Design and Manufacture

Assignment

Research and specification pro forma — DESIGN BRIEF 1



SOA

ANTHROPOMETRIC DATA

I am not exactly sure what the product will be like but I have selected a range of anthropometric sizes which I think are likely to be important.

I have taken a mid point for the elbow height so that it will be suitable for all users.

I have taken the 95%le for women of the hip width as this is the biggest and therefore will fit all users.

I have selected the leg sizes which I think will be important whether the user is sitting or kneeling. I have taken the largest female size for the popliteal dimension as this matches mid 50%le for men point and would be most suitable. I have chosen the 95%le men sizes for the other two leg dimensions as if product fits large men it will fit all users.

I have also taken key hand sizes to make sure that the product can be lifted or adjusted.

OBSERVATIONS FROM USER TRIALS

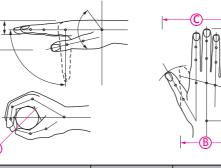
5 people in the target group were observed weeding their garden. The points I noted were:

- 1. All collected the weeding tools from a garden shed and carried them to the gardening area. Some of them had the tools in a bag, others carried them loose.
- 2. All had a bag or a bucket to put the weeds in.
- 3. There were 2 main gardening positions, kneeling or sitting. Sometimes all both positions were used, depending on how long the weeding went on.
- 4. The time spent a any one spot was quite short (no more than 2 minutes) and then everything had to be moved.
- 5. All people often rubbed their knees and backs.

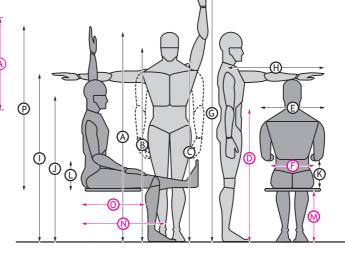








Н	Hand and head		Adult male			Adult female			
		Percentile			Percentile				
		5th	50th	95th	5th	50th	95tł		
А	Hand length	170	190	210	160	175	190		
В	Hand breadth	80	90	100	70	80	90		
С	Hand span	97	107	116	83	92	101		
D	Hand thickness	26	30	34	22	26	30		
E	Grip diameter index finger	35	47	55	33	38	44		



Sta	inding and seated	Adult male			Adult female			
	figures	Percentile			Percentile			
		5th	50th	95th	5th	50th	95th	
D	Elbow height	1021	1107	1192	948	1021	1094	
F	Hip width	315	354	403	330	371	442	
м	Popliteal height	410	455	499	370	412	455	
N	Buttock front knee length	567	619	677	541	592	655	
0	Buttock-popliteal length	456	503	556	438	484	540	

SIZES OF EQUIPMENT



Spec The brie prop

Page:	0	f	

Specification

The specification should include key points from the brief and research to detail the requirements of the proposal.

It should clarify aspects such as aesthetics, function, ergonomics, performance, and cost.

Downloaded free from https://sqa.my/