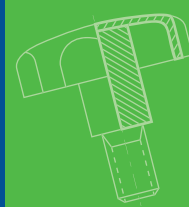


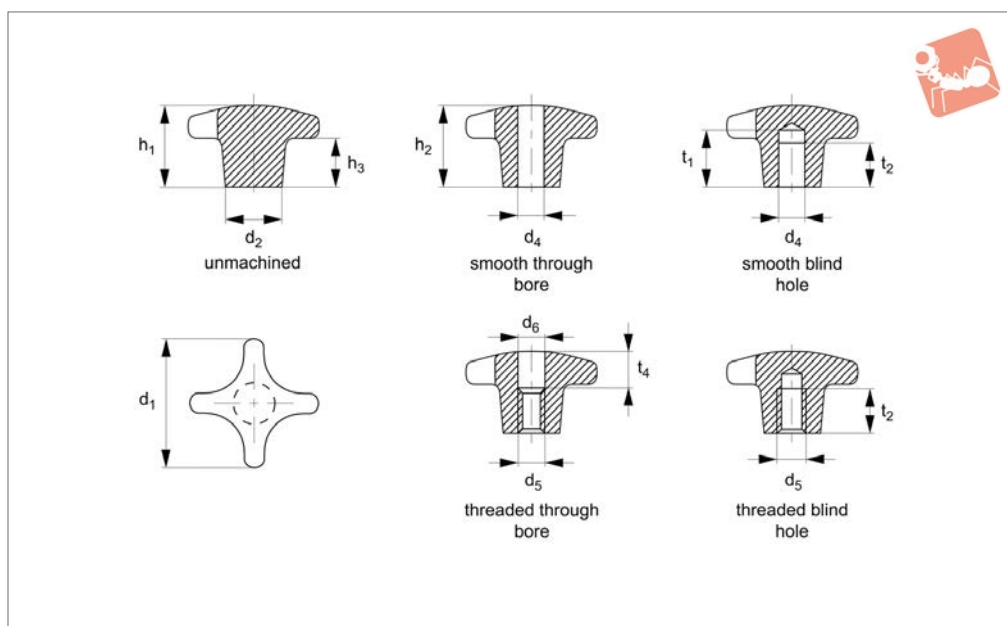


Palm Grips

cast iron - DIN 6335



Grips



70000

GRIPS

Material

Cast iron GG20, bright.

Technical Notes

Sandblasted or tumbled.

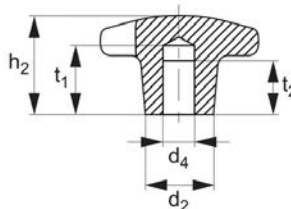
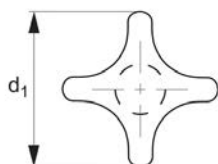
Tips

Grips with different bores or surface treatment can be made to order (min. quantity for specials 200 off).

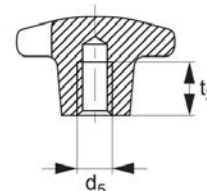
Order No.	Finish	d ₁	d ₂	d ₄ tol. H7	d ₅	d ₆	h ₁	h ₂	h ₃	t ₁	t ₂	t ₄	Weight g
70000.W0032	Unmachined	32	12	-	-	-	21	-	10	-	-	-	38
70000.W0040	Unmachined	40	14	-	-	-	26	-	14	-	-	-	69
70000.W0050	Unmachined	50	18	-	-	-	34	-	20	-	-	-	115
70000.W0063	Unmachined	63	20	-	-	-	42	-	25	-	-	-	228
70000.W0080	Unmachined	80	25	-	-	-	52	-	30	-	-	-	415
70000.W0090	Unmachined	100	32	-	-	-	65	-	38	-	-	-	855
70000.W0132	Smooth, Through	32	12	6	-	-	-	20	-	-	-	-	34
70000.W0140	Smooth, Through	40	14	8	-	-	-	25	-	-	-	-	59
70000.W0150	Smooth, Through	50	18	10	-	-	-	32	-	-	-	-	95
70000.W0163	Smooth, Through	63	20	12	-	-	-	40	-	-	-	-	171
70000.W0180	Smooth, Through	80	25	16	-	-	-	50	-	-	-	-	338
70000.W0190	Smooth, Through	100	32	20	-	-	-	63	-	-	-	-	709
70000.W0232	Smooth, Blind	32	12	6	-	-	-	20	-	15	12	-	36
70000.W0240	Smooth, Blind	40	14	8	-	-	-	25	-	18	15	-	61
70000.W0250	Smooth, Blind	50	18	10	-	-	-	32	-	21	18	-	99
70000.W0263	Smooth, Blind	63	20	12	-	-	-	40	-	25	22	-	200
70000.W0280	Smooth, Blind	80	25	16	-	-	-	50	-	32	28	-	380
70000.W0290	Smooth, Blind	100	32	20	-	-	-	63	-	40	36	-	648
70000.W0332	Threaded, Through	32	12	-	M_6	6.4	-	20	-	-	-	10	34
70000.W0340	Threaded, Through	40	14	-	M_8	8.4	-	25	-	-	-	12	60
70000.W0350	Threaded, Through	50	18	-	M10	10.5	-	32	-	-	-	16	95
70000.W0363	Threaded, Through	63	20	-	M12	13.0	-	40	-	-	-	20	191
70000.W0380	Threaded, Through	80	25	-	M16	17.0	-	50	-	-	-	30	339
70000.W0390	Threaded, Through	100	32	-	M20	21.0	-	63	-	-	-	38	704
70000.W0432	Threaded, Blind	32	12	-	M_6	-	-	20	-	-	12	-	35
70000.W0440	Threaded, Blind	40	14	-	M_8	-	-	25	-	-	15	-	63
70000.W0450	Threaded, Blind	50	18	-	M10	-	-	32	-	-	18	-	103
70000.W0463	Threaded, Blind	63	20	-	M12	-	-	40	-	-	22	-	205
70000.W0480	Threaded, Blind	80	25	-	M16	-	-	50	-	-	28	-	359
70000.W0490	Threaded, Blind	100	32	-	M20	-	-	63	-	-	36	-	720



70020



smooth blind hole



threaded blind hole

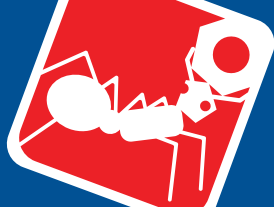
Material

Cast iron GG20, plastic-coated, orange RAL2004 or black RAL9005 dull finish.

Technical Notes

Produced to DIN 6335.

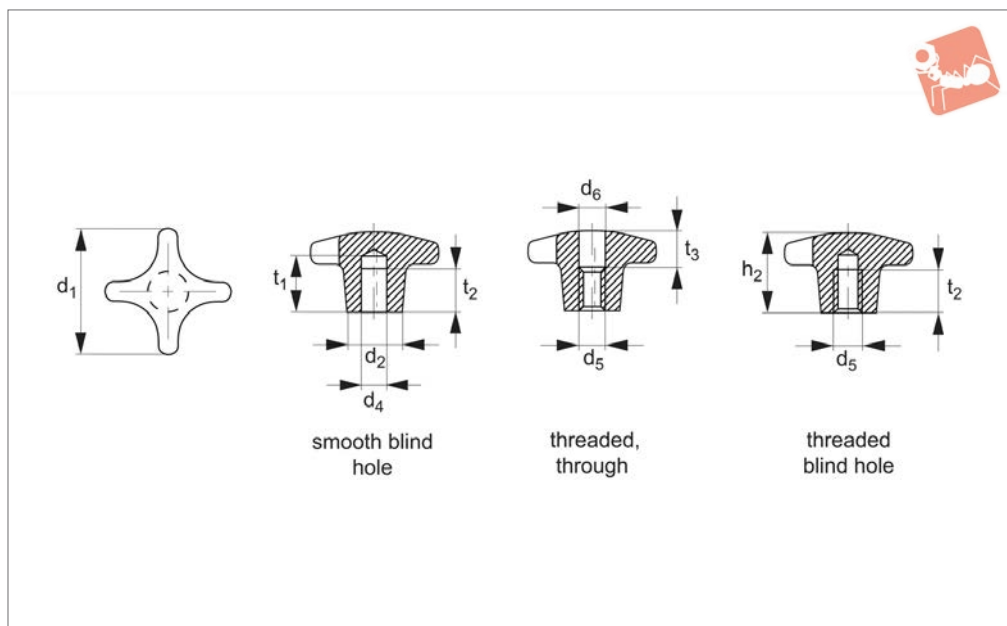
Order No.	Finish	Colour	d ₁	d ₂	d ₄ tol. H7	d ₅	h ₂	t ₁	t ₂	Weight g
70020.W0540	Smooth, Blind	Orange	40	14	8	-	25	18	15	62
70020.W0550	Smooth, Blind	Orange	50	18	10	-	32	21	18	106
70020.W0563	Smooth, Blind	Orange	63	20	12	-	40	25	22	201
70020.W0580	Smooth, Blind	Orange	80	25	16	-	50	32	28	353
70020.W0640	Smooth, Blind	Black	40	14	8	-	25	18	15	62
70020.W0650	Smooth, Blind	Black	50	18	10	-	32	21	18	106
70020.W0663	Smooth, Blind	Black	63	20	12	-	40	25	22	201
70020.W0680	Smooth, Blind	Black	80	25	16	-	50	32	28	353
70020.W0541	Threaded, Blind	Orange	40	14	-	M 8	25	-	15	56
70020.W0551	Threaded, Blind	Orange	50	18	-	M10	32	-	18	110
70020.W0564	Threaded, Blind	Orange	63	20	-	M12	40	-	22	198
70020.W0581	Threaded, Blind	Orange	80	25	-	M16	50	-	28	364
70020.W0641	Threaded, Blind	Black	40	14	-	M 8	25	-	15	56
70020.W0651	Threaded, Blind	Black	50	18	-	M10	32	-	18	110
70020.W0664	Threaded, Blind	Black	63	20	-	M12	40	-	22	198
70020.W0681	Threaded, Blind	Black	80	25	-	M16	50	-	28	364



Palm Grips aluminium



Grips



70040

GRIPS

Material

Light metal aluminium (polished or unpolished).

Tips

Grips with different bores or surface treatment can be made to order (min. quantity for specials 200 off).

