

Load Capacity of Metal Cabinet “U” Handles / Tubular Handles

Sorted by Series Number



Load capacity F_1
in N / lbf



Load capacity F_2
in N / lbf

Extensive test series were carried out with the cabinet “U” handles / tubular handles listed below.

The handles were slowly loaded and unloaded at room temperature with gradually increasing force. After unloading, a deformation irrelevant in terms of function and appearance remained at the listed values for F_1 and F_2 . The breaking forces are usually a multiple of the specified value.

The details given on load capacity 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. Ambient influences and ageing may affect the specified values.

Cabinet “U” Handles GN 225 → page 136

Size in mm	18	20	22	25				
F_1	2250 N <i>506 lbf</i>	2250 N <i>506 lbf</i>	3000 N <i>674 lbf</i>	3500 N <i>787 lbf</i>				
F_2	5500 N <i>1236 lbf</i>	7500 N <i>1686 lbf</i>	9750 N <i>2192 lbf</i>	9750 N <i>2192 lbf</i>				

Cabinet “U” Handles GN 328 → page 152

Size in mm	120	140						
F_1	1800 N <i>405 lbf</i>	1000 N <i>225 lbf</i>						
F_2	5000 N <i>1124 lbf</i>	4500 N <i>1012 lbf</i>						

Cabinet “U” Handles GN 328.5 → page 152

Size in mm	120	140						
F_1	2500 N <i>562 lbf</i>	2000 N <i>450 lbf</i>						
F_2	4500 N <i>1012 lbf</i>	4000 N <i>899 lbf</i>						

Tubular Handles GN 331 → page 166

Size in mm	30-200	30-300						
F_1	3000 N <i>674 lbf</i>	2400 N <i>540 lbf</i>						
F_2	4000 N <i>899 lbf</i>	3700 N <i>832 lbf</i>						

Tubular Handles GN 332 → page 170

Size in mm	30-200	30-300						
F_1	2500 N <i>562 lbf</i>	2250 N <i>506 lbf</i>						
F_2	3500 N <i>787 lbf</i>	3400 N <i>764 lbf</i>						

Tubular Handles GN 333 → page 168

Size in mm	20-200	20-250	20-300	20-350	20-400			
F_1	1700 N <i>382 lbf</i>	1500 N <i>337 lbf</i>	1200 N <i>270 lbf</i>	800 N <i>180 lbf</i>	500 N <i>112 lbf</i>			
F_2	2800 N <i>629 lbf</i>	2500 N <i>562 lbf</i>	2000 N <i>450 lbf</i>	1500 N <i>337 lbf</i>	500 N <i>112 lbf</i>			
Size in mm	28-200	28-250	28-300	28-350	28-400	28-500	28-600	
F_1	2500 N <i>562 lbf</i>	2250 N <i>506 lbf</i>	2000 N <i>450 lbf</i>	1750 N <i>393 lbf</i>	1650 N <i>371 lbf</i>	1575 N <i>354 lbf</i>	1500 N <i>337 lbf</i>	
F_2	4750 N <i>1068 lbf</i>	4250 N <i>955 lbf</i>	3750 N <i>843 lbf</i>	3250 N <i>731 lbf</i>	2750 N <i>618 lbf</i>	2250 N <i>506 lbf</i>	1500 N <i>337 lbf</i>	
Size in mm	30-200	30-300	30-350	30-400	30-500	30-600	30-1000	
F_1	2500 N <i>562 lbf</i>	2250 N <i>506 lbf</i>	2200 N <i>495 lbf</i>	2200 N <i>495 lbf</i>	2000 N <i>450 lbf</i>	1800 N <i>405 lbf</i>	750 N <i>169 lbf</i>	
F_2	3500 N <i>787 lbf</i>	3400 N <i>764 lbf</i>	3200 N <i>719 lbf</i>	2850 N <i>641 lbf</i>	2250 N <i>506 lbf</i>	1900 N <i>427 lbf</i>	800 N <i>180 lbf</i>	

Tubular Handles GN 333.1 → page 164							
Size in mm	20-180	20-200	20-250	20-300	20-350	20-400	
F ₁	1600 N 360 lbf	1500 N 337 lbf	1400 N 315 lbf	1250 N 281 lbf	750 N 169 lbf	700 N 157 lbf	
F ₂	2500 N 562 lbf	2000 N 450 lbf	1900 N 427 lbf	1600 N 360 lbf	1550 N 348 lbf	1250 N 281 lbf	
Size in mm	28-200	28-250	28-300	28-350	28-400	28-500	28-600
F ₁	1700 N 382 lbf	1500 N 337 lbf	1500 N 337 lbf	1350 N 303 lbf	1000 N 225 lbf	1000 N 225 lbf	1000 N 225 lbf
F ₂	4800 N 1079 lbf	3500 N 787 lbf	2800 N 629 lbf	2400 N 540 lbf	1800 N 405 lbf	1700 N 382 lbf	1500 N 337 lbf
Size in mm	30-200	30-300	30-350	30-400	30-500	30-600	30-1000
F ₁	3000 N 674 lbf	2400 N 540 lbf	2400 N 540 lbf	2350 N 528 lbf	2350 N 528 lbf	1750 N 393 lbf	1250 N 281 lbf
F ₂	4000 N 899 lbf	3700 N 832 lbf	3000 N 674 lbf	2700 N 607 lbf	2300 N 517 lbf	2000 N 450 lbf	1000 N 225 lbf

Tubular Handles GN 333.2 → www.jwwinco.com							
Size in mm	242	292	392	492	592		
F ₁	2400 N 540 lbf	2200 N 495 lbf	2000 N 450 lbf	1900 N 427 lbf	1600 N 360 lbf		
F ₂	3700 N 832 lbf	3200 N 719 lbf	2400 N 540 lbf	2200 N 495 lbf	1650 N 371 lbf		

Tubular Handles GN 333.3 → www.jwwinco.com							
Size in mm	242	292	392	492	592		
F ₁	1800 N 405 lbf	1700 N 382 lbf	1650 N 371 lbf	1600 N 360 lbf	1500 N 337 lbf		
F ₂	3500 N 787 lbf	3000 N 674 lbf	2500 N 562 lbf	2000 N 450 lbf	1500 N 337 lbf		

