

# CONTROL HANDWHEELS

CONTROL HANDWHEELS



# BOTECA<sup>®</sup>

ALL PURPOSE HANDGRIPS



# ART. D205

## TWO SPOKE CONTROL HANDWHEEL

### MATERIAL:

Reinforced and stabilised polyamide.  
Oils and greases resistant.

### SURFACE:

Satin.

### HANDWHEEL COLOUR:

Black (RAL 9011).

### CENTRAL CAP:

Grey polyamide (RAL 7035 code 13).

### ALTERNATIVE CAP COLOUR:

Orange (RAL 2004 code 02).

Blue (RAL 5015 code 07).

Yellow (RAL 1021 code 10).

Red (RAL 3000 code 16).

Green (RAL 6024 code 17).

Black (RAL 9011 code 01).

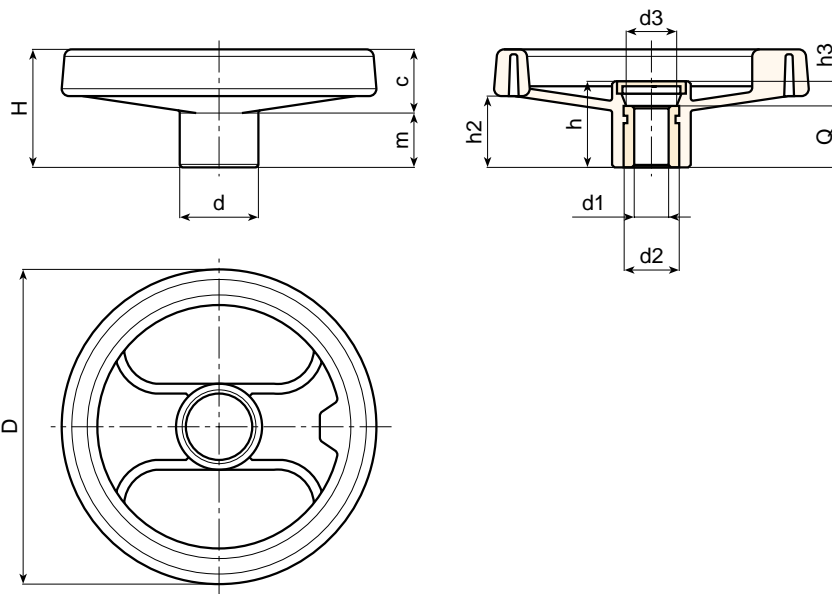
### MAIN INSERT:

Zinc plated steel right through bored bush  
with H7 tolerance.

### HUB:

Solid hub.

(\*) Hollow underneath hub.



For fixing systems, or execution of tabs  
or square holes, please refer to the technical notes  
attached to the catalogue.

### SPECIAL REQUESTS:

- It is possible to supply the inserts with d1 diameter by customer design, on request and for quantities.
- It is possible to supply the inserts with threaded d1 diameter, on request and for quantities.
- It is possible to supply the inserts in different materials, on request and for quantities.
- It is possible to supply the inserts with different treatment-finishes, on request and for quantities.
- It is possible to supply the complete handwheels with colours as shown in the table at page 19, on request and for quantities.



Art.	D	H	h	d	m	c	h2	h3	d3	d1 H7	Q	dm	Weight (gr)
D205-80 D05	80	34	26	24,5	16	18	20	6	16	5 H9	20	12	94
D205-80 D10	80	34	26	24,5	16	18	20	6	16	10	20	12	92
D205-100 D05	99	43	33	28	20	23	26,5	9	16	5 H9	24	16	152
D205-100 D10	99	43	33	28	20	23	26,5	9	16	10	24	16	150
D205-130 D05	129	50	36	32	21	29	32	12	26	5 H9	24	18	240
D205-130 D12	129	50	36	32	21	29	32	12	26	12	24	18	237
D205-160 D05	159	57	40,5	40	22	35	34	8,5	26	5 H9	32	22	390
D205-160 D14	159	57	40,5	40	22	35	34	8,5	26	14	32	22	385
D205-200 D05	198	61,5	39,5	51	17,5	44	33	7,5	26	(*) 5 H9	32	22	630
D205-200 D16	198	61,5	39,5	51	17,5	44	33	7,5	26	(*) 16	32	22	624
D205-250 D05	252	70	47	55,5	24	46	39	11	24	(*) 5 H9	36	28	920
D205-250 D20	252	70	47	55,5	24	46	39	11	24	(*) 20	36	28	910
D205-350 D05	346	80	49,5	67,5	24	56	43,5	17,5	35	(*) 5 H9	32	30	1530
D205-350 D20	346	80	49,5	67,5	24	56	43,5	17,5	35	(*) 20	32	30	1520

It's possible to increase the hole, by boring, until dm.



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# ART. D206

## TWO SPOKE CONTROL HANDWHEEL WITH REVOLVING HANDLE

### MATERIAL:

Reinforced and stabilised polyamide.  
Oils and greases resistant.

### SURFACE:

Satin.

### HANDWHEEL AND HANDLE COLOUR:

Black (RAL 9011).

### CENTRAL CAP:

Grey polyamide (RAL 7035 code 13).

### ALTERNATIVE CAP COLOUR:

Orange (RAL 2004 code 02).

Blue (RAL 5015 code 07).

Yellow (RAL 1021 code 10).

Red (RAL 3000 code 16).

Green (RAL 6024 code 17).

Black (RAL 9011 code 01).

### MAIN INSERT:

Zinc plated steel right through bored bush  
with H7 tolerance.

### SIDE INSERT:

Brass right through threaded bush.

(+) Black-oxide treated steel insert with hexagonal  
threaded through hole. Fixed with black-oxide  
treated hexagon socket button head screw  
ISO 7838.

### SIDE HANDLE:

Revolving handle Art. M144 (see chapter M on page 6).

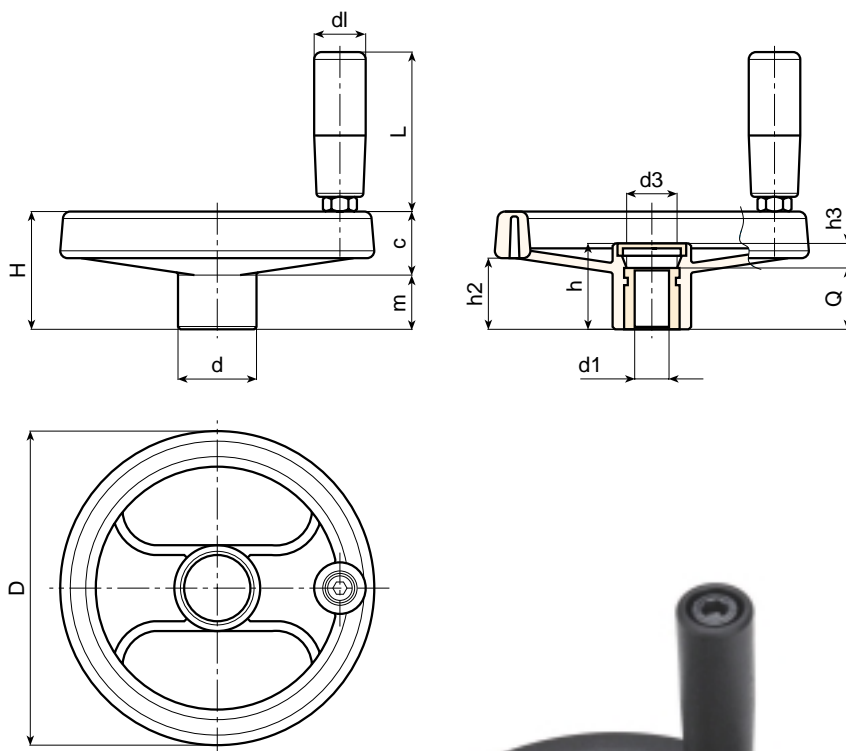
### HUB:

Solid hub. (\*) Hollow underneath hub.

