
GN 5334-50-M10-E	50	M 10	-	18	30	16.5	18	69
GN 5334-60-M12-E	60	M 12	-	20	37.5	20	22	112

GN 5334.4-with female thread

STAINLESS STEEL

Description	d1	d2	d3 H7	d4	h1 ≈	h2 ≈ t min.	Δ	
GN 5334.4-40-B8-C	40	-	B 8	14	24	12	15	37
GN 5334.4-50-B10-C	50	-	B 10	18	30	16.5	18	67
GN 5334.4-60-B12-C	60	-	B 12	20	37.5	20	22	109
GN 5334.4-40-M8-E	40	M 8	-	14	24	12	15	37
GN 5334.4-50-M10-E	50	M 10	-	18	30	16.5	18	68
GN 5334.4-60-M12-E	60	M 12	-	20	37.5	20	22	114

GN 5334-with threaded bolt

STAINLESS STEEL

Description	d1	d2	l	d4	h1 ≈	h2 ≈	Δ
GN 5334-40-M8-20	40	M 8	20	14	24	12	50
GN 5334-40-M8-30	40	M 8	30	14	24	12	53
GN 5334-40-M8-40	40	M 8	40	14	24	12	57
GN 5334-50-M10-20	50	M 10	20	18	30	16.5	91
GN 5334-50-M10-30	50	M 10	30	18	30	16.5	96
GN 5334-50-M10-40	50	M 10	40	18	30	16.5	101
GN 5334-60-M12-20	60	M 12	20	20	37.5	20	155
GN 5334-60-M12-30	60	M 12	30	20	37.5	20	155
GN 5334-60-M12-40	60	M 12	40	20	37.5	20	161
GN 5334-60-M12-50	60	M 12	50	20	37.5	20	170

GN 5334.4-with threaded bolt

STAINLESS STEEL

Description	d1	d2	l	d4	h1 ≈	h2 ≈	Δ
GN 5334.4-40-M8-20	40	M 8	20	14	24	12	43
GN 5334.4-40-M8-30	40	M 8	30	14	24	12	53
GN 5334.4-40-M8-40	40	M 8	40	14	24	12	57
GN 5334.4-50-M10-20	50	M 10	20	18	30	16.5	91
GN 5334.4-50-M10-30	50	M 10	30	18	30	16.5	97
GN 5334.4-50-M10-40	50	M 10	40	18	30	16.5	110
GN 5334.4-60-M12-20	60	M 12	20	20	37.5	20	155
GN 5334.4-60-M12-30	60	M 12	30	20	37.5	20	155
GN 5334.4-60-M12-40	60	M 12	40	20	37.5	20	161
GN 5334.4-60-M12-50	60	M 12	50	20	37.5	20	170

Star knobs

Aluminium

SPECIFICATION

Types

- Type **A**: without bore
- Type **C**: with plain blind bore H7
- Type **D**: with threaded through bore
- Type **E**: with threaded blind bore

Aluminium

- matt finish (ground), flash mark not visible **MT**
- polished **PL**

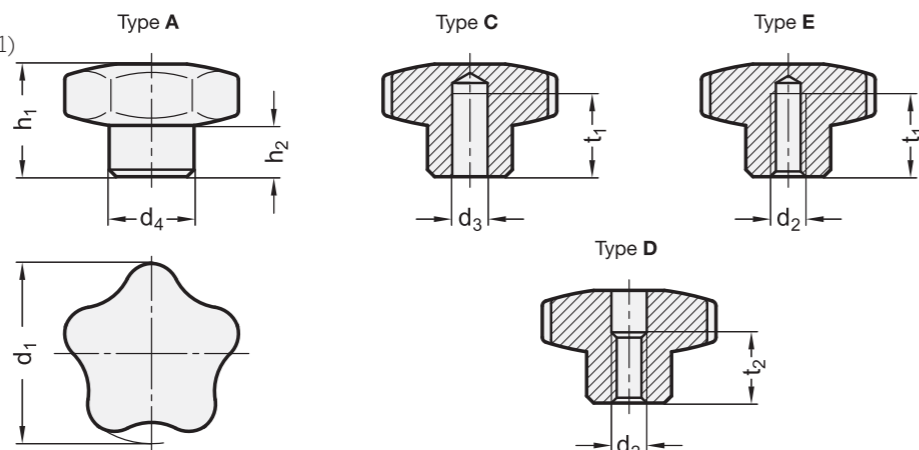
Type **A** (without bore) is only available with a matt finish (**MT**)

INFORMATION

Star knobs GN 5336 are forged, therefore a close grain structure is maintained providing a high tensile strength and a smooth surface. Original ELESA design, now produced in metal in agreement with ELESA s.p.a.

TECHNICAL INFORMATION

- Cross holes GN 110 (see page A17)
- ISO-Fundamental Tolerances (see page A21)



* Complete with surface index of the star knob (MT or PL)

MT **PL**
Matt finish Polished

GN 5336

Description	d1	d2	d3 H7	d4 -0.5	h1	h1 -1	h2 ≈	t1 min.	t2	⚖
GN 5336-40-A-MT	40	-	-	15	-	26	12.5	-	-	31
GN 5336-50-A-MT	50	-	-	19	-	33	16	-	-	69
GN 5336-60-A-MT	60	-	-	21	-	41	20	-	-	101
GN 5336-70-A-MT	70	-	-	26	-	47	23	-	-	163
GN 5336-40-B8-C-*	40	-	B 8	15	25	-	12.5	15	-	32
GN 5336-50-B10-C-*	50	-	B 10	19	32	-	16	18	-	62
GN 5336-60-B12-C-*	60	-	B 12	21	40	-	20	22	-	110
GN 5336-70-B16-C-*	70	-	B 16	26	46	-	23	28	-	144
GN 5336-40-M8-D-*	40	M 8	-	15	25	-	12.5	-	15	32
GN 5336-50-M10-D-*	50	M 10	-	19	32	-	16	-	20	60
GN 5336-60-M12-D-*	60	M 12	-	21	40	-	20	-	26	90
GN 5336-70-M16-D-*	70	M 16	-	26	46	-	23	-	32	174
GN 5336-40-M6-E-*	40	M 6	-	15	25	-	12.5	15	-	35
GN 5336-40-M8-E-*	40	M 8	-	15	25	-	12.5	15	-	33
GN 5336-50-M8-E-*	50	M 8	-	19	32	-	16	18	-	63
GN 5336-50-M10-E-*	50	M 10	-	19	32	-	16	18	-	61
GN 5336-60-M10-E-*	60	M 10	-	21	40	-	20	22	-	115
GN 5336-60-M12-E-*	60	M 12	-	21	40	-	20	22	-	100
GN 5336-70-M12-E-*	70	M 12	-	26	46	-	23	28	-	174
GN 5336-70-M16-E-*	70	M 16	-	26	46	-	23	28	-	165

Stainless Steel-Star knobs

Stainless Steel AISI 316L (A4)

SPECIFICATION

Types

- Type **A**: without bore
- Type **E**: with threaded blind bore
- Type **D**: with threaded through bore
- Type **C**: with plain blind bore H7

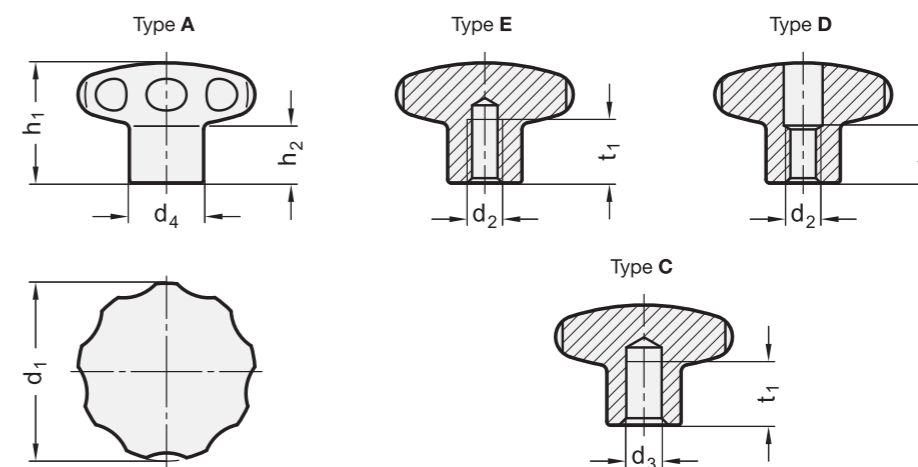
Stainless Steel AISI 316L (A4)
matt shot-blasted

INFORMATION

Stainless Steel-Star knobs GN 5335.4 are a special development intended for the food processing machinery industry. The smooth and enclosed areas as well as the large corner radii comply with the requirements of hygiene standards.

TECHNICAL INFORMATION

- Cross holes GN 110 (see page A17)
- ISO-Fundamental Tolerances (see page A21)
- Stainless Steel characteristics (see page A26)



GN 5335.4

STAINLESS STEEL

Description	d1	d2	d3 H7	d4	h1	h2	t1 min.	t2	⚖
GN 5335.4-40-A	40	-	-	18	30.5	15	-	-	130
GN 5335.4-50-A	50	-	-	21	34	17	-	-	220
GN 5335.4-60-A	60	-	-	25	39	18	-	-	388
GN 5335.4-40-B8-C	40	-	B 8	18	30.5	15	15	-	125
GN 5335.4-50-B10-C	50	-	B 10	21	34	17	18	-	205
GN 5335.4-60-B12-C	60	-	B 12	25	39	18	22	-	366
GN 5335.4-40-M6-D	40	M 6	-	18	30.5	15	-	13	132
GN 5335.4-40-M8-D	40	M 8	-	18	30.5	15	-	13	150
GN 5335.4-50-M8-D	50	M 8	-	21	34	17	-	16	225
GN 5335.4-50-M10-D	50	M 10	-	21	34	17	-	16	205
GN 5335.4-60-M10-D	60	M 10	-	25	39	18	-	20	360
GN 5335.4-60-M12-D	60	M 12	-	25	39	18	-	20	366
GN 5335.4-40-M6-E	40	M 6	-	18	30.5	15	12	-	140
GN 5335.4-40-M8-E	40	M 8	-	18	30.5	15	15	-	225
GN 5335.4-50-M8-E	50	M 8	-	21	34	17	15	-	150
GN 5335.4-50-M10-E	50	M 10	-	21	34	17	18	-	218
GN 5335.4-60-M10-E	60	M 10	-	25	39	18	18	-	367
GN 5335.4-60-M12-E	60	M 12	-	25	39	18	22	-	367

Stainless Steel-Star knobs

Stainless Steel AISI 303 (A2)

SPECIFICATION

Version with female thread:

Types

- Type **A**: without bore
- Type **E**: with threaded blind bore
- Type **D**: with threaded through bore
- Type **C**: with plain blind bore H7

Stainless Steel AISI 303

- matt shot-blasted
- highly polished PL (only type D and E)

Version with threaded bolt:

Stainless Steel AISI 303

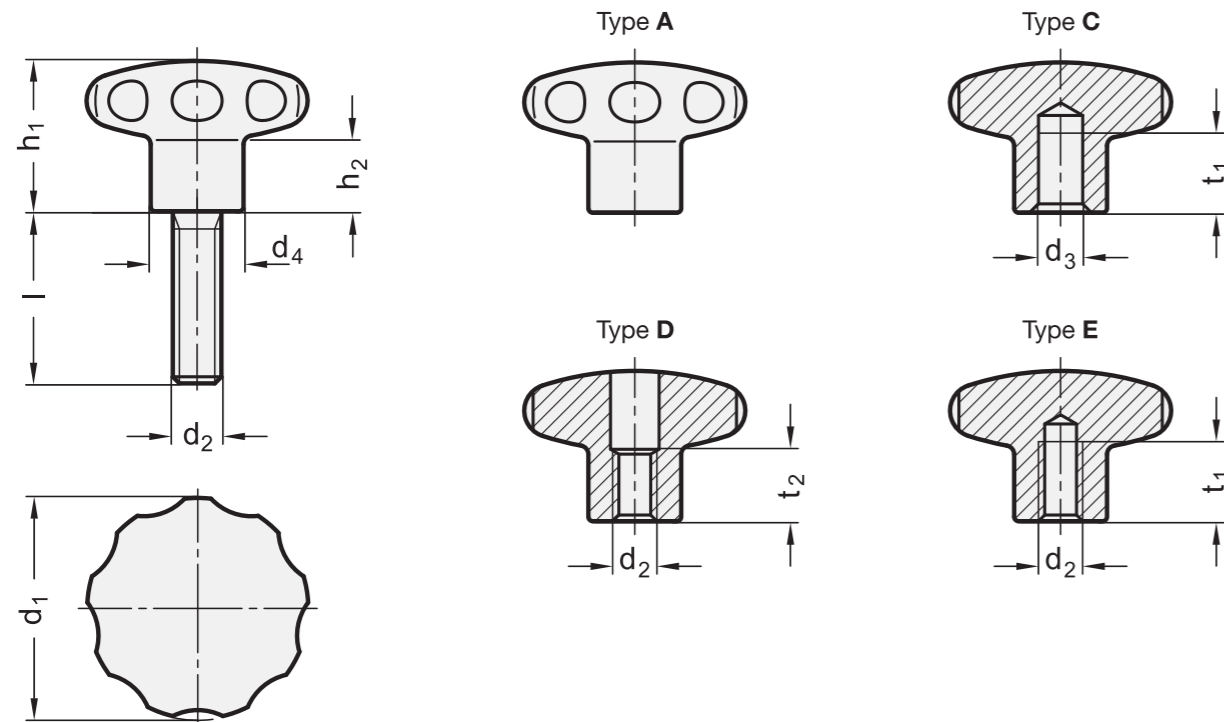
- matt shot-blasted

INFORMATION

Stainless Steel-Star knobs GN 5335 are a special development intended for the food processing machinery industry. The smooth and enclosed areas as well as the large corner radii comply with the requirements of hygiene standards.

TECHNICAL INFORMATION

- Cross holes GN 110 (see page A17)
- ISO-Fundamental Tolerances (see page A21)
- Stainless Steel characteristics (see page A26)



GN 5335-with female thread

STAINLESS STEEL

Description	d1	d2	d3 H7	d4	h1	h2	t1 min.	t2	ΔΔ
GN 5335-40-A	40	-	-	18	30.5	15	-	-	130
GN 5335-50-A	50	-	-	21	34	17	-	-	220
GN 5335-60-A	60	-	-	25	39	18	-	-	388
GN 5335-40-B8-C	40	-	B 8	18	30.5	15	15	-	125
GN 5335-50-B10-C	50	-	B 10	21	34	17	18	-	205
GN 5335-60-B12-C	60	-	B 12	25	39	18	22	-	366
GN 5335-40-M6-D	40	M 6	-	18	30.5	15	-	13	132
GN 5335-40-M8-D	40	M 8	-	18	30.5	15	-	13	130
GN 5335-50-M8-D	50	M 8	-	21	34	17	-	16	225
GN 5335-50-M10-D	50	M 10	-	21	34	17	-	16	205
GN 5335-60-M10-D	60	M 10	-	25	39	18	-	20	370
GN 5335-60-M12-D	60	M 12	-	25	39	18	-	20	366
GN 5335-40-M6-E	40	M 6	-	18	30.5	15	12	-	140
GN 5335-40-M8-E	40	M 8	-	18	30.5	15	15	-	135
GN 5335-50-M8-E	50	M 8	-	21	34	17	15	-	240
GN 5335-50-M10-E	50	M 10	-	21	34	17	18	-	208
GN 5335-60-M10-E	60	M 10	-	25	39	18	18	-	391
GN 5335-60-M12-E	60	M 12	-	25	39	18	22	-	389
GN 5335-40-M6-D-PL	40	M 6	-	18	30.5	15	-	13	132
GN 5335-40-M8-D-PL	40	M 8	-	18	30.5	15	-	13	130
GN 5335-50-M8-D-PL	50	M 8	-	21	34	17	-	16	225
GN 5335-50-M10-D-PL	50	M 10	-	21	34	17	-	16	205
GN 5335-60-M10-D-PL	60	M 10	-	25	39	18	-	20	370
GN 5335-60-M12-D-PL	60	M 12	-	25	39	18	-	20	366
GN 5335-40-M6-E-PL	40	M 6	-	18	30.5	15	12	-	140
GN 5335-40-M8-E-PL	40	M 8	-	18	30.5	15	15	-	140
GN 5335-50-M8-E-PL	50	M 8	-	21	34	17	15	-	240
GN 5335-50-M10-E-PL	50	M 10	-	21	34	17	18	-	240
GN 5335-60-M10-E-PL	60	M 10	-	25	39	18	18	-	391
GN 5335-60-M12-E-PL	60	M 12	-	25	39	18	22	-	400

GN 5335-with threaded bolt

STAINLESS STEEL

Description	d1	d2	l	d4	h1	h2	ΔΔ
GN 5335-40-M8-16	40	M 8	16	18	30.5	15	140
GN 5335-40-M8-20	40	M 8	20	18	30.5	15	151
GN 5335-40-M8-25	40	M 8	25	18	30.5	15	180
GN 5335-50-M10-20	50	M 10	20	21	34	17	245
GN 5335-50-M10-25	50	M 10	25	21	34	17	247
GN 5335-50-M10-30	50	M 10	30	21	34	17	260
GN 5335-60-M12-25	60	M 12	25	25	39	18	420
GN 5335-60-M12-30	60	M 12	30	25	39	18	426
GN 5335-60-M12-40	60	M 12	40	25	39	18	441

Hand knobs

Cast iron / Stainless Steel / Aluminium

SPECIFICATION

Types

- Type **A**: without bore
- Type **B**: with plain through bore H7
- Type **C**: with plain blind bore H7
- Type **D**: with threaded through bore
- Type **E**: with threaded blind bore

Cast iron **GG**
fettled and tumbled

Stainless Steel precision casting **NI**
only types A, D, E

- AISI CF-8
- matt shot-blasted

Aluminium **AL**
only types A, C, D, E

- matt finish (ground), flash mark not visible **MT**
- polished **PL**

ON REQUEST

- plastic coated

TECHNICAL INFORMATION

- ISO-Fundamental Tolerances (see page A21)
- Stainless Steel characteristics (see page A26)



*Complete with surface index of the hand knob (MT or PL)

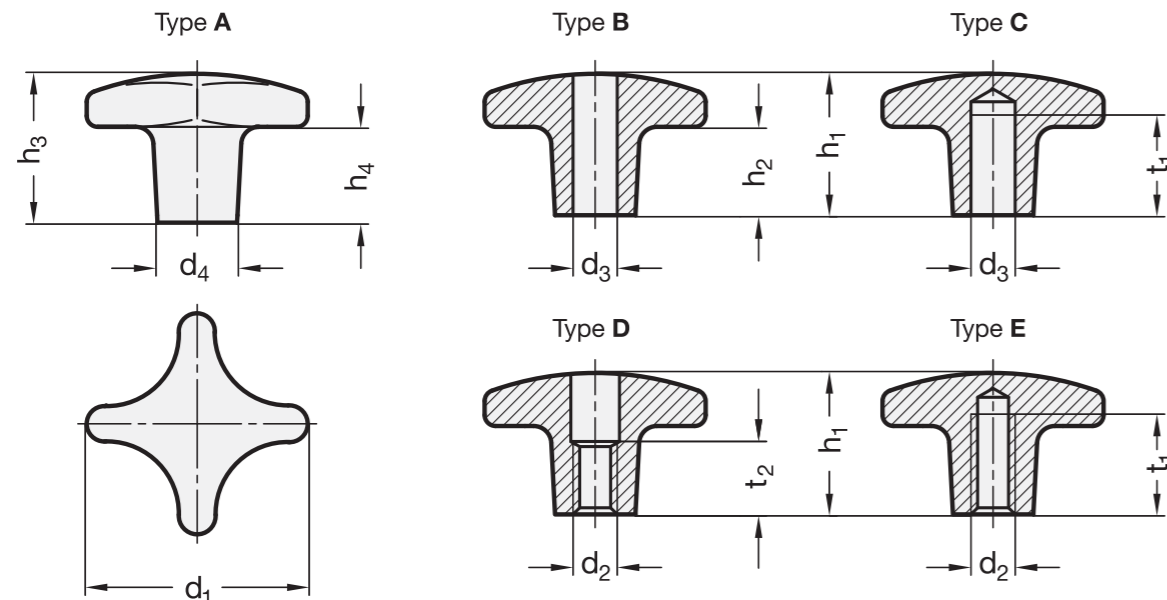
MT **PL**
Matt finish Polished

DIN 6335-AL

Description	d1	d2	d3 H7	d4	h1	h2	h3	h4	t1 min.	t2	⚖
DIN 6335-AL-40-A	40	-	-	14	-	-	26	14	-	-	25
DIN 6335-AL-50-A	50	-	-	18	-	-	34	20	-	-	53
DIN 6335-AL-63-A	63	-	-	20	-	-	42	25	-	-	85
DIN 6335-AL-80-A	80	-	-	25	-	-	52	30	-	-	165
DIN 6335-AL-40-B8-C*	40	-	B 8	14	25	13	-	-	15	-	22
DIN 6335-AL-50-B10-C*	50	-	B 10	18	32	18	-	-	18	-	44
DIN 6335-AL-63-B12-C*	63	-	B 12	20	40	23	-	-	22	-	72
DIN 6335-AL-80-B16-C*	80	-	B 16	25	50	28	-	-	28	-	140
DIN 6335-AL-40-M8-D*	40	M 8	-	14	25	13	-	-	-	12	23
DIN 6335-AL-50-M10-D*	50	M 10	-	18	32	18	-	-	-	16	44
DIN 6335-AL-63-M12-D*	63	M 12	-	20	40	23	-	-	-	20	70
DIN 6335-AL-80-M16-D*	80	M 16	-	25	50	28	-	-	-	30	135
DIN 6335-AL-40-M8-E*	40	M 8	-	14	25	13	-	-	15	-	24
DIN 6335-AL-50-M10-E*	50	M 10	-	18	32	18	-	-	18	-	46
DIN 6335-AL-63-M12-E*	63	M 12	-	20	40	23	-	-	22	-	74
DIN 6335-AL-80-M16-E*	80	M 16	-	25	50	28	-	-	28	-	145

DIN 6335-GG

Description	d1	d2	d3 H7	d4	h1	h2	h3	h4	t1 min.	t2	⚖
DIN 6335-GG-32-A	32	-	-	12	-	-	21	10	-	-	30
DIN 6335-GG-40-A	40	-	-	14	-	-	26	14	-	-	61
DIN 6335-GG-50-A	50	-	-	18	-	-	34	20	-	-	119
DIN 6335-GG-63-A	63	-	-	20	-	-	42	25	-	-	220
DIN 6335-GG-80-A	80	-	-	25	-	-	52	30	-	-	308
DIN 6335-GG-100-A	100	-	-	32	-	-	65	38	-	-	800
DIN 6335-GG-32-B6-B	32	-	B 6	12	20	9	-	-	-	-	31
DIN 6335-GG-40-B8-B	40	-	B 8	14	25	13	-	-	-	-	47
DIN 6335-GG-50-B10-B	50	-	B 10	18	32	18	-	-	-	-	99
DIN 6335-GG-63-B12-B	63	-	B 12	20	40	23	-	-	-	-	158
DIN 6335-GG-80-B16-B	80	-	B 16	25	50	28	-	-	-	-	332
DIN 6335-GG-100-B20-B	100	-	B 20	32	63	36	-	-	-	-	682
DIN 6335-GG-32-B6-C	32	-	B 6	12	20	9	-	-	12	-	29
DIN 6335-GG-40-B8-C	40	-	B 8	14	25	13	-	-	15	-	50
DIN 6335-GG-50-B10-C	50	-	B 10	18	32	18	-	-	18	-	103
DIN 6335-GG-63-B12-C	63	-	B 12	20	40	23	-	-	22	-	169
DIN 6335-GG-80-B16-C	80	-	B 16	25	50	28	-	-	28	-	341
DIN 6335-GG-100-B20-C	100	-	B 20	32	63	36	-	-	36	-	682
DIN 6335-GG-32-M6-D	32	M 6	-	12	20	9	-	-	-	10	33
DIN 6335-GG-40-M8-D	40	M 8	-	14	25	13	-	-	-	12	53
DIN 6335-GG-50-M10-D	50	M 10	-	18	32	18	-	-	-	16	100
DIN 6335-GG-63-M12-D	63	M 12	-	20	40	23	-	-	-	20	170
DIN 6335-GG-80-M16-D	80	M 16	-	25	50	28	-	-	-	30	300
DIN 6335-GG-100-M20-D	100	M 20	-	32	63	36	-	-	-	38	600
DIN 6335-GG-32-M6-E	32	M 6	-	12	20	9	-	-	12	-	34
DIN 6335-GG-40-M8-E	40	M 8	-	14	25	13	-	-	15	-	51
DIN 6335-GG-50-M10-E	50	M 10	-	18	32	18	-	-	18	-	100
DIN 6335-GG-63-M12-E	63	M 12	-	20	40	23	-	-	22	-	200
DIN 6335-GG-80-M16-E	80	M 16	-	25	50	28	-	-	28	-	350
DIN 6335-GG-100-M20-E	100	M 20	-	32	63	36	-	-	36	-	800



DIN 6335-NI

STAINLESS STEEL

Description	d1	d2	d4	h1	h2	h3	h4	t1 min.	t2	⚖
DIN 6335-NI-32-A	32	-	12	-	-	21	10	-	-	41
DIN 6335-NI-40-A	40	-	14	-	-	26	14	-	-	71
DIN 6335-NI-50-A	50	-	18	-	-	34	20	-	-	128
DIN 6335-NI-63-A	63	-	20	-	-	42	25	-	-	228
DIN 6335-NI-32-M6-D	32	M 6	12	20	9	-	-	-	10	36
DIN 6335-NI-40-M8-D	40	M 8	14	25	13	-	-	-	12	60
DIN 6335-NI-50-M10-D	50	M 10	18	32	18	-	-	-	16	108
DIN 6335-NI-63-M12-D	63	M 12	20	40	23	-	-	-	20	192
DIN 6335-NI-32-M6-E	32	M 6	12	20	9	-	-	12	-	38
DIN 6335-NI-40-M8-E	40	M 8	14	25	13	-	-	15	-	62
DIN 6335-NI-50-M10-E	50	M 10	18	32	18	-	-	18	-	119
DIN 6335-NI-63-M12-E	63	M 12	20	40	23	-	-	22	-	205

Star knobs

Threaded bolt, Stainless Steel

SPECIFICATION

Types

- Type **AM**: Star knob DIN 6336, Aluminium (AL), matt (ground)
- Type **AP**: Star knob DIN 6336, Aluminium (AL), polished
- Type **ES**: Star knob DIN 6336, Stainless Steel precision casting (NI), matt shot-blasted

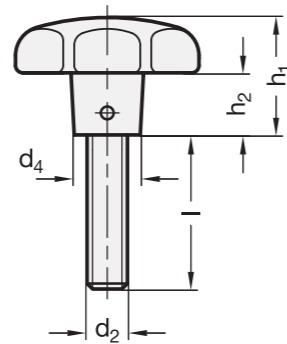
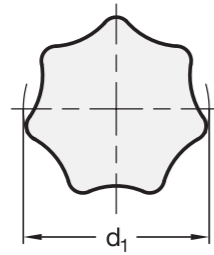
Star knob details and dimensions see:

- DIN 6336-AL (see page 238)
- DIN 6336-NI (see page 238)

Threaded bolt

Stainless Steel AISI 303

For all types the threaded bolt is screwed in and secured by a cross-dowel.



