

Prepare a displacement diagram and a fully dimensioned detail drawing of each of the plate cams in the following table as assigned by the instructor based on the given specifications below:

Base circle diameter : 96 mm

Hub diameter : 40 mm

Shaft diameter : 20 mm


Plate thickness : 25 mm

Hub thickness : 45 mm

Key-way : 3 x 3 mm

Material : Steel

No.	Cam Rotation	Follower Type	Cam Motion
1	CW	Roller (Ø6 mm)	<p>0° - 120° : Rise of 38 mm with uniform acceleration</p> <p>120° - 150° : Dwell</p> <p>at 150° : Sudden fall of 8 mm</p> <p>150° - 180° : Dwell</p> <p>180° - 240° : Fall of 14 mm with uniform velocity</p> <p>240° - 360° : Fall of 16 mm with harmonic motion</p>
2	CCW	Knife	<p>0° - 100° : Rise of 16 mm with uniform velocity</p> <p>100° - 120° : Dwell</p> <p>120° - 240° : Rise of 16 mm with harmonic motion</p> <p>240° - 260° : Dwell</p> <p>260° - 360° : Fall of 32 mm with uniform deceleration</p>
3	CCW	Flat-end	<p>0° - 135° : Rise of 34 mm with harmonic motion</p> <p>135° - 225° : Fall of 18 mm with uniform acceleration</p> <p>225° - 240° : Dwell</p> <p>240° - 360° : Fall of 16 mm with modified uniform velocity</p>

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