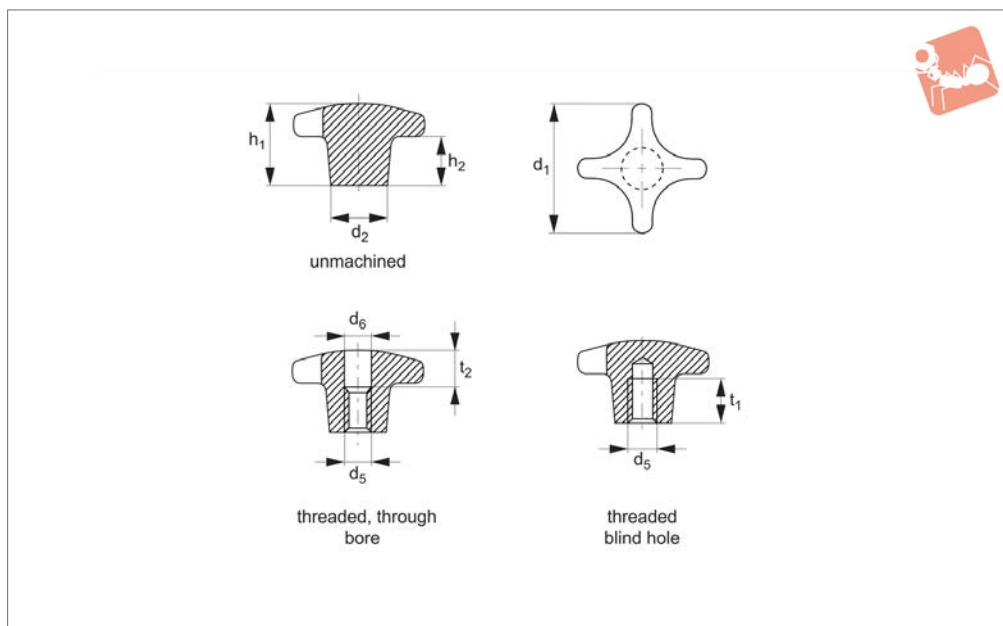
Technical Notes

Produced to DIN 6335.

Order No.	Finish	Type	d ₁	d ₂	d ₄ tol. H7	d ₅	d ₆	h ₂	t ₁	t ₂	t ₃	Weight g
70040.W0240	Unpolished	Smooth, Blind	40	14	8	-	-	25	18	15	-	25
70040.W0250	Unpolished	Smooth, Blind	50	18	10	-	-	32	21	18	-	45
70040.W0263	Unpolished	Smooth, Blind	63	20	12	-	-	40	25	22	-	84
70040.W0280	Unpolished	Smooth, Blind	80	25	16	-	-	50	32	28	-	141
70040.W0440	Unpolished	Threaded, Blind	40	14	-	M 8	-	25	-	15	-	22
70040.W0450	Unpolished	Threaded, Blind	50	18	-	M10	-	32	-	18	-	46
70040.W0463	Unpolished	Threaded, Blind	63	20	-	M12	-	40	-	22	-	86
70040.W0480	Unpolished	Threaded, Blind	80	25	-	M16	-	50	-	28	-	143
70040.W0640	Polished	Smooth, Blind	40	14	8	-	-	25	18	15	-	25
70040.W0650	Polished	Smooth, Blind	50	18	10	-	-	32	21	18	-	45
70040.W0663	Polished	Smooth, Blind	63	20	12	-	-	40	25	22	-	84
70040.W0680	Polished	Smooth, Blind	80	25	16	-	-	50	32	28	-	141
70040.W0840	Polished	Threaded, Blind	40	14	-	M 8	-	25	-	15	-	22
70040.W0850	Polished	Threaded, Blind	50	18	-	M10	-	32	-	18	-	46
70040.W0863	Polished	Threaded, Blind	63	20	-	M12	-	40	-	22	-	86
70040.W0880	Polished	Threaded, Blind	80	25	-	M16	-	50	-	28	-	143
70040.W0340	Unpolished	Threaded, Through	40	14	-	M 8	8.4	25	-	-	12	23
70040.W0350	Unpolished	Threaded, Through	50	18	-	M10	10.5	32	-	-	16	44
70040.W0363	Unpolished	Threaded, Through	63	20	-	M12	13.0	40	-	-	20	70
70040.W0380	Unpolished	Threaded, Through	80	25	-	M16	17.0	50	-	-	30	129
70040.W0740	Polished	Threaded, Through	40	14	-	M 8	8.4	25	-	-	12	23
70040.W0750	Polished	Threaded, Through	50	18	-	M10	10.5	32	-	-	16	44
70040.W0763	Polished	Threaded, Through	63	20	-	M12	13.0	40	-	-	20	70
70040.W0780	Polished	Threaded, Through	80	25	-	M16	17.0	50	-	-	30	129



70042



Material

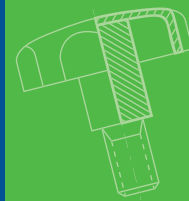
Stainless steel A2 (AISI 304), dull blasted.

Order No.	Finish	d ₁	d ₂	d ₅	d ₆	h ₁	h ₂	t ₁	t ₂	Weight g
70042.W0032	Unmachined	32	12	-	-	21	10	-	-	41
70042.W0040	Unmachined	40	14	-	-	26	14	-	-	70
70042.W0050	Unmachined	50	18	-	-	34	20	-	-	128
70042.W0063	Unmachined	63	20	-	-	42	25	-	-	227
70042.W0332	Threaded, Through	32	12	M 6	6.4	20	-	-	10	36
70042.W0340	Threaded, Through	40	14	M 8	8.4	25	-	-	12	60
70042.W0350	Threaded, Through	50	18	M10	10.5	32	-	-	16	107
70042.W0363	Threaded, Through	63	20	M12	13.0	40	-	-	20	192
70042.W0432	Threaded, Blind	32	12	M 6	-	20	-	12	-	38
70042.W0440	Threaded, Blind	40	14	M 8	-	25	-	15	-	62
70042.W0450	Threaded, Blind	50	18	M10	-	32	-	18	-	114
70042.W0463	Threaded, Blind	63	20	M12	-	40	-	22	-	205

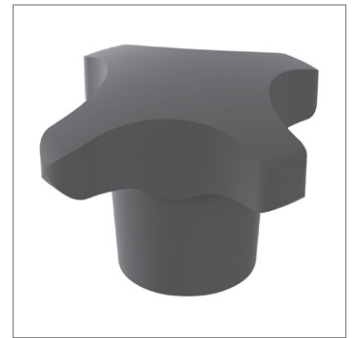
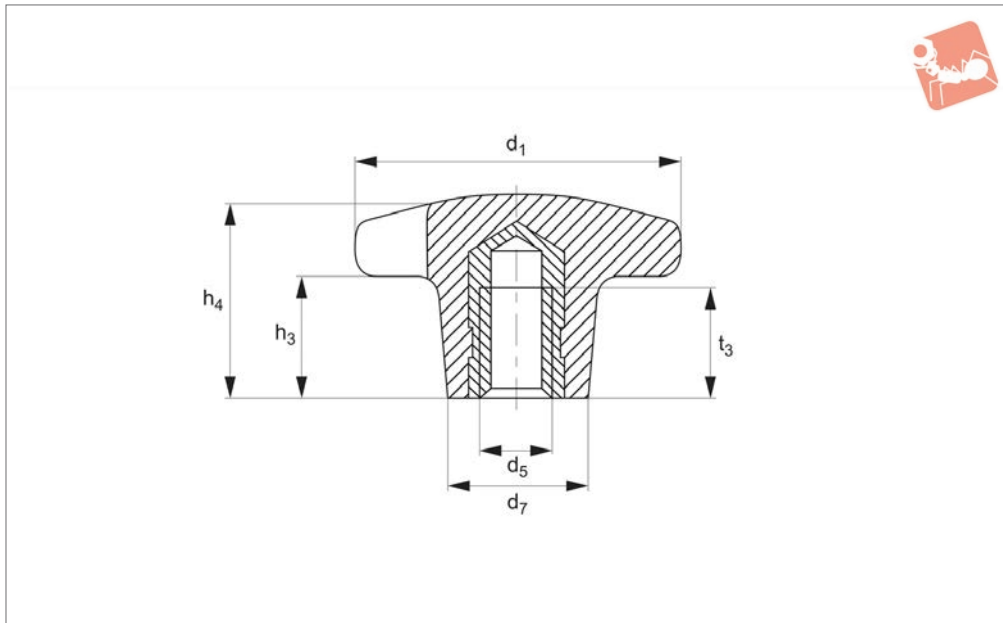


Palm Grips

plastic - DIN 6335



Grips



70060

GRIPS

Material

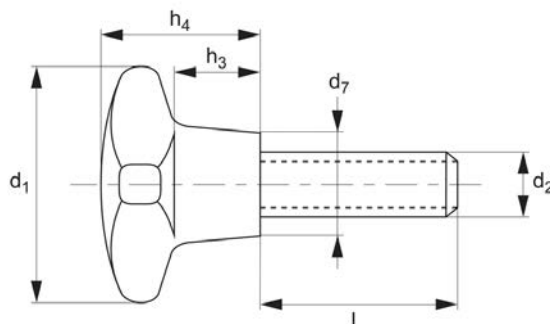
Grip: duroplast PF 31 DIN 7708, black.
Threaded bush: steel, galvanised or stain-

less steel A2.
Temperature range: max 110°C.

Order No.	Finish	d ₁	d ₅	d ₇	h ₃	h ₄	t ₃	Weight g
70060.W0220	Brass	20	M_4	10	6	13	6.5	3.3
70060.W0225	Steel	25	M_5	12	8	16	9.5	7.0
70060.W0232	Steel	32	M_6	14	10	20	12.0	12.0
70060.W0240	Steel	40	M_8	18	13	25	14.0	16.0
70060.W0250	Steel	50	M10	22	20	32	18.0	32.0
70060.W0263	Steel	63	M12	26	25	40	22.0	62.0
70060.W0280	Steel	80	M16	35	30	50	30.0	137.0
70060.W1225	Stainless	25	M_5	12	8	16	9.5	7.0
70060.W1232	Stainless	32	M_6	14	10	20	12.0	12.0
70060.W1240	Stainless	40	M_8	18	13	25	14.0	16.0
70060.W1263	Stainless	63	M12	26	25	40	22.0	62.0
70060.W1280	Stainless	80	M16	35	30	50	30.0	137.0



70080



Material

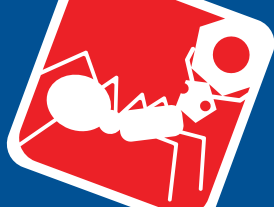
Duroplast PF 31, black.
Grub screw: steel, galvanised or stainless steel A2.