GN 6336.5-AM

Description	d1	d2	l ≈	d4	h1	h2	Δ
GN 6336.5-AM-40-M8-20	40	M 8	20	14	25	12	44
GN 6336.5-AM-40-M8-25	40	M 8	25	14	25	12	45
GN 6336.5-AM-40-M8-30	40	M 8	30	14	25	12	47
GN 6336.5-AM-40-M8-40	40	M 8	40	14	25	12	50
GN 6336.5-AM-50-M10-20	50	M 10	20	18	32	15	80
GN 6336.5-AM-50-M10-25	50	M 10	25	18	32	15	82
GN 6336.5-AM-50-M10-30	50	M 10	30	18	32	15	85
GN 6336.5-AM-50-M10-45	50	M 10	45	18	32	15	92
GN 6336.5-AM-50-M10-55	50	M 10	55	18	32	15	97
GN 6336.5-AM-63-M12-30	63	M 12	30	20	40	19	150
GN 6336.5-AM-63-M12-40	63	M 12	40	20	40	19	157
GN 6336.5-AM-63-M12-50	63	M 12	50	20	40	19	164

GN 6336.5-AP

Description	d1	d2	l ≈	d4	h1	h2	Δ
GN 6336.5-AP-40-M8-20	40	M 8	20	14	25	12	43
GN 6336.5-AP-40-M8-25	40	M 8	25	14	25	12	45
GN 6336.5-AP-40-M8-30	40	M 8	30	14	25	12	46
GN 6336.5-AP-40-M8-40	40	M 8	40	14	25	12	50
GN 6336.5-AP-50-M10-20	50	M 10	20	18	32	15	79
GN 6336.5-AP-50-M10-25	50	M 10	25	18	32	15	81
GN 6336.5-AP-50-M10-30	50	M 10	30	18	32	15	84
GN 6336.5-AP-50-M10-45	50	M 10	45	18	32	15	91
GN 6336.5-AP-50-M10-55	50	M 10	55	18	32	15	96
GN 6336.5-AP-63-M12-30	63	M 12	30	20	40	19	150
GN 6336.5-AP-63-M12-40	63	M 12	40	20	40	19	155
GN 6336.5-AP-63-M12-50	63	M 12	50	20	40	19	164

GN 6336.5-ES

STAINLESS STEEL

Description	d1	d2	l ≈	d4	h1	h2	Δ
GN 6336.5-ES-40-M8-20	40	M 8	20	14	25	12	88
GN 6336.5-ES-40-M8-25	40	M 8	25	14	25	12	90
GN 6336.5-ES-40-M8-30	40	M 8	30	14	25	12	91
GN 6336.5-ES-40-M8-40	40	M 8	40	14	25	12	94
GN 6336.5-ES-50-M10-20	50	M 10	20	18	32	15	180
GN 6336.5-ES-50-M10-25	50	M 10	25	18	32	15	184
GN 6336.5-ES-50-M10-30	50	M 10	30	18	32	15	186
GN 6336.5-ES-50-M10-45	50	M 10	45	18	32	15	193
GN 6336.5-ES-50-M10-55	50	M 10	55	18	32	15	197
GN 6336.5-ES-63-M12-30	63	M 12	30	20	40	19	321
GN 6336.5-ES-63-M12-40	63	M 12	40	20	40	19	334
GN 6336.5-ES-63-M12-50	63	M 12	50	20	40	19	340

Hand knobs

with increased clamping force

SPECIFICATION

Plastic
Technopolymer (Polyamide PA)

- shock-resistant
- black, matt finish

Bushes
high quality steel
nitrided, blackened

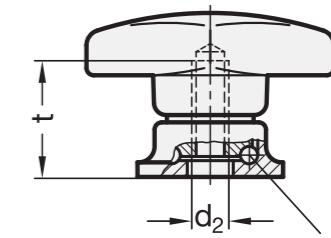
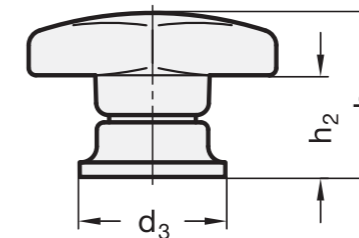
INFORMATION

Hand knobs GN 6335.9 have a clamping contact area which is connected to the knob via an axial ball bearing. This has led to the following advantages:

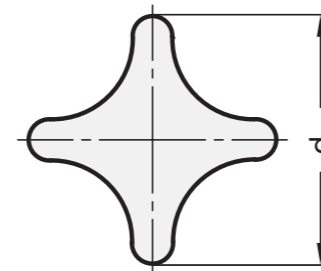
Doubled clamping force through vastly reduced friction. There is no movement on the contact area between star knob and component which greatly reduces any marking on the clamping area. In addition a reduced creep factor has been achieved by the indreased preload.

ON REQUEST

- with threaded bolt



Axial ball bearing



GN 6335.9

Description	d1	d2	d3	h1	h2	t min.	Δ
GN 6335.9-40-M6	40	M 6	24	27	15.5	14.5	40
GN 6335.9-50-M8	50	M 8	25	34	22.5	15	68
GN 6335.9-63-M10	63	M 10	30	41	26.5	19	105
GN 6335.9-80-M12	80	M 12	35	54	34	28.5	185

Safety lobe knobs

Technopolymer, push action

KNOB

Glass-fibre reinforced polyamide based (PA) technopolymer. Built-in zinc alloy toothed insert for coupling to the metal clamping element, black colour, matte finish.

CENTRE CLOSING CAP

Black technopolymer centre cap. On request and for sufficient quantities, it can be supplied in yellow RAL 1021 (safety) or in other colours, with customised graphic symbols, marks or writings.

STANDARD EXECUTIONS

The clamping element has a toothed element for coupling to the zinc alloy insert moulded-in the knob.

- **VCTS-Z:** black-oxide clamping element with threaded hole, black-oxide steel retaining screw. AISI 302 stainless steel return spring.
- **VCTS-Z-SST:** AISI 303 stainless steel clamping element with threaded hole, AISI 303 stainless steel retaining screw. AISI 302 stainless steel return spring.
- **VCTS-Z-p:** black-oxide steel clamping element with threaded stud, black-oxide steel retaining screw. AISI 302 stainless steel return spring.
- **VCTS-Z-SST-p:** AISI 303 stainless steel clamping element with threaded stud, AISI 303 stainless steel retaining screw. AISI 302 stainless steel return spring.

FEATURES AND APPLICATIONS

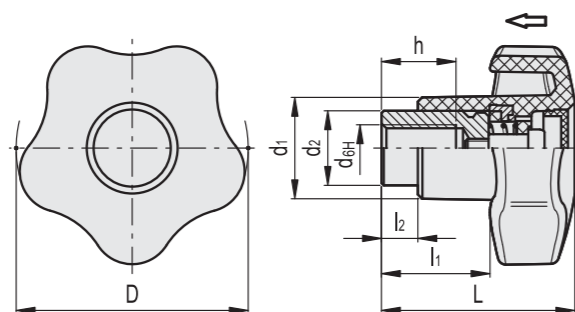
Particularly suitable where the knob needs to turn freely to avoid that clamping may be accidentally affected.

INSTRUCTIONS

Press the knob to engage the tothing and turn it.
By releasing the knob the spring releases the tothing, thus the knob returns to the rest position.



VCTS-Z
VCTS-Z-SST



VCTS-Z

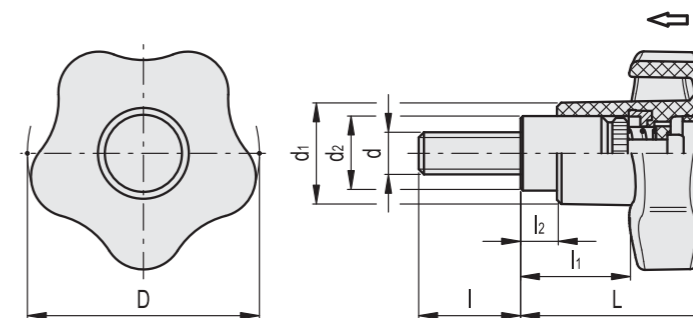
Code	Description	D	d	L	d1	d2	l1	l2	h	Teeth no.	△
169631	VCTS-Z-40 A-M6	40	M6	37	18	13.5	22	7	10	24	36
169632	VCTS-Z-40 A-M8	40	M8	37	18	13.5	22	7	10	24	34
169642	VCTS-Z-50 A-M8	50	M8	42	22	16	23	8	14	26	54
169643	VCTS-Z-50 A-M10	50	M10	42	22	16	23	8	14	26	52

VCTS-Z-SST

STAINLESS STEEL

Code	Description	D	d	L	d1	d2	l1	l2	h	Teeth no.	△
169651	VCTS-Z-40-SST-M6	40	M6	37	18	13.5	22	7	10	24	36
169652	VCTS-Z-40-SST-M8	40	M8	37	18	13.5	22	7	10	24	34
169662	VCTS-Z-50-SST-M8	50	M8	42	22	16	23	8	14	26	54
169663	VCTS-Z-50-SST-M10	50	M10	42	22	16	23	8	14	26	52

VCTS-Z.p
VCTS-Z-SST-p



VCTS-Z-p

Code	Description	D	d	L	d1	d2	l	l1	l2	Teeth no.	△
169731	VCTS-Z-40 p-M6x20	40	M6	37	18	13.5	20	22	7	24	40
169732	VCTS-Z-40 p-M6x25	40	M6	37	18	13.5	25	22	7	24	42
169733	VCTS-Z-40 p-M6x32	40	M6	37	18	13.5	32	22	7	24	45
169734	VCTS-Z-40 p-M6x40	40	M6	37	18	13.5	40	22	7	24	50
169741	VCTS-Z-40 p-M8x20	40	M8	37	18	13.5	20	22	7	24	42
169742	VCTS-Z-40 p-M8x25	40	M8	37	18	13.5	25	22	7	24	44
169743	VCTS-Z-40 p-M8x32	40	M8	37	18	13.5	32	22	7	24	47
169744	VCTS-Z-40 p-M8x40	40	M8	37	18	13.5	40	22	7	24	52
169752	VCTS-Z-50 p-M8x25	50	M8	42	22	16	25	23	8	26	58
169753	VCTS-Z-50 p-M8x32	50	M8	42	22	16	32	23	8	26	62
169754	VCTS-Z-50 p-M8x40	50	M8	42	22	16	40	23	8	26	68
169755	VCTS-Z-50 p-M8x50	50	M8	42	22	16	50	23	8	26	74
169762	VCTS-Z-50 p-M10x25	50	M10	42	22	16	25	23	8	26	60
169763	VCTS-Z-50 p-M10x32	50	M10	42	22	16	32	23	8	26	64
169764	VCTS-Z-50 p-M10x40	50	M10	42	22	16	40	23	8	26	70
169765	VCTS-Z-50 p-M10x50	50	M10	42	22	16	50	23	8	26	76

VCTS-Z-SST-p

STAINLESS STEEL

Code	Description	D	d	L	d1	d2	l	l1	l2	Teeth no.	△
169771	VCTS-Z-40-SST-p-M6x20	40	M6	37	18	13.5	20	22	7	24	40
169772	VCTS-Z-40-SST-p-M6x25	40	M6	37	18	13.5	25	22	7	24	42
169773	VCTS-Z-40-SST-p-M6x32	40	M6	37	18	13.5	32	22	7	24	45
169774	VCTS-Z-40-SST-p-M6x40	40	M6	37	18	13.5	40	22	7	24	50
169781	VCTS-Z-40-SST-p-M8x20	40	M8	37	18	13.5	20	22	7	24	42
169782	VCTS-Z-40-SST-p-M8x25	40	M8	37	18	13.5	25	22	7	24	44
169783	VCTS-Z-40-SST-p-M8x32	40	M8	37	18	13.5	32	22	7	24	47
169784	VCTS-Z-40-SST-p-M8x40	40	M8	37	18	13.5	40	22	7	24	52
169792	VCTS-Z-50-SST-p-M8x25	50	M8	42	22	16	25	23	8	26	58
169793	VCTS-Z-50-SST-p-M8x32	50	M8	42	22	16	32	23	8	26	62
169794	VCTS-Z-50-SST-p-M8x40	50	M8	42	22	16	40	23	8	26	68
169795	VCTS-Z-50-SST-p-M8x50	50	M8	42	22	16	50	23	8	26	74
169802	VCTS-Z-50-SST-p-M10x25	50	M10	42	22	16	25	23	8	26	60
169803	VCTS-Z-50-SST-p-M10x32	50	M10	42	22	16	32	23	8	26	64
169804	VCTS-Z-50-SST-p-M10x40	50	M10	42	22	16	40	23	8	26	70
169805	VCTS-Z-50-SST-p-M10x50	50	M10	42	22	16	50	23	8	26	76

Safety lobe knobs

Technopolymer

LOBE SOLID CAP

Glass-fibre reinforced polyamide based (PA) technopolymer, black colour, matte finish, with security anti-intrusion-profiled key slot.

FLANGE

Technopolymer, ultrasonically welded.

CLAMPING ELEMENT

Acetal resin based (POM) technopolymer, black colour, matte finish.

STANDARD EXECUTIONS

- **VLS-B**: brass boss, threaded blind hole.
- **VLS-SST-p**: AISI 304 stainless steel threaded stud, chamfered flat end according to UNI 947 : ISO 4753 (see Technical data on page A11).

SECURITY KEY (TO BE ORDERED SEPARATELY)

- **CSN** (code 6951): acetal resin based (POM) technopolymer fold-away key, red colour, anti-intrusion-profiled stainless steel insert.
- **CSF** (code 6952): polyamide based (PA) technopolymer ball key, red colour, anti-intrusion-profiled stainless steel insert.

On request and for sufficient quantities the security keys can be supplied in black colour too.

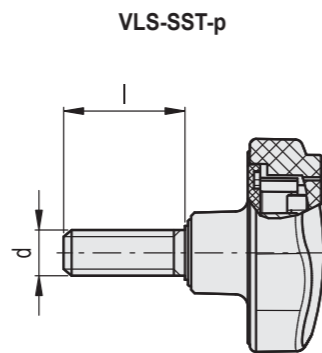
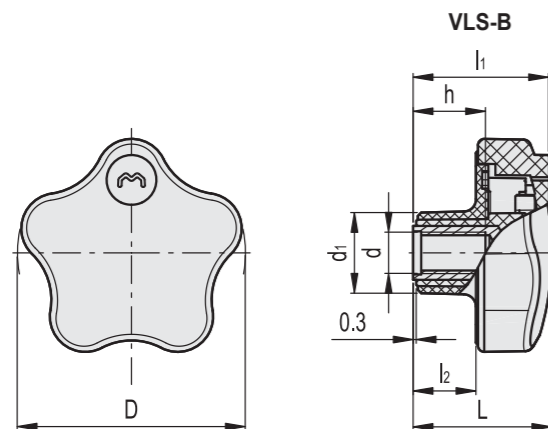
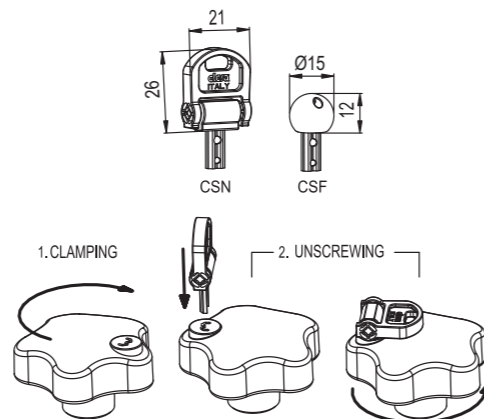
SECURITY DEVICE OPERATION

VLS. security lobe knobs have been designed to be unscrewed only by authorised people, provided with the security key. Without the security key, the knob turns without unscrewing.

1. Clamping: clamp the knob by screwing it as for a normal knob. Mind that the security key is not inserted.
2. Unscrewing: simply insert the security key (without turning it) and unscrew the knob.

FEATURES AND APPLICATIONS

The particular design of the internal device and of the flange helps the drainage of any dirt (dust, earth, liquid).



VLS-B

Code	Description	D	d6H	L	d1	l1	l2	h	△
76501	VLS.42 B-M6*	41.5	M6	30	16.5	29.5	14.5	12	25
76502	VLS.42 B-M8*	41.5	M8	30	16.5	29.5	14.5	13	26
76551	VLS.55 B-M8*	55	M8	33	19	32	15	13	33
76552	VLS.55 B-M10*	55	M10	33	19	32	15	17	35

VLS-SST-p

Code	Description	D	d6g	L	d1	l	l1	l2	△
76621	VLS.55-SST-p-M10x20*	55	M10	33	19	20	32	15	44
76625	VLS.55-SST-p-M10x40*	55	M10	33	19	40	32	15	52

* Keys are not supplied with the knobs, to be ordered separately.

STAINLESS STEEL

Safety lobe knobs

Technopolymer, with lock

LOBE SOLID CAP AND COLOURED CENTRE CAP

Glass-fibre reinforced polyamide based (PA) technopolymer, black colour, matte finish, with slot for codified key lock.

FLANGE

Technopolymer, ultrasonically welded.

CLAMPING ELEMENT

Special glass-fibre reinforced polyamide based (PA) SUPER-technopolymer, black colour, matte finish.

STANDARD EXECUTIONS

- **VLSK-B**: brass boss, threaded pass-through hole, with cap.
- **VLSK-FP**: brass boss, threaded pass-through hole, without cap.
- **VLSK-p**: zinc-plated steel threaded stud, chamfered flat end UNI 947 : ISO 4753 (see Technical data on page A11), with closing cap.

LOCK AND KEYS

Die cast zinc alloy rotor and stator.

The lock has got a red protection tab for closing the lock when the key is not inserted.

Two keys made out of nickel-plated brass and technopolymer.

210 different combinations; each lock has got one pair of keys, removable in two positions at 180°.

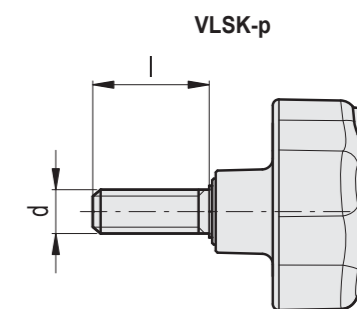
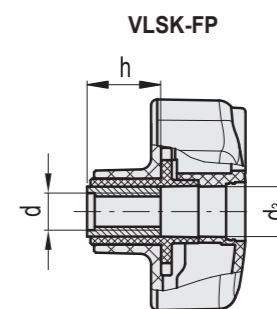
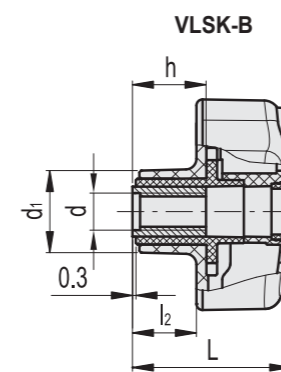
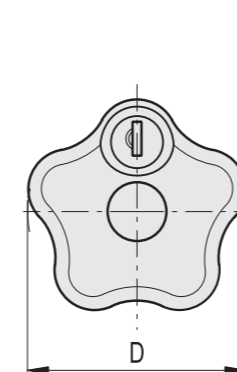
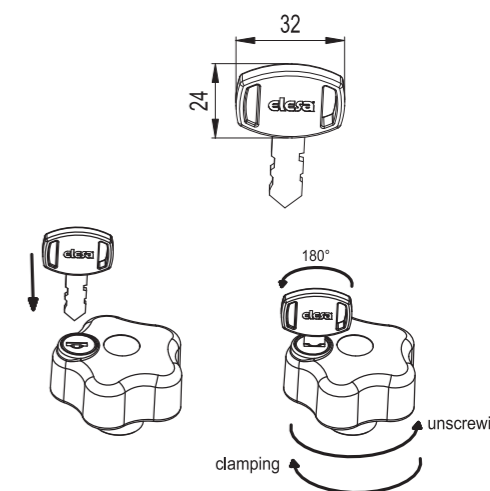
SECURITY DEVICE OPERATION

VLSK. security lobe knob has been designed to prevent its unscrewing by unauthorised people. Therefore, it has got a vandal-proof function as well.

For clamping and unscrewing the knob, insert the special key into the lock and turn it by 180°. By so doing the clamping element and the knob form a single body. When the lock is brought back to the starting position and the key is removed, the knob turns freely preventing the unscrewing.

FEATURES AND APPLICATIONS

The particular design of the internal device and of the flange helps the drainage of any dirt (dust, earth or liquid).



VLSK-B

Code	Description	D	d6H	L	d1	l2	h	△
76701	VLSK.63 B-M6	63	M6	44	23	17	18	95
76702	VLSK.63 B-M8	63	M8	44	23	17	18	94
76703	VLSK.63 B-M10	63	M10	44	23	17	20	93

VLSK-FP

Code	Description	D	d6H	L	d1	d3	l2	h	△
76711	VLSK.63 FP-M6	63	M6	44	23	14	17	18	95
76712	VLSK.63 FP-M8	63	M8	44	23	14	17	18	94
76713	VLSK.63 FP-M10	63	M10	44	23	14	17	20	93

VLSK-p

Code	Description	D	d6g	L	d1	l	l2	△
76731	VLSK.63 p-M8x20	63	M8	44	23	20	17	106
76741	VLSK.63 p-M10x20	63	M10	44	23	20	17	107

Shortened lobe knobs

Technopolymer, square or threaded hole

MATERIAL

Glass reinforced polyamide based (PA) technopolymer, black colour, matte finish.

STANDARD EXECUTIONS

- **VCRT-N:** square pass-through hole with brass reinforcement.
- **VCRT-FP:** brass boss, threaded pass-through hole.

ACCESSORIES ON REQUEST

Coloured centre caps (see table below). Coloured centre caps allow an easier identification of the different functions of the knobs. Coloured centre caps are available as accessories sold separately.

SPECIAL EXECUTION ON REQUEST

Square pass-through hole without brass reinforcement.

Cap for	Code						Description
	C9	C2	C3	C4	C5	C6	
VCRT.40	6910	6913	6914	6915	6916	6911	CA.VCT.40-*
VCRT.50	6920	6923	6924	6925	6926	6921	CA.VCT.50-*
VCRT.63-74-95	6930	6933	6934	6935	6936	6931	CA.VCT.63-74-95-*

* Complete with colour index (C9, ..., C6)

 C9	 C2	 C3	 C4	 C5	 C6
RAL9005	RAL2004	RAL7035	RAL1021	RAL5024	RAL3000



Shortened lobe knobs

Duroplast, square hole

MATERIAL

Phenolic based (PF) Duroplast, black colour, glossy finish.

STANDARD EXECUTION

Square through hole with brass reinforcement.

FEATURES

Special front housing (d₂) for hexagon blind nut with spherical cap UNI 5721-69 - DIN 1587.



Lobe threaded nut

Technopolymer

MATERIAL

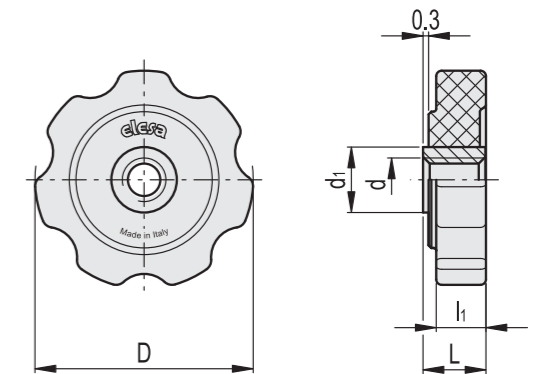
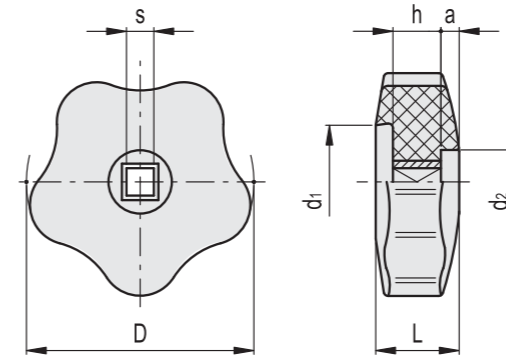
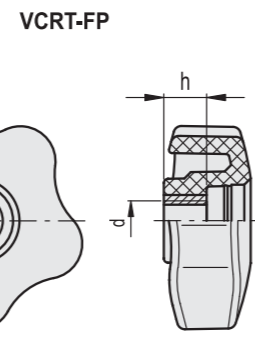
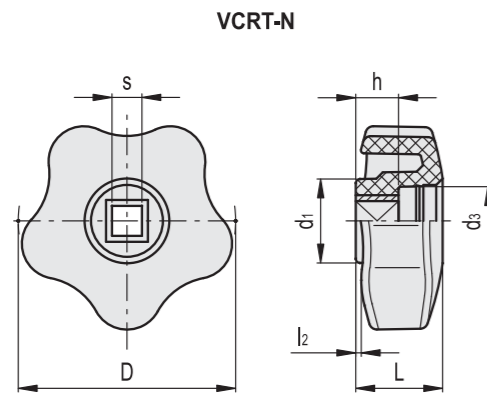
Glass-fibre reinforced polyamide based (PA) technopolymer, black colour, matte finish.

STANDARD EXECUTIONS

Brass boss, threaded pass-through hole.

FEATURES AND APPLICATIONS

The ergonomic seven-lobe shape allows an effective grip to the operator when tightening. Suitable for axial locking; it can be used as a nut.



VCRT-N

Code	Description	D	sH9	L	d1	d3	l2	h	⚖
169001	VCRT.40 N-6x6	40	6	17	17	12.5	1	10	10
169101	VCRT.50 N-6x6	50	6	20	19	15.5	1.2	10	23
169111	VCRT.50 N-7x7	50	7	20	19	15.5	1.2	10	22
169201	VCRT.63 N-6x6	63	6	21.5	22.5	19.5	1.3	10	36
169211	VCRT.63 N-7x7	63	7	21.5	22.5	19.5	1.3	10	35
169221	VCRT.63 N-8x8	63	8	21.5	22.5	19.5	1.3	10	34
169311	VCRT.74 N-7x7	74	7	24.5	26.5	19.5	2	14	51
169321	VCRT.74 N-8x8	74	8	24.5	26.5	19.5	2	14	50
169331	VCRT.74 N-9x9	74	9	24.5	26.5	19.5	2	14	49
169341	VCRT.74 N-10x10	74	10	24.5	26.5	19.5	2	14	48
169421	VCRT.95 N-8x8	95	8	29.5	32	18	4.5	14	64
169441	VCRT.95 N-10x10	95	10	29.5	32	18	4.5	14	63

VCRT-FP

Code	Description	D	d6H	L	d1	d3	l2	h	⚖
168998	VCRT.40 FP-M8	40	M8	17	17	12.5	1	10	10
168999	VCRT.40 FP-M10	40	M10	17	17	12.5	1	10	9
169098	VCRT.50 FP-M8	50	M8	20	19	15.5	1.2	10	23
169197	VCRT.63 FP-M10	63	M10	21.5	22.5	19.5	1.3	15	35
169198	VCRT.63 FP-M12	63	M12	21.5	22.5	19.5	1.3	15	34
169307	VCRT.74 FP-M10	74	M10	24.5	26.5	19.5	2	15	48
169308	VCRT.74 FP-M12	74	M12	24.5	26.5	19.5	2	15	47
169418	VCRT.95 FP-M16	95	M16	29.5	32	18	4.5	15	60

Code	Description	D	sH9	L	d1	d2	h	a	⚖
69001	VCR.192/40-6x6	40	6	15	21	14	10	4	21
69101	VCR.192/50-6x6	50	6	18	24	14	10	5	33
69111	VCR.192/50-7x7	50	7	18	24	14	10	5	31
69201	VCR.192/60-6x6	60	6	20	29	16	10	4	52
69211	VCR.192/60-7x7	60	7	20	29	16	10	4	50
69221	VCR.192/60-8x8	60	8	20	29	16	10	4	48
69301	VCR.192/70-7x7	70	7	22	35	18	14	5	83
69311	VCR.192/70-8x8	70	8	22	35	18	14	5	78
69401	VCR.192/85-7x7	85	7	25	45	18	14	8	136
69411	VCR.192/85-8x8	85	8	25	45	18	14	8	127
69421	VCR.192/85-9x9	85	9	25	45	18	14	8	126
69501	VCR.192/100-8x8	100	8	28	57	18	14	6	168
69511	VCR.192/100-10x10	100	10	28	57	18	14	6	166

Code	Description	D	d6H	L	d1	l1	⚖
168541	GFL.40-B M8	40	M8	10	12	8.5	7
168542	GFL.40-B M10	40	M10	10	13	8.5	6

Knobs

Technopolymer

MATERIAL

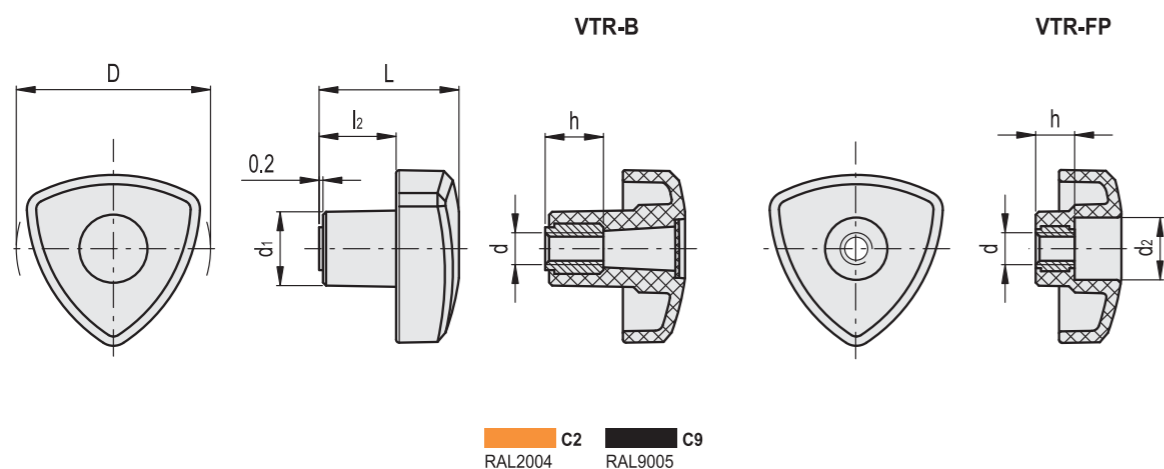
Polyamide based (PA) technopolymer, black, orange colour, glossy finish.

