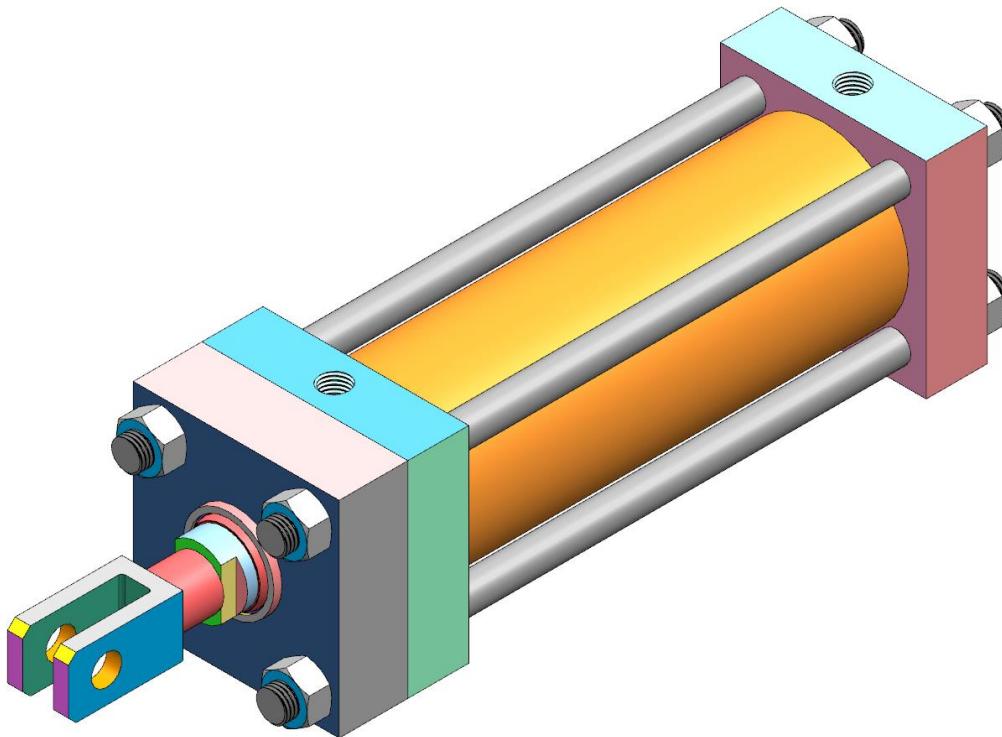


For Engineers & Designers

Onshape Assembly Drawings

FOR PRACTICE

For Onshape and Other Feature-Based
3D Modeling Software



MECHANICAL ASSEMBLY DRAWINGS FOR PRACTICE
For Beginner, Intermediate and Advance users

Sachidanand Jha

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Onshape Assembly Drawings

FOR PRACTICE

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Best regards,

Sachidanand Jha
Founder & CEO, CADIN360
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Onshape Assembly Drawings

by Sachidanand Jha

Published by CADIN360, 93 Vipin Garden Extension, Dwarka Mor, Uttam Nagar, New Delhi-110059.

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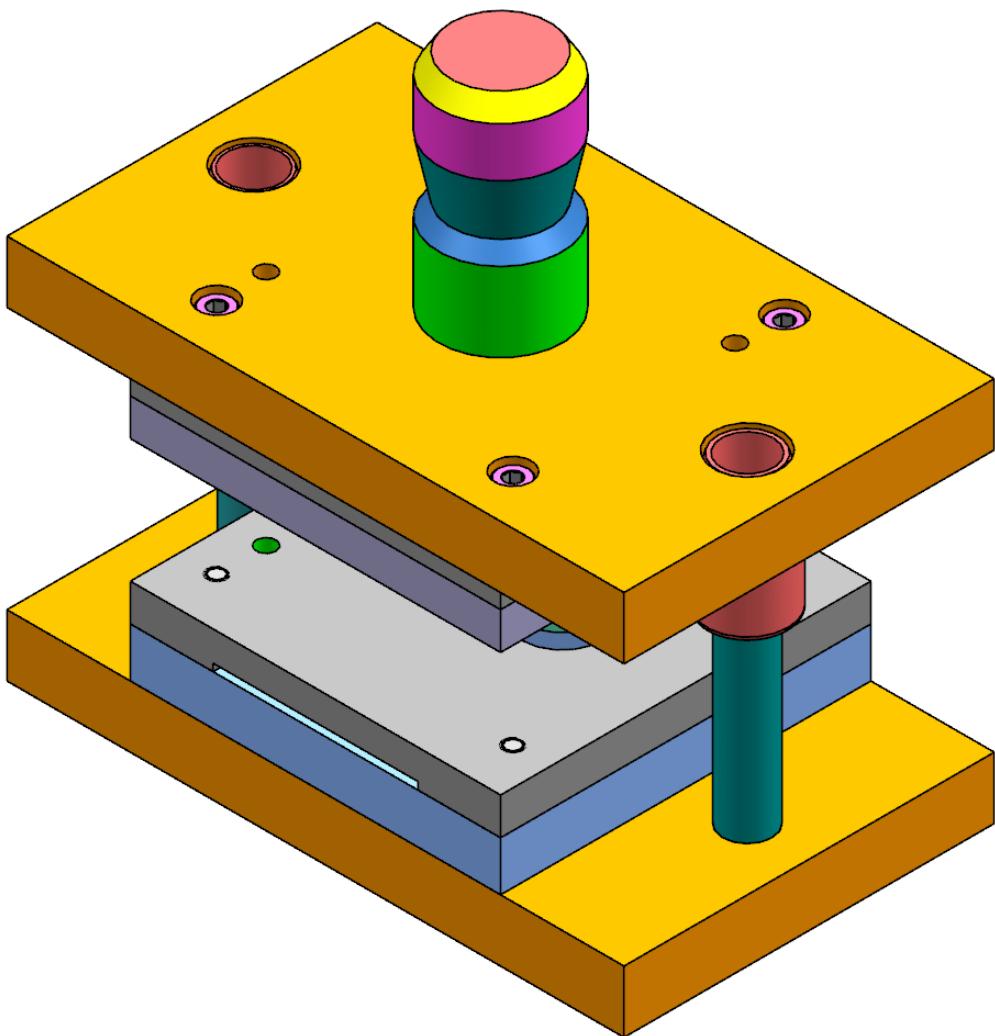
Preface

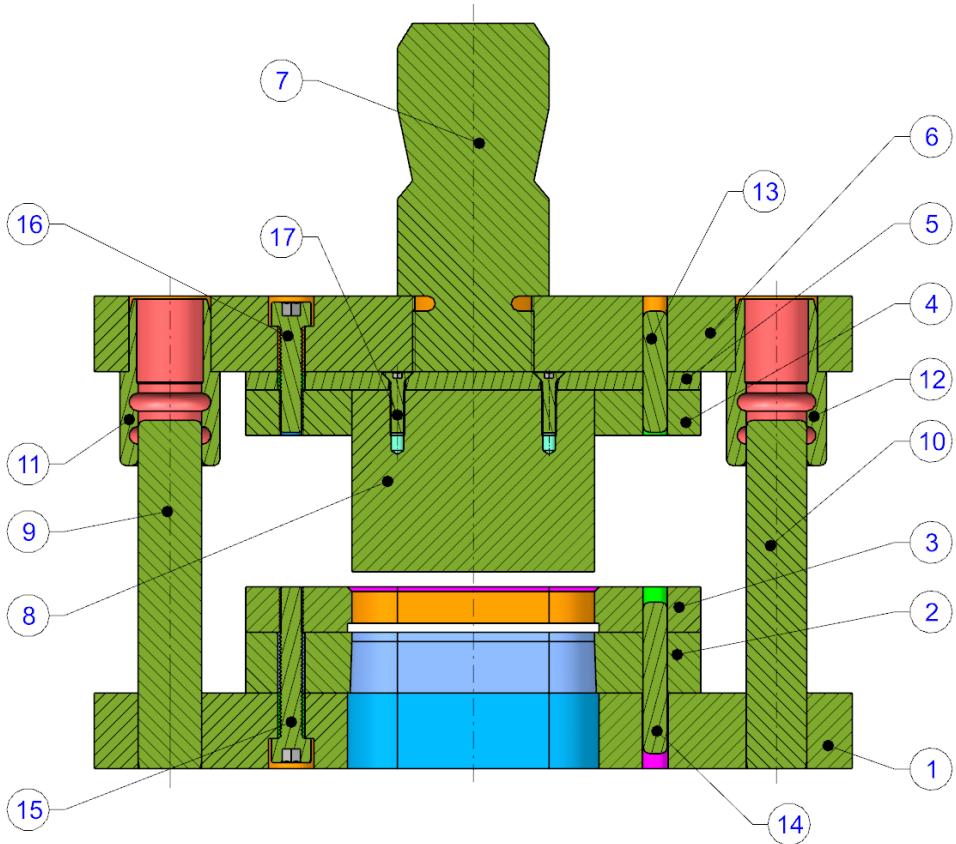
Onshape Assembly Drawings

- ❖ This book contains Assembly practice exercises and drawings.
- ❖ This book does not provide a step by step tutorial to design 3D models and assembly.
- ❖ Designs in this Book are only for CAD Software Practice. Not For Industrial Use.
- ❖ S.I Units is used.
- ❖ Predominantly used Third Angle Projection.
- ❖ This book is for **Onshape** program and other Feature-Based Modeling Software such as Inventor, Catia, SolidWorks, NX, Solid Edge, AutoCAD, PTC Creo etc.
- ❖ It is intended to provide Drafters, Designers and Engineers with enough CAD assembly drawings for practice on any CAD program .
- ❖ It includes almost all types of exercises that are necessary to provide clear, concise and systematic information required on industrial machine part drawings.
- ❖ Third Angle Projection is intentionally used to familiarize Drafters, Designers and Engineers in Third Angle Projection to meet the expectation of world wide Engineering drawing print.
- ❖ Clear and well drafted drawings help easy understanding of the design.
- ❖ This book is for Beginner, Intermediate and Advance CAD users.
- ❖ These exercises are from Basics to Advance level.
- ❖ Each exercise can be assigned and designed separately.
- ❖ No Exercise is a prerequisite for another. All dimensions are in mm.
- ❖ Note: Assume any missing dimensions.
- ❖ **You can get Step files of all assembly and its parts from <https://cadin360.com/>**

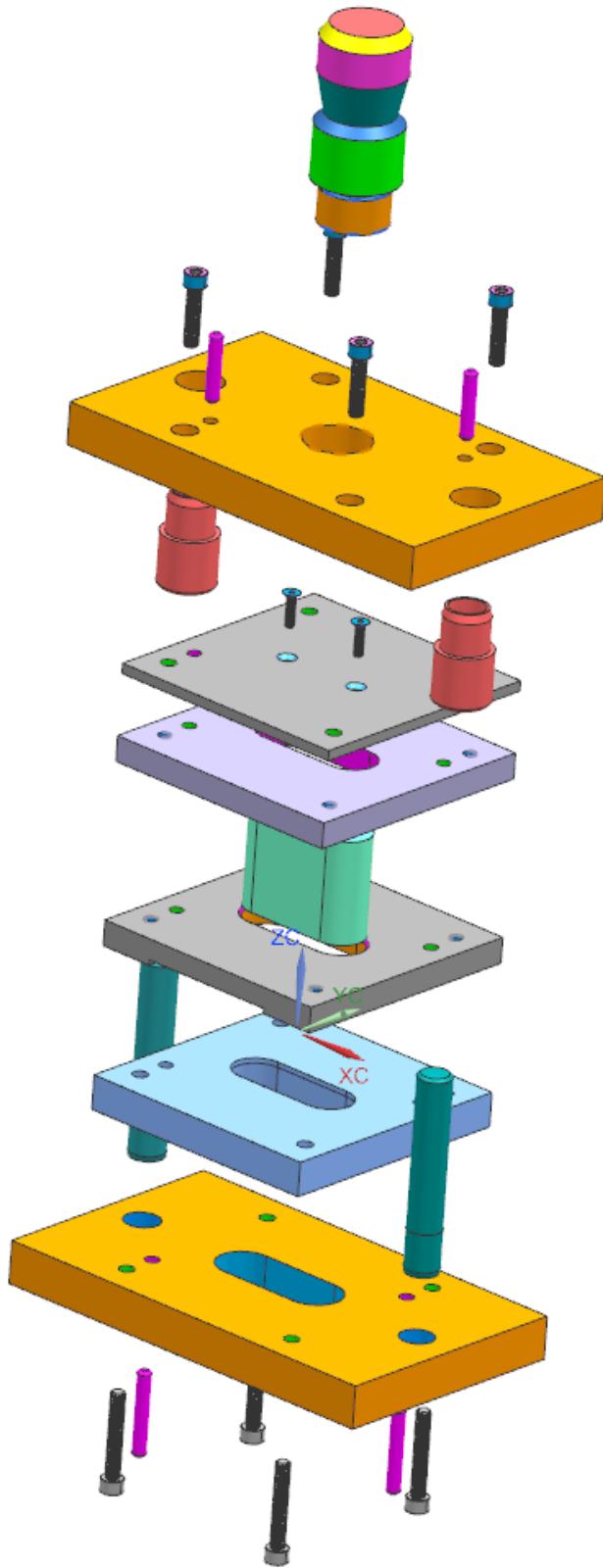
ASSEMBLY EX-01

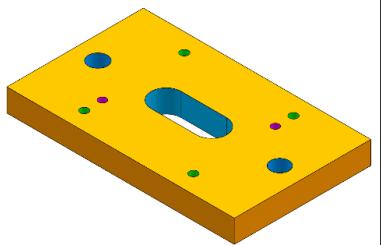
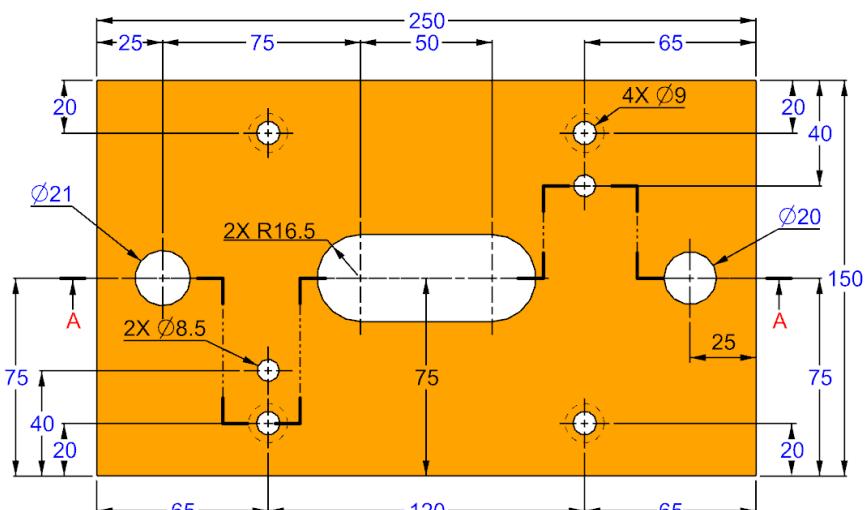
Press Tool Assembly



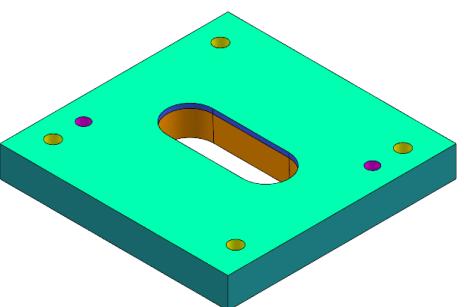
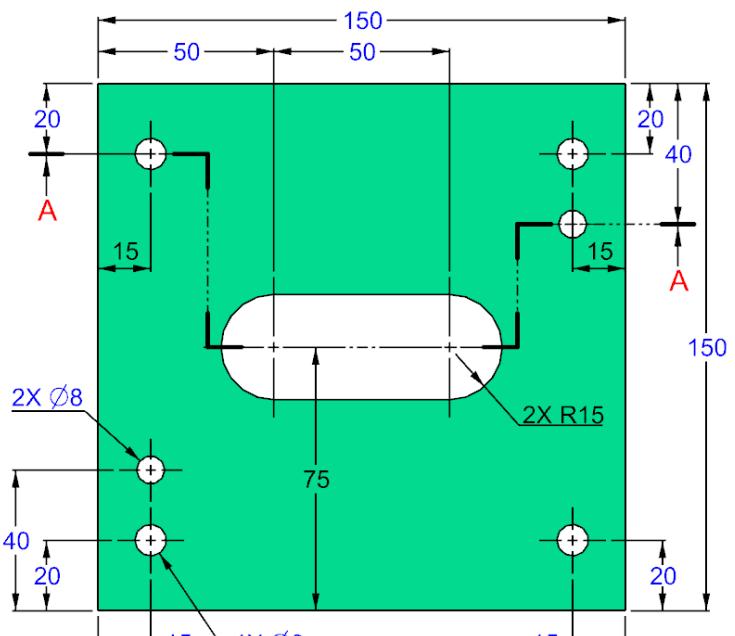
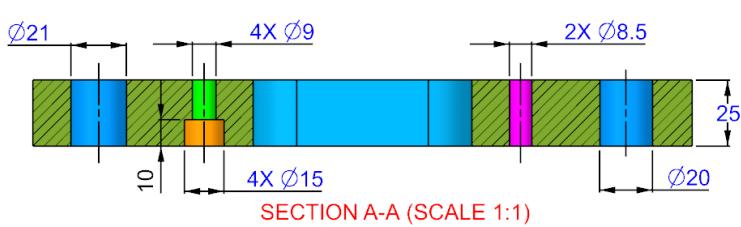


ITEM NO.	PART NAME	QTY
17	CSK M5X0.8X20MM	2
16	SHCS M8X1.25X35MM	4
15	SHCS M8X1.25X50MM	4
14	DOWEL DIA 8 X 50MM	2
13	DOWEL DIA 8 X 40MM	2
12	GUIDE BUSH DIA 20	1
11	GUIDE BUSH DIA 21	1
10	GUIDE PILLAR DIA 20	1
9	GUIDE PILLAR DIA 21	1
8	PUNCH	1
7	SHANK	1
6	TOP PLATE	1
5	THRUST PLATE	1
4	PUNCH HOLDER	1
3	STRIPPER PLATE	1
2	DIE PLATE	1
1	BOTTOM PLATE	1
ITEM NO.	PART NAME	QTY

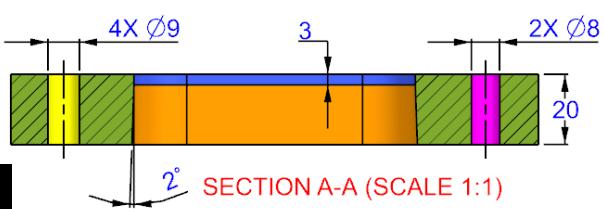


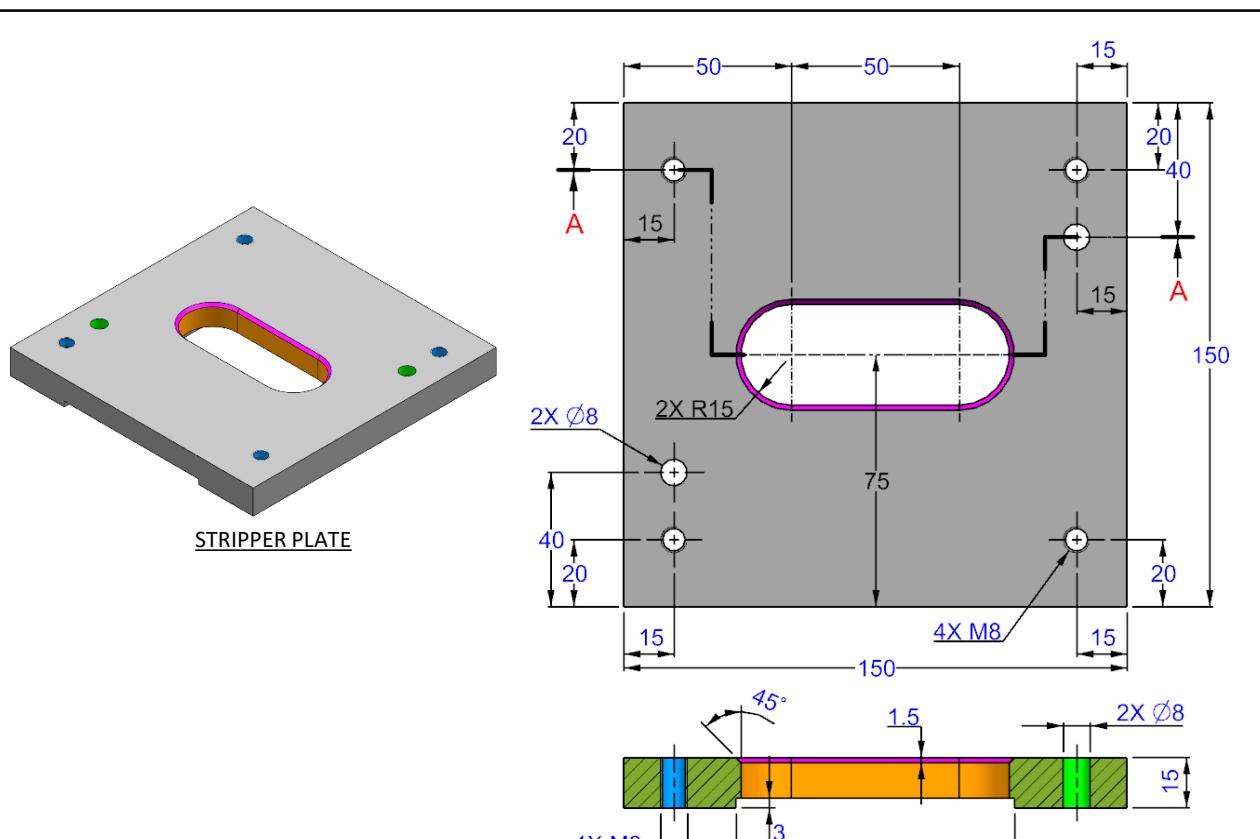


BOTTOM PLATE

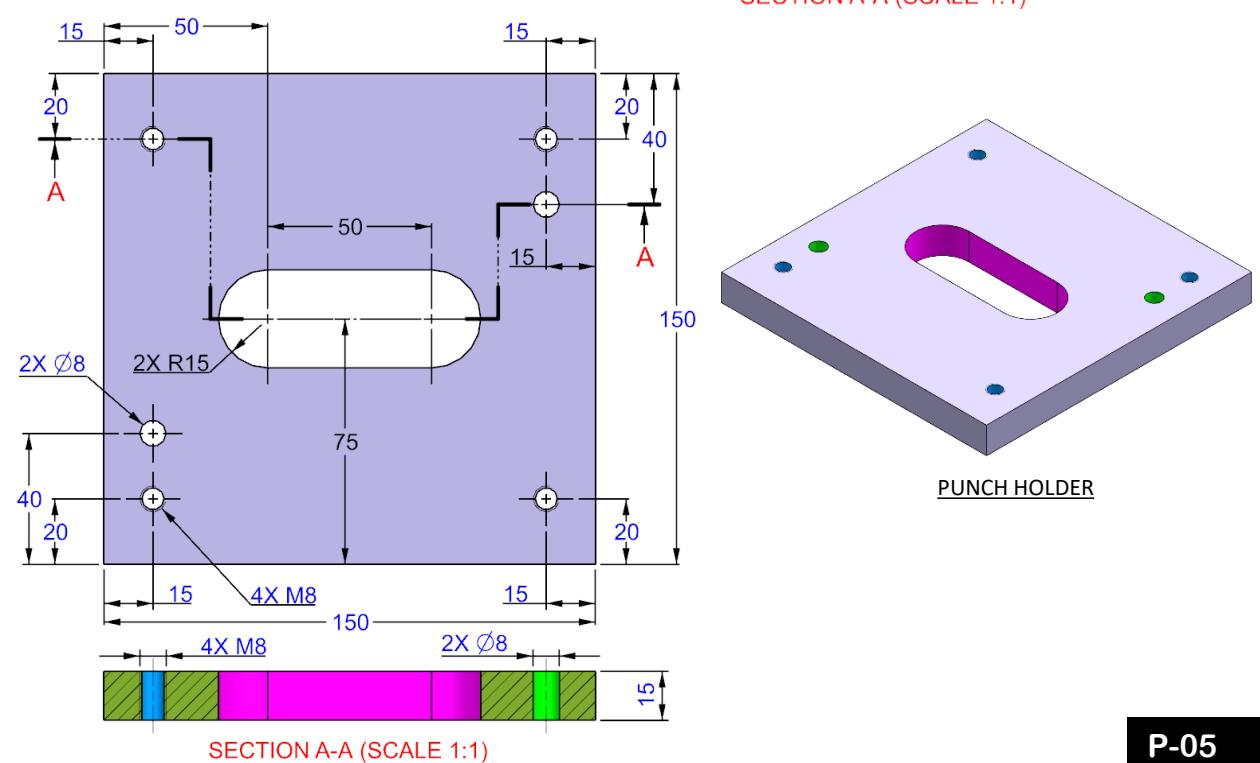


DIE PLATE

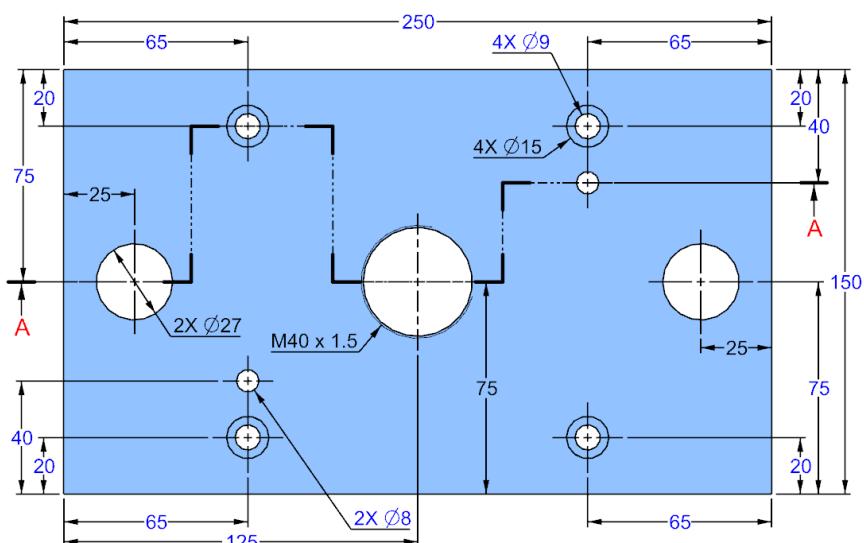
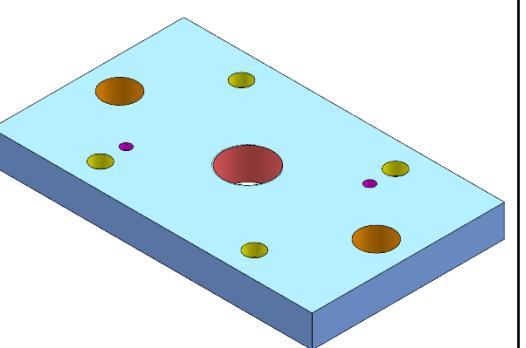
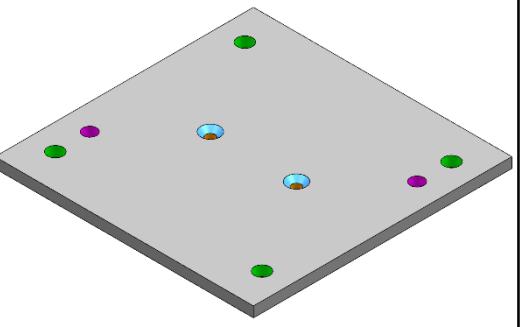
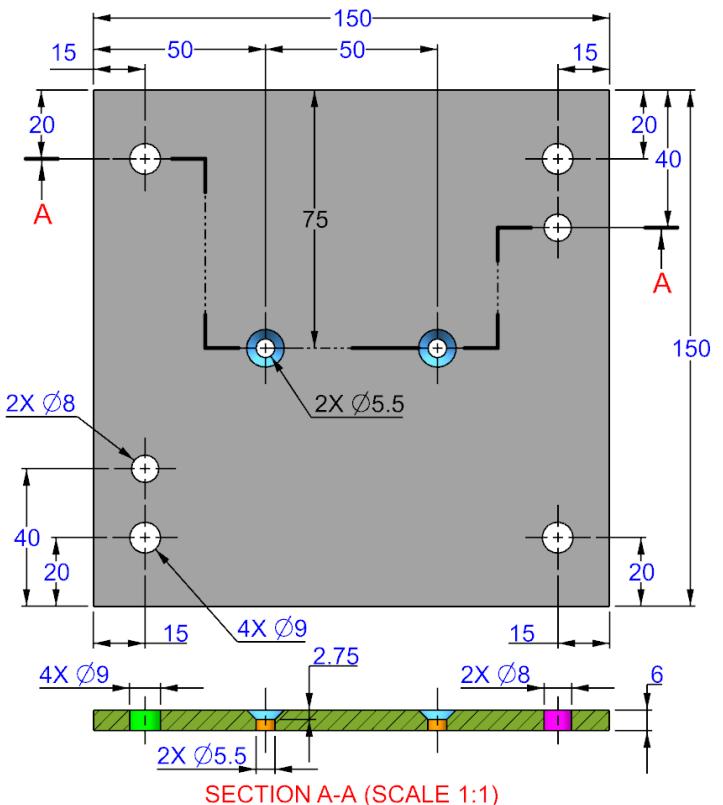




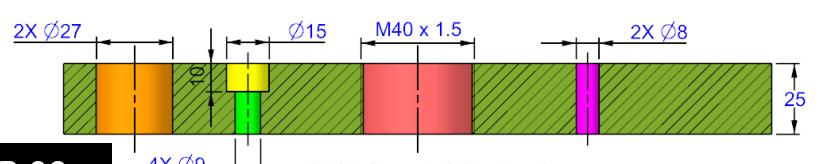
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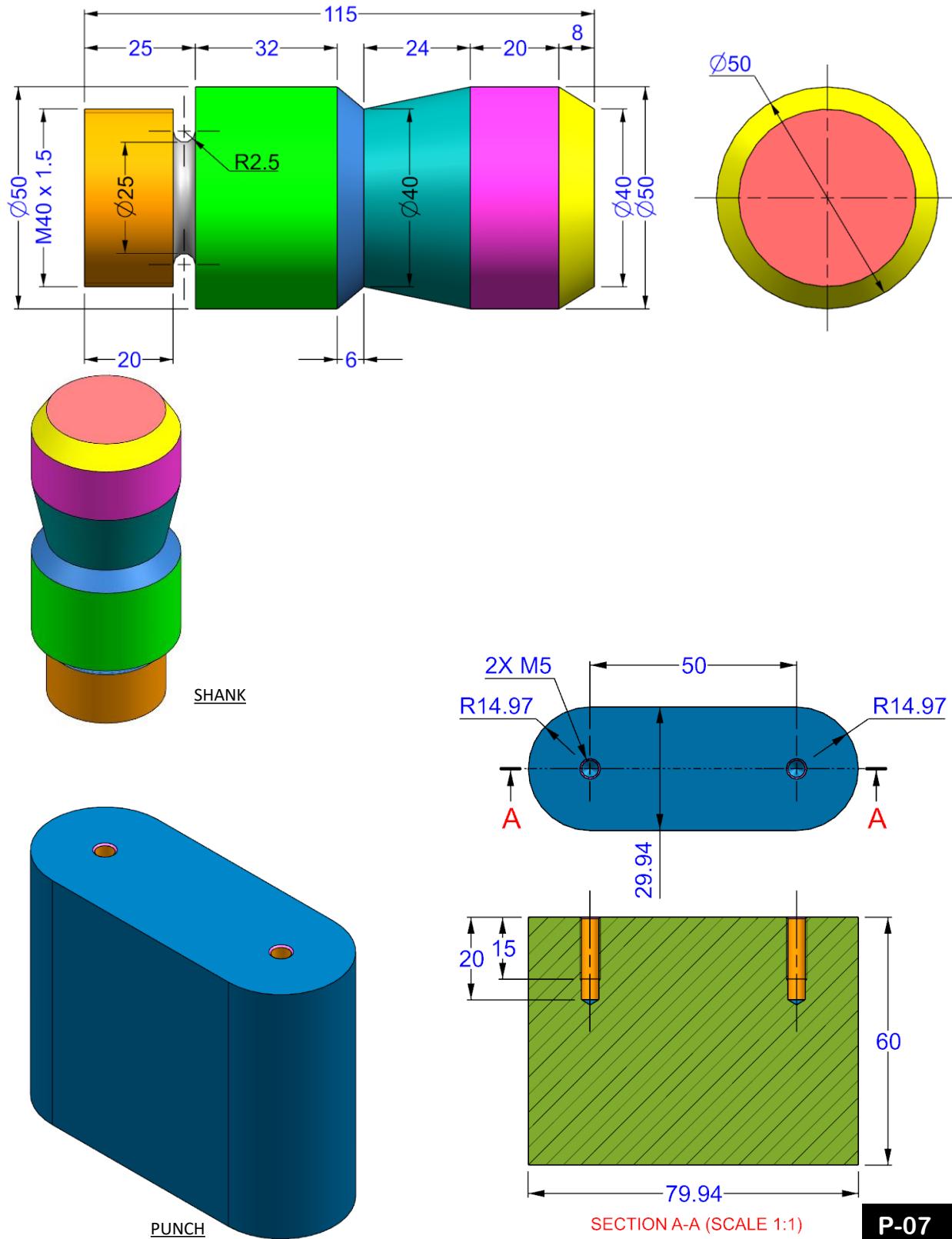


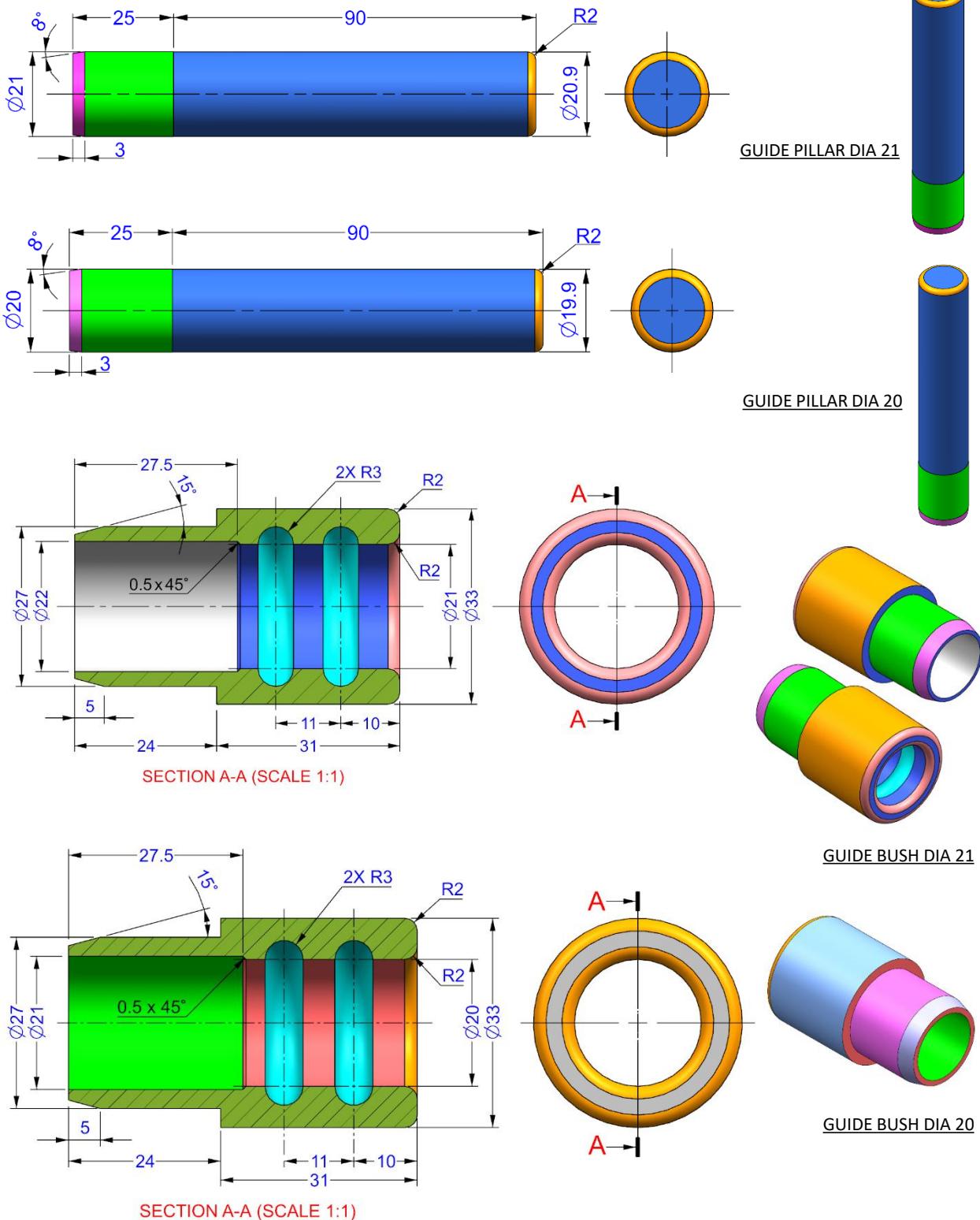
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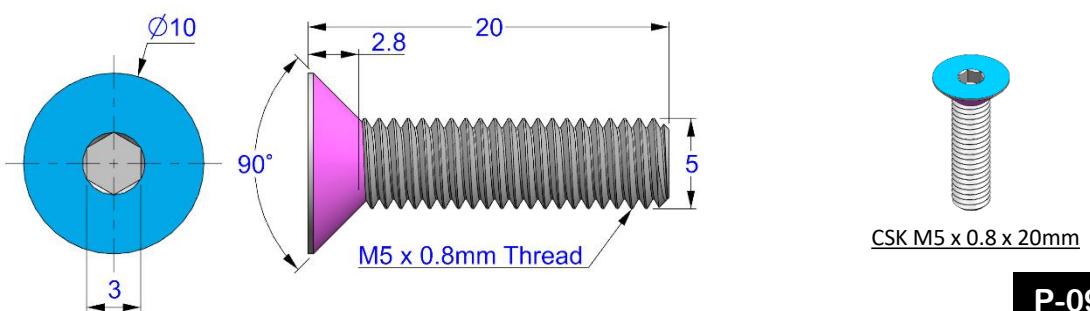
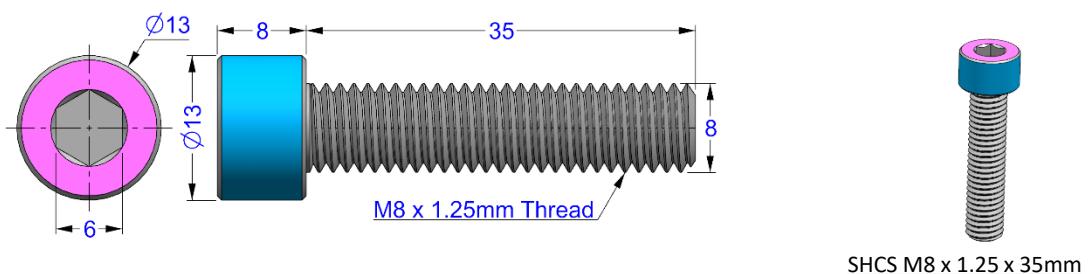
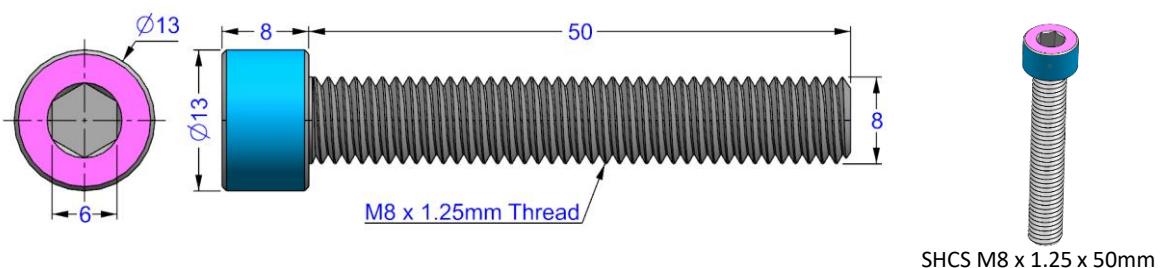
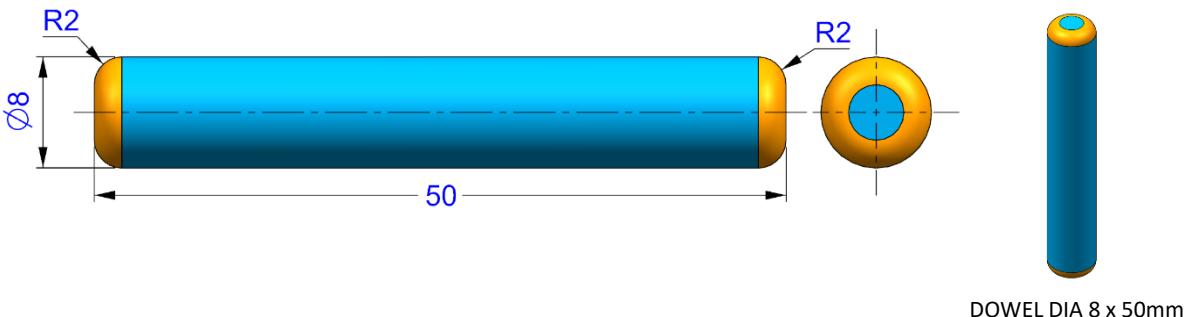
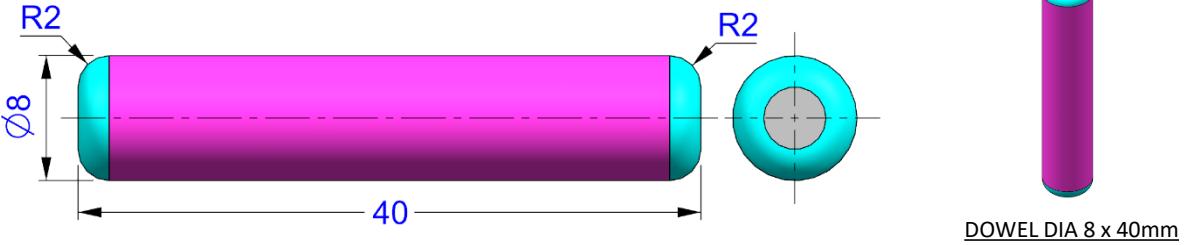