Tubular Handles GN 333.6 → page 169							
Size in mm	200	250	300	400	500	600	
F ₁	5500 N 1236 lbf	5000 N 1124 lbf	4500 N 1012 lbf	3900 N 877 lbf	3500 N 787 lbf	2300 N 517 lbf	
F ₂	7500 N 1686 lbf	7000 N 1574 lbf	5500 N 1236 lbf	4500 N 1012 lbf	3900 N 877 lbf	2500 N 562 lbf	

Tubular Handles GN 333.7 → page 165							
Size in mm	200	250	300	400	500	600	
F ₁	6000 N 1349 lbf	5500 N 1236 lbf	5000 N 1124 lbf	4000 N 899 lbf	3700 N 832 lbf	2500 N 562 lbf	
F ₂	8000 N 1798 lbf	7500 N 1686 lbf	7000 N 1574 lbf	5000 N 1124 lbf	4700 N 1057 lbf	3200 N 719 lbf	

Oval Tubular Handles GN 334 → page 174								
Size in mm	200	250	300	350	400	500	600	800
F ₁	1750 N 393 lbf	1650 N 371 lbf	1500 N 337 lbf	1500 N 337 lbf	1250 N 281 lbf	1200 N 270 lbf	1100 N 247 lbf	700 N 157 lbf
F ₂	3000 N 674 lbf	2400 N 540 lbf	1750 N 393 lbf	1750 N 393 lbf	1500 N 337 lbf	1350 N 303 lbf	1000 N 225 lbf	700 N 157 lbf

Oval Tubular Handles GN 334.1 → page 175								
Size in mm	200	250	300	350	400	500	600	800
F ₁	1700 N 382 lbf	1650 N 371 lbf	1500 N 337 lbf	1450 N 326 lbf	1400 N 315 lbf	1200 N 270 lbf	1000 N 225 lbf	750 N 169 lbf
F ₂	3000 N 674 lbf	2700 N 607 lbf	2500 N 562 lbf	2000 N 450 lbf	1500 N 337 lbf	1250 N 281 lbf	1000 N 225 lbf	750 N 169 lbf



Oval Tubular Handles GN 335 → page 176

Size in mm	200	250	300	350	400	500	600	800
F ₁	1500 N <i>337 lbf</i>	1400 N <i>315 lbf</i>	1300 N <i>292 lbf</i>	1200 N <i>270 lbf</i>	1100 N <i>247 lbf</i>	1000 N <i>225 lbf</i>	900 N <i>202 lbf</i>	800 N <i>180 lbf</i>
F ₂	2800 N <i>629 lbf</i>	2600 N <i>585 lbf</i>	2300 N <i>517 lbf</i>	2000 N <i>450 lbf</i>	1600 N <i>360 lbf</i>	1300 N <i>292 lbf</i>	1000 N <i>225 lbf</i>	600 N <i>135 lbf</i>

Oval Tubular Handles GN 366 → www.jwwinco.com

Size in mm	200	250	300	400	500	600		
F ₁	2000 N <i>450 lbf</i>	2000 N <i>450 lbf</i>	2000 N <i>450 lbf</i>	1500 N <i>337 lbf</i>	1300 N <i>292 lbf</i>	900 N <i>202 lbf</i>		
F ₂	3500 N <i>787 lbf</i>	2800 N <i>629 lbf</i>	2250 N <i>506 lbf</i>	1600 N <i>360 lbf</i>	1450 N <i>326 lbf</i>	1150 N <i>259 lbf</i>		

Cabinet “U” Handles GN 422 → page 124

Type	T1	T2						
F ₁	2900 N <i>652 lbf</i>	2900 N <i>652 lbf</i>						
F ₂	5400 N <i>1214 lbf</i>	5400 N <i>1214 lbf</i>						

Cabinet “U” Handles GN 422.1 → page 123

Size in mm	117	148	172					
F ₁	1500 N <i>337 lbf</i>	1400 N <i>315 lbf</i>	1200 N <i>270 lbf</i>					
F ₂	5000 N <i>1124 lbf</i>	3500 N <i>787 lbf</i>	3000 N <i>674 lbf</i>					

Rack Handles GN 423 - Type A → www.jwwinco.com

Size in mm	55	88	100	120	180	235		
F ₁	270 N <i>60.70 lbf</i>	250 N <i>56.20 lbf</i>	220 N <i>49.46 lbf</i>	200 N <i>44.96 lbf</i>	180 N <i>40.47 lbf</i>	150 N <i>33.72 lbf</i>		
F ₂	1700 N <i>382 lbf</i>	1500 N <i>337 lbf</i>	1000 N <i>225 lbf</i>	600 N <i>135 lbf</i>	500 N <i>112 lbf</i>	250 N <i>56.20 lbf</i>		

Rack Handles GN 423 - Type B → www.jwwinco.com

Size in mm	55	88	100	120	180	235		
F ₁	270 N <i>60.70 lbf</i>	250 N <i>56.20 lbf</i>	220 N <i>49.46 lbf</i>	200 N <i>44.96 lbf</i>	180 N <i>40.47 lbf</i>	150 N <i>33.72 lbf</i>		
F ₂	1600 N <i>360 lbf</i>	1250 N <i>281 lbf</i>	800 N <i>180 lbf</i>	400 N <i>89.92 lbf</i>	300 N <i>67.44 lbf</i>	200 N <i>44.96 lbf</i>		

Arched Pull Handles GN 424.1 → page 157

Size in mm	64	96	128	160	192			
F ₁	1300 N <i>292 lbf</i>	800 N <i>180 lbf</i>	800 N <i>180 lbf</i>	700 N <i>157 lbf</i>	525 N <i>118 lbf</i>			
F ₂	6500 N <i>1461 lbf</i>	5250 N <i>1180 lbf</i>	2700 N <i>607 lbf</i>	2000 N <i>450 lbf</i>	1550 N <i>348 lbf</i>			

Arched Pull Handles GN 424.5 → page 157

Size in mm	64	96	128	160	192			
F ₁	1500 N <i>337 lbf</i>	900 N <i>202 lbf</i>	900 N <i>202 lbf</i>	800 N <i>180 lbf</i>	600 N <i>135 lbf</i>			
F ₂	7500 N <i>1686 lbf</i>	5750 N <i>1293 lbf</i>	3000 N <i>674 lbf</i>	2250 N <i>506 lbf</i>	1750 N <i>393 lbf</i>			