CONTRAST SCREEN

Matte anodised aluminium.

STANDARD EXECUTIONS

- **VTR-B:** brass boss, threaded blind hole.
- **VTR-FP:** brass boss, threaded pass-through hole.
- **VTR-N:** square hole.
- **VTR-p:** zinc-plated steel threaded stud, chamfered flat end according to UNI 947 : ISO 4753 (see Technical data on page A11).

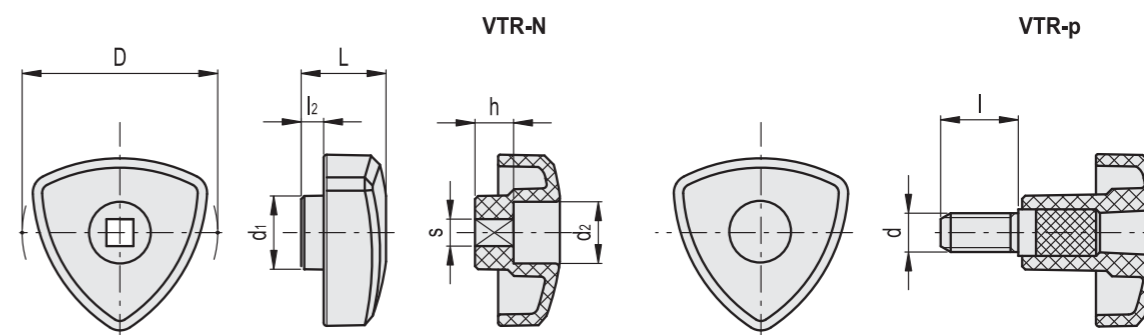


VTR-B

Code	Description	Code	Description	D	d6H	L	d1	l2	h	ΔΔ
83002	VTR.32 B-M5-C2	83001	VTR.32 B-M5-C9	32	M5	26	14	16	10	7
83012	VTR.32 B-M6-C2	83011	VTR.32 B-M6-C9	32	M6	26	14	16	12	9
83402	VTR.40 B-M6-C2	83401	VTR.40 B-M6-C9	40	M6	30	16	17	12	11
83412	VTR.40 B-M8-C2	83411	VTR.40 B-M8-C9	40	M8	30	16	17	14	13
83802	VTR.50 B-M8-C2	83801	VTR.50 B-M8-C9	50	M8	35	19	19	14	18
83812	VTR.50 B-M10-C2	83811	VTR.50 B-M10-C9	50	M10	35	19	19	16	22
84202	VTR.60 B-M10-C2	84201	VTR.60 B-M10-C9	60	M10	41	22	22	16	30
84212	VTR.60 B-M12-C2	84211	VTR.60 B-M12-C9	60	M12	41	22	22	18	32

VTR-FP

Code	Description	D	d6H	L	d1	d2	l2	h	ΔΔ
83021	VTR.32 FP-M5	32	M5	14	14	10	4	6	5
83421	VTR.40 FP-M6	40	M6	18	16	12	5	8	8
83821	VTR.50 FP-M8	50	M8	22	19	16	6	10	14
84221	VTR.60 FP-M10	60	M10	26	22	19	7	12	22



VTR-N

Code	Description	D	sh9	L	d1	d2	l2	h	ΔΔ
83031	VTR.32 N-5x5	32	5	14	14	10	4	6	4
83431	VTR.40 N-6x6	40	6	18	16	12	5	8	7
83831	VTR.50 N-6x6	50	6	22	19	16	6	10	12
83836	VTR.50 N-7x7	50	7	22	19	16	6	10	11
84231	VTR.60 N-7x7	60	7	26	22	19	7	12	18

VTR-p

Code	Description	D	d6g	L	d1	l	l2	ΔΔ
83041	VTR.32 p-M5x10	32	M5	26	14	10	16	9
83042	VTR.32 p-M5x20	32	M5	26	14	20	16	10
83043	VTR.32 p-M5x40	32	M5	26	14	40	16	13
83051	VTR.32 p-M6x10	32	M6	26	14	10	16	10
83052	VTR.32 p-M6x20	32	M6	26	14	20	16	13
83053	VTR.32 p-M6x40	32	M6	26	14	40	16	15
83441	VTR.40 p-M6x10	40	M6	30	16	10	17	14
83442	VTR.40 p-M6x20	40	M6	30	16	20	17	15
83443	VTR.40 p-M6x40	40	M6	30	16	40	17	19
83451	VTR.40 p-M8x16	40	M8	30	16	16	17	19
83452	VTR.40 p-M8x30	40	M8	30	16	30	17	25
83453	VTR.40 p-M8x50	40	M8	30	16	50	17	30
83841	VTR.50 p-M8x16	50	M8	35	19	16	19	28
83842	VTR.50 p-M8x30	50	M8	35	19	30	19	32
83843	VTR.50 p-M8x50	50	M8	35	19	50	19	37
83851	VTR.50 p-M10x20	50	M10	35	19	20	19	35
83852	VTR.50 p-M10x30	50	M10	35	19	30	19	40
83853	VTR.50 p-M10x50	50	M10	35	19	50	19	50
84241	VTR.60 p-M10x20	60	M10	41	22	20	22	46
84242	VTR.60 p-M10x30	60	M10	41	22	30	22	48
84243	VTR.60 p-M10x50	60	M10	41	22	50	22	60
84251	VTR.60 p-M12x20	60	M12	41	22	20	22	57
84252	VTR.60 p-M12x30	60	M12	41	22	30	22	65
84253	VTR.60 p-M12x50	60	M12	41	22	50	22	80

Stainless Steel- Triangular knobs

SPECIFICATION

Types

- Type **E**: with threaded blind bore
- Type **D**: with threaded through bore
- Type **C**: with plain blind bore H7

Stainless Steel precision casting

- AISI CF-8
- matt shot-blasted **MT**
- highly polished **PL** (only type D and E)

INFORMATION

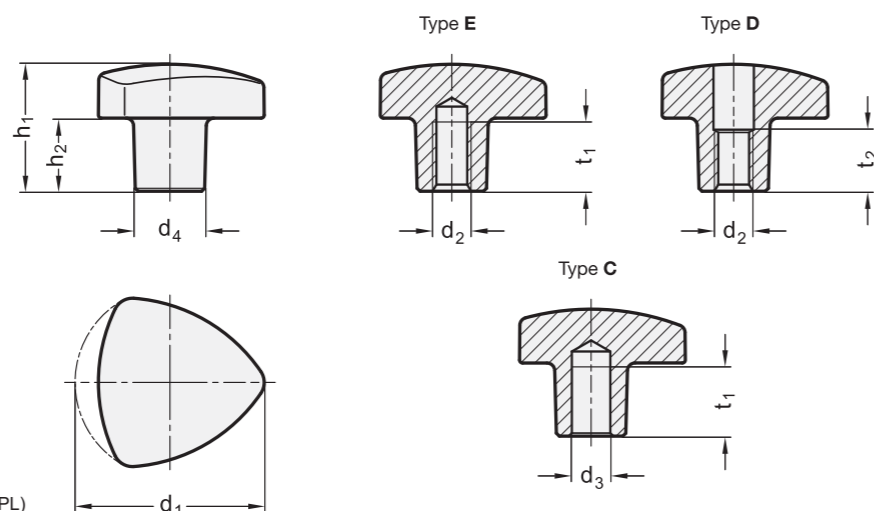
Stainless Steel-Triangular knobs GN 5339.5 have been specially designed for use on machinery in the food industry.

The smooth and enclosed areas as well as the corner radii comply with the requirements of hygiene standards.

Original ELESA-Design, manufactured in metal version under permission of ELESA s.p.a.

TECHNICAL INFORMATION

- Cross holes GN 110 (see page A17)
- ISO-Fundamental Tolerances (see page A21)
- Stainless Steel characteristics (see page A26)



*Complete with surface index of the triangular knob (MT or PL)

MT Matt shot-blasted
PL Highly polished

GN 5339.5

STAINLESS STEEL

Description	d1	d2	d3 H7	d4	h1 ≈	h2 ≈	t1 min.	t2	Δ
GN 5339.5-32-B6-C-MT	32	-	B 6	12	21	12	12	-	43
GN 5339.5-40-B8-C-MT	40	-	B 8	14	26	14	15	-	88
GN 5339.5-50-B10-C-MT	50	-	B 10	18	33	19	18	-	148
GN 5339.5-60-B12-C-MT	60	-	B 12	20	41	23	22	-	286
GN 5339.5-32-M6-D-*	32	M 6	-	12	21	12	-	10	40
GN 5339.5-40-M8-D-*	40	M 8	-	14	26	14	-	13	82
GN 5339.5-50-M10-D-*	50	M 10	-	18	33	19	-	16	100
GN 5339.5-60-M12-D-*	60	M 12	-	20	41	23	-	20	275
GN 5339.5-32-M5-E-*	32	M 5	-	12	21	12	10	-	44
GN 5339.5-32-M6-E-*	32	M 6	-	12	21	12	12	-	40
GN 5339.5-40-M6-E-*	40	M 6	-	14	26	13	12	-	85
GN 5339.5-40-M8-E-*	40	M 8	-	14	26	14	15	-	100
GN 5339.5-50-M8-E-*	50	M 8	-	18	32	18	15	-	160
GN 5339.5-50-M10-E-*	50	M 10	-	18	33	19	18	-	151
GN 5339.5-60-M10-E-*	60	M 10	-	20	41	23	18	-	295
GN 5339.5-60-M12-E-*	60	M 12	-	20	41	23	22	-	295

Lobe knobs

Technopolymer

MATERIAL

Glass-fibre reinforced polyamide based (PA) technopolymer, black colour, matte finish.

CLOSING CAP

Polypropylene based (PP) technopolymer, orange or black colour, glossy finish with matte central surface, snap-in mounting.

STANDARD EXECUTIONS

- **VTL-B**: brass boss, threaded blind hole.
- **VTL-p**: zinc-plated steel threaded stud, chamfered flat end according to UNI 947: ISO 4753 (see Technical Data on page A11).

FEATURES AND APPLICATIONS

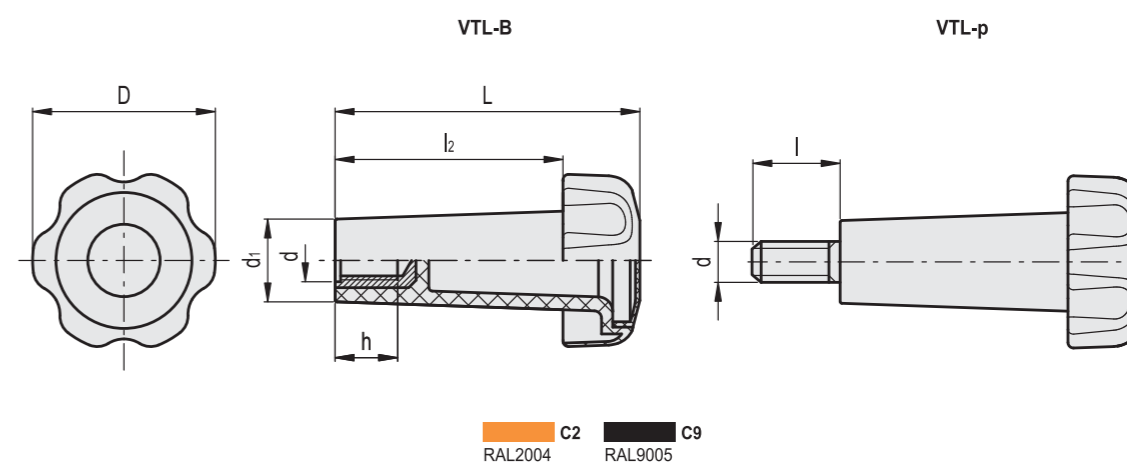
The long cone-shaped body of this knob is especially designed to clamp elements placed at a distance from the operator or in difficult to access places

SPECIAL EXECUTIONS ON REQUEST

On the surface of the closing cap words, marks, graphic symbols, etc... can be tampprinted in colours.



FMA design



VTL-B

Code	Description	D	d6H	L	d1	l2	h	Δ
182222	VTL.50/80 B-M10-C2	50	M10	82	22.5	62	17	48
182223	VTL.50/80 B-M10-C9	50	M10	82	22.5	62	17	48

VTL-p

Code	Description	D	d6g	L	d1	l	l2	Δ
182232	VTL.50/80 p-M10x20-C2	50	M10	82	22.5	20	62	60
182233	VTL.50/80 p-M10x20-C9	50	M10	82	22.5	20	62	60
182238	VTL.50/80 p-M10x50-C2	50	M10	82	22.5	50	62	75
182239	VTL.50/80 p-M10x50-C9	50	M10	82	22.5	50	62	75

Knobs with rear lobes

Technopolymer

MATERIAL

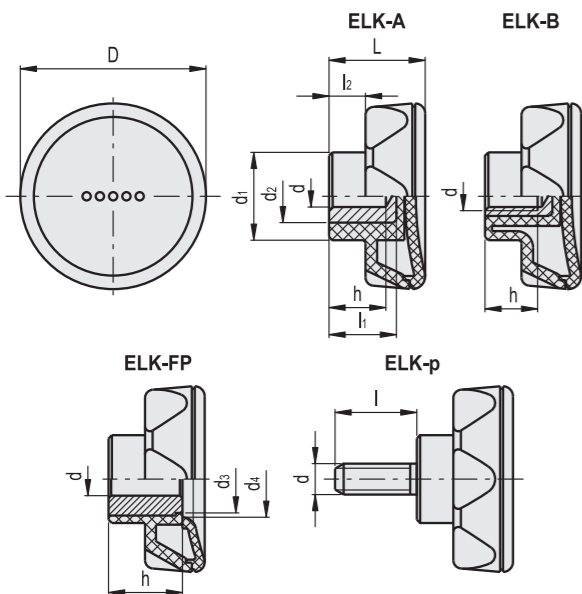
Glass-fibre reinforced polyamide based (PA) technopolymer, grey-black colour, matte finish.

CAP

Technopolymer in Ergostyle colours, matte finish. Ultrasonically welded to the body of the knob.

STANDARD EXECUTIONS

- **ELK-A:** black-oxide steel boss, H9 reamed blind hole.
- **ELK-B:** brass boss, threaded blind hole.
- **ELK-FP:** black-oxide steel boss, H7 reamed pass-through hole.
- **ELK-p:** zinc-plated steel threaded stud with chamfered flat end as in UNI 947 : ISO 4753 (see Technical Data on page A11).



* Complete with colour index, example: 221206-C2 ELK.45 A-8-C2

C1 RAL7021
 C2 RAL2004
 C3 RAL7035
 C4 RAL1021
 C5 RAL5024
 C6 RAL3000

ELK-A

Code	Description	D	dh9	L	d1	d2	l1	l2	h	Δ
221206-*	ELK.45 A-8-*	45	8	26	21	14	19	10	14	37
221406-*	ELK.56 A-8-*	56	8	29	26.5	14	18	11	14	53
221606-*	ELK.70 A-10-*	70	10	35	32.5	22	25	13	21	112

ELK-B

Code	Description	D	d6H	L	d1	l2	h	Δ
221221-*	ELK.45 B-M6-*	45	M6	26	21	10	12	29
221226-*	ELK.45 B-M8-*	45	M8	26	21	10	13	30
221426-*	ELK.56 B-M8-*	56	M8	29	26.5	11	13	41
221431-*	ELK.56 B-M10-*	56	M10	29	26.5	11	13	39
221436-*	ELK.56 B-M12-*	56	M12	29	26.5	11	13	37
221631-*	ELK.70 B-M10-*	70	M10	35	32.5	13	18	68
221636-*	ELK.70 B-M12-*	70	M12	35	32.5	13	17	66
221641-*	ELK.70 B-M16-*	70	M16	35	32.5	13	17	64

ELK-FP

Code	Description	D	dh7	L	d1	d2	d3	d4	l2	h	Δ
220416-*	ELK.56 FP-A-10-*	56	10	29	26.5	22	20.5	23	11	22	80
220616-*	ELK.70 FP-A-12-*	70	12	35	32.5	26	24	28	13	27	132



Lobe knobs

Technopolymer or Duroplast

MATERIAL

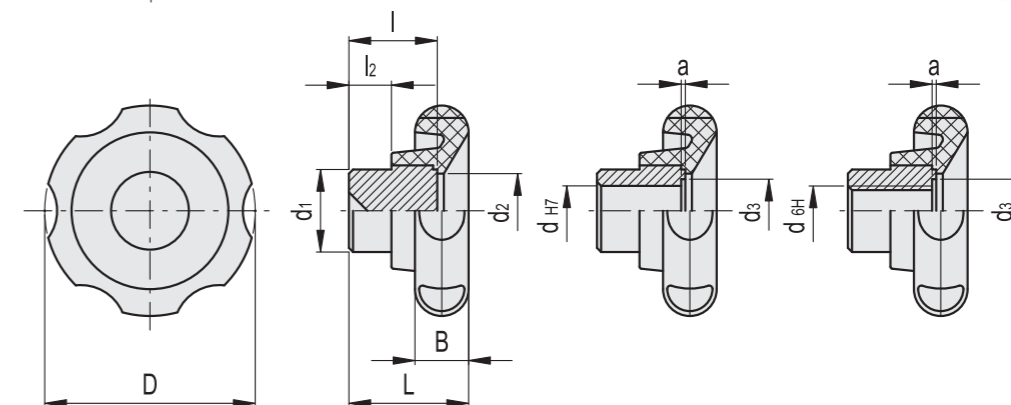
- **VL.640 FP:** glass-fibre reinforced polyamide based (PA) technopolymer, black colour, glossy finish.
- **VL.140 FP:** phenolic based (PF) Duroplast, black colour, glossy finish.

STANDARD EXECUTIONS

- **VL.640 FP-A:** black-oxide steel hub available in different executions: not drilled, H7 reamed pass-through hole or 6H threaded pass-through hole.
- **VL.640 FP-B:** brass hub, not drilled.
- **VL.140 FP-A:** black-oxide steel hub available in different executions: not drilled, H7 reamed pass-through hole or 6H threaded pass-through hole.

SPECIAL EXECUTIONS ON REQUEST

Different RAL colours with zinc-plated steel hub.



VL.640 FP-A - VL.640 FP-B

Code	Description	D	d6H	dh7	L	B	d1	d2	d3	l	l2	a	Δ
174111	VL.640/50 FP-A	50	-	-	29	13	20	18	-	21	10	-	72
174121	VL.640/50 FP-A-8	50	-	8	29	13	20	18	-	21	10	-	65
174131	VL.640/50 FP-A-10	50	-	10	29	13	20	18	-	21	10	-	60
174141	VL.640/50 FP-A-M8	50	M8	-	29	13	20	18	-	21	10	-	68
174151	VL.640/50 FP-A-M10	50	M10	-	29	13	20	18	-	21	10	-	61
174161	VL.640/50 FP-B	50	-	-	29	13	20	18	-	21	10	-	72
174211	VL.640/60 FP-A	61	-	-	30	16	25	24	-	23	11	-	126
174221	VL.640/60 FP-A-10	61	-	10	30	16	25	24	15.2	23	11	0.8	114
174231	VL.640/60 FP-A-12	61	-	12	30	16	25	24	18.1	23	11	0.8	110
174241	VL.640/60 FP-A-M10	61	M10	-	30	16	25	24	18.1	23	11	0.8	117
174251	VL.640/60 FP-A-M12	61	M12	-	30	16	25	24	18.1	23	11	0.8	111
174261	VL.640/60 FP-B	61	-	-	30	16	25	24	-	23	11	-	126
174311	VL.640/70 FP-A	70	-	-	33	18	30	30	-	25	12	-	190
174321	VL.640/70 FP-A-12	70	-	12	33	18	30	30	18.1	25	12	0.8	170
174331	VL.640/70 FP-A-14	70	-	14	33	18	30	30	21.4	25	12	1.5	160
174341	VL.640/70 FP-A-M12	70	M12	-	33	18	30	30	18.1	25	12	0.8	175
174361	VL.640/70 FP-B	70	-	-	33	18	30	30	-	25	12	-	190
174411	VL.640/80 FP-A	80	-	-	40	19	35	34	-	30	15	-	300
174421	VL.640/80 FP-A-14	80	-	14	40	19	35	34	18.1	30	15	0.8	270
174431	VL.640/80 FP-A-16	80	-	16	40	19	35	34	21.4	30	15	1.5	255
174441	VL.640/80 FP-A-M14	80	M14	-	40	19	35	34	18.1	30	15	0.8	274
174451	VL.640/80 FP-A-M16	80	M16	-	40	19	35	34	18.1	30	15	0.8	260
174461	VL.640/80 FP-B	80	-	-	40	19	35	34	-	30	15	-	300

VL.140 FP-A

Code	Description	D	d6H	dh7	L	B	d1	d2	d3	l	l2	a	Δ
74511	VL.140/100 FP-A	99	-	-	44	20	36	34	-	34	14	-	405
74514	VL.140/100 FP-A-16	99	-	16	44	20	36	34	21.4	34	14	1.5	350
74517	VL.140/100 FP-A-M16	99	M16	-	44	20	36	34	21.4	34	14	1.5	360
74611	VL.140/130 FP-A	129	-	-	47	22	40	36	-	34	13	-	560

Lobe knobs

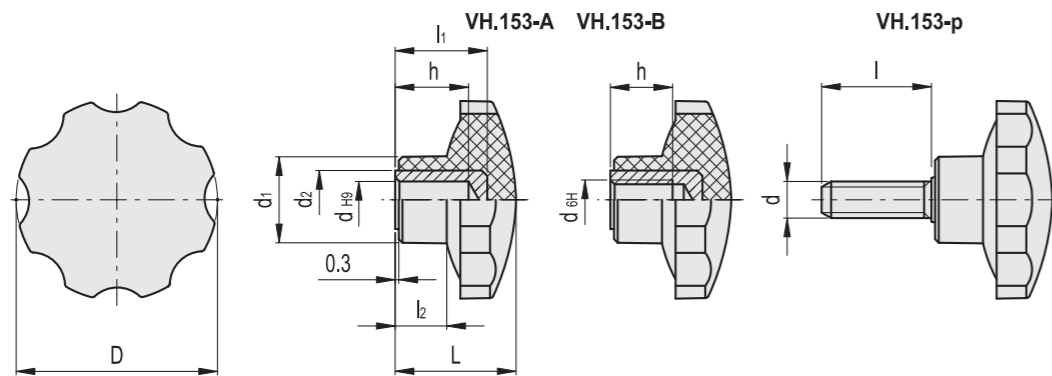
Duroplast

MATERIAL

Phenolic based (PF) Duroplast, black colour, glossy finish.

STANDARD EXECUTIONS

- **VH.153-A:** black-oxide steel boss, plain blind hole.
- **VH.153-B:** brass boss, plain or threaded blind hole.
- **VH.153-p:** zinc-plated steel threaded stud, chamfered flat end according to UNI 947 : ISO 4753 (see Technical Data on page A11).



VH.153-A

Code	Description	D	dH9	L	d1	d2	l1	l2	h	⚖
73302	VH.153/54 A-8	54	8	32	24	15	25	13	20	68
73303	VH.153/54 A-10	54	10	32	24	16	25	13	21	65
73402	VH.153/62 A-10	62	10	35	24	16	25	13	21	85
73501	VH.153/74 A-8	72	8	46	32	20	35	21	26	177
73601	VH.153/85 A-8	85	8	49	32	20	35	21	26	223

VH.153-B

Code	Description	D	d6H	dH9	L	d1	d2	l1	l2	h	⚖
73001	VH.153/25 B-4	25	-	4	18	15	11	14	9	11	15
73021	VH.153/25 B-M4	25	M4	-	18	15	-	-	9	10	10
73031	VH.153/25 B-M5	25	M5	-	18	15	-	-	9	10	10
73101	VH.153/35 B-6	35	-	6	22	19	12	17	10	14	25
73121	VH.153/35 B-8	35	-	8	22	19	12	18	10	14	33
73131	VH.153/35 B-M6	35	M6	-	22	19	-	-	10	12	19
73141	VH.153/35 B-M8	35	M8	-	22	19	-	-	10	13	22
73201	VH.153/44 B-6	44	-	6	26	19	12	17	10	14	35
73221	VH.153/44 B-8	44	-	8	26	19	12	18	10	14	33
73231	VH.153/44 B-M6	44	M6	-	26	19	-	-	10	12	29
73241	VH.153/44 B-M8	44	M8	-	26	19	-	-	10	13	31
73311	VH.153/54 B-6	54	-	6	32	24	15	23	13	18	69
73331	VH.153/54 B-M8	54	M8	-	32	24	-	-	13	13	53
73341	VH.153/54 B-M10	54	M10	-	32	24	-	-	13	17	55
73411	VH.153/62 B-8	62	-	8	35	24	15	25	13	20	85
73431	VH.153/62 B-M10	62	M10	-	35	24	-	-	13	17	80
73521	VH.153/74 B-M12	72	M12	-	46	32	-	-	21	20	132
73621	VH.153/85 B-M14	85	M14	-	49	32	-	-	21	20	184

VH.153-p

Code	Description	D	d6g	L	d1	l	l2	⚖
73041	VH.153/25 p-M6x20	25	M6	18	15	20	9	14
73151	VH.153/35 p-M6x16	35	M6	22	19	16	10	22
73161	VH.153/35 p-M8x16	35	M8	22	19	16	10	26
73162	VH.153/35 p-M8x25	35	M8	22	19	25	10	29
73163	VH.153/35 p-M8x35	35	M8	22	19	35	10	32
73251	VH.153/44 p-M8x20	44	M8	26	19	20	10	40
73252	VH.153/44 p-M8x25	44	M8	26	19	25	10	42
73253	VH.153/44 p-M8x30	44	M8	26	19	30	10	44
73254	VH.153/44 p-M8x40	44	M8	26	19	40	10	47
73255	VH.153/44 p-M8x50	44	M8	26	19	50	10	50
73261	VH.153/44 p-M10x25	44	M10	26	19	25	10	52
73262	VH.153/44 p-M10x30	44	M10	26	19	30	10	53
73263	VH.153/44 p-M10x50	44	M10	26	19	50	10	60
73351	VH.153/54 p-M10x30	54	M10	32	24	30	13	76
73441	VH.153/62 p-M10x40	62	M10	35	24	40	13	95
73451	VH.153/62 p-M12x30	62	M12	35	24	30	13	105
73531	VH.153/74 p-M12x50	72	M12	46	32	50	21	180

Fluted grip knobs

ESD conductive technopolymer

MATERIAL

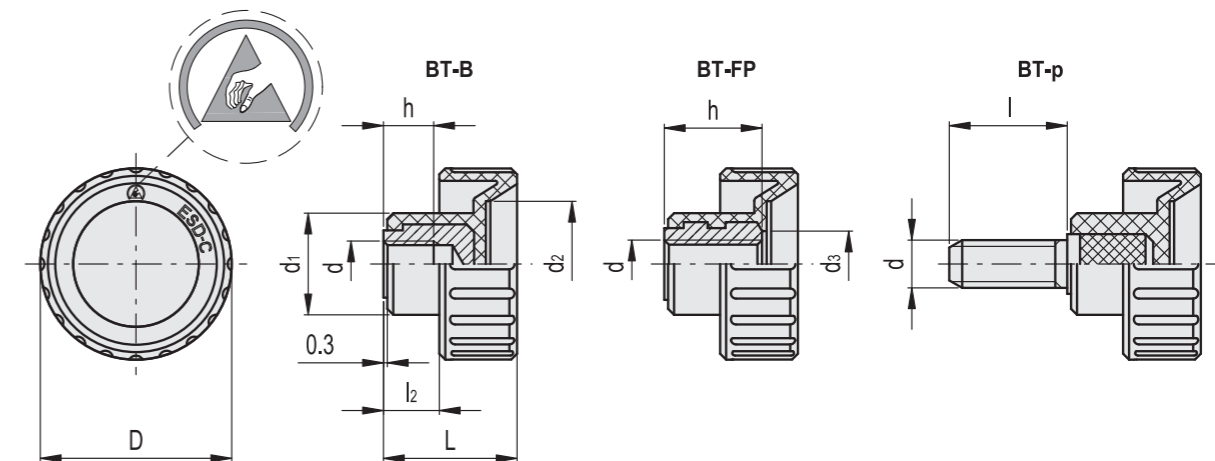
Glass-fibre reinforced polyamide based (PA) special conductive technopolymer, black colour, matte finish. $10^3 \Omega$ surface resistivity (ASTM D257 trial method), $10^3 \Omega\text{cm}$ volume resistivity (ASTM D257 trial method).