Technical Notes

Produced to DIN 7708.
Special designs e.g. different lengths or grub screws in brass, or stainless steel can

be made to order depending on quantity.
Temperature range up to 110°C.

Order No.	Material	d ₁	d ₂	d ₇	h ₃	h ₄	l ₁	Weight g
70080.W0051	Steel	25	M 5	12	8	16	10	6.7
70080.W0052	Steel	25	M 5	12	8	16	15	7.3
70080.W0053	Steel	25	M 5	12	8	16	20	7.5
70080.W0054	Steel	25	M 5	12	8	16	25	8.1
70080.W0055	Steel	25	M 5	12	8	16	30	8.9
70080.W0061	Steel	32	M 6	14	10	20	15	11.0
70080.W0062	Steel	32	M 6	14	10	20	20	12.0
70080.W0063	Steel	32	M 6	14	10	20	25	15.0
70080.W0064	Steel	32	M 6	14	10	20	30	16.0
70080.W0065	Steel	32	M 6	14	10	20	40	16.0
70080.W0081	Steel	40	M 8	18	13	25	20	24.0
70080.W0082	Steel	40	M 8	18	13	25	25	25.0
70080.W0083	Steel	40	M 8	18	13	25	30	26.0
70080.W0084	Steel	40	M 8	18	13	25	40	30.0
70080.W0085	Steel	40	M 8	18	13	25	50	32.0
70080.W0101	Steel	50	M10	22	20	32	25	41.0
70080.W0102	Steel	50	M10	22	20	32	30	48.0
70080.W0103	Steel	50	M10	22	20	32	40	51.0
70080.W0104	Steel	50	M10	22	20	32	50	56.0
70080.W0105	Steel	50	M10	22	20	32	60	69.0
70080.W0121	Steel	63	M12	26	25	40	30	86.0
70080.W0122	Steel	63	M12	26	25	40	40	93.0
70080.W0123	Steel	63	M12	26	25	40	50	99.0
70080.W0124	Steel	63	M12	26	25	40	60	105.0
70080.W0125	Steel	63	M12	26	25	40	80	112.0
70080.W0161	Steel	80	M16	35	30	50	40	198.0
70080.W0162	Steel	80	M16	35	30	50	50	175.0
70080.W0163	Steel	80	M16	35	30	50	60	219.0
70080.W0164	Steel	80	M16	35	30	50	80	251.0

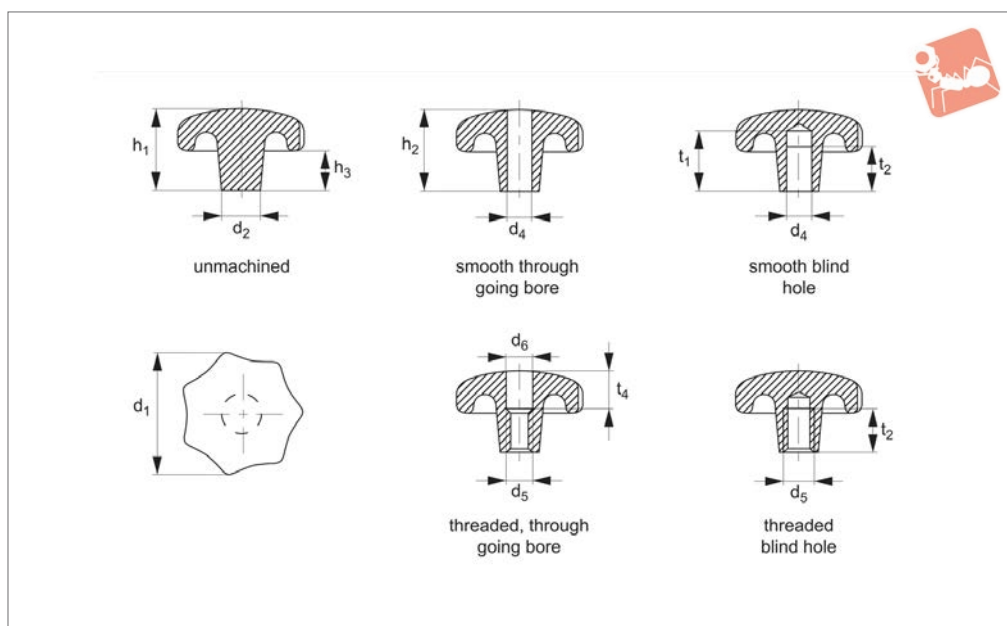


Star Grips

cast iron - DIN 6336



Grips



70100

GRIPS

Material

GG20 cast iron, bright, sand blasted or tumbled.

Technical Notes

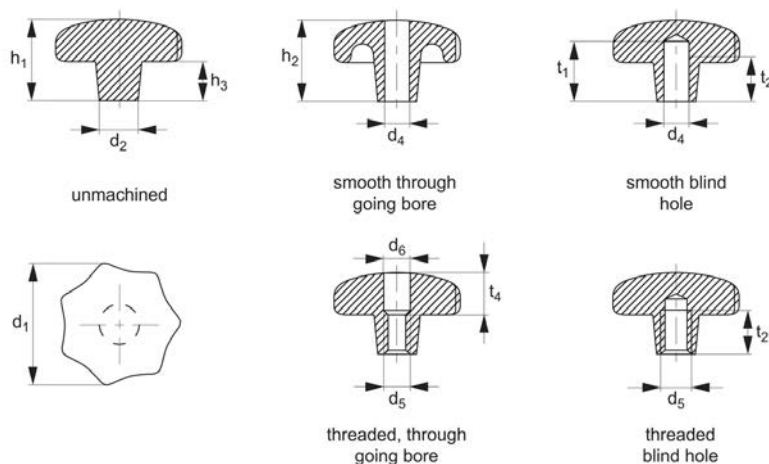
Grips with different bores or surface treatments can be obtained by special order,

(minimum quantity 200 off).

Order No.	Finish	d ₁	d ₂	d ₄ tol. H7	d ₅	d ₆	h ₁	h ₂	h ₃	t ₁	t ₂	t ₄	Weight g
70100.W0032	Unmachined	32	12	-	-	-	21	-	10	-	-	-	55
70100.W0040	Unmachined	40	14	-	-	-	26	-	13	-	-	-	82
70100.W0050	Unmachined	50	18	-	-	-	34	-	17	-	-	-	150
70100.W0063	Unmachined	63	20	-	-	-	42	-	21	-	-	-	260
70100.W0080	Unmachined	80	25	-	-	-	52	-	25	-	-	-	510
70100.W0132	Smooth, Through	32	12	6	-	-	-	20	-	-	-	-	49
70100.W0140	Smooth, Through	40	14	8	-	-	-	25	-	-	-	-	72
70100.W0150	Smooth, Through	50	18	10	-	-	-	32	-	-	-	-	130
70100.W0163	Smooth, Through	63	20	12	-	-	-	40	-	-	-	-	220
70100.W0180	Smooth, Through	80	25	16	-	-	-	50	-	-	-	-	440
70100.W0232	Smooth, Blind	32	12	6	-	-	-	20	-	15	12	-	50
70100.W0240	Smooth, Blind	40	14	8	-	-	-	25	-	18	15	-	74
70100.W0250	Smooth, Blind	50	18	10	-	-	-	32	-	21	18	-	135
70100.W0263	Smooth, Blind	63	20	12	-	-	-	40	-	25	22	-	235
70100.W0280	Smooth, Blind	80	25	16	-	-	-	50	-	32	28	-	460
70100.W0332	Threaded, Through	32	12	-	M_6	6.4	-	20	-	-	-	10	49
70100.W0340	Threaded, Through	40	14	-	M_8	8.4	-	25	-	-	-	12	72
70100.W0350	Threaded, Through	50	18	-	M10	10.5	-	32	-	-	-	16	130
70100.W0363	Threaded, Through	63	20	-	M12	13.0	-	40	-	-	-	20	220
70100.W0380	Threaded, Through	80	25	-	M16	17.0	-	50	-	-	-	30	545
70100.W0432	Threaded, Blind	32	12	-	M_6	-	-	20	-	-	12	-	50
70100.W0440	Threaded, Blind	40	14	-	M_8	-	-	25	-	-	15	-	74
70100.W0450	Threaded, Blind	50	18	-	M10	-	-	32	-	-	18	-	135
70100.W0463	Threaded, Blind	63	20	-	M12	-	-	40	-	-	22	-	235
70100.W0480	Threaded, Blind	80	25	-	M16	-	-	50	-	-	28	-	460



70120

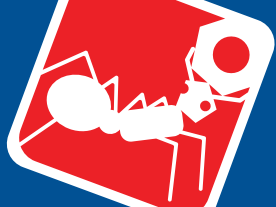
**Material**

Light metal aluminium (polished or unpolished).

Technical Notes

Produced to DIN 6336.