For fixing systems, or execution of tabs or square holes,  
please refer to the technical notes attached to the catalogue.

### SPECIAL REQUESTS:

- It is possible to supply the inserts with d1 diameter by customer design, on request and for quantities.
- It is possible to supply the inserts with threaded d1 diameter, on request and for quantities.
- It is possible to supply the inserts in different materials, on request and for quantities.
- It is possible to supply the inserts with different treatment-finishes, on request and for quantities.
- It is possible to supply the complete handwheels with colours as shown in the table at page 19, on request and for quantities.



Art.	D	H	h	d	m	c	h2	h3	d3	d1 H7	Q	dm	dl	L	Weight (gr)
D206-80 D05	80	34	26	24,5	16	18	20	6	16	5 H9	20	12	20	56	125
D206-80 D10	80	34	26	24,5	16	18	20	6	16	10	20	12	20	56	124
D206-100 D05	99	43	33	28	20	23	26,5	9	16	5 H9	24	16	20	56	182
D206-100 D10	99	43	33	28	20	23	26,5	9	16	10	24	16	20	56	180
D206-130 D05	129	50	36	32	21	29	32	12	26	5 H9	24	18	21	65	296
D206-130 D12	129	50	36	32	21	29	32	12	26	12	24	18	21	65	293
D206-160 D05	159	57	40,5	40	22	35	34	8,5	26	5 H9	32	22	23	76	458
D206-160 D14	159	57	40,5	40	22	35	34	8,5	26	14	32	22	23	76	453
D206-200 D05	198	61,5	39,5	51	17,5	44	33	7,5	26	(*) 5 H9	32	22	23	76	700
D206-200 D16	198	61,5	39,5	51	17,5	44	33	7,5	26	(*) 16	32	22	23	76	692
D206-250 D05	252	70	47	55,5	24	46	39	11	24	(*) 5 H9	36	28	25	86	1030
D206-250 D20	252	70	47	55,5	24	46	39	11	24	(*) 20	36	28	25	86	1020
D206-350 D05	346	80	49,5	67,5	24	56	43,5	17,5	35	(*)(+) 5 H9	32	30	25	86	1640
D206-350 D20	346	80	49,5	67,5	24	56	43,5	17,5	35	(*)(+) 20	32	30	25	86	1630

It's possible to increase the hole, by boring, until dm.



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## OPTIONS



ART. D209



ART. D210



ART. D211

STANDARD ART. D SERIES



### ART. D209

#### TWO SPOKE CONTROL HANDWHEEL WITH REVOLVING HANDLE M145

Art.	D	d1	L	Weight (gr)	OTHER VALUES
D209-80	80	20	55	126	see table D206
D209-100	99	20	55	185	see table D206
D209-130	129	23	66	314	see table D206
D209-160	159	25	76	467	see table D206
D209-200	198	25	76	712	see table D206
D209-250	252	25	87	1010	see table D206
D209-350	346	25	87	1620	see table D206

**SIDE HANDLE:**

Revolving Handle Art. M145 (see chapter M page 8).

For details of the handwheel see those for art. D206.

### ART. D210

#### TWO SPOKE CONTROL HANDWHEEL WITH REVOLVING HANDLE M129

Art.	D	d1	L	Weight (gr)	OTHER VALUES
D210-80	80	20	56	145	see table D206
D210-100	99	20	56	235	see table D206
D210-130	129	21	65	350	see table D206
D210-160	159	21	76	610	see table D206
D210-200	198	25	76	755	see table D206
D210-250	252	25	87	975	see table D206
D210-350	346	25	87	1630	see table D206

**SIDE HANDLE:**

Revolving Handle Art. M129 (see chapter M page 9).

For details of the handwheel see those for art. D206.

### ART. D211

#### TWO SPOKE CONTROL HANDWHEEL WITH REVOLVING HANDLE "EUROMODEL" M202

Art.	D	d1	L	Weight (gr)	OTHER VALUES
D211-250	252	40	64	1000	see table D206
D211-350	346	40	64	1600	see table D206

**SIDE HANDLE:**

Revolving Handle Art. M202 (see chapter M page 18).

For details of the handwheel see those for art. D206.



### STANDARD ART. D SERIES

#### BASE FOR TWO SPOKE CONTROL HANDWHEEL WITH PROVISION FOR HANDLE

Art.	D	d1	side handle threading	Weight (gr)	OTHER VALUES
D80	80	5 H9	M6	95	see table D206
D100	99	5 H9	M6	150	see table D206
D130	129	5 H9	M8	240	see table D206
D160	159	5 H9	M8	390	see table D206
D200	198	5 H9	M8	640	see table D206
D250	252	5 H9	M10	910	see table D206
D350	346	5 H9	M10	1530	see table D206

This article is recommended for distributors.

For details of the handwheel see those for art. D206.



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## TWO SPOKE CONTROL HANDWHEEL WITH REVOLVING FOLDING HANDLE

### MATERIAL:

Reinforced and stabilised polyamide.  
Oils and greases resistant.

### SURFACE:

Satin.

### HANDWHEEL AND HANDLE COLOUR:

Black (RAL 9011).

### CENTRAL CAP:

Grey polyamide (RAL 7035 code 13).

### ALTERNATIVE CAP COLOUR:

Orange (RAL 2004 code 02).

Blue (RAL 5015 code 07).

Yellow (RAL 1021 code 10).

Red (RAL 3000 code 16).

Green (RAL 6024 code 17).

Black (RAL 9011 code 01).

### MAIN INSERT:

Zinc plated steel right through bored bush  
with H7 tolerance.

### SIDE INSERT:

Brass right through threaded bush.

(+) Black-oxide treated steel insert with hexagonal  
threaded through hole. Fixed with black-oxide  
treated hexagon socket button head screw ISO 7838.

### SIDE HANDLE:

Revolving handle and folding Art. M136  
(see chapter M on page 10).