STANDARD EXECUTIONS

- **BT-B:** brass boss, threaded blind hole.
- **BT-FP:** brass boss, threaded through hole.
- **BT-p:** zinc-plated steel threaded stud, chamfered flat end according to UNI 947 : ISO 4753 (see Technical Data on page A11).

FEATURES AND APPLICATIONS

The special conductive technopolymer (ESD-C Electrostatic Discharge Conductive) prevents the accumulation of electrostatic charge. BT-ESD knobs are suitable for ESD PROTECTED AREA (EPA) where components which are susceptible to electrostatic discharges are to be handled with the minimum risk of damage. The indelibly printed mark (ESD-C) on the surface of the knob identifies the particular conductive feature according to EN 100015/1 and IEC 61340-5-1.



BT-B

Code	Description	D	d6H	L	d1	d2	l2	h	⚖
154121	BT.16 B-M4-ESD-C	16	M4	13	11	9	5	6	5
154221	BT.20 B-M5-ESD-C	20	M5	16	11.5	11	6	6	6
154321	BT.25 B-M6-ESD-C	26	M6	19	16	15	8	8	9
154421	BT.32 B-M8-ESD-C	32	M8	22	17	21	9	10	11

BT-FP

Code	Description	D	d6H	L	d1	d2	d3	l2	h	⚖
154132	BT.16 FP-M5-ESD-C	16	M5	13	11	9	6	5	10	5
154232	BT.20 FP-M6-ESD-C	20	M6	16	11.5	11	7	6	12	7
154332	BT.25 FP-M8-ESD-C	26	M8	19	16	15	9	8	14	11
154432	BT.32 FP-M10-ESD-C	32	M10	22	17	21	11	9	16	13

BT-p

Code	Description	D	d6g	L	d1	d2	l	l2	⚖
154151	BT.16 p-M5x10-ESD-C	16	M5	13	11	9	10	5	6
154152	BT.16 p-M5x16-ESD-C	16	M5	13	11	9	16	5	6
154251	BT.20 p-M6x10-ESD-C	20	M6	16	11.5	11	10	6	9
154252	BT.20 p-M6x16-ESD-C	20	M6	16	11.5	11	16	6	11
154253	BT.20 p-M6x25-ESD-C	20	M6	16	11.5	11	25	6	16
154351	BT.25 p-M8x16-ESD-C	26	M8	19	16	15	16	8	15
154352	BT.25 p-M8x25-ESD-C	26	M8	19	16	15	25	8	18
154451	BT.32 p-M10x20-ESD-C	32	M10	22	17	21	20	9	25
154452	BT.32 p-M10x30-ESD-C	32	M10	22	17	21	30	9	28

Knurled grip knobs

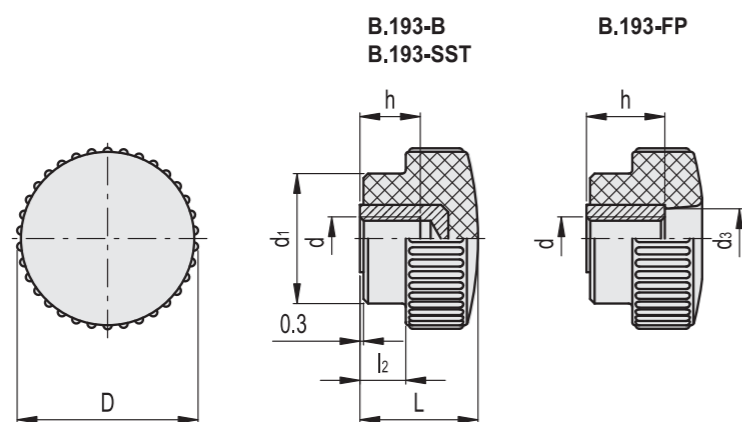
Duroplast

MATERIAL

Phenolic based (PF) Duroplast, black colour, glossy finish.

STANDARD EXECUTIONS

- **B.193-B:** brass boss, threaded blind hole.
- **B.193-SST:** AISI 303 stainless steel boss, threaded blind hole.
- **B.193-FP:** brass boss, threaded through hole.
- **B.193-p:** zinc-plated steel threaded stud, chamfered flat end according to UNI 947 : ISO 4753 (see Technical Data on page A11).
- **B.193-SST-p:** AISI 303 stainless steel threaded stud, chamfered flat end according to UNI 947 : ISO 4753 (see Technical Data on page A11).



B.193-B

Code	Description	D	d6H	L	d1	l2	h	Δ
2101	B.193/15 B-M3	15	M3	11	11	2	6	4
2102	B.193/15 B-M4	15	M4	11	11	2	6	4
2103	B.193/15 B-M5	15	M5	11	11	2	5	4
2201	B.193/18 B-M5	18	M5	12	13	3	5	5
2301	B.193/20 B-M6	22	M6	14	15	4	6	8
2401	B.193/25 B-M6	26	M6	18	19	6	10	13
2501	B.193/30 B-M8	31	M8	18	24	6	10	20
2601	B.193/35 B-M8	36	M8	23	27	8	10	30
2701	B.193/40 B-M10	40	M10	26	29	10	13	38
2801	B.193/50 B-M10	50	M10	32	36	12	17	73
2802	B.193/50 B-M12	50	M12	32	36	12	20	80

B.193-FP

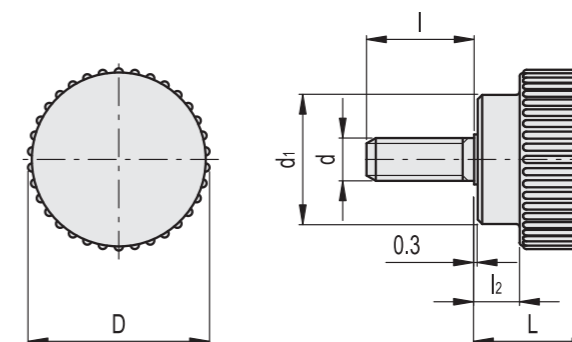
Code	Description	D	d6H	L	d1	d3	l2	h	Δ
2111	B.193/15 FP-M4	15	M4	11	11	6	2	10	4
2211	B.193/18 FP-M5	18	M5	12	13	7	3	10	5
2311	B.193/20 FP-M6	22	M6	14	15	8	4	11	8
2411	B.193/25 FP-M6	26	M6	18	19	10	6	15	16
2412	B.193/25 FP-M8	26	M8	18	19	10	6	15	17
2511	B.193/30 FP-M6	31	M6	18	24	13	6	15	22
2512	B.193/30 FP-M8	31	M8	18	24	13	6	15	21
2513	B.193/30 FP-M10	31	M10	18	24	13	6	15	24
2514	B.193/30 FP-M12	31	M12	18	24	13	6	15	20
2611	B.193/35 FP-M10	36	M10	22.5	27	14	8	15	31
2612	B.193/35 FP-M12	36	M12	22.5	27	14	8	15	30
2711	B.193/40 FP-M10	40	M10	26	29	14	10	15	40
2712	B.193/40 FP-M12	40	M12	26	29	14	10	15	38
2811	B.193/50 FP-M12	50	M12	32	36	21	12	21	72

B.193-SST

STAINLESS STEEL

Code	Description	D	d6H	L	d1	l2	h	Δ
102103	B.193/15-SST-M5	15	M5	11	11	2	6	4
102301	B.193/20-SST-M6	22	M6	14	15	4	6	8
102401	B.193/25-SST-M6	26	M6	18	19	6	10	13
102501	B.193/30-SST-M8	31	M8	18	24	6	10	20

B.193-p B.193-SST-p



B.193-p

Code	Description	D	d6g	L	d1	l	l2	Δ
2115	B.193/15 p-M3x6	15	M3	11	11	6	2	2
2116	B.193/15 p-M3x10	15	M3	11	11	10	2	3
2117	B.193/15 p-M3x16	15	M3	11	11	16	2	4
2121	B.193/15 p-M4x6	15	M4	11	11	6	2	3
2122	B.193/15 p-M4x10	15	M4	11	11	10	2	4
2123	B.193/15 p-M4x16	15	M4	11	11	16	2	5
2131	B.193/15 p-M5x10	15	M5	11	11	10	2	5
2132	B.193/15 p-M5x16	15	M5	11	11	16	2	6
2133	B.193/15 p-M5x25	15	M5	11	11	25	2	7
2221	B.193/18 p-M5x10	18	M5	12	13	10	3	6
2222	B.193/18 p-M5x16	18	M5	12	13	16	3	7
2224	B.193/18 p-M5x25	18	M5	12	13	25	3	9
2223	B.193/18 p-M5x40	18	M5	12	13	40	3	11
2321	B.193/20 p-M6x10	22	M6	14	15	10	4	9
2322	B.193/20 p-M6x16	22	M6	14	15	16	4	10
2325	B.193/20 p-M6x20	22	M6	14	15	20	4	11
2323	B.193/20 p-M6x25	22	M6	14	15	25	4	12
2326	B.193/20 p-M6x30	22	M6	14	15	30	4	14
2324	B.193/20 p-M6x40	22	M6	14	15	40	4	15
2421	B.193/25 p-M6x16	26	M6	18	19	16	6	14
2422	B.193/25 p-M6x25	26	M6	18	19	25	6	16
2431	B.193/25 p-M8x16	26	M8	18	19	16	6	20
2432	B.193/25 p-M8x25	26	M8	18	19	25	6	23
2521	B.193/30 p-M8x16	31	M8	18	24	16	6	25
2522	B.193/30 p-M8x25	31	M8	18	24	25	6	28
2523	B.193/30 p-M8x40	31	M8	18	24	40	6	32
2621	B.193/35 p-M8x25	36	M8	23	27	25	8	38
2622	B.193/35 p-M8x40	36	M8	23	27	40	8	42
2721	B.193/40 p-M10x30	40	M10	26	29	30	10	59
2821	B.193/50 p-M10x40	50	M10	32	36	40	12	94

B.193-SST-p

STAINLESS STEEL

Code	Description	D	d6g	L	d1	l	l2	Δ
102115	B.193/15-SST-p-M3x6	15	M3	11	11	6	2	2
102116	B.193/15-SST-p-M3x10	15	M3	11	11	10	2	3
102117	B.193/15-SST-p-M3x16	15	M3	11	11	16	2	4
102121	B.193/15-SST-p-M4x6	15	M4	11	11	6	2	3
102122	B.193/15-SST-p-M4x10	15	M4	11	11	10	2	4
102123	B.193/15-SST-p-M4x16	15	M4	11	11	16	2	5
102131	B.193/15-SST-p-M5x10	15	M5	11	11	10	2	4
102132	B.193/15-SST-p-M5x16	15	M5	11	11	16	2	5
102133	B.193/15-SST-p-M5x25	15	M5	11	11	25	2	8
102221	B.193/18-SST-p-M5x10	18	M5	12	13	10	3	6
102222	B.193/18-SST-p-M5x16	18	M5	12	13	16	3	7
102224	B.193/18-SST-p-M5x25	18	M5	12	13	25	3	9
102321	B.193/20-SST-p-M6x10	22	M6	14	15	10	4	9
102322	B.193/20-SST-p-M6x16	22	M6	14	15	16	4	10
102325	B.193/20-SST-p-M6x20	22	M6	14	15	20	4	12
102323	B.193/20-SST-p-M6x25	22	M6	14	15	25	4	14
102326	B.193/20-SST-p-M6x30	22	M6	14	15	30	4	16
102421	B.193/25-SST-p-M6x16	26	M6	18	19	16	6	14
102422	B.193/25-SST-p-M6x25	26	M6	18	19	25	6	16
102521	B.193/30-SST-p-M8x16	31	M8	18	24	16	6	20
102522	B.193/30-SST-p-M8x25	31	M8	18	24	25	6	24
102523	B.193/30-SST-p-M8x40	31	M8	18	24	40	6	30

Knurled grip knobs

Duroplast

MATERIAL

Phenolic based (PF) Duroplast.

COLOUR

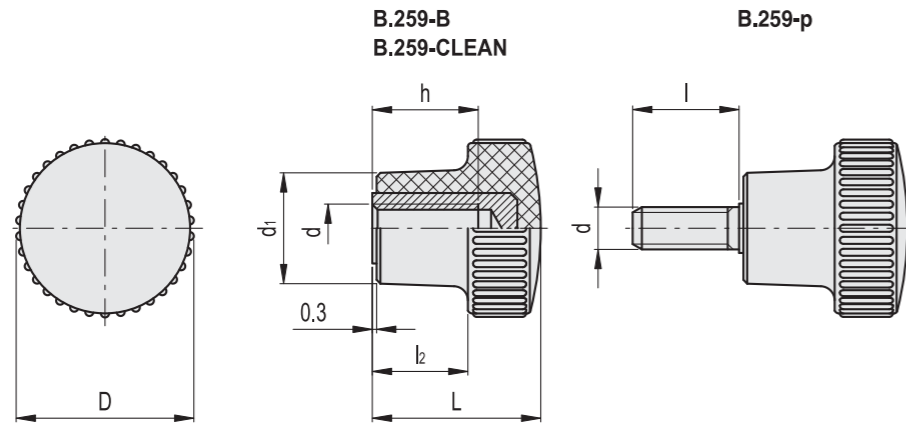
- B.259: black, glossy finish.
- B.259-CLEAN: white similar to RAL 9002, glossy finish.

STANDARD EXECUTIONS

- **B.259-B:** brass boss, threaded blind hole.
- **B.259-p:** zinc-plated steel threaded stud, chamfered flat end according to UNI 947 : ISO 4753 (see Technical Data on page A11).
- **B.259-CLEAN:** AISI 303 stainless steel boss, threaded blind hole.

FEATURES AND APPLICATIONS (B.259-CLEAN)

B.259-CLEAN knob, thanks to its white colour and glossy finish, is particularly suitable for applications on medical and hospital equipment and on food processing machines whose parts, for hygienic reasons, must be frequently cleaned. Its solid shape without cavities prevents unhealthy residues from depositing.



B.259-B

Code	Description	D	d6H	L	d1	l2	h	Δ
3001	B.259/20 B-M5	21	M5	25	13	12	16	12
3002	B.259/20 B-M6	21	M6	25	13	12	16	11
3111	B.259/25 B-M6	26	M6	28	16	15	16	18
3112	B.259/25 B-M8	26	M8	28	16	15	20	19
3201	B.259/30 B-M6	31	M6	32	19	17	16	25
3202	B.259/30 B-M8	31	M8	32	19	17	20	28
3203	B.259/30 B-M10	31	M10	32	19	17	17	29

B.259-p

Code	Description	D	d6g	L	d1	l	l2	Δ
3011	B.259/20 p-M6x16	21	M6	25	13	16	12	13
3121	B.259/25 p-M8x20	26	M8	28	16	20	15	25
3211	B.259/30 p-M8x25	31	M8	32	19	25	17	38

B.259-CLEAN

STAINLESS STEEL

Code	Description	D	d6H	L	d1	l2	h	Δ
151102	B.259/20-SST-M6 CLEAN	21	M6	25	13	12	12	11
151112	B.259/25-SST-M8 CLEAN	26	M8	28	16	15	13	19
151123	B.259/30-SST-M10 CLEAN	31	M10	32	19	17	17	29

Knurled grip knobs

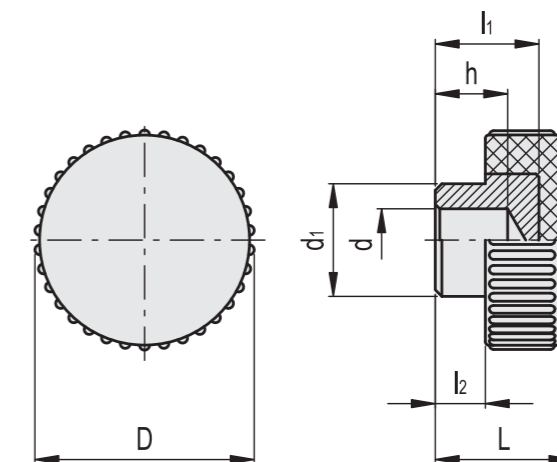
Duroplast

MATERIAL

Phenolic based (PF) Duroplast, black colour, glossy finish.

STANDARD EXECUTION

Black-oxide steel hub, plain blind hole.



Code	Description	D	dH9	L	d1	l1	l2	h	Δ
2901	B.220/35	35	10	21	18	15	8	10	37

Stainless Steel-Knurled screws

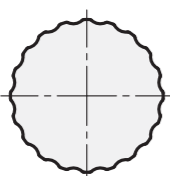
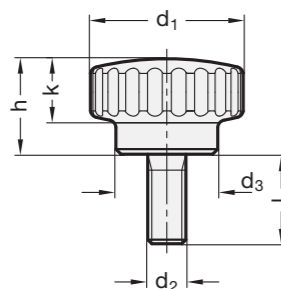
SPECIFICATION

Stainless Steel AISI 304

- matt shot-blasted **MT**
- highly polished **PL**

INFORMATION

The knurling of Stainless Steel-Knurled screws GN 535 allows a use in an environment with hygienic requirements.



GN 535

STAINLESS STEEL

Description	d1	d2	l	d3	h	k	△
GN 535-20-M5-10-MT	20	M 5	10	14	13	8.5	26
GN 535-20-M5-10-PL	20	M 5	10	14	13	8.5	26
GN 535-20-M5-16-MT	20	M 5	16	14	13	8.5	27
GN 535-20-M5-16-PL	20	M 5	16	14	13	8.5	27
GN 535-24-M6-16-MT	24	M 6	16	16	15	10.5	43
GN 535-24-M6-16-PL	24	M 6	16	16	15	10.5	43
GN 535-24-M6-20-MT	24	M 6	20	16	15	10.5	44
GN 535-24-M6-20-PL	24	M 6	20	16	15	10.5	44
GN 535-24-M6-25-MT	24	M 6	25	16	15	10.5	45
GN 535-24-M6-25-PL	24	M 6	25	16	15	10.5	45
GN 535-28-M8-16-MT	28	M 8	16	18	17	12.5	68
GN 535-28-M8-16-PL	28	M 8	16	18	17	12.5	68
GN 535-28-M8-20-MT	28	M 8	20	18	17	12.5	69
GN 535-28-M8-20-PL	28	M 8	20	18	17	12.5	69
GN 535-28-M8-30-MT	28	M 8	30	18	17	12.5	72
GN 535-28-M8-30-PL	28	M 8	30	18	17	12.5	72

Stainless Steel-Knurled nuts

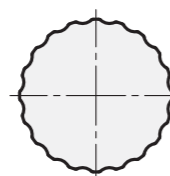
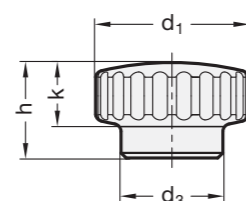
SPECIFICATION

Stainless Steel AISI 304

- matt shot-blasted **MT**
- highly polished **PL**

INFORMATION

The knurling of Stainless Steel-Knurled nuts GN 536 allows a use in an environment with hygienic requirements.



GN 536

STAINLESS STEEL

Description	d1	d2	d3	h	k	t min.	△
GN 536-20-M5-MT	20	M 5	14	13	8.5	8	24
GN 536-20-M5-PL	20	M 5	14	13	8.5	8	24
GN 536-24-M6-MT	24	M 6	16	15	10.5	9	38
GN 536-24-M6-PL	24	M 6	16	15	10.5	9	38
GN 536-28-M8-MT	28	M 8	18	17	12.5	10	58
GN 536-28-M8-PL	28	M 8	18	17	12.5	10	58

Quick release knurled nuts

SPECIFICATION

Steel

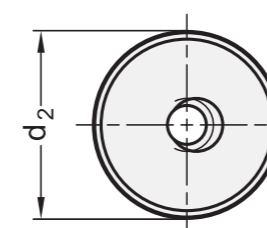
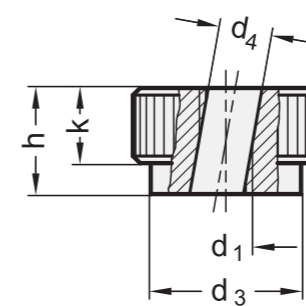
- Tensile strength class 5
- blackened

INFORMATION

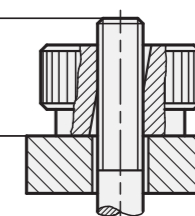
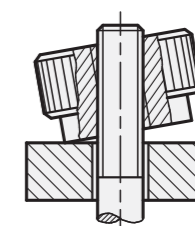
Quick release knurled nuts GN 6303.1 are used in such applications where the nut has to be completely removed after the releasing operation and re-fitted rapidly for re-clamping.

The nut is tilted over the threaded spindle. When in position, the nut is brought into a straight position for meshing of the two threads on nut and spindle. The nut will then have to be turned only by a fraction of a rotation to achieve clamping.

Functional safety exists only if the clamping surface lies at a right angle to the threaded bolt.



Threaded bolt > h



GN 6303.1

Description	d1	d2	d3	d4	h	k	△
GN 6303.1-M5	M 5	20	14	5.3	12	8	21
GN 6303.1-M6	M 6	24	16	6.7	14	10	35
GN 6303.1-M8	M 8	30	20	8.7	17	12	70
GN 6303.1-M10	M 10	36	28	11	20	14	120
GN 6303.1-M12	M 12	40	32	13	24	16	179

Knurled screws

Steel / Stainless Steel,
with recess cut for loss-prevention

SPECIFICATION

Version in Steel ST

- Tensile strength class 5
- visible face fine turned
- black oxide finish

Version in Stainless Steel AISI 303 NI

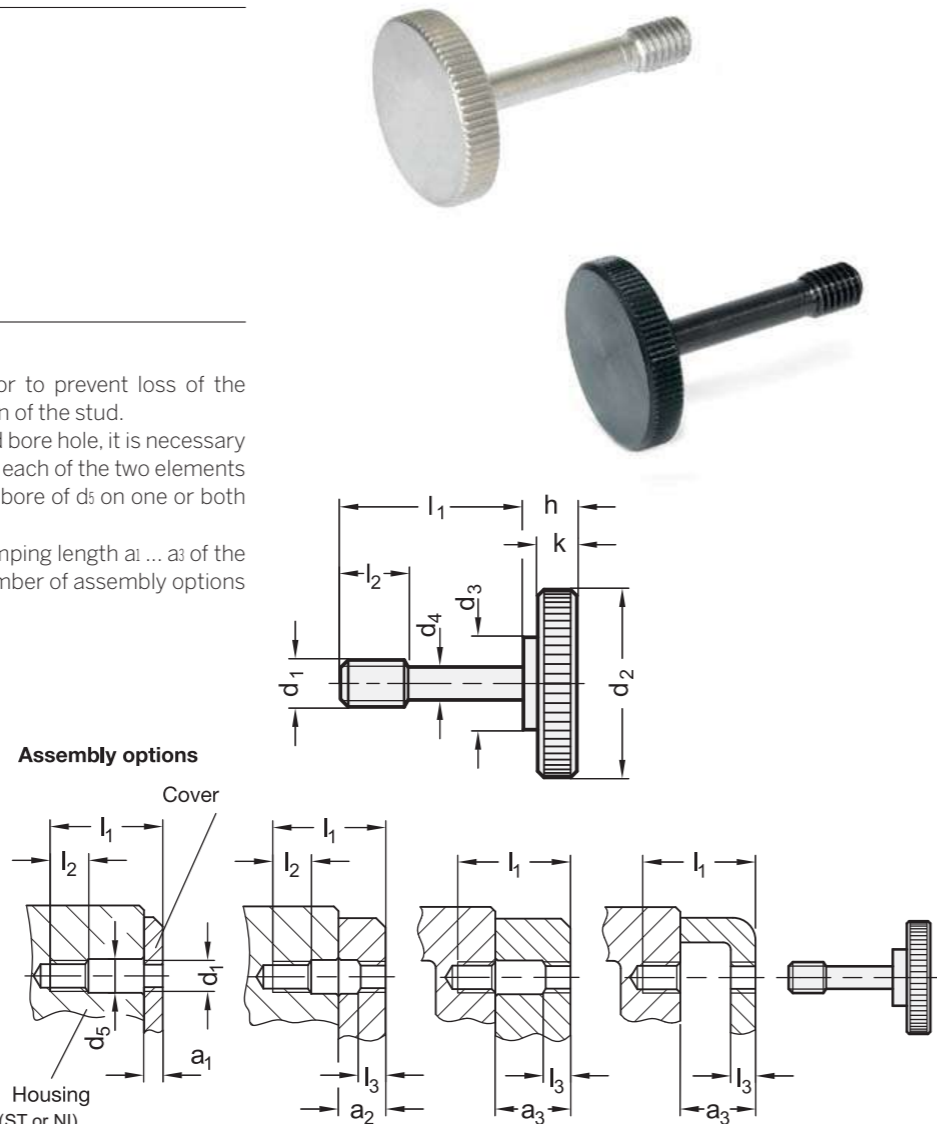
- AISI 303
- visible face fine turned
- matt shot-blasted

INFORMATION

Knurled screws GN 653.2 can be used for to prevent loss of the thumb screw, due to the d_1 recessed portion of the stud.

When using, instead of a typical tapped and bore hole, it is necessary to provide tapped bores with a thread d_1 on each of the two elements to be assembled. Additionally, a clearance bore of d_5 on one or both sides must be cut.

Depending on the design and required clamping length a_1 ... a_3 of the component being attached, there are a number of assembly options as shown.



