

# Quick Guide | Socket

The Explorer System



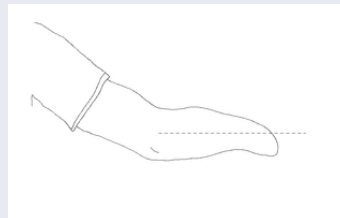
## Criteria | Assessment of the user profile and possible limitations of the socket design

### General inclusion criteria

- unilateral forearm deficiency
- No fresh wounds
- Forearm stump longer than 65mm
- No residual fingers with bone

### Bemerkungen

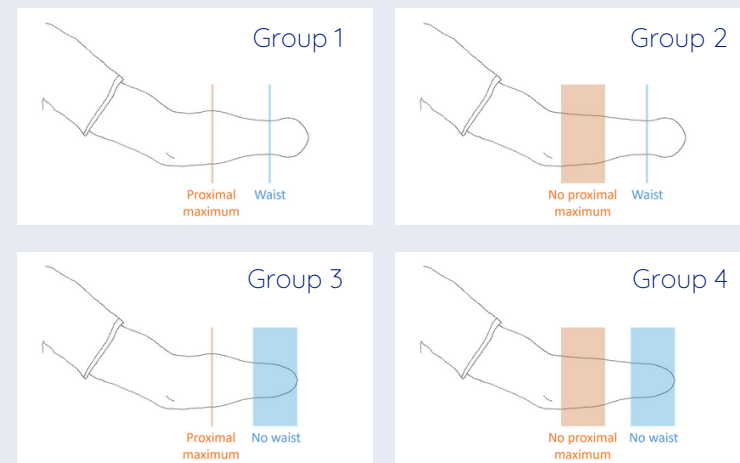
- Pressure sensitivity
  - Extra buffer for arm stump length possible
  - Extra buffer for circumferences possible
- Much movable soft tissue
  - Closure system distributes the pressure evenly over the arm
  - Adjusted positioning of the measuring points
- Gekrümmte Armform
  - Adapted measurement technique to take into account the deviation of the distal arm shape from the rotational symmetry



## Fitting | Checking the socket-arm interface and assembly requirements

### Influence of the arm shape on the socket-arm interface

- Presence of a distal waist is advantageous
- In the absence of the proximal maximum and a distal waist (group 4), the socket may slip off the arm stump more easily - special fitting techniques may be advantageous here.
- For very short arm stumps, the 'bandage' assembly technique may be advantageous



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**Measurement |** Using few measured values to represent the arm geometry rotationally symmetrically

Measure arm stump

1 | Scan-based method

- File format: stl, obj, 3dm, 3ds, igs/iges, stp/step, sldprt/sldasm and measurements in mm
- Arm position: If possible, position arm stump free in the air for easy determination of the measured value C0. Optionally, the posterior proximal part of the elbow may touch a surface.

2 | Alternative methods

- Manual (tailors measure)
- Photo-based (printed template)

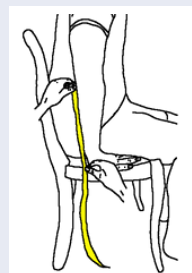
Determine arm length difference (L5 value)

1 | Manual

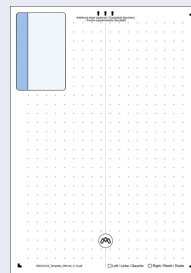
From Epikondylus Medialis up to the seat/table surface with a tailors measure.

2 | Photo

A photo from both arms placed on printed template.



Method 1



Method 2

**Workflow |** Considerations for process from assessment to assembly

Process

- Assessment of user profile and fit
- Recording measurement data
- Ordering the product components
- Assembly of lacing system and padding material
- Instructing the user and attaching further padding material if required



Ca. 8 h Zeitaufwand für die Beurteilung, Messdaten, Montage, Kostenabklärung und initiale Kundenbetreuung

**Documents |** Useful detailed information



- [Socket Guide](#)
- [Measurement Instructions | Manual](#)
- [Measurement Instructions | Photo](#)
- [Assembly Instructions](#)
- [Instructions for Use | All languages](#)
- [Biocompatibility](#)

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This table informs about the recommended spacer length per Module. The determination of  $\Delta L = L5 - L4$  is described in the measurement instructions.

$\Delta L = L5 - L4$ (mm)	BALL	BIKE	TWIN	PINCH
01 - 61	NA	NA	NA	NA
62	NA	NA	16	NA
63	NA	NA	16	NA
64	NA	NA	16	NA
65 - 71	NA	NA	16	16
72	NA	NA	20	16
73	NA	16	20	16
74	NA	16	20	16
75	NA	16	20	20
76	NA	16	25	20
77	NA	16	25	20
78	NA	16	25	20
79	16	16	25	25
80	16	16	25	25
81	16	16	30	25
82	16	16	30	25
83	16	20	30	25
84	16	20	30	30
85	16	20	30	30
86	16	20	35	30
87	16	25	35	30
88	16	25	35	30