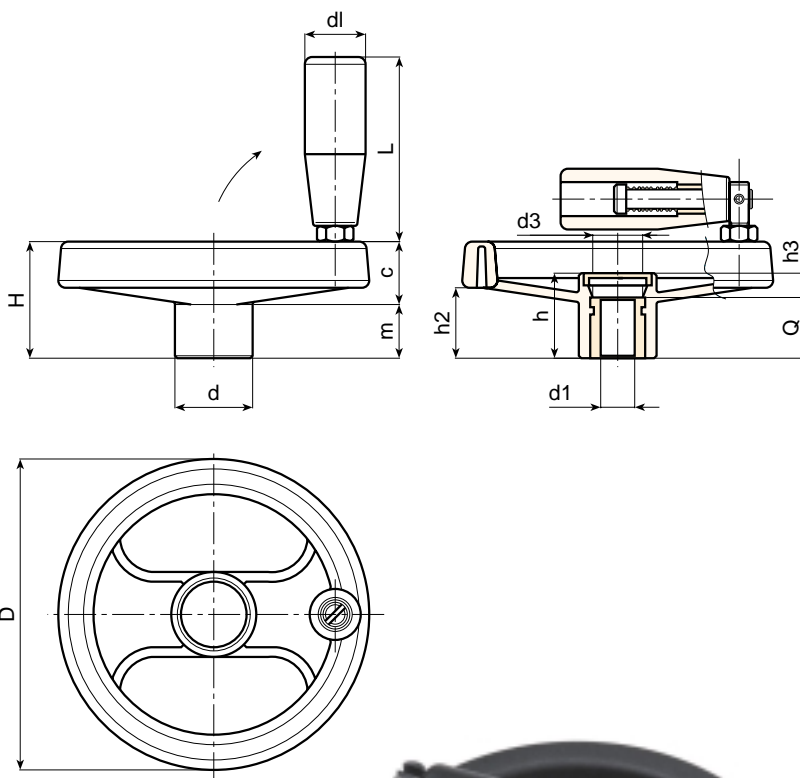
### HUB:

Solid hub. (\*) Hollow underneath hub.

For fixing systems, or execution of tabs or square holes,  
please refer to the technical notes attached to the catalogue.

### SPECIAL REQUESTS:

- It is possible to supply the inserts with d1 diameter by customer design, on request and for quantities.
- It is possible to supply the inserts with threaded d1 diameter, on request and for quantities.
- It is possible to supply the inserts in different materials, on request and for quantities.
- It is possible to supply the inserts with different treatment-finishes, on request and for quantities.
- It is possible to supply the complete handwheels with colours as shown in the table at page 19, on request and for quantities.



Art.	D	H	h	d	m	c	h2	h3	d3	d1 H7	Q	dm	dl	L	Weight (gr)
D208-80 D05	80	34	26	24,5	16	18	20	6	16	5 H9	20	12	20	56	135
D208-80 D10	80	34	26	24,5	16	18	20	6	16	10	20	12	20	56	134
D208-100 D05	99	43	33	28	20	23	26,5	9	16	5 H9	24	16	20	56	192
D208-100 D10	99	43	33	28	20	23	26,5	9	16	10	24	16	20	56	190
D208-130 D05	129	50	36	32	21	29	32	12	26	5 H9	24	18	25	76	311
D208-130 D12	129	50	36	32	21	29	32	12	26	12	24	18	25	76	308
D208-160 D05	159	57	40,5	40	22	35	34	8,5	26	5 H9	32	22	25	76	460
D208-160 D14	159	57	40,5	40	22	35	34	8,5	26	14	32	22	25	76	455
D208-200 D05	198	61,5	39,5	51	17,5	44	33	7,5	26	(*) 5 H9	32	22	25	76	704
D208-200 D16	198	61,5	39,5	51	17,5	44	33	7,5	26	(*) 16	32	22	25	76	676
D208-250 D05	252	70	47	55,5	24	46	39	11	24	(*) 5 H9	36	28	26	97	1080
D208-250 D20	252	70	47	55,5	24	46	39	11	24	(*) 20	36	28	26	97	1070
D208-350 D05	346	80	49,5	67,5	24	56	43,5	17,5	35	(*)(+) 5 H9	32	30	26	97	1690
D208-350 D20	346	80	49,5	67,5	24	56	43,5	17,5	35	(*)(+) 20	32	30	26	97	1680

It's possible to increase the hole, by boring, until dm.



# ART. D207

## TWO SPOKE CONTROL HANDWHEEL WITH FOLDAWAY REVOLVING HANDLE

**MATERIAL:**

Reinforced and stabilised polyamide.  
Oils and greases resistant.

**SURFACE:**

Satin.

**HANDWHEEL AND HANDLE COLOUR:**

Black (RAL 9011).

**CENTRAL CAP:**

Grey polyamide (RAL 7035 code 13).

**ALTERNATIVE CAP COLOUR:**

- Orange (RAL 2004 code 02).
- Blue (RAL 5015 code 07).
- Yellow (RAL 1021 code 10).
- Red (RAL 3000 code 16).
- Green (RAL 6024 code 17).
- Black (RAL 9011 code 01).

**MAIN INSERT:**

Zinc plated steel right through bored bush with H7 tolerance.

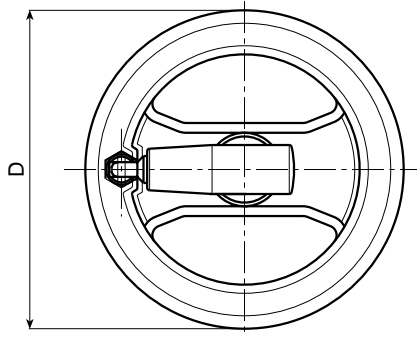
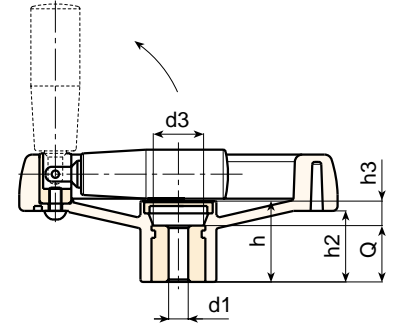
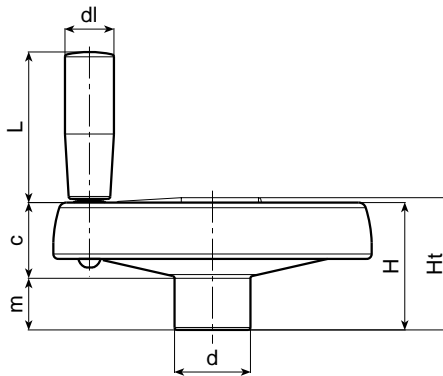
**SIDE HANDLE:**

Flush, foldaway revolving handle, with hexagonal connection. Reinforced polyamide. Black-oxide treated internal mechanism. Fixed with black-oxide treated hexagon socket button head screw ISO 7838.

**HUB:**

Solid hub.

For fixing systems, or execution of tabs or square holes, please refer to the technical notes attached to the catalogue.