* Complete with material index of the knurled screw (ST or NI)

ST NI
Steel Stainless Steel

GN 653.2

Description	d1	l1	a1	a2	a3	d2	d3	d4 -0.2	d5	h	k	l2	l3	Δ
GN 653.2-M4-15-*	M4	15	2-4	4-8	8-10	16	8	3.2	4.5	5.5	3.5	5	2	7
GN 653.2-M4-17-*	M4	17	4-6	6-10	10-12	16	8	3.2	4.5	5.5	3.5	5	2	7
GN 653.2-M4-19-*	M4	19	6-8	8-12	12-14	16	8	3.2	4.5	5.5	3.5	5	2	7
GN 653.2-M4-21-*	M4	21	8-10	10-14	14-16	16	8	3.2	4.5	5.5	3.5	5	2	9
GN 653.2-M5-18-*	M5	18	2.5-4	4-10.5	10.5-12	20	10	4	5.5	6.5	4	6	2.5	13
GN 653.2-M5-20-*	M5	20	4-6	6-12	12-14	20	10	4	5.5	6.5	4	6	2.5	13
GN 653.2-M5-22-*	M5	22	6-8	8-14	14-16	20	10	4	5.5	6.5	4	6	2.5	13
GN 653.2-M5-26-*	M5	26	8-12	12-16	16-18	20	10	4	5.5	6.5	4	6	2.5	14
GN 653.2-M6-24-*	M6	24	3-6	6-13	13-16	24	12	4.8	6.5	8	5	8	3	23
GN 653.2-M6-26-*	M6	26	6-8	8-16	16-18	24	12	4.8	6.5	8	5	8	3	24
GN 653.2-M6-30-*	M6	30	8-12	12-18	18-22	24	12	4.8	6.5	8	5	8	3	30
GN 653.2-M6-34-*	M6	34	12-16	16-22	22-26	24	12	4.8	6.5	8	5	8	3	32
GN 653.2-M8-30-*	M8	30	4-8	8-16	16-20	30	16	6.5	8.5	9	6	10	4	44
GN 653.2-M8-34-*	M8	34	8-12	12-20	20-24	30	16	6.5	8.5	9	6	10	4	45
GN 653.2-M8-38-*	M8	38	12-16	16-24	24-28	30	16	6.5	8.5	9	6	10	4	48
GN 653.2-M8-42-*	M8	42	16-20	20-28	28-32	30	16	6.5	8.5	9	6	10	4	50

Weighth type NI

Flat knurled screws

Steel / Stainless Steel, with MS- / KU- pivot

SPECIFICATION

Version in Steel ST

- Tensile strength class 5
- visible face fine turned
- blackened

Version in Stainless Steel AISI 303 NI

- visible face fine turned
- matt shot-blasted

Pivot

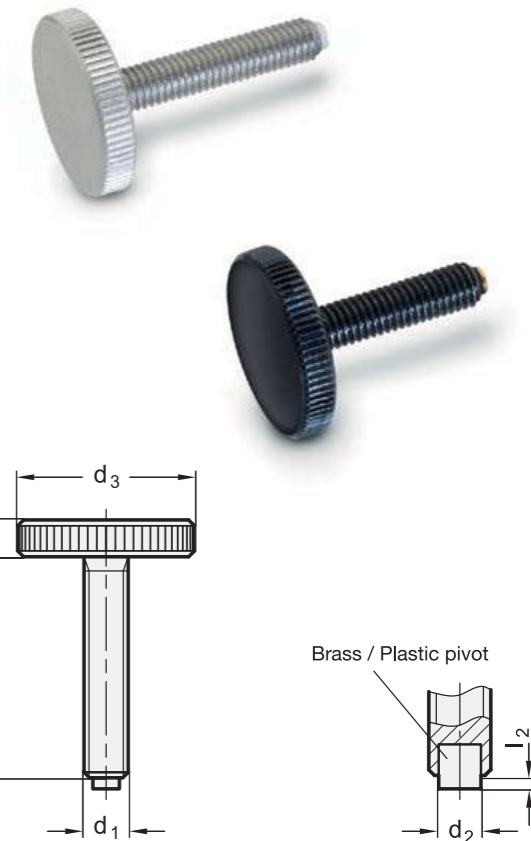
Brass MS

Plastic (Polyacetal POM) KU

INFORMATION

Flat knurled screws GN 653.10 with pivots in brass or plastic are used in applications, where marks and damages on the workpiece are unacceptable.

The head dimensions comply with flat knurled screws DIN 653 (see page 271).



GN 653.10

Description	d1	l1-1	l2	d2	d3	k	Δ
GN 653.10-M5-12-ST-KU	M5	12	1	3	20	4	11
GN 653.10-M5-12-ST-MS	M5	12	0.5	3	20	4	11
GN 653.10-M5-16-ST-KU	M5	16	1	3	20	4	11
GN 653.10-M5-16-ST-MS	M5	16	0.5	3	20	4	12
GN 653.10-M5-20-ST-KU	M5	20	1	3	20	4	12
GN 653.10-M5-20-ST-MS	M5	20	0.5	3	20	4	12
GN 653.10-M5-25-ST-KU	M5	25	1	3	20	4	12
GN 653.10-M5-25-ST-MS	M5	25	0.5	3	20	4	12
GN 653.10-M6-12-ST-KU	M6	12	1.3	3.5	24	5	19
GN 653.10-M6-12-ST-MS	M6	12	1	4	24	5	19
GN 653.10-M6-16-ST-KU	M6	16	1.3	3.5	24	5	19
GN 653.10-M6-16-ST-MS	M6	16	1	4	24	5	19
GN 653.10-M6-20-ST-KU	M6	20	1.3	3.5	24	5	20
GN 653.10-M6-20-ST-MS	M6	20	1	4	24	5	20
GN 653.10-M6-25-ST-KU	M6	25	1.3	3.5	24	5	21
GN 653.10-M6-25-ST-MS	M6	25	1	4	24	5	21
GN 653.10-M6-30-ST-KU	M6	30	1.3	3.5	24	5	22
GN 653.10-M6-30-ST-MS	M6	30	1	4	24	5	22
GN 653.10-M8-16-ST-KU	M8	16	1.6	5	30	6	36
GN 653.10-M8-16-ST-MS	M8	16	1.5	6	30	6	36
GN 653.10-M8-20-ST-KU	M8	20	1.6	5	30	6	38
GN 653.10-M8-20-ST-MS	M8	20	1.5	6	30	6	38
GN 653.10-M8-25-ST-KU	M8	25	1.6	5	30	6	39
GN 653.10-M8-25-ST-MS	M8	25	1.5	6	30	6	39
GN 653.10-M8-30-ST-KU	M8	30	1.6	5	30	6	40
GN 653.10-M8-30-ST-MS	M8	30	1.5	6	30	6	40
GN 653.10-M8-40-ST-KU	M8	40	1.6	5	30	6	43
GN 653.10-M8-40-ST-MS	M8	40	1.5	6	30	6	43

GN 653.10-NI

Description	d1	l1-1	l2	d2	d3	k	Δ
GN 653.10-M5-12-NI-KU	M5	12	1	3	20	4	11
GN 653.10-M5-12-NI-MS	M5	12	0.5	3	20	4	11
GN 653.10-M5-16-NI-KU	M5	16	1	3	20	4	11
GN 653.10-M5-16-NI-MS	M5	16	0.5	3	20	4	12
GN 653.10-M5-20-NI-KU	M5	20	1	3	20	4	12
GN 653.10-M5-20-NI-MS	M5	20	0.5	3	20	4	12
GN 653.10-M5-25-NI-KU	M5	25	1	3	20	4	12
GN 653.10-M5-25-NI-MS	M5	25	0.5	3	20	4	12
GN 653.10-M6-12-NI-KU	M6	12	1.3	3.5	24	5	19
GN 653.10-M6-12-NI-MS	M6	12	1	4	24	5	19
GN 653.10-M6-16-NI-KU	M6	16	1.3	3.5	24	5	20
GN 653.10-M6-16-NI-MS	M6	16	1	4	24	5	20
GN 653.10-M6-20-NI-KU	M6	20	1.3	3.5	24	5	20
GN 653.10-M6-20-NI-MS	M6	20	1	4	24	5	20
GN 653.10-M6-25-NI-KU	M6	25	1.3	3.5	24	5	21
GN 653.10-M6-25-NI-MS	M6	25	1	4	24	5	21
GN 653.10-M6-30-NI-KU	M6	30	1.3	3.5	24	5	22
GN 653.10-M6-30-NI-MS	M6	30	1	4	24	5	22
GN 653.10-M8-16-NI-KU	M8	16	1.6	5	30	6	36
GN 653.10-M8-16-NI-MS	M8	16	1.5	6	30	6	37
GN 653.10-M8-20-NI-KU	M8	20	1.6	5	30	6	37
GN 653.10-M8-20-NI-MS	M8	20	1.5	6	30	6	38
GN 653.10-M8-25-NI-KU	M8	25	1.6	5	30	6	39
GN 653.10-M8-25-NI-MS	M8	25	1.5	6	30	6	40
GN 653.10-M8-30-NI-KU	M8	30	1.6	5	30	6	40
GN 653.10-M8-30-NI-MS	M8	30	1.5	6	30	6	41
GN 653.10-M8-40-NI-KU	M8	40	1.6	5	30	6	43
GN 653.10-M8-40-NI-MS	M8	40	1.5	6	30	6	43

Fluted grip knobs

Technopolymer, assembly with screws

MATERIAL

Polyamide based (PA) technopolymer, black colour, matte finish.

CLOSING CAP

Polypropylene based (PP) technopolymer, orange or black colour, glossy finish with matte central surface, snap-in mounting.

STANDARD EXECUTION

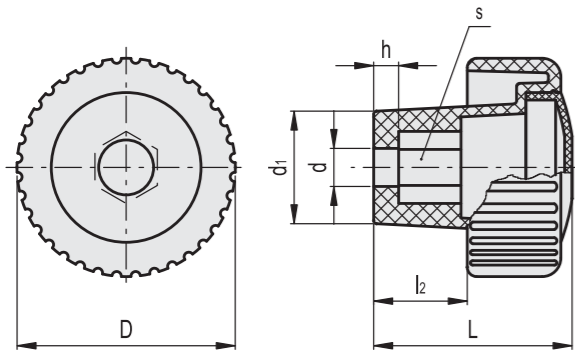
Assembly by means of hexagon head screws or standard lock nuts (not supplied) to put in place inside the knob by pressing.

SPECIAL EXECUTIONS ON REQUEST

On the surface of the closing cap words, marks, graphic symbols, etc... can be tampprinted in colours.

ASSEMBLY INSTRUCTIONS

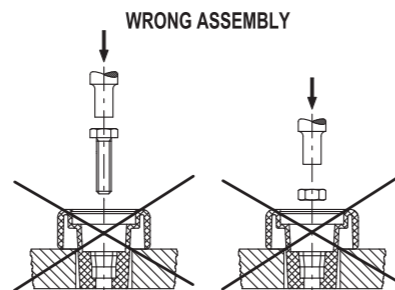
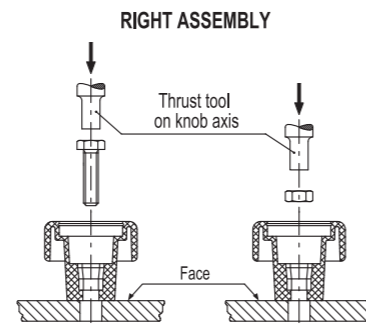
1. The base of the knob should rest on a flat surface.
2. Insert the screw or the lock nut into the knob hole by means of a thrust tool.
3. Push until the insert is completely fitted in.
4. Assemble the snap-in closing cap.



Code	Description	D	d	L	d1	l2	h	s	⚖️
138711	MCT.35 EH-5-C2	35	5	32	18	15	4	8	12
138712	MCT.35 EH-5-C9	35	5	32	18	15	4	8	12
138721	MCT.35 EH-6-C2	35	6	32	18	15	4	10	11
138722	MCT.35 EH-6-C9	35	6	32	18	15	4	10	11
138731	MCT.35 EH-8-C2	35	8	32	18	15	4	13	10
138732	MCT.35 EH-8-C9	35	8	32	18	15	4	13	10
138751	MCT.50 EH-6-C2	50	6	40	23	21	5	10	23
138752	MCT.50 EH-6-C9	50	6	40	23	21	5	10	23
138761	MCT.50 EH-8-C2	50	8	40	23	21	5	13	22
138762	MCT.50 EH-8-C9	50	8	40	23	21	5	13	22
138771	MCT.50 EH-10-C2	50	10	40	23	21	5	17	21
138772	MCT.50 EH-10-C9	50	10	40	23	21	5	17	21
138791	MCT.70 EH-8-C2	70	8	71	30.5	40	9	13	64
138792	MCT.70 EH-8-C9	70	8	71	30.5	40	9	13	64
138801	MCT.70 EH-10-C2	70	10	71	30.5	40	9	17	63
138802	MCT.70 EH-10-C9	70	10	71	30.5	40	9	17	63
138811	MCT.70 EH-12-C2	70	12	71	30.5	40	9	19	62
138812	MCT.70 EH-12-C9	70	12	71	30.5	40	9	19	62
138821	MCT.70 EH-14-C2	70	14	71	30.5	40	9	22	61
138822	MCT.70 EH-14-C9	70	14	71	30.5	40	9	22	61



FMM design



Diamond cut knurled knobs

Technopolymer

MATERIAL

High-resilience polypropylene based (PP) technopolymer, black colour, matte finish.

COLOURED CENTRE CAP

Technopolymer, matte finish.

To order, add the index of the desired colour (C9, ..., C6) to the code and the description.

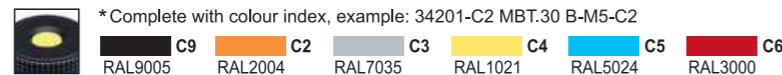
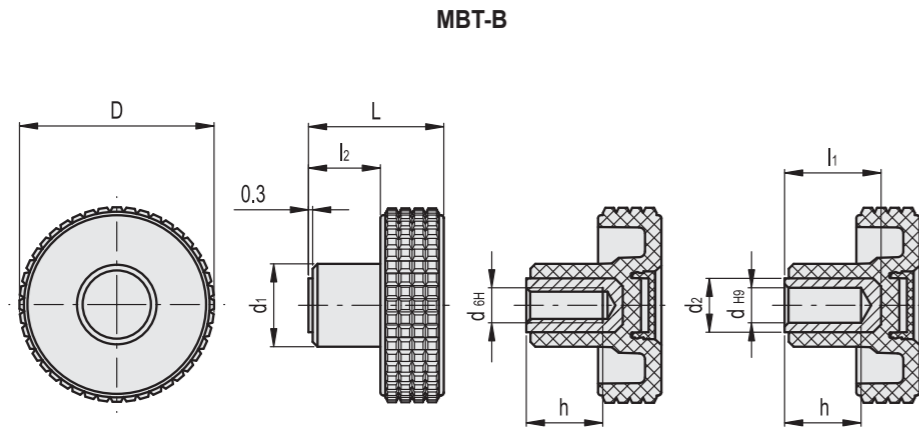
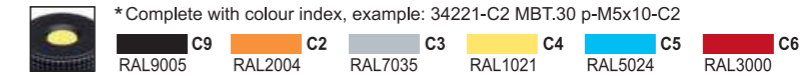
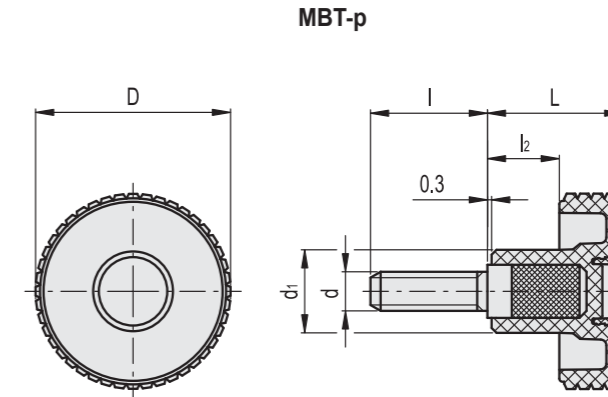
On request and for sufficient quantities, it can be supplied in other colours or with customised graphic symbols, marks or writings.

STANDARD EXECUTIONS

- **MBT-B**: brass boss, plain or threaded blind hole.
- **MBT-p**: zinc-plated steel threaded stud with chamfered flat end as in UNI 947 : ISO 4753 (see Technical Data on page A11).

ERGONOMY AND DESIGN

The particular knurling on the outside rim of the knob, provided with a structure of very fine pitch, allows a safe and comfortable grip, offering the operator the possibility of operating under the most different working conditions in a sensitive and ergonomic way and simplifying the adjustment of the knob during rapid rotation (or screwing) without any unpleasant angular work for the hand and wrist.



MBT-B

Code	Description	D	d6H	dH9	L	d1	d2	l1	l2	h	⚖
34201-*	MBT.30 B-M5-*	31	M5	-	24	15	-	-	11.5	10	12
34206-*	MBT.30 B-M6-*	31	M6	-	24	15	-	-	11.5	12	17
34316-*	MBT.40 B-6-*	39.5	-	6	26.5	17	12	17	12.5	14	27
34321-*	MBT.40 B-M6-*	39.5	M6	-	26.5	17	-	-	12.5	12	22
34326-*	MBT.40 B-M8-*	39.5	M8	-	26.5	17	-	-	12.5	13	23
34411-*	MBT.50 B-6-*	50	-	6	33	20	15	23	16	18	48
34416-*	MBT.50 B-8-*	50	-	8	33	20	15	25	16	20	47
34421-*	MBT.50 B-M8-*	50	M8	-	33	20	-	-	16	20	32
34426-*	MBT.50 B-M10-*	50	M10	-	33	20	-	-	16	18	34
34506-*	MBT.60 B-10-*	61	-	10	39	23	16	30	18.5	25	67
34511-*	MBT.60 B-M10-*	61	M10	-	39	23	-	-	18.5	20	50
34516-*	MBT.60 B-M12-*	61	M12	-	39	23	-	-	18.5	20	58
34611-*	MBT.70 B-M12-*	70	M12	-	42	24	-	-	20.5	20	70
34616-*	MBT.70 B-M14-*	70	M14	-	42	24	-	-	20.5	20	78

MBT-p

Code	Description	D	d6g	L	d1	l	l2	⚖
34221-*	MBT.30 p-M5x10-*	31	M5	24	15	10	11.5	13
34226-*	MBT.30 p-M5x20-*	31	M5	24	15	20	11.5	14
34241-*	MBT.30 p-M5x40-*	31	M5	24	15	40	11.5	16
34261-*	MBT.30 p-M6x10-*	31	M6	24	15	10	11.5	14
34263-*	MBT.30 p-M6x16-*	31	M6	24	15	16	11.5	14
34266-*	MBT.30 p-M6x20-*	31	M6	24	15	20	11.5	15
34269-*	MBT.30 p-M6x25-*	31	M6	24	15	25	11.5	16
34271-*	MBT.30 p-M6x30-*	31	M6	24	15	30	11.5	17
34281-*	MBT.30 p-M6x40-*	31	M6	24	15	40	11.5	19
34341-*	MBT.40 p-M6x10-*	39.5	M6	26.5	17	10	12.5	18
34343-*	MBT.40 p-M6x16-*	39.5	M6	26.5	17	16	12.5	19
34346-*	MBT.40 p-M6x20-*	39.5	M6	26.5	17	20	12.5	20
34351-*	MBT.40 p-M6x30-*	39.5	M6	26.5	17	30	12.5	22
34361-*	MBT.40 p-M6x40-*	39.5	M6	26.5	17	40	12.5	24
34381-*	MBT.40 p-M8x16-*	39.5	M8	26.5	17	16	12.5	26
34383-*	MBT.40 p-M8x20-*	39.5	M8	26.5	17	20	12.5	27
34386-*	MBT.40 p-M8x25-*	39.5	M8	26.5	17	25	12.5	28
34391-*	MBT.40 p-M8x30-*	39.5	M8	26.5	17	30	12.5	30
34393-*	MBT.40 p-M8x40-*	39.5	M8	26.5	17	40	12.5	33
34396-*	MBT.40 p-M8x50-*	39.5	M8	26.5	17	50	12.5	36
34431-*	MBT.50 p-M8x16-*	50	M8	33	20	16	16	36
34436-*	MBT.50 p-M8x30-*	50	M8	33	20	30	16	38
34441-*	MBT.50 p-M8x50-*	50	M8	33	20	50	16	44
34451-*	MBT.50 p-M10x20-*	50	M10	33	20	20	16	42
34456-*	MBT.50 p-M10x30-*	50	M10	33	20	30	16	47
34471-*	MBT.50 p-M10x50-*	50	M10	33	20	50	16	57
34521-*	MBT.60 p-M10x20-*	61	M10	39	23	20	18.5	58
34526-*	MBT.60 p-M10x30-*	61	M10	39	23	30	18.5	63
34536-*	MBT.60 p-M10x50-*	61	M10	39	23	50	18.5	73
34551-*	MBT.60 p-M12x20-*	61	M12	39	23	20	18.5	70
34556-*	MBT.60 p-M12x30-*	61	M12	39	23	30	18.5	78
34571-*	MBT.60 p-M12x50-*	61	M12	39	23	50	18.5	94
34631-*	MBT.70 p-M12x30-*	70	M12	42	24	30	20.5	90
34641-*	MBT.70 p-M12x50-*	70	M12	42	24	50	20.5	105

Fluted grip knobs

"Soft-touch" technopolymer

MATERIAL

High-resilience polypropylene based (PP) technopolymer, black colour, matte finish.

FLUTED RIM

"Soft-touch" thermoplastic elastomer (TPE) chemically bonded, hardness 70 Shore A. The coating material is certified according to FDA (U.S. Food and Drug administration).

STANDARD EXECUTIONS

- **MBT-B-SOFT:** brass boss, threaded and plain blind hole.
- **MBT-p-SOFT:** zinc-plated steel threaded stud, chamfered flat end according to UNI 947 : ISO 4753 (see Technical Data on page A11).

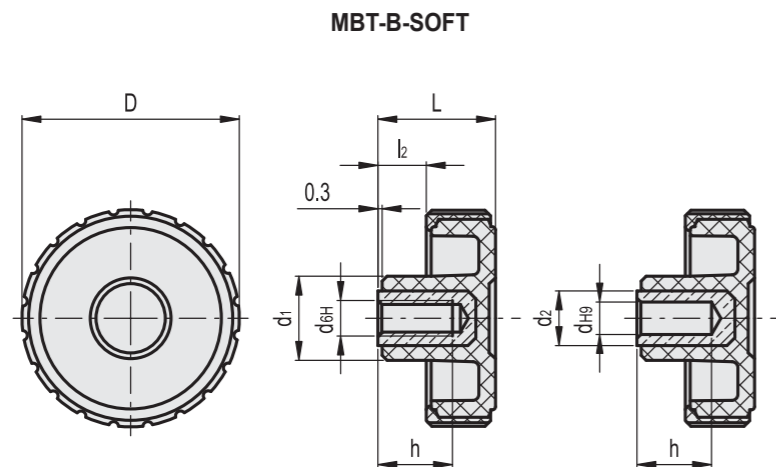
FEATURES AND APPLICATIONS

The rim, coated with "soft-touch" elastomer, improves the grip even in the presence of oils, greases and sweat from the hand. For this reason these fluted knobs are suitable for fitness machines, tools and machines for gardening and goods transport, high-precision instruments and disability aids.

ERGONOMY AND DESIGN

This kind of knob allows operation in an ergonomic way in all working conditions, reaching the maximum torque level with little fatigue for the operator's hand.

The very fine pitch structure of the rim, together with the soft-touch cover, simplifies the adjustment of the knob during rapid rotation (or screwing) without any unpleasant angular work for the hand and wrist.

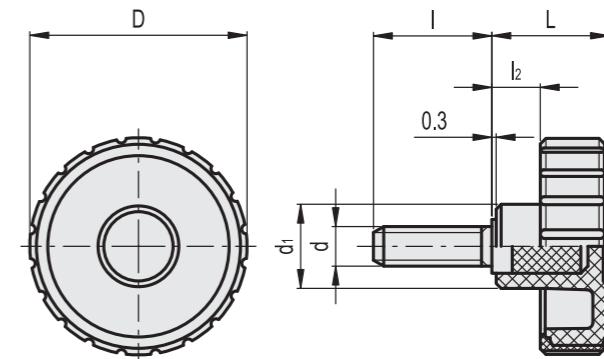


MBT-B-SOFT

Code	Description	D	d6H	dH9	L	d1	l2	h	C# [Nm]	⚖
134316	MBT.45 B-6-SOFT	44	-	6	24	17	10	14	18	32
134321	MBT.45 B-M6-SOFT	44	M6	-	24	17	10	12	15	31
134326	MBT.45 B-M8-SOFT	44	M8	-	24	17	10	13	18	30
134416	MBT.55 B-8-SOFT	54	-	8	30	20	12.5	20	30	40
134421	MBT.55 B-M8-SOFT	54	M8	-	30	20	12.5	20	30	46
134426	MBT.55 B-M10-SOFT	54	M10	-	30	20	12.5	18	32	44

"Max limit tightening torque" means the value under which the metal insert, in normal conditions of use, is perfectly and strongly anchored to the plastic part.

MBT-p-SOFT



MBT-p-SOFT

Code	Description	D	d6g	L	d1	l	l2	C# [Nm]	⚖
134341	MBT.45 p-M6x10-SOFT	44	M6	24	17	10	10	13	25
134346	MBT.45 p-M6x20-SOFT	44	M6	24	17	20	10	13	30
134381	MBT.45 p-M8x16-SOFT	44	M8	24	17	16	10	16	33
134391	MBT.45 p-M8x30-SOFT	44	M8	24	17	30	10	16	37
134396	MBT.45 p-M8x50-SOFT	44	M8	24	17	50	10	16	47
134431	MBT.55 p-M8x16-SOFT	54	M8	30	20	16	12.5	25	40
134436	MBT.55 p-M8x30-SOFT	54	M8	30	20	30	12.5	25	50
134441	MBT.55 p-M8x50-SOFT	54	M8	30	20	50	12.5	25	64
134451	MBT.55 p-M10x20-SOFT	54	M10	30	20	20	12.5	27	52
134456	MBT.55 p-M10x30-SOFT	54	M10	30	20	30	12.5	27	57
134471	MBT.55 p-M10x50-SOFT	54	M10	30	20	50	12.5	27	73

"Max limit tightening torque" means the value under which the metal insert, in normal conditions of use, is perfectly and strongly anchored to the plastic part.

Knurled knobs / Knurled screws

SPECIFICATION

Plastic
Technopolymer (Polyamide PA)
- glass fibre reinforced
- temperature resistant up to 130 °C
- black, matt finish

Threaded inserts

Steel **ST**
zinc plated, blue passivated

Stainless Steel AISI 304 **NI**

Cover cap
Plastic
light grey, matt

INFORMATION

Knurled knobs / Knurled screws GN 7336 distinguish an attractive design in combination with closed shape (no recess on the underside of the handles).

They are also available without threaded insert.

How to order:

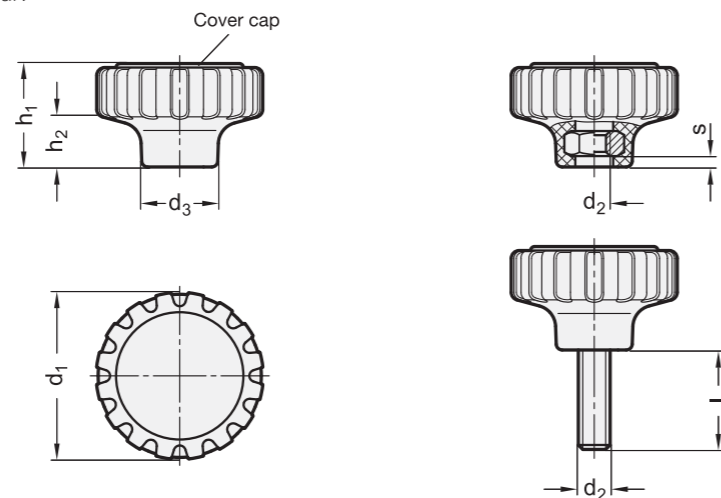
GN 7336-34

GN 7336-42

GN 7336-53

ON REQUEST

The cover cap is also available in different colours (standard colour: light grey).



