

Index for tables

Table 1

Tables 2–6

Charts 7–10

Tables 11–26

Table 27

Definitions

Engagement principles or methods

Classification charts

Model sheets

Visual comparison

Glossary

Definitions of reciprocating-engagement (\overline{R}), arctuate-engagement (\overline{A}), cam-engagement (\overline{C}), slip-engagement (\overline{Sl}), counter engagement of internal ($\overline{Co_i}$) and external-axis ROPIMA.

I. Reciprocating-engagement (\overline{R}): exclusively linear motion of engaging components.

II. Arctuate-engagement (\overline{A}): engaging components move in parallel circular arcs. The engaging parts have equal/unequal diameters but possess equal r.p.m.¹ and equal number² of teeth.

III. Cam-engagement (\overline{C}): rotation in same direction – in manner of engaging gears.

a) Internal-axis machines:

The engaging component with the small diameter and higher r.p.m.¹ has fewer teeth². The engaging part with larger diameter and lower r.p.m.¹ has a greater number of teeth². Engaging components possessing equal diameters and equal r.p.m. have equal numbers of teeth; they belong to category II; arctuate-engagement M/C.

b) External-axis machines:

The engaging-component with equal/smaller diameter and higher r.p.m.¹ has few² teeth. The engaging-component with equal/unequal diameter and lower r.p.m.¹ possesses a larger number² of teeth.

The engaging-component with equal/unequal diameters and equal r.p.m.¹ possess equal numbers² of teeth.

IV. Slip-engagement ($\overline{Sl_i}$) or ($\overline{Sl_e}$): direction of rotation at contact point in same direction i. e. like rolling parts.

a) Internal-axis machines:

Engaging components with larger diameter and higher r.p.m.¹ possesses fewer² teeth. Engaging component with smaller diameter and lower r.p.m.¹ possesses more² teeth.

b) External-axis machines:

Slip-engagement cannot be separated from cam engagement.

V. Counter-engagement ($\overline{Co_i}$) or ($\overline{Co_e}$): direction of rotation at engaging point in opposite direction.

¹ When an engaging component is at rest its notation is transferred to the crank-pin.

² The term teeth is used in a broad sense and means lobes, projections etc. of components performing an engagement function.