**SPECIAL REQUESTS:**

- It is possible to supply the inserts with d1 diameter by customer design, on request and for quantities.
- It is possible to supply the inserts with threaded d1 diameter, on request and for quantities.
- It is possible to supply the inserts in different materials, on request and for quantities.
- It is possible to supply the inserts with different treatment-finishes, on request and for quantities.
- It is possible to supply the complete handwheels with colours as shown in the table at page 19, on request and for quantities.

Art.	D	H	Ht	h	d	m	c	h2	h3	d3	d1 H7	Q	dm	dl	L	Weight (gr)
D207-130 D05	129	53	55	32	32	22	31	30	12	26	5 H9	20	18	20	58	300
D207-130 D12	129	53	55	32	32	22	31	30	12	26	12	20	18	20	58	297
D207-160 D05	159	55	59	33,5	40	20,5	34,5	31	9,5	26	5 H9	24	22	25	71	450
D207-160 D14	159	55	59	33,5	40	20,5	34,5	31	9,5	26	14	24	22	25	71	445
D207-350 D05	346	80	86	49,5	67,5	24	56	43,5	17,5	35	5 H9	32	30	40	64	1650
D207-350 D20	346	80	86	49,5	67,5	24	56	43,5	17,5	35	20	32	30	40	64	1640

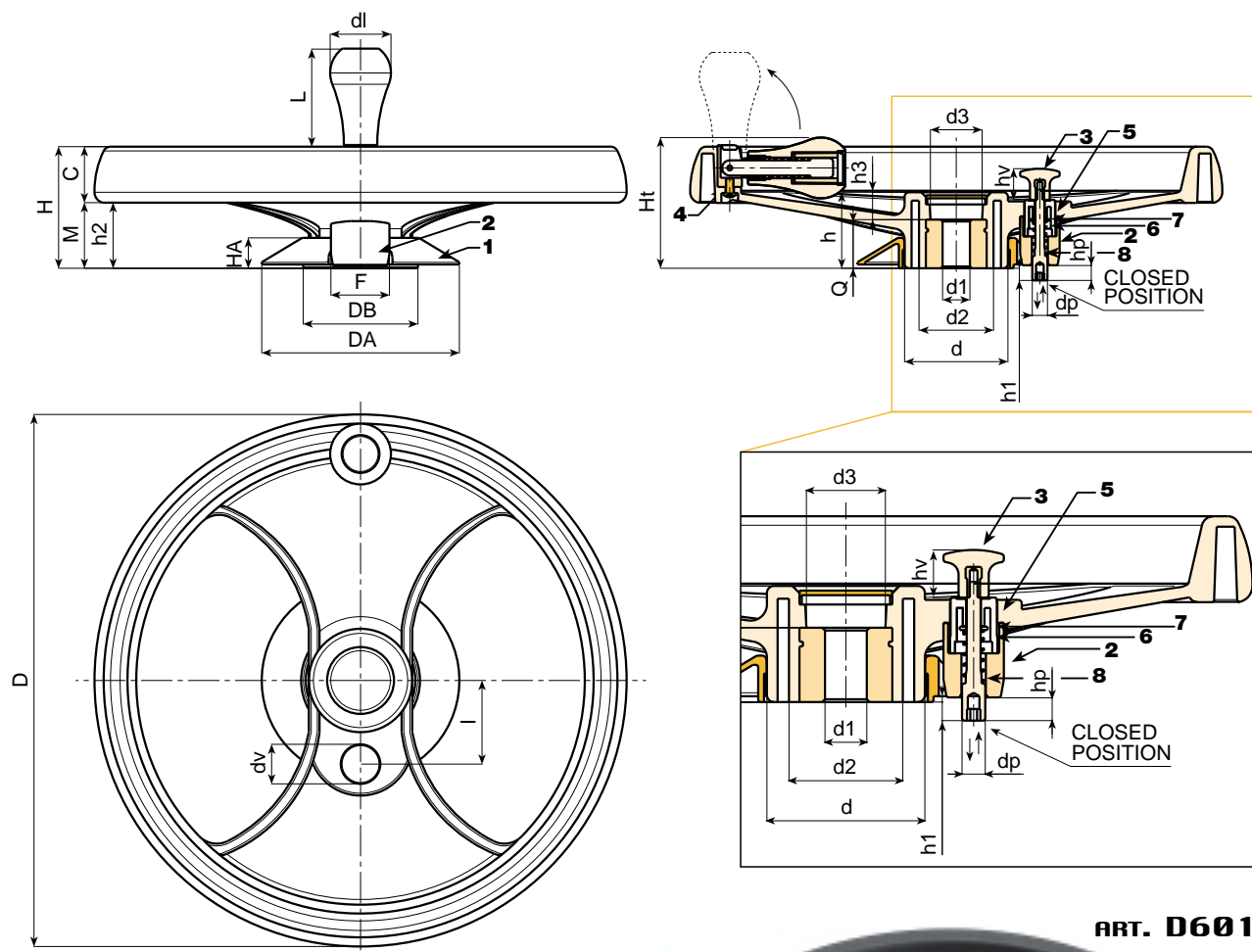
It's possible to increase the hole, by boring, until **dm**.



**BOTECO**

# ART. D601

## TWO-SPOKE CONTROL HANDWHEEL WITH REVOLVING FOLDING HANDLE AND LOCKING PISTON



ART. D601



This type of product is an evolution of our traditional handwheel D207-350. By simply adding a special assembly kit this product can be adapted for use in a special market sector: that of compact shelving (sliding storage systems on rails). This handgrip is suitable for handling shelving on rails. A locking device or piston is used to lock, stop, position the shelving units in specific positions.

Art.	D	H	Ht	h	d	M	C	h2	h3	d2	d3	Q	dm	dl	L	Weight (gr)
D601-350	346	80	86	49,5	67,5	24	56	43,5	17,5	49	35	32	30	40	64	1800

Art.	l	dv	hv	h1	dp	hp	DA	HA	DB	F
D601-350	55	26	21	8	10	10	131	20	76	38

d1 = On request.

It's possible to increase the hole, by boring, until dm.



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# ART. D602

## TWO-SPOKE CONTROL HANDWHEEL WITH REVOLVING FOLDING HANDLE AND LOCKING PISTON

### MATERIAL:

Reinforced and stabilised polyamide.  
Oils and greases resistant.

### SURFACE:

Satin.

### COMPLETE HANDWHEEL COLOUR:

Black (RAL 9011).

### CENTRAL CAP:

Grey polyamide (RAL 7035 code 13).

### ALTERNATIVE CAP COLOUR:

Orange (RAL 2004 code 02).

Blue (RAL 5015 code 07).

Yellow (RAL 1021 code 10).

Red (RAL 3000 code 16).

Green (RAL 6024 code 17).

Black (RAL 9011 code 01).

### LOCKING PISTON KIT:

(1) PA6+GF hole cover ring. Black (RAL 9011). Push-fit assembly. Removable.