Order No.	Finish	Type	d ₁	d ₂	d ₄ tol. H7	d ₅	d ₆	h ₁	h ₂	h ₃	t ₁	t ₂	t ₄	Weight g
70120.W0040	Unpolished	Unmachined	40	14	-	-	-	26	-	13	-	-	-	36
70120.W0050	Unpolished	Unmachined	50	18	-	-	-	34	-	17	-	-	-	70
70120.W0063	Unpolished	Unmachined	63	20	-	-	-	42	-	21	-	-	-	128
70120.W0080	Unpolished	Unmachined	80	25	-	-	-	52	-	25	-	-	-	245
70120.W0180	Unpolished	Smooth, Through	80	25	16	-	-	-	50	-	-	-	-	200
70120.W0240	Unpolished	Smooth, Blind	40	14	8	-	-	-	25	-	18	15	-	30
70120.W0250	Unpolished	Smooth, Blind	50	18	10	-	-	-	32	-	21	18	-	63
70120.W0263	Unpolished	Smooth, Blind	63	20	12	-	-	-	40	-	25	22	-	117
70120.W0280	Unpolished	Smooth, Blind	80	25	16	-	-	-	50	-	32	28	-	223
70120.W0340	Unpolished	Threaded, Through	40	14	-	M 8	8.4	-	25	-	-	-	12	32
70120.W0350	Unpolished	Threaded, Through	50	18	-	M10	10.5	-	32	-	-	-	16	32
70120.W0363	Unpolished	Threaded, Through	63	20	-	M12	13.0	-	40	-	-	-	20	109
70120.W0380	Unpolished	Threaded, Through	80	25	-	M16	17.0	-	50	-	-	-	30	218
70120.W0440	Unpolished	Threaded, Blind	40	14	-	M 8	-	-	25	-	-	15	-	33
70120.W0450	Unpolished	Threaded, Blind	50	18	-	M10	-	-	32	-	-	18	-	63
70120.W0463	Unpolished	Threaded, Blind	63	20	-	M12	-	-	40	-	-	22	-	111
70120.W0480	Unpolished	Threaded, Blind	80	25	-	M16	-	-	50	-	-	28	-	227
70120.W0540	Polished	Smooth, Through	40	14	8	-	-	-	25	-	-	-	-	32
70120.W0580	Polished	Smooth, Through	80	25	16	-	-	-	50	-	-	-	-	200
70120.W0640	Polished	Smooth, Blind	40	14	8	-	-	-	25	-	18	15	-	30
70120.W0650	Polished	Smooth, Blind	50	18	10	-	-	-	32	-	21	18	-	63
70120.W0663	Polished	Smooth, Blind	63	20	12	-	-	-	40	-	25	22	-	117
70120.W0680	Polished	Smooth, Blind	80	25	16	-	-	-	50	-	32	28	-	223
70120.W0740	Polished	Threaded, Through	40	14	-	M 8	8.4	-	25	-	-	-	12	32
70120.W0750	Polished	Threaded, Through	50	18	-	M10	10.5	-	32	-	-	-	16	32
70120.W0763	Polished	Threaded, Through	63	20	-	M12	13.0	-	40	-	-	-	20	109
70120.W0780	Polished	Threaded, Through	80	25	-	M16	17.0	-	50	-	-	-	30	218
70120.W0840	Polished	Threaded, Blind	40	14	-	M 8	-	-	25	-	-	15	-	33
70120.W0850	Polished	Threaded, Blind	50	18	-	M10	-	-	32	-	-	18	-	63
70120.W0863	Polished	Threaded, Blind	63	20	-	M12	-	-	40	-	-	22	-	111
70120.W0880	Polished	Threaded, Blind	80	25	-	M16	-	-	50	-	-	28	-	227

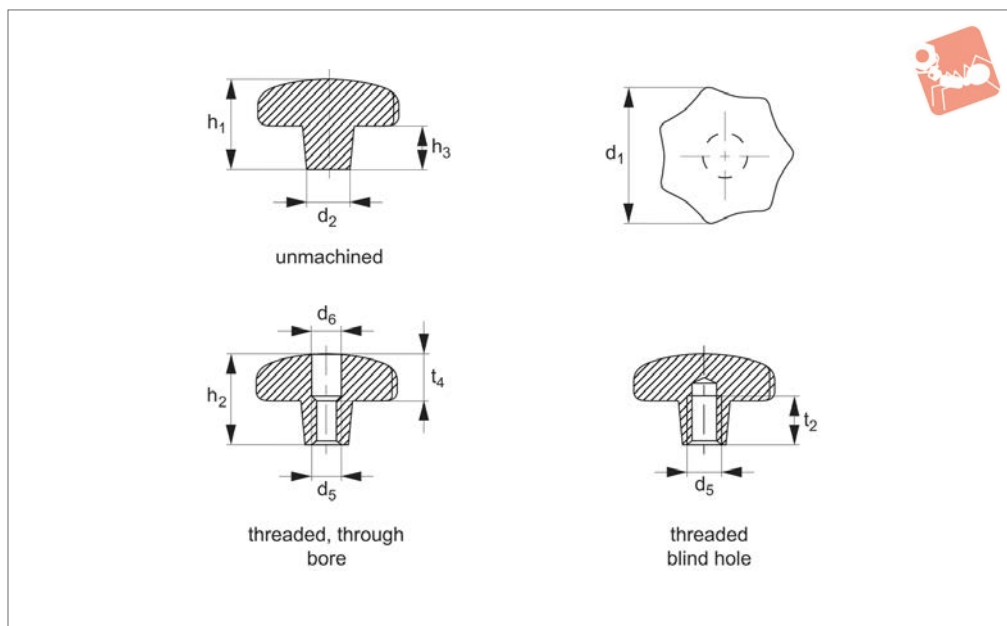


Star Grips

die-cast stainless steel - DIN 6336



Grips



70122

GRIPS

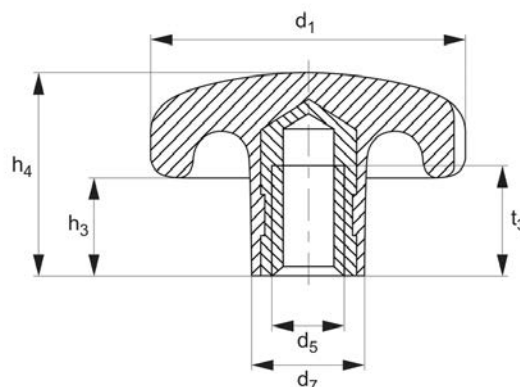
Material

Stainless steel A2 (AISI 304), dull blasted.

Order No.	Finish	d ₁	d ₂	d ₅	d ₆	h ₁	h ₂	h ₃	t ₂	t ₄	Weight g
70122.W0032	Unmachined	32	12	-	-	21	-	10	-	-	56
70122.W0040	Unmachined	40	14	-	-	26	-	13	-	-	85
70122.W0050	Unmachined	50	18	-	-	34	-	17	-	-	181
70122.W0063	Unmachined	63	20	-	-	42	-	21	-	-	319
70122.W0332	Threaded, Through	32	12	M 6	6.4	-	20	-	-	10	52
70122.W0340	Threaded, Through	40	14	M 8	8.4	-	25	-	-	12	75
70122.W0350	Threaded, Through	50	18	M10	10.5	-	32	-	-	16	158
70122.W0363	Threaded, Through	63	20	M12	13.0	-	40	-	-	20	279
70122.W0432	Threaded, Blind	32	12	M 6	-	-	20	-	12	-	53
70122.W0440	Threaded, Blind	40	14	M 8	-	-	25	-	15	-	77
70122.W0450	Threaded, Blind	50	18	M10	-	-	32	-	18	-	165
70122.W0463	Threaded, Blind	63	20	M12	-	-	40	-	22	-	296



70140



Material

Grip: duroplast PF 31 DIN 7708, black.

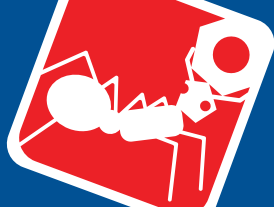
Threaded bush: steel, galvanised, stainless

steel A2 or brass.

Technical Notes

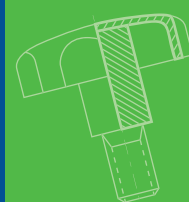
Temperature range: max 110°C.

Order No.	Finish	d ₁	d ₅	d ₇	h ₃	h ₄	t ₃	Weight g
70140.W0220	Brass	20	M 4	10	7	13	6.5	3.4
70140.W0225	Steel	25	M 5	12	8	16	9.5	7.4
70140.W0232	Steel	32	M 6	14	10	20	12.0	11.0
70140.W0240	Steel	40	M 8	18	13	25	14.0	22.0
70140.W0250	Steel	50	M10	22	17	32	18.0	40.0
70140.W0263	Steel	63	M12	26	21	40	22.0	83.0
70140.W0280	Steel	80	M16	35	25	50	30.0	163.0
70140.W1225	Stainless	25	M 5	12	8	16	9.5	7.4
70140.W1232	Stainless	32	M 6	14	10	20	12.0	11.0
70140.W1240	Stainless	40	M 8	18	13	25	14.0	22.0
70140.W1250	Stainless	50	M10	22	17	32	18.0	40.0
70140.W1263	Stainless	63	M12	26	21	40	22.0	83.0
70140.W1280	Stainless	80	M16	35	25	50	30.0	163.0