TOP PLATE



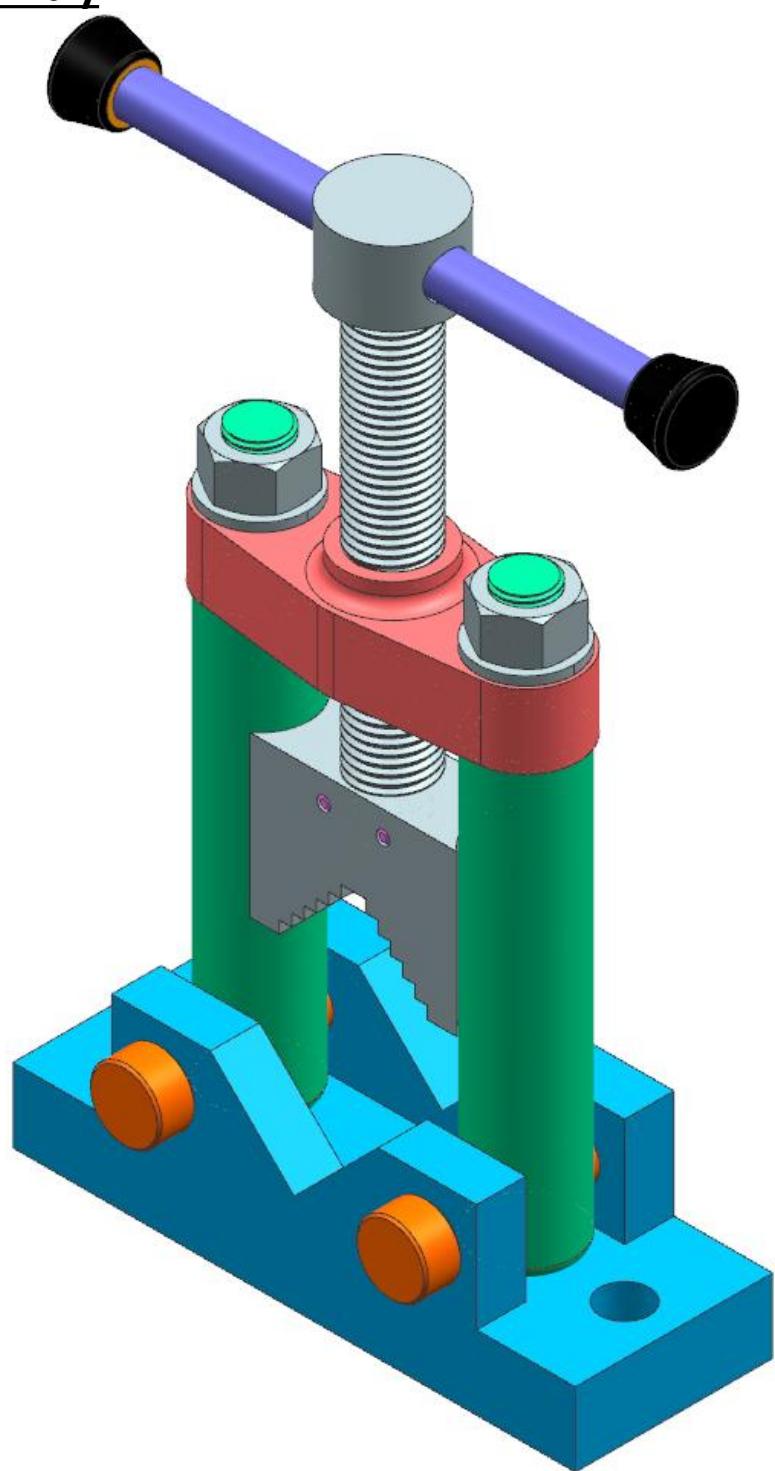


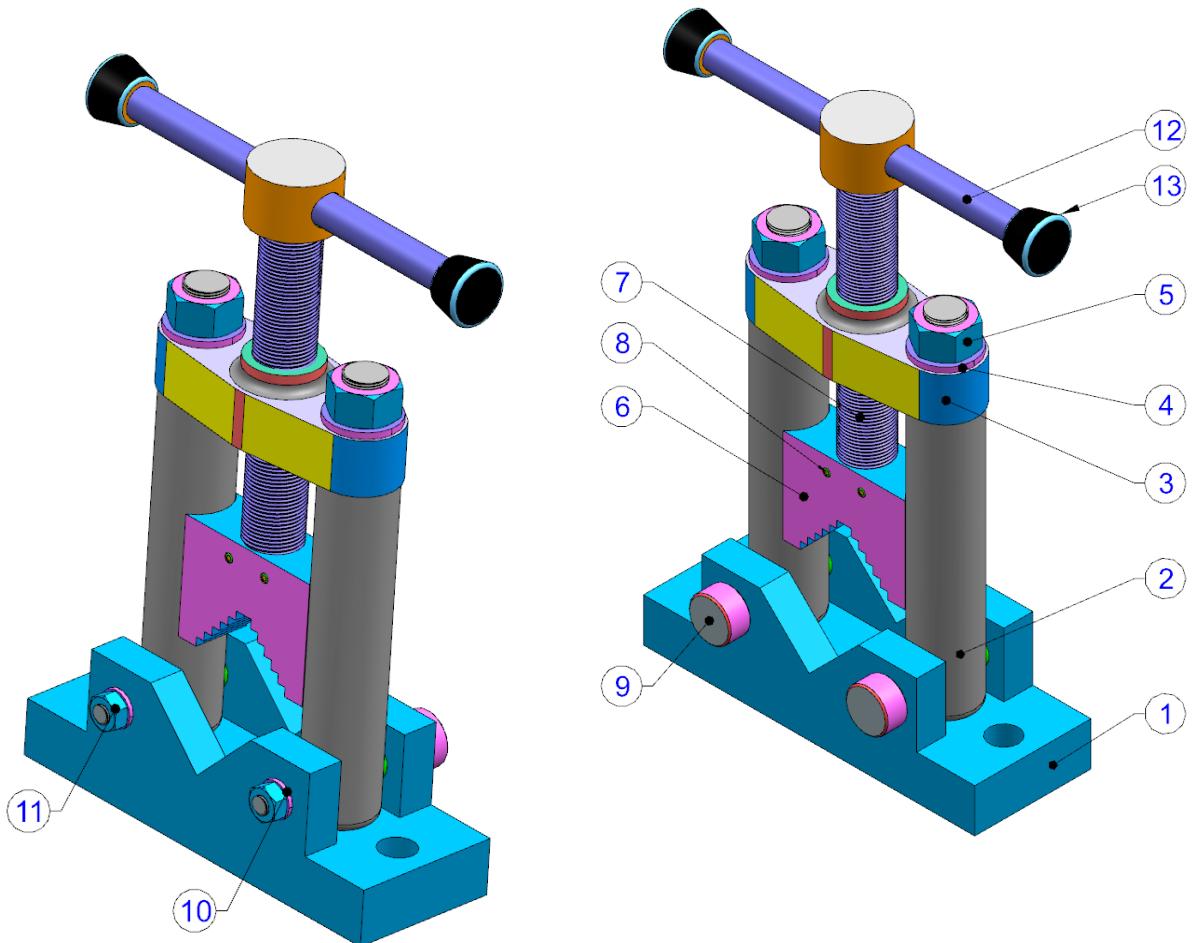




ASSEMBLY EX-02

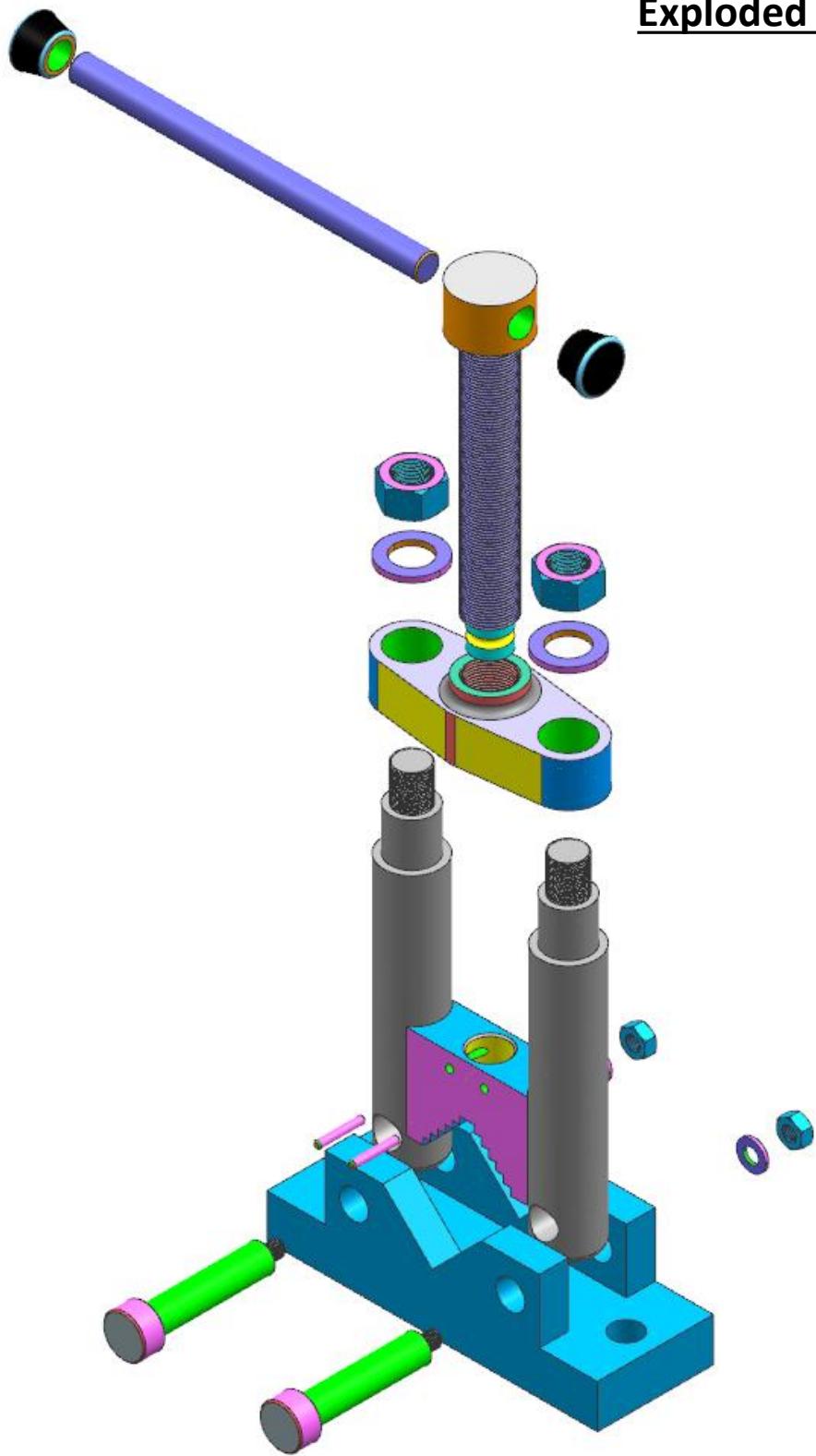
Pipe Vice Assembly

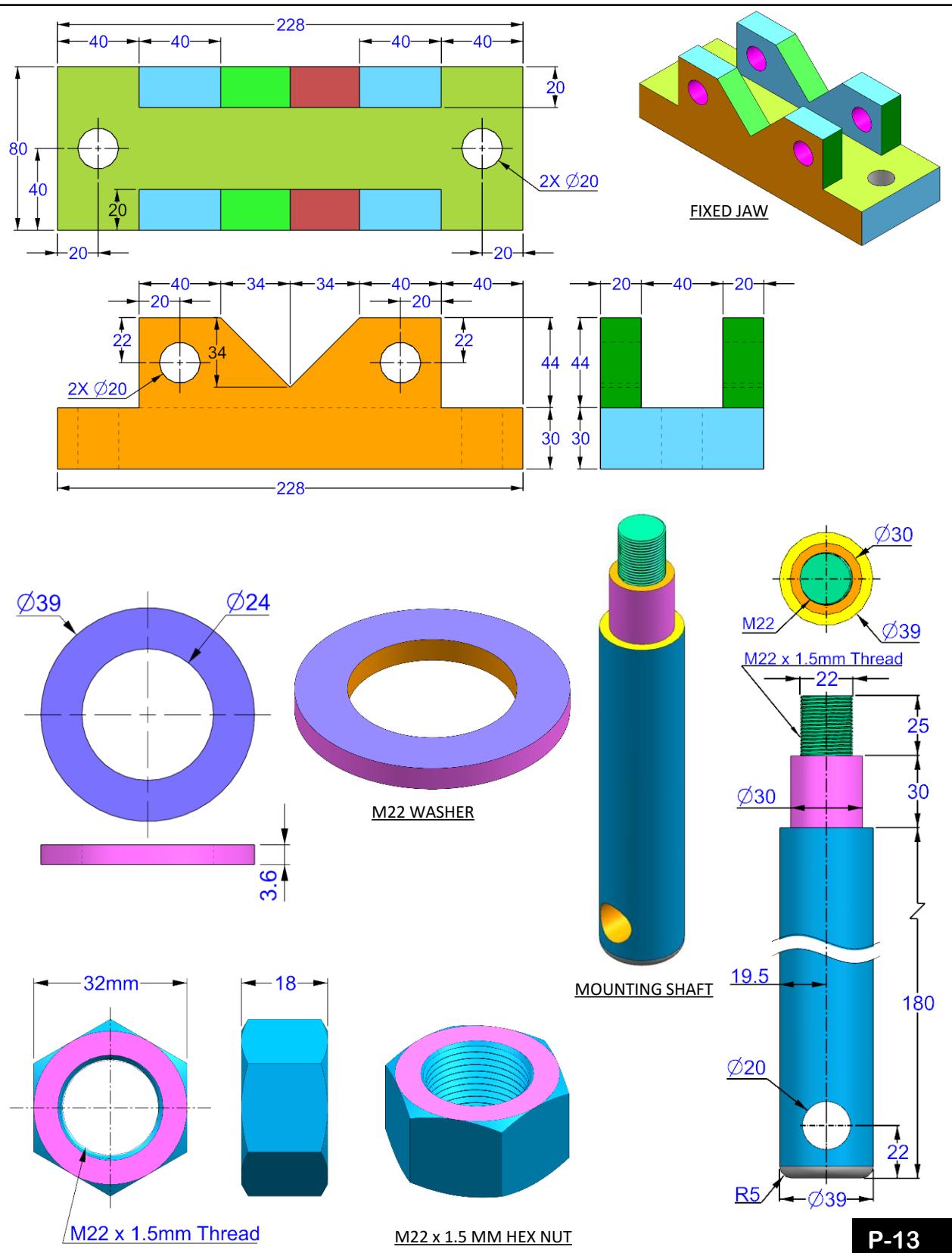


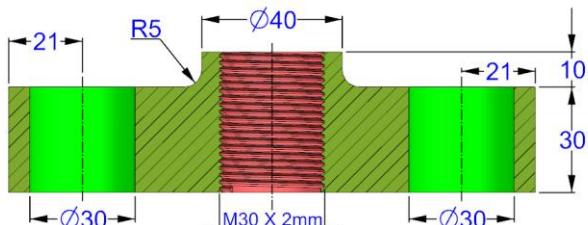
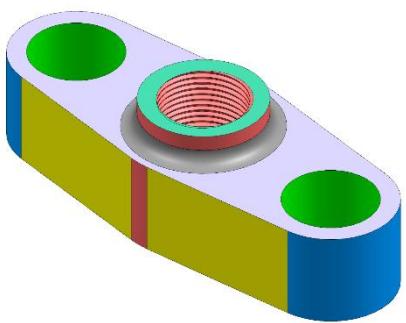
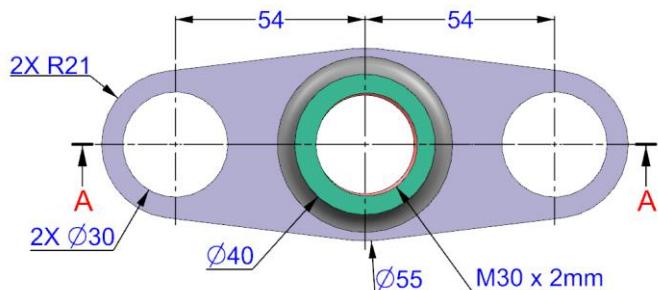


ITEM NO.	PART NAME	QTY
13	HANDLE CAP	2
12	HANDLE	1
11	M10 X 1.5 HEX NUT	2
10	M10 WASHER	2
9	HOLDING PIN	2
8	SUPPORT PIN	2
7	SPINDLE	1
6	MOVING JAW	1
5	M22 X 1.5 HEX NUT	2
4	M22 WASHER	2
3	CONNECTING WAGES	1
2	MOUNTING SHAFT	2
1	FIXED JAW	1

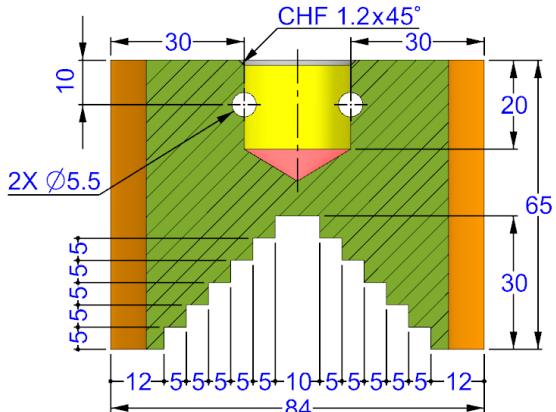
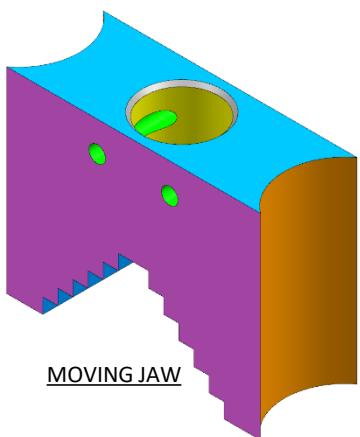
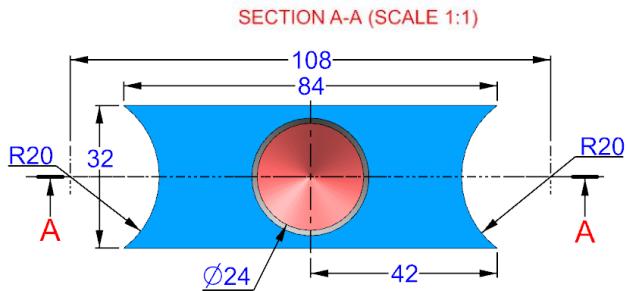
Exploded View



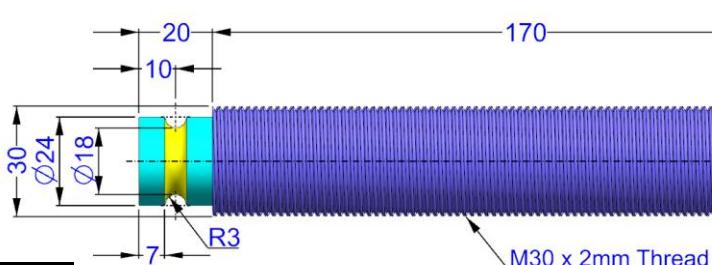




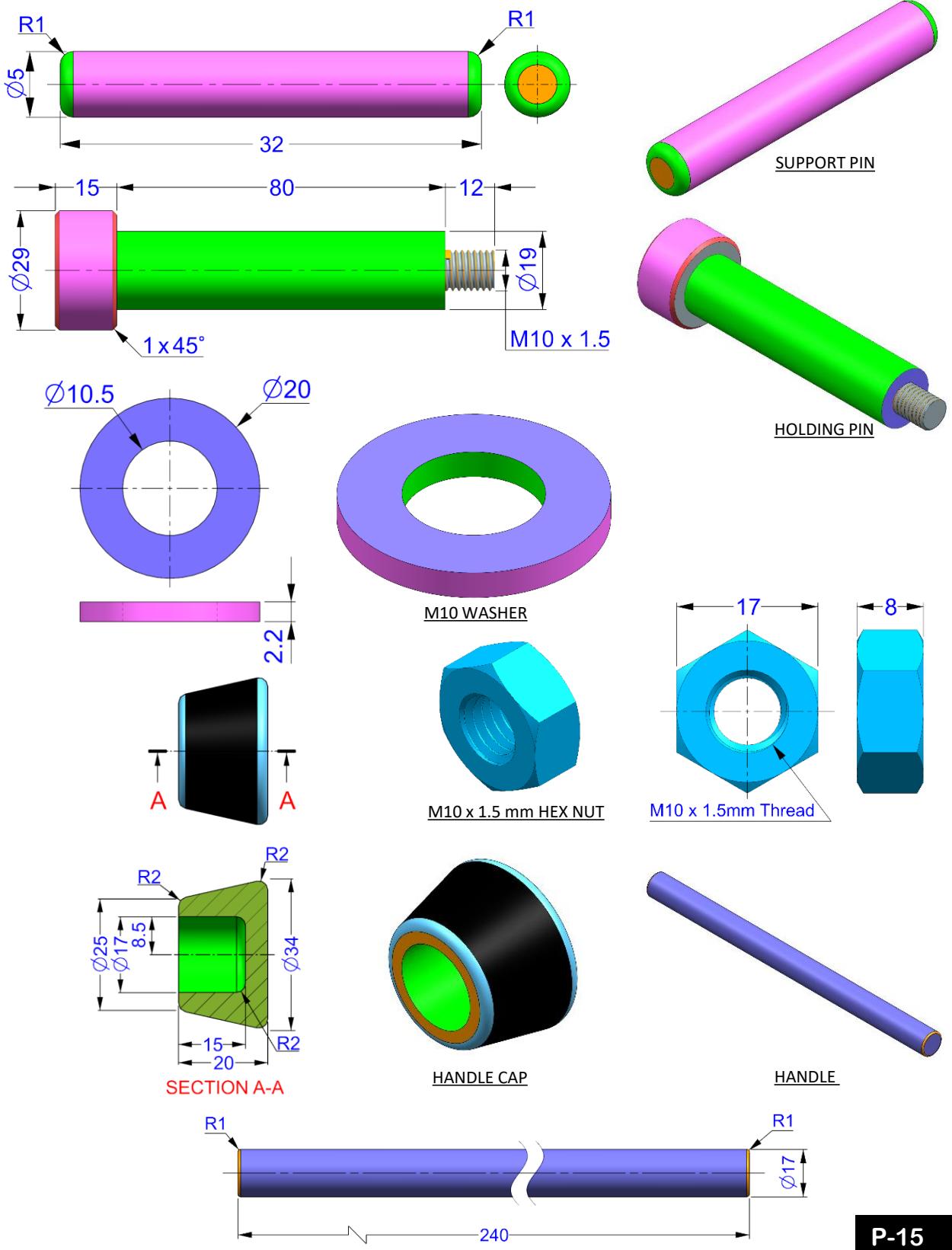
CONNECTING WAGES



SECTION A-A

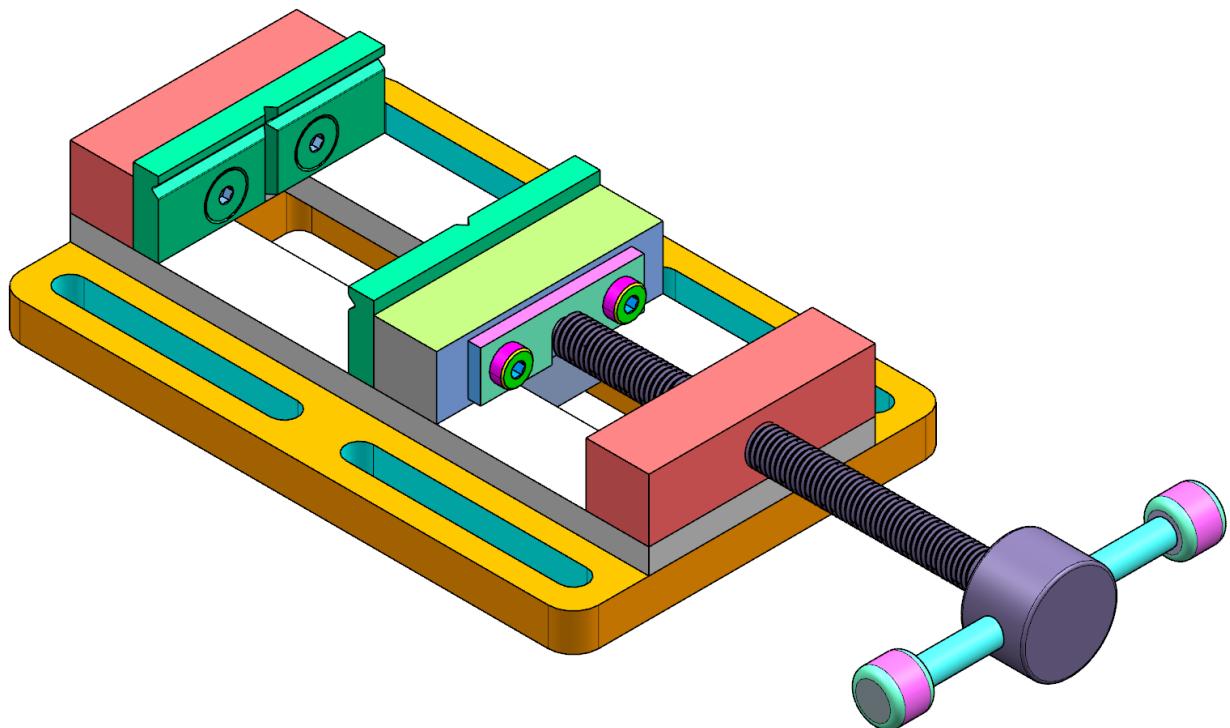


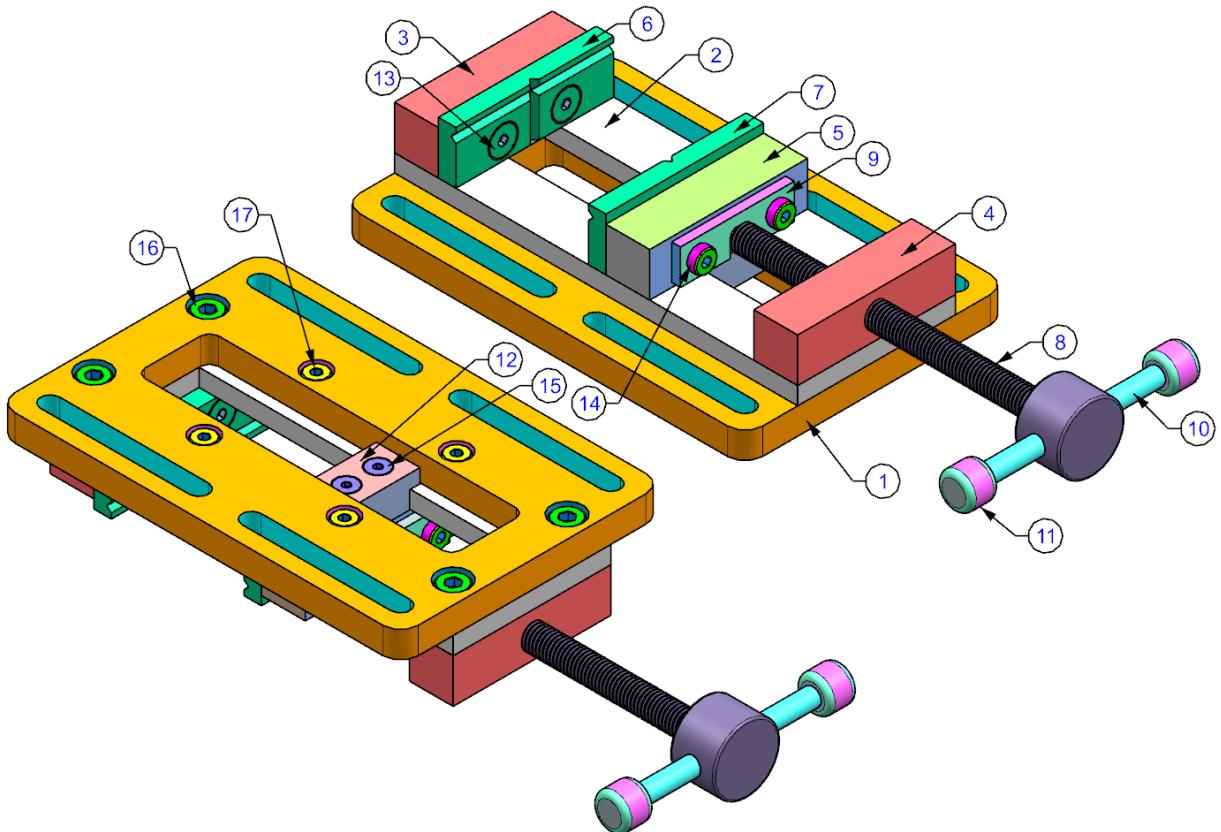
SPINDLE



ASSEMBLY EX-03

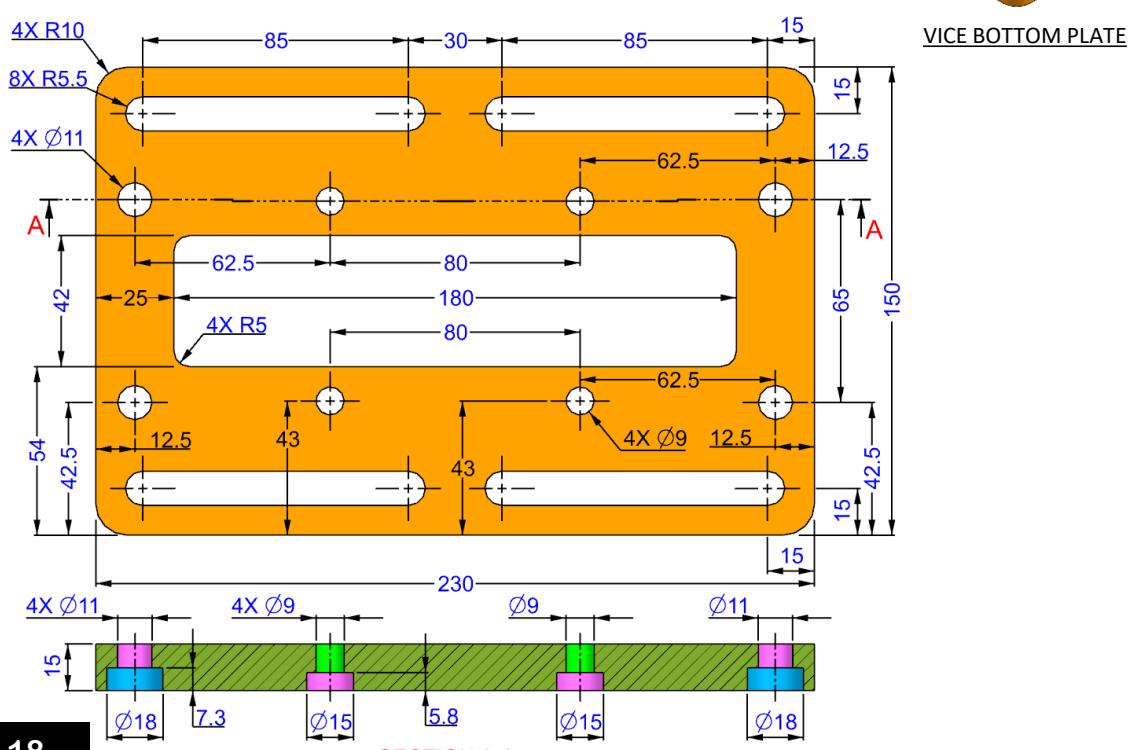
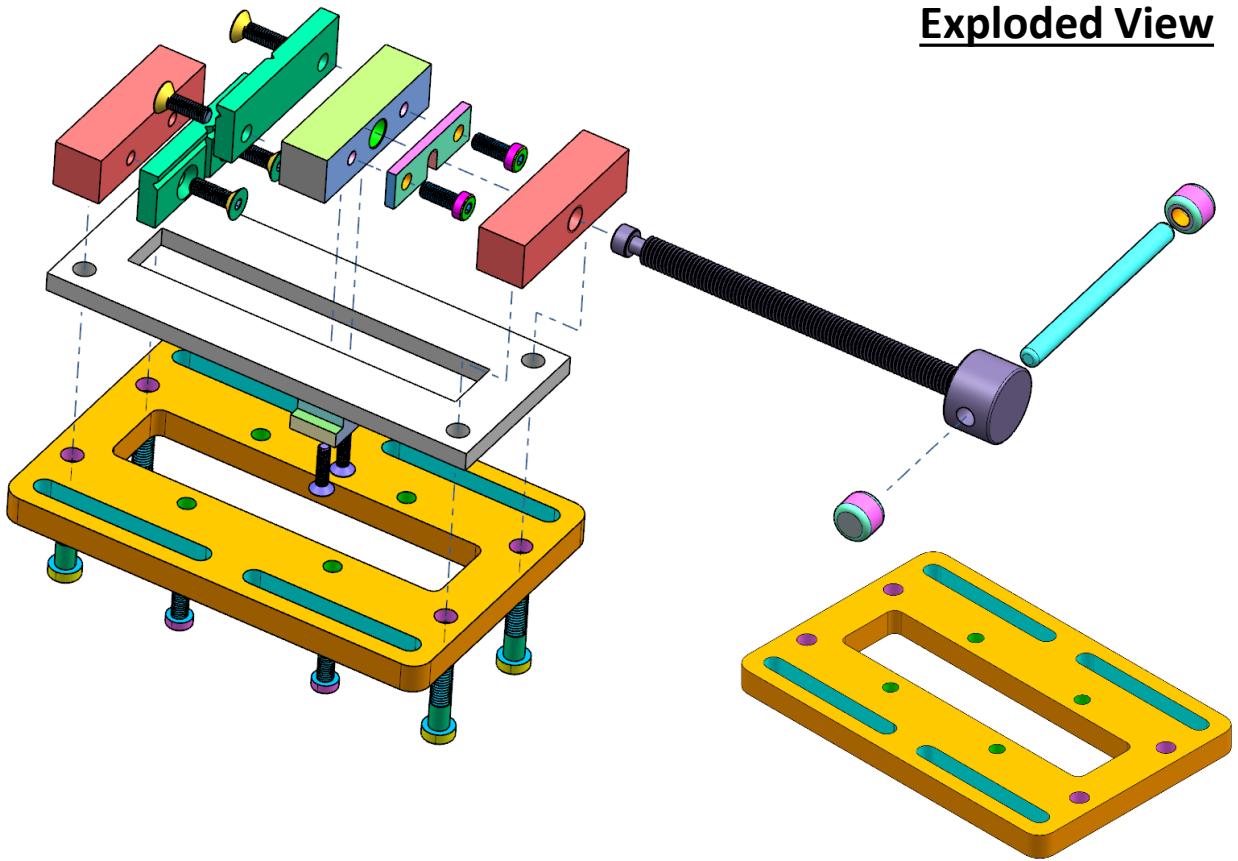
Machine Vice Assembly

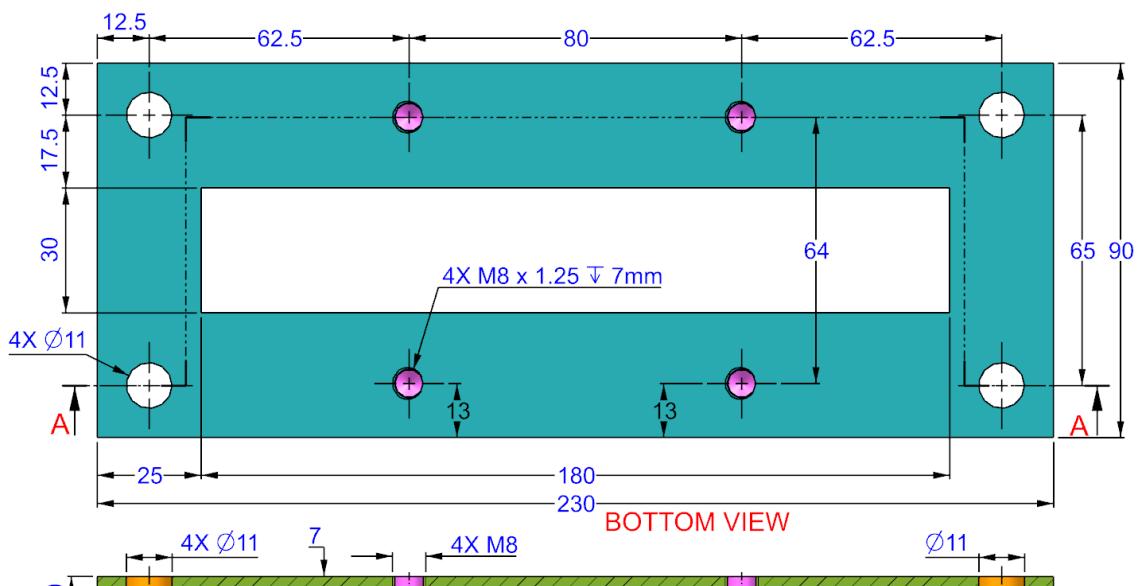




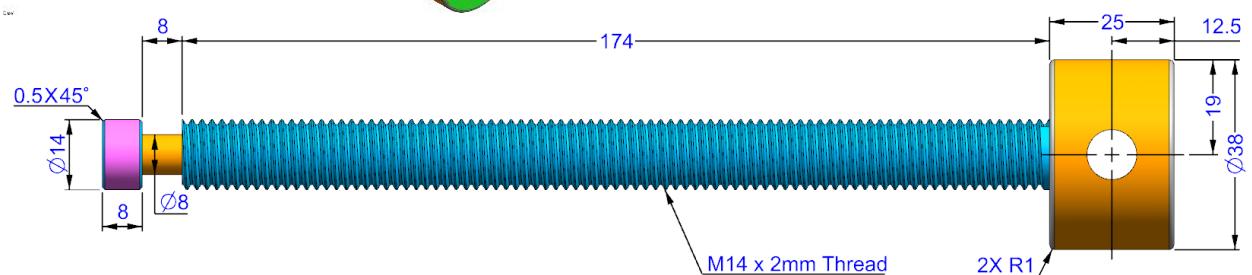
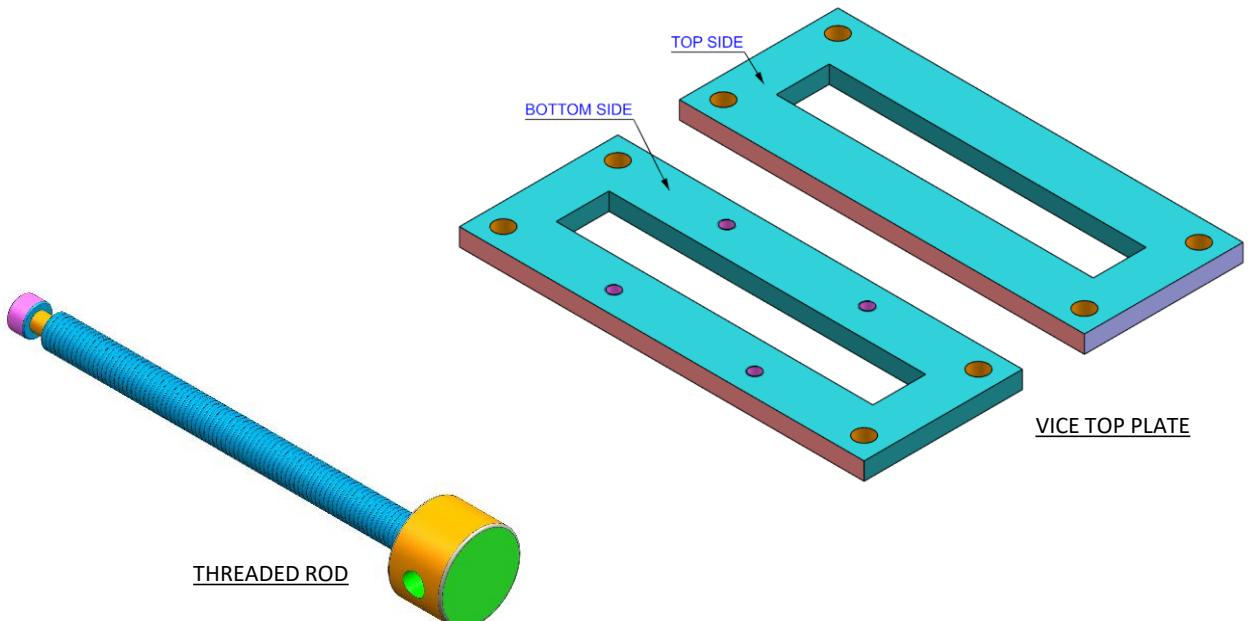
ITEM NO	PART NAME	QTY
17	SOCKET HEAD CAP SCREW M8 X 1.25 X 14MM	4
16	SOCKET HEAD CAP SCREW M10 X 1.5 X 40MM	4
15	CSK SCREW M6 X 1 X 25MM	2
14	SOCKET HEAD CAP SCREW M8 X 1.25 X 20MM	2
13	CSK SCREW M8 X 1.25 X 25MM	4
12	MOVING JAW GUIDING PLATE	1
11	HANDLE CAP	2
10	HANDLE	1
9	THREADED ROD CLAMPING PLATE	1
8	THREADED ROD	1
7	CLAMPING JAW PLATE MOVING SIDE	1
6	CLAMPING JAW PLATE FIXED SIDE	1
5	MOVING JAW SOLID BAR	1
4	FIXED SOLID BAR MOVING END	1
3	FIXED JAW SOLID BAR	1
2	VICE TOP PLATE	1
1	VICE BOTTOM PLATE	1

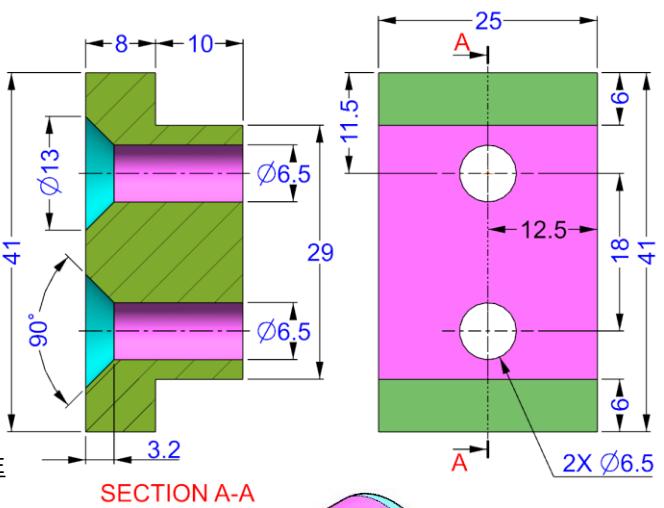
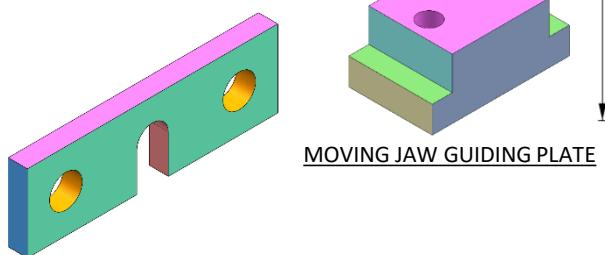
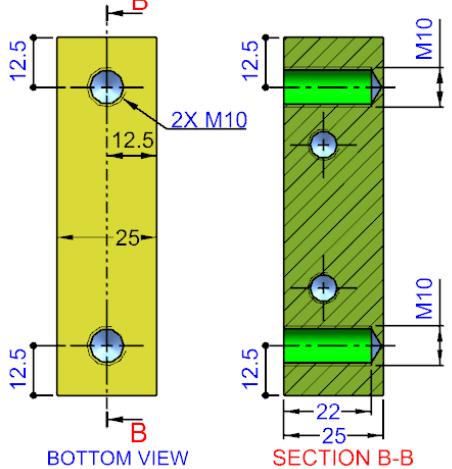
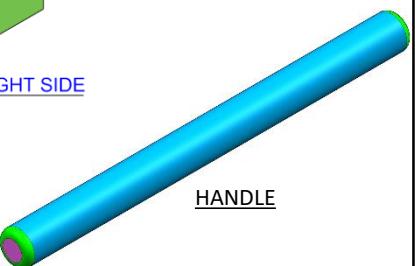
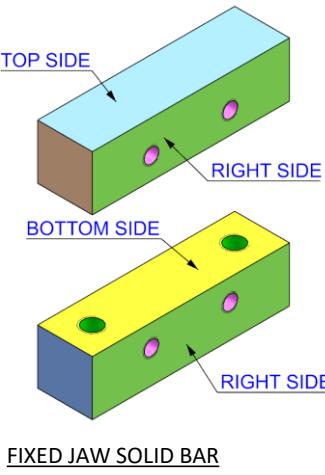
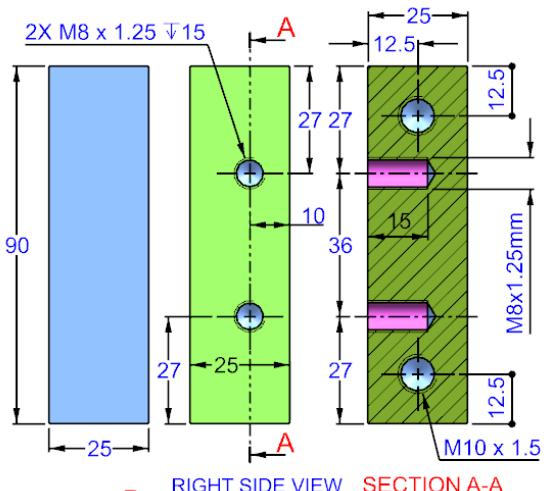
Exploded View