(2) PA6+GF piston holder. Black (RAL 9011). Assembly by means of two self-tapping, galvanised steel screws, screwdriver head 3.5x30.

(3) PA6+GF gear stick d. 26 with M4 brass female threaded insert and positioning brackets. Black (RAL 9011).

(5) PA6+GF gear stick support with positioner. Black (RAL 9011).

(6) Galvanised steel return spring.

(7) Galvanised steel washer.

(8) Galvanised steel locking piston. Seat for Allen wrench no. 5 for fastening. Piston stroke 10 mm. Useful projection from handwheel 8 mm.

### INSERTS:

(1) Customised galvanised steel through-hole insert.

(4) Black-oxide treated hexagon socket button head screw ISO 7838 for fastening handle.

(9) (art. D602) Black-oxide treated steel insert with hexagonal threaded through-hole.

### SIDE HANDLE:

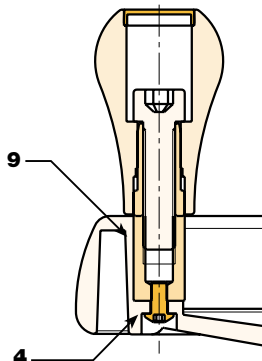
(art. D601) Flush, foldaway revolving handle, with hexagonal connection. Made from reinforced polyamide (shape same as art. M202). Black-oxide treated internal mechanism. Fixing by means of black-oxide treated hexagon socket button head screw ISO 7838. Grey polyamide push fit cap (RAL 7035 code 13).

(art. D602) Revolving handle Art. M202 (see Chapter M on page 18).

For fixing systems, or execution of tabs or square holes, please refer to the technical notes attached to the catalogue.

### SPECIAL REQUESTS:

- It is possible to supply the inserts in different materials, on request and for quantities.
- It is possible to supply the inserts with different treatment-finishes, on request and for quantities.



Locking piston kit



ART. D602

Art.	D	H	Ht	h	d	M	C	h2	h3	d2	d3	Q	dm	dl	L	Weight (gr)
D602-350	346	80	86	49,5	67,5	24	56	43,5	17,5	49	35	32	30	40	64	1800

Art.	l	dv	hv	h1	dp	hp	DA	HA	DB	F
D602-350	55	26	21	8	10	10	131	20	76	38

d1 = On request.

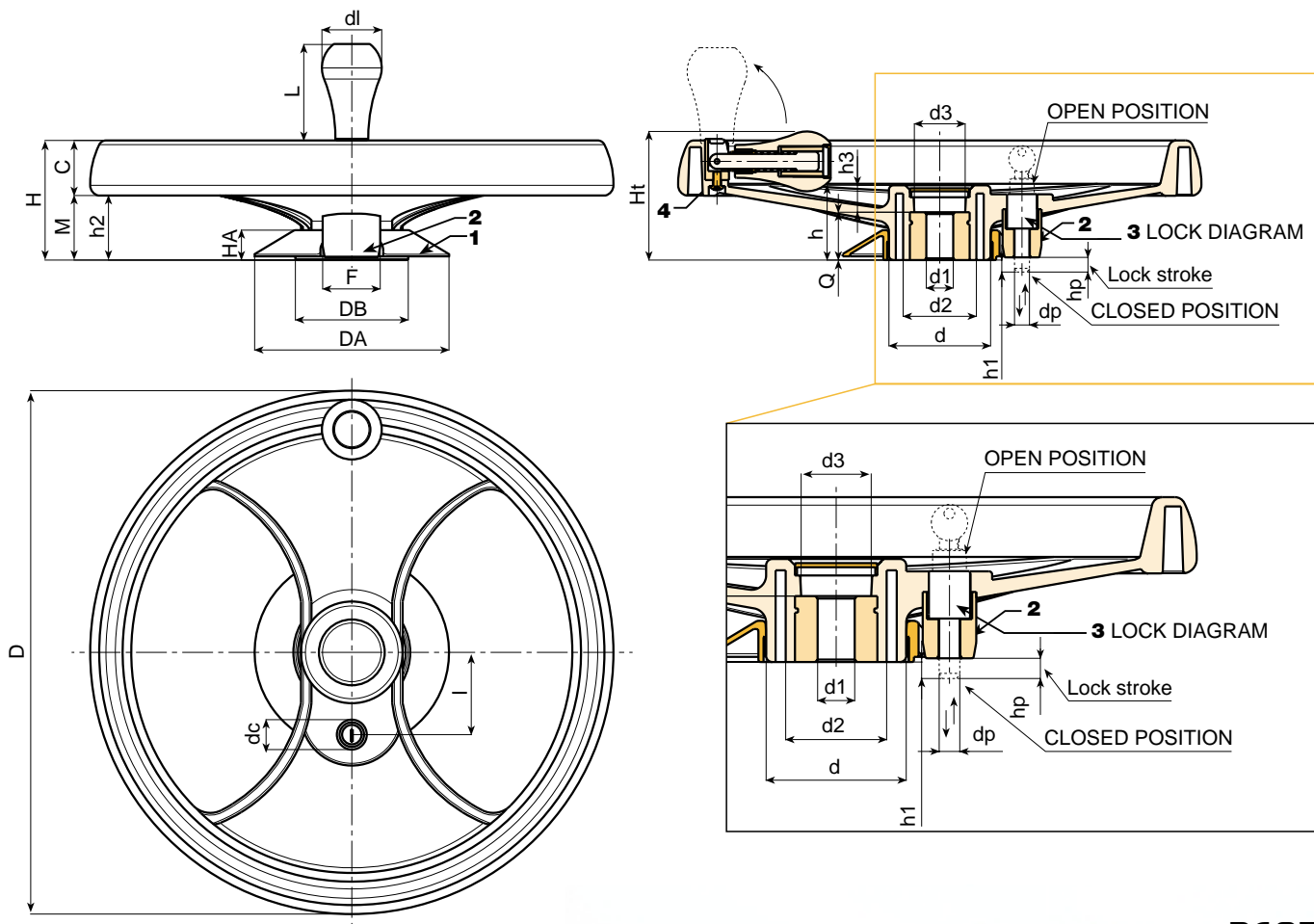
It's possible to increase the hole, by boring, until dm.



BOTECA

# ART. D603

## TWO-SPOKE CONTROL HANDWHEEL WITH REVOLVING FOLDING HANDLE AND LOCK



ART. D603



This type of product is an evolution of our traditional handwheel D207-350. By simply adding a special assembly kit this product can be adapted for use in a special market sector: that of compact shelving (sliding storage systems on rails). This handgrip is suitable for handling shelving on rails. A locking device or piston is used to lock, stop, position the shelving units in specific positions.

Art.	D	H	Ht	h	d	M	C	h2	h3	d2	d3	Q	dm	dl	L	Weight (gr)
D603-350	346	80	86	49,5	67,5	24	56	43,5	17,5	49	35	32	30	40	64	1800

Art.	l	dc	h1	dp	hp	DA	HA	DB	F
D603-350	55	20	8	10	10	131	20	76	38

d1 = On request.

