Project 2

Wheel Assembly

In this project, you will create components for a Wheel assembly and then assemble them. You need to create all the components as separate part files. The views and dimensions of the components are shown in Figures P2-3 through P2-6.

You can also download the model files for your reference from www.cadcim.com. To download the files, use the following path: *Textbooks > CAD/CAM > SOLIDWORKS > SOLIDWORKS 2025 for Designers> Projects for Free Download > Project 2*

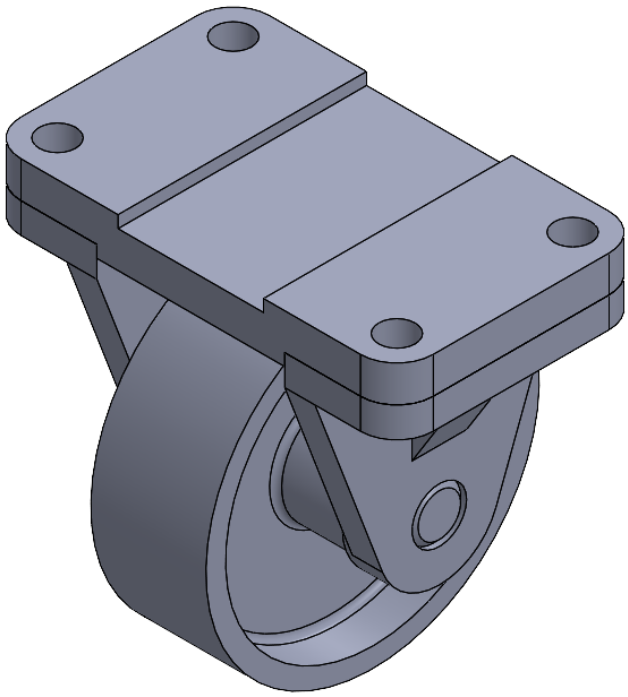


Figure P2-1

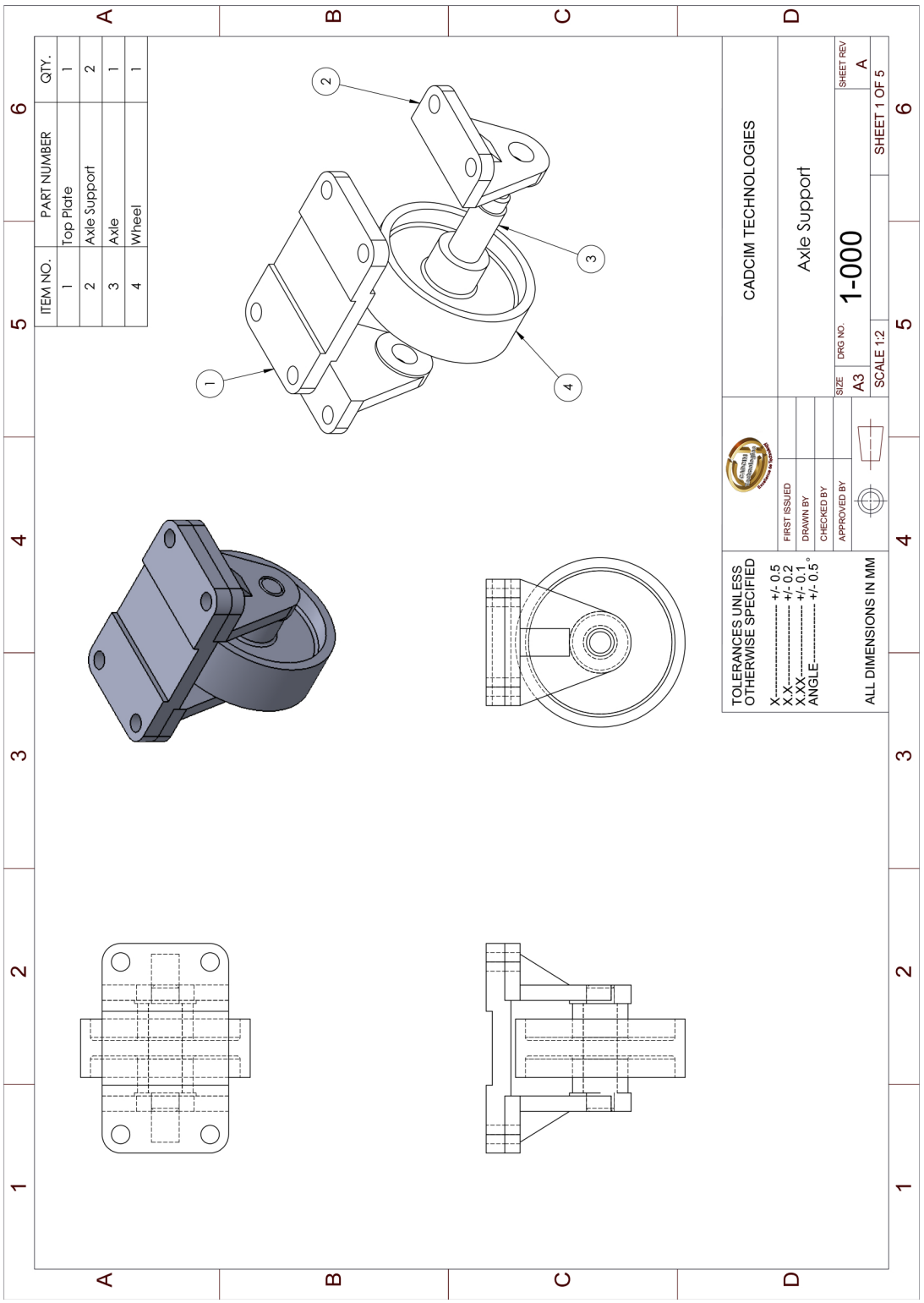

ITEM NO. | PART NUMBER | QTY.
1 | Top Plate | 1
2 | Axle Support | 2
3 | Axle | 1
4 | Wheel | 1
CADCIM TECHNOLOGIES
Axle Support
1-000
SHEET REV A
SHEET 1 OF 5
SIZE A3
DRG NO.
SCALE 1:2
FIRST ISSUED
DRAWN BY
CHECKED BY
APPROVED BY
TOLERANCES UNLESS OTHERWISE SPECIFIED
X ---------- +/- 0.5
X.X ---------- +/- 0.2
X.XX ---------- +/- 0.1
ANGLE ---------- +/- 0.5°
ALL DIMENSIONS IN MM

