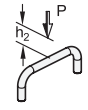


Strength Values of Plastic Cabinet “U” Handles

Sorted by Series Number



Impact strength
 $S_1 = P \times h_1$



Impact strength
 $S_2 = P \times h_2$



Breaking load K_1
(N / lbf)



Breaking load K_2
(N / lbf)

Extensive test series were carried out in order to obtain strength details for the plastic cabinet “U” handles listed below. The results provide information on the impact strength and the breaking load under normal stress in two load directions.

The impact strength S_1 / S_2 was determined according to the sketch shown opposite:

A cylindrical steel element rounded at the tip (weight 0.680 kg) repeatedly hits the handle, increasing the drop height h by 0.1 mm with every drop. Fracture occurs at the specified S values.

The details given on strength are non-binding guide values without any liability. In general, they do not constitute a warranty of quality. The user must determine from case to case if a product is suitable for the intended use.

Ledge Handles EN 130 → www.jwwinco.com			
Size in mm	100-M6	100-B4.5	
S_1 in J	-	-	
S_2 in J	10	7	
K_1	3000 N <i>674 lbf</i>	700 N <i>157 lbf</i>	
K_2	1900 N <i>427 lbf</i>	900 N <i>202 lbf</i>	

Ledge Handles EN 130.2 → page 192			
Size in mm	100-M4	100-B4.5	
S_1 in J	-	-	
S_2 in J	3	3	
K_1	3500 N <i>787 lbf</i>	3000 N <i>674 lbf</i>	
K_2	2800 N <i>629 lbf</i>	2800 N <i>629 lbf</i>	

Ledge Handles EN 130.3 → page XYZ			
Size in mm	108-M5	100-B4.5	
S_1 in J	-	-	
S_2 in J	6	6	
K_1	2400 N <i>540 lbf</i>	2600 N <i>585 lbf</i>	
K_2	1400 N <i>315 lbf</i>	1300 N <i>292 lbf</i>	

Finger Grip Handles EN 224.3 → page 159			
Size in mm	9	10	
S_1 in J	6	10	
S_2 in J	-	-	
K_1	-	-	
K_2	2300 N <i>517 lbf</i>	2300 N <i>517 lbf</i>	



Strength Values of Plastic Cabinet “U” Handles continued (2/7)

Arch Handles EN 365 → page 158								
Size in mm	132							
S ₁ in J	15							
S ₂ in J	7							
K ₁	2100 N 472 lbf							
K ₂	2600 N 585 lbf							

Cabinet “U” Handles EN 525 → page 110								
Size in mm	86	117	179					
S ₁ in J	5	6	7					
S ₂ in J	6	10	8					
K ₁	2500 N 562 lbf	4000 N 899 lbf	3000 N 674 lbf					
K ₂	2500 N 562 lbf	5000 N 1124 lbf	2000 N 450 lbf					

Cabinet “U” Handles EN 528-PA → page 114								
Size in mm	94	117	122	132	140	160	179	235
S ₁ in J	15	20	25	27	27	29	20	40
S ₂ in J	8	13	14	14	20	20	20	34
K ₁	3500 N 787 lbf	4500 N 1012 lbf	3700 N 832 lbf	3500 N 787 lbf	3400 N 764 lbf	3300 N 742 lbf	2800 N 629 lbf	3200 N 719 lbf
K ₂	2500 N 562 lbf	2500 N 562 lbf	2500 N 562 lbf	2500 N 562 lbf	2600 N 585 lbf	2700 N 607 lbf	2700 N 607 lbf	3500 N 787 lbf

Cabinet “U” Handles EN 528-PP → page 114								
Size in mm	94	117	122	132	140	160	179	235
S ₁ in J	8	10	12	12	13	15	16	17
S ₂ in J	3	4	5	5	6	7	8	11
K ₁	1700 N 382 lbf	2000 N 450 lbf	1600 N 360 lbf	2000 N 450 lbf	1800 N 405 lbf	1800 N 405 lbf	1800 N 405 lbf	1700 N 382 lbf
K ₂	1300 N 292 lbf	1500 N 337 lbf	1500 N 337 lbf	1300 N 292 lbf	1300 N 292 lbf	1300 N 292 lbf	1300 N 292 lbf	1700 N 382 lbf