Steel Cabinet “U” Handles GN 425 → page 140							
Size in mm	8-55	8-64	8-88	8-96	8-100	8-120	8-128
F ₁	475 N <i>107 lbf</i>	550 N <i>124 lbf</i>	500 N <i>112 lbf</i>	500 N <i>112 lbf</i>	500 N <i>112 lbf</i>	450 N <i>101 lbf</i>	500 N <i>112 lbf</i>
F ₂	5000 N <i>1124 lbf</i>	4300 N <i>967 lbf</i>	3300 N <i>742 lbf</i>	3000 N <i>674 lbf</i>	2800 N <i>629 lbf</i>	1750 N <i>393 lbf</i>	1250 N <i>281 lbf</i>
Size in mm	10-88	10-100	10-120	10-180	10-200	10-235	
F ₁	1300 N <i>292 lbf</i>	900 N <i>202 lbf</i>	900 N <i>202 lbf</i>	700 N <i>157 lbf</i>	500 N <i>112 lbf</i>	400 N <i>89.92 lbf</i>	
F ₂	4000 N <i>899 lbf</i>	3750 N <i>843 lbf</i>	3000 N <i>674 lbf</i>	2000 N <i>450 lbf</i>	1200 N <i>270 lbf</i>	1150 N <i>259 lbf</i>	
Size in mm	12-125	12-160	12-200	12-250			
F ₁	1200 N <i>270 lbf</i>	1000 N <i>225 lbf</i>	400 N <i>89.92 lbf</i>	200 N <i>44.96 lbf</i>			
F ₂	6000 N <i>1349 lbf</i>	4000 N <i>899 lbf</i>	3000 N <i>674 lbf</i>	3400 N <i>764 lbf</i>			
Size in mm	16-160	16-200	16-250	16-300			
F ₁	1900 N <i>427 lbf</i>	1300 N <i>292 lbf</i>	1100 N <i>247 lbf</i>	800 N <i>180 lbf</i>			
F ₂	5000 N <i>1124 lbf</i>	4000 N <i>899 lbf</i>	3500 N <i>787 lbf</i>	5750 N <i>1293 lbf</i>			

Aluminum Cabinet “U” Handles GN 425 → page 138							
Size in mm	8-55	8-64	8-88	8-96	8-100	8-120	8-128
F ₁	300 N <i>67.44 lbf</i>	300 N <i>67.44 lbf</i>	300 N <i>67.44 lbf</i>	200 N <i>44.96 lbf</i>	200 N <i>44.96 lbf</i>	200 N <i>44.96 lbf</i>	200 N <i>44.96 lbf</i>
F ₂	1400 N <i>315 lbf</i>	1200 N <i>270 lbf</i>	825 N <i>185 lbf</i>	750 N <i>169 lbf</i>	700 N <i>157 lbf</i>	575 N <i>129 lbf</i>	450 N <i>101 lbf</i>
Size in mm	10-88	10-100	10-120	10-180	10-200	10-235	
F ₁	500 N <i>112 lbf</i>	450 N <i>101 lbf</i>	400 N <i>89.92 lbf</i>	350 N <i>78.68 lbf</i>	250 N <i>56.20 lbf</i>	250 N <i>56.20 lbf</i>	
F ₂	2000 N <i>450 lbf</i>	1500 N <i>337 lbf</i>	1000 N <i>225 lbf</i>	700 N <i>157 lbf</i>	600 N <i>135 lbf</i>	500 N <i>112 lbf</i>	
Size in mm	12-125	12-160	12-200	12-250			
F ₁	400 N <i>89.92 lbf</i>	300 N <i>67.44 lbf</i>	250 N <i>56.20 lbf</i>	200 N <i>44.96 lbf</i>			
F ₂	2000 N <i>450 lbf</i>	1000 N <i>225 lbf</i>	800 N <i>180 lbf</i>	800 N <i>180 lbf</i>			
Size in mm	16-160	16-200	16-250	16-300			
F ₁	800 N <i>180 lbf</i>	750 N <i>169 lbf</i>	500 N <i>112 lbf</i>	250 N <i>56.20 lbf</i>			
F ₂	2300 N <i>517 lbf</i>	2000 N <i>450 lbf</i>	1500 N <i>337 lbf</i>	1000 N <i>225 lbf</i>			

Stainless Steel Cabinet “U” Handles GN 425 → page 138							
Size in mm	8-55	8-64	8-88	8-96	8-100	8-120	8-128
F ₁	-	600 N <i>135 lbf</i>	850 N <i>191 lbf</i>	700 N <i>157 lbf</i>	700 N <i>157 lbf</i>	700 N <i>157 lbf</i>	700 N <i>157 lbf</i>
F ₂	-	4000 N <i>899 lbf</i>	3000 N <i>674 lbf</i>	2500 N <i>562 lbf</i>	2000 N <i>450 lbf</i>	1500 N <i>337 lbf</i>	1300 N <i>292 lbf</i>
Size in mm	10-88	10-100	10-120	10-180	10-200	10-235	
F ₁	1400 N <i>315 lbf</i>	1000 N <i>225 lbf</i>	1000 N <i>225 lbf</i>	700 N <i>157 lbf</i>	600 N <i>135 lbf</i>	500 N <i>112 lbf</i>	
F ₂	4000 N <i>899 lbf</i>	3800 N <i>854 lbf</i>	3000 N <i>674 lbf</i>	2250 N <i>506 lbf</i>	1500 N <i>337 lbf</i>	1400 N <i>315 lbf</i>	
Size in mm	12-125	12-160	12-200	12-250			
F ₁	1200 N <i>270 lbf</i>	1000 N <i>225 lbf</i>	700 N <i>157 lbf</i>	500 N <i>112 lbf</i>			
F ₂	7000 N <i>1574 lbf</i>	4500 N <i>1012 lbf</i>	3000 N <i>674 lbf</i>	2500 N <i>562 lbf</i>			



Stainless Steel Cabinet “U” Handles GN 425 → page 138							
Size in mm	16-160	16-200	16-250	16-300			
F ₁	1900 N <i>427 lbf</i>	1300 N <i>292 lbf</i>	1100 N <i>247 lbf</i>	800 N <i>180 lbf</i>			
F ₂	8500 N <i>1911 lbf</i>	7000 N <i>1574 lbf</i>	5000 N <i>1124 lbf</i>	4000 N <i>899 lbf</i>			