Figure P2-2

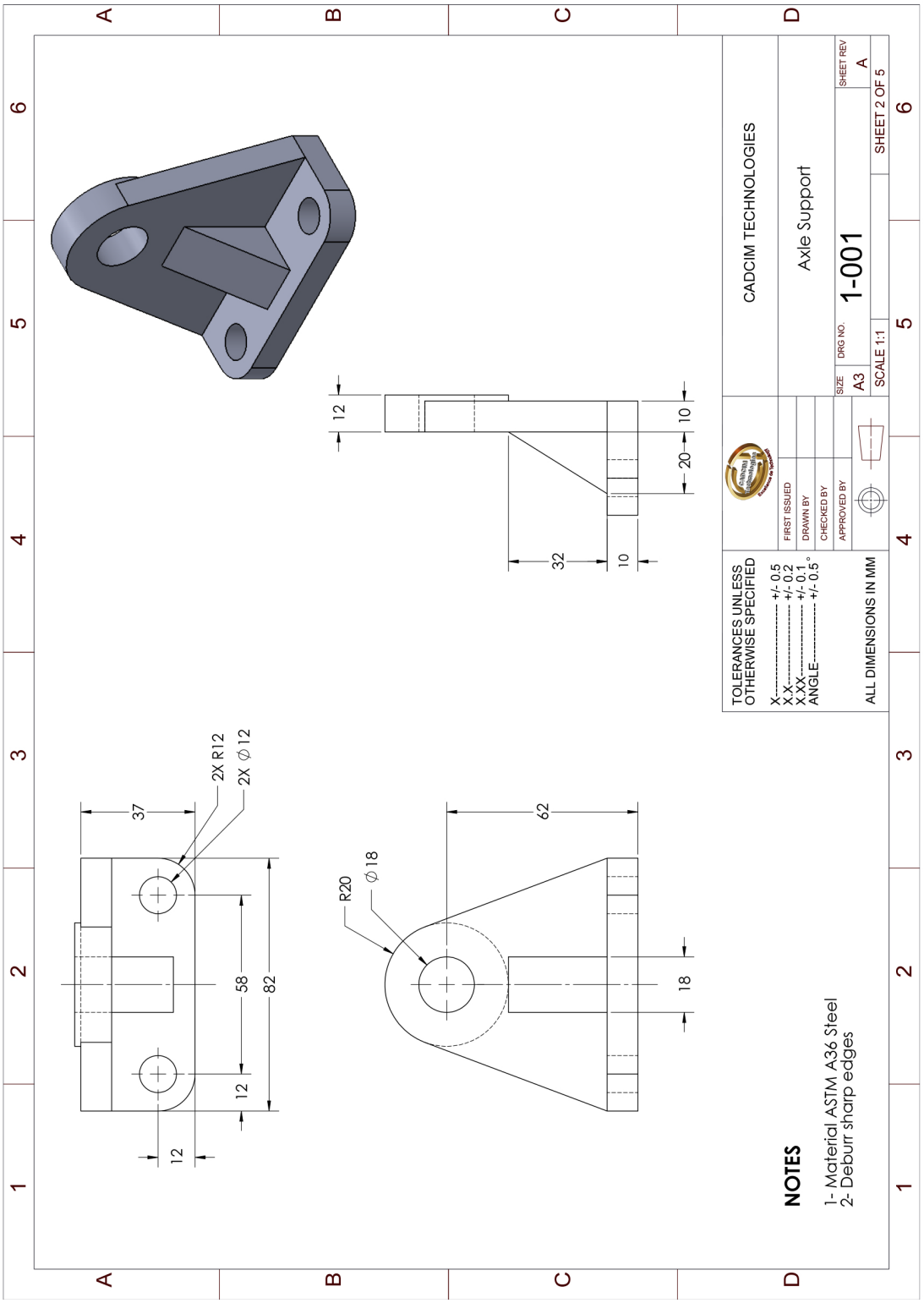

CADCIM TECHNOLOGIES
Axle Support
1-001
SIZE A3
DRG NO.
SCALE 1:1
SHEET 2 OF 5
SHEET REV A
TOLERANCES UNLESS OTHERWISE SPECIFIED
X +/- 0.5
X.X +/- 0.2
X.XX +/- 0.1
ANGLE +/- 0.5°
ALL DIMENSIONS IN MM
FIRST ISSUED
DRAWN BY
CHECKED BY
APPROVED BY
NOTES
1- Material ASTM A36 Steel
2- Deburr sharp edges
2X R12
2X ⌀12
37
58
82
12
12
R20
⌀18
62
18
12
10
20
32
10