Cabinet “U” Handles EN 528-SV → page 114					Cabinet “U” Handles EN 528-ESD → page 114			
Size in mm	94	117	132	179	Size in mm	94	117	
S ₁ in J	9	10	12	20	S ₁ in J	15	20	
S ₂ in J	5	8	8	13	S ₂ in J	8	13	
K ₁	1750 N 393 lbf	3500 N 787 lbf	3000 N 674 lbf	1400 N 315 lbf	K ₁	3500 N 787 lbf	4500 N 1012 lbf	
K ₂	1700 N 382 lbf	2200 N 495 lbf	1800 N 405 lbf	2100 N 472 lbf	K ₂	2500 N 562 lbf	2500 N 562 lbf	

Cabinet “U” Handles EN 528.1-PA → page 116						
Size in mm	94	105	117	132	179-M8	179-M10
S ₁ in J	10	10	12	18	24	24
S ₂ in J	6	7	9	16	30	30
K ₁	2000 N 450 lbf	2000 N 450 lbf	3000 N 674 lbf	2000 N 450 lbf	3000 N 674 lbf	3200 N 719 lbf
K ₂	1800 N 405 lbf	1800 N 405 lbf	1600 N 360 lbf	1800 N 405 lbf	2300 N 517 lbf	2500 N 562 lbf

Strength Values of Plastic Cabinet “U” Handles continued (3/7)

Cabinet “U” Handles EN 528.1-PP → page 116							
Size in mm	117						
S ₁ in J	9						
S ₂ in J	4						
K ₁	1900 N 427 lbf						
K ₂	950 N 214 lbf						

Cabinet “U” Handles EN 528.2 → page 118							
Size in mm	94	117	122	140	150	160	179
S ₁ in J	16	17	25	27	27	22	20
S ₂ in J	6	7	14	20	15	15	20
K ₁	3500 N 787 lbf	4500 N 1012 lbf	3700 N 832 lbf	3400 N 764 lbf	3000 N 674 lbf	3300 N 742 lbf	2800 N 629 lbf
K ₂	2500 N 562 lbf	2500 N 562 lbf	2500 N 562 lbf	2600 N 585 lbf	2600 N 585 lbf	2700 N 607 lbf	2700 N 607 lbf

Cabinet “U” Handles EN 528.3 → page 118							
Size in mm	94	117	122	140	150	160	
S ₁ in J	15	20	25	27	27	22	
S ₂ in J	8	13	14	20	15	15	
K ₁	3500 N 787 lbf	4500 N 1012 lbf	3700 N 832 lbf	3400 N 764 lbf	3000 N 674 lbf	3300 N 742 lbf	
K ₂	2500 N 562 lbf	2500 N 562 lbf	2500 N 562 lbf	2600 N 585 lbf	2600 N 585 lbf	2700 N 607 lbf	

Cabinet “U” Handles EN 528.4 → page 116							
Size in mm	117	179					
S ₁ in J	11	24					
S ₂ in J	9	30					
K ₁	2200 N 495 lbf	3400 N 764 lbf					
K ₂	1400 N 315 lbf	2600 N 585 lbf					

Cabinet “U” Handles EN 625 → page 109							
Size in mm	86	117	179	300			
S ₁ in J	50	50	27	25			
S ₂ in J	120	120	80	75			
K ₁	4000 N 899 lbf	4000 N 899 lbf	3000 N 674 lbf	2000 N 450 lbf			
K ₂	7000 N 1574 lbf	5000 N 1124 lbf	3500 N 787 lbf	3000 N 674 lbf			



Strength Values of Plastic Cabinet “U” Handles continued (4/7)

Cabinet “U” Handles EN 627 → www.jwwinco.com							
Size in mm	88	120					
S ₁ in J	11	11					
S ₂ in J	9	9					
K ₁	2000 N <i>450 lbf</i>	2000 N <i>450 lbf</i>					
K ₂	2200 N <i>495 lbf</i>	2200 N <i>495 lbf</i>					

Bridge Handles EN 628 → page 130							
Size in mm	94	117	120	132	150	179	
S ₁ in J	8	10	10	11	12	16	
S ₂ in J	3	4	4	4	5	9	
K ₁	2000 N <i>450 lbf</i>	2700 N <i>607 lbf</i>	2700 N <i>607 lbf</i>	2700 N <i>607 lbf</i>	2700 N <i>607 lbf</i>	2200 N <i>495 lbf</i>	
K ₂	1500 N <i>337 lbf</i>	1800 N <i>405 lbf</i>	1800 N <i>405 lbf</i>	1800 N <i>405 lbf</i>	1500 N <i>337 lbf</i>	1500 N <i>337 lbf</i>	