Steel Cabinet “U” Handles GN 425.1 → page 145							
Size in mm	8-55	8-64	8-88	8-96	8-100		
F ₁	500 N <i>112 lbf</i>	425 N <i>95.54 lbf</i>	450 N <i>101 lbf</i>	375 N <i>84.30 lbf</i>	325 N <i>73.06 lbf</i>		
F ₂	700 N <i>157 lbf</i>	600 N <i>135 lbf</i>	500 N <i>112 lbf</i>	600 N <i>135 lbf</i>	400 N <i>89.92 lbf</i>		
Size in mm	10-88	10-100	10-120	10-180	10-200		
F ₁	1000 N <i>225 lbf</i>	900 N <i>202 lbf</i>	900 N <i>202 lbf</i>	500 N <i>112 lbf</i>	500 N <i>112 lbf</i>		
F ₂	2000 N <i>450 lbf</i>	1500 N <i>337 lbf</i>	1500 N <i>337 lbf</i>	750 N <i>169 lbf</i>	700 N <i>157 lbf</i>		
Size in mm	12-125	12-160	12-200	12-250			
F ₁	1150 N <i>259 lbf</i>	1250 N <i>281 lbf</i>	1425 N <i>320 lbf</i>	875 N <i>197 lbf</i>			
F ₂	1925 N <i>433 lbf</i>	1500 N <i>337 lbf</i>	1425 N <i>320 lbf</i>	1250 N <i>281 lbf</i>			

Aluminum Cabinet “U” Handles GN 425.1 → page 144							
Size in mm	8-55	8-64	8-88	8-96	8-100		
F ₁	400 N <i>89.92 lbf</i>	350 N <i>78.68 lbf</i>	300 N <i>67.44 lbf</i>	250 N <i>56.20 lbf</i>	250 N <i>56.20 lbf</i>		
F ₂	400 N <i>89.92 lbf</i>	400 N <i>89.92 lbf</i>	350 N <i>78.68 lbf</i>	350 N <i>78.68 lbf</i>	350 N <i>78.68 lbf</i>		
Size in mm	10-88	10-100	10-120	10-180	10-200		
F ₁	400 N <i>89.92 lbf</i>	450 N <i>101 lbf</i>	400 N <i>89.92 lbf</i>	350 N <i>78.68 lbf</i>	250 N <i>56.20 lbf</i>		
F ₂	500 N <i>112 lbf</i>	500 N <i>112 lbf</i>	500 N <i>112 lbf</i>	450 N <i>101 lbf</i>	400 N <i>89.92 lbf</i>		
Size in mm	12-125	12-160	12-200	12-250			
F ₁	600 N <i>135 lbf</i>	600 N <i>135 lbf</i>	500 N <i>112 lbf</i>	650 N <i>146 lbf</i>			
F ₂	725 N <i>163 lbf</i>	1050 N <i>236 lbf</i>	1000 N <i>225 lbf</i>	900 N <i>202 lbf</i>			

Stainless Steel Cabinet “U” Handles GN 425.1 → page 144							
Size in mm	8-55	8-64	8-88	8-96	8-100		
F ₁	450 N <i>101 lbf</i>	500 N <i>112 lbf</i>	500 N <i>112 lbf</i>	500 N <i>112 lbf</i>	500 N <i>112 lbf</i>		
F ₂	500 N <i>112 lbf</i>	1000 N <i>225 lbf</i>	1000 N <i>225 lbf</i>	1000 N <i>225 lbf</i>	1000 N <i>225 lbf</i>		
Size in mm	10-88	10-100	10-120	10-180	10-200		
F ₁	1500 N <i>337 lbf</i>	1450 N <i>326 lbf</i>	1450 N <i>326 lbf</i>	500 N <i>112 lbf</i>	500 N <i>112 lbf</i>		
F ₂	2150 N <i>483 lbf</i>	2000 N <i>450 lbf</i>	2000 N <i>450 lbf</i>	1000 N <i>225 lbf</i>	1000 N <i>225 lbf</i>		
Size in mm	12-125	12-160	12-200	12-250			
F ₁	700 N <i>157 lbf</i>	1250 N <i>281 lbf</i>	1350 N <i>303 lbf</i>	1350 N <i>303 lbf</i>			
F ₂	1650 N <i>371 lbf</i>	1700 N <i>382 lbf</i>	2250 N <i>506 lbf</i>	1750 N <i>393 lbf</i>			

Steel Folding Handles GN 425.2 → page 160								
Size in mm	10-100	10-120	10-180					
F ₁	1750 N 393 lbf	1600 N 360 lbf	1250 N 281 lbf					
F ₂	2600 N 585 lbf	2600 N 585 lbf	2500 N 562 lbf					

Stainless Steel Folding Handles GN 425.2 → page 160								
Size in mm	10-100	10-120	10-180					
F ₁	2000 N 450 lbf	2000 N 450 lbf	1750 N 393 lbf					
F ₂	5000 N 1124 lbf	3500 N 787 lbf	2250 N 506 lbf					

Steel Folding Handles GN 425.5 → page 161								
Size in mm	100	120	180					
F ₁	500 N 112 lbf	500 N 112 lbf	500 N 112 lbf					
F ₂	-	-	-					

Stainless Steel Folding Handles GN 425.5 → page 161								
Size in mm	100	120	180					
F ₁	500 N 112 lbf	500 N 112 lbf	500 N 112 lbf					
F ₂	-	-	-					

Folding Handles with Recessed Tray GN 425.8 → page 163								
Size in mm	100	120						
F ₁	1000 N 225 lbf	1000 N 225 lbf						
F ₂	5000 N 1124 lbf	5000 N 1124 lbf						

Folding Handles GN 425.9 → page 162								
Size in mm	120							
F ₁	450 N 101 lbf							
F ₂	1000 N 225 lbf							

Cabinet “U” Handles GN 426 → page 146								
Size in mm	20-200	20-250	20-300	20-350	28-250	28-300	28-350	28-400
F ₁	1400 N 315 lbf	1100 N 247 lbf	1100 N 247 lbf	1000 N 225 lbf	4000 N 899 lbf	3200 N 719 lbf	3000 N 674 lbf	2500 N 562 lbf
F ₂	3300 N 742 lbf	3000 N 674 lbf	2300 N 517 lbf	2200 N 495 lbf	5500 N 1236 lbf	5000 N 1124 lbf	5000 N 1124 lbf	5000 N 1124 lbf

