

### Duty rating

$$R = \frac{T - (D \times T)}{D}$$

R = Rest time in seconds

T = Travel time in seconds

D = Duty rating in decimal form

### Examples of Rest Time Calculations

Travel time of actuator = 20 seconds  
Duty rating of actuator = 30%

$$R = \frac{T - (D \times T)}{D}$$

$$R = \frac{20 - (0.30 \times 20)}{0.30} = 47 \text{ seconds}$$

Full Cycle Time:

$$T + R = 20 + 47 = 67 \text{ seconds}$$

Travel time of actuator = 20 seconds  
Duty rating of actuator = 50%

$$R = \frac{T - (D \times T)}{D}$$

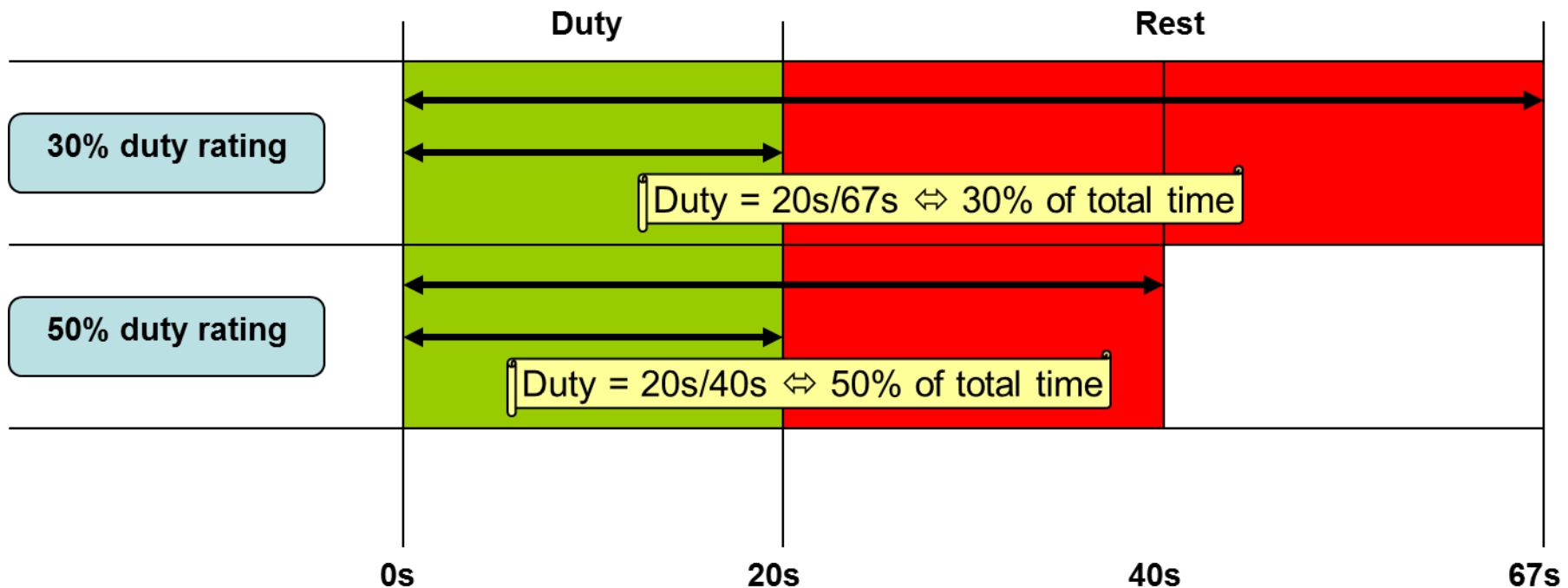
$$R = \frac{20 - (0.50 \times 20)}{0.50} = 20 \text{ seconds}$$

Full Cycle Time:

$$T + R = 20 + 20 = 40 \text{ seconds}$$

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Example of actuator which operating time 0-90° = 20s



	travel time																				
Duty rating	0	2	4	6	8	10	12	14	16	18	20	22	24	26	28	30	32	34	36	38	40
30%	0	5	9	14	19	23	28	33	37	42	47	51	56	61	65	70	75	79	84	89	93
50%	0	2	4	6	8	10	12	14	16	18	20	22	24	26	28	30	32	34	36	38	40
80%	0	1	2	4	5	6	7	8	9	11	12	13	14	15	16	18	19	20	21	22	23