Bridge Handles EN 628.1 → www.jwwinco.com							
Size in mm	117	179					
S ₁ in J	10	16					
S ₂ in J	4	9					
K ₁	2700 N <i>607 lbf</i>	2200 N <i>495 lbf</i>					
K ₂	1800 N <i>405 lbf</i>	1500 N <i>337 lbf</i>					

Bridge Handles EN 628.4 → page 132							
Size in mm	132						
S ₁ in J	35						
S ₂ in J	8						
K ₁	2800 N <i>629 lbf</i>						
K ₂	2900 N <i>652 lbf</i>						

Bridge Handles EN 628.5 → page 134							
Size in mm	132						
S ₁ in J	31						
S ₂ in J	13						
K ₁	4400 N <i>989 lbf</i>						
K ₂	4400 N <i>989 lbf</i>						

Strength Values of Plastic Cabinet “U” Handles continued (5/7)

Off-Set Enclosed Safety “U” Handles EN 630 → page 194										
Size in mm	114									
S ₁ in J	-									
S ₂ in J	-									
K ₁	90 N 20 lbf									
K ₂	-									

Off-Set Open “U” Handles EN 630.1 → page 108										
Size in mm	114									
S ₁ in J	-									
S ₂ in J	-									
K ₁	90 N 20 lbf									
K ₂	-									

Cabinet “U” Handles EN 725 → page 104										
Size in mm	86	94	117	120	132	150	160	179	235	300
S ₁ in J	12	10	8	8	8	8	8	11	11	18
S ₂ in J	6	8	12	12	12	13	13	13	13	11
K ₁	2400 N 540 lbf	2300 N 517 lbf	2250 N 506 lbf	2250 N 506 lbf	2200 N 495 lbf	2000 N 450 lbf	2000 N 450 lbf	1900 N 427 lbf	1900 N 427 lbf	2000 N 450 lbf
K ₂	2400 N 540 lbf	2300 N 517 lbf	2650 N 596 lbf	2650 N 596 lbf	2450 N 551 lbf	2550 N 573 lbf	2250 N 506 lbf	2000 N 450 lbf	2000 N 450 lbf	2000 N 450 lbf

Cabinet “U” Handles EN 725-MDB → page 105										
Size in mm	117	179								
S ₁ in J	8	11								
S ₂ in J	12	15								
K ₁	2500 N 562 lbf	2000 N 450 lbf								
K ₂	4500 N 1012 lbf	3000 N 674 lbf								

Cabinet “U” Handles EN 725-VDB → page 105										
Size in mm	117	179								
S ₁ in J	8	11								
S ₂ in J	12	15								
K ₁	3500 N 787 lbf	2500 N 562 lbf								
K ₂	4500 N 1012 lbf	3000 N 674 lbf								



Strength Values of Plastic Cabinet “U” Handles continued (6/7)

Cabinet “U” Handles EN 725.1 → www.jwwinco.com							
Size in mm	86	117	132	179			
S ₁ in J	11	11	11	11			
S ₂ in J	9	9	9	13			
K ₁	3000 N <i>674 lbf</i>	2000 N <i>450 lbf</i>	1900 N <i>427 lbf</i>	1900 N <i>427 lbf</i>			
K ₂	2200 N <i>495 lbf</i>	2800 N <i>629 lbf</i>	1900 N <i>427 lbf</i>	1900 N <i>427 lbf</i>			

Gripping Trays EN 739 → page 202							
Size in mm	115						
S ₁ in J	-						
S ₂ in J	-						
K ₁	3500 N <i>787 lbf</i>						
K ₂	3500 N <i>787 lbf</i>						

Tubular Handles EN 767 (Aluminum Tube / Plastic End Pieces) → www.jwwinco.com							
Size in mm	28-300	28-400	28-500	28-600	28-700		
S ₁ in J	-	-	-	-	-		
S ₂ in J	2400	2000	1800	1200	900		
K ₁	-	-	-	-	-		
K ₂	2800 N <i>629 lbf</i>	2300 N <i>517 lbf</i>	2000 N <i>450 lbf</i>	1500 N <i>337 lbf</i>	1200 N <i>270 lbf</i>		
Size in mm	35-300	35-400	35-500	35-600	35-700	35-1000	
S ₁ in J	-	-	-	-	-	-	
S ₂ in J	3000	2700	2500	1900	1900	1200	
K ₁	-	-	-	-	-	-	
K ₂	3100 N <i>697 lbf</i>	2800 N <i>629 lbf</i>	2600 N <i>585 lbf</i>	2100 N <i>472 lbf</i>	2100 N <i>472 lbf</i>	1400 N <i>315 lbf</i>	