Cabinet “U” Handles GN 426.1 → page 150								
Size in mm	20-200	20-300	28-250	28-350	28-500			
F ₁	1500 N 337 lbf	1450 N 326 lbf	3000 N 674 lbf	2500 N 562 lbf	2300 N 517 lbf			
F ₂	1600 N 360 lbf	1400 N 315 lbf	2000 N 450 lbf	2000 N 450 lbf	2000 N 450 lbf			



Cabinet “U” Handles GN 426.5 - Type A → page 147

Size in mm	20-200	20-250	20-300	20-350	28-250	28-300	28-350	28-400
F ₁	4000 N <i>899 lbf</i>	6000 N <i>1349 lbf</i>	5500 N <i>1236 lbf</i>	3500 N <i>787 lbf</i>	4000 N <i>899 lbf</i>	3500 N <i>787 lbf</i>	2800 N <i>629 lbf</i>	2750 N <i>618 lbf</i>
F ₂	9000 N <i>2023 lbf</i>	10000 N <i>2248 lbf</i>	8000 N <i>1798 lbf</i>	6500 N <i>1461 lbf</i>	8000 N <i>1798 lbf</i>	7250 N <i>1630 lbf</i>	6750 N <i>1517 lbf</i>	6500 N <i>1461 lbf</i>

Cabinet “U” Handles GN 426.5 - Type B → page 147

Size in mm	20-200	20-250	20-300	20-350	28-250	28-300	28-350	28-400
F ₁	1000 N <i>225 lbf</i>	1600 N <i>360 lbf</i>	1400 N <i>315 lbf</i>	1400 N <i>315 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>
F ₂	4000 N <i>899 lbf</i>	9000 N <i>2023 lbf</i>	6500 N <i>1461 lbf</i>	7500 N <i>1686 lbf</i>	10000 N <i>2248 lbf</i>	7000 N <i>1574 lbf</i>	6000 N <i>1349 lbf</i>	5000 N <i>1124 lbf</i>

Cabinet “U” Handles GN 426.6 - Type A → page 151

Size in mm	20-200	20-300	28-250	28-350	28-500			
F ₁	4200 N <i>944 lbf</i>	4000 N <i>899 lbf</i>	2000 N <i>450 lbf</i>	1500 N <i>337 lbf</i>	2700 N <i>607 lbf</i>			
F ₂	7500 N <i>1686 lbf</i>	7000 N <i>1574 lbf</i>	5000 N <i>1124 lbf</i>	3500 N <i>787 lbf</i>	2250 N <i>506 lbf</i>			

Cabinet “U” Handles GN 426.6 - Type B → page 151

Size in mm	20-250	20-300	28-250	28-350	28-500			
F ₁	1000 N <i>225 lbf</i>	500 N <i>112 lbf</i>	1000 N <i>225 lbf</i>	1250 N <i>281 lbf</i>	1750 N <i>393 lbf</i>			
F ₂	1200 N <i>270 lbf</i>	1200 N <i>270 lbf</i>	1250 N <i>281 lbf</i>	1750 N <i>393 lbf</i>	1750 N <i>393 lbf</i>			

Cabinet “U” Handles GN 427 → page 137

Size in mm	55	88	100	120	180	200	235	
F ₁	650 N <i>146 lbf</i>	600 N <i>135 lbf</i>	500 N <i>112 lbf</i>	450 N <i>101 lbf</i>	300 N <i>67.44 lbf</i>	250 N <i>56.20 lbf</i>	200 N <i>44.96 lbf</i>	
F ₂	1600 N <i>360 lbf</i>	1150 N <i>259 lbf</i>	1100 N <i>247 lbf</i>	1000 N <i>225 lbf</i>	550 N <i>124 lbf</i>	500 N <i>112 lbf</i>	400 N <i>89.92 lbf</i>	

Cabinet “U” Handles GN 427.5 → page 137

Size in mm	55	88	100	120	180	200	235	
F ₁	2400 N <i>540 lbf</i>	2100 N <i>472 lbf</i>	2000 N <i>450 lbf</i>	1800 N <i>405 lbf</i>	1250 N <i>281 lbf</i>	850 N <i>191 lbf</i>	800 N <i>180 lbf</i>	
F ₂	6000 N <i>1349 lbf</i>	5000 N <i>1124 lbf</i>	3750 N <i>843 lbf</i>	3000 N <i>674 lbf</i>	1700 N <i>382 lbf</i>	1500 N <i>337 lbf</i>	1200 N <i>270 lbf</i>	

Cabinet “U” Handles GN 428 - Type A → page 153

Size in mm	28-200	28-250	28-300	28-400				
F ₁	2000 N <i>450 lbf</i>	1250 N <i>281 lbf</i>	2250 N <i>506 lbf</i>	1500 N <i>337 lbf</i>				
F ₂	5000 N <i>1124 lbf</i>	4520 N <i>1016 lbf</i>	2750 N <i>618 lbf</i>	2200 N <i>495 lbf</i>				
Size in mm	36-300	36-400	36-500	36-600	36-800			
F ₁	5750 N <i>1293 lbf</i>	6250 N <i>1405 lbf</i>	3750 N <i>843 lbf</i>	2500 N <i>562 lbf</i>	1750 N <i>393 lbf</i>			
F ₂	7500 N <i>1686 lbf</i>	6750 N <i>1517 lbf</i>	5750 N <i>1293 lbf</i>	4000 N <i>899 lbf</i>	1000 N <i>225 lbf</i>			

Cabinet “U” Handles GN 428 - Type B → page 153							
Size in mm	28-250	28-300	28-400				
F ₁	1500 N <i>337 lbf</i>	1250 N <i>281 lbf</i>	1250 N <i>281 lbf</i>				
F ₂	3500 N <i>787 lbf</i>	2750 N <i>618 lbf</i>	1750 N <i>393 lbf</i>				
Size in mm	36-300	36-400	36-500	36-600	36-800		
F ₁	4500 N <i>1012 lbf</i>	7000 N <i>1574 lbf</i>	3750 N <i>843 lbf</i>	2250 N <i>506 lbf</i>	1750 N <i>393 lbf</i>		
F ₂	7500 N <i>1686 lbf</i>	6500 N <i>1461 lbf</i>	4500 N <i>1012 lbf</i>	3500 N <i>787 lbf</i>	1000 N <i>225 lbf</i>		