Figure P2-3

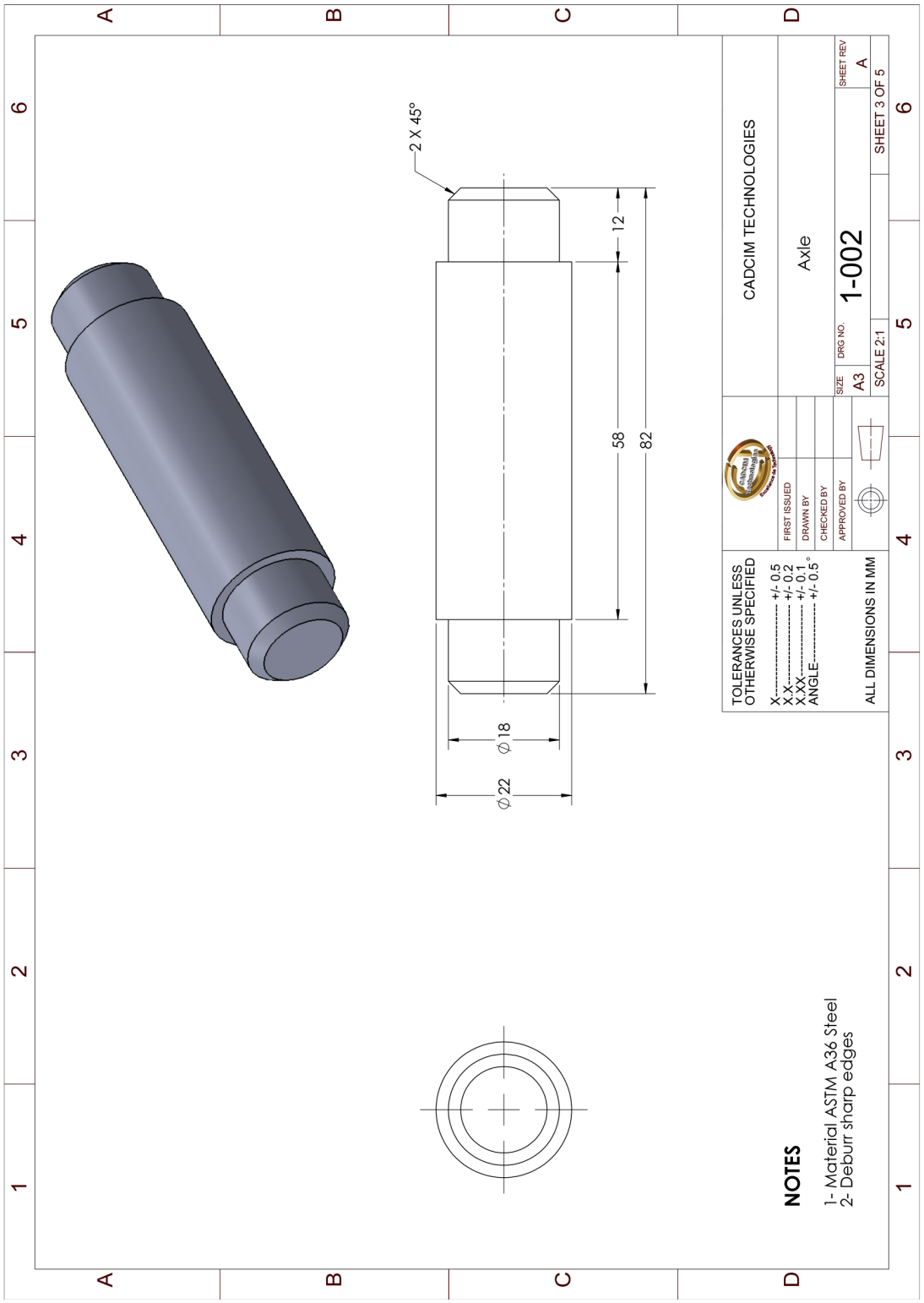

2 X 45°
12
58
82
ϕ18
ϕ22
NOTES
1- Material ASTM A36 Steel
2- Deburr sharp edges
TOLERANCES UNLESS OTHERWISE SPECIFIED
X ---------- +/- 0.5
X.X ---------- +/- 0.2
X.XX ---------- +/- 0.1
ANGLE ---------- +/- 0.5°
ALL DIMENSIONS IN MM
FIRST ISSUED
DRAWN BY
CHECKED BY
APPROVED BY
CADCIM TECHNOLOGIES
Axle
SIZE A3
DRG NO. 1-002
SCALE 2:1
SHEET 3 OF 5
SHEET REV A