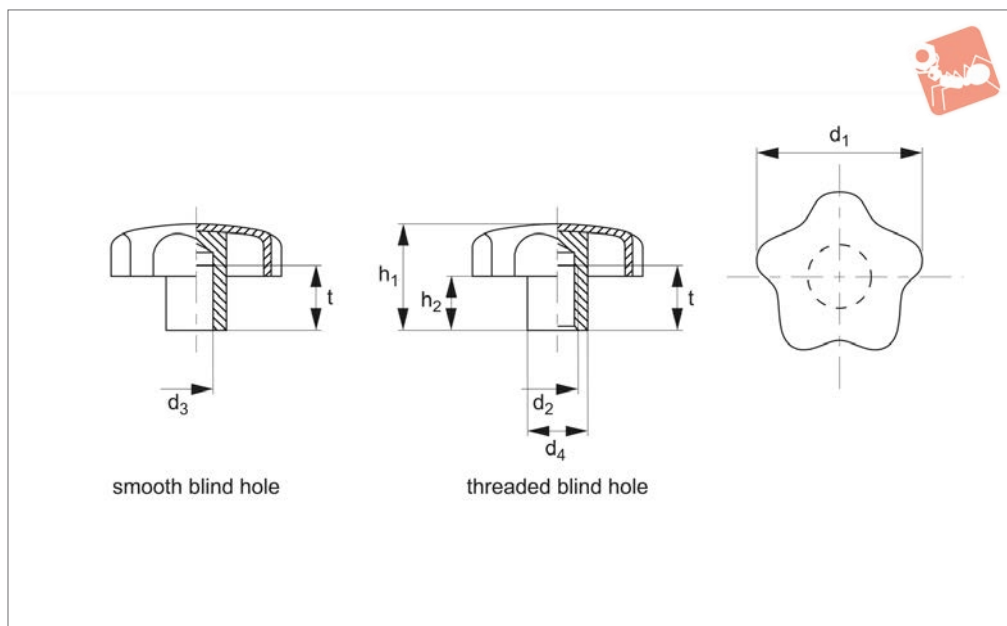


Star Grips

female, stainless steel



Grips



70160

GRIPS

Material

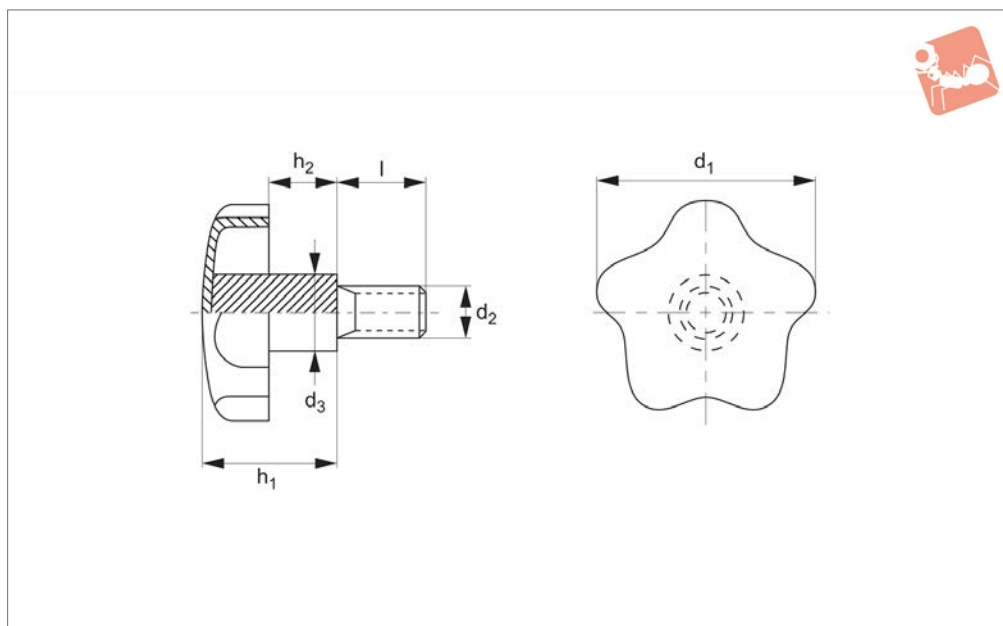
Grip: sheet drawn stainless (AISI 304) dull blasted.

Hub: stainless steel (AISI 304), butt-welded.

Order No.	Finish	d ₁	d ₂	d ₃ tol. H7	d ₄	h ₁	h ₂	t min.	Weight g
70160.W0240	Smooth, Blind	40	-	8	14	25	12.5	15	29
70160.W0250	Smooth, Blind	50	-	10	18	32	17.5	18	67
70160.W0260	Smooth, Blind	60	-	12	20	40	21.0	22	110
70160.W0440	Threaded, Blind	40	M 8	-	14	25	12.5	15	37
70160.W0450	Threaded, Blind	50	M10	-	18	32	17.5	18	69
70160.W0460	Threaded, Blind	60	M12	-	20	40	21.0	22	112



70162

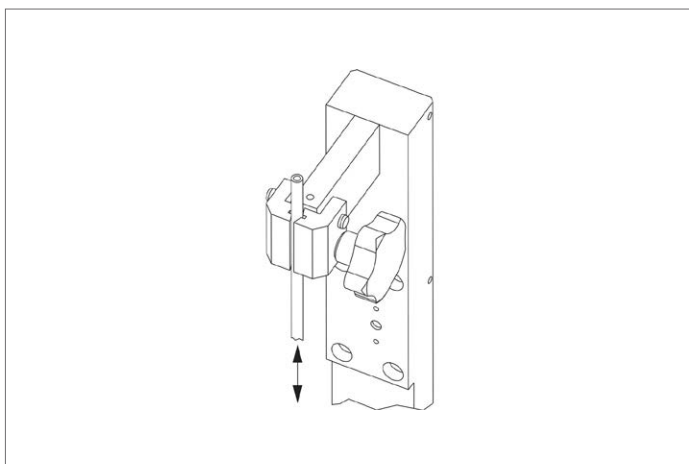


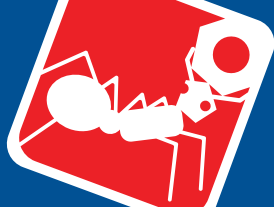
Material

Grip: sheet drawn stainless (AISI 304), dull blasted.

Hub: stainless steel (AISI 304), butt-welded.

Order No.	d ₁	d ₂	d ₃	h ₁ ≈	h ₂ ≈	l	Weight g
70162.W0140	40	M 8	14	24.0	12.0	20	50
70162.W0142	40	M 8	14	24.0	12.0	30	55
70162.W0144	40	M 8	14	24.0	12.0	40	56
70162.W0150	50	M10	18	30.0	16.5	20	95
70162.W0152	50	M10	18	30.0	16.5	30	97
70162.W0154	50	M10	18	30.0	16.5	40	100
70162.W0160	60	M12	20	37.5	20.0	30	155
70162.W0162	60	M12	20	37.5	20.0	40	162
70162.W0164	60	M12	20	37.5	20.0	50	169



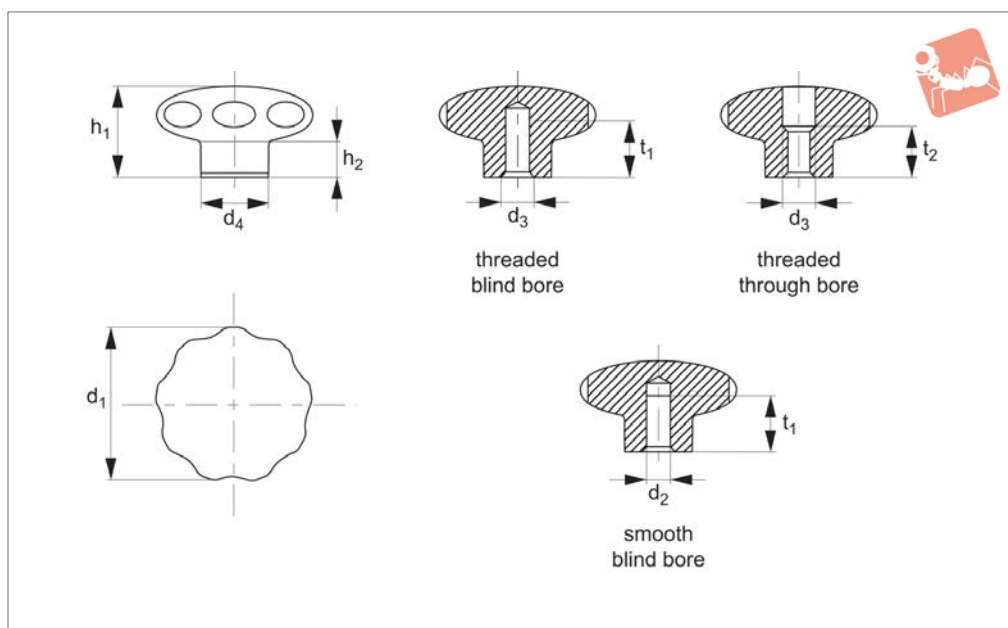


Star Grips

solid stainless steel



Grips



70180

GRIPS

Material

Stainless steel 1.4305 (AISI 303), matt, dull blasted.

Technical Notes

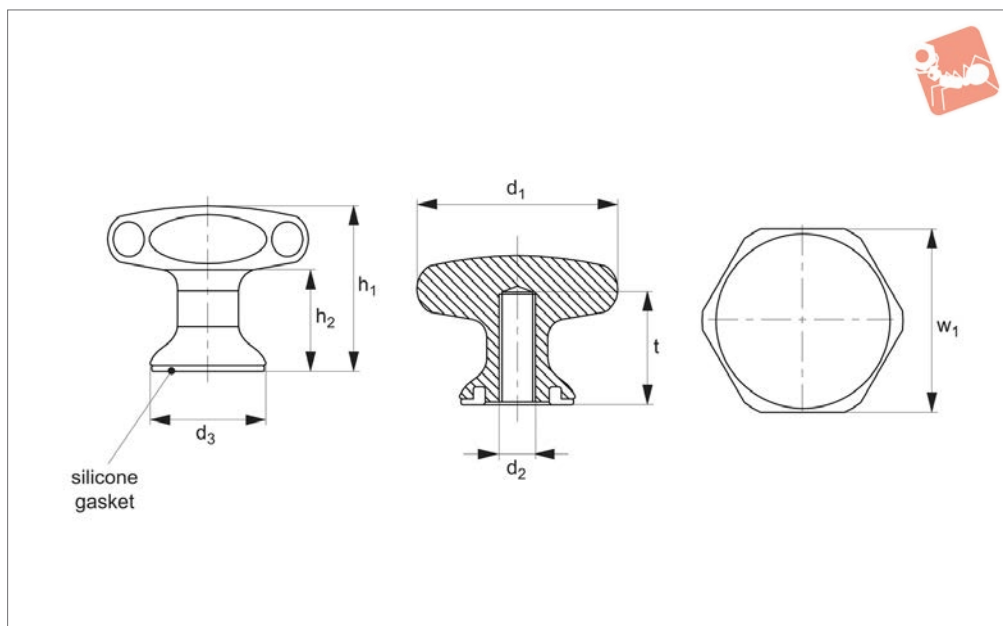
Stainless steel star grips are a special

development intended for the food processing machinery industry. Large radii and smooth surfaces have been introduced to meet the highest hygienic demands.

Order No.	Finish	d ₁	d ₂ tol. H7	d ₃	d ₄	h ₁	h ₂	t ₁ min.	t ₂	Weight g
70180.W0040	Threaded, Blind	40	-	M 6	18	30.5	15	12	-	134
70180.W0041	Threaded, Blind	40	-	M 8	18	30.5	15	12	-	132
70180.W0050	Threaded, Blind	50	-	M 8	21	34.0	17	15	-	226
70180.W0051	Threaded, Blind	50	-	M10	21	34.0	17	15	-	222
70180.W0060	Threaded, Blind	60	-	M10	25	39.0	18	18	-	395
70180.W0061	Threaded, Blind	60	-	M12	25	39.0	18	18	-	384
70180.W0141	Threaded Through	40	-	M 8	18	30.5	15	-	13	129
70180.W0151	Threaded Through	50	-	M10	21	34.0	17	-	16	216
70180.W0161	Threaded Through	60	-	M12	25	39.0	18	-	20	362
70180.W0240	Smooth, Blind	40	8	-	18	30.5	15	12	-	131
70180.W0250	Smooth, Blind	50	10	-	21	34.0	17	15	-	223
70180.W0260	Smooth, Blind	60	12	-	25	39.0	18	18	-	386



70190



Material

Stainless steel AISI304
Blue gasket: silicone

Tips

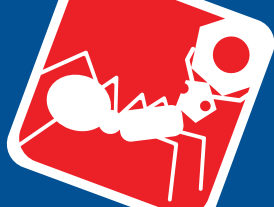
Made to the high „3A“ standard.