Cabinet “U” Handles GN 429 → page 148							
Size in mm	12-125	12-160	16-160	16-200			
F ₁	400 N <i>89.92 lbf</i>	400 N <i>89.92 lbf</i>	1600 N <i>360 lbf</i>	1600 N <i>360 lbf</i>			
F ₂	5500 N <i>1236 lbf</i>	4500 N <i>1012 lbf</i>	7500 N <i>1686 lbf</i>	5500 N <i>1236 lbf</i>			

Cabinet “U” Handles GN 435 → page 141							
Size in mm	12-125-75	12-125-110	12-160-75	12-160-110	12-200-75	12-200-110	
F ₁	550 N <i>124 lbf</i>	400 N <i>89.92 lbf</i>	500 N <i>112 lbf</i>	300 N <i>67.44 lbf</i>	450 N <i>101 lbf</i>	250 N <i>56.20 lbf</i>	
F ₂	7000 N <i>1574 lbf</i>	7000 N <i>1574 lbf</i>	4500 N <i>1012 lbf</i>	4500 N <i>1012 lbf</i>	3000 N <i>674 lbf</i>	3000 N <i>674 lbf</i>	
Size in mm	16-160-85	16-160-125	16-200-85	16-200-125	16-300-85	16-300-125	
F ₁	1500 N <i>337 lbf</i>	800 N <i>180 lbf</i>	750 N <i>169 lbf</i>	700 N <i>157 lbf</i>	800 N <i>180 lbf</i>	800 N <i>180 lbf</i>	
F ₂	8500 N <i>1911 lbf</i>	8500 N <i>1911 lbf</i>	6000 N <i>1349 lbf</i>	7000 N <i>1574 lbf</i>	3000 N <i>674 lbf</i>	4000 N <i>899 lbf</i>	

Cabinet / Door Handles GN 559 - Type A → page 122							
Size in mm	162						
F ₁	5000 N <i>1124 lbf</i>						
F ₂	8000 N <i>1798 lbf</i>						

Cabinet / Door Handles GN 559 - Type B / Type C → page 122							
Size in mm	162						
F ₁	1000 N <i>225 lbf</i>						
F ₂	2500 N <i>562 lbf</i>						

Cabinet “U” Handles GN 564 → page 102							
Size in mm	25-112	25-128	25-160	25-192	35-160	35-192	35-300
F ₁	500 N <i>112 lbf</i>	500 N <i>112 lbf</i>	500 N <i>112 lbf</i>	500 N <i>112 lbf</i>	1200 N <i>270 lbf</i>	1200 N <i>270 lbf</i>	1200 N <i>270 lbf</i>
F ₂	3000 N <i>674 lbf</i>	2500 N <i>562 lbf</i>	1800 N <i>405 lbf</i>	1400 N <i>315 lbf</i>	3500 N <i>787 lbf</i>	3000 N <i>674 lbf</i>	2000 N <i>450 lbf</i>



Cabinet “U” Handles GN 565 → page 98								
Size in mm	20-100	20-112	20-117	20-120	20-128	20-160	20-180	20-200
F ₁	1250 N 281 lbf	1250 N 281 lbf	1250 N 281 lbf	1250 N 281 lbf	1250 N 281 lbf	1200 N 270 lbf	1250 N 281 lbf	1250 N 281 lbf
F ₂	2100 N 472 lbf	2200 N 495 lbf	2200 N 495 lbf	2200 N 495 lbf	2200 N 495 lbf	2000 N 450 lbf	1750 N 393 lbf	2000 N 450 lbf
Size in mm	20-235							
F ₁	1000 N 225 lbf							
F ₂	1250 N 281 lbf							
Size in mm	26-112	26-117	26-120	26-125	26-128	26-160	26-179	26-192
F ₁	3000 N 674 lbf	2900 N 652 lbf	2900 N 652 lbf	2800 N 629 lbf	2800 N 629 lbf	2800 N 629 lbf	2400 N 540 lbf	2300 N 517 lbf
F ₂	7000 N 1574 lbf	6000 N 1349 lbf	5500 N 1236 lbf	5000 N 1124 lbf	4500 N 1012 lbf	3500 N 787 lbf	3250 N 731 lbf	3000 N 674 lbf
Size in mm	26-300	26-400	26-500					
F ₁	1700 N 382 lbf	1600 N 360 lbf	1200 N 270 lbf					
F ₂	2250 N 506 lbf	1750 N 393 lbf	1500 N 337 lbf					

Cabinet “U” Handles GN 565.1 → page 99								
Size in mm	20-100	20-112	20-117	20-120	20-128	20-160		
F ₁	1250 N 281 lbf	1200 N 270 lbf	1200 N 270 lbf	1100 N 247 lbf	1000 N 225 lbf	1000 N 225 lbf		
F ₂	2500 N 562 lbf	2400 N 540 lbf	2400 N 540 lbf	2400 N 540 lbf	2300 N 517 lbf	2000 N 450 lbf		
Size in mm	26-116	26-120	26-132	26-164	26-179	26-196		
F ₁	2000 N 450 lbf	2000 N 450 lbf	2000 N 450 lbf	2000 N 450 lbf	1800 N 405 lbf	1750 N 393 lbf		
F ₂	6500 N 1461 lbf	6250 N 1405 lbf	4000 N 899 lbf	3600 N 809 lbf	3400 N 764 lbf	3000 N 674 lbf		

Angled Cabinet “U” Handles GN 565.2 - Type A → page 106								
Size in mm	20-112	20-128	26-128	26-160				
F ₁	1900 N 427 lbf	1900 N 427 lbf	2400 N 540 lbf	2000 N 450 lbf				
F ₂	2400 N 540 lbf	2000 N 450 lbf	5200 N 1169 lbf	4800 N 1079 lbf				

Angled Cabinet “U” Handles GN 565.2 - Type B → page 106								
Size in mm	26-128	26-160						
F ₁	1750 N 393 lbf	1500 N 337 lbf						
F ₂	1850 N 416 lbf	2500 N 562 lbf						