Figure P2-4

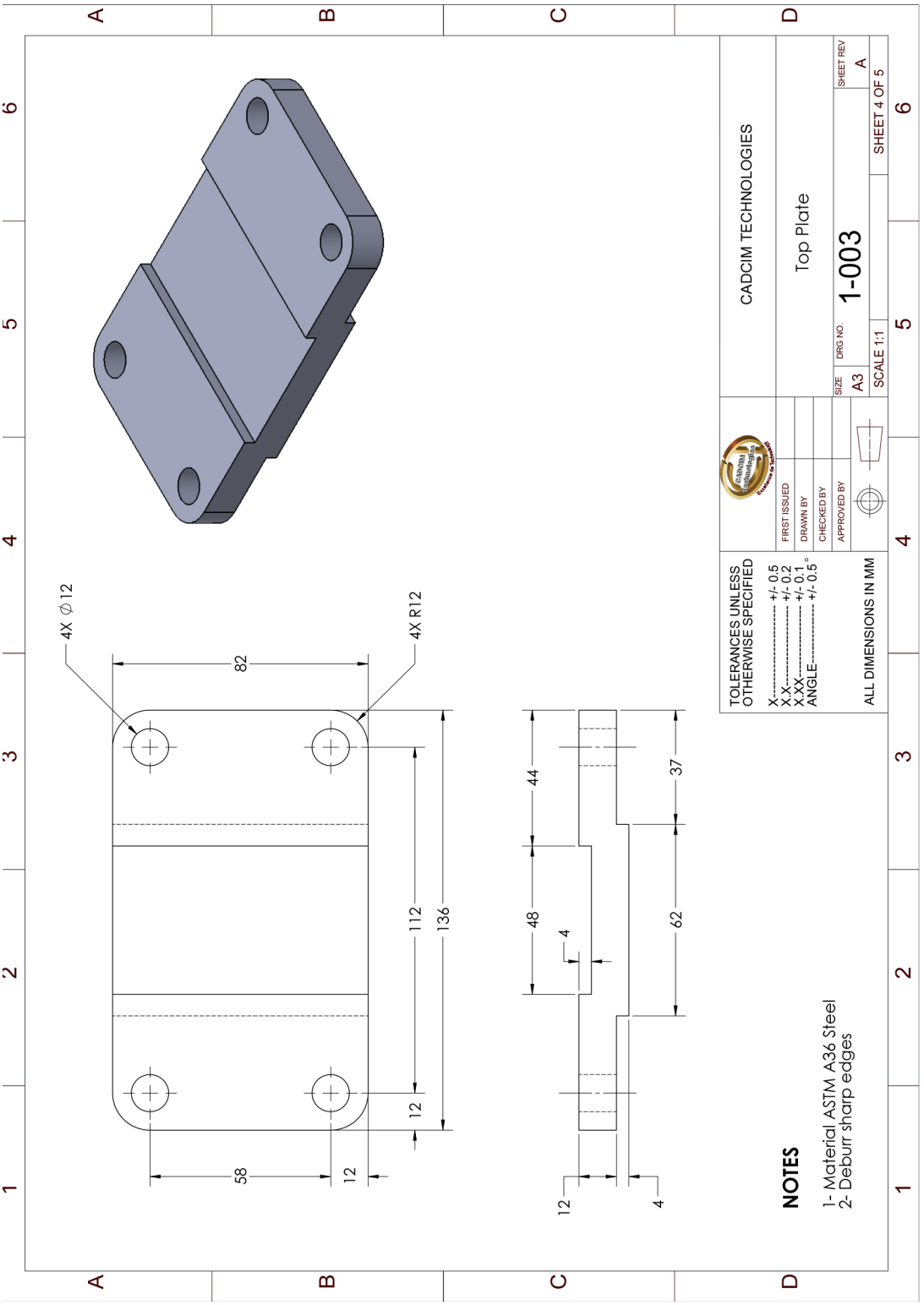

4X ⌀12
82
4X R12
58
12
112
136
12
44
48
4
37
62
12
4
NOTES
1- Material ASTM A36 Steel
2- Deburr sharp edges
TOLERANCES UNLESS OTHERWISE SPECIFIED
X +/- 0.5
X.X +/- 0.2
X.XX +/- 0.1
ANGLE +/- 0.5°
ALL DIMENSIONS IN MM
FIRST ISSUED
DRAWN BY
CHECKED BY
APPROVED BY
CADCIM TECHNOLOGIES
Top Plate
SIZE A3
DRG NO. 1-003
SHEET REV A
SCALE 1:1
SHEET 4 OF 5