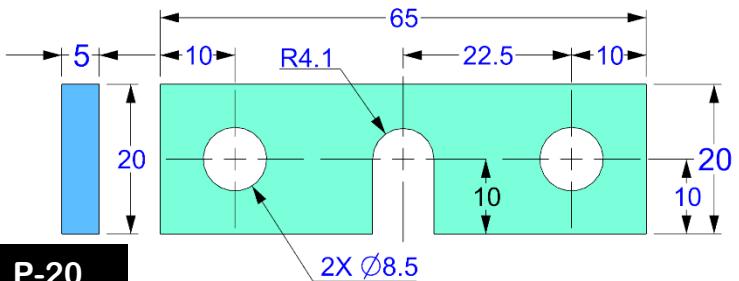


SECTION A-A

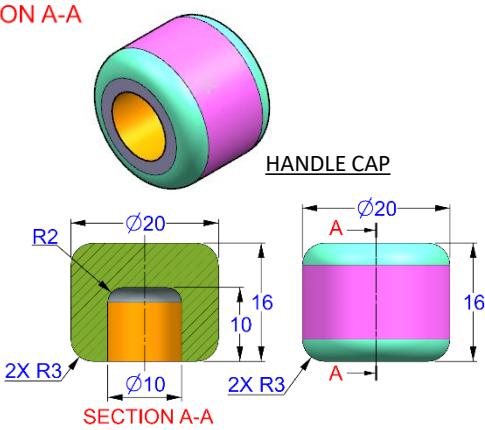


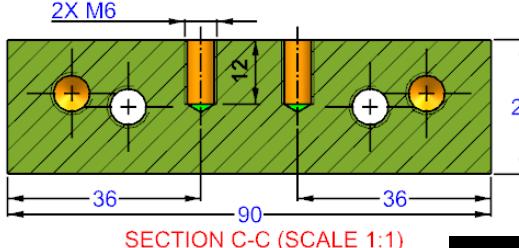
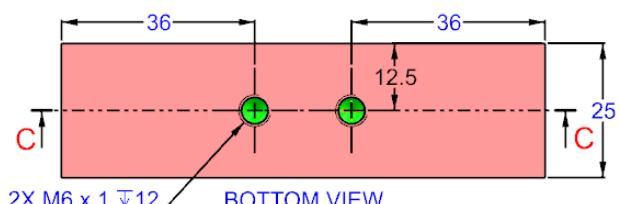
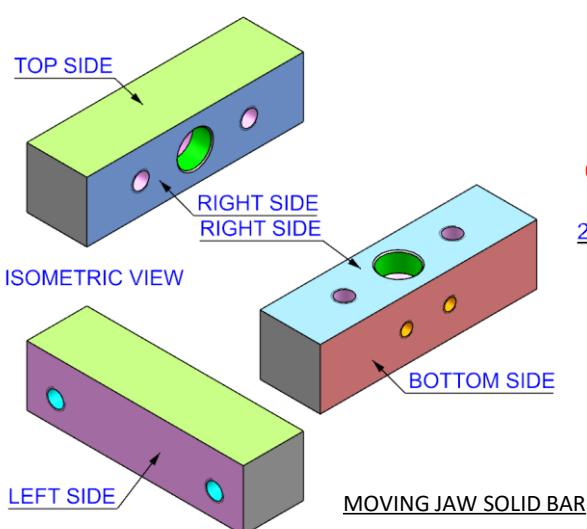
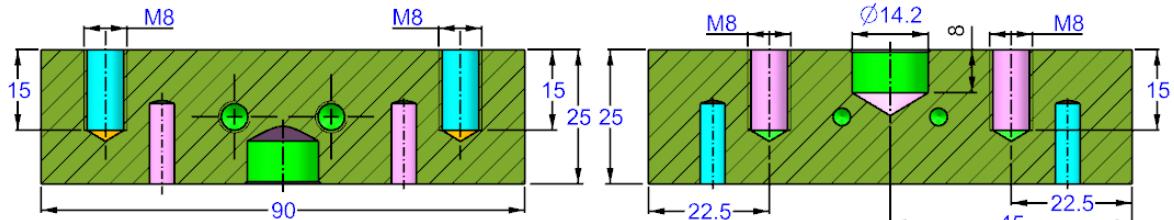
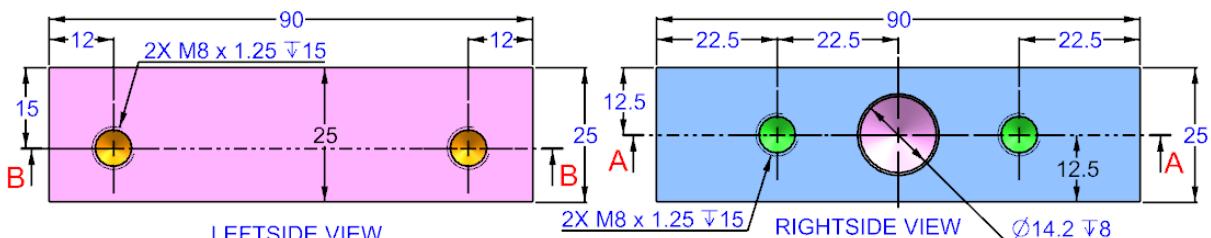
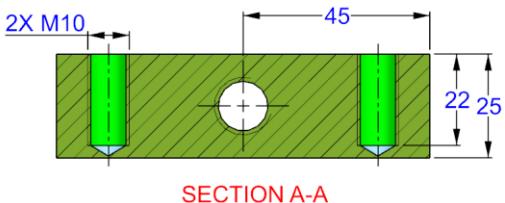
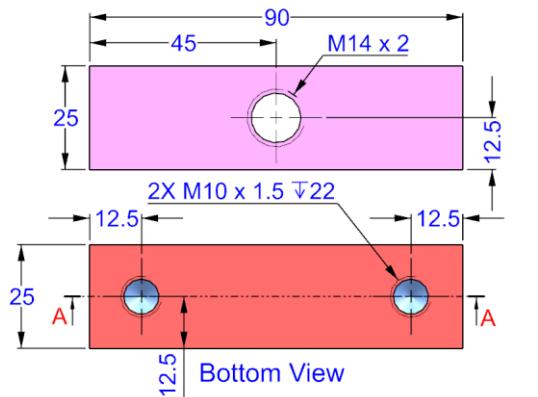
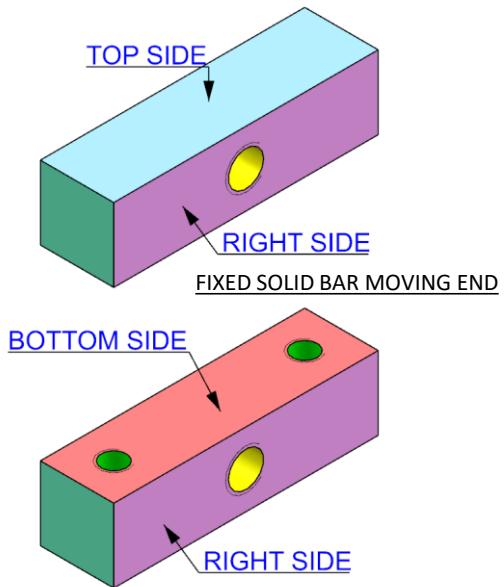


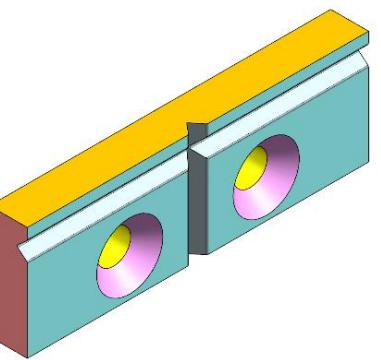
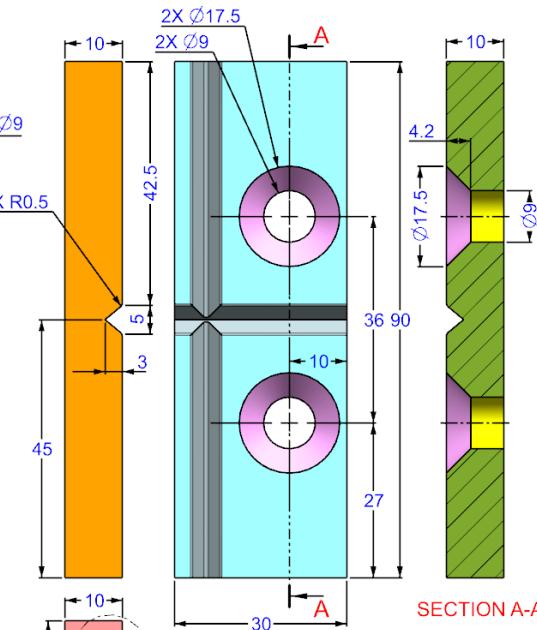
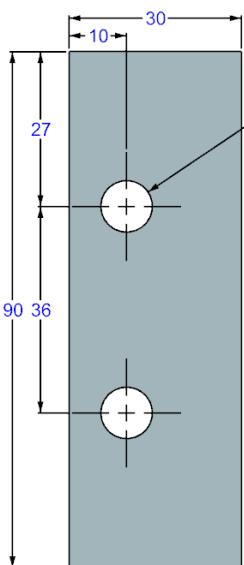
THREADED ROD CLAMPING PLATE



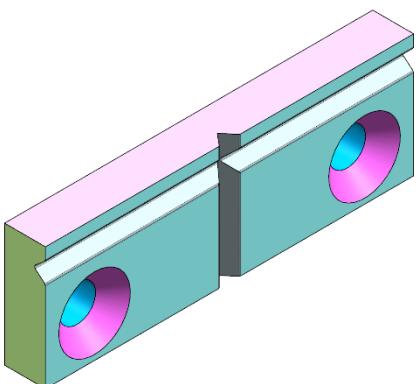
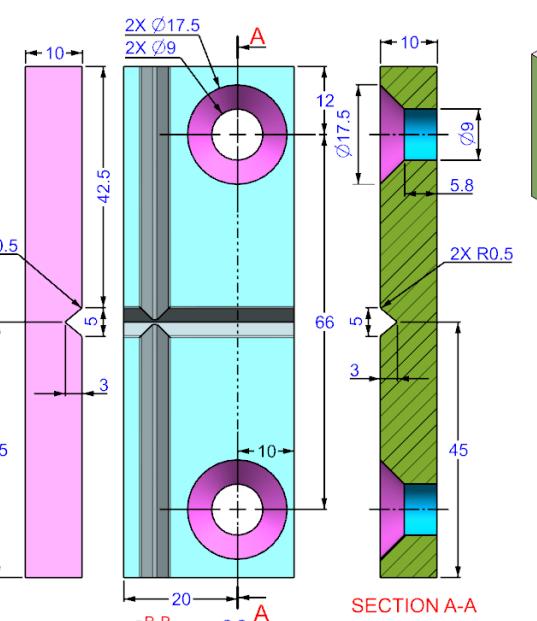
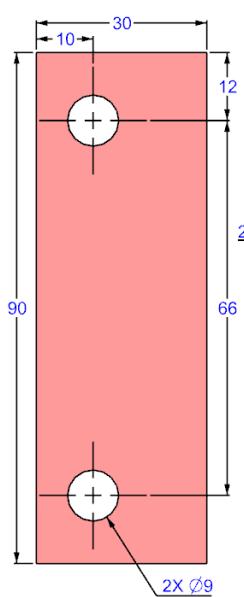
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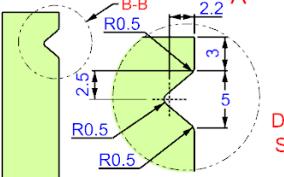




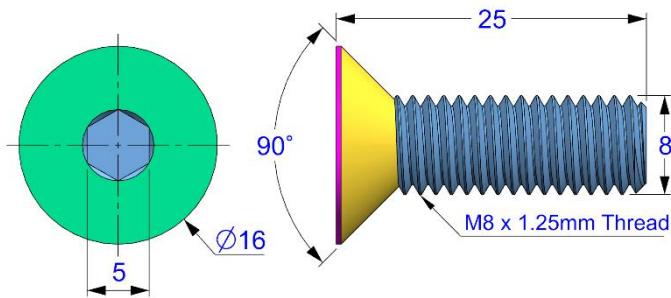
CLAMPING JAW PLATE FIXED SIDE



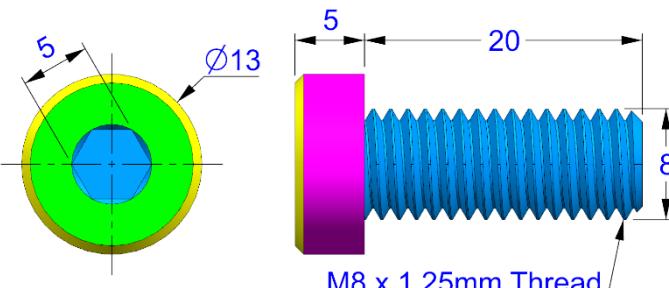
CLAMPING JAW PLATE MOVING SIDE



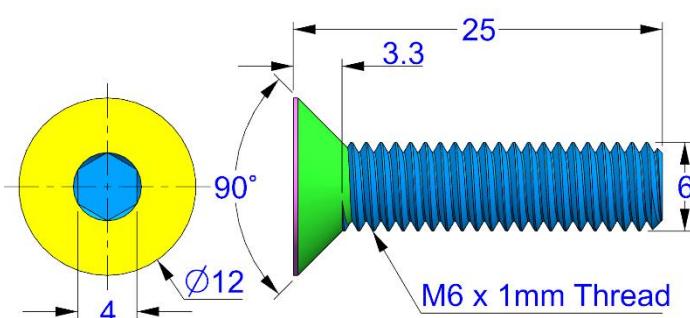
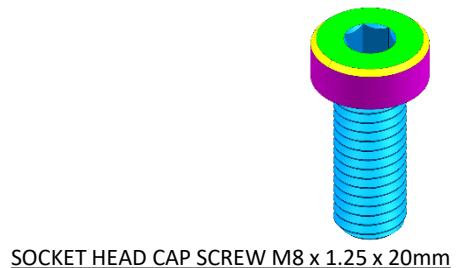
DETAIL B-B
SCALE 2:1



CSK SCREW M8 x 1.25 x 25mm

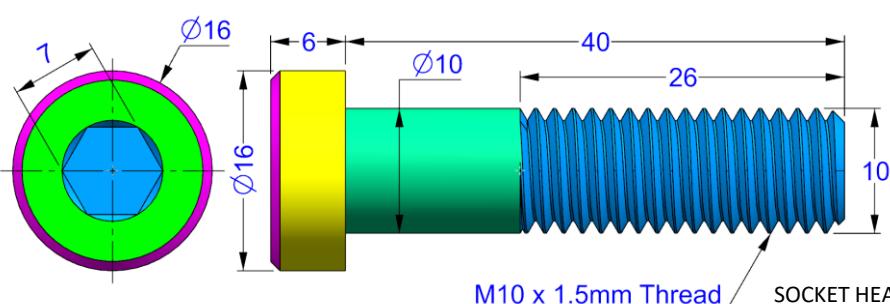


M8 x 1.25mm Thread



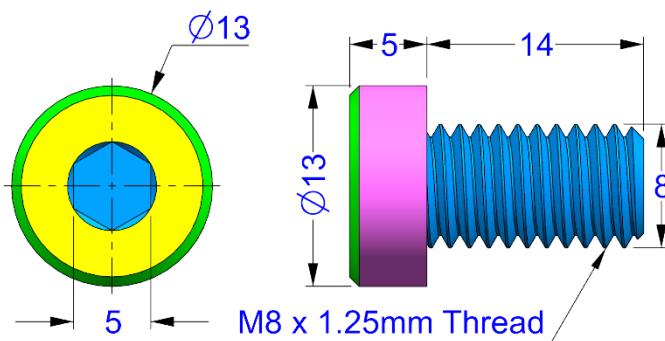
M6 x 1mm Thread

CSK SCREW M6 x 1 x 25mm

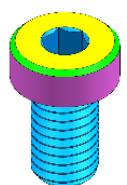


M10 x 1.5mm Thread

SOCKET HEAD CAP SCREW M10 x 1.5 x 40mm

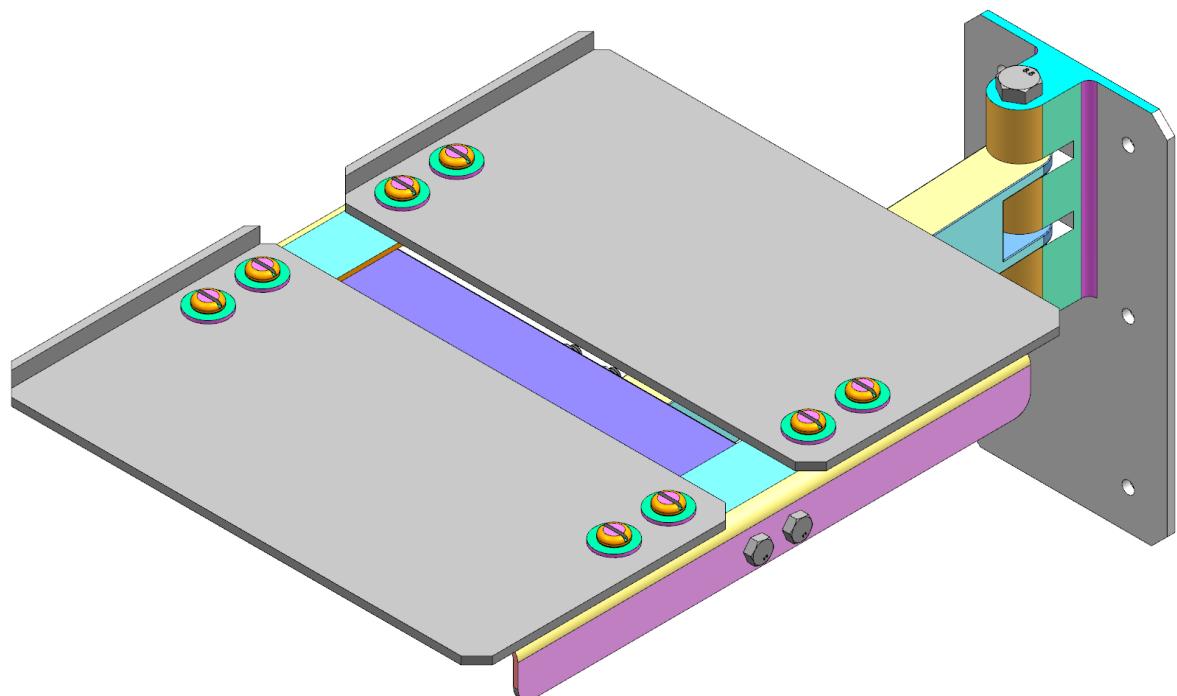


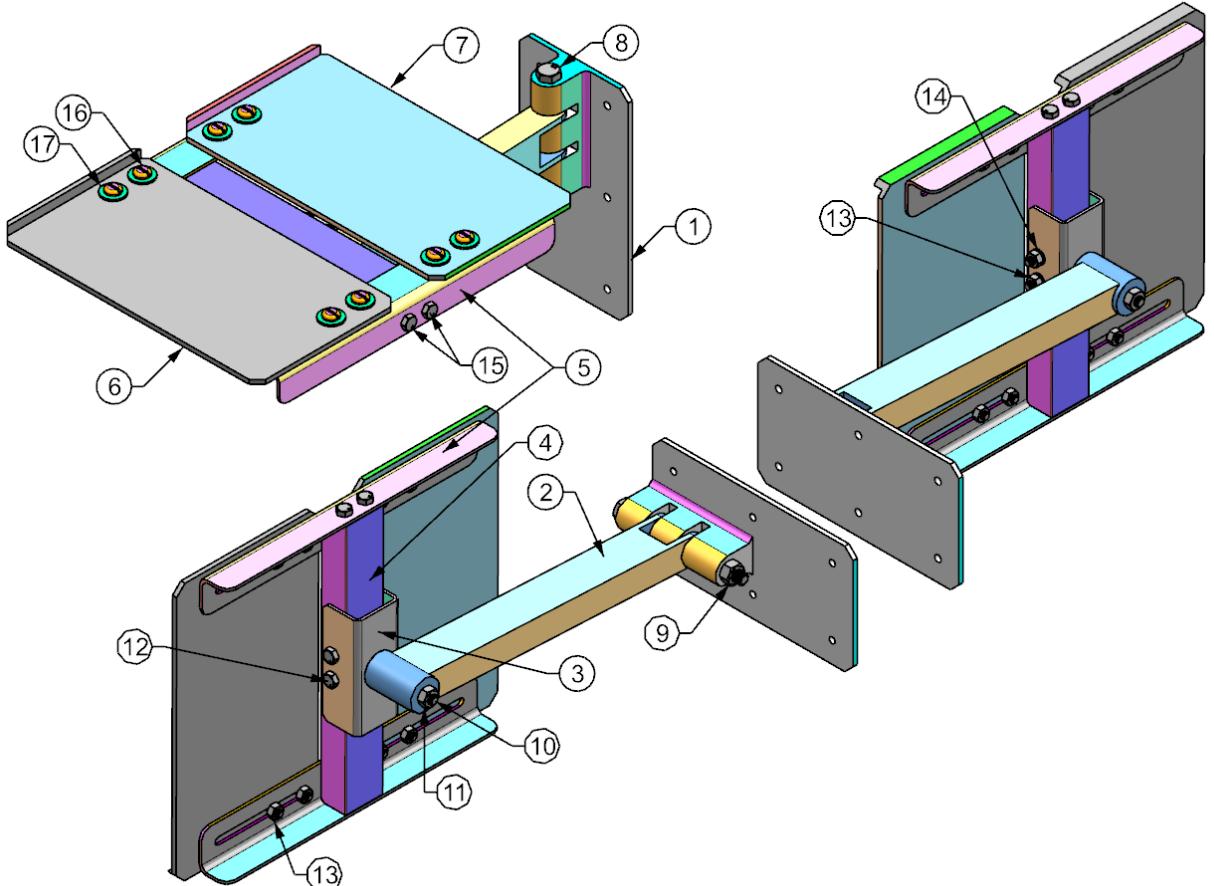
SOCKET HEAD CAP SCREW M8 x 1.25 x 14mm



ASSEMBLY EX-04

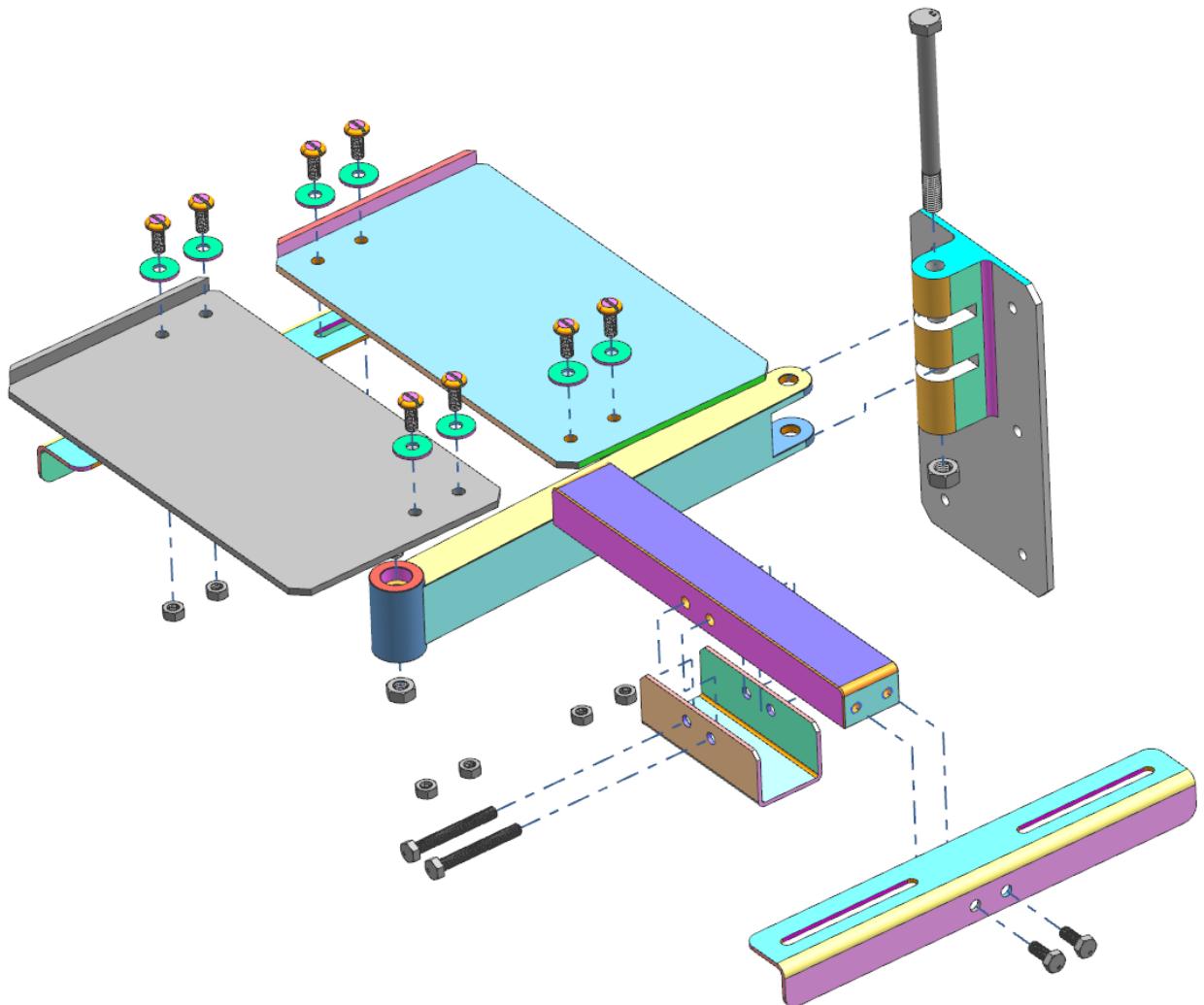
Wall Mount Tv Stand

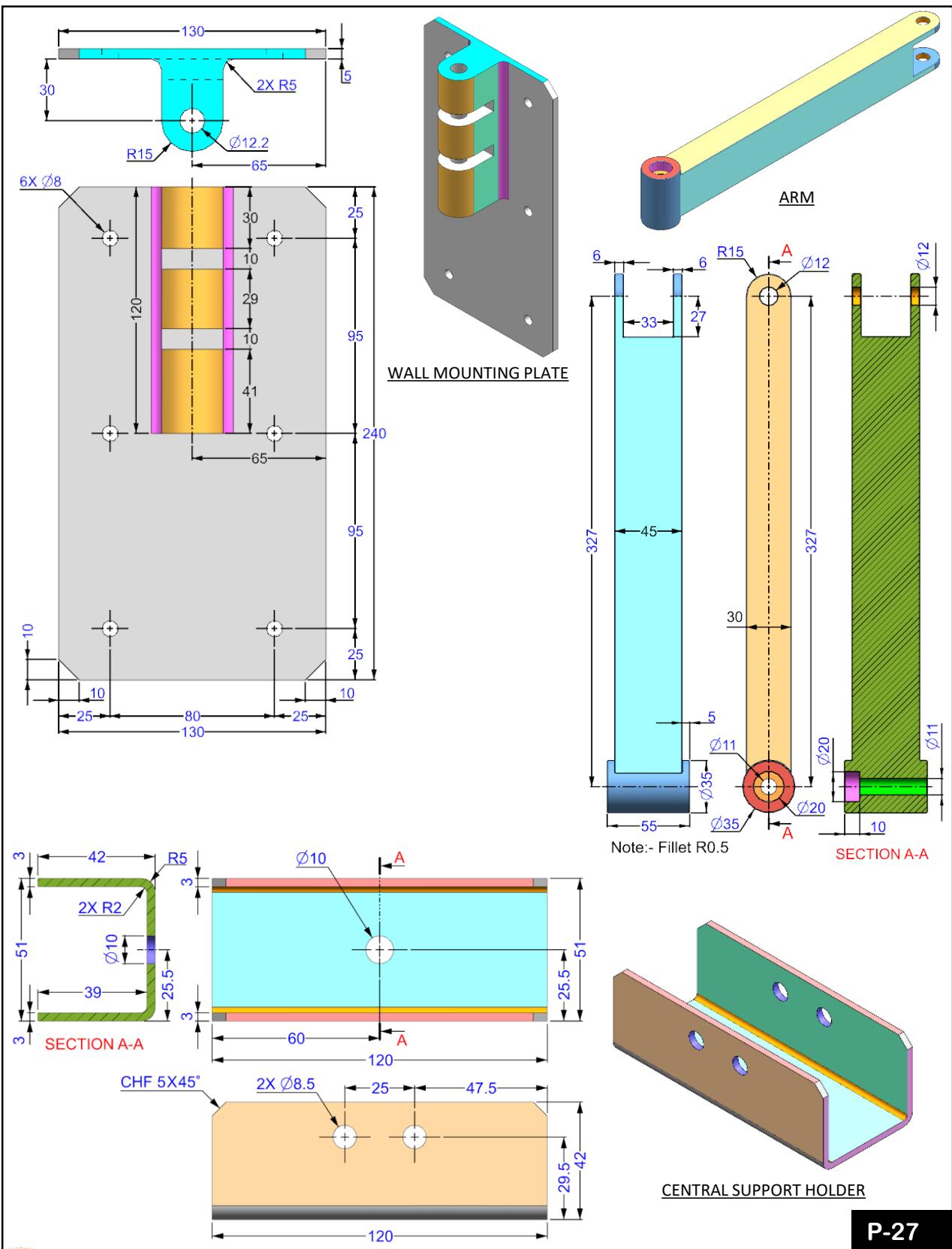


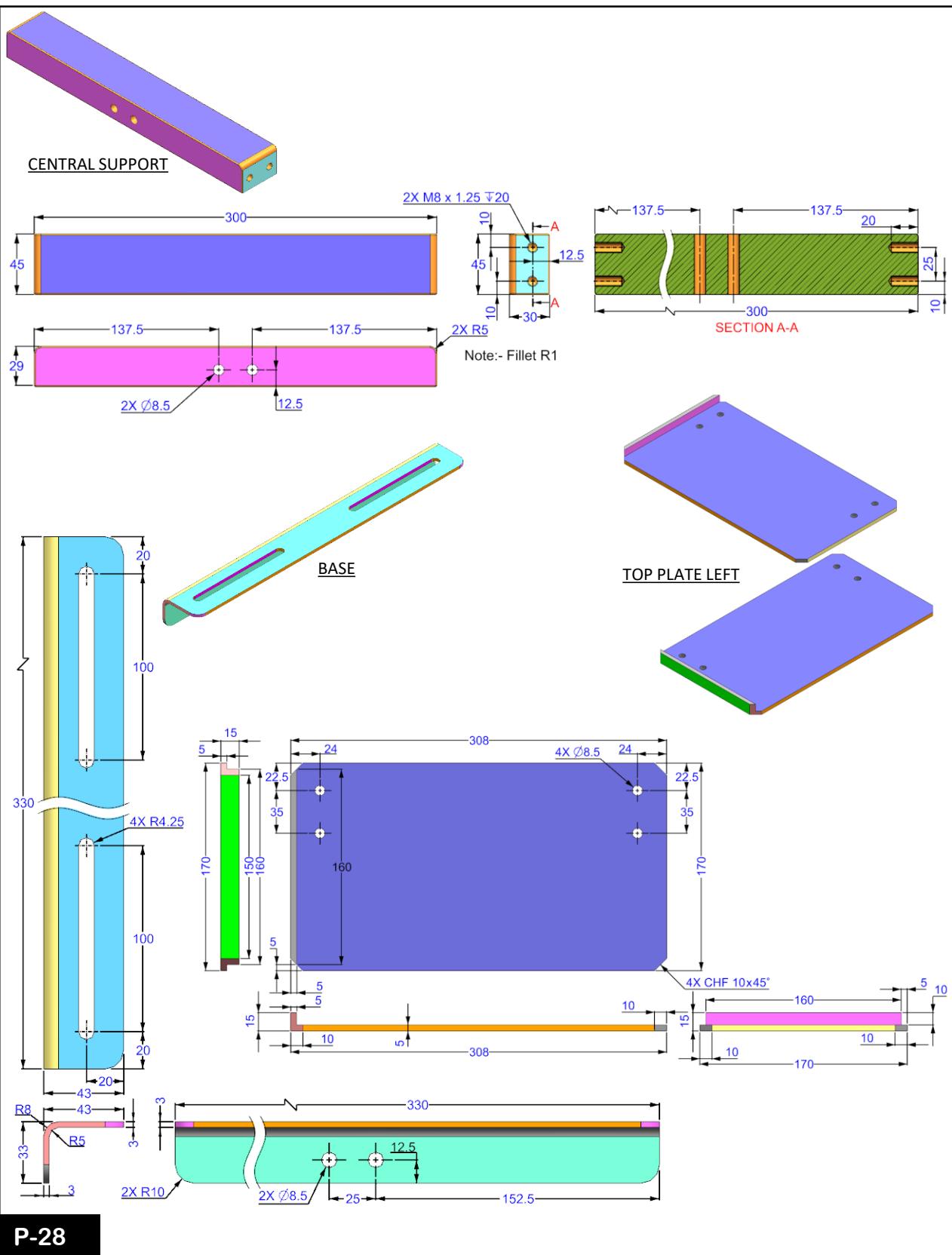


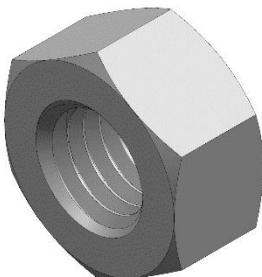
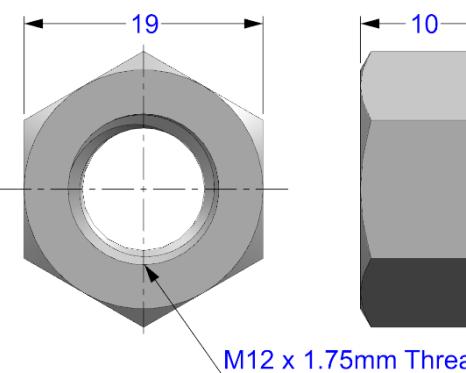
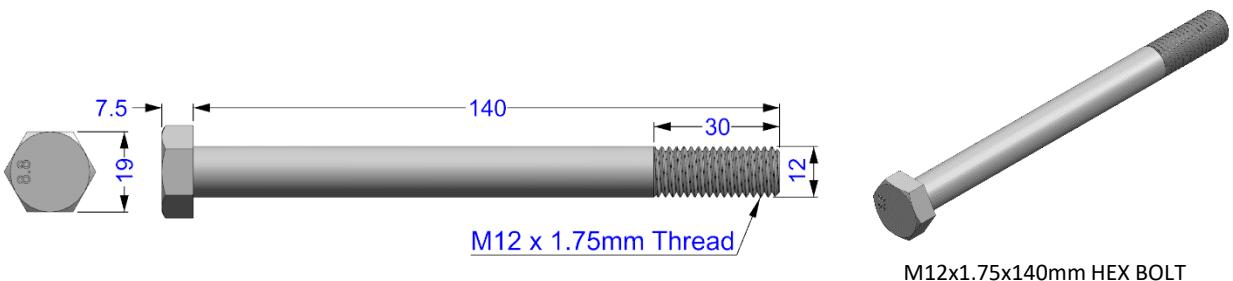
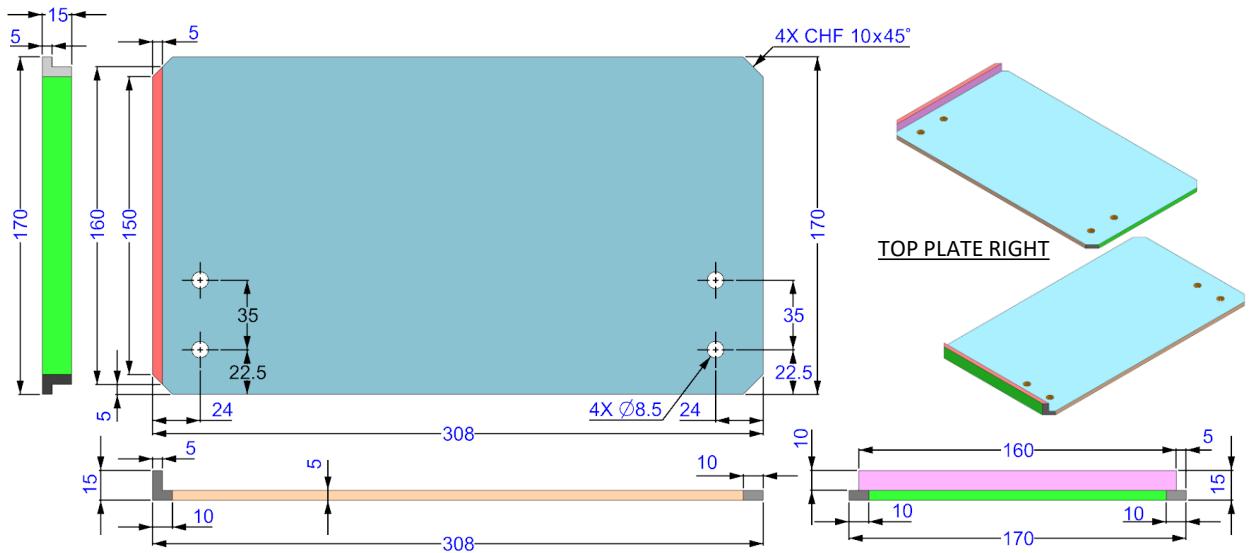
ITEM NO	PART NAME	QTY
17	M8 OD 25MM WASHER	8
16	M8X1.25X20MM ROUNDED HEAD SCREW	8
15	M8X1.25X20MM HEX BOLT	4
14	M8 OD 15MM WASHER	2
13	M8X1.25X6.5MM HEX NUT	10
12	M8X1.25X65MM HEX BOLT	2
11	M10X1.5X8MM HEX NUT	1
10	M10X1.5X70MM HEX BOLT	1
9	M12X1.75X10MM HEX NUT	1
8	M12X1.75X140MM HEX BOLT	1
7	TOP PLATE RIGHT	1
6	TOP PLATE LEFT	1
5	BASE	2
4	CENTRAL SUPPORT	1
3	CENTRAL SUPPORT HOLDER	1
2	ARM	1
1	WALL MOUNTING PLATE	1

Exploded View

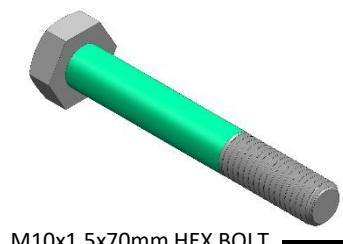
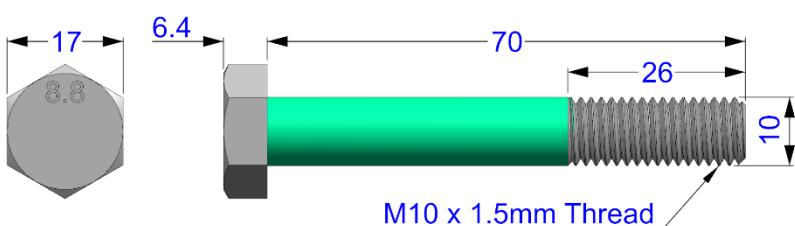




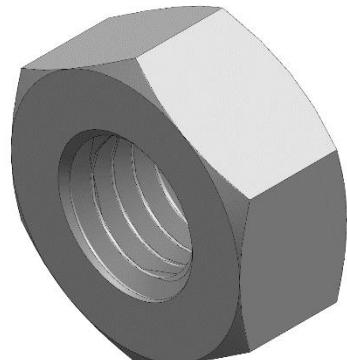
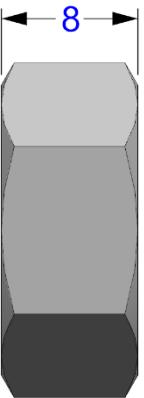
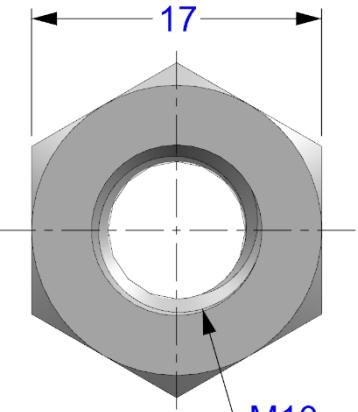




M12x1.75x10mm HEX NUT

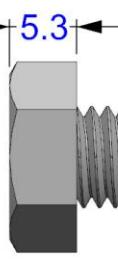
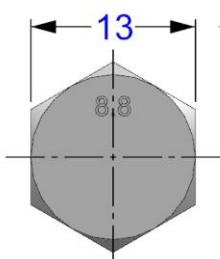


M10x1.5x70mm HEX BOLT



M10 x 1.5mm Thread

M10x1.5x8mm HEX NUT



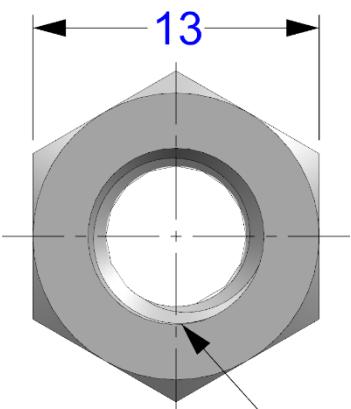
65

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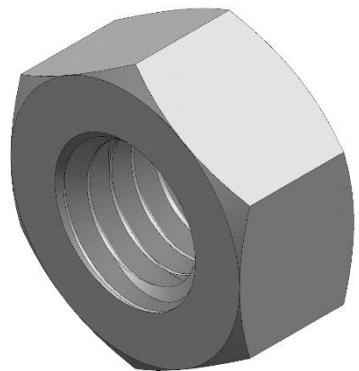
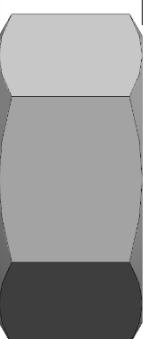
M8 x 1.25mm Thread



M8x1.25x65mm HEX BOLT

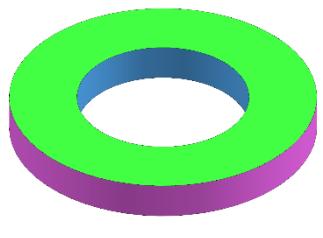
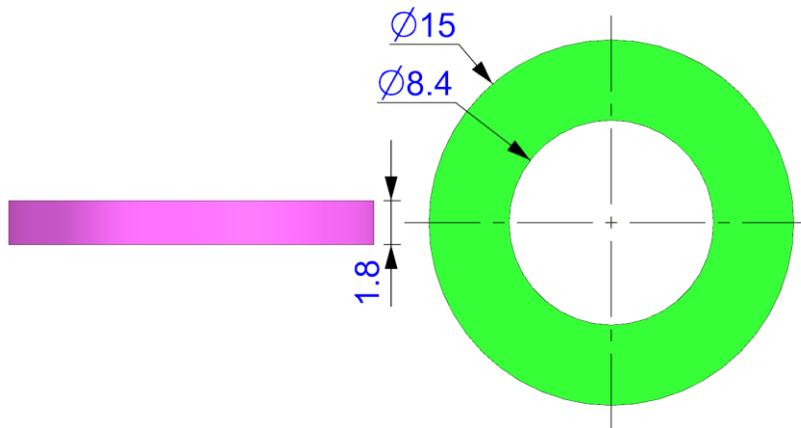


6.5

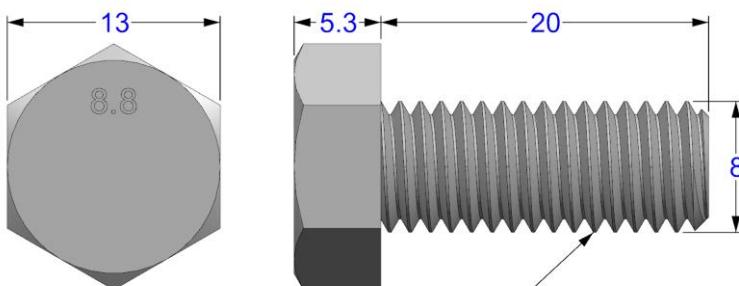


M8 x 1.25mm Thread

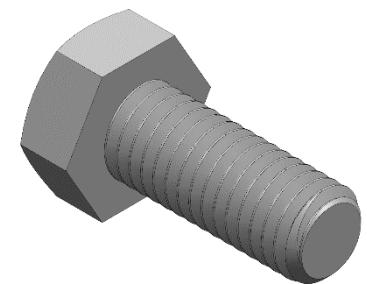
M8x1.25x6.5mm HEX NUT



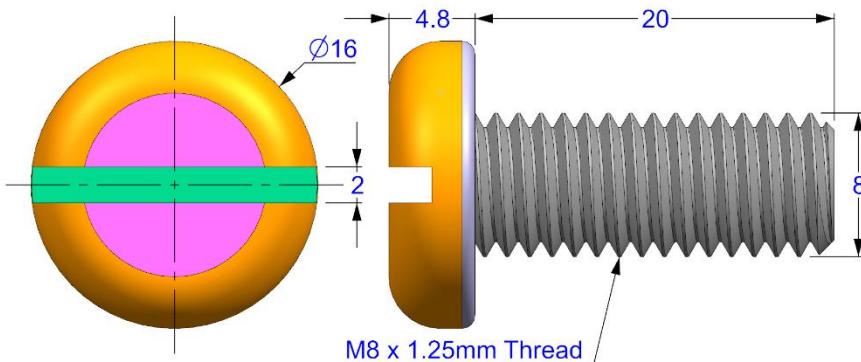
M8 OD 15mm WASHER



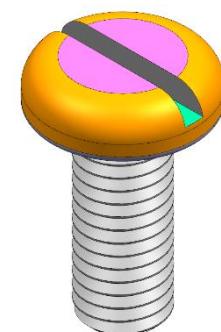
M8 x 1.25mm Thread



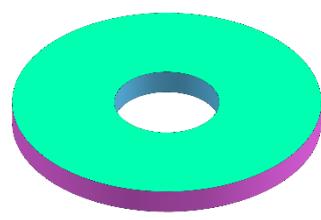
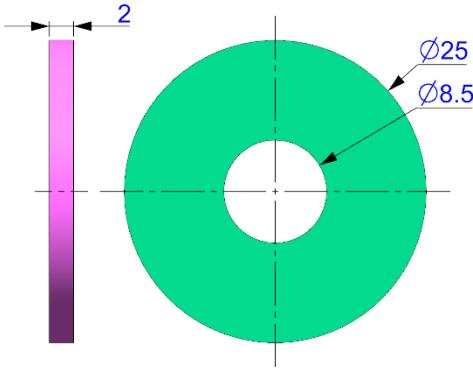
M8x1.25x20mm HEX BOLT



