



STUDY ON QUEUE FORMATION on ropeways with reduced capacity

Capacity of 1,200 passengers/hour

Time	Arrival of people every 10'	People arrived	People who can be transported	People in queue	Waiting time in minutes
10:00	400	400	200	200	
10:10	400	800	400	400	20
10:20	400	1.200	600	600	30
10:30	400	1.600	800	800	40
10:40	400	2.000	1000	1.000	50
10:50	400	2.400	1200	1.200	60
11:00	400	2.800	1400	1.400	70
11:10	400	3.200	1600	1.600	80
11:20	400	3.600	1800	1.800	90
11:30	400	4.000	2000	2.000	100
11:40	400	4.400	2200	2.200	110
11:50	400	4.800	2400	2.400	120

Capacity of 2,400 passengers/hour

Time	Arrival of people every 10'	People arrived	People who can be transported	People in queue	Waiting time in minutes
10:00	400	400	400	-	
10:10	400	800	800	-	-
10:20	400	1.200	1200	-	-
10:30	400	1.600	1600	-	-
10:40	400	2.000	2000	-	-
10:50	400	2.400	2400	-	-
11:00	400	2.800	2800	-	-
11:10	400	3.200	3200	-	-
11:20	400	3.600	3600	-	-
11:30	400	4.000	4000	-	-
11:40	400	4.400	4400	-	-
11:50	400	4.800	4800	-	-

The above tables show how the hourly capacity of a ropeway installation influences the formation of queues.

A constant flow of arrivals amounting to 400 people every 10 minutes is foreseen.

This number of arriving people is then related to the installation's capacity to transport people, i.e. its hourly capacity.

This results in the number of people who will eventually remain in the queue and the related waiting time.

The data are shown for a period of two hours to be considered the peak period.