Figure P2-5

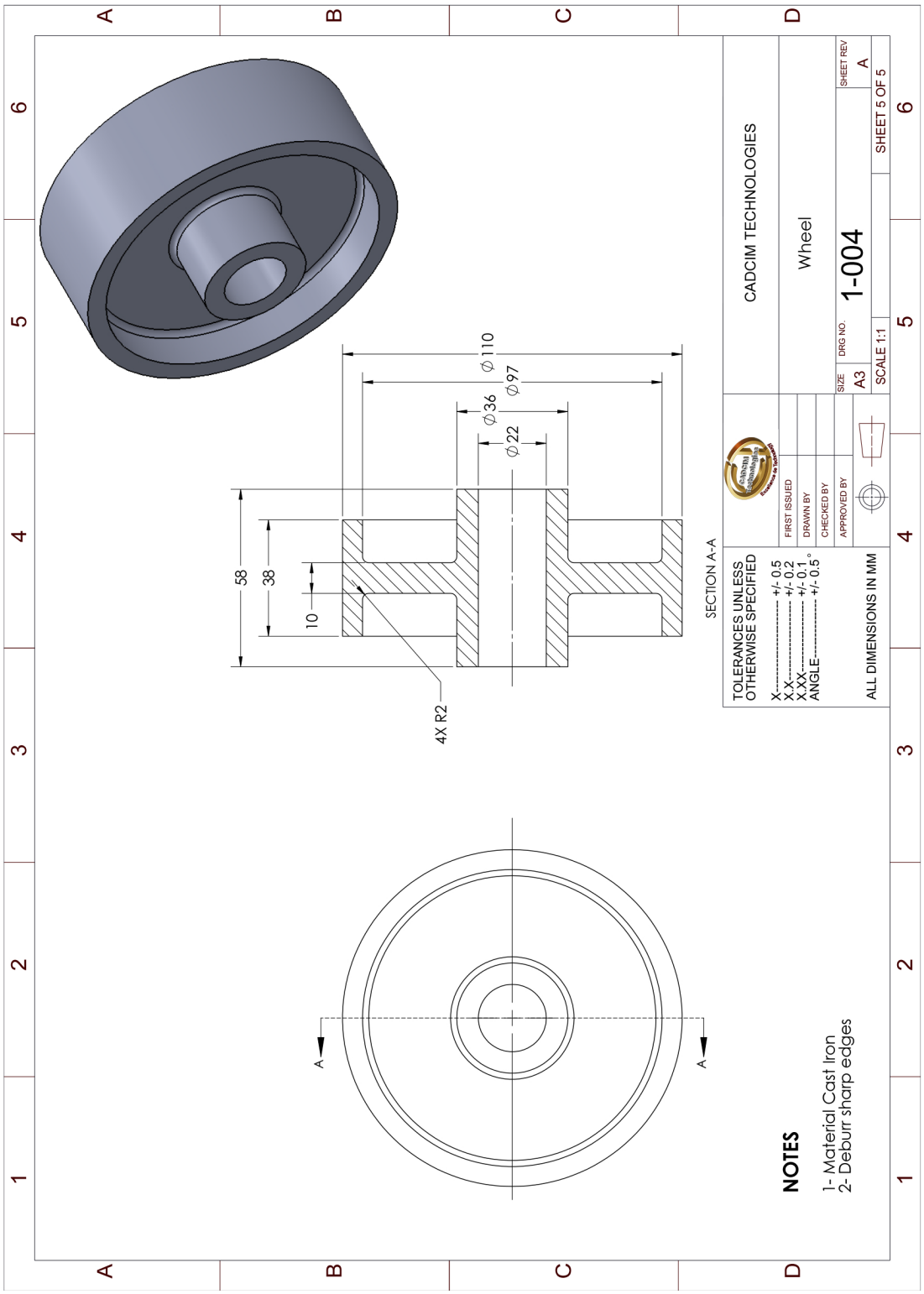

A
B
C
D
1
2
3
4
5
6
NOTES
1- Material Cast Iron
2- Deburr sharp edges
SECTION A-A
4X R2
58
38
10
ϕ110
ϕ97
ϕ36
ϕ22
TOLERANCES UNLESS OTHERWISE SPECIFIED
X ---------- +/- 0.5
X.X ---------- +/- 0.2
X.XX ---------- +/- 0.1
ANGLE ---------- +/- 0.5°
ALL DIMENSIONS IN MM
FIRST ISSUED
DRAWN BY
CHECKED BY
APPROVED BY
CADCIM TECHNOLOGIES
Wheel
SIZE
A3
DRG NO.
1-004
SCALE 1:1
SHEET 5 OF 5
SHEET REV
A

Figure P2-6