M8 x 1.25mm Thread



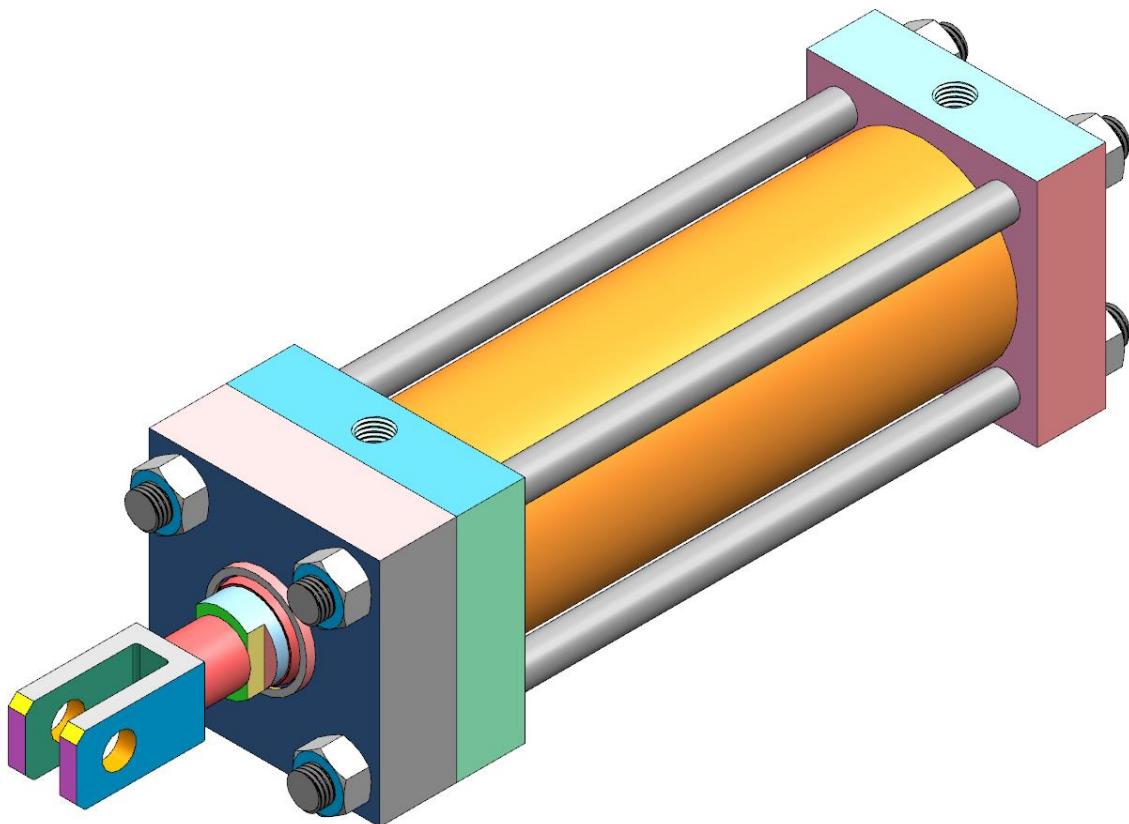
M8x1.25x20mm ROUNDED HEAD SCREW

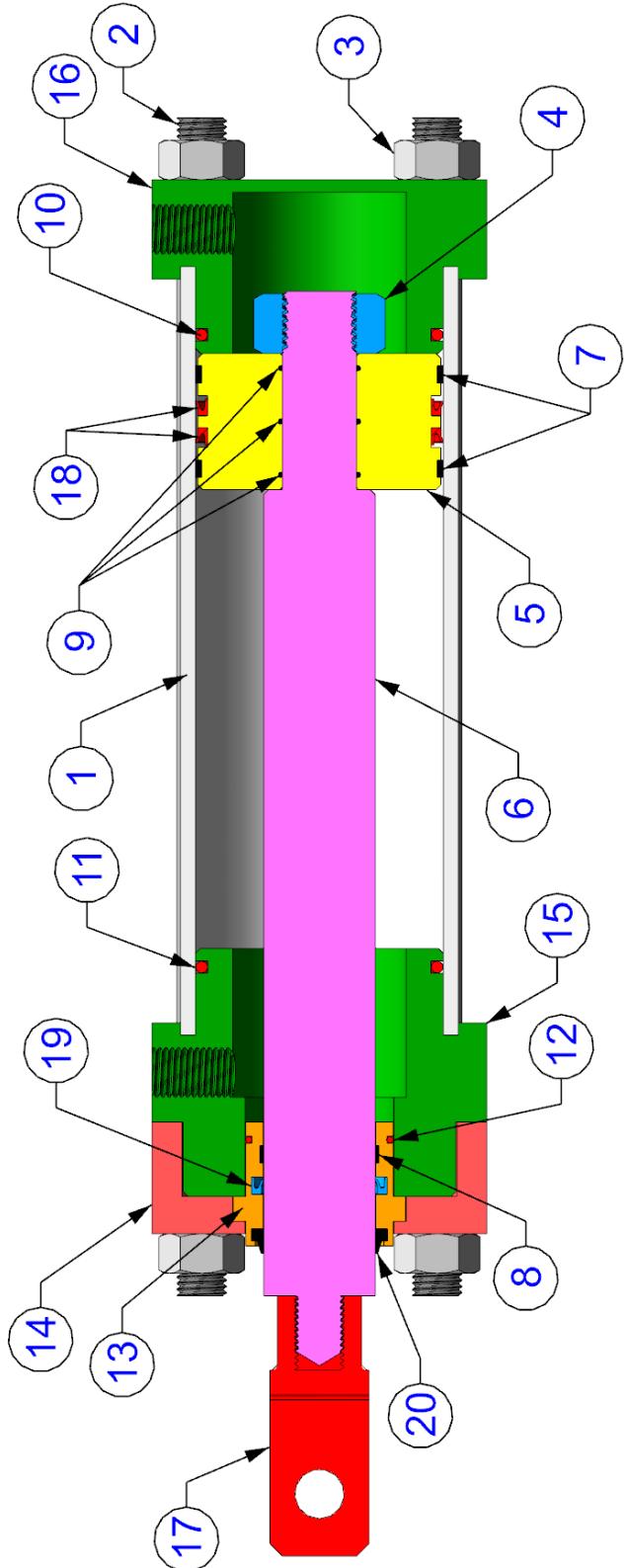


M8 OD 25mm WASHER

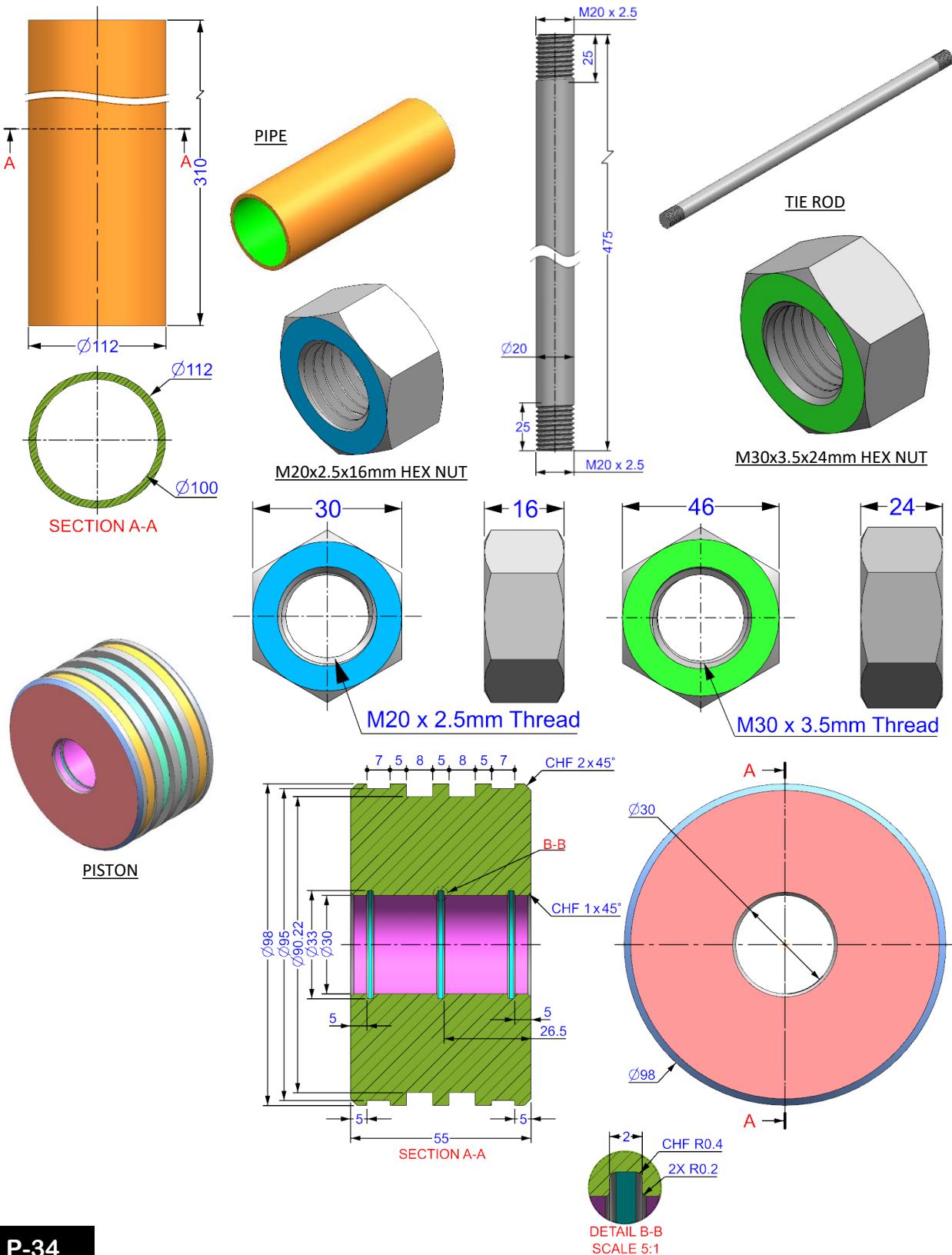
ASSEMBLY EX-05

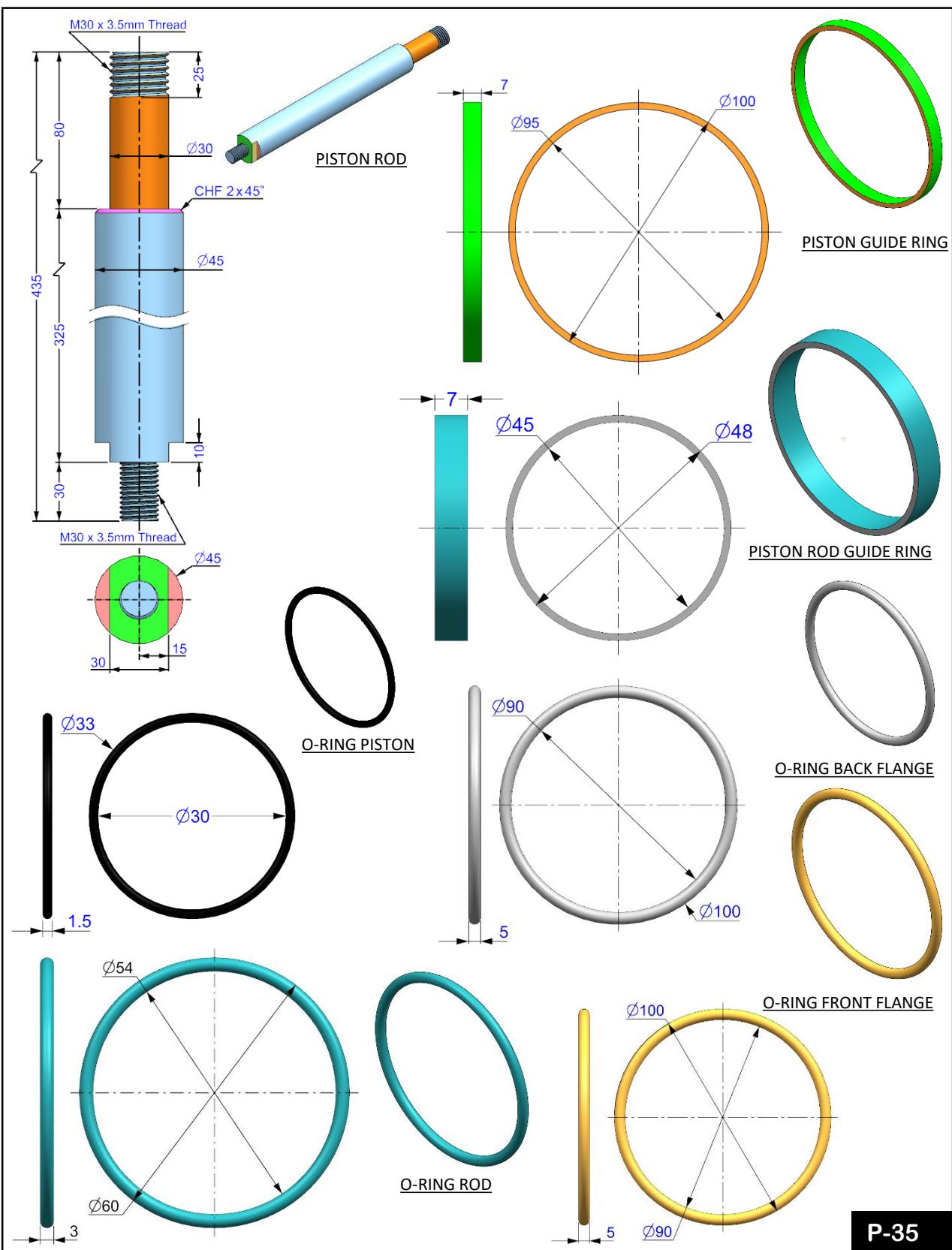
Hydraulic Cylinder Assembly

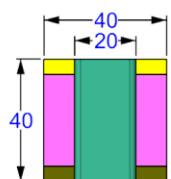
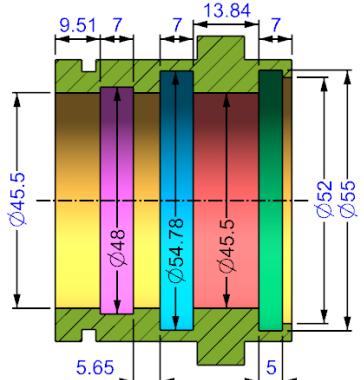
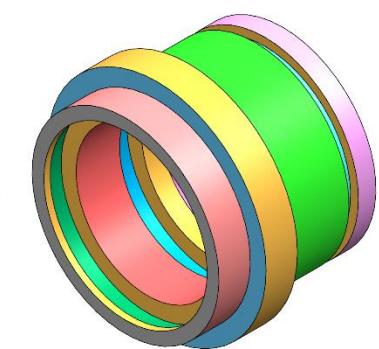
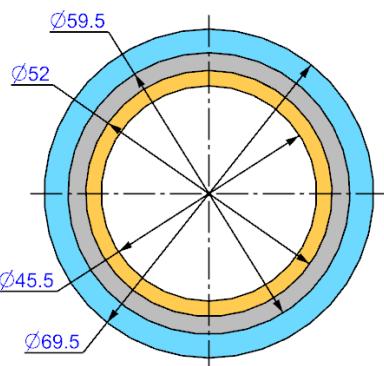
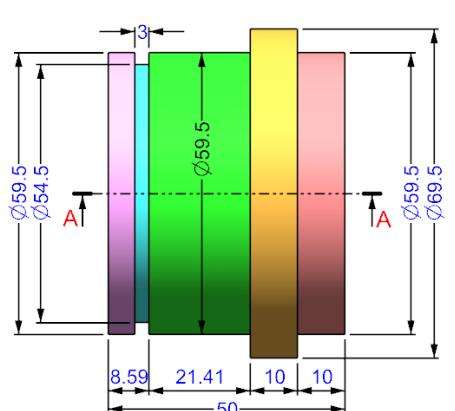




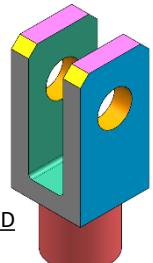
ITEM NO	PART NAME	QTY
1	WIPER SEAL	1
2	ROD SEAL	1
3	PISTON SEAL	2
4	CLEVIS ROD END	1
5	BACK FLANGE	1
6	FRONT FLANGE	1
7	KEEP PLATE	1
8	GUIDE BUSH	1
9	O-RING ROD	1
10	O-RING FRONT FLANGE	1
11	O-RING BACK FLANGE	1
12	O-RING PISTON	3
13	PISTON ROD GUIDE RING	1
14	PISTON ROD	1
15	PISTON	1
16	M30X3.5X24MM HEX NUT	1
17	M20X2.5X16MM HEX NUT	8
18	TIE ROD	4
19	PIPE	1



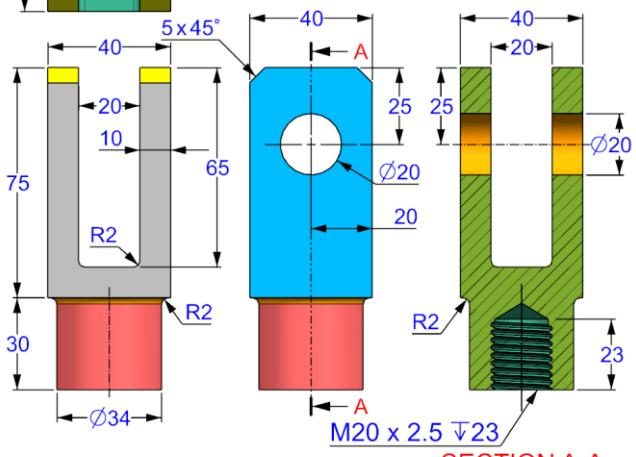




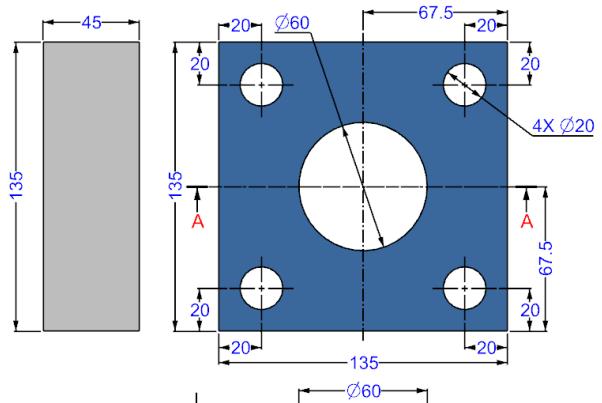
GUIDE BUSH



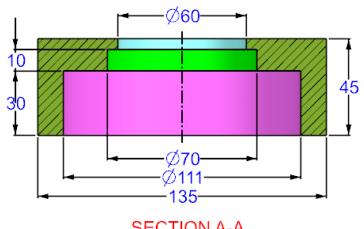
CLEVIS ROD END



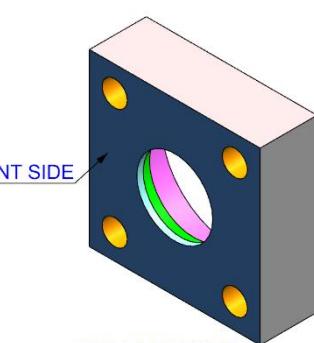
M20 x 2.5 ↴23
SECTION A-A



A

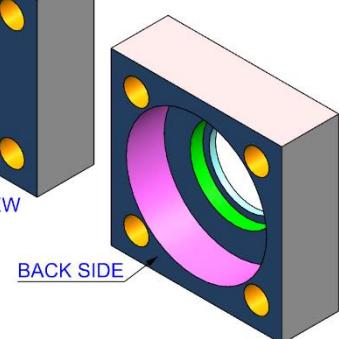


SECTION A-A

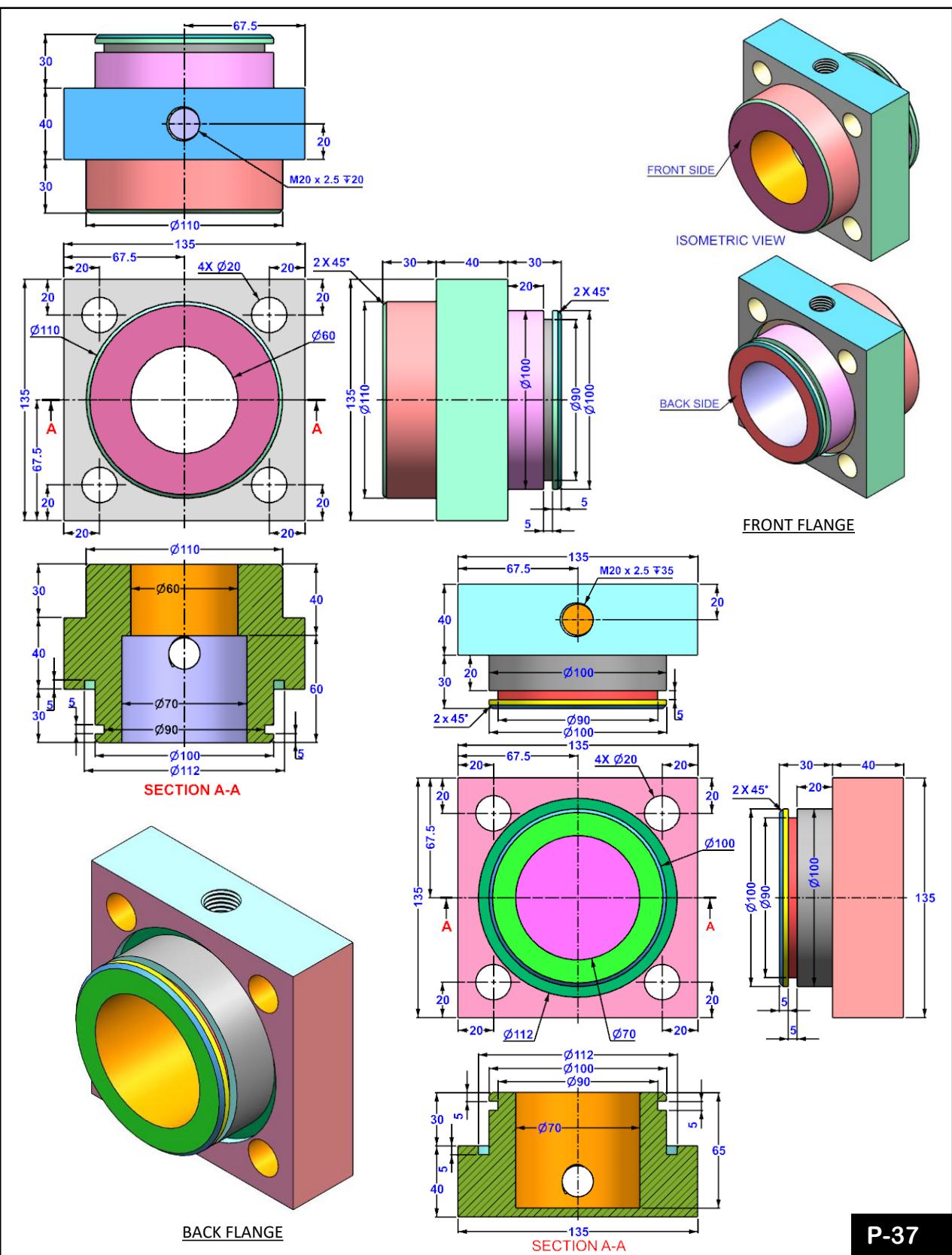


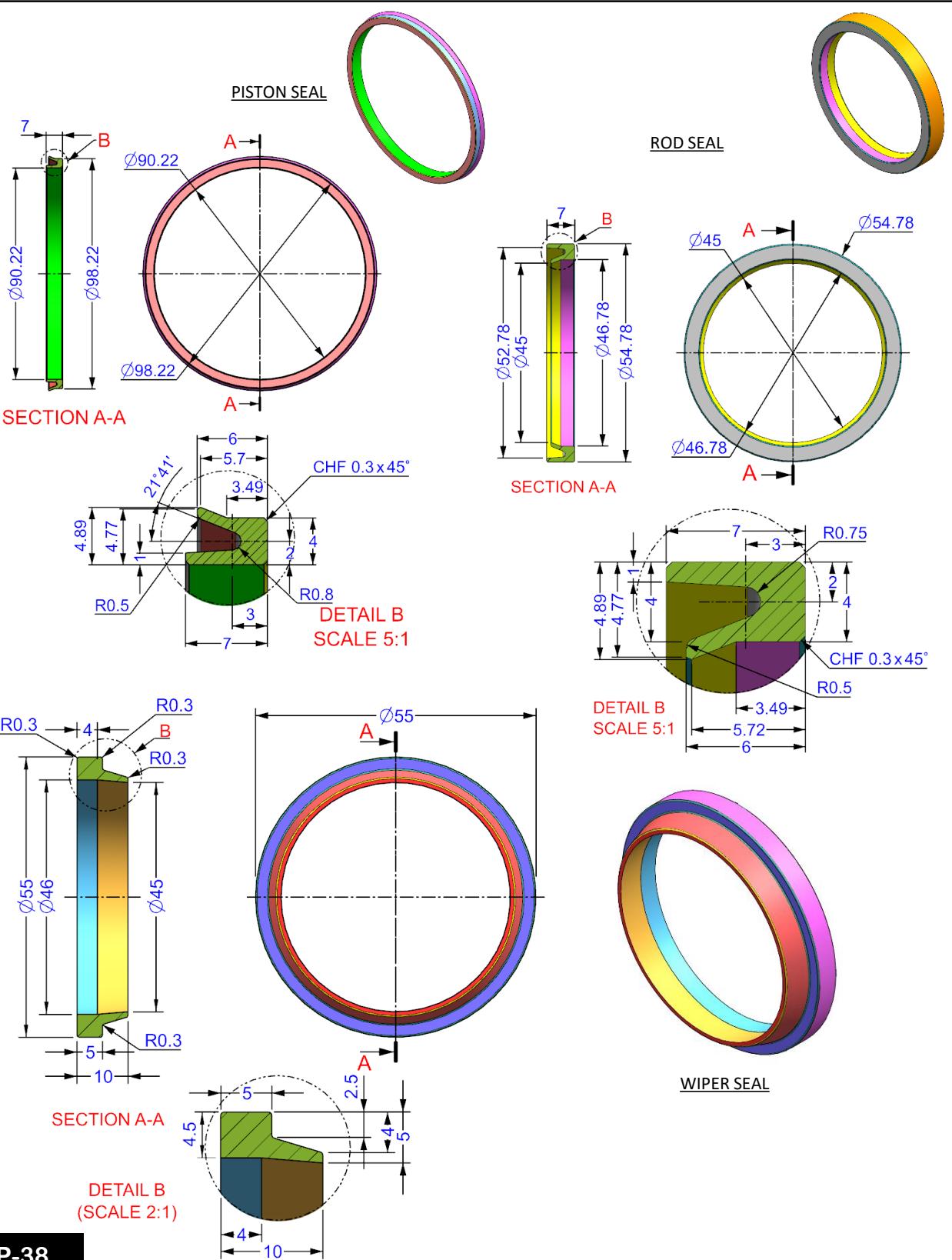
FRONT SIDE

ISOMETRIC VIEW



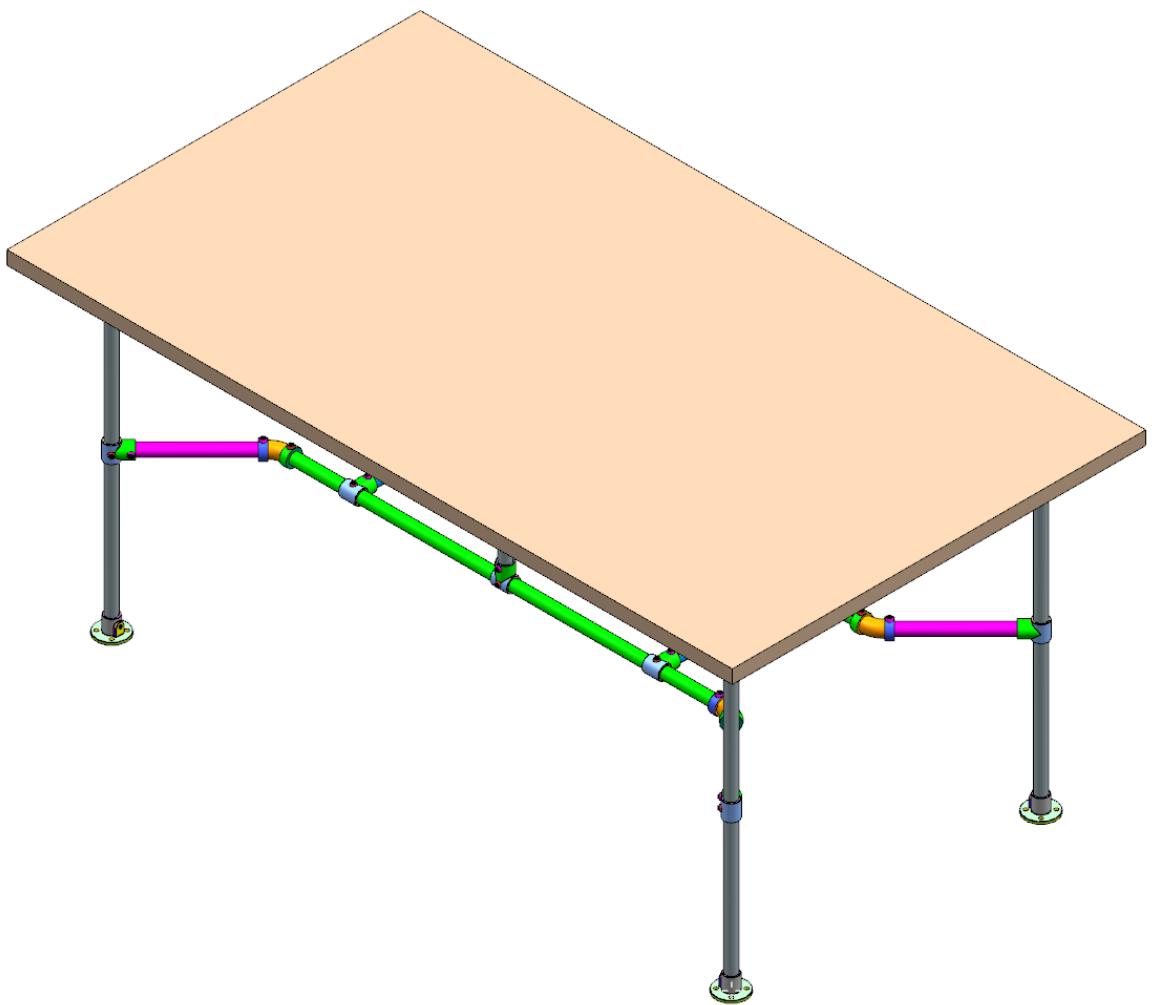
BACK SIDE

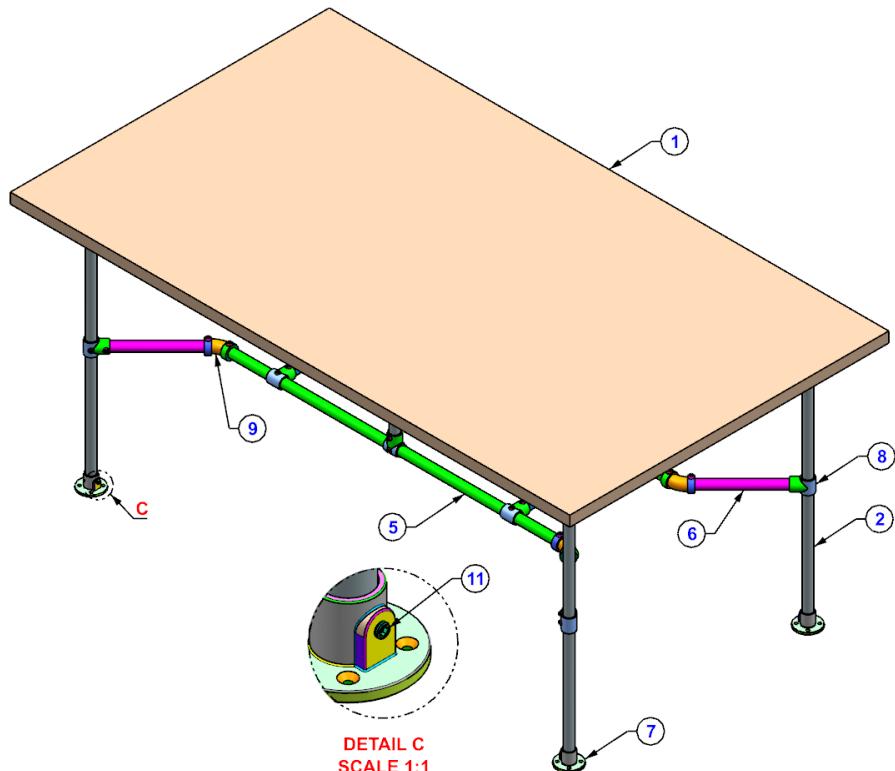




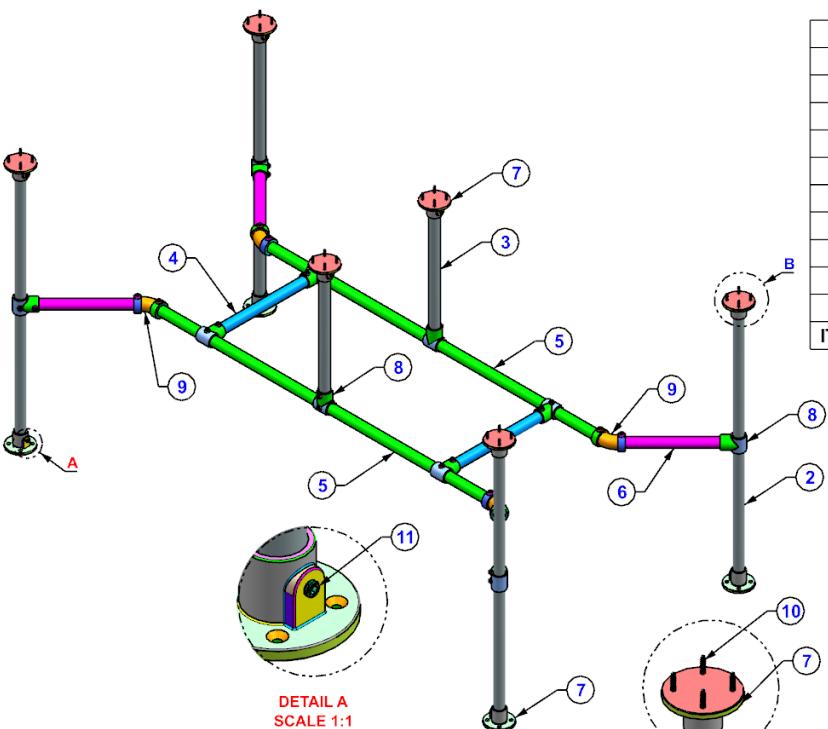
ASSEMBLY EX-06

Pipe Table Assembly



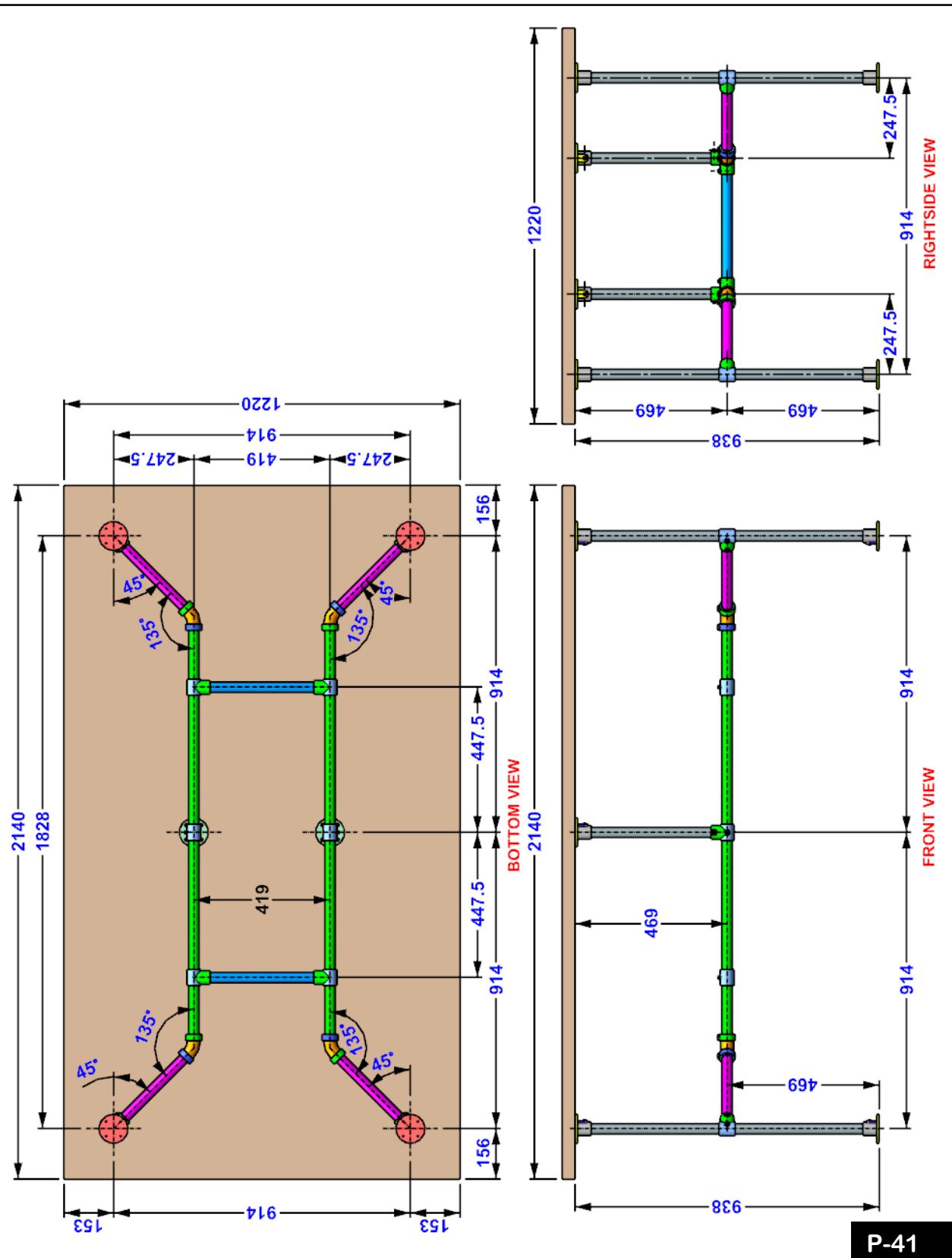


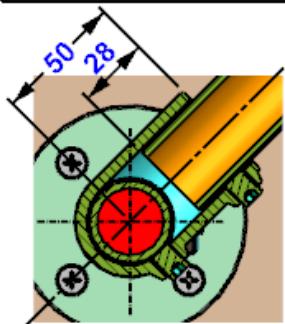
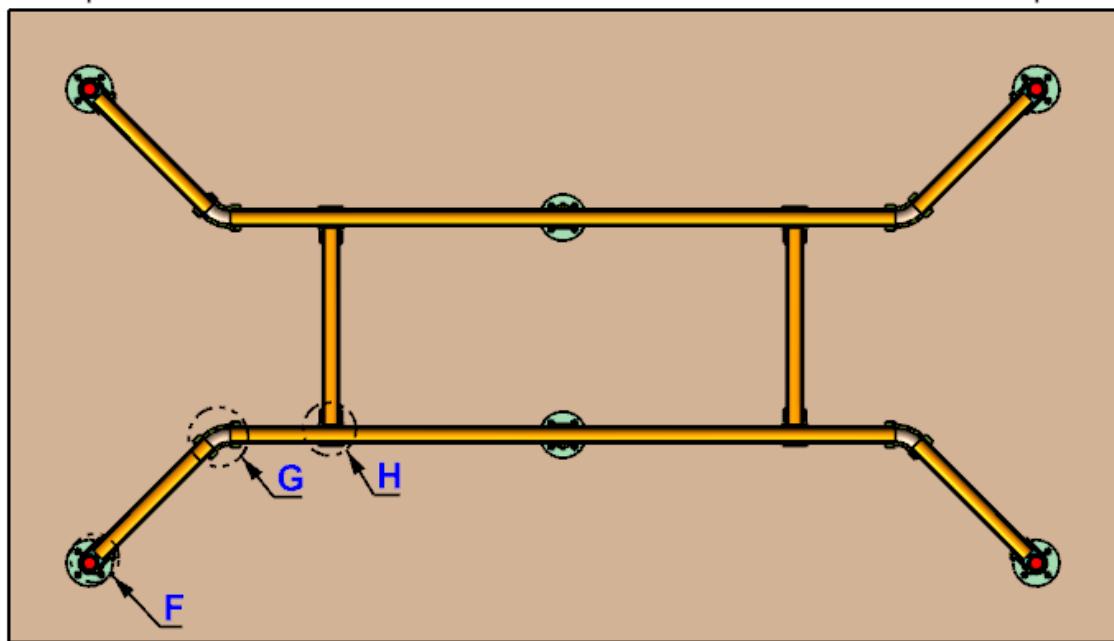
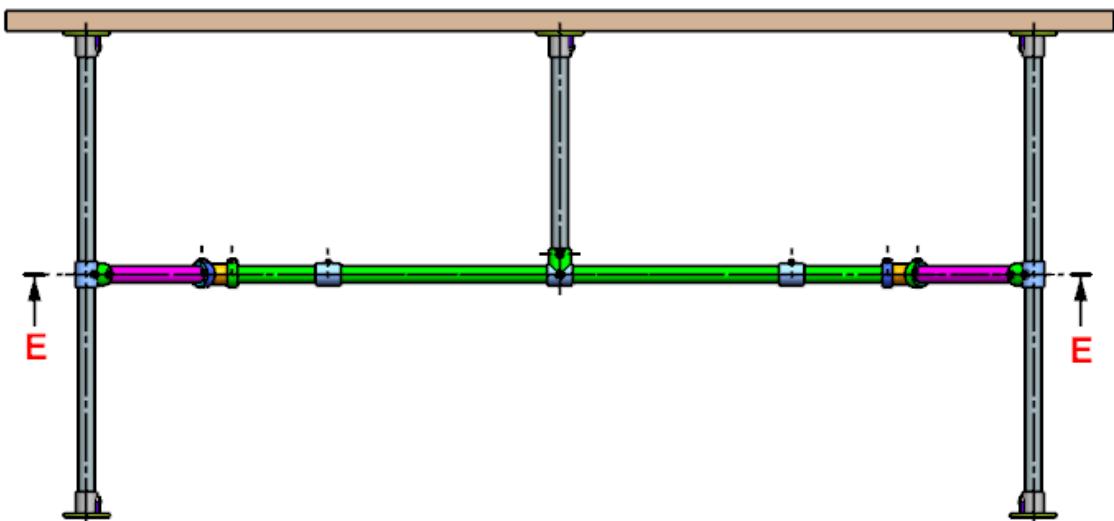
DETAIL C
SCALE 1:1



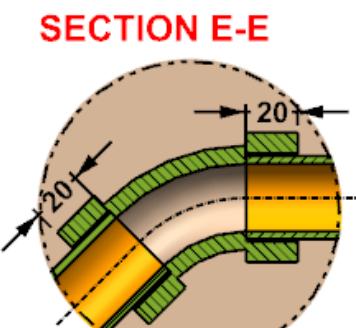
ITEM NO	PART NAME	QTY
11	M10X1.5X12MM SET SCREW	38
10	FLAT HEAD SCREW	24
9	ELBOW 45 DEGREE	4
8	TEE	10
7	FLANGE	10
6	PIPE E	4
5	PIPE D	2
4	PIPE C	2
3	PIPE B	2
2	PIPE A	4
1	WOODEN TOP BOARD	1