This ensures it meets the high standards required for use in food, beverage, pharmaceutical and medical applications. Hygienically designed for effective and easy cleaning, corrosion resistant, non-

toxic.

Design precludes contamination by dirt, food particles and organic matter.

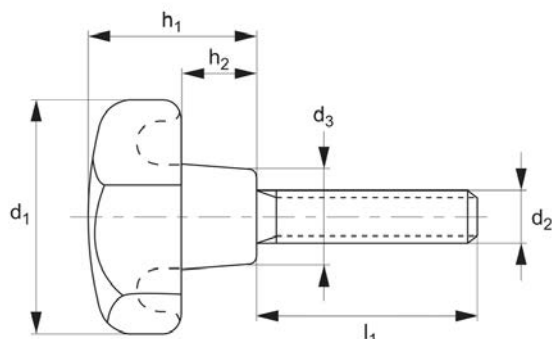
Order No.	d ₁	d ₂	d ₃	h ₁	h ₂	t	w ₁
70190.W0027	27	M 5	15	20	13	15	24
70190.W0033	33	M 6	19	24	13	20	30
70190.W0040	40	M 8	25	28	16	20	36
70190.W0050	50	M10	25	30	16	25	46
70190.W0065	65	M12	31	40	24	25	60



Star Grips with grub screw - DIN 6336



Grips



70500

GRIPS

Material

duroplast PF 31, black.
Grub screw: steel, galvanised.

Special designs e.g. different lengths or
grub screws in brass or stainless steel, on
request.

Technical Notes

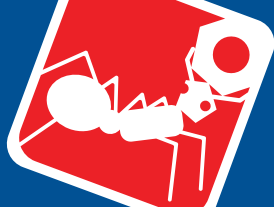
Produced to DIN 7708.

Temperature range max. 110°C.
DIN 6336.

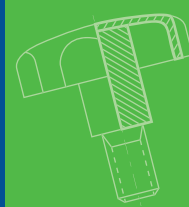
Order No.	Material	d ₁	d ₂	d ₃	h ₁	h ₂	l ₁	Weight g
70500.W0051	Steel	25	M 5	12	16	8	10	7.3
70500.W0054	Steel	25	M 5	12	16	8	15	7.2
70500.W0056	Steel	25	M 5	12	16	8	20	8.7
70500.W0058	Steel	25	M 5	12	16	8	25	8.7
70500.W0060	Steel	25	M 5	12	16	8	30	9.2
70500.W0102	Steel	32	M 6	14	20	10	15	14.0
70500.W0104	Steel	32	M 6	14	20	10	20	14.0
70500.W0106	Steel	32	M 6	14	20	10	25	14.0
70500.W0108	Steel	32	M 6	14	20	10	30	16.0
70500.W0110	Steel	32	M 6	14	20	10	40	17.0
70500.W0152	Steel	40	M 8	18	25	13	20	28.0
70500.W0154	Steel	40	M 8	18	25	13	25	30.0
70500.W0156	Steel	40	M 8	18	25	13	30	32.0
70500.W0158	Steel	40	M 8	18	25	13	40	35.0
70500.W0160	Steel	40	M 8	18	25	13	50	38.0
70500.W0202	Steel	50	M10	22	32	17	25	51.0
70500.W0204	Steel	50	M10	22	32	17	30	54.0
70500.W0206	Steel	50	M10	22	32	17	40	60.0
70500.W0208	Steel	50	M10	22	32	17	50	64.0
70500.W0210	Steel	50	M10	22	32	17	60	77.0
70500.W0252	Steel	63	M12	26	40	21	30	101.0
70500.W0254	Steel	63	M12	26	40	21	40	108.0
70500.W0256	Steel	63	M12	26	40	21	50	115.0
70500.W0258	Steel	63	M12	26	40	21	60	121.0
70500.W0260	Steel	63	M12	26	40	21	80	143.0
70500.W0302	Steel	80	M16	35	50	25	40	223.0
70500.W0304	Steel	80	M16	35	50	25	50	237.0
70500.W0306	Steel	80	M16	35	50	25	60	232.0
70500.W0308	Steel	80	M16	35	50	25	80	274.0
70500.W1051	Stainless Steel	25	M 5	12	16	8	10	7.3
70500.W1054	Stainless Steel	25	M 5	12	16	8	15	7.2
70500.W1056	Stainless Steel	25	M 5	12	16	8	20	8.7



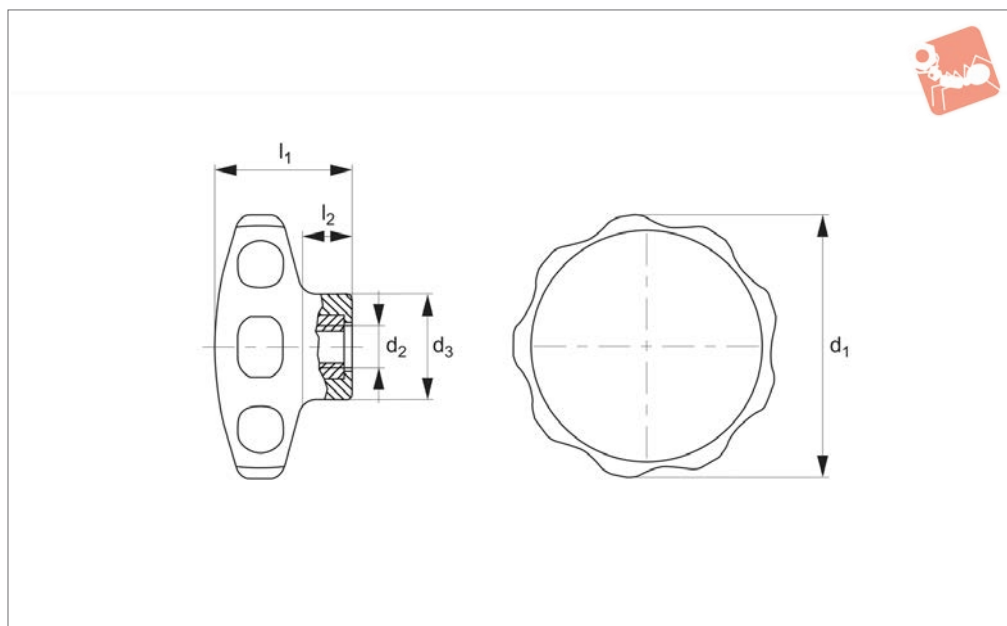
Order No.	Material	d ₁	d ₂	d ₃	h ₁	h ₂	l ₁	Weight g
70500.W1058	Stainless Steel	25	M 5	12	16	8	25	8.7
70500.W1060	Stainless Steel	25	M 5	12	16	8	30	9.2
70500.W1102	Stainless Steel	32	M 6	14	20	10	15	14.0
70500.W1104	Stainless Steel	32	M 6	14	20	10	20	14.0
70500.W1106	Stainless Steel	32	M 6	14	20	10	25	14.0
70500.W1108	Stainless Steel	32	M 6	14	20	10	30	16.0
70500.W1110	Stainless Steel	32	M 6	14	20	10	40	17.0
70500.W1152	Stainless Steel	40	M 8	18	25	13	20	28.0
70500.W1154	Stainless Steel	40	M 8	18	25	13	25	30.0
70500.W1156	Stainless Steel	40	M 8	18	25	13	30	32.0
70500.W1158	Stainless Steel	40	M 8	18	25	13	40	35.0
70500.W1160	Stainless Steel	40	M 8	18	25	13	50	38.0
70500.W1202	Stainless Steel	50	M10	22	32	17	25	51.0
70500.W1204	Stainless Steel	50	M10	22	32	17	30	54.0
70500.W1206	Stainless Steel	50	M10	22	32	17	40	60.0
70500.W1208	Stainless Steel	50	M10	22	32	17	50	64.0
70500.W1210	Stainless Steel	50	M10	22	32	17	60	77.0
70500.W1252	Stainless Steel	63	M12	26	40	21	30	101.0
70500.W1254	Stainless Steel	63	M12	26	40	21	40	108.0
70500.W1256	Stainless Steel	63	M12	26	40	21	50	115.0
70500.W1258	Stainless Steel	63	M12	26	40	21	60	121.0
70500.W1260	Stainless Steel	63	M12	26	40	21	80	143.0
70500.W1302	Stainless Steel	80	M16	35	50	25	40	223.0
70500.W1304	Stainless Steel	80	M16	35	50	25	50	237.0
70500.W1306	Stainless Steel	80	M16	35	50	25	60	232.0
70500.W1308	Stainless Steel	80	M16	35	50	25	80	274.0



Star Grips with stainless steel bush



Grips



70600

GRIPS

Material

Grip: thermoplast (PA 6) Black RAL 9005.
Cap: thermoplast (PA 6)
Black RAL 9005, White RAL 9019, Yellow
RAL 1016, Orange RAL 2004, Blue RAL

5015.

Threaded bush: stainless steel.

Technical Notes

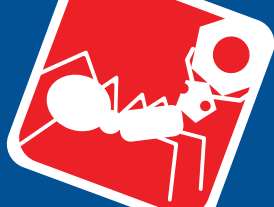
Temperature range - 30°C to + 80°C.

Special types e.g, differing threads
available on request, subject to minimum
quantity.