Tubular Handles EN 767.1 (Aluminum Tube / Plastic End Pieces) → www.jwwinco.com							
Size in mm	28-300	28-400	28-500	28-600	28-700		
S ₁ in J	-	-	-	-	-		
S ₂ in J	2400	2000	1800	1200	900		
K ₁	-	-	-	-	-		
K ₂	2800 N <i>629 lbf</i>	2300 N <i>517 lbf</i>	2000 N <i>450 lbf</i>	1500 N <i>337 lbf</i>	1200 N <i>270 lbf</i>		
Size in mm	35-300	35-400	35-500	35-600	35-700	35-1000	
S ₁ in J	-	-	-	-	-	-	
S ₂ in J	3000	2700	2500	1900	1900	1200	
K ₁	-	-	-	-	-	-	
K ₂	3100 N <i>697 lbf</i>	2800 N <i>629 lbf</i>	2600 N <i>585 lbf</i>	2100 N <i>472 lbf</i>	2100 N <i>472 lbf</i>	1400 N <i>315 lbf</i>	

Strength Values of Plastic Cabinet “U” Handles continued (7/7)

Folding Handles EN 825.1 → www.jwwinco.com							
Size in mm	90						
S ₁ in J	-						
S ₂ in J	-						
K ₁	1700 N 382 lbf						
K ₂	2500 N 562 lbf						

Folding Handles with Recessed Tray EN 825.2 → www.jwwinco.com							
Size in mm	90	105					
S ₁ in J	-						
S ₂ in J	-						
K ₁	1650 N 540 lbf	2000 N 450 lbf					
K ₂	2400 N 370.93 lbf	2700 N 607 lbf					

Cabinet “U” Handles MF → page 113							
Size in mm	B6.5-93.5	B6.5-117	B8.5-117	B6.5-132	B8.5-132	B8.5-179	
Max. vertical lifting load	220 Kg 484 lbs	230 Kg 506 lbs	230 Kg 506 lbs	250 Kg 550 lbs	250 Kg 550 lbs	250 Kg 550 lbs	

Cabinet “U” Handles MFB → page 112							
Size in mm	1/4x20-93.5	1/4x20-117	5/16x18-117	1/4x20-132	5/16x18-132	5/16x18-179	
Max. vertical lifting load	220 Kg 484 lbs	230 Kg 506 lbs	230 Kg 506 lbs	250 Kg 550 lbs	250 Kg 550 lbs	250 Kg 550 lbs	
Size in mm	M6-93.5	M6-117	M8-117	M6-132	M8-132	M8-179	
Max. vertical lifting load	220 Kg 484 lbs	230 Kg 506 lbs	230 Kg 506 lbs	250 Kg 550 lbs	250 Kg 550 lbs	250 Kg 550 lbs	

Cabinet “U” Handles MFE → page 113							
Size in mm	B6.5-93.5	B6.5-117	B8.5-117	B6.5-132	B8.5-132	B8.5-179	
Max. vertical lifting load	120 Kg 265 lbs	125 Kg 276 lbs	125 Kg 276 lbs	130 Kg 287 lbs	130 Kg 287 lbs	130 Kg 287 lbs	

Cabinet “U” Handles MFP → page 117							
Size in mm	93.5	117	132	179			
Max. vertical lifting load	220 Kg 484 lbs	230 Kg 506 lbs	250 Kg 550 lbs	250 Kg 550 lbs			

Cabinet “U” Handles MT → page 111							
Size in mm	1/4x20-105	1/4x20-110	5/16x18-117				
Max. vertical lifting load	220 Kg 484 lbs	230 Kg 506 lbs	230 Kg 506 lbs				
Size in mm	M5-105	M6-105	M5-110	M6-110	M5-117	M6-117	M8-117
Max. vertical lifting load	220 Kg 484 lbs	220 Kg 484 lbs	230 Kg 506 lbs	230 Kg 506 lbs	230 Kg 506 lbs	230 Kg 506 lbs	230 Kg 506 lbs