Cabinet “U” Handles GN 565.3 → page 121								
Size in mm	20-120	20-160						
F ₁	1400 N 315 lbf	1500 N 337 lbf						
F ₂	1900 N 427 lbf	2750 N 618 lbf						

Arched Pull Handles GN 565.4 → page 155								
Size in mm	20-160	20-192	26-160	26-192				
F ₁	1300 N 292 lbf	1000 N 225 lbf	2000 N 450 lbf	2000 N 450 lbf				
F ₂	3500 N 787 lbf	2500 N 562 lbf	5000 N 1124 lbf	5000 N 1124 lbf				

Cabinet “U” Handles GN 565.5 - Type A → page 100								
Size in mm	20-112	20-128	20-160	20-200	20-250	20-300	20-350	20-400
F ₁	4000 N 899 lbf	3200 N 719 lbf	3100 N 697 lbf	3000 N 674 lbf	2800 N 629 lbf	2500 N 562 lbf	2000 N 450 lbf	1500 N 337 lbf
F ₂	7000 N 1574 lbf	6000 N 1349 lbf	4000 N 899 lbf	3800 N 854 lbf	3000 N 674 lbf	3000 N 674 lbf	2300 N 517 lbf	1500 N 337 lbf
Size in mm	26-128	26-160	26-200	26-300	26-400	26-500		
F ₁	5000 N 1124 lbf	4000 N 899 lbf	4000 N 899 lbf	3000 N 674 lbf	2000 N 450 lbf	2000 N 450 lbf		
F ₂	15000 N 3372 lbf	12000 N 2698 lbf	8000 N 1798 lbf	2000 N 450 lbf	2000 N 450 lbf	2000 N 450 lbf		

Cabinet “U” Handles GN 565.5 - Type B → page 100								
Size in mm	20-112	20-128	20-160	26-128	26-160	26-200		
F ₁	3000 N 674 lbf	2000 N 450 lbf	2500 N 562 lbf	4000 N 899 lbf	4000 N 899 lbf	5000 N 1124 lbf		
F ₂	6850 N 1540 lbf	5800 N 1304 lbf	4250 N 955 lbf	15000 N 3372 lbf	12000 N 2698 lbf	8000 N 1798 lbf		

Angled Cabinet “U” Handles GN 565.7 → page 107								
Size in mm	20-112	20-128	26-128	26-160				
F ₁	5250 N 1180 lbf	5000 N 1124 lbf	5000 N 1124 lbf	4500 N 1012 lbf				
F ₂	7250 N 1630 lbf	3500 N 787 lbf	6000 N 1349 lbf	7000 N 1574 lbf				

Arched Pull Handles GN 565.9 → page 155								
Size in mm	20-160	20-192						
F ₁	4500 N 1012 lbf	2500 N 562 lbf						
F ₂	4500 N 1012 lbf	2500 N 562 lbf						

Arched Pull Handles GN 665 → page 156								
Size in mm	26-350	26-450						
F ₁	1200 N 270 lbf	1100 N 247 lbf						
F ₂	2700 N 607 lbf	1550 N 348 lbf						

Aluminum Tubular Grip Handles GN 666 → page 180								
Size in mm	200	250	300	350	400	500	600	
F ₁	900 N 202 lbf	850 N 191 lbf	950 N 214 lbf	1000 N 225 lbf	1000 N 225 lbf	1100 N 247 lbf	1000 N 225 lbf	
F ₂	2500 N 562 lbf	2450 N 551 lbf	2400 N 540 lbf	2300 N 517 lbf	1750 N 393 lbf	1700 N 382 lbf	1350 N 303 lbf	

Stainless Steel Tubular Grip Handles GN 666 → page 180								
Size in mm	200	250	300	350	400	500	600	
F ₁	900 N 202 lbf	850 N 191 lbf	950 N 214 lbf	1000 N 225 lbf	1000 N 225 lbf	1100 N 247 lbf	1000 N 225 lbf	
F ₂	2500 N 562 lbf	2450 N 551 lbf	2400 N 540 lbf	2300 N 517 lbf	1750 N 393 lbf	1700 N 382 lbf	1350 N 303 lbf	



Aluminum Tubular Grip Handles GN 666.1 → page 182							
Size in mm	200	250	300	350	400	500	600
F ₁	1000 N <i>225 lbf</i>	1350 N <i>303 lbf</i>	1500 N <i>337 lbf</i>	1500 N <i>337 lbf</i>	1750 N <i>393 lbf</i>	1750 N <i>393 lbf</i>	1500 N <i>337 lbf</i>
F ₂	5500 N <i>1236 lbf</i>	5500 N <i>1236 lbf</i>	5250 N <i>1180 lbf</i>	4500 N <i>1012 lbf</i>	4500 N <i>1012 lbf</i>	3500 N <i>787 lbf</i>	2500 N <i>562 lbf</i>

Stainless Steel Tubular Grip Handles GN 666.1 → page 182							
Size in mm	200	250	300	350	400	500	600
F ₁	1150 N <i>259 lbf</i>	1150 N <i>259 lbf</i>	1200 N <i>270 lbf</i>	1200 N <i>270 lbf</i>	1150 N <i>259 lbf</i>	1100 N <i>247 lbf</i>	1000 N <i>225 lbf</i>
F ₂	3000 N <i>674 lbf</i>	3000 N <i>674 lbf</i>	2750 N <i>618 lbf</i>	2500 N <i>562 lbf</i>	2000 N <i>450 lbf</i>	1850 N <i>416 lbf</i>	1350 N <i>303 lbf</i>

Aluminum Tubular Arch Handles GN 666.4 → page 184							
Size in mm	400	500	600				
F ₁	750 N <i>169 lbf</i>	750 N <i>169 lbf</i>	750 N <i>169 lbf</i>				
F ₂	1800 N <i>405 lbf</i>	1700 N <i>382 lbf</i>	1500 N <i>337 lbf</i>				

Stainless Steel Tubular Arch Handles GN 666.4 → page 184							
Size in mm	400	500	600				
F ₁	1350 N <i>303 lbf</i>	1700 N <i>382 lbf</i>	1750 N <i>393 lbf</i>				
F ₂	5000 N <i>1124 lbf</i>	4500 N <i>1012 lbf</i>	3750 N <i>843 lbf</i>				

