

QUESTION 4: MECHANICAL ASSEMBLY

Given:

- The exploded isometric drawing of the parts of a v-belt drive assembly, showing the position of each part relative to the others.
- Orthographic views of each of the parts or the v-belt drive.
- Starting point S and Z respectively indicated on the front view of the housing (part 1) and right view of the pulley (part 2) as well as on the answer sheet, page 6.

Instructions:

- Answer this question on page 6.
- Draw, to scale 1 : 1 and in third angle orthographic projection, the following views of the assembled parts of the v-belt drive.

4.1 The sectional front view of the v-belt drive assembly, on cutting plane A-A, as seen from the direction of the arrow shown on the exploded isometric drawing. The cutting plane is shown on the right view of the housing (part 1).

4.2 A right view without any hidden detail.

NOTE:

- Planning of the layout of the views is essential.
- All drawings must comply with the guidelines contained in *SANS 1011*.
- Show, in the sectional front view, THREE faces of the M14 nut.
- Show ALL nut constructions.
- NO hidden detail is required.

Add the following features on the drawing: [92]

- The cutting plane A-A.

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PARTS LIST		
PART	MATERIAL	QUANTITY

1. HOUSING	CAST IRON	1
2. PULLEY	ALUMINIUM	1
3. GEAR	STEEL	1
4. SHAFT	STEEL	1
5. SUPPORT	CAST IRON	1
6. PACKAGE	MCS	1
7. BUSH	BRONZE	1
8. STUD	STD	2
9. M8 NUT	STD	2
10. KEY	STEEL	2
11. M14 NUT	STD	2
12. GRUB SCREW	STD	1

TITLE:

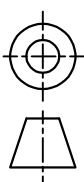
V-BELT DRIVE

AMATHOLE

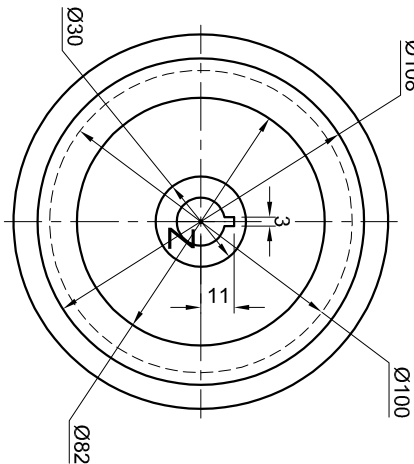
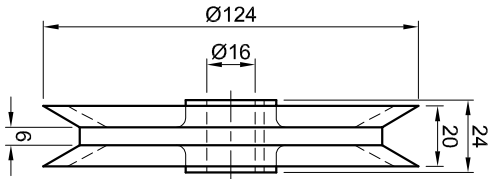
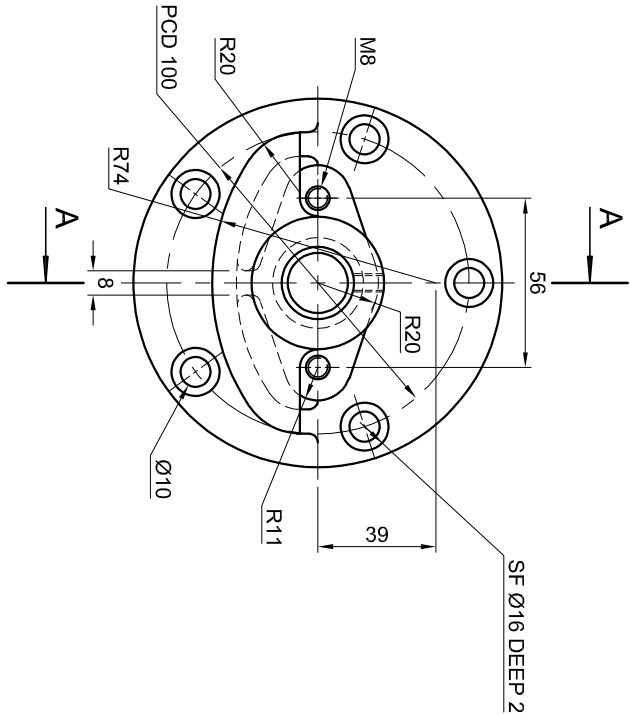
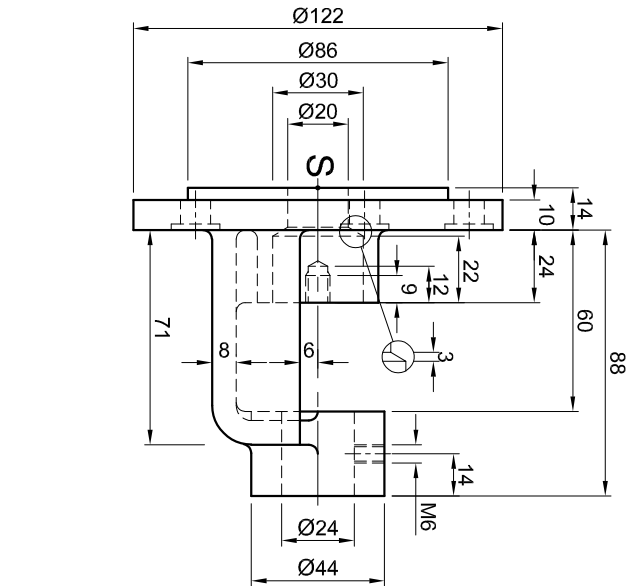
ENGINEERING MANUFACTURERS	21 BUFFALO STREET EAST LONDON 5201 043 7640 488
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ALL DIMENSIONS ARE MILLIMETRES.