DETAIL B
SCALE 1:2

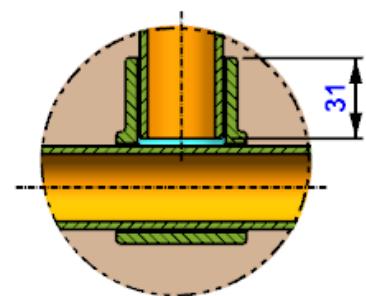




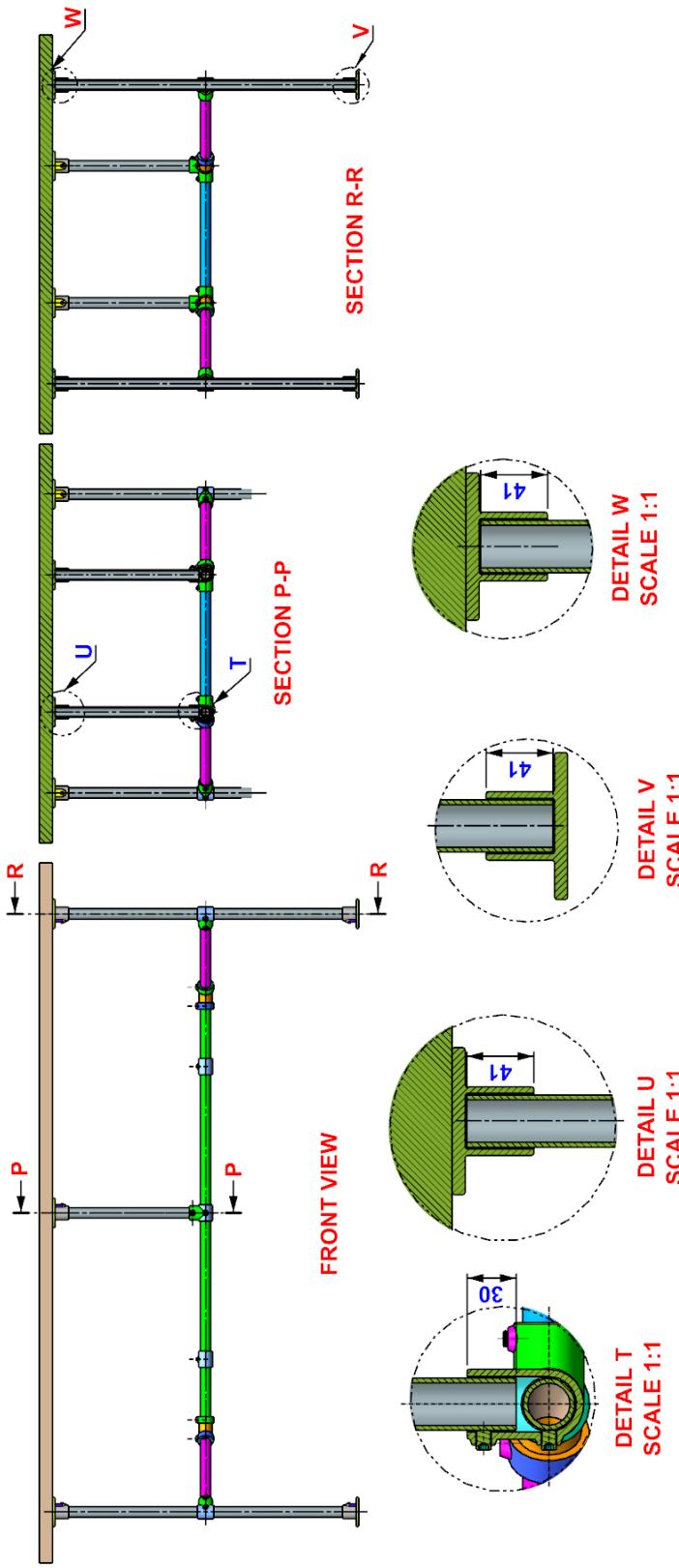
DETAIL F
SCALE 1:1



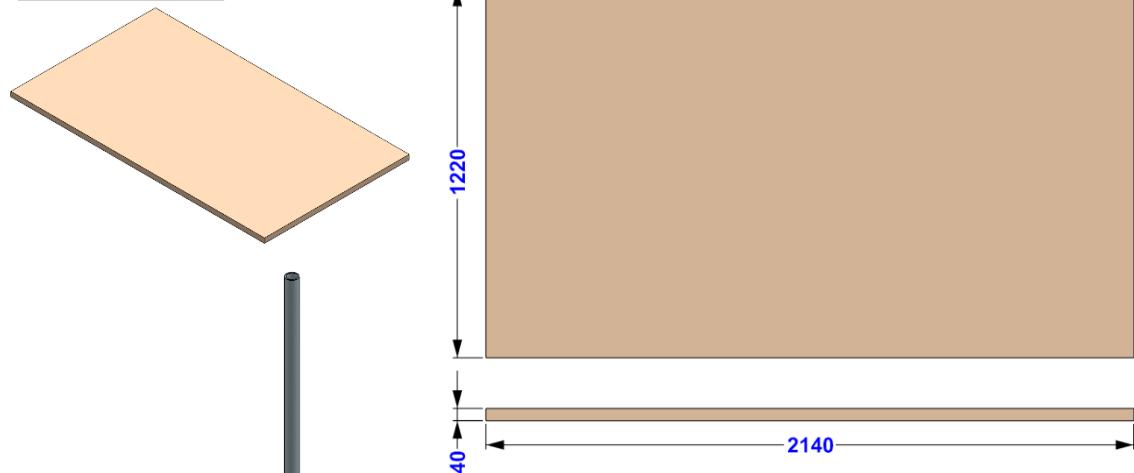
DETAIL G
SCALE 1:1



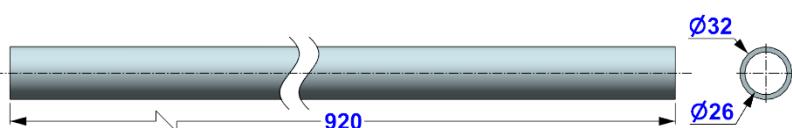
DETAIL H
SCALE 1:1



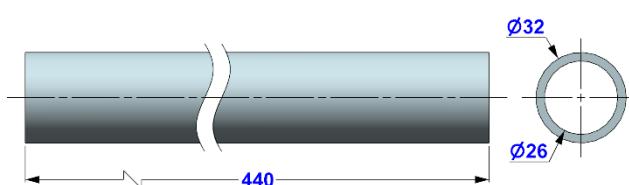
WOODEN TABLE TOP



PIPE A



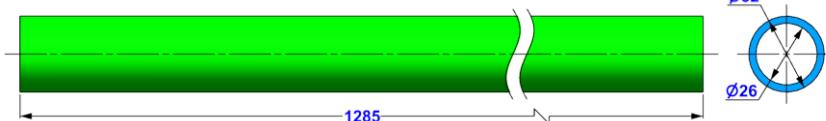
PIPE B



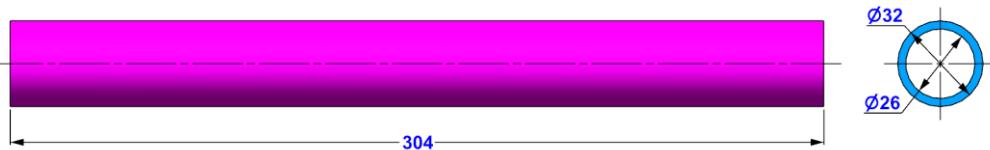
PIPE C

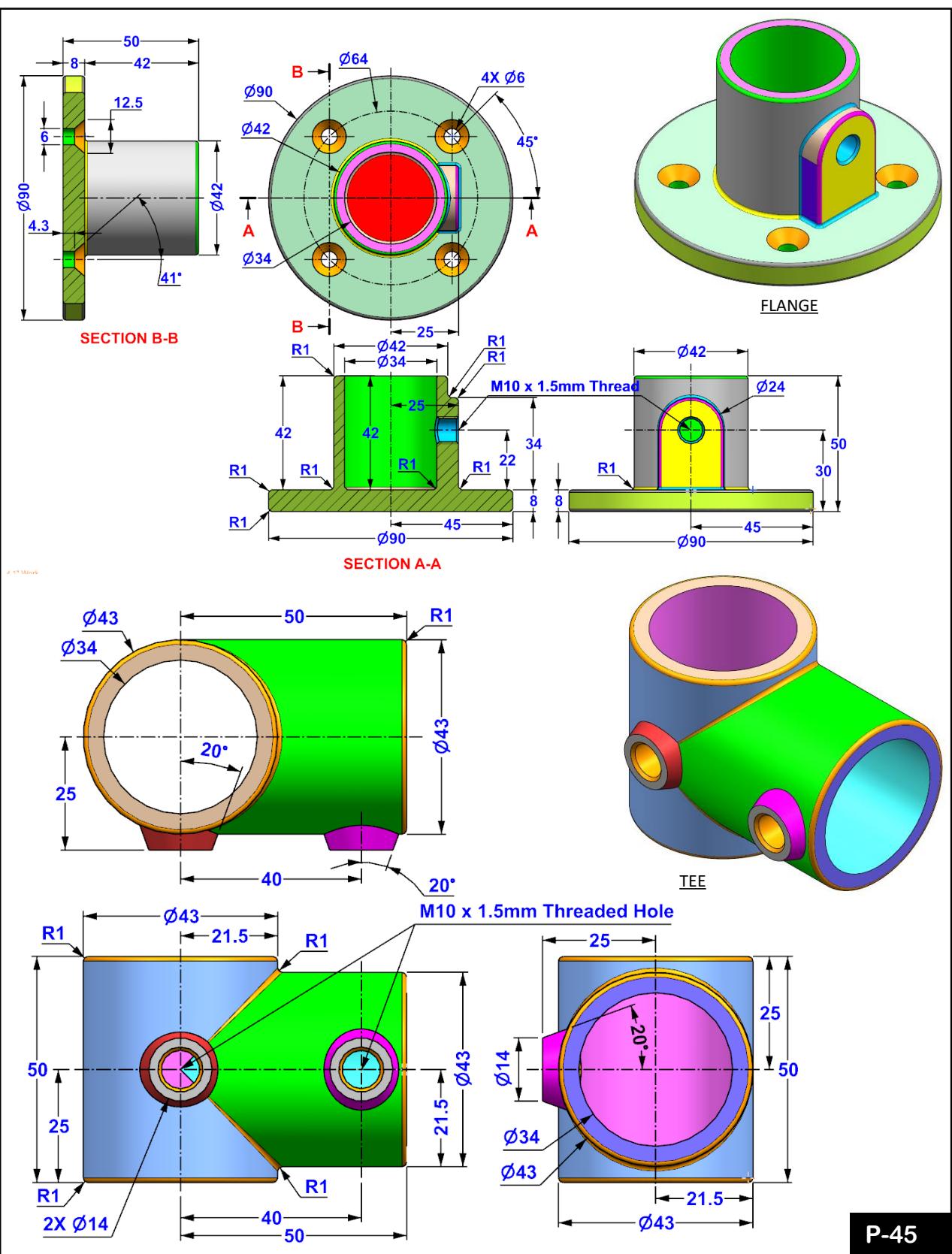


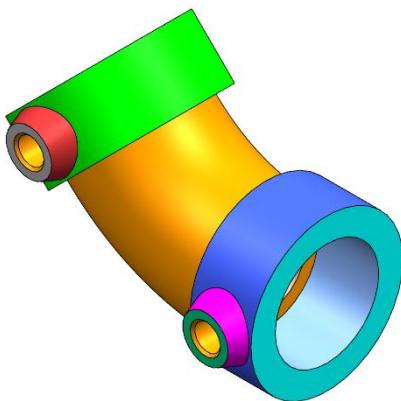
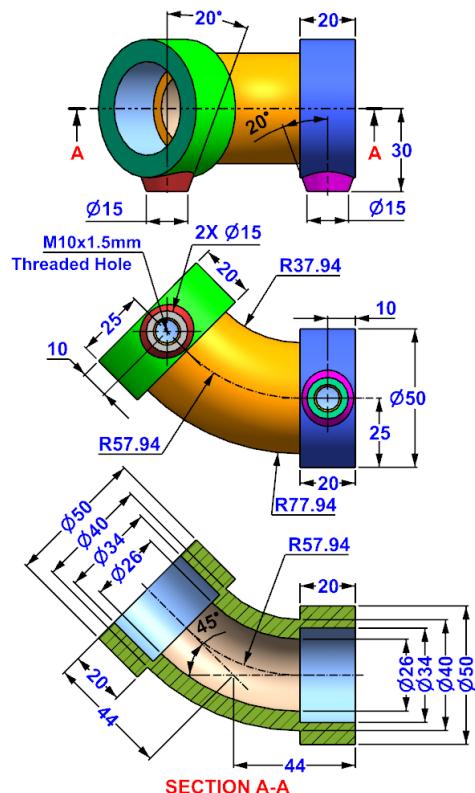
PIPE D



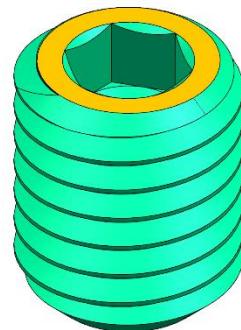
PIPE E



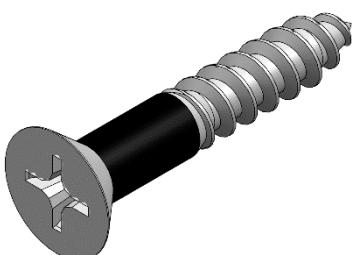
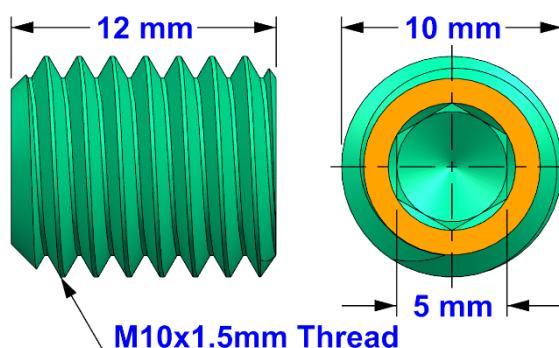




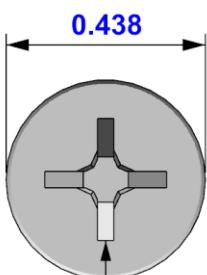
ELBOW 45 DEGREE



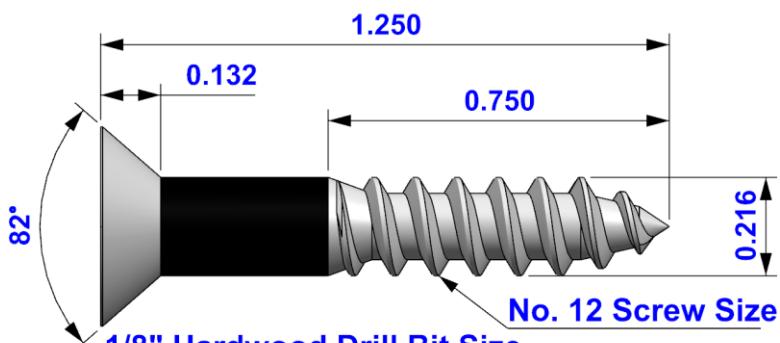
M10x1.5x12mm SET SCREW



FLAT HEAD SCREW



No. 3 Drive Size



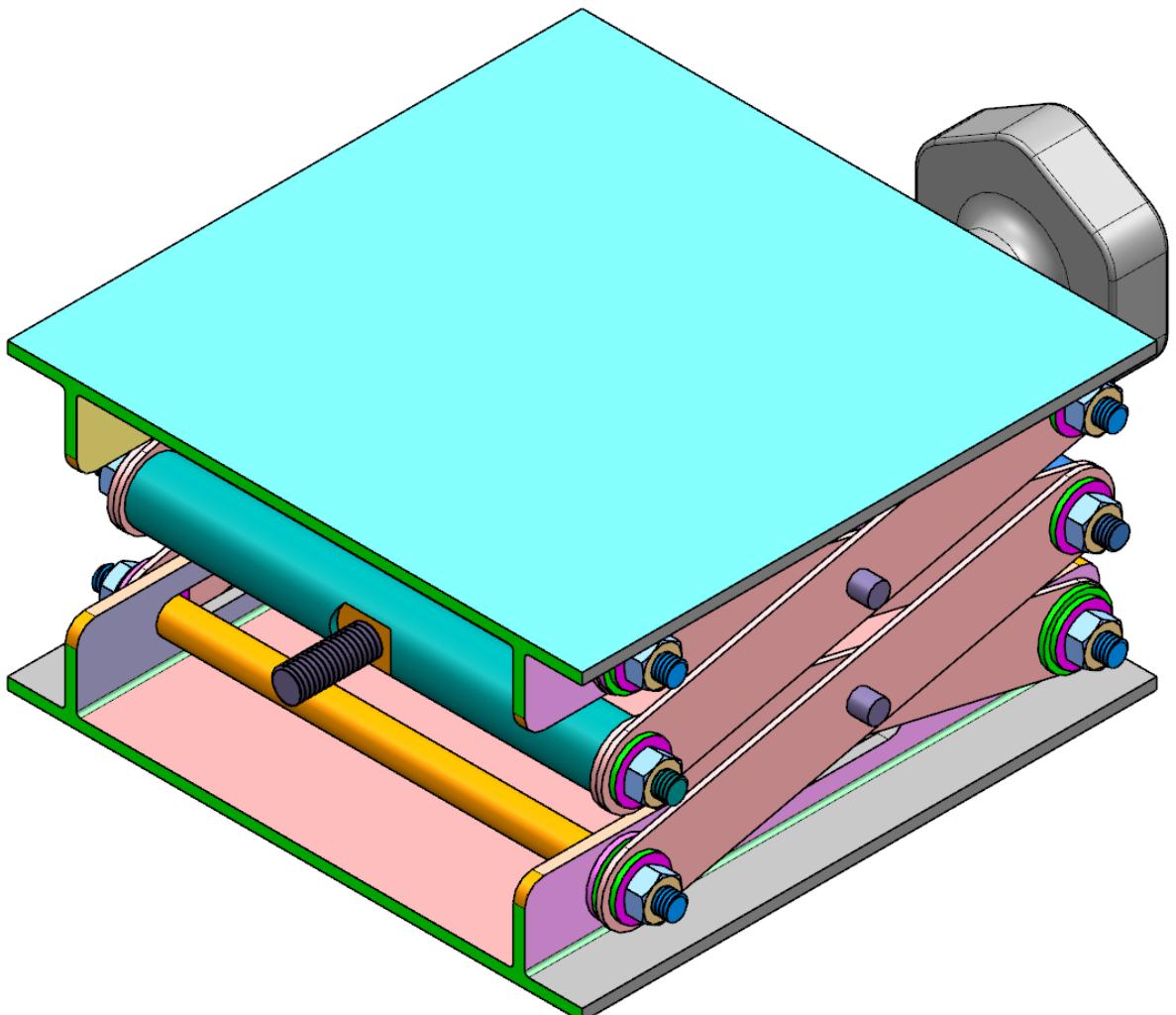
1/8" Hardwood Drill Bit Size

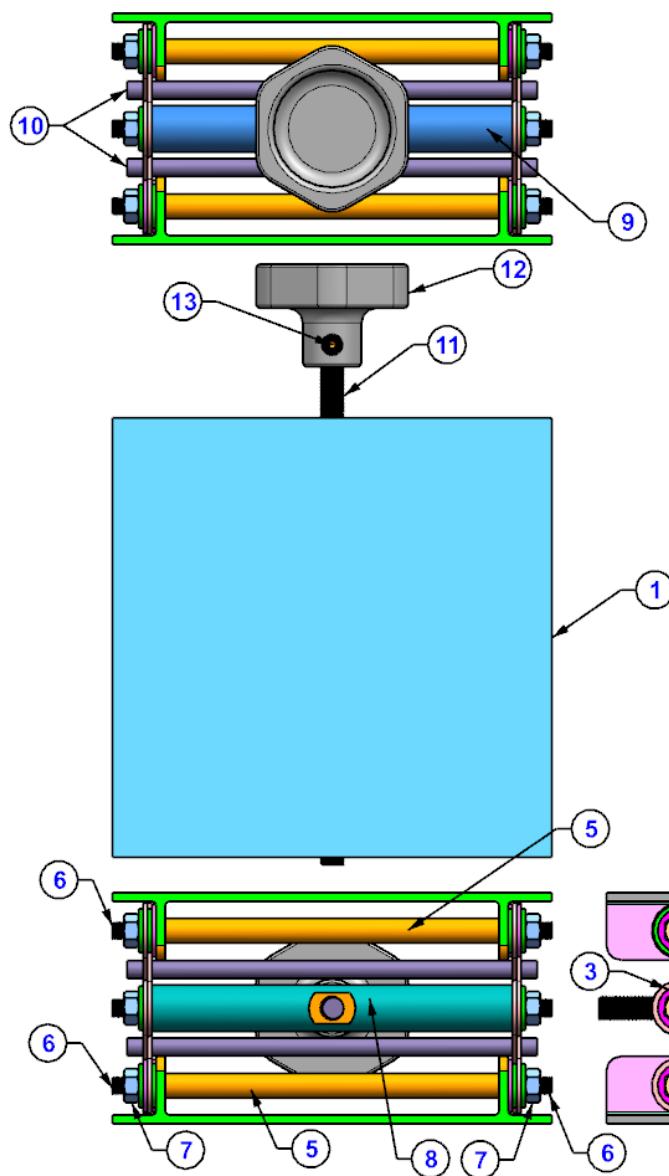
7/64" Softwood Drill Bit Size

All Dimensions are in Inches

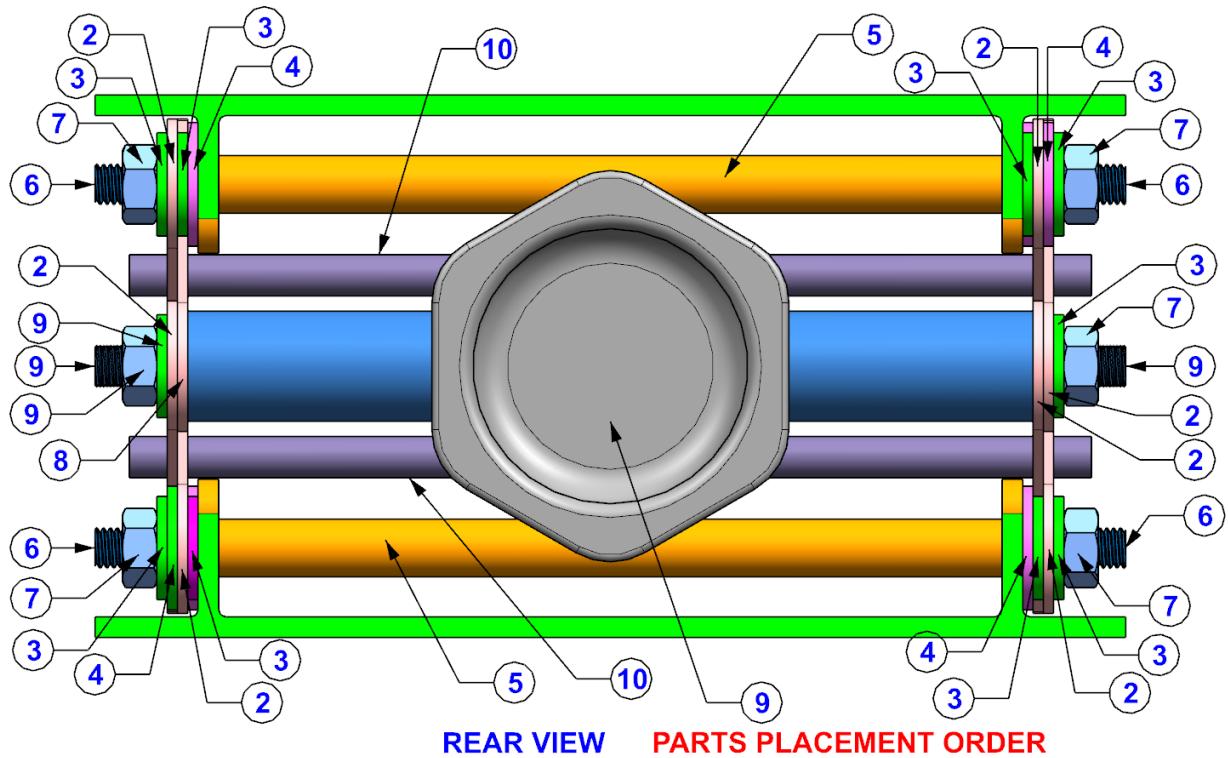
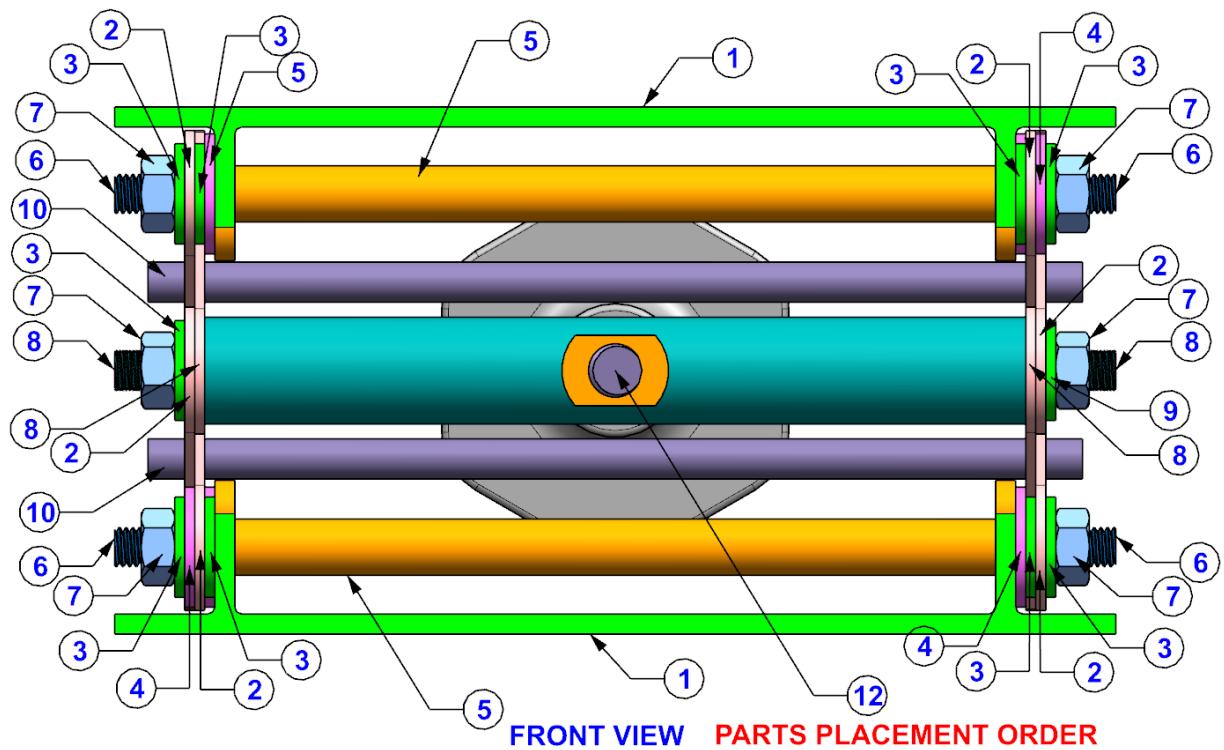
ASSEMBLY EX-07

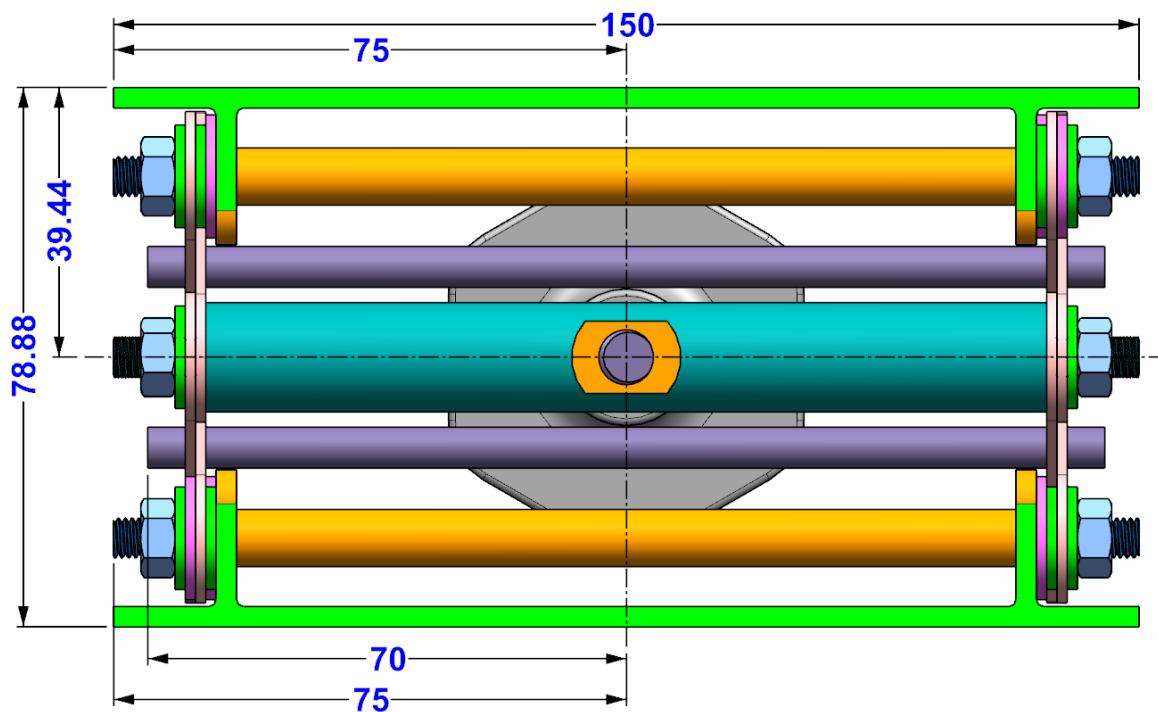
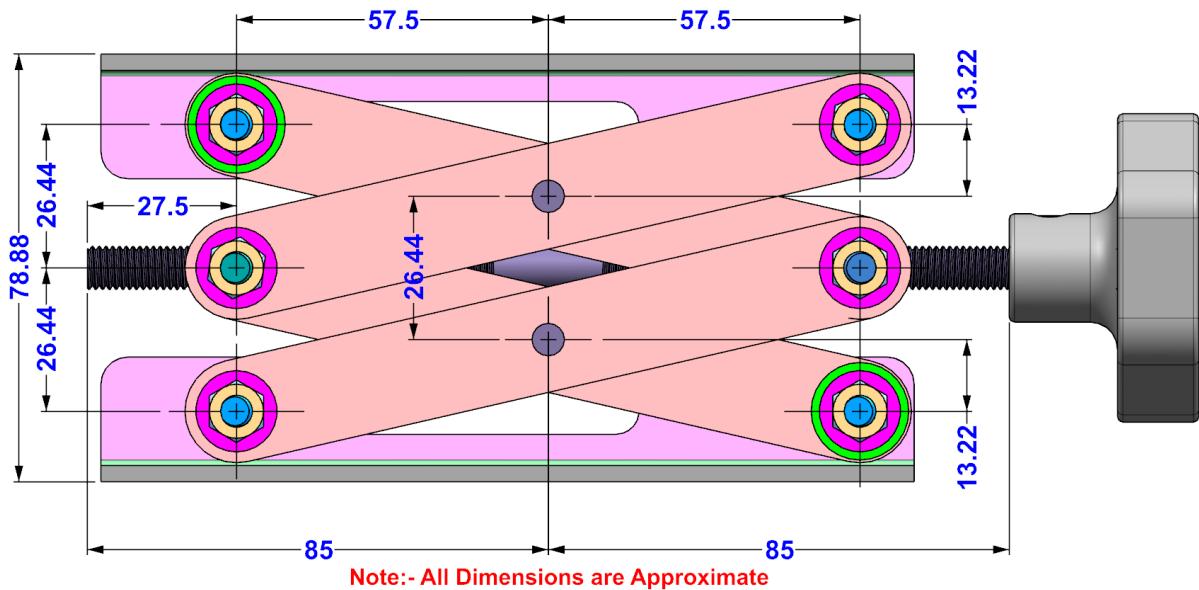
Lab Jack Assembly

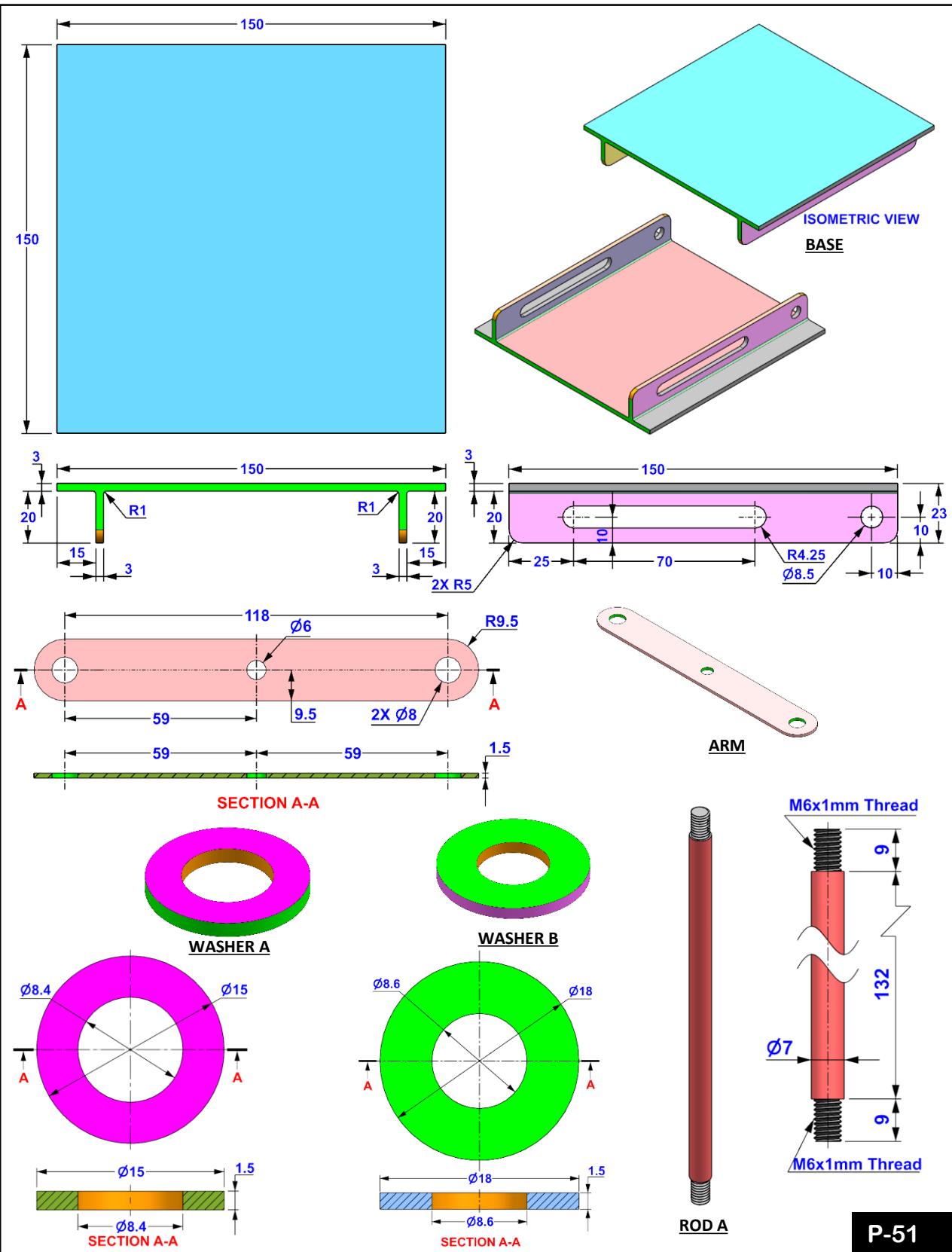


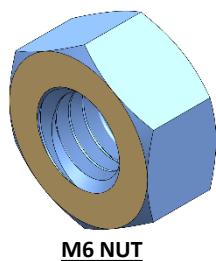


ITEM NO	PART NAME	QTY
13	M6 SET SCREW	1
12	KNOB	1
11	THREADED ROD	1
10	ROD D	2
9	ROD C	1
8	ROD B	1
7	M6 NUT	12
6	ROD A	4
5	PIPE A	4
4	WASHER B	8
3	WASHER A	20
2	ARM	8
1	BASE	2
	ITEM NO	PART NAME
		QTY

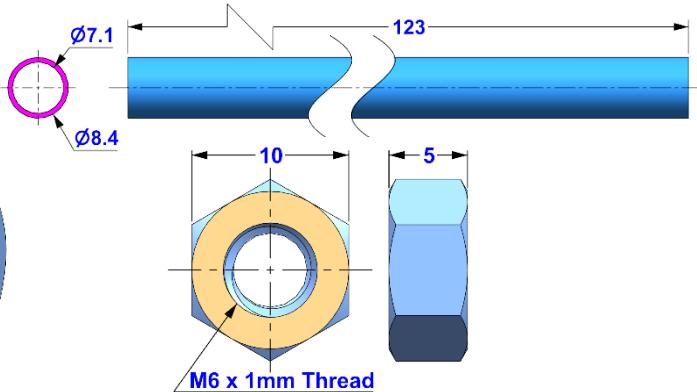








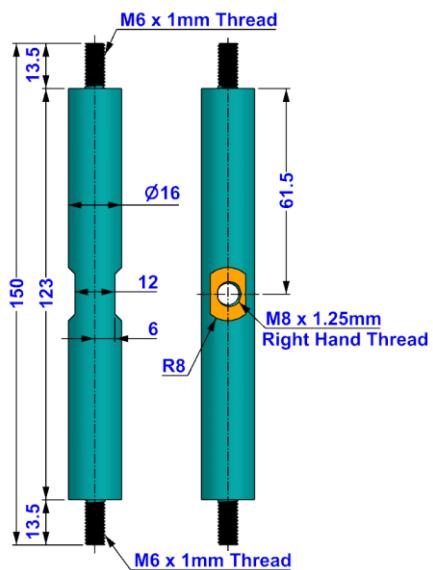
M6 NUT



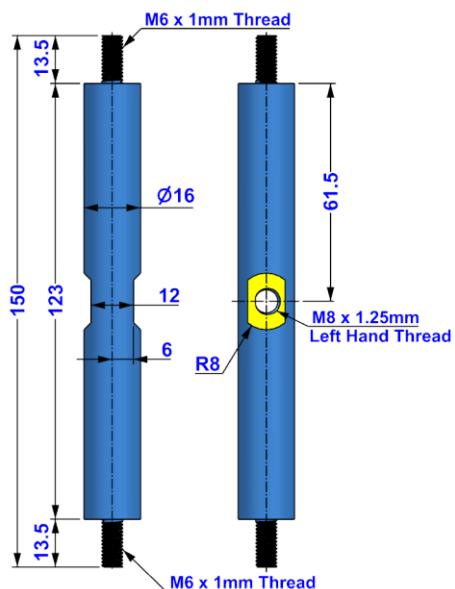
PIPE A



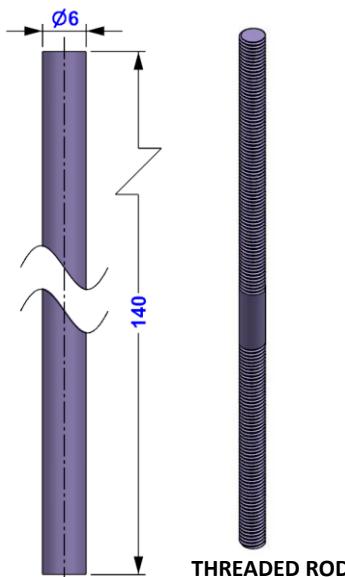
ROD B



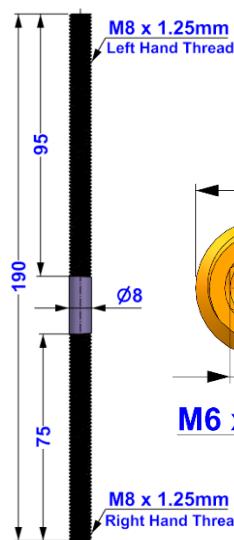
ROD C



ROD D



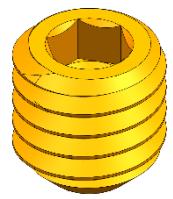
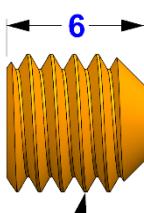
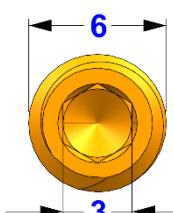
THREADED ROD