Tubular Grip Handles GN 666.5 → page 186							
Size in mm	200	250	300	400	500	600	
F ₁	2300 N <i>517 lbf</i>	2200 N <i>495 lbf</i>	2100 N <i>472 lbf</i>	2000 N <i>450 lbf</i>	1800 N <i>405 lbf</i>	1700 N <i>382 lbf</i>	
F ₂	4500 N <i>1012 lbf</i>	4300 N <i>967 lbf</i>	4000 N <i>899 lbf</i>	3700 N <i>832 lbf</i>	3500 N <i>787 lbf</i>	2000 N <i>450 lbf</i>	

Tubular Grip Handles GN 666.7 → page 186							
Size in mm	200	250	300	400	500	600	
F ₁	2300 N <i>517 lbf</i>	2200 N <i>495 lbf</i>	2100 N <i>472 lbf</i>	2000 N <i>450 lbf</i>	1800 N <i>405 lbf</i>	1700 N <i>382 lbf</i>	
F ₂	4500 N <i>1012 lbf</i>	4400 N <i>989 lbf</i>	4000 N <i>899 lbf</i>	3600 N <i>809 lbf</i>	3500 N <i>787 lbf</i>	2000 N <i>450 lbf</i>	

Aluminum Tubular Grip Handles GN 667 → page 172							
Size in mm	20-180	20-200	20-250	20-300	20-350	20-400	
F ₁	750 N <i>169 lbf</i>	750 N <i>169 lbf</i>	600 N <i>135 lbf</i>	600 N <i>135 lbf</i>	550 N <i>124 lbf</i>	500 N <i>112 lbf</i>	
F ₂	2000 N <i>450 lbf</i>	2000 N <i>450 lbf</i>	2000 N <i>450 lbf</i>	1500 N <i>337 lbf</i>	1250 N <i>281 lbf</i>	1000 N <i>225 lbf</i>	
Size in mm	30-300	30-350	30-400	30-500	30-600	30-700	30-1000
F ₁	1100 N <i>247 lbf</i>	1100 N <i>247 lbf</i>	750 N <i>169 lbf</i>	750 N <i>169 lbf</i>	750 N <i>169 lbf</i>	625 N <i>141 lbf</i>	550 N <i>124 lbf</i>
F ₂	3000 N <i>674 lbf</i>	2250 N <i>506 lbf</i>	2250 N <i>506 lbf</i>	1750 N <i>393 lbf</i>	1500 N <i>337 lbf</i>	1250 N <i>281 lbf</i>	1000 N <i>225 lbf</i>

Stainless Steel Tubular Grip Handles GN 667 → page 172							
Size in mm	20-180	20-200	20-250	20-300	20-350	20-400	
F ₁	1200 N 270 lbf	1100 N 247 lbf	1000 N 225 lbf	1000 N 225 lbf	750 N 169 lbf	700 N 157 lbf	
F ₂	1000 N 225 lbf	3500 N 787 lbf	3500 N 787 lbf	2500 N 562 lbf	2000 N 450 lbf	1000 N 225 lbf	
Size in mm	30-300	30-350	30-400	30-500	30-600	30-700	30-1000
F ₁	1250 N 281 lbf	1250 N 281 lbf	1200 N 270 lbf	1200 N 270 lbf	1200 N 270 lbf	900 N 202 lbf	800 N 180 lbf
F ₂	5000 N 1124 lbf	5000 N 1124 lbf	4250 N 955 lbf	4000 N 899 lbf	2250 N 506 lbf	2000 N 450 lbf	1000 N 225 lbf

Cabinet “U” Handles GN 668 - Type A → page 129								
Size in mm	20-130	20-170	20-190	20-210	30-262	30-312	30-362	30-412
F ₁	1600 N 360 lbf	1600 N 360 lbf	1500 N 337 lbf	1350 N 303 lbf	2500 N 562 lbf	1700 N 382 lbf	1400 N 315 lbf	1200 N 270 lbf
F ₂	2100 N 472 lbf	1900 N 427 lbf	1800 N 405 lbf	1650 N 371 lbf	3200 N 719 lbf	2200 N 495 lbf	1700 N 382 lbf	1500 N 337 lbf

Cabinet “U” Handles GN 668 - Type B → page 129								
Size in mm	20-130	20-70	20-190	20-210				
F ₁	700 N 157 lbf	650 N 146 lbf	600 N 135 lbf	550 N 124 lbf				
F ₂	2400 N 540 lbf	2000 N 450 lbf	1600 N 360 lbf	1200 N 270 lbf				

System Handles GN 669 → page 178							
Size in mm	200	250	300	400	500	600	
F ₁	1750 N 393 lbf	1500 N 337 lbf	1250 N 281 lbf	1200 N 270 lbf	1000 N 225 lbf	900 N 202 lbf	
F ₂	3000 N 674 lbf	2250 N 506 lbf	2100 N 472 lbf	2000 N 450 lbf	1500 N 337 lbf	1000 N 225 lbf	

Economical Cabinet “U” Handles GN 728 → page 120							
Size in mm	120	180					
F ₁	2000 N 450 lbf	2500 N 562 lbf					
F ₂	2500 N 562 lbf	2750 N 618 lbf					

Economical Cabinet “U” Handles GN 728.5 → page 120							
Size in mm	120						
F ₁	2500 N 562 lbf						
F ₂	5000 N 1124 lbf						

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		
F ₁	-	-	-	-	-		
F ₂	2400 N 540 lbf	2000 N 450 lbf	1800 N 405 lbf	1200 N 270 lbf	900 N 202 lbf		
Size in mm	35-300	35-400	35-500	35-600	35-700	35-1000	
F ₁	-	-	-	-	-		
F ₂	3000 N 674 lbf	2700 N 607 lbf	2500 N 562 lbf	1900 N 427 lbf	1900 N 427 lbf	1200 N 270 lbf	



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		
F₁	-	-	-	-	-		
F₂	2400 N <i>540 lbf</i>	2000 N <i>450 lbf</i>	1800 N <i>405 lbf</i>	1200 N <i>270 lbf</i>	900 N <i>202 lbf</i>		
Size in mm	35-300	35-400	35-500	35-600	35-700	35-1000	
F₁	-	-	-	-	-	-	
F₂	3000 N <i>674 lbf</i>	2700 N <i>607 lbf</i>	2500 N <i>562 lbf</i>	1900 N <i>427 lbf</i>	1900 N <i>427 lbf</i>	1200 N <i>270 lbf</i>	