It's possible to increase the hole, by boring, until dm.



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# ART. D604

## TWO-SPOKE CONTROL HANDWHEEL WITH REVOLVING HANDLE AND LOCK

### MATERIAL:

Reinforced and stabilised polyamide.  
Oils and greases resistant.

### SURFACE:

Satin.

### COMPLETE HANDWHEEL COLOUR:

Black (RAL 9011).

### CENTRAL CAP:

Grey polyamide (RAL 7035 code 13).

### ALTERNATIVE CAP COLOUR:

Orange (RAL 2004 code 02).

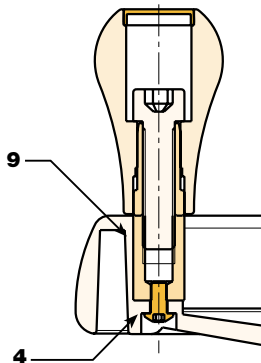
Blue (RAL 5015 code 07).

Yellow (RAL 1021 code 10).

Red (RAL 3000 code 16).

Green (RAL 6024 code 17).

Black (RAL 9011 code 01).



### CLAMPING LOCK KIT:

- (1) PA6+GF hole cover ring. Black (RAL 9011). Push-fit assembly. Removable.
- (2) PA6+GF piston holder. Black (RAL 9011). Assembly by means of two self-tapping, galvanised steel screws, screwdriver head 3.5x30.
- (3) Nickel plated lock. Two numbered keys provided. Key can be removed from either position. To close handwheel push and turn the key 90°. Lock stroke 10 mm. Useful projection of pin from handwheel 8 mm. Keys supplied secured to the handwheel rim.

### INSERTS:

- (1) Customised galvanised steel through-hole insert.
- (4) Black-oxide treated hexagon socket button head screw ISO 7838 for fastening handle.
- (9) (art. D604) Black-oxide treated steel insert with hexagonal threaded through-hole.

### SIDE HANDLE:

- (art. D603) Flush, foldaway revolving handle, with hexagonal connection. Made from reinforced polyamide (shape same as art. M202). Black-oxide treated internal mechanism. Fixing by means of black-oxide treated hexagon socket button head screw ISO 7838. Grey polyamide push fit cap (RAL 7035 code 13).

(art. D604) Revolving handle Art. M202 (see Chapter M on page 18).

For fixing systems, or execution of tabs or square holes, please refer to the technical notes attached to the catalogue.

### SPECIAL REQUESTS:

- It is possible to supply the inserts in different materials, on request and for quantities.
- It is possible to supply the inserts with different treatment-finishes, on request and for quantities.



Clamping lock kit



ART. D604

Art.	D	H	Ht	h	d	M	C	h2	h3	d2	d3	Q	dm	dl	L	Weight (gr)
D604-350	346	80	86	49,5	67,5	24	56	43,5	17,5	49	35	32	30	40	64	1800

Art.	l	dc	h1	dp	hp	DA	HA	DB	F
D604-350	55	20	8	10	10	131	20	76	38

d1 = On request.

It's possible to increase the hole, by boring, until dm.



BOTECO

# ART. D454

## “EUROMODEL” FOUR ARM CONTROL HANDWHEEL

### MATERIAL:

Special high resistance glass fiber reinforced technopolymer.  
Oils and greases resistant.

### SURFACE:

Satin.

### HANDWHEEL COLOUR:

Black (RAL 9011).

### CENTRAL CAP:

Grey polyamide (RAL 7035 code 13).

### ALTERNATIVE CAP COLOUR:

Orange (RAL 2004 code 02).

Blue (RAL 5015 code 07).

Yellow (RAL 1021 code 10).

Red (RAL 3000 code 16).

Green (RAL 6024 code 17).

Black (RAL 9011 code 01).

### MAIN INSERT:

Zinc plated steel right through bored bush with H7 tolerance.

### HUB:

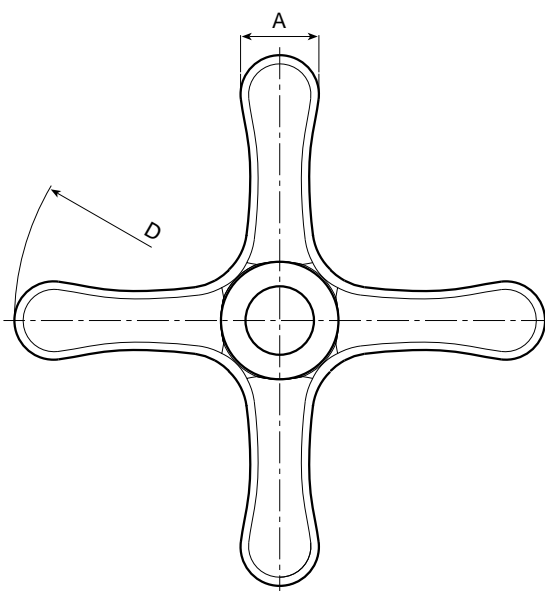
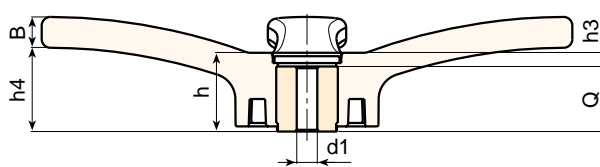
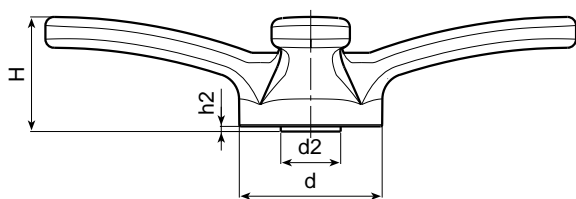
Hollow underneath hub.

For fixing systems, or execution of tabs or square holes, please refer to the technical notes attached to the catalogue.

### SPECIAL REQUESTS:

- It is possible to supply the inserts with d1 diameter by customer design, on request and for quantities.
- It is possible to supply the inserts with threaded d1 diameter, on request and for quantities.
- It is possible to supply the inserts in different materials, on request and for quantities.
- It is possible to supply the inserts with different treatment-finishes, on request and for quantities.

**PROTECTED MODEL**



Art.	D	H	h	d	d2	A	B	h2	h3	h4	d3	d1 H7	Q	dm	Weight (gr)
D454-310 D05	308	66	45,5	83	35,5	45,5	20	3	7,5	46	34	5 H9	38	26	900
D454-310 D18	308	66	45,5	83	35,5	45,5	20	3	7,5	46	34	18	38	26	890

It's possible to increase the hole, by boring, until **dm**.

The range will shortly be extended with additional diameters.



# ART. D214

## THREE ARM CONTROL HANDWHEEL WITH SMOOTH OR THREADED HOLE

### MATERIAL:

Reinforced polyamide.  
Oils and greases resistant.

### SURFACE:

Satin.

### HANDWHEEL COLOUR:

Black (RAL 9011).