GN 7336-with female thread (ST)

Description	d1	d2	d3	h1	h2	s	Max. thread length	⚖
GN 7336-34-M6-ST	34	M 6	16	21	10.5	5	19	14
GN 7336-42-M8-ST	42	M 8	19	26	13	5	24	21
GN 7336-42-M8x1-ST	42	M 8x1	19	26	13	5	24	21
GN 7336-53-M10-ST	53	M 10	24	32	16	5	30	49
GN 7336-53-M10x1-ST	53	M 10x1	24	32	16	5	30	49

GN 7336-with female thread (NI)

STAINLESS STEEL

Description	d1	d2	d3	h1	h2	s	Max. thread length	⚖
GN 7336-34-M6-NI	34	M 6	16	21	10.5	5	19	15
GN 7336-42-M8-NI	42	M 8	19	26	13	5	24	22
GN 7336-42-M8x1-NI	42	M 8x1	19	26	13	5	24	22
GN 7336-53-M10-NI	53	M 10	24	32	16	5	30	50
GN 7336-53-M10x1-NI	53	M 10x1	24	32	16	5	30	50



GN 7336-with threaded bolt (ST)

Description	d1	d2	l	d3	h1	h2	⚖
GN 7336-34-M6-11-ST	34	M 6	11	16	21	10.5	16
GN 7336-34-M6-15-ST	34	M 6	15	16	21	10.5	16
GN 7336-34-M6-20-ST	34	M 6	20	16	21	10.5	17
GN 7336-34-M6-25-ST	34	M 6	25	16	21	10.5	18
GN 7336-34-M6-30-ST	34	M 6	30	16	21	10.5	18
GN 7336-42-M8-15-ST	42	M 8	15	19	26	13	30
GN 7336-42-M8-20-ST	42	M 8	20	19	26	13	32
GN 7336-42-M8-25-ST	42	M 8	25	19	26	13	32
GN 7336-42-M8-30-ST	42	M 8	30	19	26	13	35
GN 7336-42-M8-40-ST	42	M 8	40	19	26	13	40
GN 7336-42-M8x1-15-ST	42	M 8x1	15	19	26	13	29
GN 7336-42-M8x1-20-ST	42	M 8x1	20	19	26	13	31
GN 7336-42-M8x1-25-ST	42	M 8x1	25	19	26	13	33
GN 7336-42-M8x1-30-ST	42	M 8x1	30	19	26	13	34
GN 7336-53-M10-20-ST	53	M 10	20	24	32	16	55
GN 7336-53-M10-25-ST	53	M 10	25	24	32	16	60
GN 7336-53-M10-30-ST	53	M 10	30	24	32	16	63
GN 7336-53-M10-40-ST	53	M 10	40	24	32	16	67
GN 7336-53-M10-50-ST	53	M 10	50	24	32	16	76
GN 7336-53-M10x1-20-ST	53	M 10x1	20	24	32	16	56
GN 7336-53-M10x1-25-ST	53	M 10x1	25	24	32	16	59
GN 7336-53-M10x1-30-ST	53	M 10x1	30	24	32	16	62
GN 7336-53-M10x1-40-ST	53	M 10x1	40	24	32	16	67

GN 7336-with threaded bolt (NI)

STAINLESS STEEL

Description	d1	d2	l	d3	h1	h2	⚖
GN 7336-34-M6-11-NI	34	M 6	11	16	21	10.5	15
GN 7336-34-M6-15-NI	34	M 6	15	16	21	10.5	16
GN 7336-34-M6-20-NI	34	M 6	20	16	21	10.5	17
GN 7336-34-M6-25-NI	34	M 6	25	16	21	10.5	20
GN 7336-34-M6-30-NI	34	M 6	30	16	21	10.5	23
GN 7336-42-M8-15-NI	42	M 8	15	19	26	13	30
GN 7336-42-M8-20-NI	42	M 8	20	19	26	13	32
GN 7336-42-M8-25-NI	42	M 8	25	19	26	13	32
GN 7336-42-M8-30-NI	42	M 8	30	19	26	13	35
GN 7336-42-M8-40-NI	42	M 8	40	19	26	13	40
GN 7336-42-M8x1-15-NI	42	M 8x1	15	19	26	13	29
GN 7336-42-M8x1-20-NI	42	M 8x1	20	19	26	13	30
GN 7336-42-M8x1-25-NI	42	M 8x1	25	19	26	13	33
GN 7336-42-M8x1-30-NI	42	M 8x1	30	19	26	13	34
GN 7336-53-M10-20-NI	53	M 10	20	24	32	16	55
GN 7336-53-M10-25-NI	53	M 10	25	24	32	16	58
GN 7336-53-M10-30-NI	53	M 10	30	24	32	16	60
GN 7336-53-M10-40-NI	53	M 10	40	24	32	16	65
GN 7336-53-M10-50-NI	53	M 10	50	24	32	16	70
GN 7336-53-M10x1-20-NI	53	M 10x1	20	24	32	16	56
GN 7336-53-M10x1-25-NI	53	M 10x1	25	24	32	16	58
GN 7336-53-M10x1-30-NI	53	M 10x1	30	24	32	16	62
GN 7336-53-M10x1-40-NI	53	M 10x1	40	24	32	16	67

Knurled screws

Brass / Plastic / Spherical pivot

SPECIFICATION

Types

- Type **MS**: Brass pivot
- Type **KU**: Plastic pivot (Polyacetal POM)
- Type **ZK**: spherical pivot

Plastic

Technopolymer (Polyamide PA)

- glasfibre reinforced
- temperature resistant up to 130 °C
- black, matt

Threaded stud

Stainless Steel AISI 304

Cover cap plastic

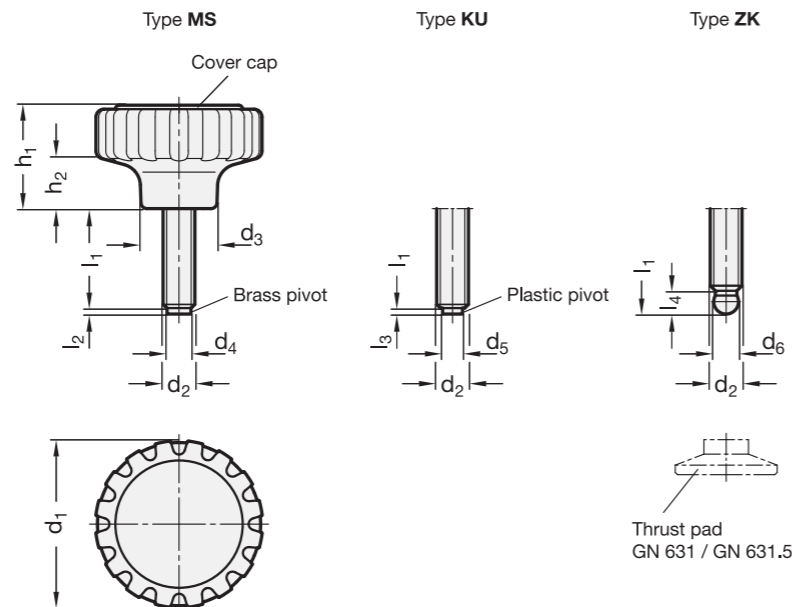
light grey, matt

INFORMATION

Knurled screws GN 7336.5, type MS/KU with brass or plastic pivots are used when pressure dents or damage must be avoided.

Knurled screws GN 7336.5, type ZK feature a spherical pivot whose $\varnothing d_6$ is smaller than the core \varnothing of the thread. The version with spherical pivot is suitable for holding GN 631 (see page 940) / GN 631.5 (see page 941) thrust pads, which must be ordered separately.

The knurled screws GN 7336.5 distinguish an attractive design in combination with closed shape (no recess on the underside of the handles).



* Complete with type index of the knurled screw (MS, KU or ZK)

MS	KU	ZK
Brass pivot	Plastic pivot (Polyacetal POM)	Spherical pivot

GN 7336.5

Description	d1	d2	l1	d3	d4	d5	d6	h1	h2	l2	l3	l4 ≈	⚖
GN 7336.5-34-M6-15-*	34	M 6	15	16	4	3.5	4.5±0.03	21	10.5	1	1.3	5.1	16
GN 7336.5-34-M6-20-*	34	M 6	20	16	4	3.5	4.5±0.03	21	10.5	1	1.3	5.1	17
GN 7336.5-34-M6-25-*	34	M 6	25	16	4	3.5	4.5±0.03	21	10.5	1	1.3	5.1	18
GN 7336.5-34-M6-30-*	34	M 6	30	16	4	3.5	4.5±0.03	21	10.5	1	1.3	5.1	19
GN 7336.5-42-M8-20-*	42	M 8	20	19	6	5	6.1±0.05	26	13	1.5	1.6	6.2	30
GN 7336.5-42-M8-25-*	42	M 8	25	19	6	5	6.1±0.05	26	13	1.5	1.6	6.2	32
GN 7336.5-42-M8-30-*	42	M 8	30	19	6	5	6.1±0.05	26	13	1.5	1.6	6.2	34
GN 7336.5-42-M8-40-*	42	M 8	40	19	6	5	6.1±0.05	26	13	1.5	1.6	6.2	37
GN 7336.5-53-M10-25-*	53	M 10	25	24	8	6.5	7.8±0.05	32	16	2	1.9	7.3	58
GN 7336.5-53-M10-30-*	53	M 10	30	24	8	6.5	7.8±0.05	32	16	2	1.9	7.3	61
GN 7336.5-53-M10-40-*	53	M 10	40	24	8	6.5	7.8±0.05	32	16	2	1.9	7.3	64
GN 7336.5-53-M10-50-*	53	M 10	50	24	8	6.5	7.8±0.05	32	16	2	1.9	7.3	70

Torque knurled knobs / Torque knurled knob screws

SPECIFICATION

Knob

Aluminium

black, anodized

Torque mechanism

Steel, hardened

Other parts

Steel, blackened

Cover cap

Plastic light grey

INFORMATION

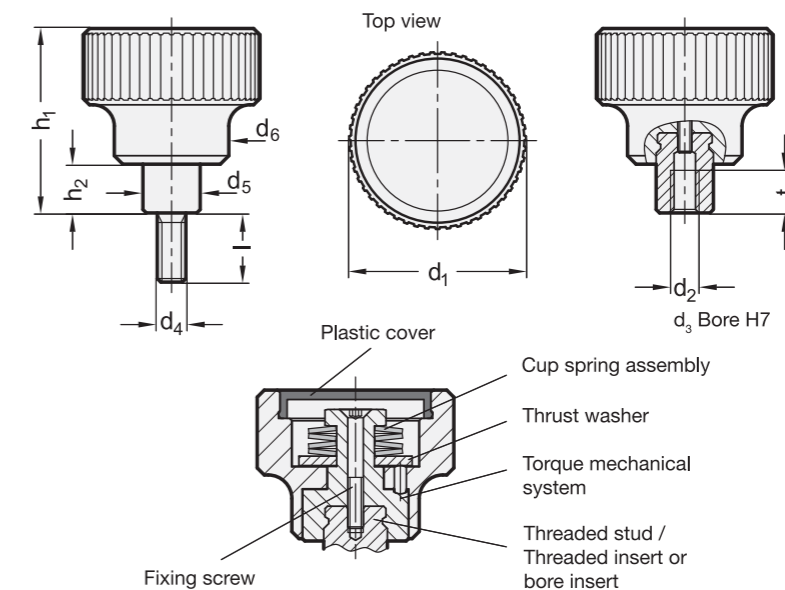
Torque knurled knobs / Torque knurled knob screws GN 3663 are used when the manually applied torque is to be limited.

When turned clockwise, the torque mechanical system of the knurled knob triggers an „over-engagement“ as soon as the specified torque is reached. When turning anti-clockwise, the mechanical system locks such that the torque is not limited. When tightening, this will ensure that the maximum permissible torque is not exceeded. On the other hand, the torque necessary for releasing will always be transferred reliably.

After removing the cover and loosening the countersunk screw, the thread or bore insert can be dismantled.

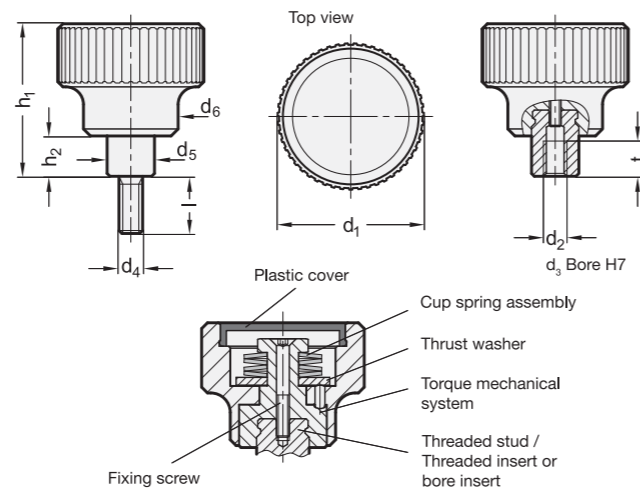
ON REQUEST

- Other dimensions for inserts with bore, thread and threaded stud inserts analog GN 300 (see page 320)
- Other dimensions with special threaded studs analog GN 306 (see page 340)
- Other torques
- Torques limiting turning anti-clockwise or turning anti-clockwise and clockwise



GN 3663-with female thread

Description	d1	d2	d3 H7	d5	d6	h1	h2	t min.	Torque ±10% in Nm	⚖
GN 3663-27-B5-0,7	27	-	B 5	10	19	35	9,5	7	0,7	41
GN 3663-27-B5-1	27	-	B 5	10	19	35	9,5	7	1	40
GN 3663-27-B5-1,5	27	-	B 5	10	19	35	9,5	7	1,5	40
GN 3663-27-B6-0,7	27	-	B 6	10	19	35	9,5	9	0,7	50
GN 3663-27-B6-1	27	-	B 6	10	19	35	9,5	9	1	50
GN 3663-27-B6-1,5	27	-	B 6	10	19	35	9,5	9	1,5	50
GN 3663-34-B5-1	34	-	B 5	10	21	37,5	9,5	7	1	57
GN 3663-34-B5-1,5	34	-	B 5	10	21	37,5	9,5	7	1,5	58
GN 3663-34-B5-2,2	34	-	B 5	10	21	37,5	9,5	7	2,2	59
GN 3663-34-B6-1	34	-	B 6	10	21	37,5	9,5	9	1	56
GN 3663-34-B6-1,5	34	-	B 6	10	21	37,5	9,5	9	1,5	57
GN 3663-34-B6-2,2	34	-	B 6	10	21	37,5	9,5	9	2,2	58
GN 3663-42-B6-2	42	-	B 6	13,5	27	43,5	11,5	11	2	108
GN 3663-42-B6-2,5	42	-	B 6	13,5	27	43,5	11,5	11	2,5	109
GN 3663-42-B6-3,2	42	-	B 6	13,5	27	43,5	11,5	11	3,2	110
GN 3663-42-B8-2	42	-	B 8	13,5	27	43,5	11,5	11	2	106
GN 3663-42-B8-2,5	42	-	B 8	13,5	27	43,5	11,5	11	2,5	107
GN 3663-42-B8-3,2	42	-	B 8	13,5	27	43,5	11,5	11	3,2	108
GN 3663-52-B10-2,5	52	-	B 10	19	32	54	15,5	17	2,5	208
GN 3663-52-B10-3	52	-	B 10	19	32	54	15,5	17	3	209
GN 3663-52-B10-4	52	-	B 10	19	32	54	15,5	17	4	210
GN 3663-52-B12-2,5	52	-	B 12	19	32	54	15,5	17	2,5	209
GN 3663-52-B12-3	52	-	B 12	19	32	54	15,5	17	3	210
GN 3663-52-B12-4	52	-	B 12	19	32	54	15,5	17	4	211
GN 3663-62-B10-3	62	-	B 10	19	33	54	15,5	17	3	241
GN 3663-62-B10-4	62	-	B 10	19	33	54	15,5	17	4	242
GN 3663-62-B10-5,5	62	-	B 10	19	33	54	15,5	17	5,5	243
GN 3663-62-B12-3	62	-	B 12	19	33	54	15,5	17	3	235
GN 3663-62-B12-4	62	-	B 12	19	33	54	15,5	17	4	236
GN 3663-62-B12-5,5	62	-	B 12	19	33	54	15,5	17	5,5	237
GN 3663-27-M3-0,7	27	M 3	-	10	19	35	9,5	7	0,7	150
GN 3663-27-M3-1	27	M 3	-	10	19	35	9,5	7	1	160
GN 3663-27-M3-1,5	27	M 3	-	10	19	35	9,5	7	1,5	200
GN 3663-27-M4-0,7	27	M 4	-	10	19	35	9,5	9	0,7	40
GN 3663-27-M4-1	27	M 4	-	10	19	35	9,5	9	1	41
GN 3663-27-M4-1,5	27	M 4	-	10	19	35	9,5	9	1,5	42
GN 3663-27-M5-0,7	27	M 5	-	10	19	35	9,5	9	0,7	39
GN 3663-27-M5-1	27	M 5	-	10	19	35	9,5	9	1	40
GN 3663-27-M5-1,5	27	M 5	-	10	19	35	9,5	9	1,5	41
GN 3663-27-M6-0,7	27	M 6	-	10	19	35	9,5	9	0,7	40
GN 3663-27-M6-1	27	M 6	-	10	19	35	9,5	9	1	41
GN 3663-27-M6-1,5	27	M 6	-	10	19	35	9,5	9	1,5	42
GN 3663-34-M3-1	34	M 3	-	10	21	37,5	9,5	7	1	58
GN 3663-34-M3-1,5	34	M 3	-	10	21	37,5	9,5	7	1,5	59
GN 3663-34-M3-2,2	34	M 3	-	10	21	37,5	9,5	7	2,2	59
GN 3663-34-M4-1	34	M 4	-	10	21	37,5	9,5	9	1	58
GN 3663-34-M4-1,5	34	M 4	-	10	21	37,5	9,5	9	1,5	59
GN 3663-34-M4-2,2	34	M 4	-	10	21	37,5	9,5	9	2,2	60
GN 3663-34-M5-1	34	M 5	-	10	21	37,5	9,5	9	1	57
GN 3663-34-M5-1,5	34	M 5	-	10	21	37,5	9,5	9	1,5	58
GN 3663-34-M5-2,2	34	M 5	-	10	21	37,5	9,5	9	2,2	59



GN 3663-with female thread

Description	d1	d2	d3 H7	d5	d6	h1	h2	t min.	Torque ±10% in Nm	⚖
GN 3663-34-M6-1	34	M 6	-	10	21	37,5	9,5	9	1	58
GN 3663-34-M6-1,5	34	M 6	-	10	21	37,5	9,5	9	1,5	59
GN 3663-34-M6-2,2	34	M 6	-	10	21	37,5	9,5	9	2,2	60
GN 3663-42-M6-2	42	M 6	-	13,5	27	43,5	11,5	11	2	109
GN 3663-42-M6-2,5	42	M 6	-	13,5	27	43,5	11,5	11	2,5	110
GN 3663-42-M6-3,2	42	M 6	-	13,5	27	43,5	11,5	11	3,2	111
GN 3663-42-M8-2	42	M 8	-	13,5	27	43,5	11,5	11	2	107
GN 3663-42-M8-2,5	42	M 8	-	13,5	27	43,5	11,5	11	2,5	108
GN 3663-42-M8-3,2	42	M 8	-	13,5	27	43,5	11,5	11	3,2	109
GN 3663-52-M10-2,5	52	M 10	-	19	32	54	15,5	17	2,5	208
GN 3663-52-M10-3	52	M 10	-	19	32	54	15,5	17	3	209
GN 3663-52-M10-4	52	M 10	-	19	32	54	15,5	17	4	210
GN 3663-52-M12-2,5	52	M 12	-	19	32	54	15,5	17	2,5	209
GN 3663-52-M12-3	52	M 12	-	19	32	54	15,5	17	3	210
GN 3663-52-M12-4	52	M 12	-	19	32	54	15,5	17	4	211
GN 3663-62-M10-3	62	M 10	-	19	33	54	15,5	17	3	240
GN 3663-62-M10-4	62	M 10	-	19	33	54	15,5	17	4	241
GN 3663-62-M10-5,5	62	M 10	-	19	33	54	15,5	17	5,5	242
GN 3663-62-M12-3	62	M 12	-	19	33	54	15,5	17	3	235
GN 3663-62-M12-4	62	M 12	-	19	33	54	15,5	17	4	236
GN 3663-62-M12-5,5	62	M 12	-	19	33	54	15,5	17	5,5	237

GN 3663-with threaded bolt

Description	d1	d4	l	d5	d6	h1	h2	Torque ±10% in Nm	⚖
GN 3663-27-M4-12-0,7	27	M 4	12	10	19	35	9,5	0,7	43
GN 3663-27-M4-12-1	27	M 4	12	10	19	35	9,5	1	44
GN 3663-27-M4-12-1,5	27	M 4	12	10	19	35	9,5	1,5	45
GN 3663-27-M4-16-0,7	27	M 4	16	10	19	35	9,5	0,7	44
GN 3663-27-M4-16-1	27	M 4	16	10	19	35	9,5	1	45
GN 3663-27-M4-16-1,5	27	M 4	16	10	19	35	9,5	1,5	46
GN 3663-27-M4-20-0,7	27	M 4	20	10	19	35	9,5	0,7	45
GN 3663-27-M4-20-1	27	M 4	20	10	19	35	9,5	1	46
GN 3663-27-M4-20-1,5	27	M 4	20	10	19	35	9,5	1,5	47
GN 3663-27-M4-25-0,7	27	M 4	25	10	19	35	9,5	0,7	46
GN 3663-27-M4-25-1	27	M 4	25	10	19	35	9,5	1	47
GN 3663-27-M4-25-1,5	27	M 4	25	10	19	35	9,5	1,5	48
GN 3663-27-M4-32-0,7	27	M 4	32	10	19	35	9,5	0,7	47
GN 3663-27-M4-32-1	27	M 4	32	10	19	35	9,5	1	48
GN 3663-27-M4-32-1,5	27	M 4	32	10	19	35	9,5	1,5	49
GN 3663-27-M5-12-0,7	27	M 5	12	10	19	35	9,5	0,7	44
GN 3663-27-M5-12-1	27	M 5	12	10	19	35	9,5	1	45
GN 3663-27-M5-12-1,5	27	M 5	12	10	19	35	9,5	1,5	46
GN 3663-27-M5-16-0,7	27	M 5	16	10	19	35	9,5	0,7	45
GN 3663-27-M5-16-1	27	M 5	16	10	19	35	9,5	1	46
GN 3663-27-M5-16-1,5	27	M 5	16	10	19	35	9,5	1,5	47
GN 3663-27-M5-20-0,7	27	M 5	20	10	19	35	9,5	0,7	46
GN 3663-27-M5-20-1	27	M 5	20	10	19	35	9,5	1	47
GN 3663-27-M5-20-1,5	27	M 5	20	10	19	35	9,5	1,5	48
GN 3663-27-M5-25-0,7	27	M 5	25	10	19	35	9,5	0,7	47
GN 3663-27-M5-25-1	27	M 5	25	10	19	35	9,5	1	48
GN 3663-27-M5-25-1,5	27	M 5	25	10	19	35	9,5	1,5	49
GN 3663-27-M5-32-0,7	27	M 5	32	10	19	35	9,5	0,7	48
GN 3663-27-M5-32-1	27	M 5	32	10	19	35	9,5	1	49
GN 3663-27-M5-32-1,5	27	M 5	32	10	19	35	9,5	1,5	50
GN 3663-34-M5-12-1	34	M 5	12	10	21	37,5	9,5	1	62
GN 3663-34-M5-12-1,5	34	M 5	12	10	21	37,5	9,5	1,5	63
GN 3663-34-M5-12-2,2	34	M 5	12	10	21	37,5	9,5	2,2	64
GN 3663-34-M5-16-1	34	M 5	16	10	21	37,5	9,5	1	63
GN 3663-34-M5-16-1,5	34	M 5	16	10	21	37,5	9,5	1,5	64
GN 3663-34-M5-16-2,2	34	M 5	16	10	21	37,5	9,5	2,2	65
GN 3663-34-M5-20-1	34	M 5	20	10	21	37,5	9,5	1	64
GN 3663-34-M5-20-1,5	34	M 5	20	10	21	37,5	9,5	1,5	65
GN 3663-34-M5-20-2,2	34	M 5	20	10	21	37,5	9,5	2,2	66
GN 3663-34-M5-25-1	34	M 5	25	10	21	37,5	9,5	1	65
GN 3663-34-M5-25-1,5	34	M 5	25	10	21	37,5	9,5	1,5	66
GN 3663-34-M5-25-2,2	34	M 5	25	10	21	37,5	9,5	2,2	67
GN 3663-34-M5-32-1	34	M 5	32	10	21	37,5	9,5	1	66
GN 3663-34-M5-32-1,5	34	M 5	32	10	21	37,5	9,5	1,5	67
GN 3663-34-M5-32-2,2	34	M 5	32	10	21	37,5	9,5	2,2	68
GN 3663-34-M6-12-1	34	M 6	12	10	21	37,5	9,5	1	63
GN 3663-34-M6-12-1,5	34	M 6	12	10	21	37,5	9,5	1,5	64
GN 3663-34-M6-12-2,2	34	M 6	12	10	21	37,5	9,5	2,2	65
GN 3663-34-M6-16									

GN 3663-with threaded bolt

Description	d1	d4	l	d5	d6	h1	h2	Torque ±10% in Nm	🔗
GN 3663-52-M10-63-2,5	52	M 10	63	19	32	54	15.5	2.5	255
GN 3663-52-M10-63-3	52	M 10	63	19	32	54	15.5	3	256
GN 3663-52-M10-63-4	52	M 10	63	19	32	54	15.5	4	257
GN 3663-52-M12-25-2,5	52	M 12	25	19	32	54	15.5	2.5	243
GN 3663-52-M12-25-3	52	M 12	25	19	32	54	15.5	3	244
GN 3663-52-M12-25-4	52	M 12	25	19	32	54	15.5	4	245
GN 3663-52-M12-32-2,5	52	M 12	32	19	32	54	15.5	2.5	247
GN 3663-52-M12-32-3	52	M 12	32	19	32	54	15.5	3	248
GN 3663-52-M12-32-4	52	M 12	32	19	32	54	15.5	4	249
GN 3663-52-M12-40-2,5	52	M 12	40	19	32	54	15.5	2.5	252
GN 3663-52-M12-40-3	52	M 12	40	19	32	54	15.5	3	254
GN 3663-52-M12-40-4	52	M 12	40	19	32	54	15.5	4	256
GN 3663-52-M12-50-2,5	52	M 12	50	19	32	54	15.5	2.5	254
GN 3663-52-M12-50-3	52	M 12	50	19	32	54	15.5	3	255
GN 3663-52-M12-50-4	52	M 12	50	19	32	54	15.5	4	257
GN 3663-52-M12-63-2,5	52	M 12	63	19	32	54	15.5	2.5	260
GN 3663-52-M12-63-3	52	M 12	63	19	32	54	15.5	3	262
GN 3663-52-M12-63-4	52	M 12	63	19	32	54	15.5	4	264
GN 3663-62-M10-25-3	62	M 10	25	19	33	54	15.5	3	262
GN 3663-62-M10-25-4	62	M 10	25	19	33	54	15.5	4	263
GN 3663-62-M10-25-5,5	62	M 10	25	19	33	54	15.5	5.5	264
GN 3663-62-M10-32-3	62	M 10	32	19	33	54	15.5	3	266
GN 3663-62-M10-32-4	62	M 10	32	19	33	54	15.5	4	267
GN 3663-62-M10-32-5,5	62	M 10	32	19	33	54	15.5	5.5	268
GN 3663-62-M10-40-3	62	M 10	40	19	33	54	15.5	3	270
GN 3663-62-M10-40-4	62	M 10	40	19	33	54	15.5	4	271
GN 3663-62-M10-40-5,5	62	M 10	40	19	33	54	15.5	5.5	272
GN 3663-62-M10-50-3	62	M 10	50	19	33	54	15.5	3	276
GN 3663-62-M10-50-4	62	M 10	50	19	33	54	15.5	4	277
GN 3663-62-M10-50-5,5	62	M 10	50	19	33	54	15.5	5.5	278
GN 3663-62-M10-63-3	62	M 10	63	19	33	54	15.5	3	281
GN 3663-62-M10-63-4	62	M 10	63	19	33	54	15.5	4	282
GN 3663-62-M10-63-5,5	62	M 10	63	19	33	54	15.5	5.5	283
GN 3663-62-M12-25-3	62	M 12	25	19	33	54	15.5	3	269
GN 3663-62-M12-25-4	62	M 12	25	19	33	54	15.5	4	270
GN 3663-62-M12-25-5,5	62	M 12	25	19	33	54	15.5	5.5	272
GN 3663-62-M12-32-3	62	M 12	32	19	33	54	15.5	3	273
GN 3663-62-M12-32-4	62	M 12	32	19	33	54	15.5	4	274
GN 3663-62-M12-32-5,5	62	M 12	32	19	33	54	15.5	5.5	275
GN 3663-62-M12-40-3	62	M 12	40	19	33	54	15.5	3	278
GN 3663-62-M12-40-4	62	M 12	40	19	33	54	15.5	4	279
GN 3663-62-M12-40-5,5	62	M 12	40	19	33	54	15.5	5.5	280
GN 3663-62-M12-50-3	62	M 12	50	19	33	54	15.5	3	286
GN 3663-62-M12-50-4	62	M 12	50	19	33	54	15.5	4	287
GN 3663-62-M12-50-5,5	62	M 12	50	19	33	54	15.5	5.5	288
GN 3663-62-M12-63-3	62	M 12	63	19	33	54	15.5	3	295
GN 3663-62-M12-63-4	62	M 12	63	19	33	54	15.5	4	296
GN 3663-62-M12-63-5,5	62	M 12	63	19	33	54	15.5	5.5	297

Torque limiting wing knobs

Technopolymer

MATERIAL

Glass-fibre reinforced polyamide based (PA) technopolymer, black (C9) or orange (C2) colour, matte finish.

TORQUE LIMITING MECHANISM

Nickel-plated steel.