$\Delta L = L5 - L4$ (mm)	BALL	BIKE	TWIN	PINCH
89	20	25	35	35
90	20	25	35	35
91	20	25	40	35
92	20	30	40	35
93	25	30	40	35
94	25	30	40	40
95	25	30	40	40
96	25	30	45	40
97	25	35	45	40
98	30	35	45	40
99	30	35	45	45
100	30	35	45	45
101	30	35	50	45
102	30	40	50	45
103	35	40	50	45
104	35	40	50	50
105	35	40	50	50
106	35	40	55	50
107	35	45	55	50
108	40	45	55	50
109	40	45	55	55
110	40	45	55	55

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$\Delta L = L5 - L4$ (mm)	BALL	BIKE	TWIN	PINCH
111	40	45	60	55
112	40	50	60	55
113	45	50	60	55
114	45	50	60	60
115	45	50	60	60
116	45	50	65	60
117	45	55	65	60
118	50	55	65	60
119	50	55	65	65
120	50	55	65	65
121	50	55	70	65
122	50	60	70	65
123	55	60	70	65
124	55	60	70	70
125	55	60	70	70
126	55	60	75	70
127	55	65	75	70
128	60	65	75	70
129	60	65	75	75
130	60	65	75	75
131	60	65	80	75
132	60	70	80	75

$\Delta L = L5 - L4$ (mm)	BALL	BIKE	TWIN	PINCH
133	65	70	80	75
134	65	70	80	80
135	65	70	80	80
136	65	70	85	80
137	65	75	85	80
138	70	75	85	80
139	70	75	85	85
140	70	75	85	85
141	70	75	90	85
142	70	80	90	85
143	75	80	90	85
144	75	80	90	90
145	75	80	90	90
146	75	80	95	90
147	75	85	95	90
148	80	85	95	90
149	80	85	95	95
150	80	85	95	95
151	80	85	100	95
152	80	90	100	95
153	85	90	100	95
154	85	90	100	100

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$\Delta L = L5 - L4$ (mm)	BALL	BIKE	TWIN	PINCH
155	85	90	100	100
156	85	90	105	100
157	85	95	105	100
158	90	95	105	100
159	90	95	105	105
160	90	95	105	105
161	90	95	110	105
162	90	100	110	105
163	95	100	110	105
164	95	100	110	110
165	95	100	110	110
166	95	100	115	110
167	95	105	115	110
168	100	105	115	110
169	100	105	115	115
170	100	105	115	115
171	100	105	120	115
172	100	110	120	115
173	105	110	120	115
174	105	110	120	120
175	105	110	120	120
176	105	110	125	120

$\Delta L = L5 - L4$ (mm)	BALL	BIKE	TWIN	PINCH
177	105	115	125	120
178	110	115	125	120
179	110	115	125	125
180	110	115	125	125
181	110	115	130	125
182	110	120	130	125
183	115	120	130	125
184	115	120	130	130
185	115	120	130	130
186	115	120	135	130
187	115	125	135	130
188	120	125	135	130
189	120	125	135	135
190	120	125	135	135
191	120	125	140	135
192	120	130	140	135
193	125	130	140	135
194	125	130	140	140
195	125	130	140	140
196	125	130	145	140
197	125	135	145	140
198	130	135	145	140

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$\Delta L = L5 - L4$ (mm)	BALL	BIKE	TWIN	PINCH
199	130	135	145	145
200	130	135	145	145
201	130	135	150	145
202	130	140	150	145
203	135	140	150	145
204	135	140	150	150
205	135	140	150	150
206	135	140	155	150
207	135	145	155	150
208	140	145	155	150
209	140	145	155	155
210	140	145	155	155
211	140	145	160	155
212	140	150	160	155
213	145	150	160	155
214	145	150	160	160
215	145	150	160	160
216	145	150	165	160
217	145	155	165	160
218	150	155	165	160
219	150	155	165	165
220	150	155	165	165

$\Delta L = L5 - L4$ (mm)	BALL	BIKE	TWIN	PINCH
221	150	155	170	165
222	150	160	170	165
223	155	160	170	165
224	155	160	170	170
225	155	160	170	170
226	155	160	175	170
227	155	165	175	170
228	160	165	175	170
229	160	165	175	175
230	160	165	175	175
231	160	165	180	175
232	160	170	180	175
233	165	170	180	175
234	165	170	180	180
235	165	170	180	180
236	165	170	185	180
237	165	175	185	180
238	170	175	185	180
239	170	175	185	185
240	170	175	185	185
241	170	175	190	185
242	170	180	190	185

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$\Delta L = L5 - L4$ (mm)	BALL	BIKE	TWIN	PINCH
243	175	180	190	185
244	175	180	190	190
245	175	180	190	190
246	175	180	195	190
247	175	185	195	190
248	180	185	195	190
249	180	185	195	195
250	180	185	195	195
251	180	185	195	195
252	180	190	195	195
253	185	190	195	195
254	185	190	195	195
255	185	190	195	195
256	185	190	195	195
257	185	195	195	195
258	190	195	195	195
259	190	195	195	195
260	190	195	195	195
261	190	195	195	195
262	190	195	195	195
>262	195	195	195	195