### CENTRAL CAP:

Grey polyamide (RAL 7035 code 13).

### ALTERNATIVE CAP COLOUR:

Orange (RAL 2004 code 02).

Blue (RAL 5015 code 07).

Yellow (RAL 1021 code 10).

Red (RAL 3000 code 16).

Green (RAL 6024 code 17).

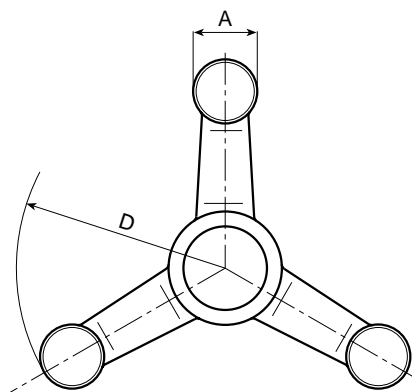
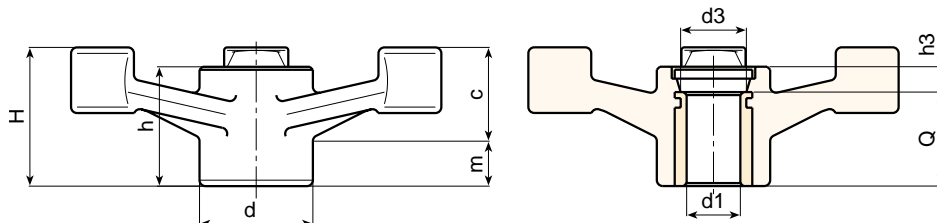
Black (RAL 9011 code 01).

### MAIN INSERT:

**TD Version:** Zinc plated steel right through bored bush with H7 tolerance.

**TM Version:** Zinc plated steel right through threaded bush.

For fixing systems, or execution of tabs or square holes, please refer to the technical notes attached to the catalogue.



### SPECIAL REQUESTS:

- It is possible to supply the inserts with d1 diameter by customer design, on request and for quantities.
- It is possible to supply the inserts with threaded d1 diameter, on request and for quantities.
- It is possible to supply the inserts in different materials, on request and for quantities.
- It is possible to supply the inserts with different treatment-finishes, on request and for quantities.
- It is possible to supply the complete handwheel in orange (RAL 2004 cod. 02), on request and for quantities.

### TD Version with smooth through hole.

Art.	D	H	h	d	m	c	A	h3	d3	d1 H7	Q	dm	Weight (gr)
D214-140 TD05	137	45	39,5	38	19	26	22	7,5	26	5 H9	32	22	200
D214-140 TD12	137	45	39,5	38	19	26	22	7,5	26	12	32	22	195
D214-180 TD05	177	56	42,5	38	20	35	23	10,5	26	5 H9	32	22	280
D214-180 TD18	177	56	42,5	38	20	35	23	10,5	26	18	32	22	270
D214-220 TD05	221	61	46	38	22	39	25	14	26	5 H9	32	22	340
D214-220 TD18	221	61	46	38	22	39	25	14	26	18	32	22	330

It's possible to increase the hole, by boring, until dm.

### TM Version with threaded through hole.

Art.	D	H	h	d	m	c	A	h3	d3	d1	Q	dm	Weight (gr)
D214-140 TM12	137	45	39,5	38	19	26	22	7,5	26	M12	32	22	197
D214-140 TM14	137	45	39,5	38	19	26	22	7,5	26	M14	32	22	195
D214-140 TM16	137	45	39,5	38	19	26	22	7,5	26	M16	32	22	193
D214-180 TM16	177	56	42,5	38	20	35	23	10,5	26	M16	32	22	275
D214-180 TM18	177	56	42,5	38	20	35	23	10,5	26	M18	32	22	270
D214-220 TM14	221	61	46	38	22	39	25	14	26	M14	32	22	335
D214-220 TM16	221	61	46	38	22	39	25	14	26	M16	32	22	333
D214-220 TM18	221	61	46	38	22	39	25	14	26	M18	32	22	330



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# ART. D779

## LIGHTWEIGHT CONTROL HANDWHEEL WITH HANDLE

**MATERIAL:**

Reinforced polyamide.  
Oils and greases resistant.

**SURFACE:**

Satin.

**HANDWHEEL AND HANDLE COLOUR:**

Black (RAL 9011).

**MAIN INSERT:**

Zinc plated steel right through bored bush with H7 tolerance.

**SIDE INSERT:**

Brass right through threaded bush.

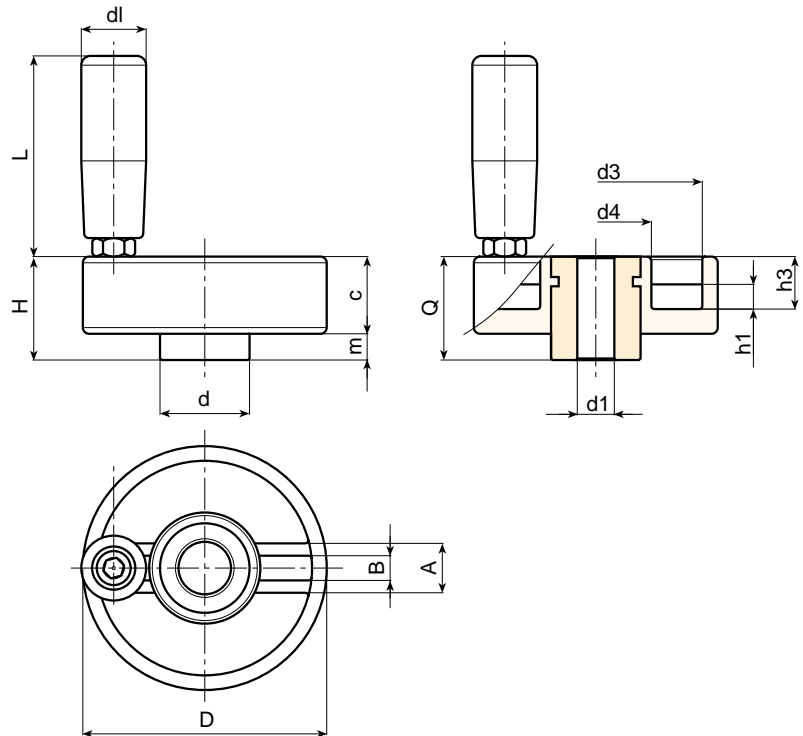
**SIDE HANDLE:**

Revolving handle Art. M144  
(see chapter M on page 6).

For fixing systems, or execution of tabs or square holes, please refer to the technical notes attached to the catalogue.

**SPECIAL REQUESTS:**

- It is possible to supply the inserts with d1 diameter by customer design, on request and for quantities.
- It is possible to supply the inserts in different materials, on request and for quantities.
- It is possible to supply the inserts with different treatment-finishes, on request and for quantities.
- It is possible to supply the complete handwheels with colours as shown in the table at page 19, on request and for quantities.