STANDARD EXECUTIONS

- **CTD-B-2:** nickel-plated steel boss with threaded blind hole, maximum torque 2Nm.
- **CTD-B-3:** nickel-plated steel boss with threaded blind hole, maximum torque 3Nm.
- **CTD-p-2:** nickel-plated steel threaded screw, maximum torque 2Nm.
- **CTD-p-3:** nickel-plated steel threaded screw, maximum torque 3Nm.

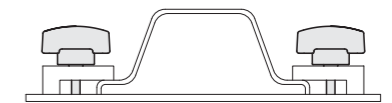
FEATURES AND APPLICATIONS

CTD wing knobs are used when the applied tightening torque must not exceed a preset value.

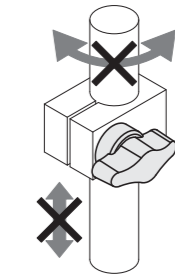
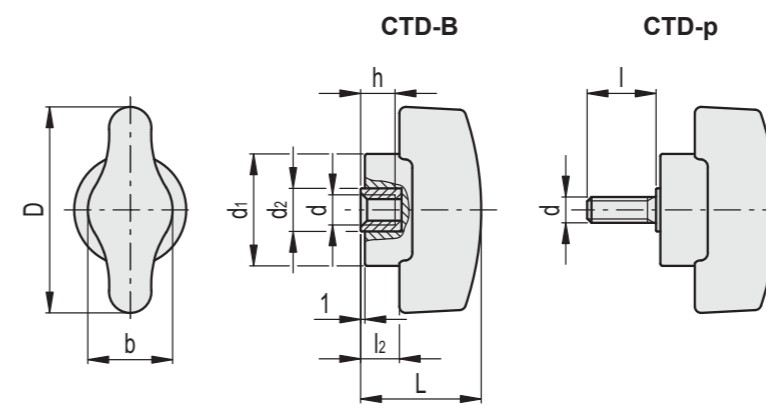
The torque transmission from the wing knob to the clamping element takes place by means of a spring system which prevents the overcoming of the established torque. Upon exceeding the established torque, a "click" sound will be heard to indicate that the maximum tightening has been reached. By turning the knob anticlockwise the mechanism unlocks.



Application Examples



To prevent sheet deformation



Fastening of the tube to avoid damage to tube surfaces

CTD-B

Code	Description	Code	Description	D	d	L	d1	d2	l	l2	b	h	C# [Nm]	🔗
221901-C9	CTD.48 B-M5-2-C9	221901-C2	CTD.48 B-M5-2-C2	48	M5	28	26	10	9	20	8	2	35	
221902-C9	CTD.48 B-M5-3-C9	221902-C2	CTD.48 B-M5-3-C2	48	M5	28	26	10	9	20	8	3	36	
221905-C9	CTD.48 B-M6-2-C9	221905-C2	CTD.48 B-M6-2-C2	48	M6	28	26	10	9	20	8	2	34	
221906-C9	CTD.48 B-M6-3-C9	221906-C2	CTD.48 B-M6-3-C2	48	M6	28	26	10	9	20	8	3	35	

CTD-p

Code	Description	Code	Description	D	d	L	d1	d2	l	l2	b	C# [Nm]	🔗
221951-C9	CTD.48 p-M5x10-2-C9	221951-C2	CTD.48 p-M5x10-2-C2	48	M5	28	26	10	10	9	20	2	37
221952-C9	CTD.48 p-M5x10-3-C9	221952-C2	CTD.48 p-M5x10-3-C2	48	M5	28	26	10	10	9	20	3	38
221955-C9	CTD.48 p-M5x16-2-C9	221955-C2	CTD.48 p-M5x16-2-C2	48	M5	28	26	10	16	9	20	2	38
221956-C9	CTD.48 p-M5x16-3-C9	221956-C2	CTD.48 p-M5x16-3-C2	48	M5	28	26	10	16	9	20	3	39
221961-C9	CTD.48 p-M6x16-2-C9	221961-C2	CTD.48 p-M6x16-2-C2	48	M6	28	26	10	16	9	20	2	39
221962-C9	CTD.48 p-M6x16-3-C9	221962-C2	CTD.48 p-M6x16-3-C2	48	M6	28	26	10	16	9	20	3	40
221965-C9	CTD.48 p-M6x25-2-C9	221965-C2	CTD.48 p-M6x25-2-C2	48	M6	28	26	10	25	9	20	2	41
221966-C9	CTD.48 p-M6x25-3-C9	221966-C2	CTD.48 p-M6x25-3-C2	48	M6	28	26	10	25	9	20	3	42

C# Maximum torque (±15%)

Wing knobs

Technopolymer

MATERIAL

Glass-fibre reinforced polyamide based (PA) technopolymer, grey-black colour, matte finish.

CAP

Glass-fibre reinforced polyamide based (PA) technopolymer, in Ergostyle colours, matte finish, press-fit assembly.

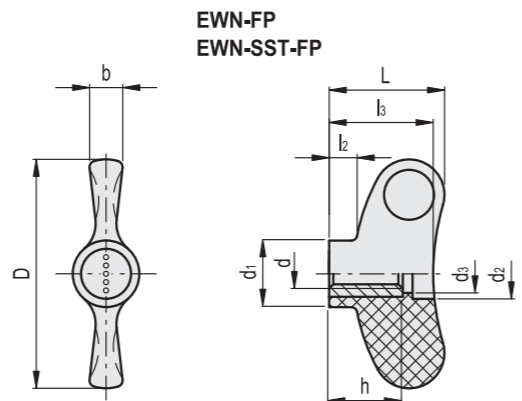
Available also as accessory sold separately (see table ECA.).

Code	Description	Boss cap for
29752-*	ECA.W2-*	EWN.48
29753-*	ECA.W3-*	EWN.55
29755-*	ECA.W5-*	EWN.63
29754-*	ECA.W4-*	EWN.70

* Complete with colour index (C1, ..., C6).

STANDARD EXECUTIONS

- **EWN-FP:** brass boss, threaded pass-through hole, without cap.
- **EWN-SST-FP:** AISI 303 stainless steel boss, threaded pass-through hole without cap.
- **EWN-B:** brass boss, threaded pass-through hole, with cap.
- **EWN-SST:** AISI 303 stainless steel boss, threaded-pass hole, with cap.
- **EWN-p:** zinc-plated steel threaded stud with chamfered flat end as in UNI 947 : ISO 4753 (see Technical Data on page A11), with closing cap.
- **EWN-SST-p:** AISI 303 stainless steel threaded stud, chamfered flat end according to UNI 947 : ISO 4753 (see Technical Data on page A11), with closing cap.



EWN-FP

Code	Description	D	d6H	L	d1	d2	d3	l2	l3	b	h	C# [Nm]	⚖
223122-C0	EWN.48 FP-M5-C0	47	M5	24	13.5	10	8.5	5.5	21.5	7	12	9	10
223123-C0	EWN.48 FP-M6-C0	47	M6	24	13.5	10	8.5	5.5	21.5	7	12	10	9
223124-C0	EWN.48 FP-M8-C0	47	M8	24	13.5	10	8.5	5.5	21.5	7	12	11	8
223132-C0	EWN.55 FP-M6-C0	55	M6	28	16	12	10.5	6.5	25	8	18	20	19
223133-C0	EWN.55 FP-M8-C0	55	M8	28	16	12	10.5	6.5	25	8	18	25	18
223144-C0	EWN.63 FP-M8-C0	63	M8	32	19	14	10.5	7.5	29	9	20	45	27
223145-C0	EWN.63 FP-M10-C0	63	M10	32	19	14	10.5	7.5	29	9	20	55	26
223152-C0	EWN.70 FP-M8-C0	70	M8	36	20	15	13	8	32	10	20	45	32
223153-C0	EWN.70 FP-M10-C0	70	M10	36	20	15	13	8	32	10	20	55	31

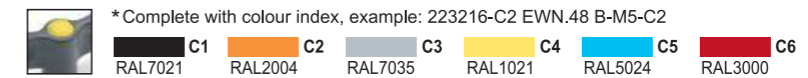
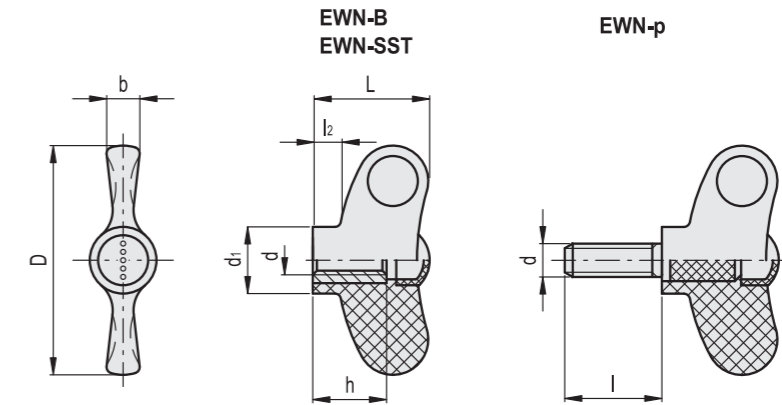
EWN-SST-FP

Code	Description	D	d6H	L	d1	d2	d3	l2	l3	b	h	C# [Nm]	⚖
224122-C0	EWN.48 SST-FP-M6-C0	47	M6	24	13.5	10	8.5	5.5	21.5	7	12	10	9
224123-C0	EWN.48 SST-FP-M8-C0	47	M8	24	13.5	10	8.5	5.5	21.5	7	12	10	8
224133-C0	EWN.55 SST-FP-M8-C0	55	M8	28	16	12	10.5	6.5	25	8	18	20	18
224143-C0	EWN.63 SST-FP-M10-C0	63	M10	32	19	14	10.5	7.5	29	9	20	45	26
224153-C0	EWN.70 SST-FP-M10-C0	70	M10	36	20	15	13	8	32	10	20	45	31

STAINLESS STEEL

"Max limit Tightening torque" means the max torque value at which the metal insert, in normal conditions of use, is perfectly and strongly anchored to the plastic material.

Wing knobs



* Complete with colour index, example: 223216-C2 EWN.48 B-M5-C2

EWN-B

Code	Description	D	d6H	L	d1	l2	b	h	C# [Nm]	⚖
223216-*	EWN.48 B-M5-*	47	M5	24	13.5	5.5	7	12	10	11
223221-*	EWN.48 B-M6-*	47	M6	24	13.5	5.5	7	12	11	10
223226-*	EWN.48 B-M8-*	47	M8	24	13.5	5.5	7	12	13	9
223236-*	EWN.55 B-M6-*	55	M6	28	16	6.5	8	18	20	20
223241-*	EWN.55 B-M8-*	55	M8	28	16	6.5	8	18	26	19
223251-*	EWN.63-B M8-*	63	M8	32	19	7.5	9	20	45	29
223256-*	EWN.63-B M10-*	63	M10	32	19	7.5	9	20	58	28
223406-*	EWN.70 B-M8-*	70	M8	36	20	8	10	20	45	34
223411-*	EWN.70 B-M10-*	70	M10	36	20	8	10	20	58	33

EWN-SST

Code	Description	D	d6H	L	d1	l2	b	h	C# [Nm]	⚖
224216-*	EWN.48 SST-M6-*	47	M6	24	13.5	5.5	7	12	10	10
224221-*	EWN.48 SST-M8-*	47	M8	24	13.5	5.5	7	12	10	9
224241-*	EWN.55 SST-M8-*	55	M8	28	16	6.5	8	18	15	19
224256-*	EWN.63-SST M10-*	63	M10	32	19	7.5	9	20	35	28
224411-*	EWN.70 SST-M10-*	70	M10	36	20	8	10	20	35	33

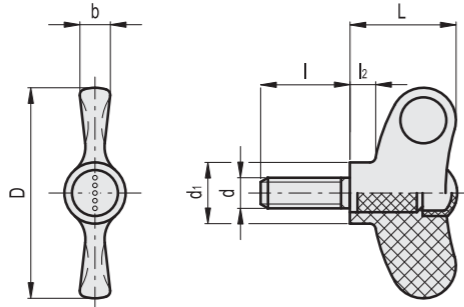
STAINLESS STEEL

EWN-p

Code	Description	D	d6g	L	d1	l	l2	b	C# [Nm]	⚖
223511-*	EWN.48 p-M5x16-*	47	M5	24	13.5	16	5.5	7	9	11
223516-*	EWN.48 p-M5x20-*	47	M5	24	13.5	20	5.5	7	9	12
223531-*	EWN.48 p-M6x16-*	47	M6	24	13.5	16	5.5	7	12	13
223536-*	EWN.48 p-M6x20-*	47	M6	24	13.5	20	5.5	7	12	13
223541-*	EWN.48 p-M6x25-*	47	M6	24	13.5	25	5.5	7	12	13
223546-*	EWN.48 p-M6x30-*	47	M6	24	13.5	30	5.5	7	12	15
223556-*	EWN.48 p-M6x40-*	47	M6	24	13.5	40	5.5	7	12	17
223565-*	EWN.48 p-M8x16-*	47	M8	24	13.5	16	5.5	7	12	13
223571-*	EWN.48-p M8x20-*	47	M8	24	13.5	20	5.5	7	12	19
223572-*	EWN.48 p-M8x25-*	47	M8	24	13.5	25	5.5	7	12	13
223573-*	EWN.48-p M8x30-*	47	M8	24	13.5	30	5.5	7	12	21
223576-*	EWN.48-p M8x40-*	47	M8	24	13.5	40	5.5	7	12	24

"Max limit Tightening torque" means the max torque value at which the metal insert, in normal conditions of use, is perfectly and strongly anchored to the plastic material.

EWN-p
EWN-SST-p



* Complete with colour index, example: 223531-C2 EWN.48 p-M6x16-C2

C1 RAL7021 C2 RAL2004 C3 RAL7035 C4 RAL1021 C5 RAL5024 C6 RAL3000

EWN-p

Code	Description	D	d6g	L	d1	l	l2	b	C# [Nm]	⚖
223626-*	EWN.55 p-M8x20-*	55	M8	28	16	20	6.5	8	22	23
223636-*	EWN.55 p-M8x30-*	55	M8	28	16	30	6.5	8	22	26
223646-*	EWN.55 p-M8x40-*	55	M8	28	16	40	6.5	8	22	29
223666-*	EWN.55 p-M10x20-*	55	M10	28	16	20	6.5	8	25	28
223676-*	EWN.55 p-M10x30-*	55	M10	28	16	30	6.5	8	25	34
223686-*	EWN.55 p-M10x40-*	55	M10	28	16	40	6.5	8	25	40
223726-*	EWN.63 p-M8x20-*	63	M8	32	19	20	7.5	9	32	30
223736-*	EWN.63 p-M8x30-*	63	M8	32	19	30	7.5	9	32	33
223746-*	EWN.63 p-M8x40-*	63	M8	32	19	40	7.5	9	32	35
223756-*	EWN.63 p-M10x20-*	63	M10	32	19	20	7.5	9	48	36
223766-*	EWN.63 p-M10x30-*	63	M10	32	19	30	7.5	9	48	42
223776-*	EWN.63 p-M10x40-*	63	M10	32	19	40	7.5	9	48	48
223806-*	EWN.70 p-M8x20-*	70	M8	36	20	20	8	10	32	35
223816-*	EWN.70 p-M8x30-*	70	M8	36	20	30	8	10	32	38
223826-*	EWN.70 p-M8x40-*	70	M8	36	20	40	8	10	32	40
223856-*	EWN.70 p-M10x20-*	70	M10	36	20	20	8	10	48	41
223866-*	EWN.70 p-M10x30-*	70	M10	36	20	30	8	10	48	47
223876-*	EWN.70 p-M10x40-*	70	M10	36	20	40	8	10	48	53

EWN-SST-p

STAINLESS STEEL

Code	Description	D	d6g	L	d1	l	l2	b	C# [Nm]	⚖
224536-*	EWN.48 SST-p-M6x20-*	47	M6	24	13.5	20	5.5	7	11	13
224546-*	EWN.48 SST-p-M6x30-*	47	M6	24	13.5	30	5.5	7	11	15
224549-*	EWN.48 SST-p-M8x20-*	47	M8	24	13.5	20	5.5	7	11	20
224551-*	EWN.48 SST-p-M8x30-*	47	M8	24	13.5	30	5.5	7	11	22
224553-*	EWN.48 SST-p-M8x40-*	47	M8	24	13.5	40	5.5	7	11	25
224626-*	EWN.55 SST-p-M8x20-*	55	M8	28	16	20	6.5	8	16	23
224636-*	EWN.55 SST-p-M8x30-*	55	M8	28	16	30	6.5	8	16	26
224638-*	EWN.55 SST-p-M8x40-*	55	M8	28	16	40	6.5	8	16	30
224756-*	EWN.63-SST-p M10x20-*	63	M10	32	19	20	7.5	9	45	36
224766-*	EWN.63-SST-p M10x30-*	63	M10	32	19	30	7.5	9	45	42
224856-*	EWN.70 SST-p-M10x20-*	70	M10	36	20	20	8	10	45	41
224866-*	EWN.70 SST-p-M10x30-*	70	M10	36	20	30	8	10	45	47
224876-*	EWN.70 SST-p-M10x40-*	70	M10	36	20	40	8	10	45	54

"Max limit Tightening torque" means the max torque value at which the metal insert, in normal conditions of use, is perfectly and strongly anchored to the plastic material.

Wing knobs

Technopolymer, pad

MATERIAL

Glass-fibre reinforced polyamide based (PA) technopolymer, grey-black colour, matte finish.

CAP

Glass-fibre reinforced polyamide based (PA) technopolymer, in Ergostyle colours, matte finish, press-fit assembly.

Available also as accessory sold separately (see table ECA.).

Code	Description	Cap for
29752-*	ECA.W2-*	EWN.48
29753-*	ECA.W3-*	EWN.55
29754-*	ECA.W4-*	EWN.70

* Complete with the colour index (C1, ..., C6)

STANDARD EXECUTIONS

- EWN-SST-p-PO: AISI 303 stainless steel threaded stud, acetal resin (POM) pad.

- EWN-SST-p-PB: AISI 303 stainless steel threaded stud, brass pad.

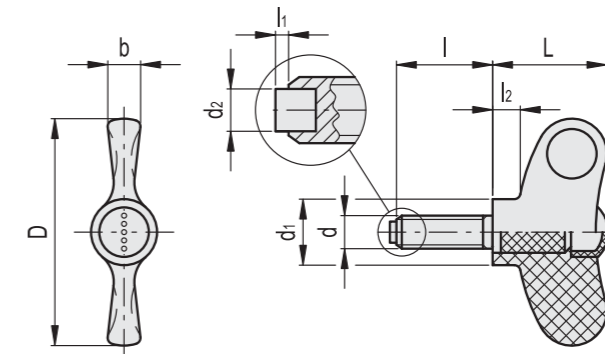
FEATURES AND APPLICATIONS

The chamfered end with bolt avoids to damage the surface of contact even in case of strong clamping.

Standard executions either with brass or acetal resin pad.

ERGONOMY AND DESIGN

The slightly concave marks on the wings help to position the fingers in order to apply the maximum force when tightening.



* Complete with colour index, example: 224556-C2 EWN.48-SST-p-M6x20-PO-C2

C1 RAL7021 C2 RAL2004 C3 RAL7035 C4 RAL1021 C5 RAL5024 C6 RAL3000

EWN-SST-p-PO

STAINLESS STEEL

Code	Description	D	d6g	L	d1	d2	l	l1	l2	b	⚖
224556-*	EWN.48-SST-p-M6x20-PO-*	47	M6	24	13.5	4	20	1.5	5.5	7	13
224566-*	EWN.48-SST-p-M6x30-PO-*	47	M6	24	13.5	4	30	1.5	5.5	7	15
224646-*	EWN.55-SST-p-M8x20-PO-*	55	M8	28	16	5	20	1.8	6.5	8	23
224656-*	EWN.55-SST-p-M8x30-PO-*	55	M8	28	16	5	30	1.8	6.5	8	26
224676-*	EWN.70-SST-p-M10x20-PO-*	70	M10	36	20	6	20	2	8	10	41
224686-*	EWN.70-SST-p-M10x30-PO-*	70	M10	36	20	6	30	2	8	10	47

EWN-SST-p-PB

STAINLESS STEEL

Code	Description	D	d6g	L	d1	d2	l	l1	l2	b	⚖
224576-*	EWN.48-SST-p-M6x20-PB-*	47	M6	24	13.5	4	20	1.5	5.5	7	14
224586-*	EWN.48-SST-p-M6x30-PB-*	47	M6	24	13.5	4	30	1.5	5.5	7	16
224661-*	EWN.55-SST-p-M8x20-PB-*	55	M8	28	16	5	20	1.8	6.5	8	24
224666-*	EWN.55-SST-p-M8x30-PB-*	55	M8	28	16	5	30	1.8	6.5	8	27
224691-*	EWN.70-SST-p-M10x20-PB-*	70	M10	36	20	6	20	2	8	10	42
224696-*	EWN.70-SST-p-M10x30-PB-*	70	M10	36	20	6	30	2	8	10	48



Wing knobs

Stainless steel

MATERIAL

AISI 304 stainless steel, sandblasted matte finish.

STANDARD EXECUTIONS

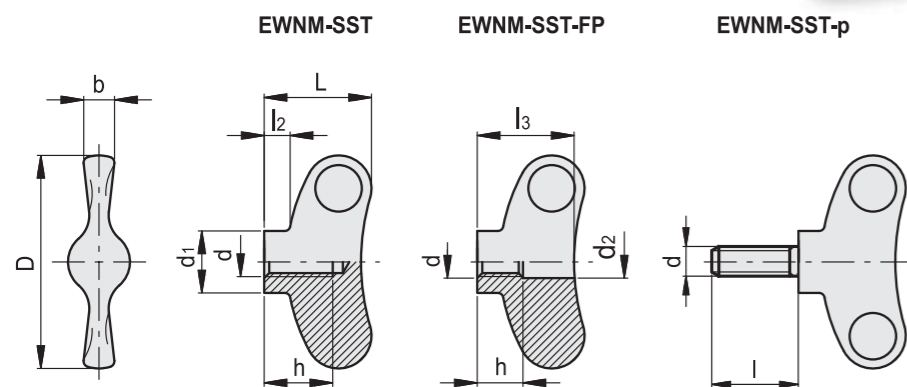
- **EWNM-SST:** threaded blind hole.
- **EWNM-SST-FP:** threaded pass-through hole.
- **EWNM-SST-p:** threaded pin.

FEATURES AND APPLICATIONS

These wing nuts allow high tightening torque values.

ERGONOMY AND DESIGN

The slightly concave marks on the wings help to position the fingers in order to apply the maximum force when tightening. Different threadings.



ERGOSTYLE®

EWNM-SST STAINLESS STEEL

Code	Description	D	d	L	d1	l2	b	h	⚖
222002	EWNM-SST-40-M5	40	M5	21	13.5	5.5	6.5	12	31
222004	EWNM-SST-40-M6	40	M6	21	13.5	5.5	6.5	12	31
222012	EWNM-SST-48-M6	48	M6	24	13.5	6	7	15	41
222014	EWNM-SST-48-M8	48	M8	24	13.5	6	7	15	40
222022	EWNM-SST-55-M8	55	M8	28	16	7	8	18	62
222024	EWNM-SST-55-M10	55	M10	28	16	7	8	18	61

EWNM-SST-FP STAINLESS STEEL

Code	Description	D	d	d2 H13	L	d1	l2	l3	b	h	⚖
222001	EWNM-SST-40-FP-M5	40	M5	5.3	21	13.5	5.5	19	6.5	8	30
222003	EWNM-SST-40-FP-M6	40	M6	6.4	21	13.5	5.5	19	6.5	10	29
222011	EWNM-SST-48-FP-M6	48	M6	6.4	24	13.5	6	22	7	10	40
222013	EWNM-SST-48-FP-M8	48	M8	8.4	24	13.5	6	22	7	13	39
222021	EWNM-SST-55-FP-M8	55	M8	8.4	28	16	7	25	8	13	59
222023	EWNM-SST-55-FP-M10	55	M10	10.5	28	16	7	25	8	16	57

EWNM-SST-p STAINLESS STEEL

Code	Description	D	d	L	d1	l	l2	b	⚖
222101	EWNM.40-SST-pM5x16	40	M5	21	13.5	16	5.5	6.5	32
222103	EWNM.40-SST-pM5x20	40	M5	21	13.5	20	5.5	6.5	36
222105	EWNM.40-SST-pM5x25	40	M5	21	13.5	25	5.5	6.5	40
222111	EWNM.40-SST-pM6x16	40	M6	21	13.5	16	5.5	6.5	35
222113	EWNM.40-SST-pM6x20	40	M6	21	13.5	20	5.5	6.5	42
222115	EWNM.40-SST-pM6x25	40	M6	21	13.5	25	5.5	6.5	46
222131	EWNM.48-SST-pM6x16	48	M6	24	13.5	16	6	7	44
222133	EWNM.48-SST-pM6x20	48	M6	24	13.5	20	6	7	50
222135	EWNM.48-SST-pM6x25	48	M6	24	13.5	25	6	7	54
222141	EWNM.48-SST-pM8x16	48	M8	24	13.5	16	6	7	46
222143	EWNM.48-SST-pM8x20	48	M8	24	13.5	20	6	7	50
222145	EWNM.48-SST-pM8x25	48	M8	24	13.5	25	6	7	52
222161	EWNM.55-SST-pM8x20	55	M8	28	16	20	7	8	55
222163	EWNM.55-SST-pM8x25	55	M8	28	16	25	7	8	58
222165	EWNM.55-SST-pM8x30	55	M8	28	16	30	7	8	61
222171	EWNM.55-SST-pM10x20	55	M10	28	16	20	7	8	53
222173	EWNM.55-SST-pM10x25	55	M10	28	16	25	7	8	56
222175	EWNM.55-SST-pM10x30	55	M10	28	16	30	7	8	60

Single wing nuts

Technopolymer

MATERIAL

Glass-fibre reinforced polyamide based (PA) technopolymer, grey-black colour, matte finish.

CAP

Glass-fibre reinforced polyamide based (PA) technopolymer, in Ergostyle colours, matte finish, press-fit assembly. Available also as accessory sold separately (see table ECA.).

Code	Description	Boss cap for
29753-*	ECA.W3-*	ESN.55
29754-*	ECA.W4-*	ESN.70

* Complete with colour index (C1, ..., C6).

STANDARD EXECUTION

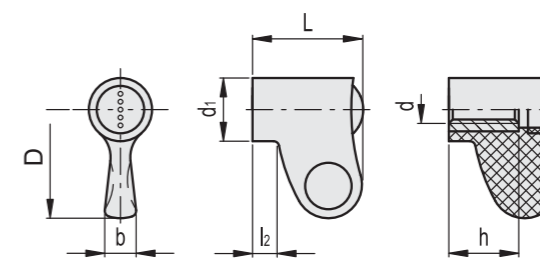
Brass boss, threaded pass-through hole.

ERGONOMY AND DESIGN

The slightly concave marks on the wing help to position the fingers in order to apply the maximum force when turning.



design award
winner
ERGOSTYLE® 2003



* Complete with colour index, example: 225236-C2 ESN.55 B-M6-C2
 C1 RAL7021 C2 RAL2004 C3 RAL7035 C4 RAL1021 C5 RAL5024 C6 RAL3000

Code	Description	D	d6H	L	d1	l2	b	h	⚖
225236-*	ESN.55 B-M6-*	27.5	M6	28	16	6.5	8	18	15
225241-*	ESN.55 B-M8-*	27.5	M8	28	16	6.5	8	18	14
225406-*	ESN.70 B-M8-*	35	M8	36	20	8	10	20	29
225411-*	ESN.70 B-M10-*	35	M10	36	20	8	10	20	28

Wing knobs

Technopolymer

MATERIAL

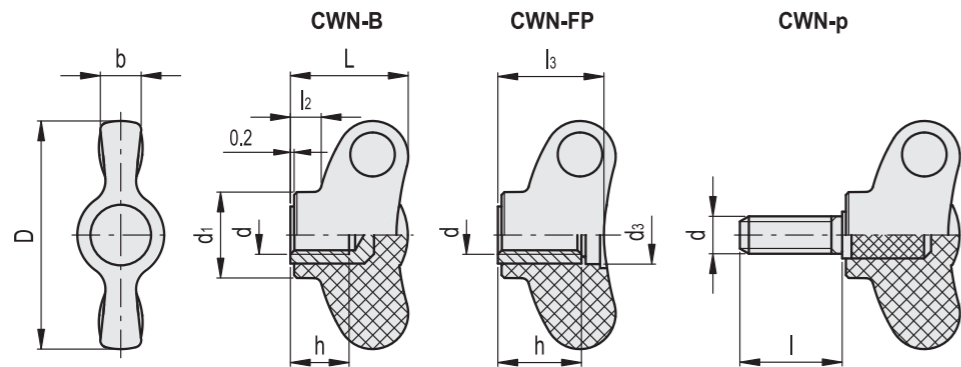
Glass-fibre reinforced polyamide based (PA) technopolymer, black colour, matte finish.