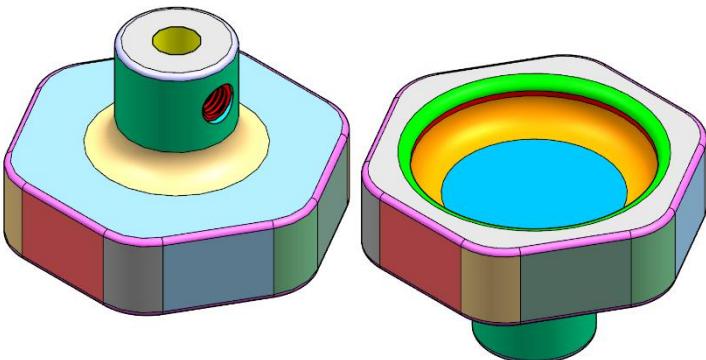
M6 x 1mm Thread

M8 x 1.25mm
Right Hand Thread

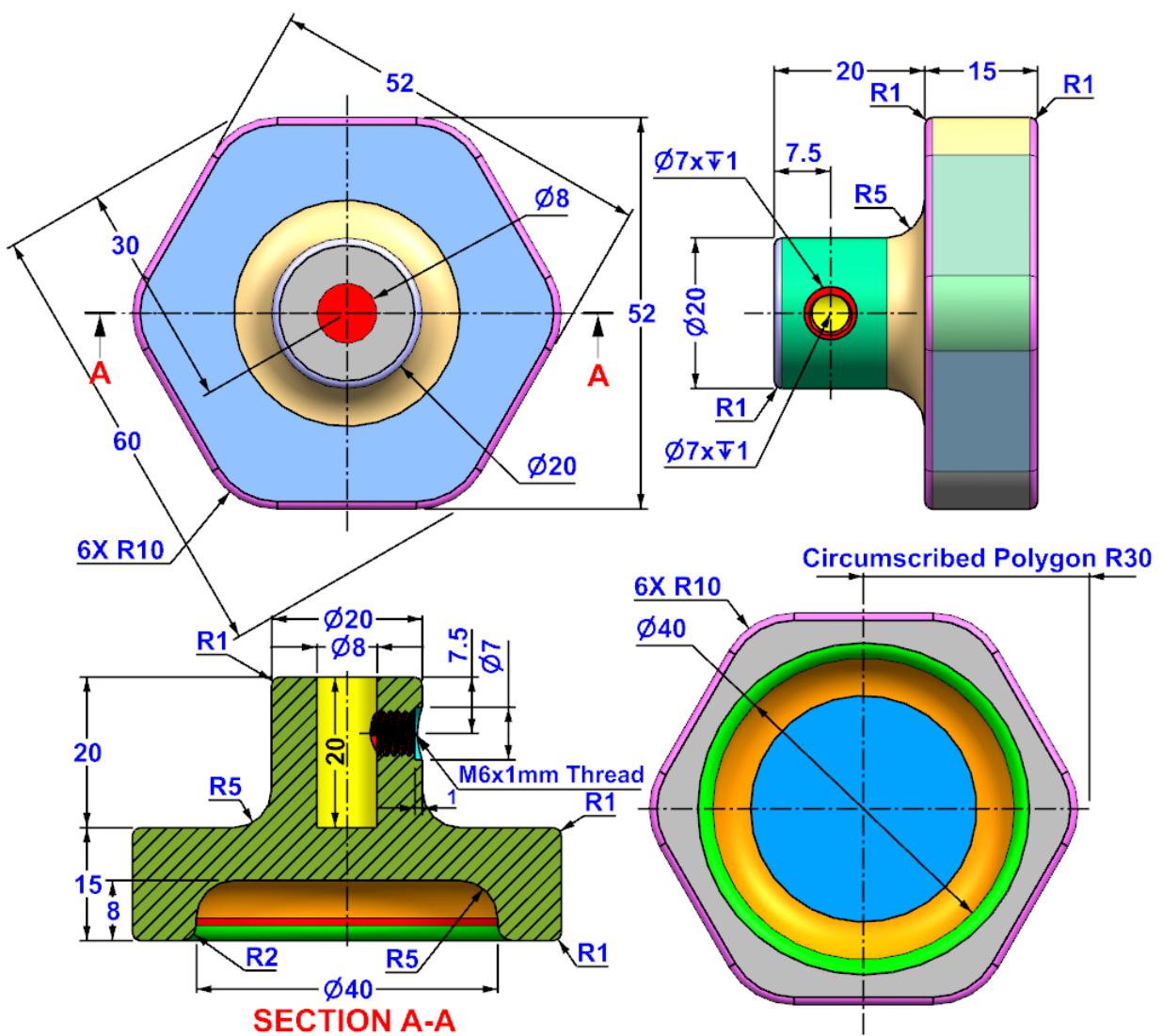
M8 x 1.25mm
Left Hand Thread



M6 SET SCREW

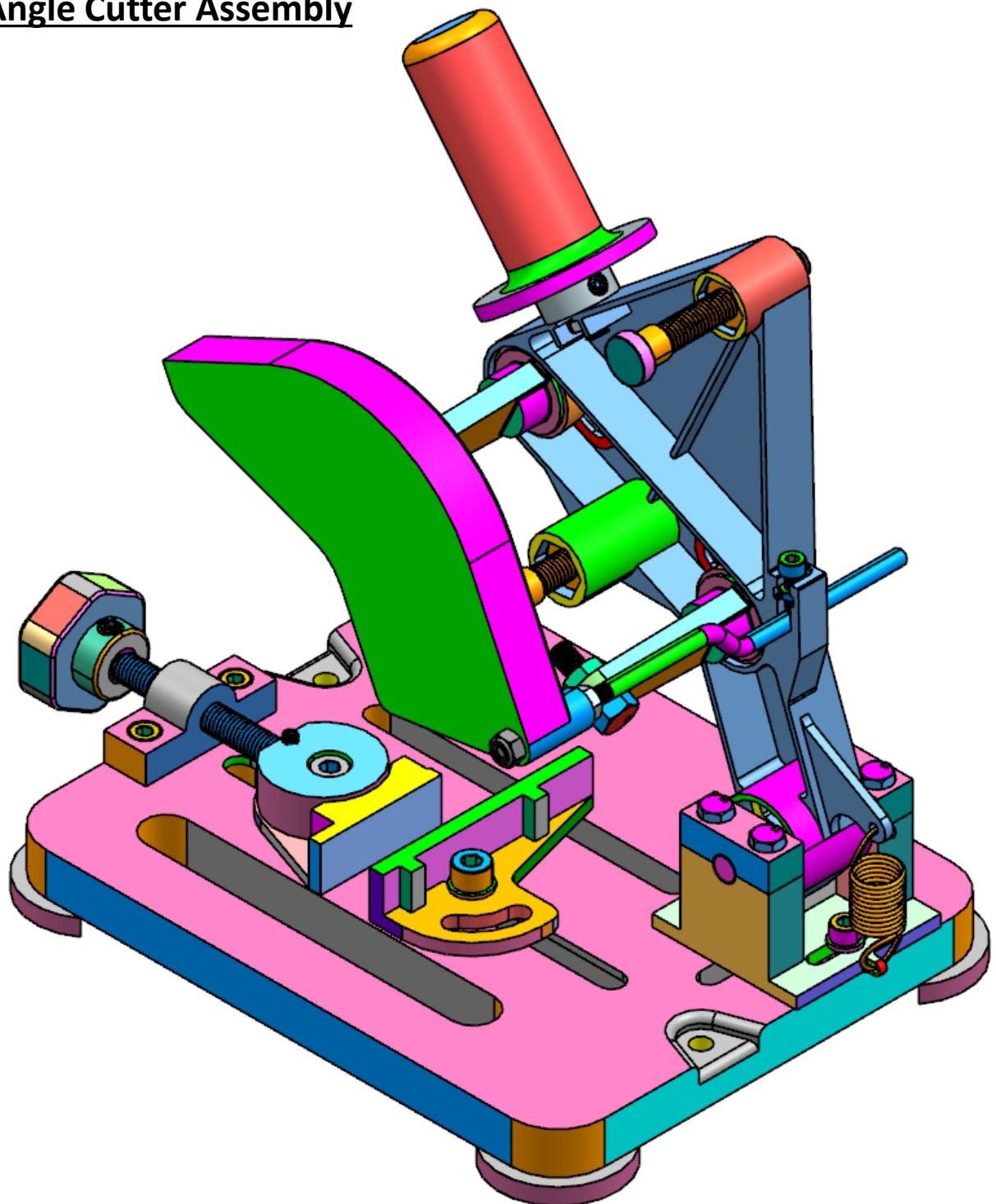


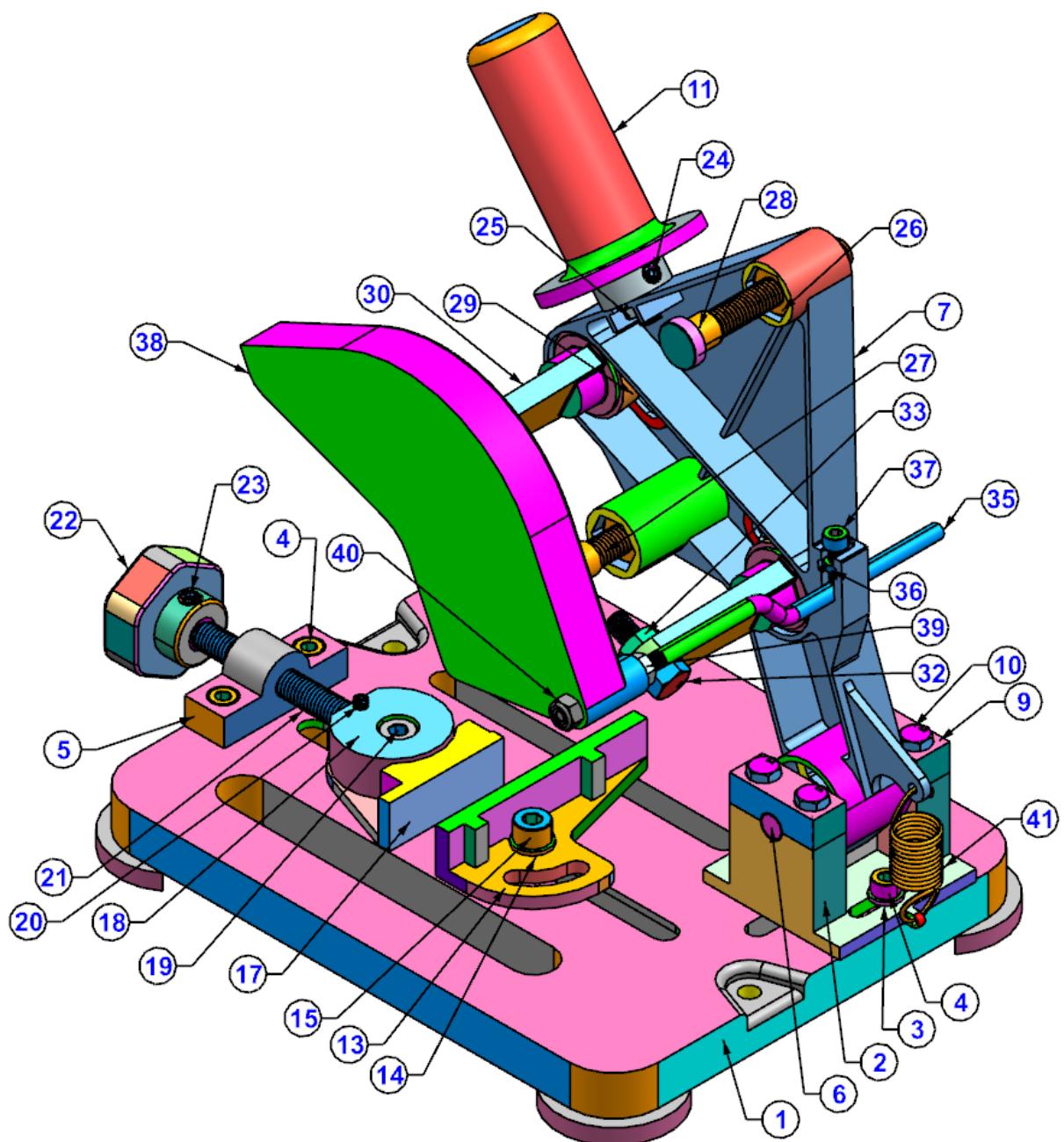
KNOB

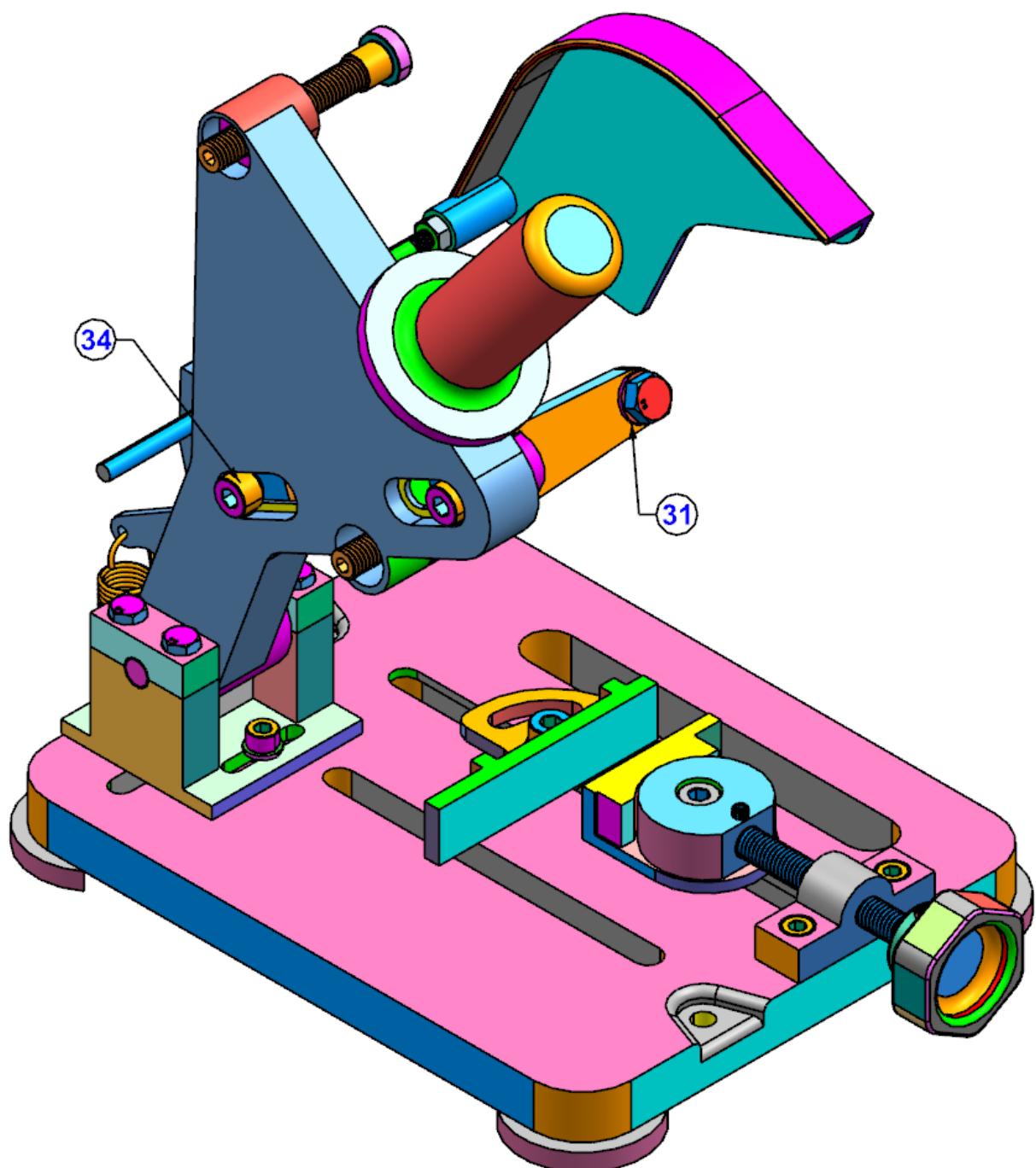


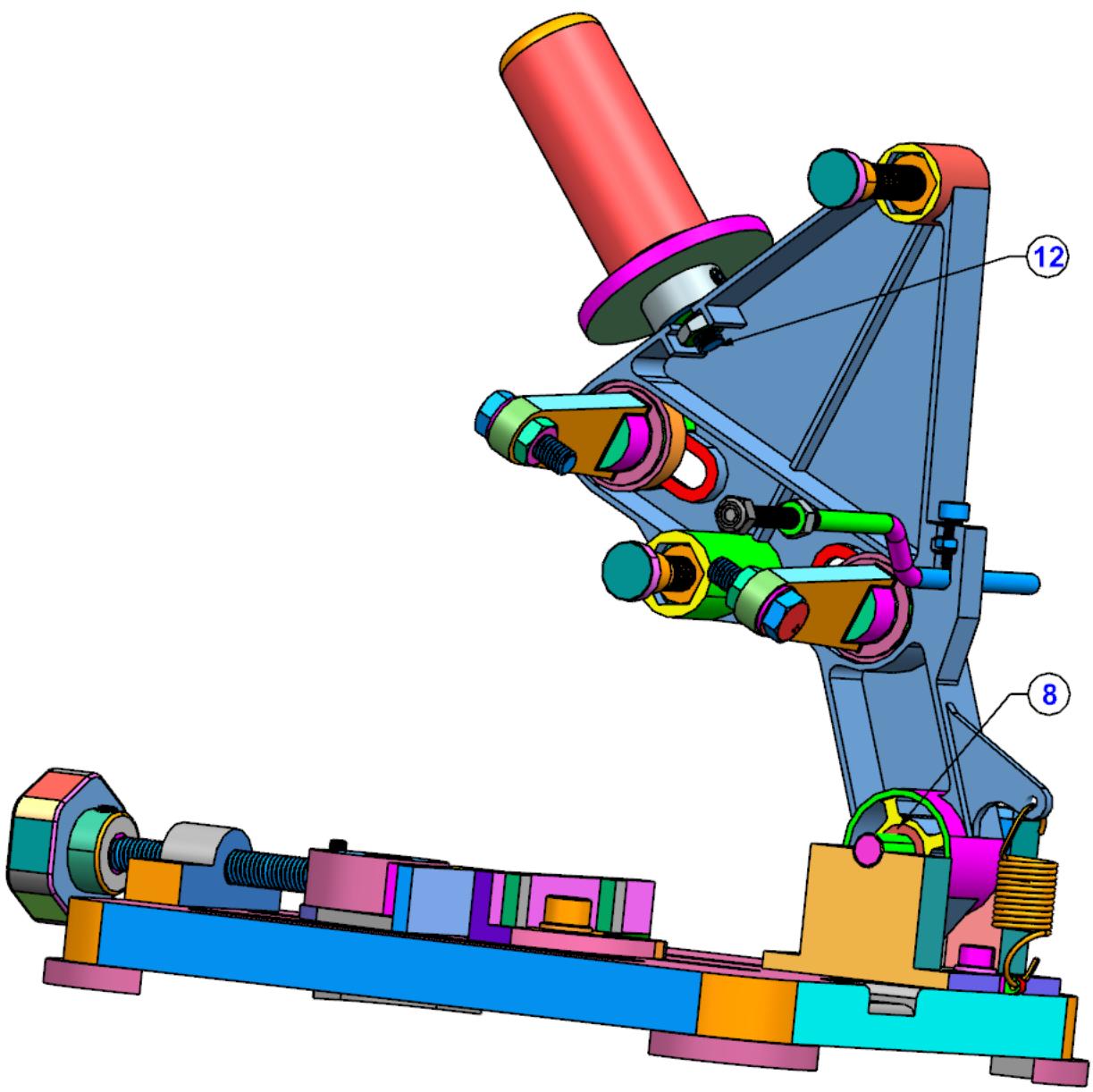
ASSEMBLY EX-08

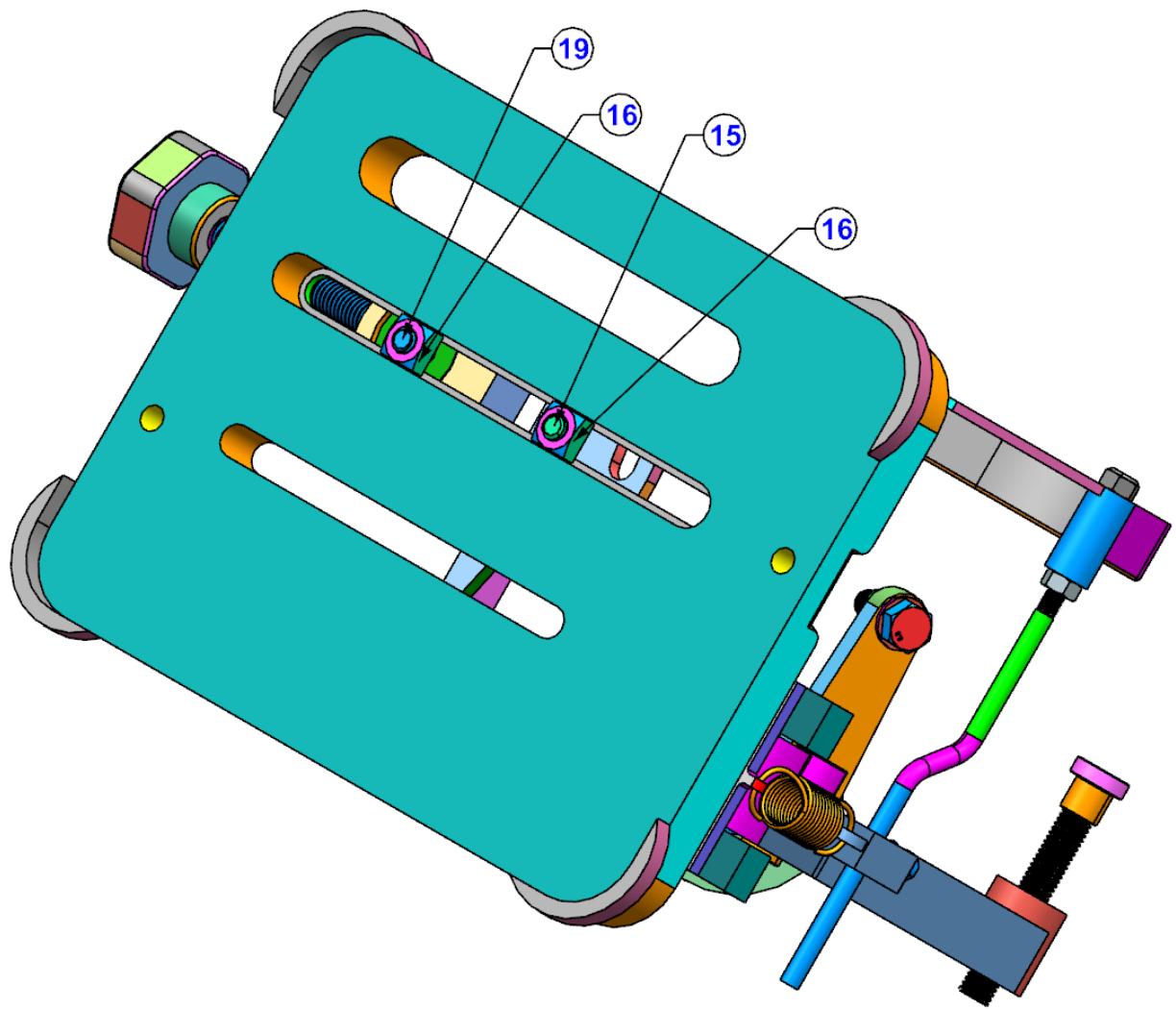
Angle Cutter Assembly



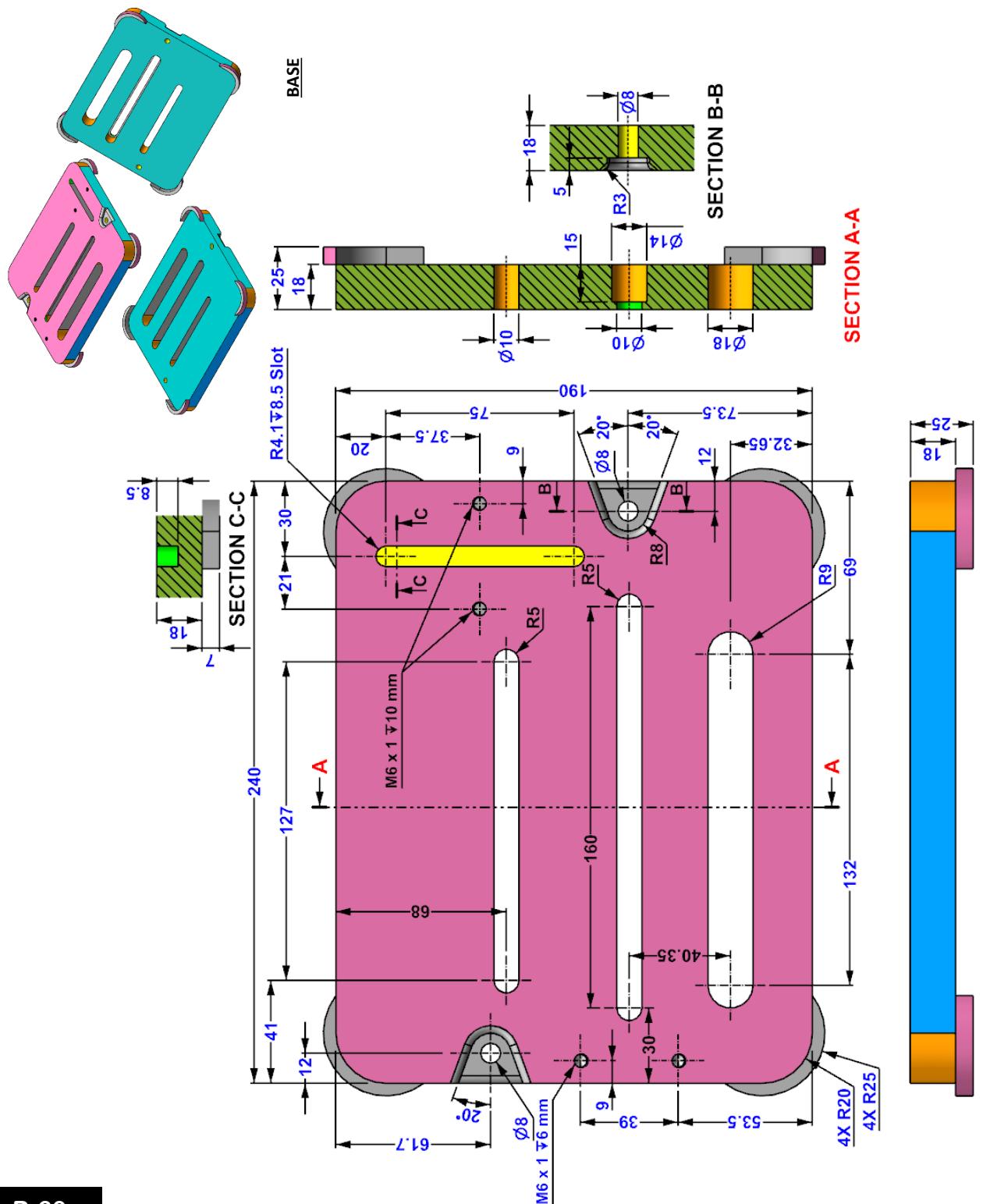






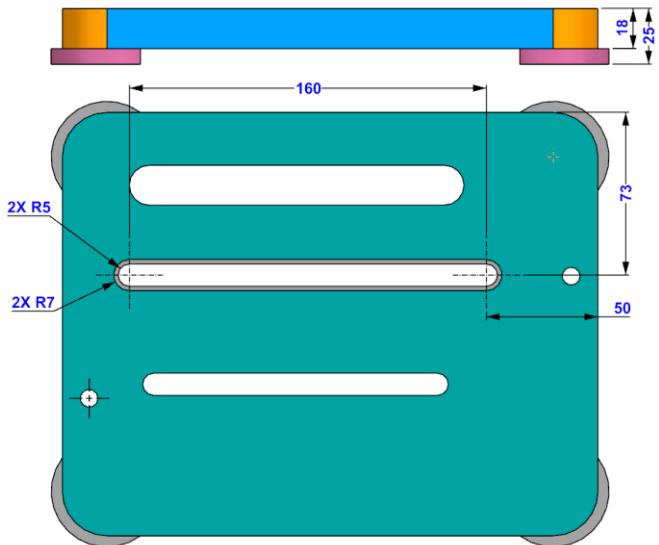


ITEM NO	PART NAME	QTY
41	PART 16-SPRING	1
40	M6X1X6MM HEX LOCK NUT	1
39	M6X1X5MM HEX NUT	1
38	PART 14	1
37	M5X0.80X14MM SOCKET HEAD CAP SCREW	1
36	M5X0.8X2.7MM THIN HEX NUT	1
35	PART 15	1
34	M8X1.25X20MM SOCKET HEAD CAP SCREW	2
33	M8X1.25X5MM THIN HEX NUT	2
32	M8X1.25X25MM HEX SCREW	2
31	PART 10	2
30	PART 9	2
29	PART 11	2
28	PART 13	2
27	PART 12	2
26	M10X1.5X6MM THIN HEX NUT	2
25	M8X1.25X4MM THIN HEX NUT	1
24	M6X1X8MM SET SCREW	1
23	M6X1X10MM SET SCREW	1
22	KNOB	1
21	KNOB THREADED ROD	1
20	M5X0.8X8MM SET SCREW	1
19	M8X1.25X22MM SOCKET HEAD CAP SCREW	1
18	PART 4	1
17	PART 5	1
16	M8X1.25X6.5MM SQUARE NUT	2
15	M8X1.25X18MM SOCKET HEAD CAP SCREW	1
14	WASHER B FOR M8	1
13	PART 6	1
12	HANDLE THREADED ROD	1
11	HANDLE	1
10	M6X1X16MM HEX SCREW	4
9	PART 2	2
8	PART 8	2
7	PART 7	1
6	ROD	1
5	PART 3	1
4	M6X1X16MM SOCKET HEAD CAP SCREW	4
3	WASHER A	2
2	PART 1	1
1	BASE	1

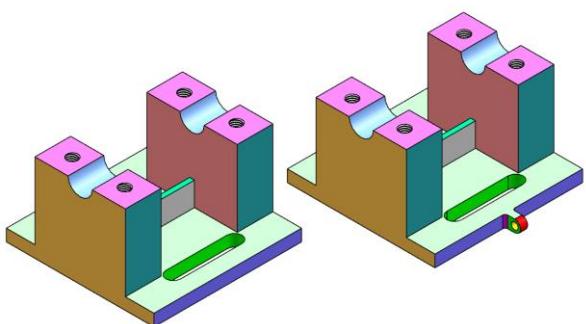




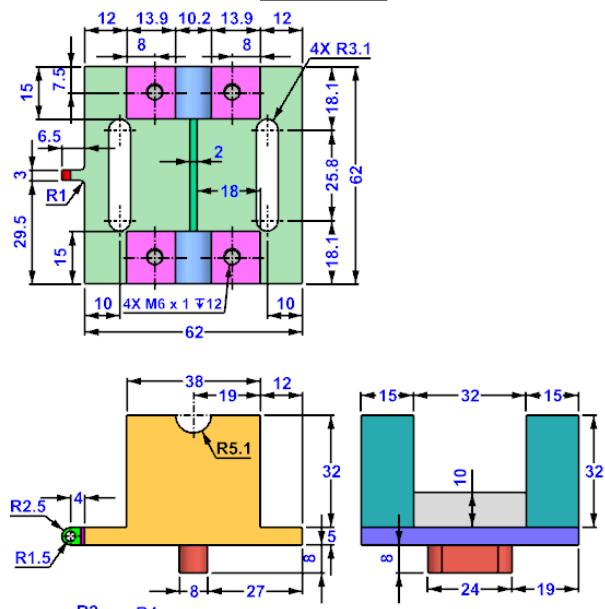
BASE



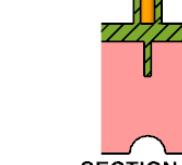
Bottom View



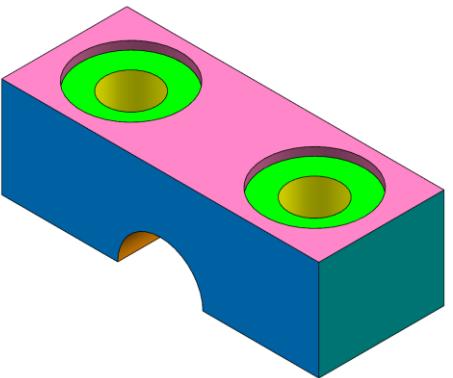
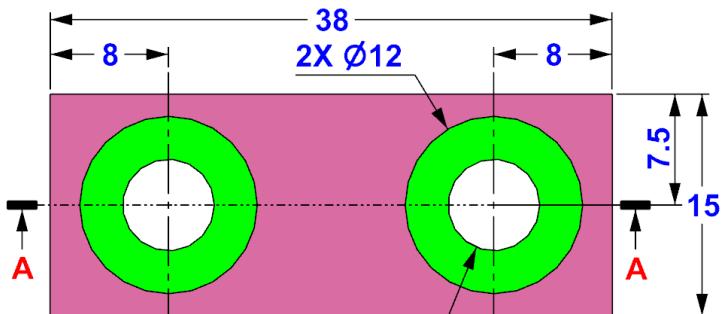
PART 1



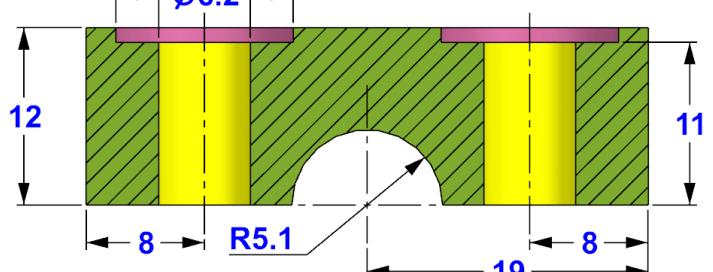
Bottom View



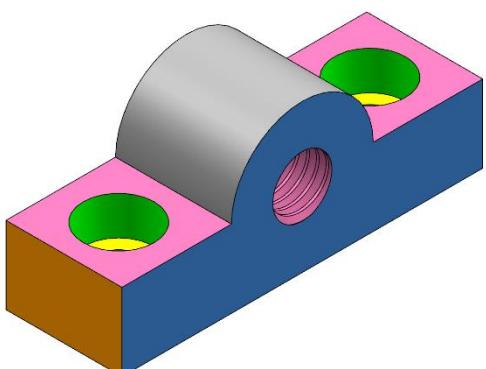
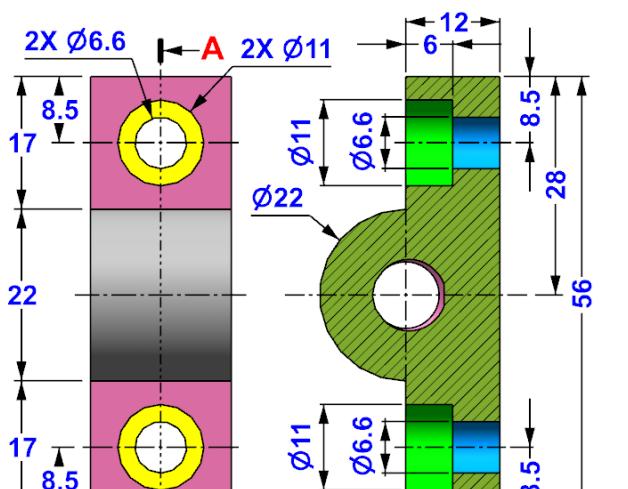
SECTION B-B



PART 2

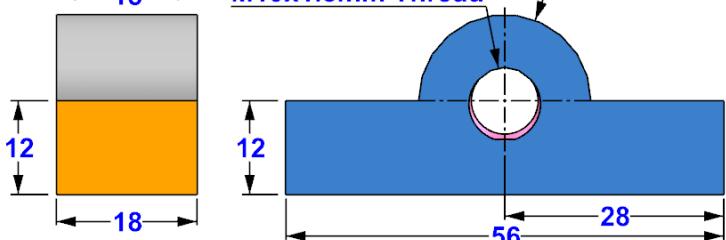


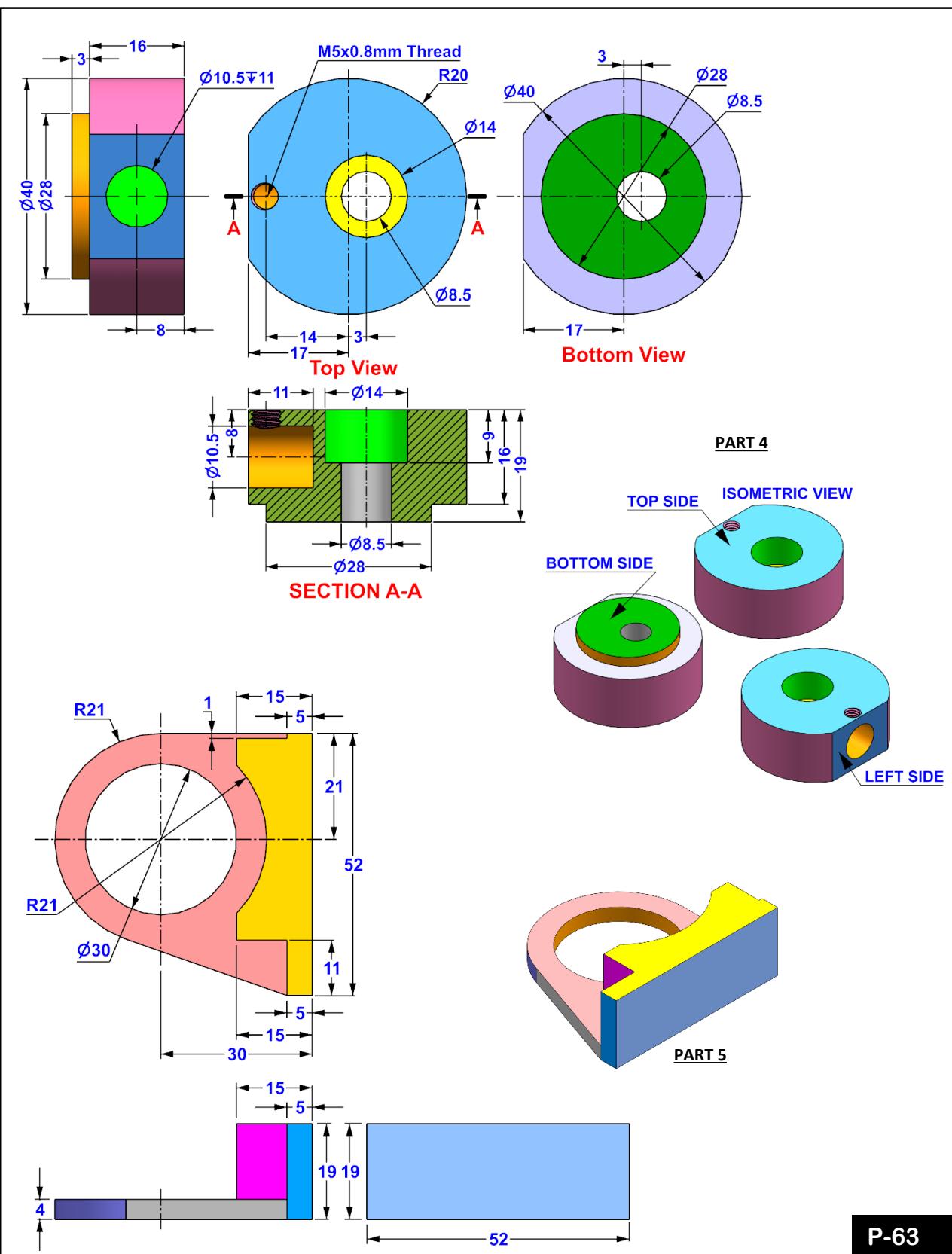
SECTION A-A

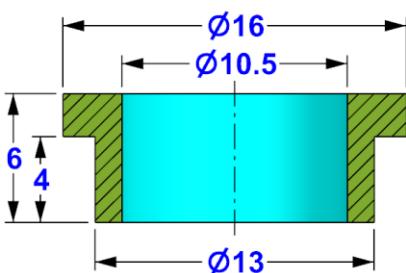
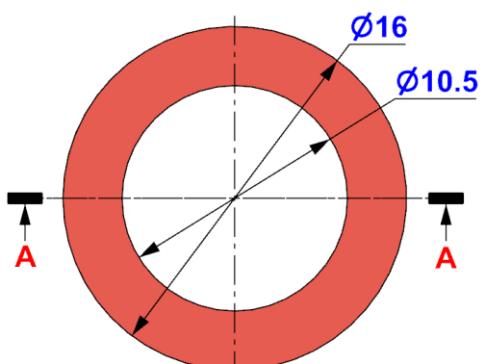
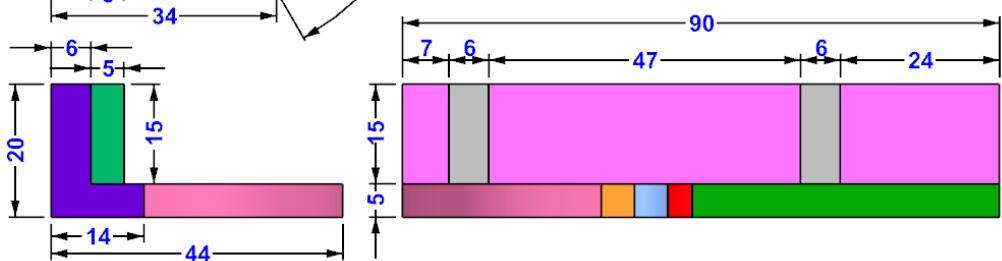
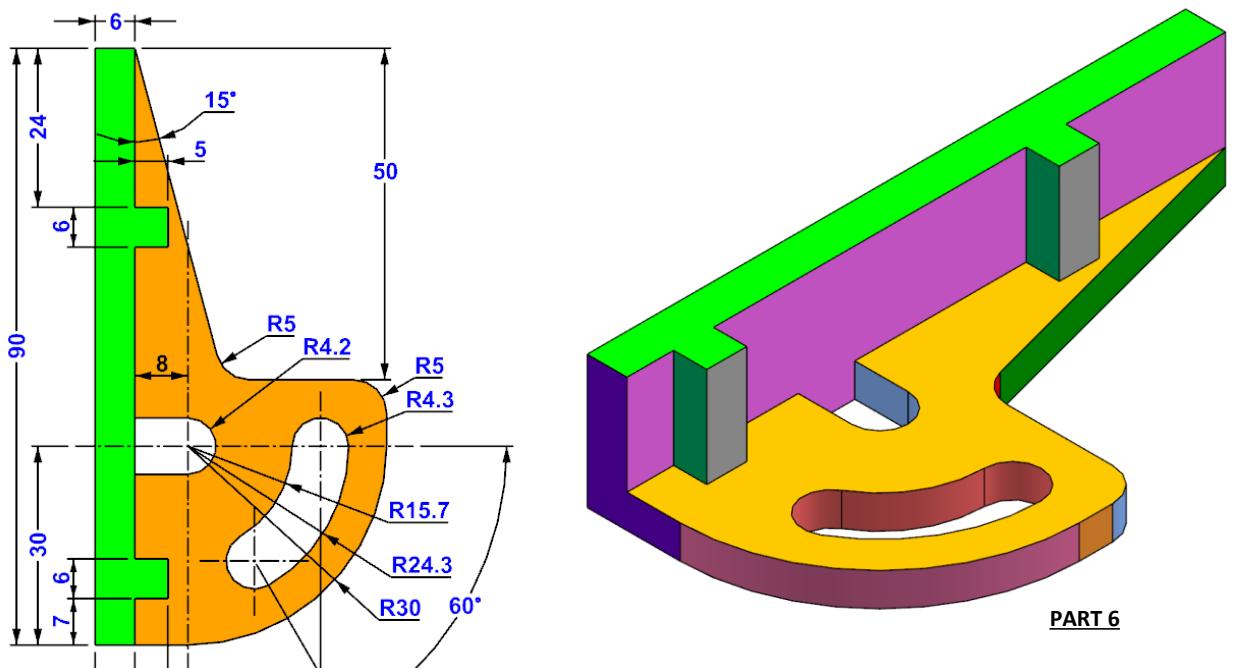