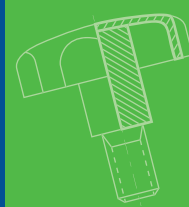
Order No.	Colour	d ₁	d ₂	d ₃	l ₁	l ₂	Weight g
70600.W0030	Black	30	M 4	14.0	19	7	5.3
70600.W0031	White	30	M 4	14.0	19	7	5.3
70600.W0032	Orange	30	M 4	14.0	19	7	5.3
70600.W0033	Yellow	30	M 4	14.0	19	7	5.3
70600.W0034	Blue	30	M 4	14.0	19	7	5.3
70600.W0035	Black	30	M 5	14.0	19	7	5.7
70600.W0036	White	30	M 5	14.0	19	7	5.7
70600.W0037	Orange	30	M 5	14.0	19	7	5.7
70600.W0038	Yellow	30	M 5	14.0	19	7	5.7
70600.W0039	Blue	30	M 5	14.0	19	7	5.7
70600.W0040	Black	40	M 5	16.5	22	9	8.2
70600.W0041	White	40	M 5	16.5	22	9	8.2
70600.W0042	Orange	40	M 5	16.5	22	9	8.2
70600.W0043	Yellow	40	M 5	16.5	22	9	8.2
70600.W0044	Blue	40	M 5	16.5	22	9	8.2
70600.W0045	Black	40	M 6	16.5	22	9	9.5
70600.W0046	White	40	M 6	16.5	22	9	9.5
70600.W0047	Orange	40	M 6	16.5	22	9	9.5
70600.W0048	Yellow	40	M 6	16.5	22	9	9.5
70600.W0049	Blue	40	M 6	16.5	22	9	9.5
70600.W0050	Black	50	M 6	22.0	26	10	16.0
70600.W0051	White	50	M 6	22.0	26	10	16.0
70600.W0052	Orange	50	M 6	22.0	26	10	16.0
70600.W0053	Yellow	50	M 6	22.0	26	10	16.0
70600.W0054	Blue	50	M 6	22.0	26	10	16.0
70600.W0055	Black	50	M 8	22.0	26	10	19.0
70600.W0056	White	50	M 8	22.0	26	10	19.0
70600.W0057	Orange	50	M 8	22.0	26	10	19.0
70600.W0058	Yellow	50	M 8	22.0	26	10	19.0
70600.W0059	Blue	50	M 8	22.0	26	10	19.0
70600.W0060	Black	62	M 8	22.0	35	13	19.0
70600.W0061	White	62	M 8	22.0	35	13	19.0
70600.W0062	Orange	62	M 8	22.0	35	13	19.0



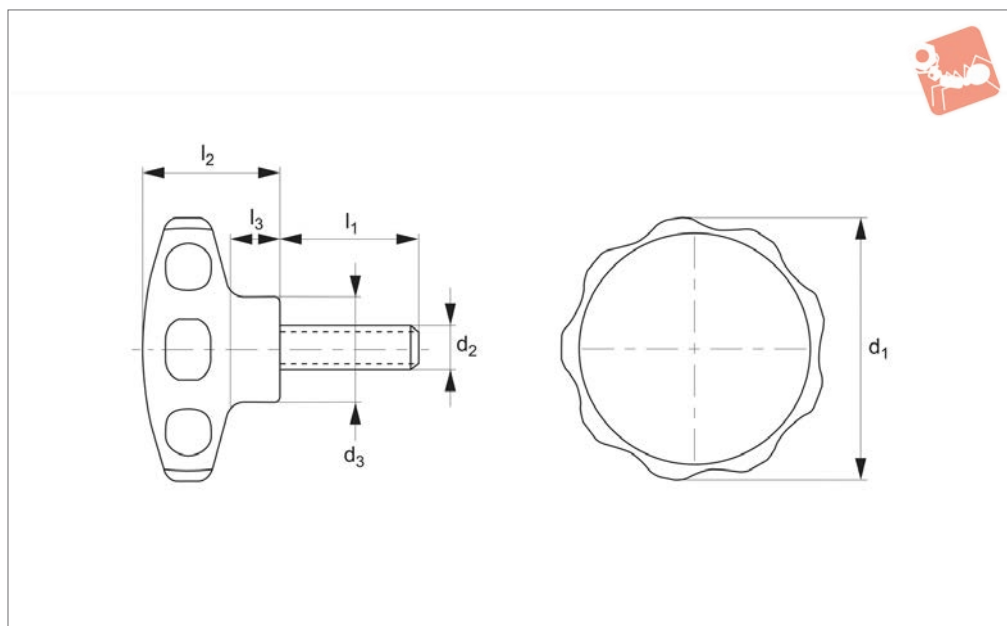
Order No.	Colour	d ₁	d ₂	d ₃	l ₁	l ₂	Weight g
70600.W0063	Yellow	62	M 8	22.0	35	13	19.0
70600.W0064	Blue	62	M 8	22.0	35	13	19.0
70600.W0065	Black	62	M10	22.0	35	13	39.0
70600.W0066	White	62	M10	22.0	35	13	39.0
70600.W0067	Orange	62	M10	22.0	35	13	39.0
70600.W0068	Yellow	62	M10	22.0	35	13	39.0
70600.W0069	Blue	62	M10	22.0	35	13	39.0



Star Grips with stainless steel grub screw



Grips



70610

Material

Grip: thermoplast (PA 6) Black RAL 9005.
Cap: thermoplast (PA 6)
Black RAL 9005, white RAL 9019, orange
RAL 2004, yellow RAL 1016, blue RAL

5015.

Threaded bush: stainless steel.

Technical Notes

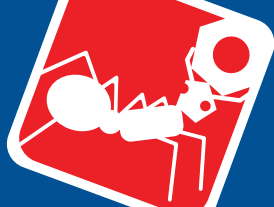
Temperature range -30°C to +80°C.

Special types e.g. differing threads
available on request, subject to minimum
order quantity.

Order No.	Colour	d ₁	d ₂	d ₃	l ₁	l ₂	l ₃	Weight g
70610.W0100	Black	30	M 4	14.0	10	19	7	6.1
70610.W0101	White	30	M 4	14.0	10	19	7	6.1
70610.W0102	Orange	30	M 4	14.0	10	19	7	6.1
70610.W0103	Yellow	30	M 4	14.0	10	19	7	6.1
70610.W0104	Blue	30	M 4	14.0	10	19	7	6.1
70610.W0110	Black	30	M 4	14.0	14	19	7	6.6
70610.W0111	White	30	M 4	14.0	14	19	7	6.6
70610.W0112	Orange	30	M 4	14.0	14	19	7	6.6
70610.W0113	Yellow	30	M 4	14.0	14	19	7	6.6
70610.W0114	Blue	30	M 4	14.0	14	19	7	6.6
70610.W0120	Black	30	M 4	14.0	18	19	7	6.9
70610.W0121	White	30	M 4	14.0	18	19	7	6.9
70610.W0122	Orange	30	M 4	14.0	18	19	7	6.9
70610.W0123	Yellow	30	M 4	14.0	18	19	7	6.9
70610.W0124	Blue	30	M 4	14.0	18	19	7	6.9
70610.W0130	Black	30	M 4	14.0	23	19	7	7.3
70610.W0131	White	30	M 4	14.0	23	19	7	7.3
70610.W0132	Orange	30	M 4	14.0	23	19	7	7.3
70610.W0133	Yellow	30	M 4	14.0	23	19	7	7.3
70610.W0134	Blue	30	M 4	14.0	23	19	7	7.3
70610.W0140	Black	30	M 4	14.0	28	19	7	7.7
70610.W0141	White	30	M 4	14.0	28	19	7	7.7
70610.W0142	Orange	30	M 4	14.0	28	19	7	7.7
70610.W0143	Yellow	30	M 4	14.0	28	19	7	7.7
70610.W0144	Blue	30	M 4	14.0	28	19	7	7.7
70610.W0150	Black	30	M 5	14.0	10	19	7	7.1
70610.W0151	White	30	M 5	14.0	10	19	7	7.1
70610.W0152	Orange	30	M 5	14.0	10	19	7	7.1
70610.W0153	Yellow	30	M 5	14.0	10	19	7	7.1
70610.W0154	Blue	30	M 5	14.0	10	19	7	7.1
70610.W0160	Black	30	M 5	14.0	14	19	7	7.9
70610.W0161	White	30	M 5	14.0	14	19	7	7.9
70610.W0162	Orange	30	M 5	14.0	14	19	7	7.9