STANDARD EXECUTIONS

- **CWN-B:** brass boss, threaded blind hole.
- **CWN-FP:** brass boss, threaded pass-through hole.
- **CWN-p:** zinc-plated steel threaded stud, chamfered flat end according to UNI 947 : ISO 4753 (see Technical data on page A11).

ERGONOMY AND DESIGN

The slightly convex marks on the wings offer a point where the fingers can be positioned.



CWN-B

Code	Description	D	d6H	L	d1	l2	b	h	Δ
8600	CWN.32 B-M4	32	M4	16.5	12	3.5	6	6	8
8601	CWN.32 B-M5	32	M5	16.5	12	3.5	6	6	7
8602	CWN.32 B-M6	32	M6	16.5	12	3.5	6	8	6
8651	CWN.40 B-M6	40	M6	21	13.5	4.5	6.5	12	12
8652	CWN.40 B-M8	40	M8	21	13.5	4.5	6.5	13	11

CWN-FP

Code	Description	D	d6H	L	d1	d3	l2	l3	b	h	Δ
8605	CWN.32 FP-M5	32	M5	16.5	12	8	3.5	14.5	6	12	6
8606	CWN.32 FP-M6	32	M6	16.5	12	8	3.5	14.5	6	12	8
8656	CWN.40 FP-M8	40	M8	21	13.5	9.5	5	19	6.5	16	10

CWN-p

Code	Description	D	d6g	L	d1	l	l2	b	Δ
8607	CWN.32 p-M4x10	32	M4	16.5	12	10	3.5	6	7
8608	CWN.32 p-M4x16	32	M4	16.5	12	16	3.5	6	8
8609	CWN.32 p-M5x10	32	M5	16.5	12	10	3.5	6	8
8610	CWN.32 p-M5x16	32	M5	16.5	12	16	3.5	6	9
8615	CWN.32 p-M5x20	32	M5	16.5	12	20	3.5	6	10
8611	CWN.32 p-M6x10	32	M6	16.5	12	10	3.5	6	8
8612	CWN.32 p-M6x16	32	M6	16.5	12	16	3.5	6	9
8613	CWN.32 p-M6x20	32	M6	16.5	12	20	3.5	6	11
8614	CWN.32 p-M6x25	32	M6	16.5	12	25	3.5	6	13
8616	CWN.32 p-M6x30	32	M6	16.5	12	30	3.5	6	10
8658	CWN.40 p-M6x16	40	M6	21	13.5	16	4.5	6.5	11
8662	CWN.40 p-M8x16	40	M8	21	13.5	16	4.5	6.5	12
8663	CWN.40 p-M8x20	40	M8	21	13.5	20	4.5	6.5	14
8664	CWN.40 p-M8x25	40	M8	21	13.5	25	4.5	6.5	17
8665	CWN.40 p-M8x30	40	M8	21	13.5	30	4.5	6.5	20

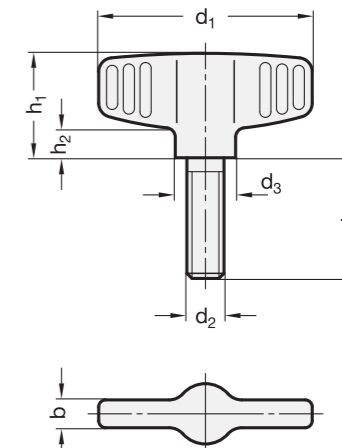
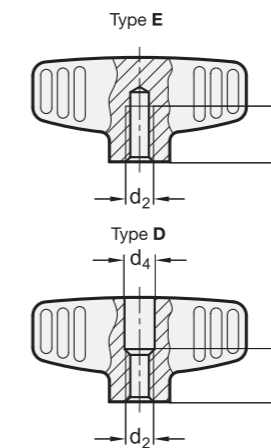
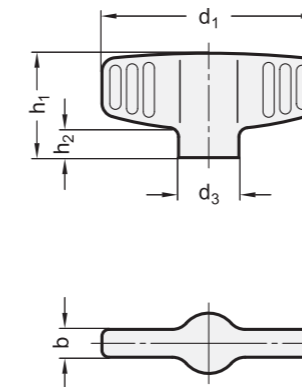
Stainless Steel-Wing nuts

SPECIFICATION

Types

- Type **E**: with threaded blind bore
- Type **D**: with threaded through bore

Stainless Steel AISI CF-8 (Precision casting)
matt shot-blasted **MT**



GN 834

STAINLESS STEEL

Description	d1	d2	d3	d4	b	h1	h2	t1	t2	Δ
GN 834-46-M6-D-MT	46	M 6	13	6.5	6	22.5	6	-	10	38
GN 834-46-M8-D-MT	46	M 8	13	8.5	6	22.5	6	-	13	39
GN 834-58-M8-D-MT	58	M 8	16	8.5	7	26.5	7	-	13	65
GN 834-58-M10-D-MT	58	M 10	16	10.5	7	26.5	7	-	16	55
GN 834-46-M6-E-MT	46	M 6	13	-	6	22.5	6	12	-	41
GN 834-46-M8-E-MT	46	M 8	13	-	6	22.5	6	15	-	39
GN 834-58-M8-E-MT	58	M 8	16	-	7	26.5	7	15	-	73
GN 834-58-M10-E-MT	58	M 10	16	-	7	26.5	7	18	-	60

GN 835

STAINLESS STEEL

Description	d1	d2	l	d3	b	h1	h2	Δ
GN 835-46-M6-16-MT	46	M 6	16	13	6	22.5	6	40
GN 835-46-M6-20-MT	46	M 6	20	13	6	22.5	6	41
GN 835-46-M6-25-MT	46	M 6	25	13	6	22.5	6	42
GN 835-46-M8-16-MT	46	M 8	16	13	6	22.5	6	49
GN 835-46-M8-20-MT	46	M 8	20	13	6	22.5	6	50
GN 835-46-M8-25-MT	46	M 8	25	13	6	22.5	6	52
GN 835-58-M8-20-MT	58	M 8	20	16	7	26.5	7	75
GN 835-58-M8-25-MT	58	M 8	25	16	7	26.5	7	76
GN 835-58-M8-30-MT	58	M 8	30	16	7	26.5	7	77
GN 835-58-M10-20-MT	58	M 10	20	16	7	26.5	7	80
GN 835-58-M10-25-MT	58	M 10	25	16	7	26.5	7	81
GN 835-58-M10-30-MT	58	M 10	30	16	7	26.5	7	82

Wing knobs

Technopolymer

MATERIAL

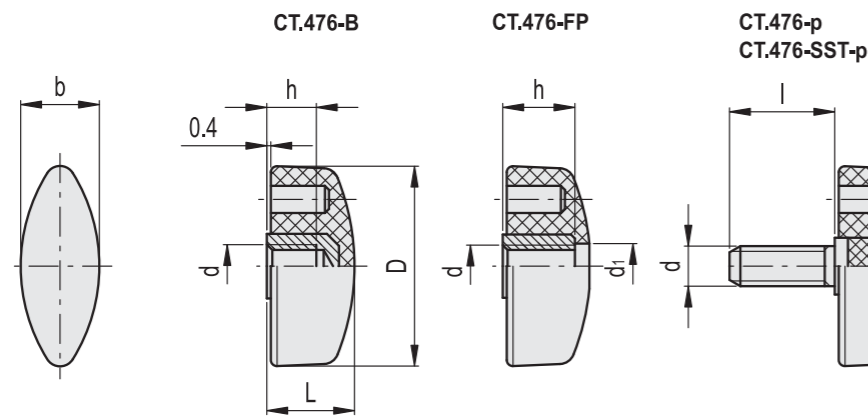
Glass-fibre reinforced polyamide based (PA) technopolymer, black colour, matte finish.

STANDARD EXECUTIONS

- **CT.476-B:** brass boss, threaded blind hole.
- **CT.476-FP:** brass boss, threaded pass-through hole.
- **CT.476-p:** zinc-plated steel threaded stud, chamfered flat end according to UNI 947 : ISO 4753 (see Technical data on page A11).
- **CT.476-SST-p:** AISI 303 stainless steel threaded stud, chamfered flat end according to UNI 947 : ISO 4753 (see Technical data on page A11).

FEATURES AND APPLICATIONS

These wing knobs allow high tightening torque values.



CT.476-B

Code	Description	D	d6H	L	b	h	C# [Nm]	⚖
8252	CT.476/20 B-M4	20	M4	11	9.5	6	6	3
8302	CT.476/25 B-M5	26	M5	13	11	6	8	4
8307	CT.476/25 B-M6	26	M6	13	11	6	10	4
8321	CT.476/30 B-M5	32	M5	15	13	6	8	8
8351	CT.476/30 B-M6	32	M6	15	13	8	15	7
8356	CT.476/30 B-M8	32	M8	15	13	8	20	6
8432	CT.476/40 B-M5	40	M5	17	15.5	6	8	14
8433	CT.476/40 B-M6	40	M6	17	15.5	8	15	12
8452	CT.476/40 B-M8	40	M8	17	15.5	8	24	10
8502	CT.476/48 B-M8	48	M8	19	19	10	30	14
8552	CT.476/56 B-M10	56	M10	23	21	13	32	17

CT.476-FP

Code	Description	D	d6H	L	d1	b	h	C# [Nm]	⚖
8326	CT.476/30 FP-M5	32	M5	15	6.5	13	12	9	8
8358	CT.476/30 FP-M6	32	M6	15	6.5	13	12	15	7
8436	CT.476/40 FP-M5	40	M5	17	9	15.5	12	9	13
8438	CT.476/40 FP-M6	40	M6	17	9	15.5	12	15	12
8458	CT.476/40 FP-M8	40	M8	17	9	15.5	14	22	10
8508	CT.476/48 FP-M8	48	M8	19	9	19	16	24	14
8558	CT.476/56 FP-M10	56	M10	23	11	21	20	30	18

"Max limit Tightening torque" means the max torque value at which the metal insert, in normal conditions of use, is perfectly and strongly anchored to the plastic material.

CT.476-p

Code	Description	D	d6g	L	l	b	C# [Nm]	⚖
8261	CT.476/20 p-M4x6	20	M4	11	6	9.5	6	4
8262	CT.476/20 p-M4x10	20	M4	11	10	9.5	6	4
8311	CT.476/25 p-M5x10	26	M5	13	10	11	8	6
8312	CT.476/25 p-M5x16	26	M5	13	16	11	8	7
8331	CT.476/30 p-M5x10	32	M5	15	10	13	8	7
8332	CT.476/30 p-M5x16	32	M5	15	16	13	8	9
8333	CT.476/30 p-M5x20	32	M5	15	20	13	8	13
8361	CT.476/30 p-M6x10	32	M6	15	10	13	14	8
8362	CT.476/30 p-M6x16	32	M6	15	16	13	14	10
8363	CT.476/30 p-M6x20	32	M6	15	20	13	14	11
8364	CT.476/30 p-M6x25	32	M6	15	25	13	14	12
8366	CT.476/30 p-M6x30	32	M6	15	30	13	14	13
8365	CT.476/30 p-M6x40	32	M6	15	40	13	14	14
8371	CT.476/30 p-M8x16	32	M8	15	16	13	16	13
8372	CT.476/30 p-M8x25	32	M8	15	25	13	16	16
8373	CT.476/30 p-M8x40	32	M8	15	40	13	16	20
8374	CT.476/30 p-M8x45	32	M8	15	45	13	16	24
8482	CT.476/40 p-M5x10	40	M5	17	10	15.5	8	11
8483	CT.476/40 p-M5x16	40	M5	17	16	15.5	8	12
8485	CT.476/40 p-M5x20	40	M5	17	20	15.5	8	13
8492	CT.476/40 p-M6x16	40	M6	17	16	15.5	14	13
8493	CT.476/40 p-M6x20	40	M6	17	20	15.5	14	14
8494	CT.476/40 p-M6x25	40	M6	17	25	15.5	14	16
8496	CT.476/40 p-M6x30	40	M6	17	30	15.5	14	17
8498	CT.476/40 p-M6x40	40	M6	17	40	15.5	14	19
8462	CT.476/40 p-M8x16	40	M8	17	16	15.5	18	15
8464	CT.476/40 p-M8x25	40	M8	17	25	15.5	18	16
8466	CT.476/40 p-M8x40	40	M8	17	40	15.5	18	22
8472	CT.476/40 p-M10x20	40	M10	17	20	15.5	28	25
8474	CT.476/40 p-M10x30	40	M10	17	30	15.5	28	27
8476	CT.476/40 p-M10x40	40	M10	17	40	15.5	28	31
8521	CT.476/48 p-M8x16	48	M8	19	16	19	20	18
8524	CT.476/48 p-M8x25	48	M8	19	25	19	20	21
8572	CT.476/56 p-M10x20	56	M10	23	20	21	40	35
8574	CT.476/56 p-M10x30	56	M10	23	30	21	40	39

CT.476-SST-p

Code	Description	D	d6g	L	l	b	C# [Nm]	⚖
108261	CT.476/20-SST-p-M4x6	20	M4	11	6	9.5	6	4
108262	CT.476/20-SST-p-M4x10	20	M4	11	10	9.5	6	4
108311	CT.476/25-SST-p-M5x10	26	M5	13	10	11	8	6
108312	CT.476/25-SST-p-M5x16	26	M5	13	16	11	8	7
108313	CT.476/25-SST-p-M5x25	26	M5	13	25	11	8	8
108361	CT.476/30-SST-p-M6x10	32	M6	15	10	13	14	8
108362	CT.476/30-SST-p-M6x16	32	M6	15	16	13	14	10
108364	CT.476/30-SST-p-M6x20	32	M6	15	20	13	14	11
108366	CT.476/30-SST-p-M6x25	32	M6	15	25	13	14	12
108367	CT.476/30-SST-p-M6x30	32	M6	15	30	13	14	13
108372	CT.476/30-SST-p-M8x16	32	M8	15	16	13	16	13
108374	CT.476/30-SST-p-M8x20	32	M8	15	20	13	16	14
108375	CT.476/30-SST-p-M8x25	32	M8	15	25	13	16	16
108377	CT.476/30-SST-p-M8x30	32	M8	15	30	13	16	17
108378	CT.476/30-SST-p-M8x40	32	M8	15	40	13	16	20
108462	CT.476/40-SST-p-M8x16	40	M8	17	16	15.5	18	15
108464	CT.476/40-SST-p-M8x25	40	M8	17	25	15.5	18	16
108466	CT.476/40-SST-p-M8x40	40	M8	17	40	15.5	18	22
108521	CT.476/48-SST-p-M8x16	48	M8	19	16	19	20	18
108524	CT.476/48-SST-p-M8x25	48	M8	19	25	19	20	18
108572	CT.476/56-SST-p-M10x20	56	M10	23	20	21	40	35
108574	CT.476/56-SST-p-M10x30	56	M10	23	30	21	40	39

"Max limit Tightening torque" means the max torque value at which the metal insert, in normal conditions of use, is perfectly and strongly anchored to the plastic material.

Wing knobs

Technopolymer

MATERIAL

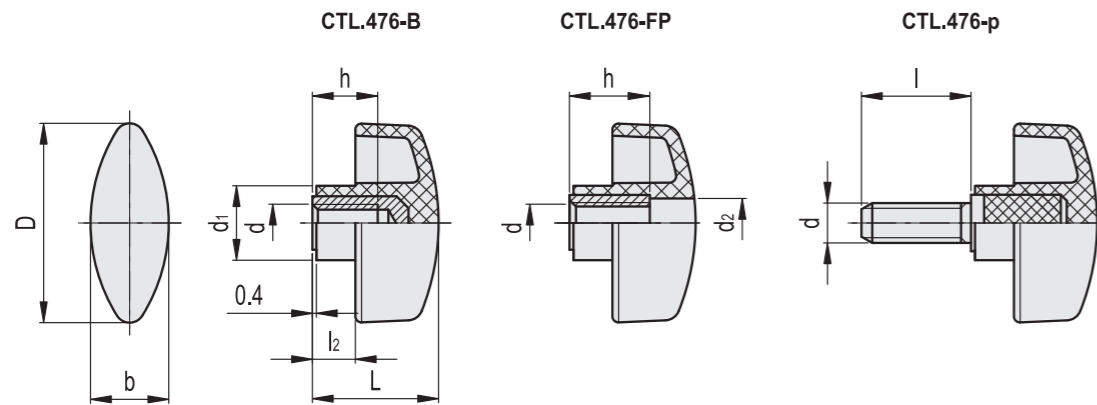
Glass-fibre reinforced polyamide based (PA) technopolymer, black colour, matte finish.

STANDARD EXECUTIONS

- **CTL.476-B**: brass boss, threaded blind hole.
- **CTL.476-FP**: brass boss, threaded through hole.
- **CTL.476-p**: zinc-plated steel threaded stud, chamfered flat end according to UNI 947 : ISO 4753 (see Technical data on page A11).

FEATURES AND APPLICATIONS

These wing knobs allow high tightening torque values and a comfortable grip, thanks to the elongated hub.



CTL.476-B

Code	Description	D	d6H	L	d1	l2	b	h	Δ
8711	CTL.476/30 B-M6	32	M6	20	11	5.5	13	10	8
8741	CTL.476/40 B-M8	40	M8	24.5	14	7.5	15.5	15	11
8771	CTL.476/48 B-M8	48	M8	28	17	9	19	20	17
8801	CTL.476/56 B-M10	56	M10	34	18.5	11	21	13	21

CTL.476-FP

Code	Description	D	d6H	L	d1	d2	l2	b	h	Δ
8715	CTL.476/30 FP-M6	32	M6	20	11	6.5	5.5	13	12	7
8745	CTL.476/40 FP-M8	40	M8	24.5	14	9	7.5	15.5	14	10
8775	CTL.476/48 FP-M10	48	M10	28	17	11	9	19	16	17

CTL.476-p

Code	Description	D	d6g	L	d1	l	l2	b	Δ
8721	CTL.476/30 p-M6x10	32	M6	20	11	10	5.5	13	9
8722	CTL.476/30 p-M6x16	32	M6	20	11	16	5.5	13	11
8723	CTL.476/30 p-M6x20	32	M6	20	11	20	5.5	13	13
8751	CTL.476/40 p-M8x16	40	M8	24.5	14	16	7.5	15.5	16
8753	CTL.476/40 p-M8x25	40	M8	24.5	14	25	7.5	15.5	19
8781	CTL.476/48 p-M8x16	48	M8	28	17	16	9	19	21
8783	CTL.476/48 p-M8x25	48	M8	28	17	25	9	19	27
8811	CTL.476/56 p-M10x20	56	M10	34	18.5	20	11	21	29
8813	CTL.476/56 p-M10x30	56	M10	34	18.5	30	11	21	35

Stainless Steel-Wing screws

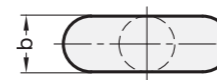
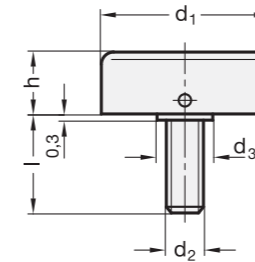
SPECIFICATION

Head

- Stainless Steel AISI 316L (Sintered Steel)
- matt shot-blasted

Threaded bolt

- Stainless Steel AISI 304
- matt shot-blasted
- screwed in and secured by cross-dowel



GN 431

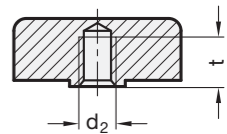
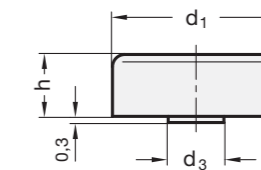
STAINLESS STEEL

Description	d1	d2	l	d3	b	h	Δ
GN 431-25-M6-16	25	M 6	16	8	8	10	14
GN 431-25-M6-20	25	M 6	20	8	8	10	16
GN 431-25-M6-25	25	M 6	25	8	8	10	18
GN 431-30-M6-16	30	M 6	16	10	10	12	21
GN 431-30-M6-20	30	M 6	20	10	10	12	23
GN 431-30-M6-25	30	M 6	25	10	10	12	25
GN 431-30-M8-16	30	M 8	16	10	10	12	27
GN 431-30-M8-20	30	M 8	20	10	10	12	28
GN 431-30-M8-25	30	M 8	25	10	10	12	30
GN 431-30-M8-32	30	M 8	32	10	10	12	32
GN 431-36-M8-16	36	M 8	16	12	12	14.5	44
GN 431-36-M8-20	36	M 8	20	12	12	14.5	45
GN 431-36-M8-25	36	M 8	25	12	12	14.5	47
GN 431-36-M8-32	36	M 8	32	12	12	14.5	49
GN 431-36-M10-20	36	M 10	20	12	12	14.5	51
GN 431-36-M10-30	36	M 10	30	12	12	14.5	53
GN 431-36-M10-40	36	M 10	40	12	12	14.5	55

Stainless Steel-Wing nuts

SPECIFICATION

Stainless Steel AISI 316L (Sintered Steel)
matt shot-blasted



GN 432

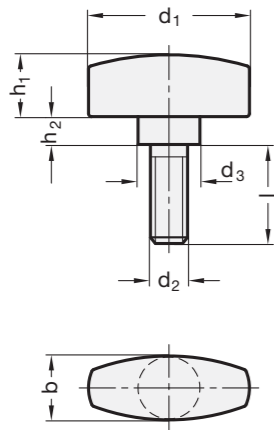
STAINLESS STEEL

Description	d1	d2	d3	b	h	t min.	Δ
GN 432-25-M6	25	M 6	8	8	10	7	10
GN 432-30-M6	30	M 6	10	10	12	7	21
GN 432-30-M8	30	M 8	10	10	12	9	18
GN 432-36-M8	36	M 8	12	12	14.5	9	36
GN 432-36-M10	36	M 10	12	12	14.5	7	33

Stainless Steel-Wing screws

SPECIFICATION

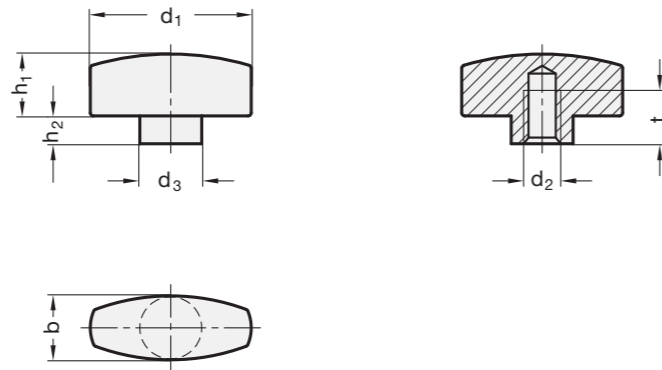
Stainless Steel AISI CF-8 (Precision casting)
matt shot-blasted **MT**



Stainless Steel-Wing nuts

SPECIFICATION

Stainless Steel AISI CF-8 (Precision casting)
matt shot-blasted **MT**



GN 433 STAINLESS STEEL

Description	d1	d2	l	d3	b	h1	h2	⚖️
GN 433-26-M5-10-MT	26	M 5	10	10	11	10	4.5	20
GN 433-26-M5-16-MT	26	M 5	16	10	11	10	4.5	22
GN 433-26-M6-16-MT	26	M 6	16	10	11	10	4.5	23
GN 433-26-M6-20-MT	26	M 6	20	10	11	10	4.5	24
GN 433-26-M6-25-MT	26	M 6	25	10	11	10	4.5	25
GN 433-34-M6-20-MT	34	M 6	20	12	13	12	5	41
GN 433-34-M6-25-MT	34	M 6	25	12	13	12	5	42
GN 433-34-M6-30-MT	34	M 6	30	12	13	12	5	44
GN 433-34-M8-16-MT	34	M 8	16	12	13	12	5	42
GN 433-34-M8-20-MT	34	M 8	20	12	13	12	5	43
GN 433-34-M8-30-MT	34	M 8	30	12	13	12	5	48

GN 434 STAINLESS STEEL

Description	d1	d2	d3	b	h1	h2	t min.	⚖️
GN 434-26-M4-MT	26	M 4	10	11	10	4.5	7	19
GN 434-26-M5-MT	26	M 5	10	11	10	4.5	8	20
GN 434-26-M6-MT	26	M 6	10	11	10	4.5	8	18
GN 434-34-M6-MT	34	M 6	12	13	12	5	10	34
GN 434-34-M8-MT	34	M 8	12	13	12	5	9	32

RoHS
WEEE



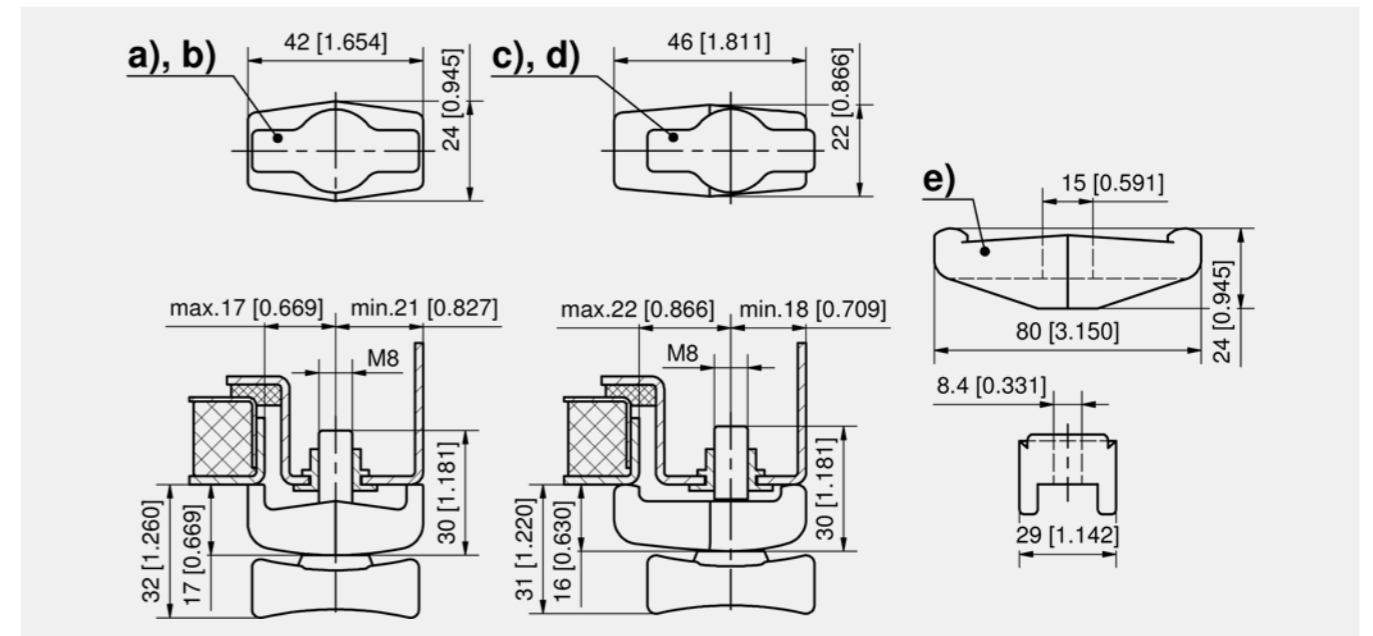
Advantages

- Application in air conditioning technology.
- b) and d) captive by o-ring.

Materials

- Bridge clamp:** PA, black
- Tommy screw:** PA, black / steel, zinc plated

Latches



Bridge clamp

	Part Number	Variant	Version	Installation type	Delivery Unit
a)	214-9002.00-00000	symmetrical with tommy screw M8		screw-on	10 pcs.
b)	214-9002.00-00001	symmetrical with tommy screw M8	captive	screw-on	10 pcs.
c)	214-9003.00-00000	asymmetrical with tommy screw M8		screw-on	10 pcs.
d)	214-9003.00-00001	asymmetrical with tommy screw M8	captive	screw-on	10 pcs.
e)	214-0103.03-00000	symmetrical and reinforced for clamping two doors	for cylinder head screw M8	screw-on	10 pcs.