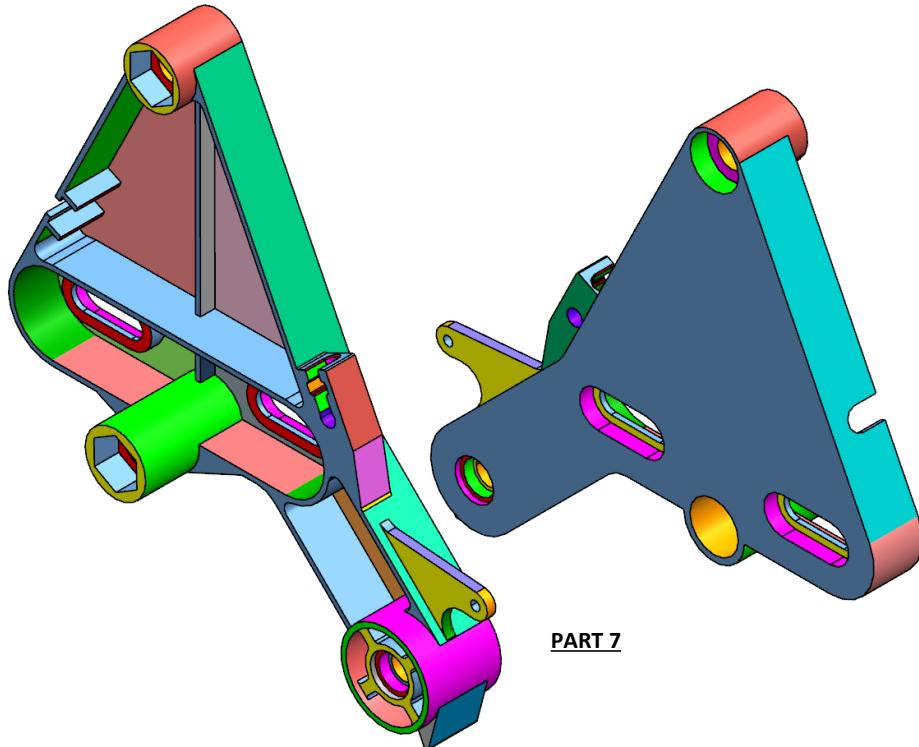
PART 3

SECTION A-A
M10x1.5mm Thread

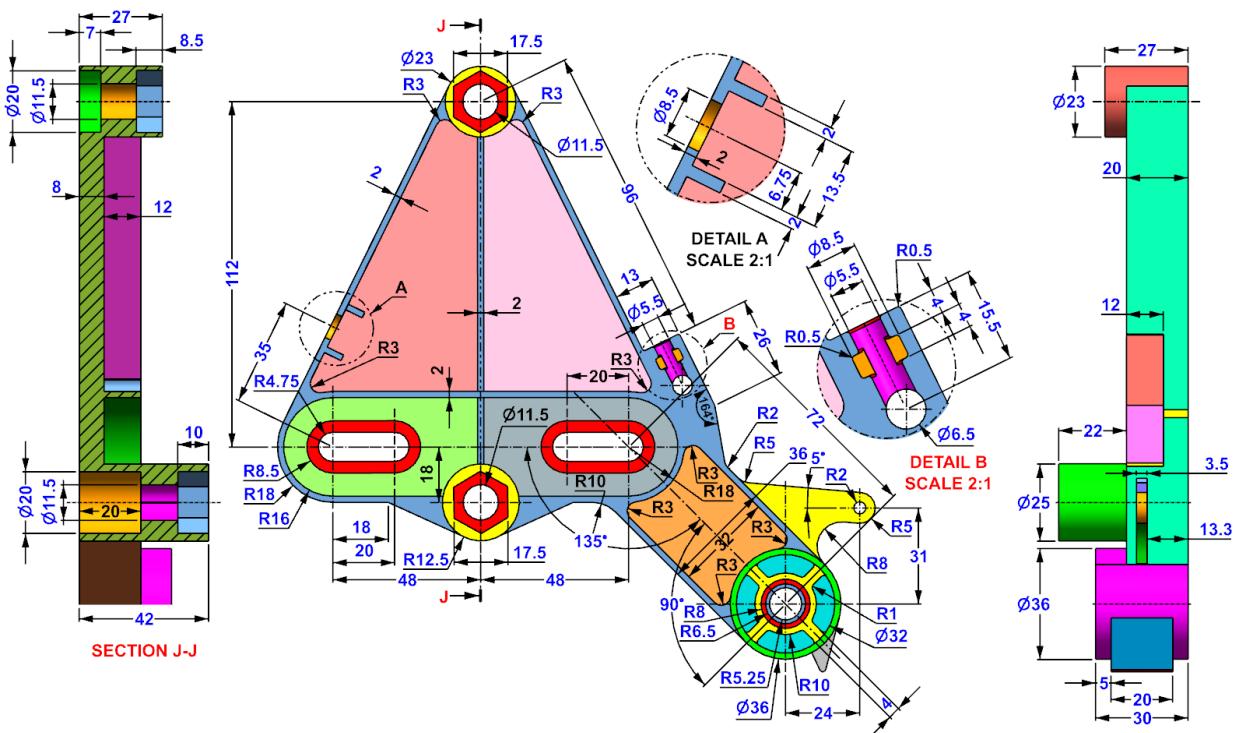


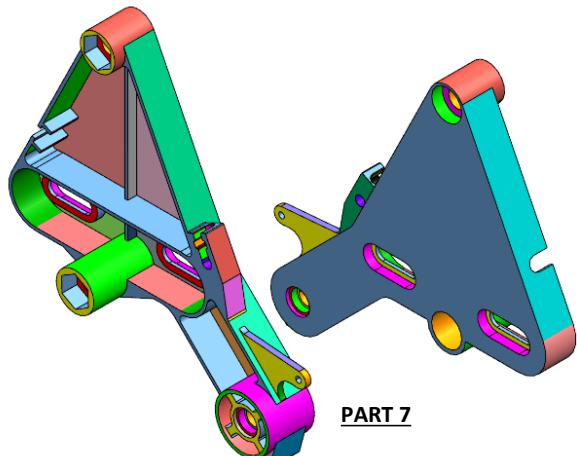




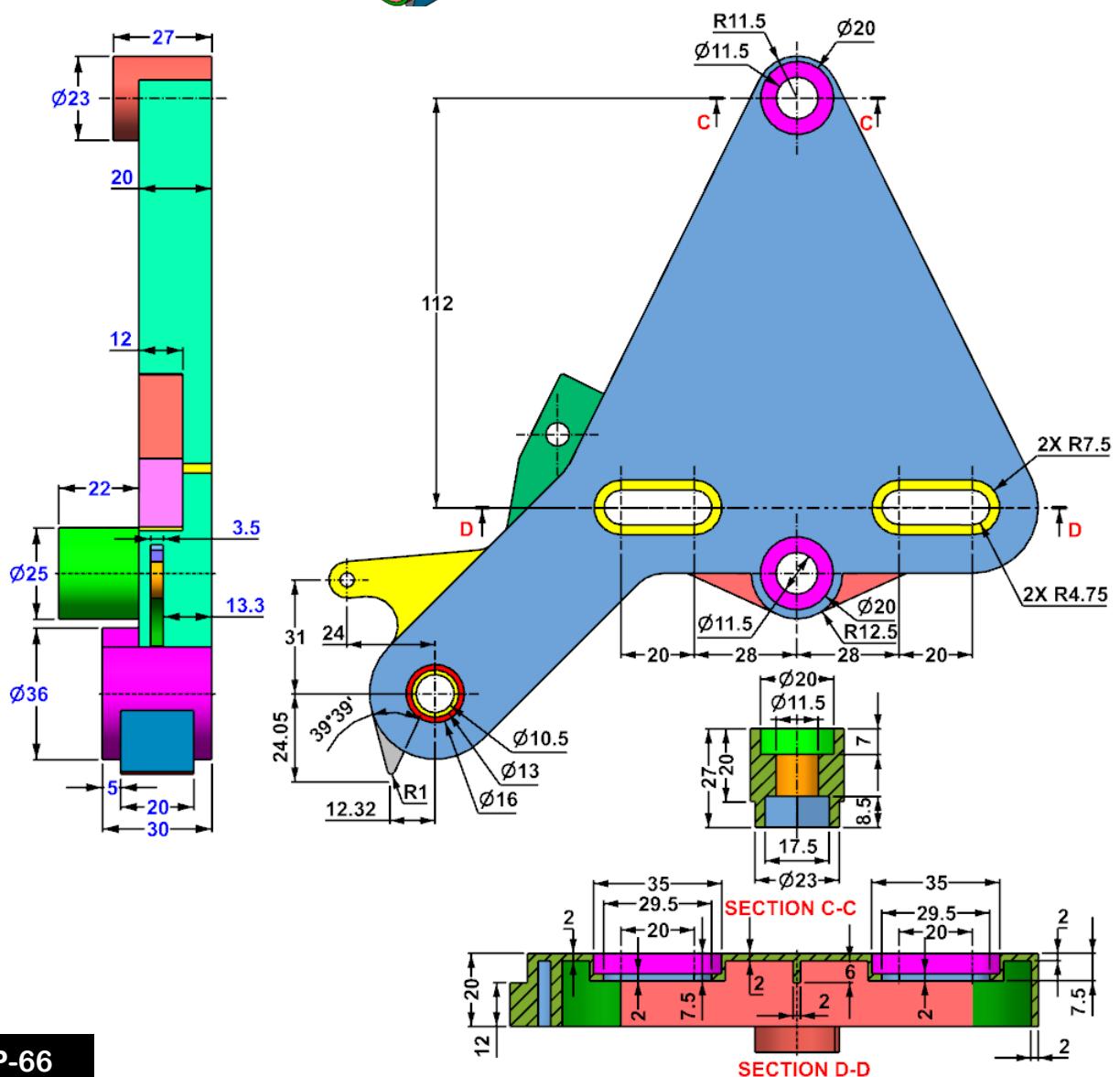


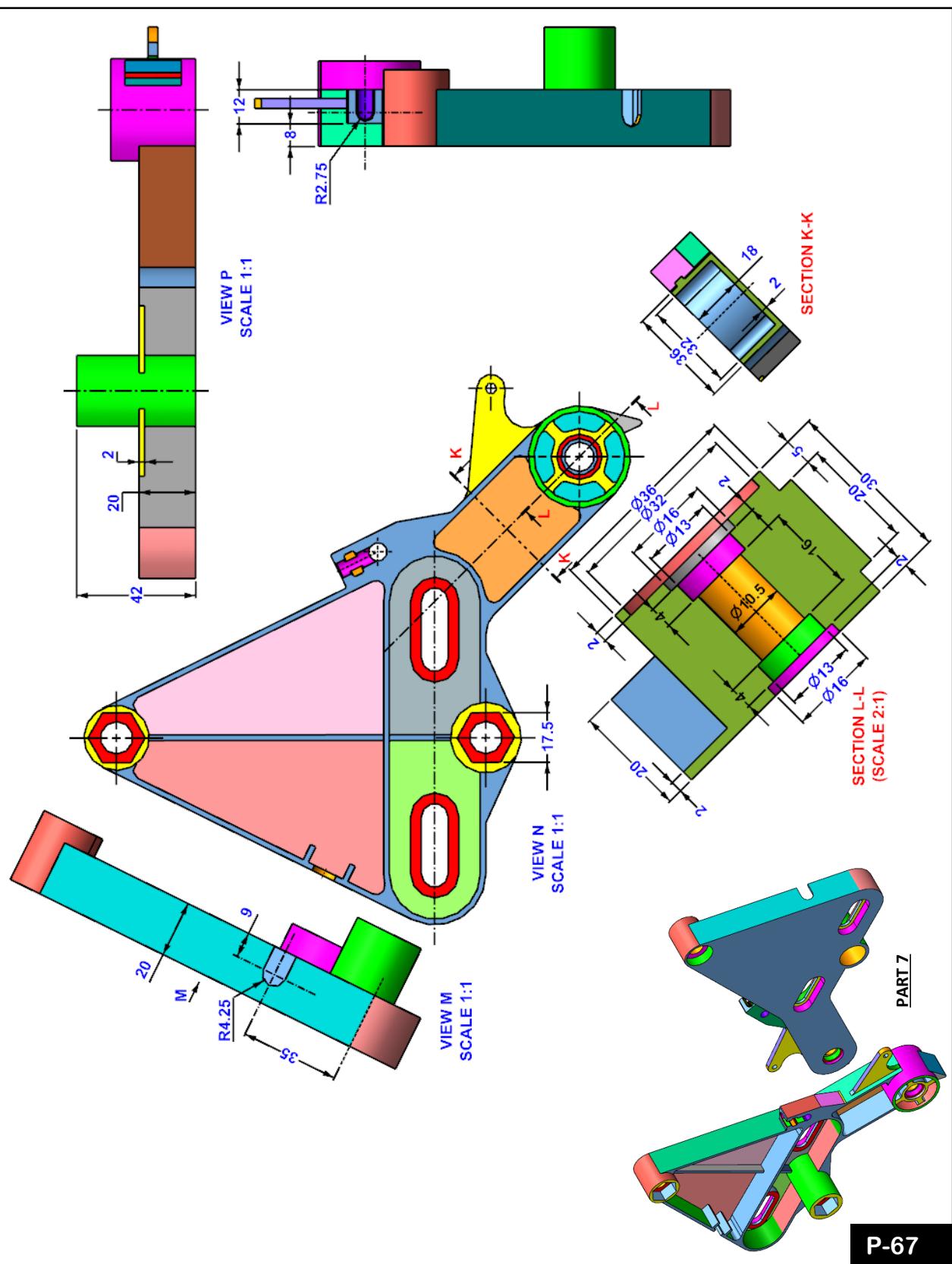
PART 7

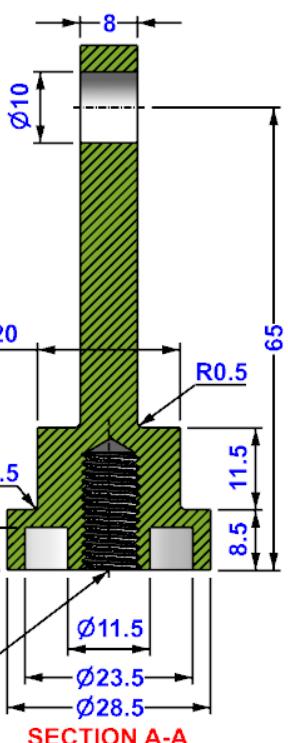
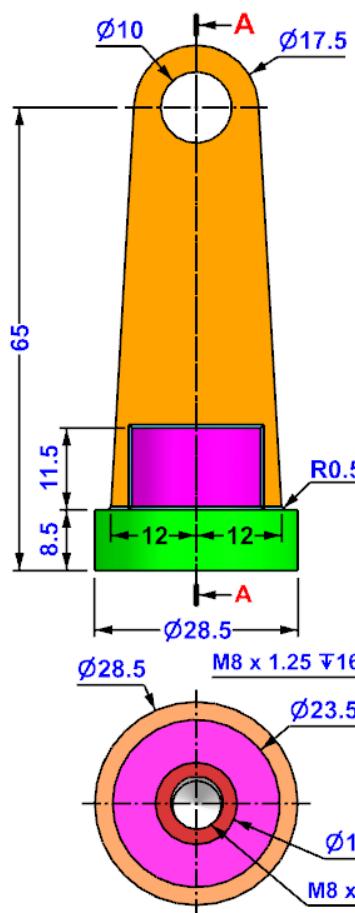
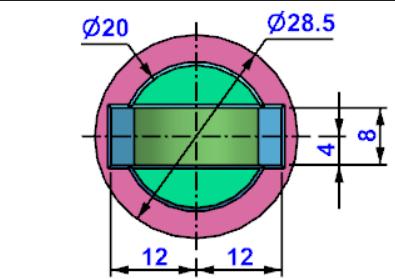




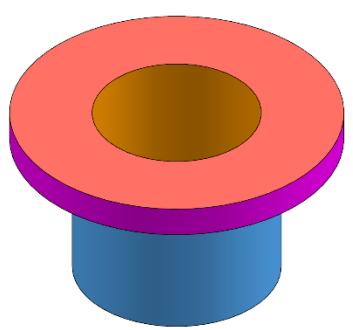
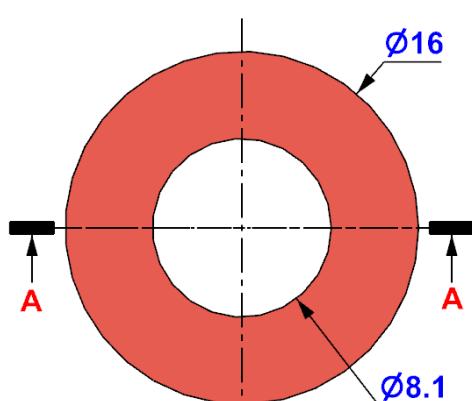
PART 7



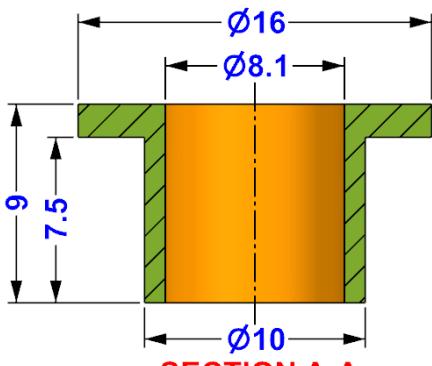




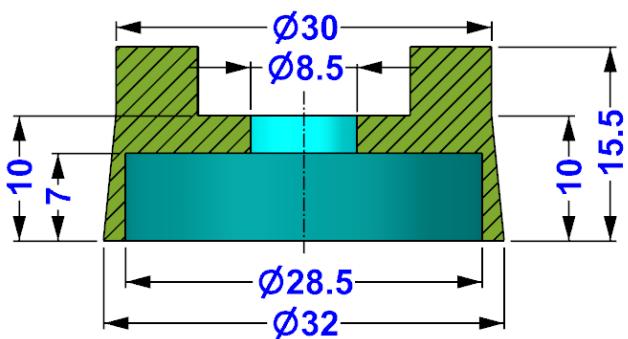
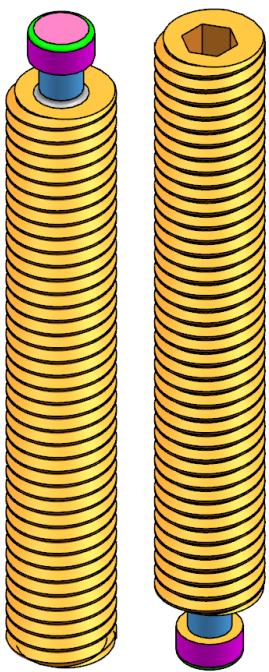
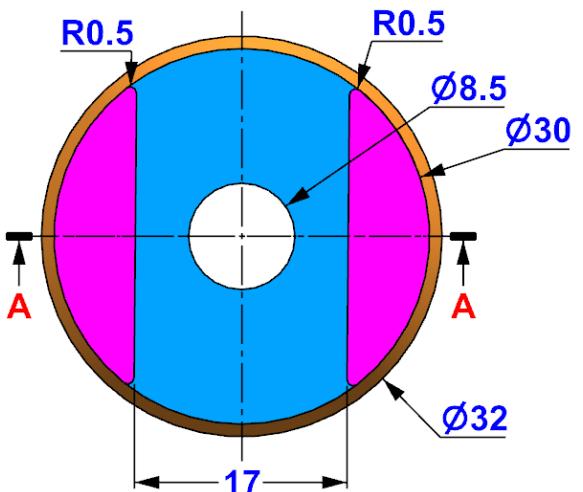
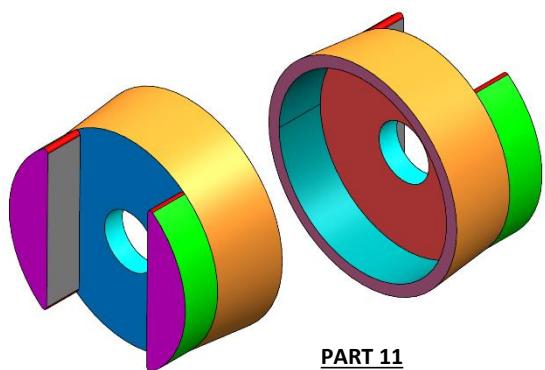
PART 9



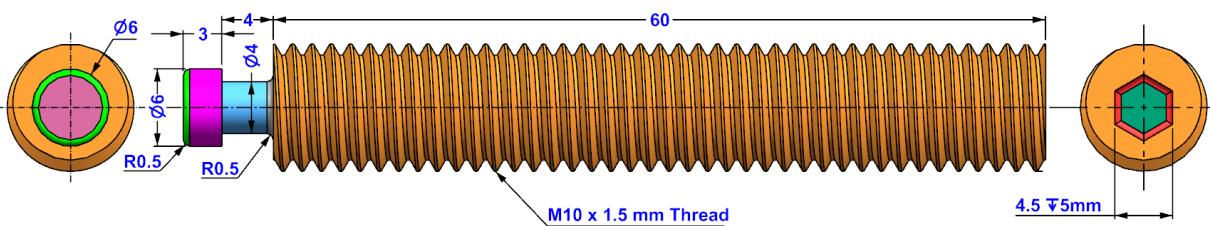
PART 10

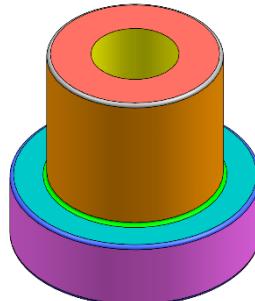
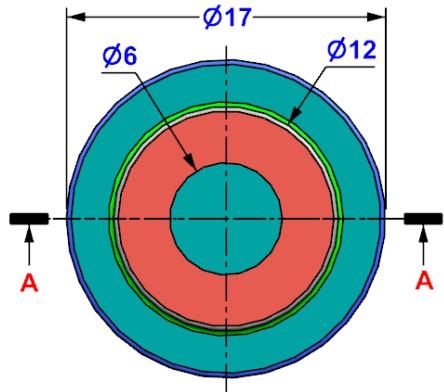


SECTION A-A

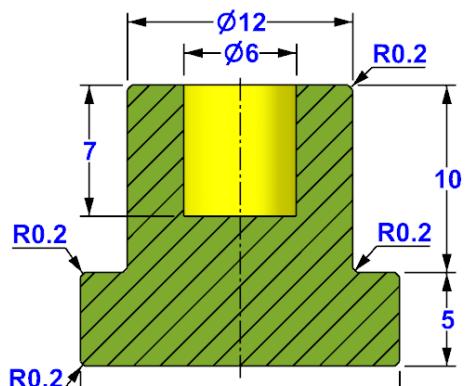


SECTION A-A

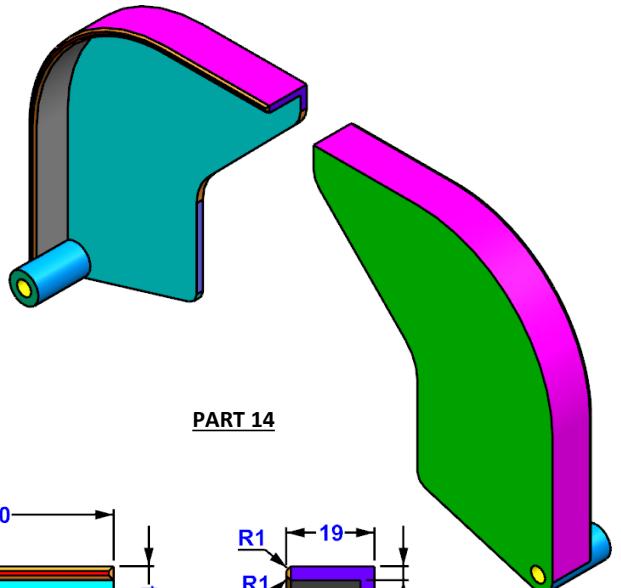




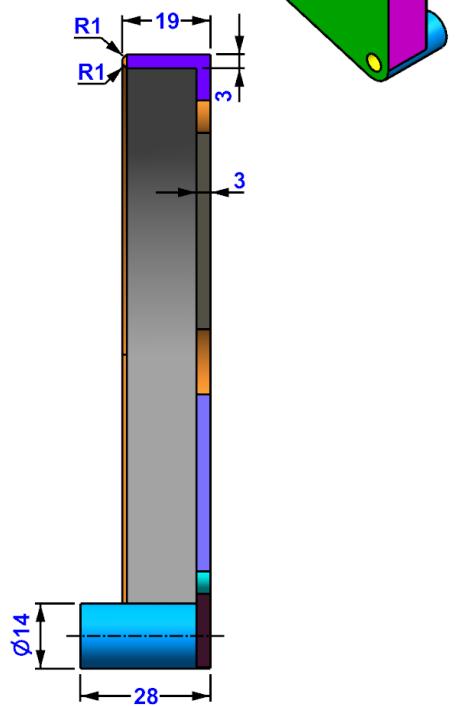
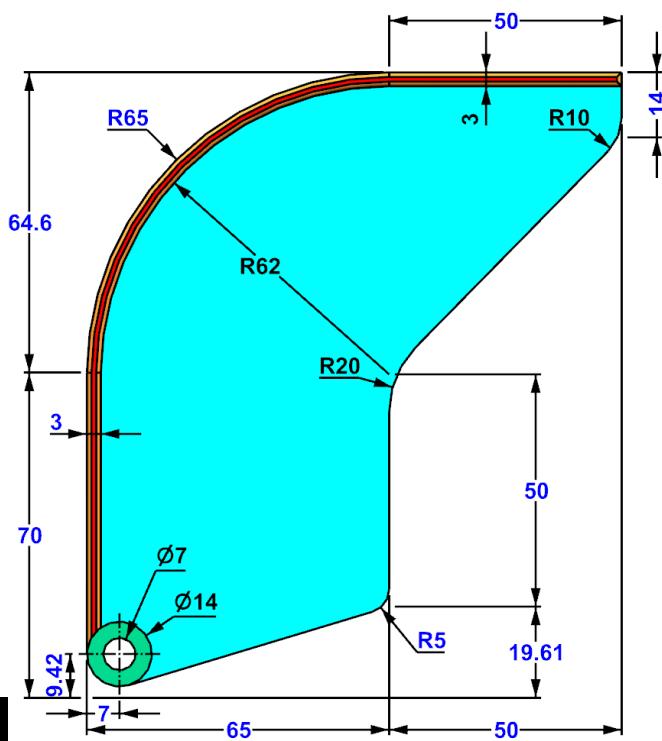
PART 13

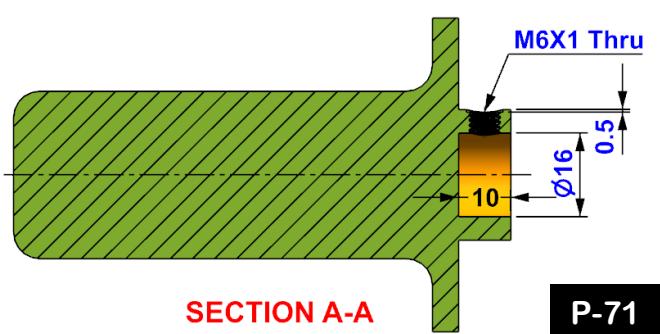
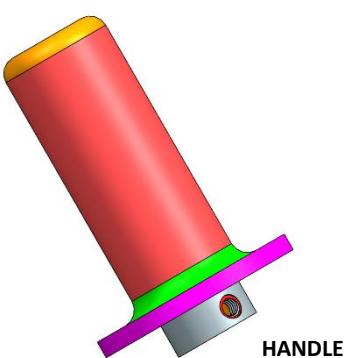
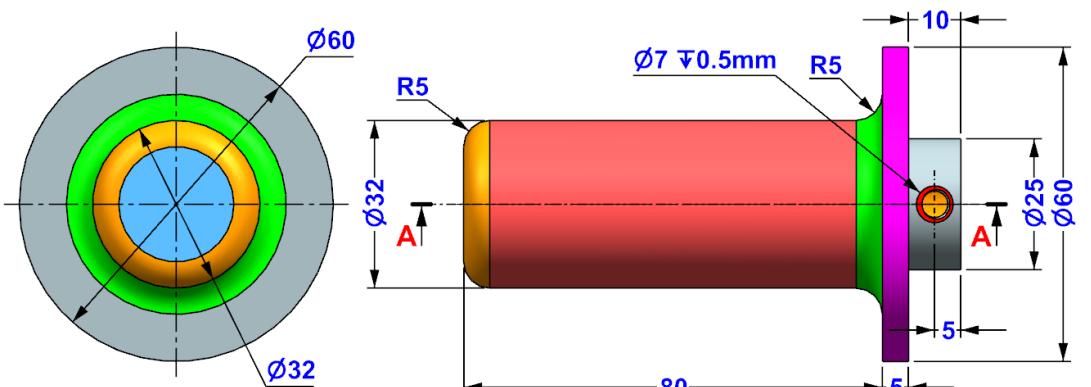
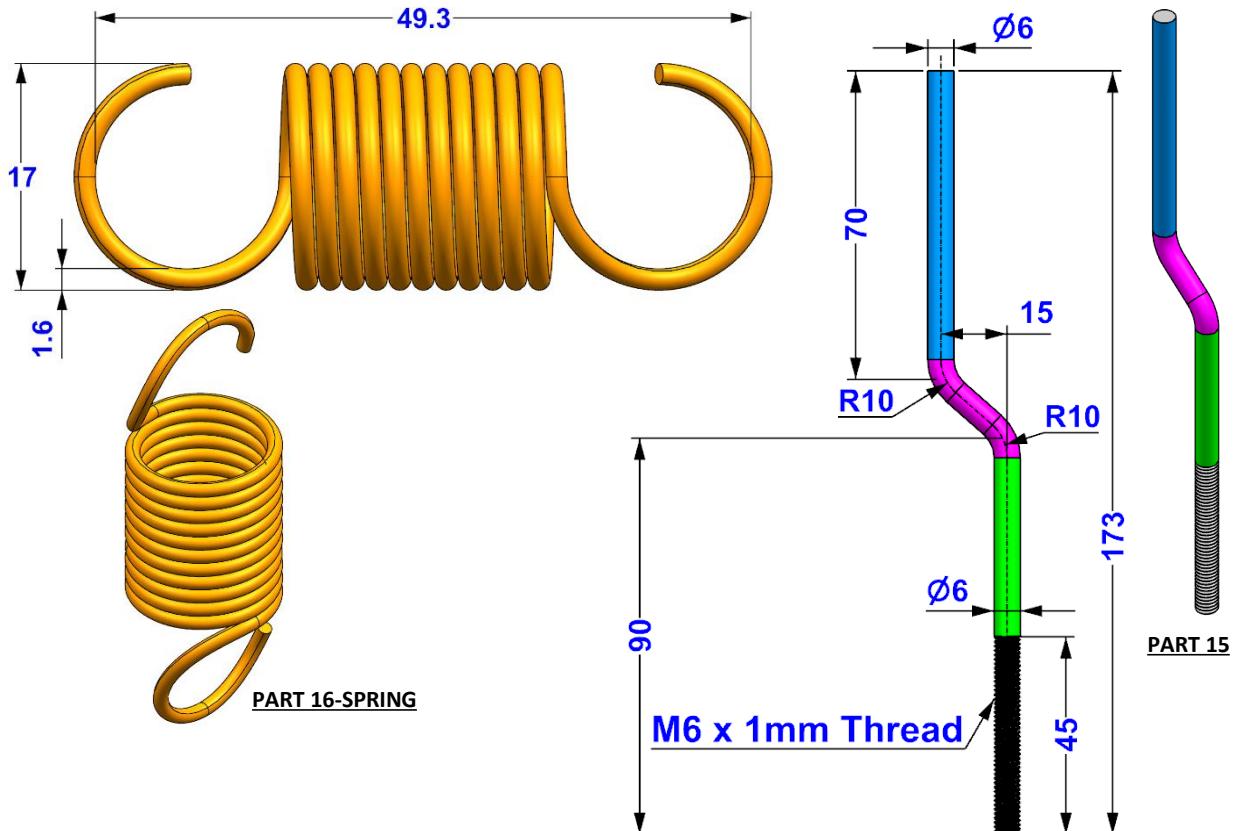


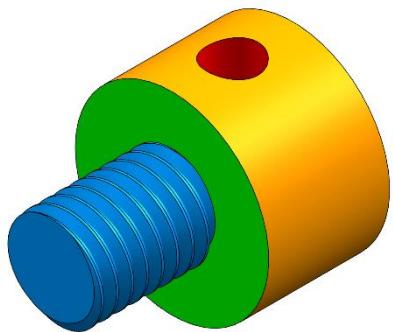
SECTION A-A



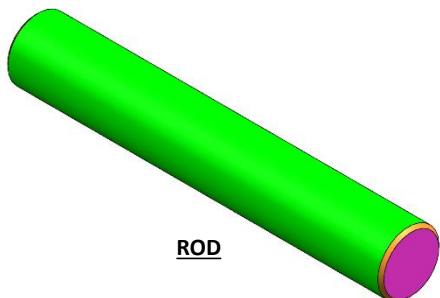
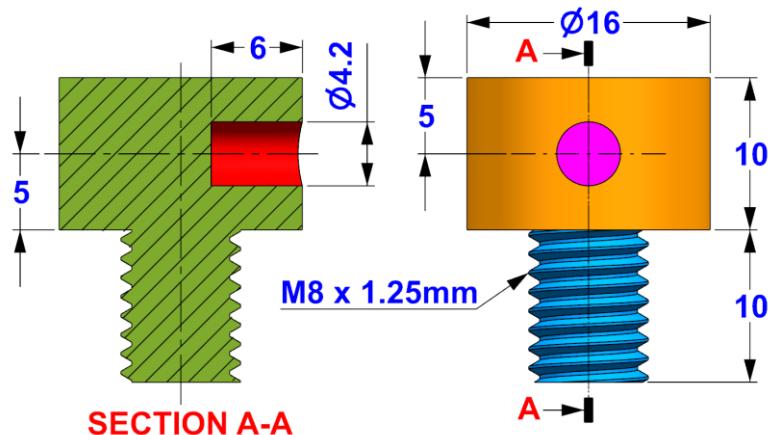
PART 14



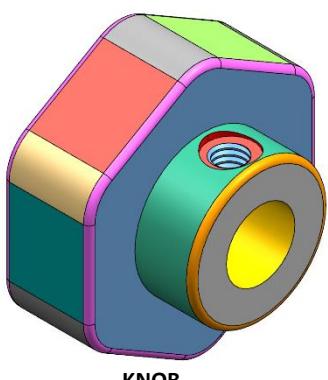
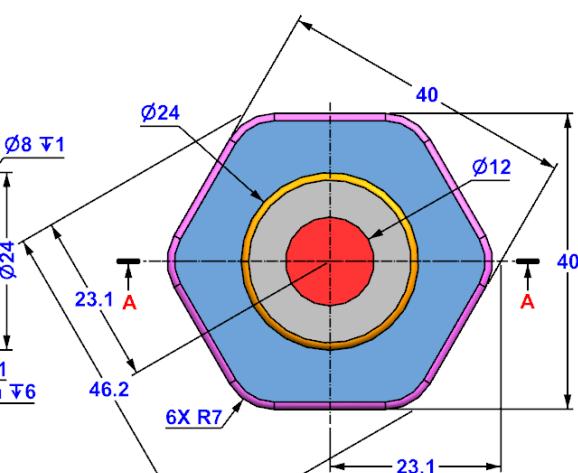
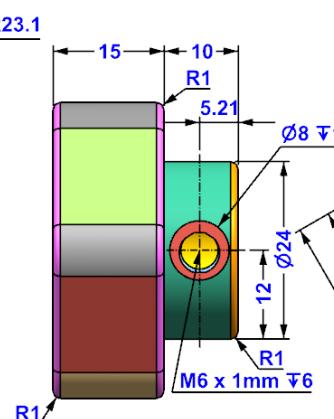
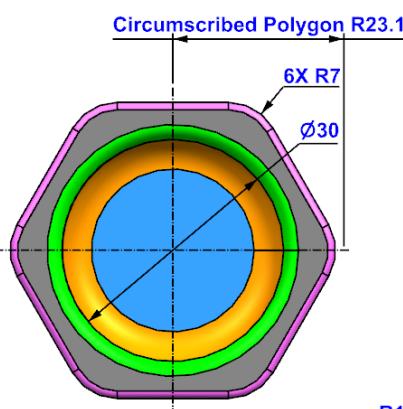
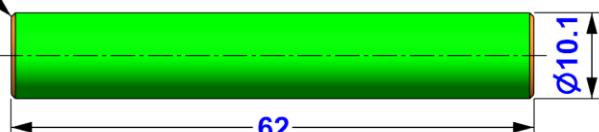




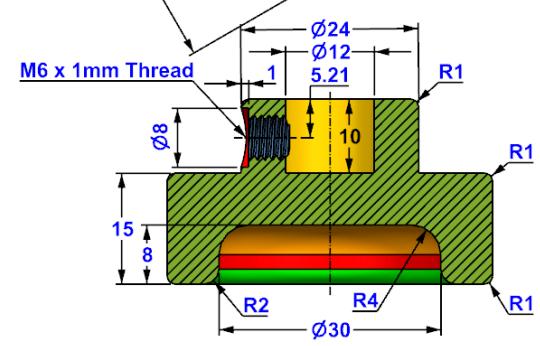
HANDLE THREADED ROD

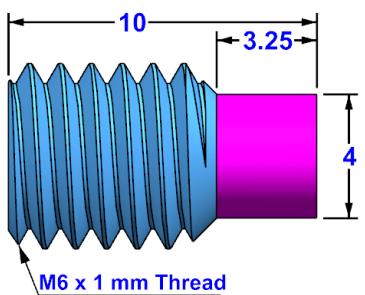
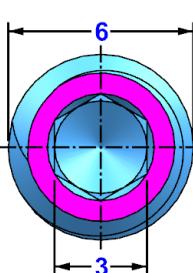
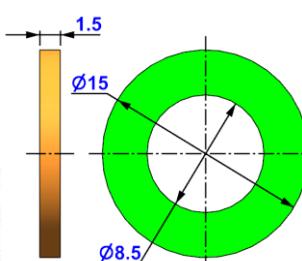
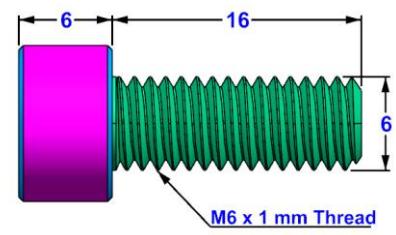
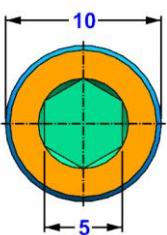
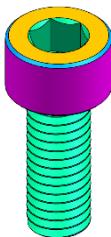
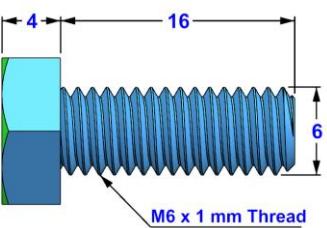
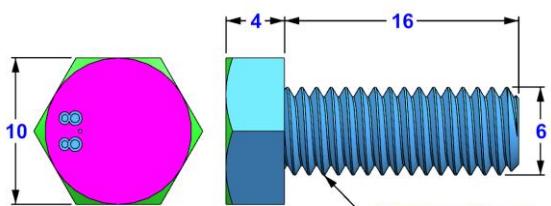
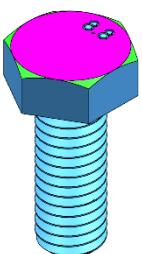
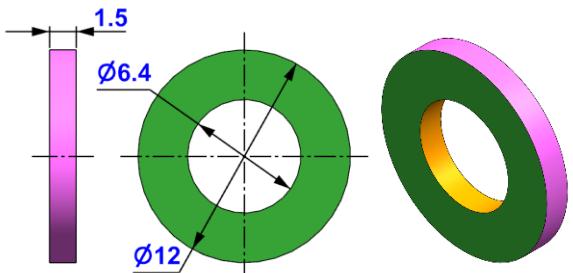
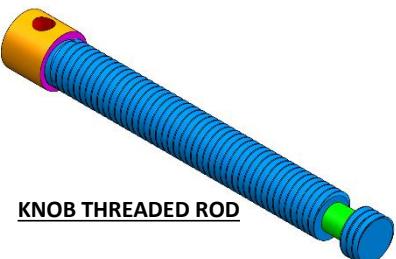
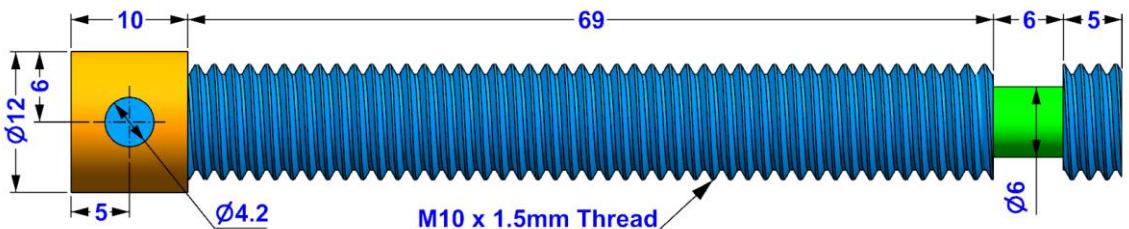


0.5 x 45°

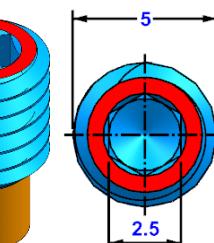
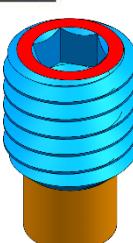


KNOB

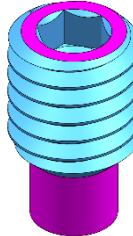
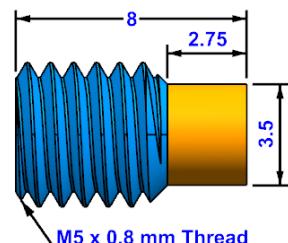


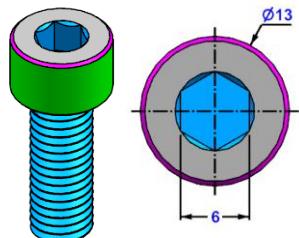


M6x1x10mm SET SCREW

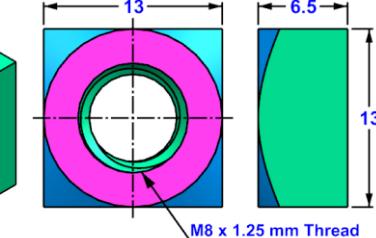
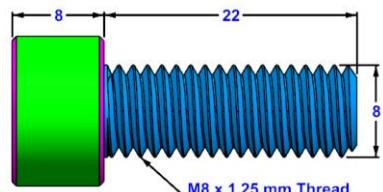


M5x0.8mm Thread

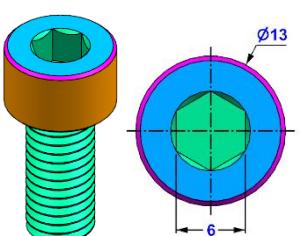




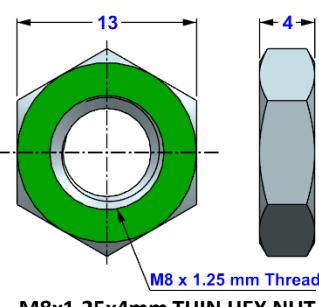
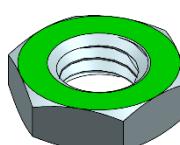
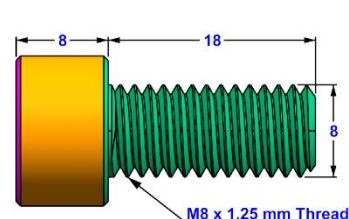
M8x1.25x22mm SOCKET HEAD CAP SCREW



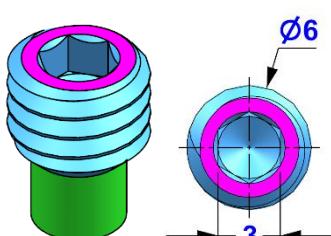
M8x1.25x6.5mm SQUARE NUT



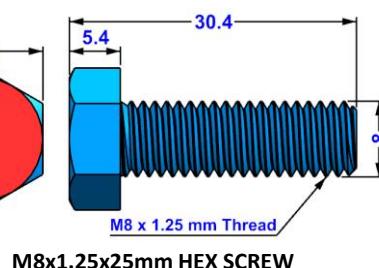
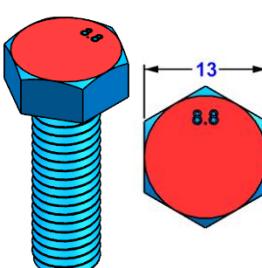
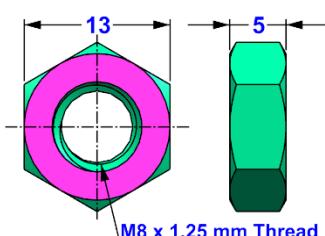
M8x1.25x18mm SOCKET HEAD CAP SCREW



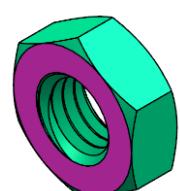
M8x1.25x4mm THIN HEX NUT



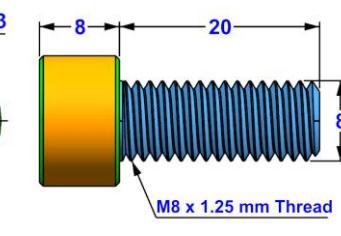
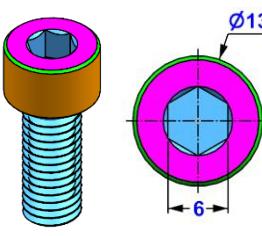
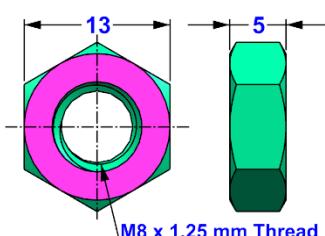
M6x1x8mm SET SCREW



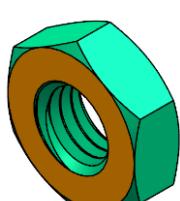
M8x1.25x25mm HEX SCREW



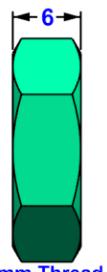
M8x1.25x5mm THIN HEX NUT



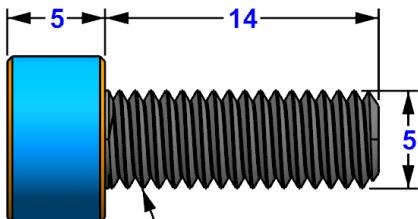
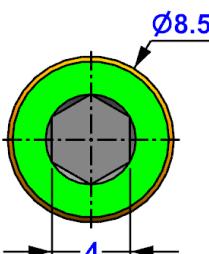
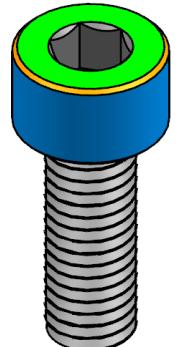
M8x1.25x20mm SOCKET HEAD CAP SCREW



M10x1.5x6mm THIN HEX NUT

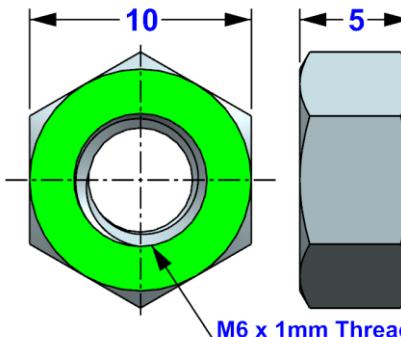
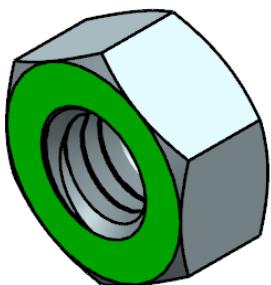


M5x0.8x2.7mm THIN HEX NUT



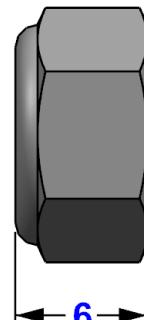
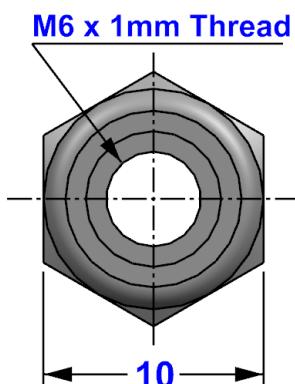
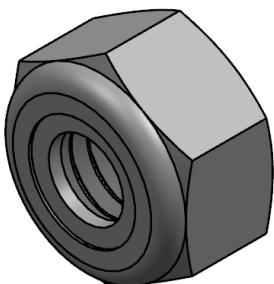
M5 x 0.8 mm Thread

