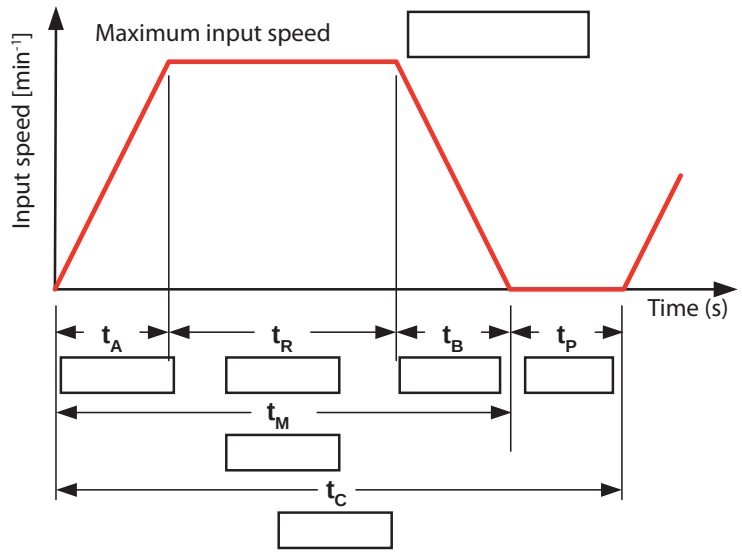
9 Appendix

Precision gearbox - application data sheet

Specific application data is required for the selection of a suitable precision gearbox.
Please complete the following data sheet to enable us to respond quickly. Thank you.

1. Load cycle:



t_A = acceleration time

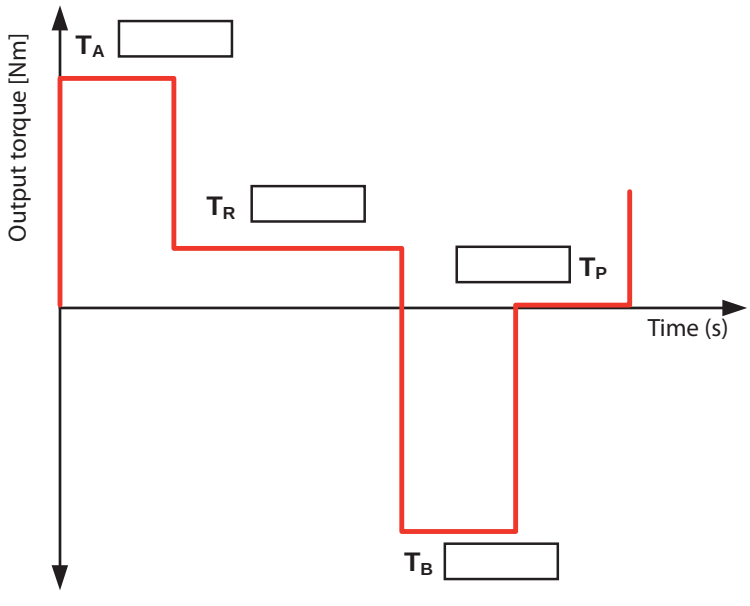
t_R = duration of uniform movement

t_B = braking time (deceleration time)

t_P = off-time - time between movements

t_M = duration of the movement phase of a working cycle ($t_A + t_R + t_B$)

t_C = duration of the entire working cycle ($t_M + t_P$)



T_A = torque when starting (acceleration torque)

T_R = torque at constant speed

T_B = brake torque (deceleration torque)

T_P = pause torque (to hold the position between the movements if necessary)

Precision gearbox - application data sheet

2. For how many hours a day is the application in operation? _____

3. What is the required reduction ratio? _____: 1

4. Please specify the following input power data (motor):

1. Nominal speed: _____ [min^{-1}]

2. Continuous static torque: _____ [Nm]

3. Peak torque: _____ [Nm]

4. Manufacturer: _____

5. Model number: _____

5. Shall Sumitomo provide an input adapter?

☐ yes
☐ no

If you have selected "Yes", please specify the dimensions of the input or submit a copy of the dimensioned drawing.

Is it a motor shaft with or without a key?

☐ With key
☐ Without key

6. How is the gearbox connected to the final load?

☐ Direct coupling
☐ Toothed belt or sprocket drive (go to number 8 on the next page)
☐ V-belt (go to number 8 on the next page)
☐ Toothed gearbox or other gearbox (go to number 8 on the next page)
☐ Other (go to number 8 on the next page)

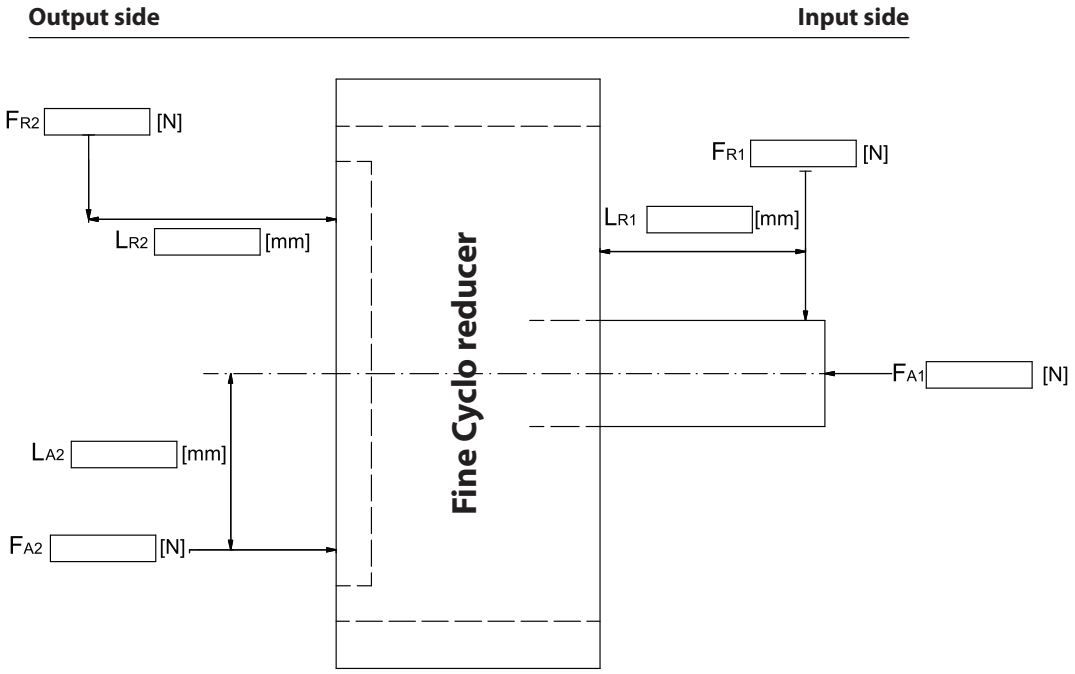
7. Please select one of the following load properties

☐ Uniform load
☐ Moderate impact load
☐ Heavy impact load

8. Radial and axial load

Is there a radial and/or axial load on the output flange?

☐ yes
☐ no



F_R = radial load
L_R = distance from radial force to flange collar
F_A = axial load
L_A = distance of the axial load from the centre line
1: Input side
2: Output side

9. Please describe your application in as much detail as possible (if possible, please enclose drawing).