Order No.	Colour	d ₁	d ₂	d ₃	l ₁	l ₂	l ₃	Weight g
70610.W0163	Yellow	30	M 5	14.0	14	19	7	7.9
70610.W0164	Blue	30	M 5	14.0	14	19	7	7.9
70610.W0170	Black	30	M 5	14.0	18	19	7	8.4
70610.W0171	White	30	M 5	14.0	18	19	7	8.4
70610.W0172	Orange	30	M 5	14.0	18	19	7	8.4
70610.W0173	Yellow	30	M 5	14.0	18	19	7	8.4
70610.W0174	Blue	30	M 5	14.0	18	19	7	8.4
70610.W0180	Black	30	M 5	14.0	23	19	7	9.0
70610.W0181	White	30	M 5	14.0	23	19	7	9.0
70610.W0182	Orange	30	M 5	14.0	23	19	7	9.0
70610.W0183	Yellow	30	M 5	14.0	23	19	7	9.0
70610.W0184	Blue	30	M 5	14.0	23	19	7	9.0
70610.W0190	Black	30	M 5	14.0	28	19	7	9.0
70610.W0191	White	30	M 5	14.0	28	19	7	9.0
70610.W0192	Orange	30	M 5	14.0	28	19	7	9.0
70610.W0193	Yellow	30	M 5	14.0	28	19	7	9.0
70610.W0194	Blue	30	M 5	14.0	28	19	7	9.0
70610.W0200	Black	40	M 5	16.5	10	22	9	9.6
70610.W0201	White	40	M 5	16.5	10	22	9	9.6
70610.W0202	Orange	40	M 5	16.5	10	22	9	9.6
70610.W0203	Yellow	40	M 5	16.5	10	22	9	9.6
70610.W0204	Blue	40	M 5	16.5	10	22	9	9.6
70610.W0210	Black	40	M 5	16.5	14	22	9	10.0
70610.W0211	White	40	M 5	16.5	14	22	9	10.0
70610.W0212	Orange	40	M 5	16.5	14	22	9	10.0
70610.W0213	Yellow	40	M 5	16.5	14	22	9	10.0
70610.W0214	Blue	40	M 5	16.5	14	22	9	10.0
70610.W0220	Black	40	M 5	16.5	18	22	9	11.0
70610.W0221	White	40	M 5	16.5	18	22	9	11.0
70610.W0222	Orange	40	M 5	16.5	18	22	9	11.0
70610.W0223	Yellow	40	M 5	16.5	18	22	9	11.0
70610.W0224	Blue	40	M 5	16.5	18	22	9	11.0
70610.W0230	Black	40	M 5	16.5	23	22	9	12.0
70610.W0231	White	40	M 5	16.5	23	22	9	12.0
70610.W0232	Orange	40	M 5	16.5	23	22	9	12.0
70610.W0233	Yellow	40	M 5	16.5	23	22	9	12.0
70610.W0234	Blue	40	M 5	16.5	23	22	9	12.0
70610.W0250	Black	40	M 6	16.5	14	22	9	12.0
70610.W0251	White	40	M 6	16.5	14	22	9	12.0
70610.W0252	Orange	40	M 6	16.5	14	22	9	12.0
70610.W0253	Yellow	40	M 6	16.5	14	22	9	12.0
70610.W0254	Blue	40	M 6	16.5	14	22	9	12.0
70610.W0260	Black	40	M 6	16.5	18	22	9	13.0
70610.W0261	White	40	M 6	16.5	18	22	9	13.0
70610.W0262	Orange	40	M 6	16.5	18	22	9	13.0
70610.W0263	Yellow	40	M 6	16.5	18	22	9	13.0
70610.W0264	Blue	40	M 6	16.5	18	22	9	13.0
70610.W0270	Black	40	M 6	16.5	23	22	9	14.0
70610.W0271	White	40	M 6	16.5	23	22	9	14.0
70610.W0272	Orange	40	M 6	16.5	23	22	9	14.0
70610.W0273	Yellow	40	M 6	16.5	23	22	9	14.0
70610.W0274	Blue	40	M 6	16.5	23	22	9	14.0
70610.W0280	Black	40	M 6	16.5	28	22	9	15.0
70610.W0281	White	40	M 6	16.5	28	22	9	15.0
70610.W0282	Orange	40	M 6	16.5	28	22	9	15.0
70610.W0283	Yellow	40	M 6	16.5	28	22	9	15.0
70610.W0284	Blue	40	M 6	16.5	28	22	9	15.0
70610.W0290	Black	40	M 6	16.5	38	22	9	16.0
70610.W0291	White	40	M 6	16.5	38	22	9	16.0
70610.W0292	Orange	40	M 6	16.5	38	22	9	16.0
70610.W0293	Yellow	40	M 6	16.5	38	22	9	16.0
70610.W0294	Blue	40	M 6	16.5	38	22	9	16.0
70610.W0300	Black	50	M 6	22.0	14	26	10	19.0
70610.W0301	White	50	M 6	22.0	14	26	10	19.0
70610.W0302	Orange	50	M 6	22.0	14	26	10	19.0
70610.W0303	Yellow	50	M 6	22.0	14	26	10	19.0
70610.W0304	Blue	50	M 6	22.0	14	26	10	19.0
70610.W0310	Black	50	M 6	22.0	18	26	10	19.0



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Grips

Order No.	Colour	d ₁	d ₂	d ₃	l ₁	l ₂	l ₃	Weight g
70610.W0311	White	50	M 6	22.0	18	26	10	19.0
70610.W0312	Orange	50	M 6	22.0	18	26	10	19.0
70610.W0313	Yellow	50	M 6	22.0	18	26	10	19.0
70610.W0314	Blue	50	M 6	22.0	18	26	10	19.0
70610.W0320	Black	50	M 6	22.0	23	26	10	20.0
70610.W0321	White	50	M 6	22.0	23	26	10	20.0
70610.W0322	Orange	50	M 6	22.0	23	26	10	20.0
70610.W0323	Yellow	50	M 6	22.0	23	26	10	20.0
70610.W0324	Blue	50	M 6	22.0	23	26	10	20.0
70610.W0330	Black	50	M 6	22.0	28	26	10	21.0
70610.W0331	White	50	M 6	22.0	28	26	10	21.0
70610.W0332	Orange	50	M 6	22.0	28	26	10	21.0
70610.W0333	Yellow	50	M 6	22.0	28	26	10	21.0
70610.W0334	Blue	50	M 6	22.0	28	26	10	21.0
70610.W0340	Black	50	M 6	22.0	38	26	10	23.0
70610.W0341	White	50	M 6	22.0	38	26	10	23.0
70610.W0342	Orange	50	M 6	22.0	38	26	10	23.0
70610.W0343	Yellow	50	M 6	22.0	38	26	10	23.0
70610.W0344	Blue	50	M 6	22.0	38	26	10	23.0
70610.W0350	Black	50	M 8	22.0	18	26	10	26.0
70610.W0351	White	50	M 8	22.0	18	26	10	26.0
70610.W0352	Orange	50	M 8	22.0	18	26	10	26.0
70610.W0353	Yellow	50	M 8	22.0	18	26	10	26.0
70610.W0354	Blue	50	M 8	22.0	18	26	10	26.0
70610.W0360	Black	50	M 8	22.0	23	26	10	27.0
70610.W0361	White	50	M 8	22.0	23	26	10	27.0
70610.W0362	Orange	50	M 8	22.0	23	26	10	27.0
70610.W0363	Yellow	50	M 8	22.0	23	26	10	27.0
70610.W0364	Blue	50	M 8	22.0	23	26	10	27.0
70610.W0370	Black	50	M 8	22.0	28	26	10	29.0
70610.W0371	White	50	M 8	22.0	28	26	10	29.0
70610.W0372	Orange	50	M 8	22.0	28	26	10	29.0
70610.W0373	Yellow	50	M 8	22.0	28	26	10	29.0
70610.W0374	Blue	50	M 8	22.0	28	26	10	29.0
70610.W0380	Black	50	M 8	22.0	38	26	10	32.0
70610.W0381	White	50	M 8	22.0	38	26	10	32.0
70610.W0382	Orange	50	M 8	22.0	38	26	10	32.0
70610.W0383	Yellow	50	M 8	22.0	38	26	10	32.0
70610.W0384	Blue	50	M 8	22.0	38	26	10	32.0
70610.W0390	Black	50	M 8	22.0	48	26	10	35.0
70610.W0391	White	50	M 8	22.0	48	26	10	35.0
70610.W0392	Orange	50	M 8	22.0	48	26	10	35.0
70610.W0393	Yellow	50	M 8	22.0	48	26	10	35.0
70610.W0394	Blue	50	M 8	22.0	48	26	10	35.0
70610.W0400	Black	62	M 8	22.0	18	35	13	40.0
70610.W0401	White	62	M 8	22.0	18	35	13	40.0
70610.W0402	Orange	62	M 8	22.0	18	35	13	40.0
70610.W0403	Yellow	62	M 8	22.0	18	35	13	40.0
70610.W0404	Blue	62	M 8	22.0	18	35	13	40.0
70610.W0410	Black	62	M 8	22.0	23	35	13	41.0
70610.W0411	White	62	M 8	22.0	23	35	13	41.0
70610.W0412	Orange	62	M 8	22.0	23	35	13	41.0
70610.W0413	Yellow	62	M 8	22.0	23	35	13	41.0
70610.W0414	Blue	62	M 8	22.0	23	35	13	41.0
70610.W0420	Black	62	M 8	22.0	28	35	13	43.0
70610.W0421	White	62	M 8	22.0	28	35	13	43.0
70610.W0422	Orange	62	M 8	22.0	28	35	13	43.0
70610.W0423	Yellow	62	M 8	22.0	28	35	13	43.0
70610.W0424	Blue	62	M 8	22.0	28	35	13	43.0
70610.W0430	Black	62	M 8	22.0	38	35	13	46.0
70610.W0431	White	62	M 8	22.0	38	35	13	46.0
70610.W0432	Orange	62	M 8	22.0	38	35	13	46.0
70610.W0433	Yellow	62	M 8	22.0	38	35	13	46.0
70610.W0434	Blue	62	M 8	22.0	38	35	13	46.0
70610.W0440	Black	62	M 8	22.0	48	35	13	49.0
70610.W0441	White	62	M 8	22.0	48	35	13	49.0
70610.W0442	Orange	62	M 8	22.0	48	35	13	49.0
70610.W0443	Yellow	62	M 8	22.0	48	35	13	49.0



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Order No.	Colour	d ₁	d ₂	d ₃	l ₁	l ₂	l ₃	Weight g
70610.W0444	Blue	62	M 8	22.0	48	35	13	49.0
70610.W0450	Black	62	M10	22.0	23	35	13	51.0
70610.W0451	White	62	M10	22.0	23	35	13	51.0
70610.W0452	Orange	62	M10	22.0	23	35	13	51.0
70610.W0453	Yellow	62	M10	22.0	23	35	13	51.0
70610.W0454	Blue	62	M10	22.0	23	35	13	51.0
70610.W0460	Black	62	M10	22.0	28	35	13	54.0
70610.W0461	White	62	M10	22.0	28	35	13	54.0
70610.W0462	Orange	62	M10	22.0	28	35	13	54.0
70610.W0463	Yellow	62	M10	22.0	28	35	13	54.0
70610.W0464	Blue	62	M10	22.0	28	35	13	54.0
70610.W0470	Black	62	M10	22.0	38	35	13	59.0
70610.W0471	White	62	M10	22.0	38	35	13	59.0
70610.W0472	Orange	62	M10	22.0	38	35	13	59.0
70610.W0473	Yellow	62	M10	22.0	38	35	13	59.0
70610.W0474	Blue	62	M10	22.0	38	35	13	59.0
70610.W0480	Black	62	M10	22.0	48	35	13	64.0
70610.W0481	White	62	M10	22.0	48	35	13	64.0
70610.W0482	Orange	62	M10	22.0	48	35	13	64.0
70610.W0483	Yellow	62	M10	22.0	48	35	13	64.0
70610.W0484	Blue	62	M10	22.0	48	35	13	64.0
70610.W0490	Black	62	M10	22.0	58	35	13	69.0
70610.W0491	White	62	M10	22.0	58	35	13	69.0
70610.W0492	Orange	62	M10	22.0	58	35	13	69.0
70610.W0493	Yellow	62	M10	22.0	58	35	13	69.0
70610.W0494	Blue	62	M10	22.0	58	35	13	69.0