ALL UNSPECIFIED RADII ARE R3.

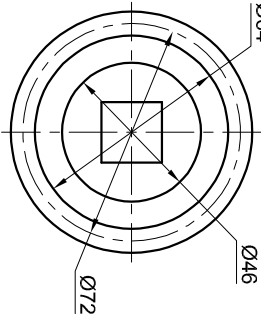
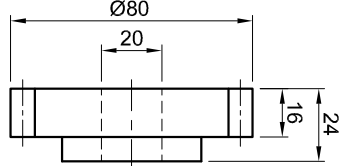


5

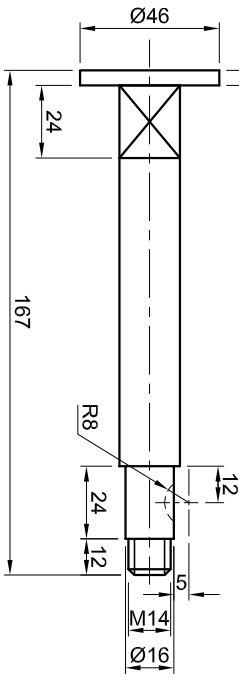


HOUSING (1)

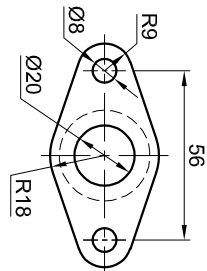
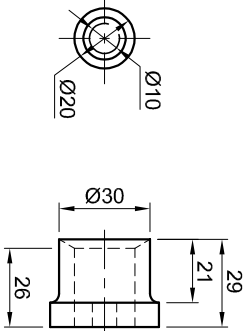
PULLEY (2)



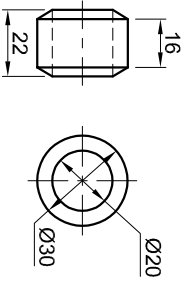
GEAR (3)



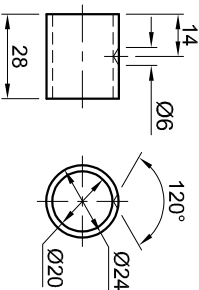
SHAFT (4)



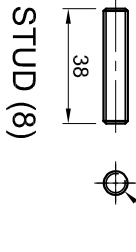
SUPPORT (5)



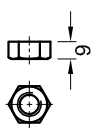
PACKAGE (6)



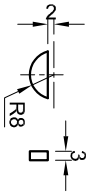
BUSH (7)



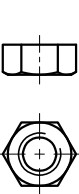
STUD (8)



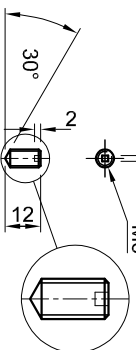
M8 NUT (9)



KEY (10)



M14 NUT (11)



GRUB SCREW (12)



FRONT VIEW