Art.	D	H	d	c	m	h1	h3	A	B	d3	d4	d1 H7	Q	dm	dl	L	Weight (gr)
D779-80 D05	80	34	29	25	9	8	17	16	7,5	69	36	5 H9	34	20	21	65	285
D779-80 D12	80	34	29	25	9	8	17	16	7,5	69	36	12	34	20	21	65	280

It's possible to increase the hole, by boring, until **dm**.



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# ART. D782

## LIGHTWEIGHT CONTROL HANDWHEEL

**MATERIAL:**

Reinforced polyamide.  
Oils and greases resistant.

**SURFACE:**

Satin.

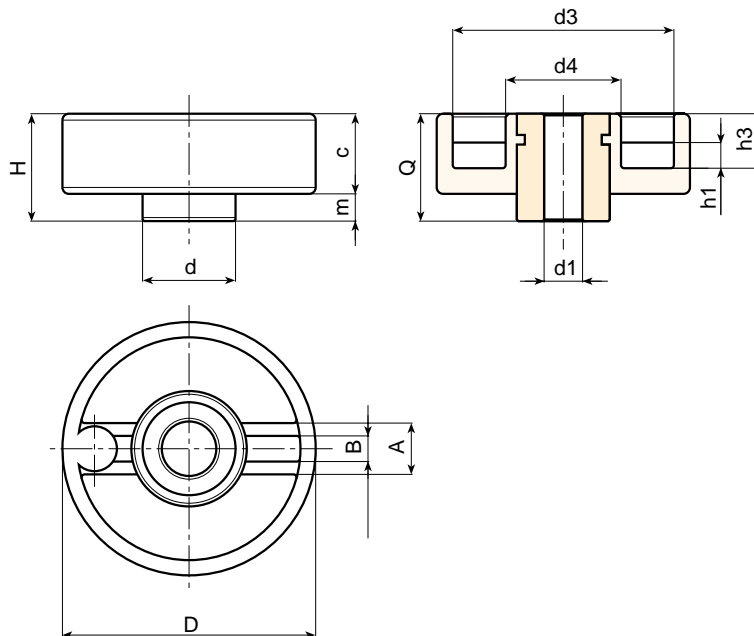
**HANDWHEEL COLOUR:**

Black (RAL 9011).

**MAIN INSERT:**

Zinc plated steel right through bored bush with H7 tolerance.

For fixing systems, or execution of tabs or square holes, please refer to the technical notes attached to the catalogue.



**SPECIAL REQUESTS:**

- It is possible to supply the inserts with d1 diameter by customer design, on request and for quantities.
- It is possible to supply the inserts in different materials, on request and for quantities.
- It is possible to supply the inserts with different treatment-finishes, on request and for quantities.
- It is possible to supply the complete handwheels with colours as shown in the table at page 19, on request and for quantities.



Art.	D	H	d	c	m	h1	h3	A	B	d3	d4	d1 H7	Q	dm	Weight (gr)
D782-80 D05	80	34	29	25	9	8	17	16	7,5	69	36	5 H9	34	20	230
D782-80 D12	80	34	29	25	9	8	17	16	7,5	69	36	12	34	20	227

It's possible to increase the hole, by boring, until dm.



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# ART. D161

## TAPERED HANDWHEEL WITH SMOOTH OR THREADED HOLE

### MATERIAL:

Reinforced polyamide.  
Oils and greases resistant.

### SURFACE:

Satin.

### HANDWHEEL COLOUR:

Black (RAL 9011).

### MAIN INSERT:

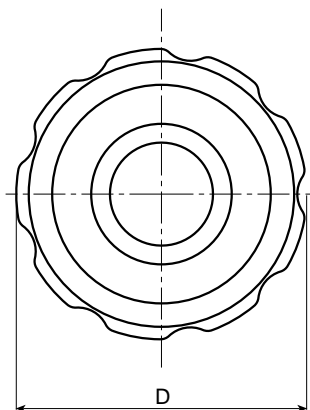
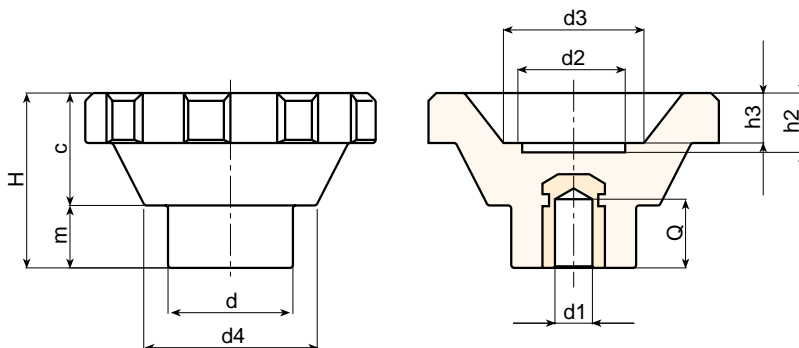
**TD Version:** Zinc plated steel blind bored bush with H7 tolerance.

**TM Version:** Zinc plated steel blind threaded bush.

For fixing systems, or execution of tabs or square holes, please refer to the technical notes attached to the catalogue.

### SPECIAL REQUESTS:

- It is possible to supply the inserts with d1 diameter by customer design, on request and for quantities.
- It is possible to supply the inserts in different materials, on request and for quantities.
- It is possible to supply the inserts with different treatment-finishes, on request and for quantities.



### TD Version with smooth blind hole.

Art.	D	H	d	c	m	d2	d3	d4	h2	h3	d1 H7	Q	dm	Weight (gr)
D161-95 TD05	93	56,5	40	36,5	20	32	45	55,5	20	17	5 H9	27	22	340
D161-95 TD16	93	56,5	40	36,5	20	32	45	55,5	20	17	16	25	22	335

### TM Version with threaded blind hole.

Art.	D	H	d	c	m	d2	d3	d4	h2	h3	d1	Q	Weight (gr)
D161-95 TM12	93	56,5	40	36,5	20	32	45	55,5	20	17	M12	25	338

It's possible to increase the hole, by boring, until dm.



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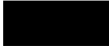


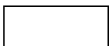









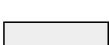















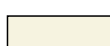


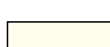



# COLOUR CHART

## R A L

COLOUR		RAL	CODE
Black		9011	01
Orange		2004	02
Orange		2011	03
White		9010	04
Blue		5002	05
Blue		5005	06
Blue		5015	07
Blue		5018	19
Blue		5019	21
Blue		5010	22
Yellow		1007	09
Yellow		1021	10
Grey		7024	12
Grey		7035	13
Red		3000	16
Green		6024	17

## O T H E R C O L O U R S

COLOUR		REF.	CODE
White		-	52
Blue		-	53
Blue		pant. 645 U	54
Blue		pant. 300	55
Grey		-	57
Grey		-	59
Grey		NCS 7500	60
Red		-	64
Red		-	65
Natural		-	66
Green		-	70
Brown		-	71
Cream		-	72
Violet		-	73





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