M5x0.80x14mm SOCKET HEAD CAP SCREW



M6 x 1mm Thread

M6x1x5mm HEX NUT

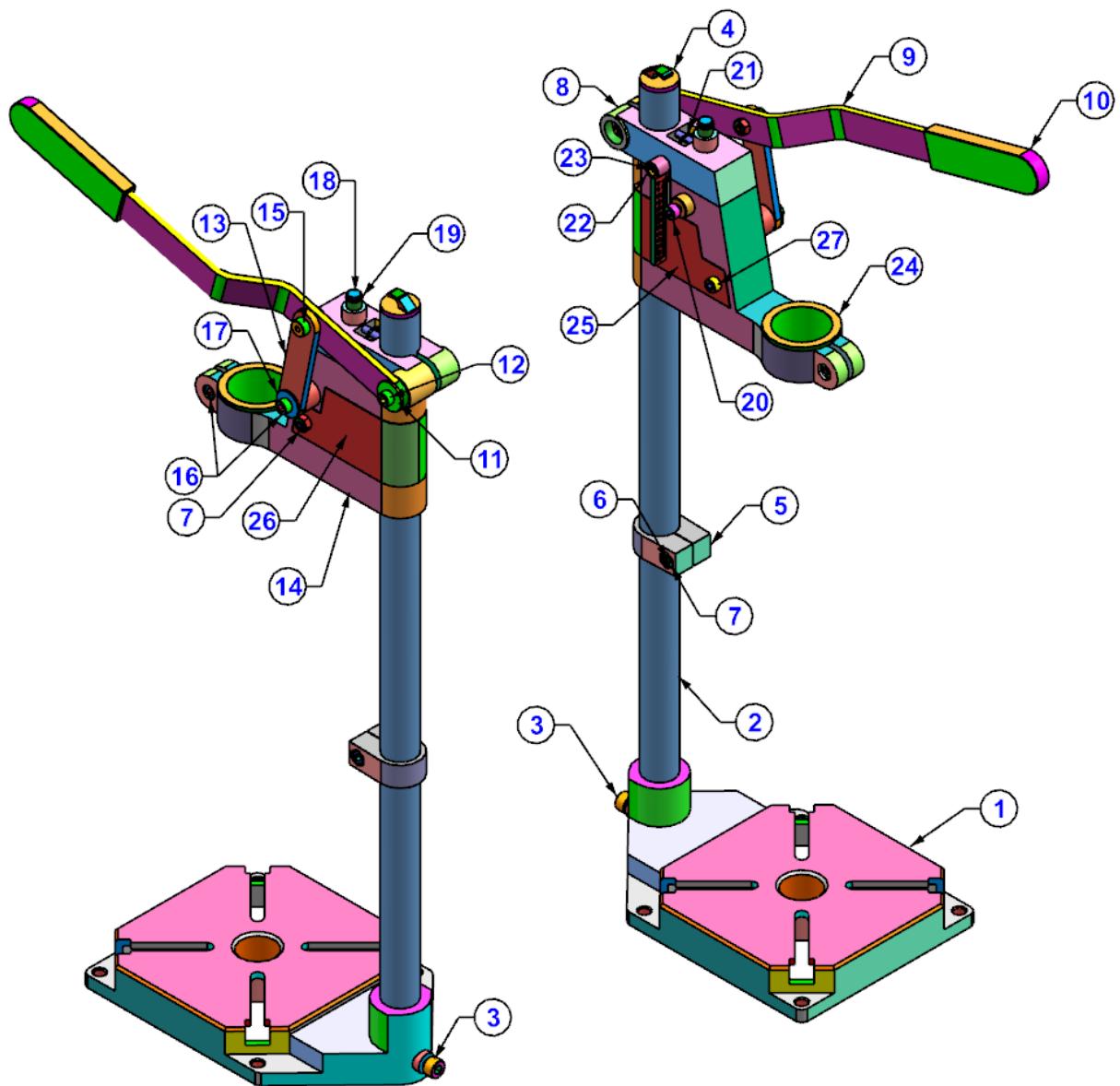


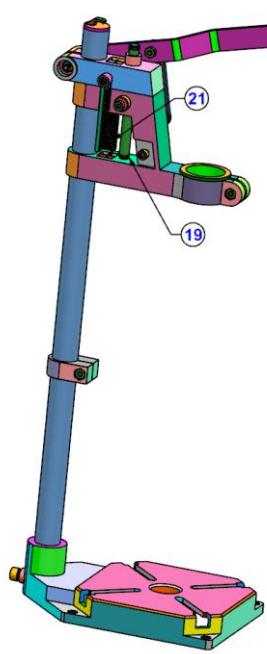
M6x1x6mm HEX LOCK NUT

ASSEMBLY EX-09

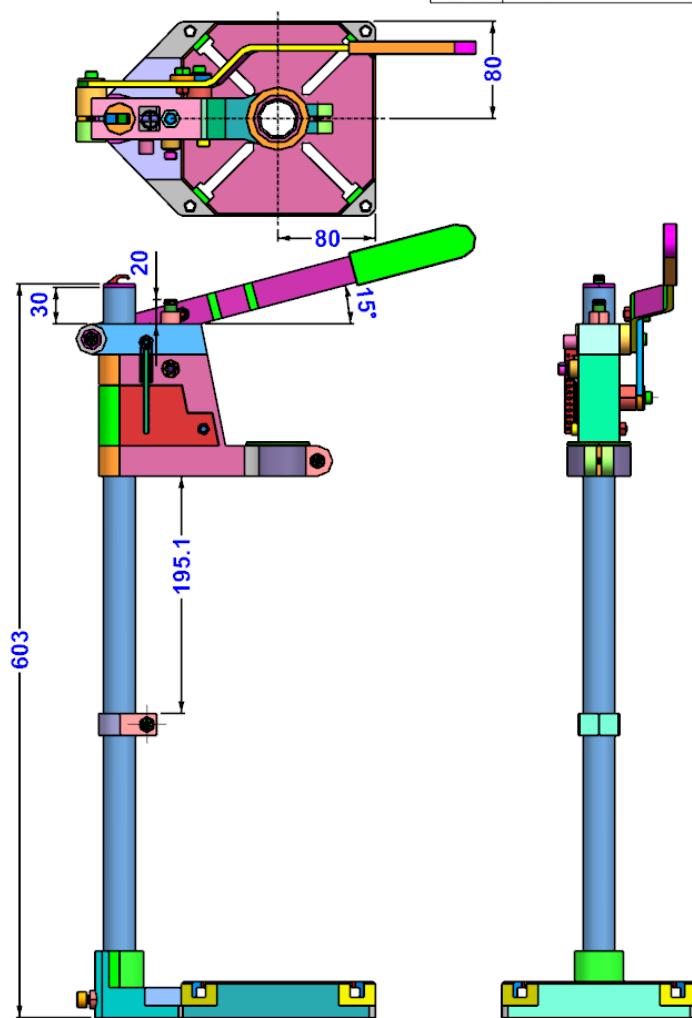
Drill Stand Assembly

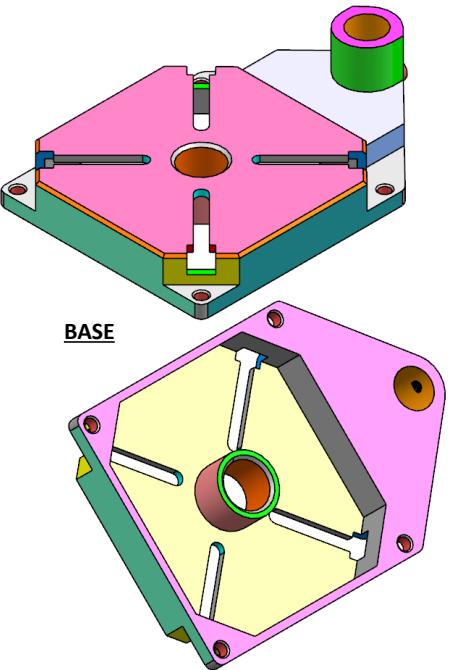




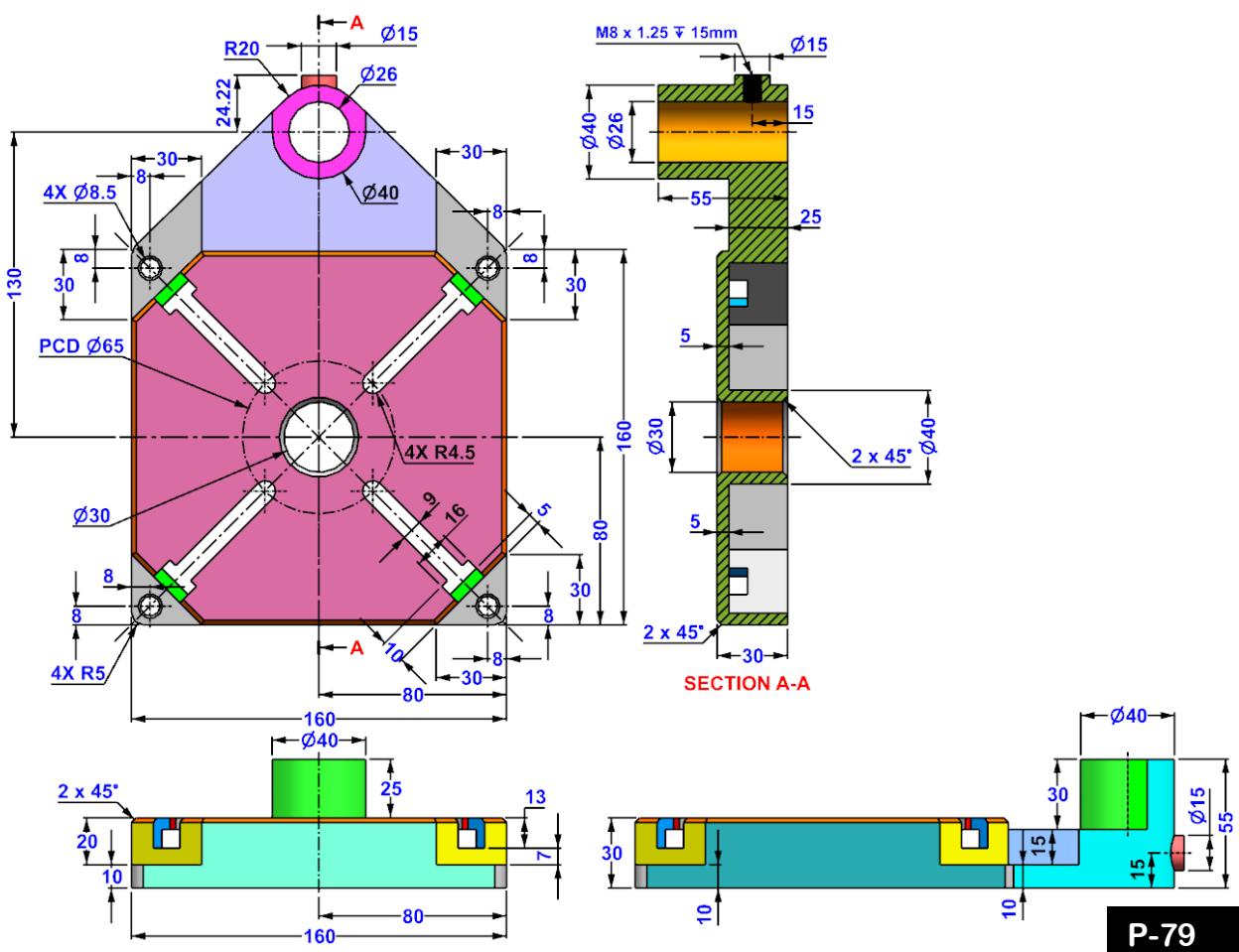


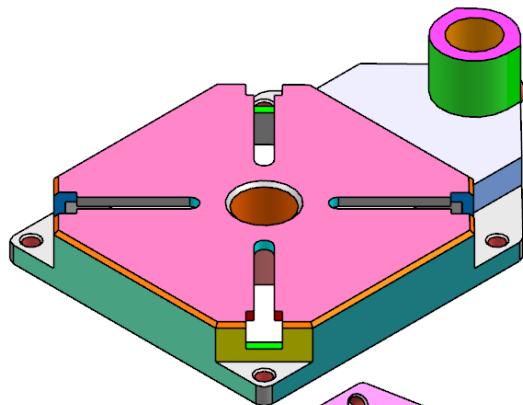
ITEM NO	PART NAME	QTY
27	M6X1X40MM SOCKET HEAD CAP SCREW	1
26	PART H	1
25	PART G	1
24	PART F	1
23	M4X0.5X12MM SOCKET HEAD CAP SCREW	1
22	DRILL SCALE	1
21	SPRING	1
20	M6X1X22MM SOCKET HEAD CAP SCREW	1
19	RETAINING RING	2
18	PART D	1
17	SMALL WASHER M6	1
16	M6X1X16MM SOCKET HEAD CAP SCREW	2
15	M6X1X11MM SHOULDER SCREW	1
14	PART E	1
13	PART C	1
12	M6X1X50MM SOCKET HEAD CAP SCREW	1
11	BIG WASHER M6	1
10	HANDLE CAP	1
9	HANDLE	1
8	PART B	1
7	M6X1X5MM HEX NUT	5
6	M6X1X25MM SOCKET HEAD CAP SCREW	1
5	PART A	1
4	ROD CAP	1
3	M8X1.25X14MM SOCKET HEAD CAP SCREW	1
2	ROD	1
1	BASE	1



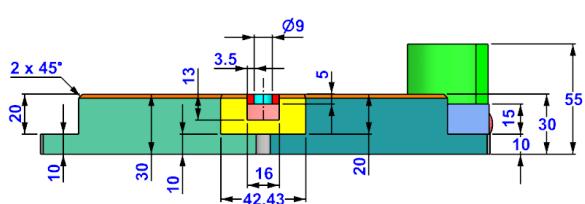
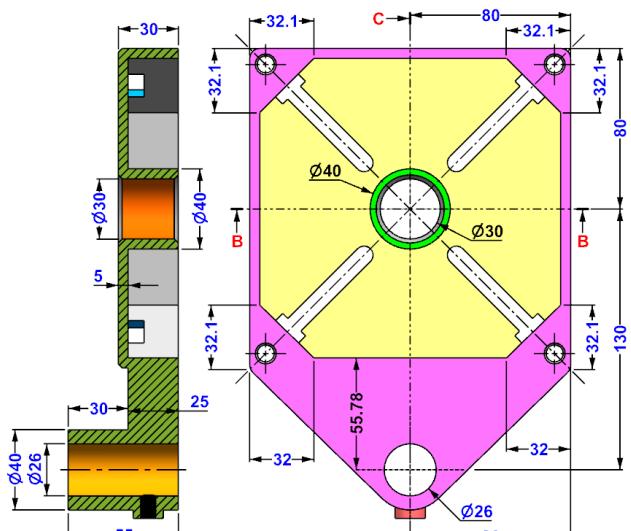
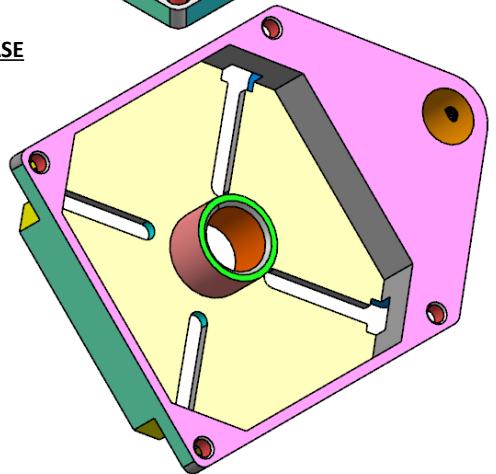


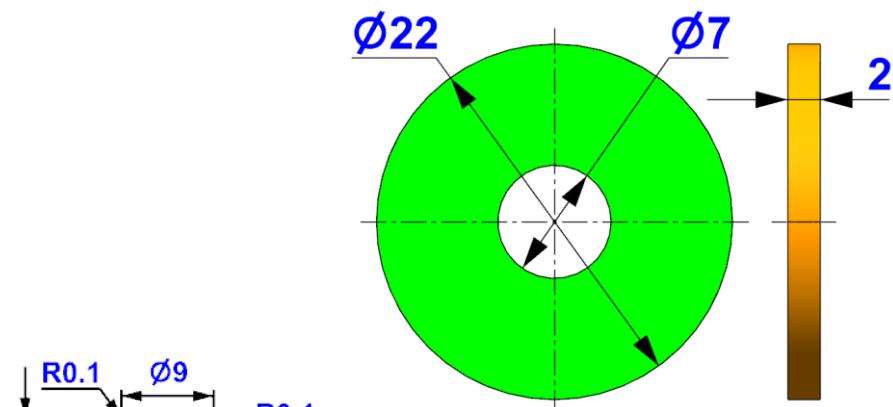
BASE



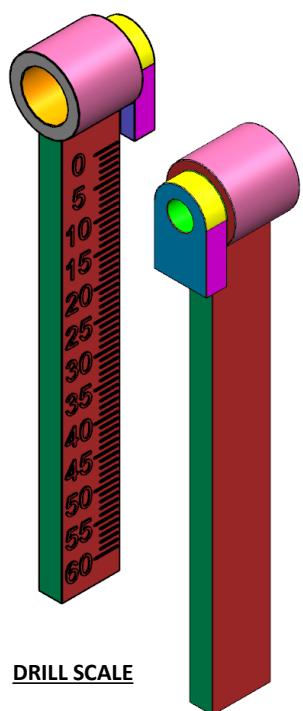
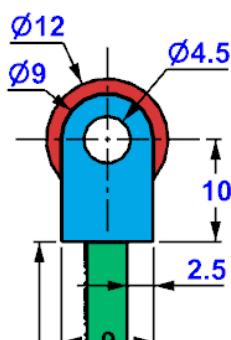
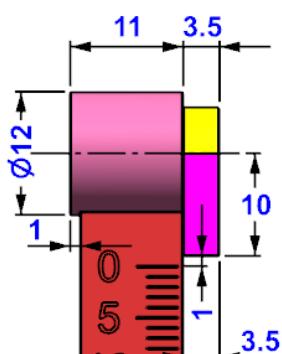
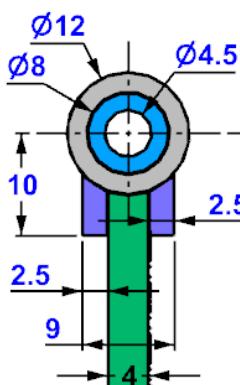
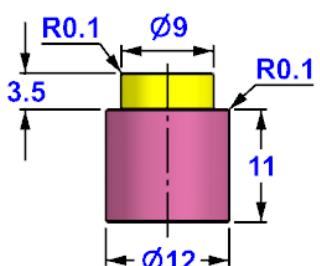


BASE

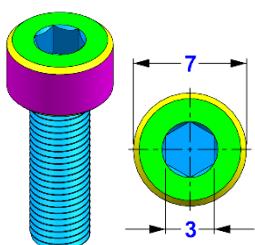
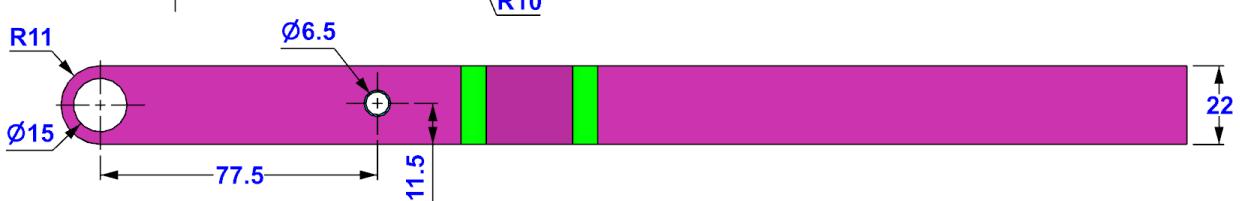
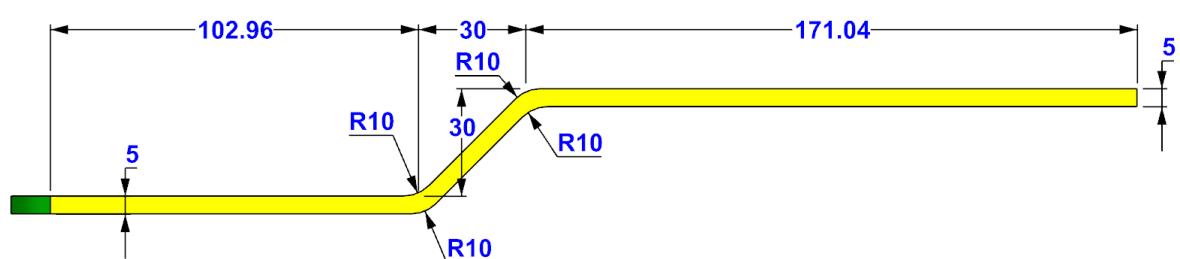
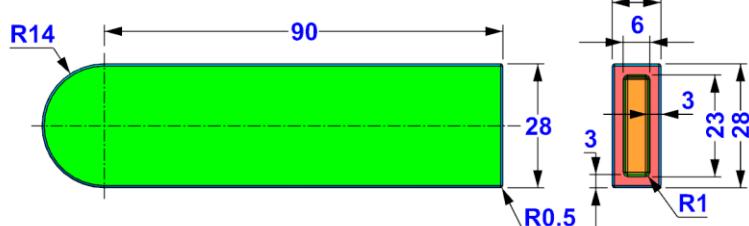
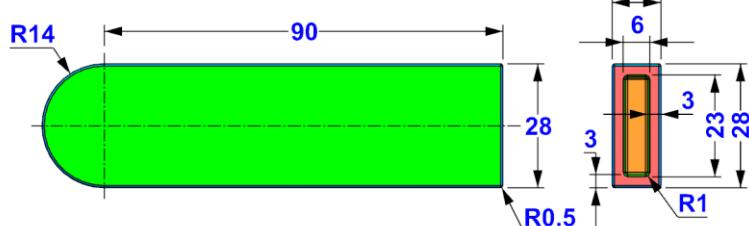
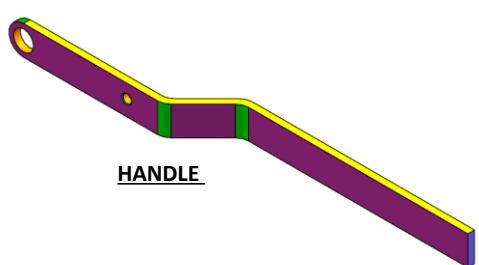
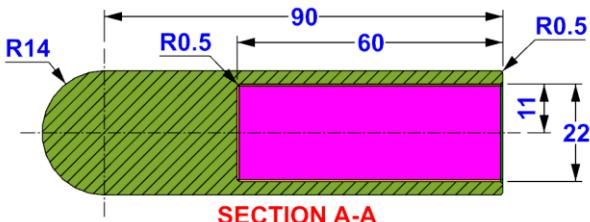
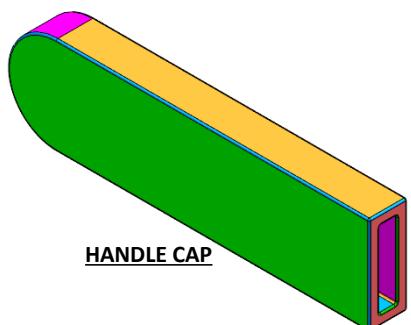




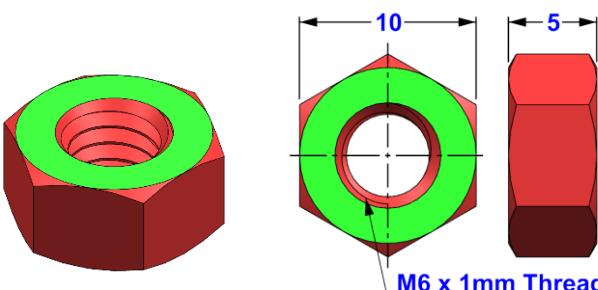
BIG WASHER M6



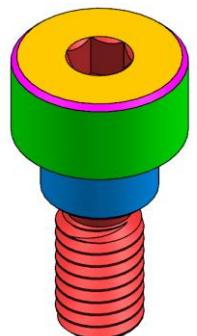
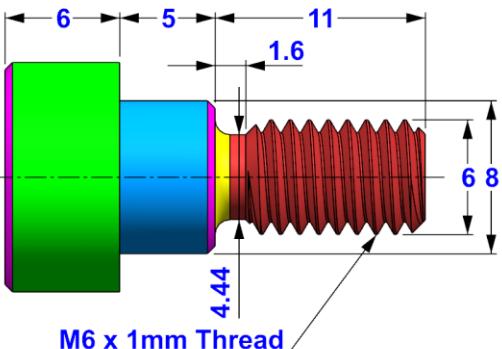
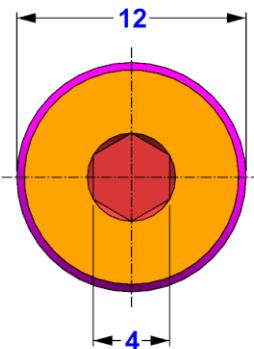
DRILL SCALE



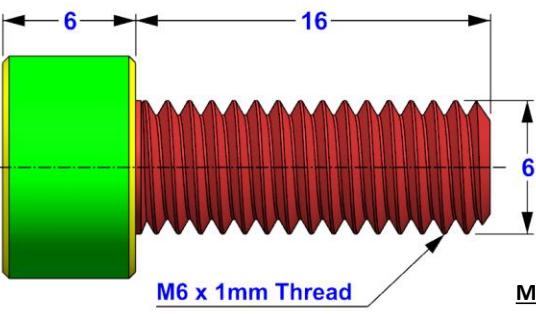
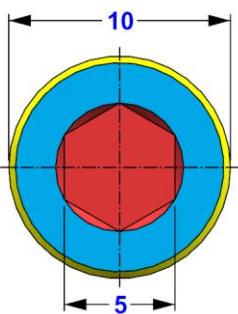
M4x0.5x12mm SOCKET HEAD CAP SCREW



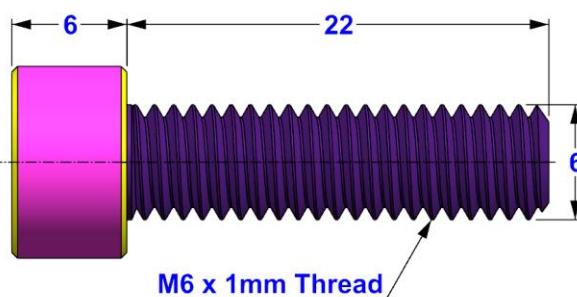
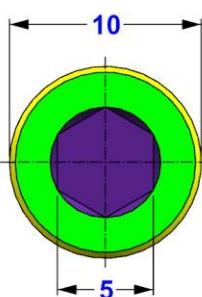
M6x1x5mm HEX NUT



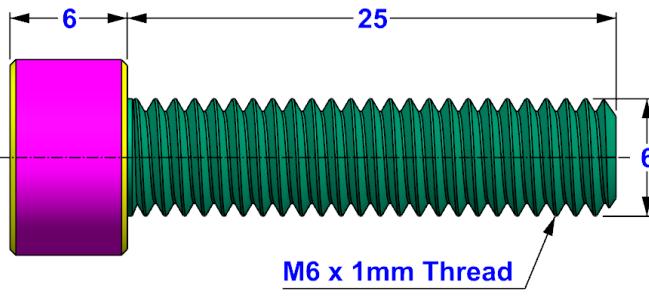
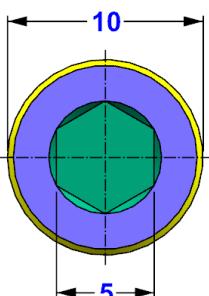
M6x1x11mm SHOULDER SCREW



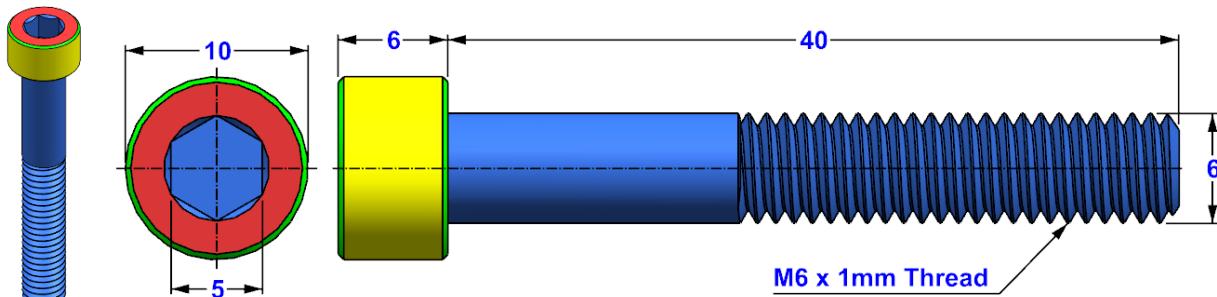
M6x1x16mm SOCKET HEAD CAP SCREW



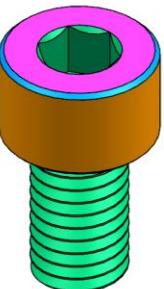
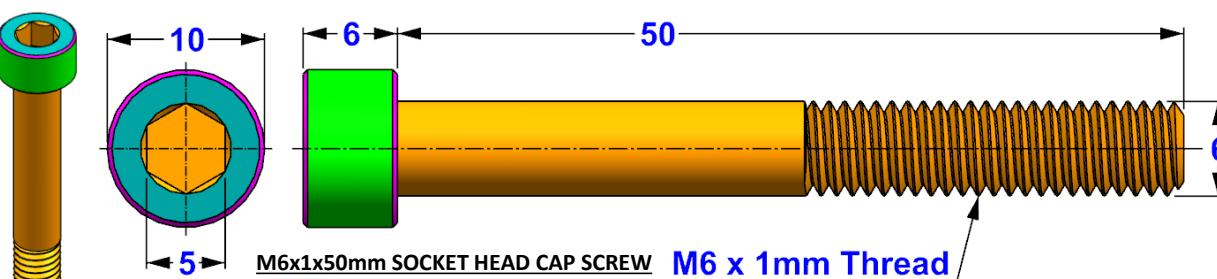
M6x1x22mm SOCKET HEAD CAP SCREW



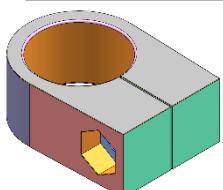
M6x1x25mm SOCKET HEAD CAP SCREW



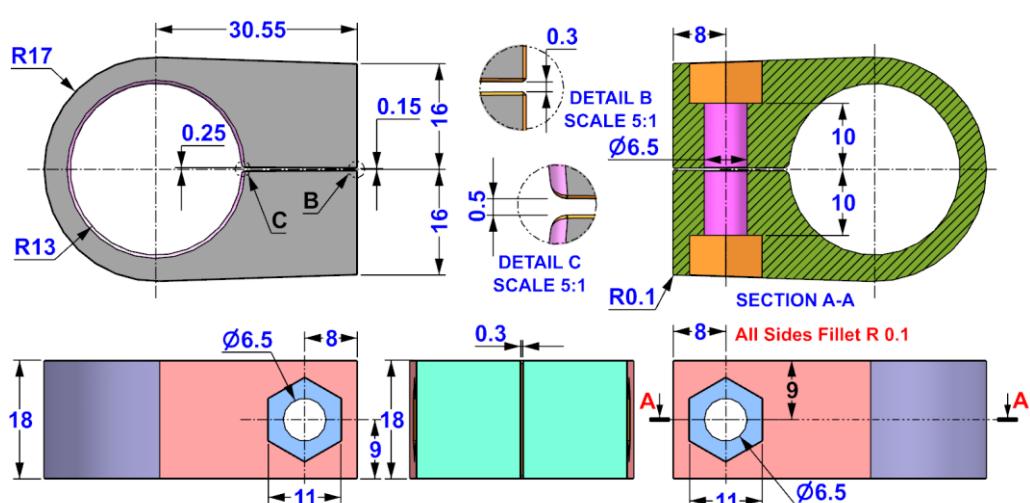
M6x1x40mm SOCKET HEAD CAP SCREW

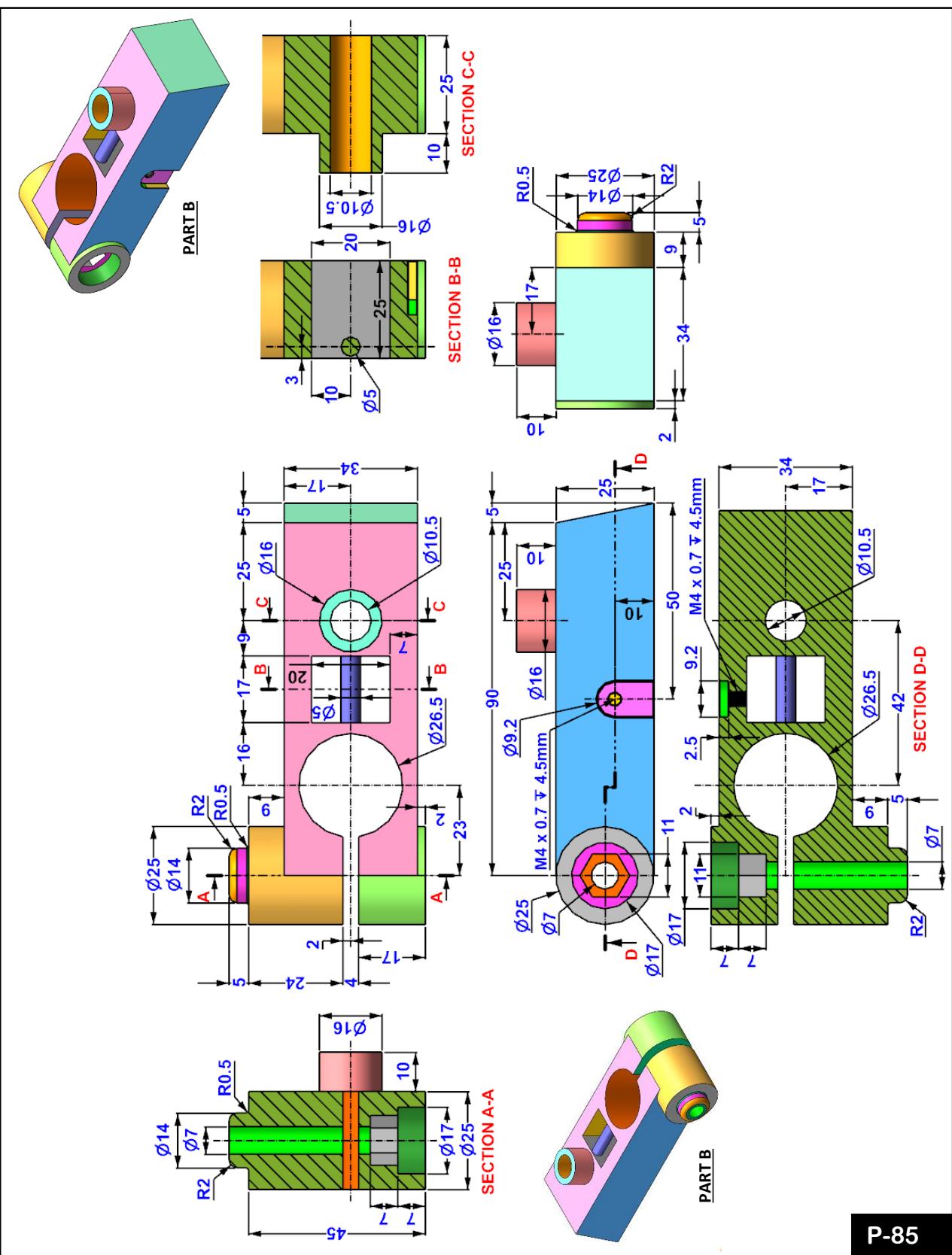


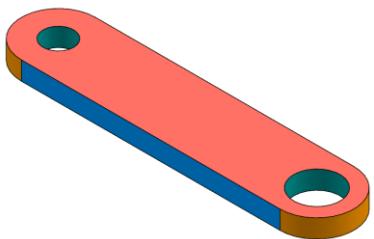
M8x1.25x14mm SOCKET HEAD CAP SCREW



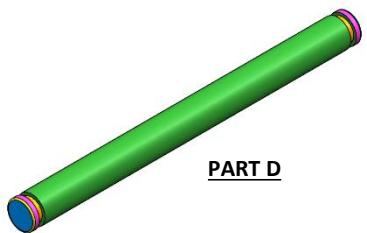
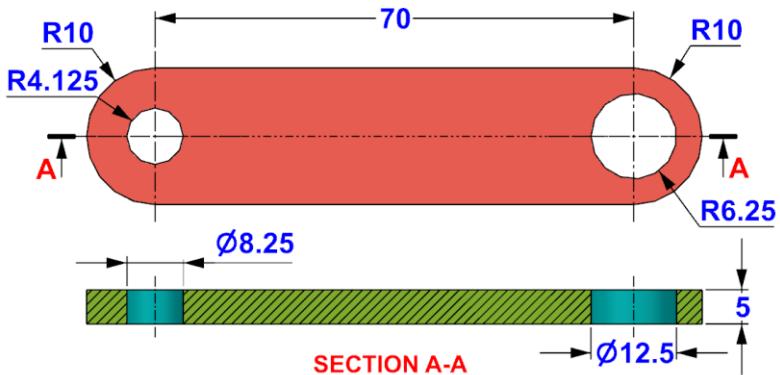
PART A



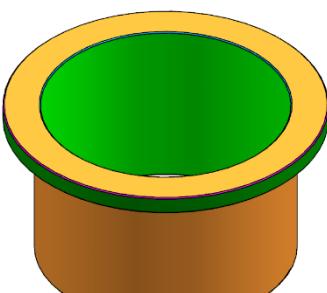
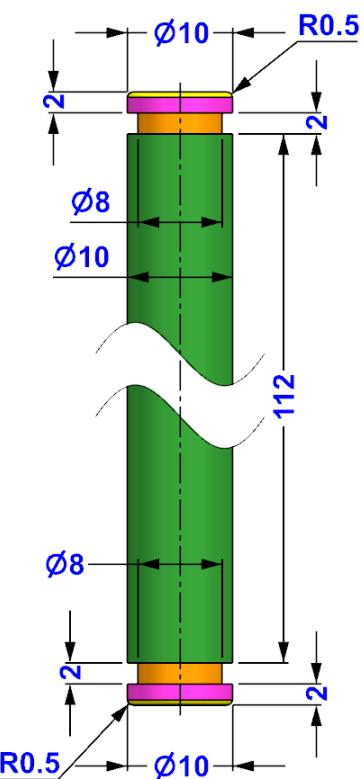




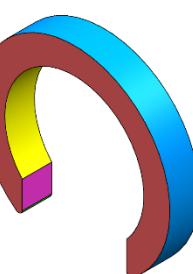
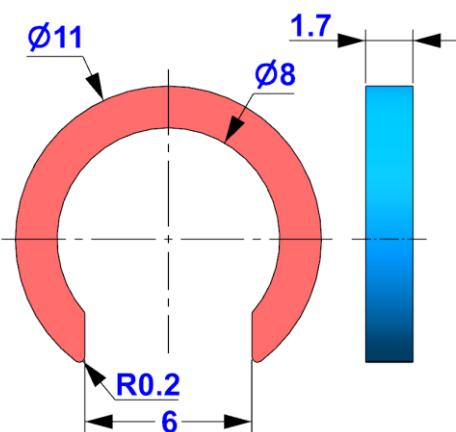
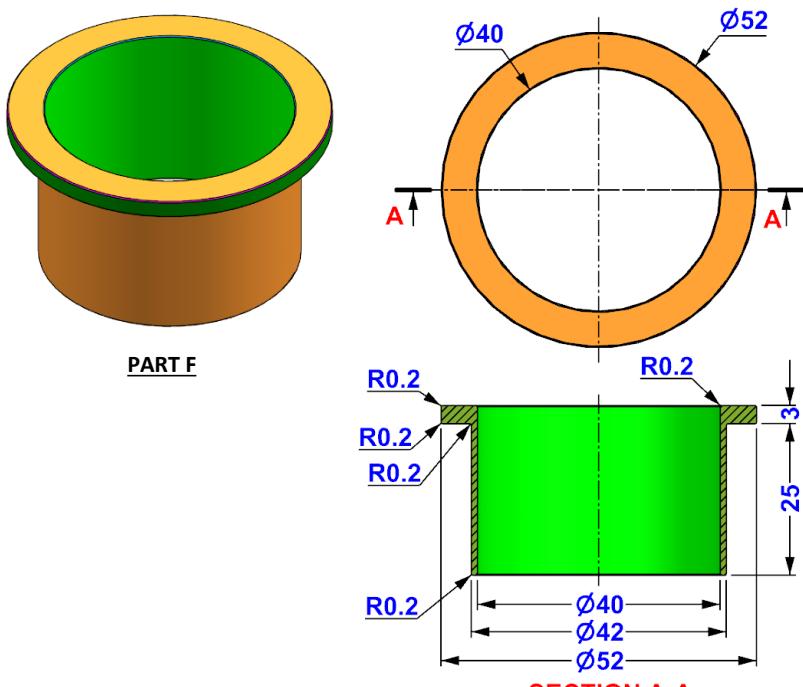
PART C



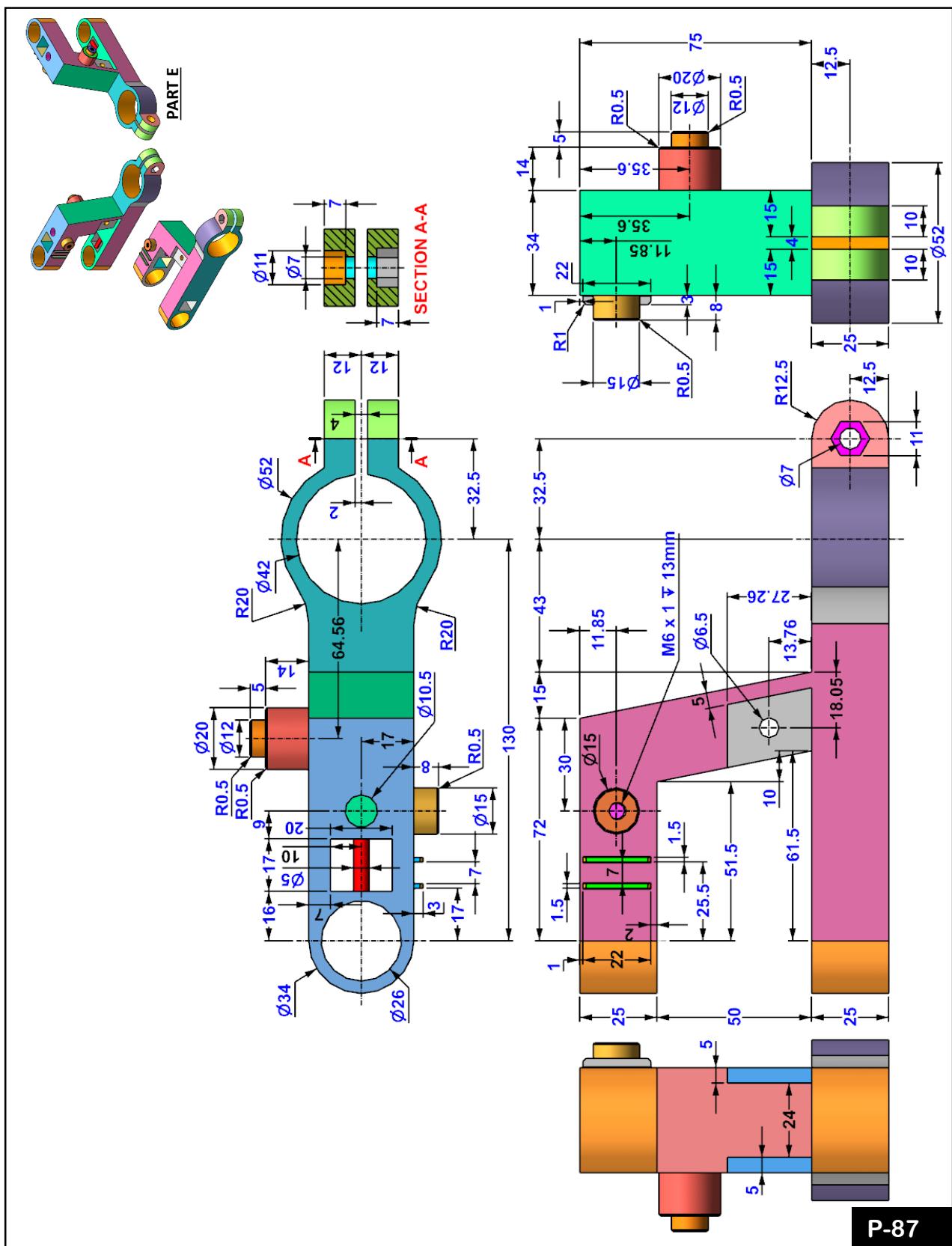
PART D

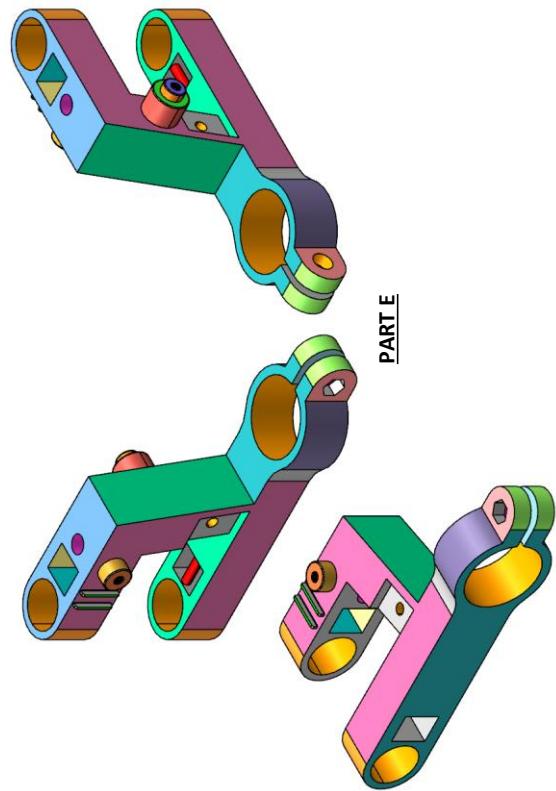


PART F

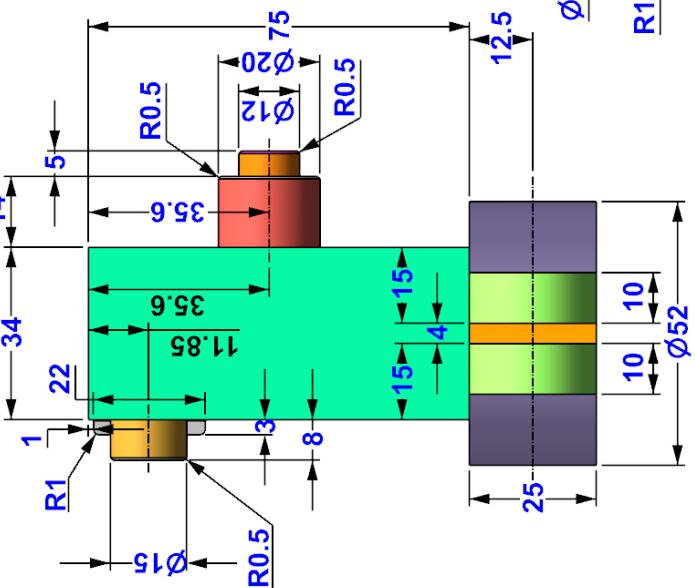
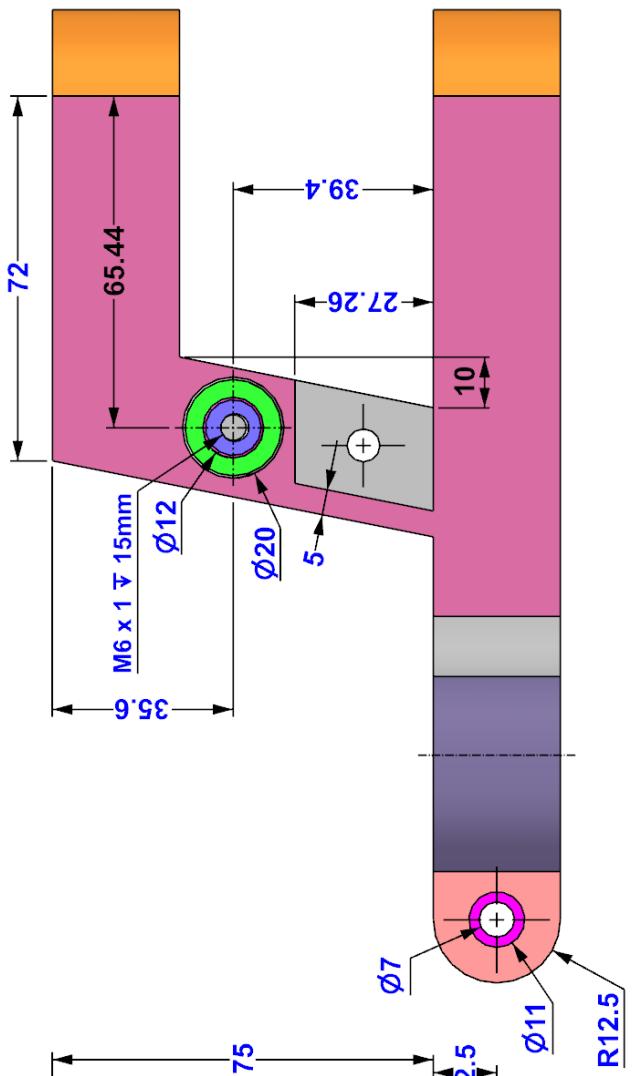


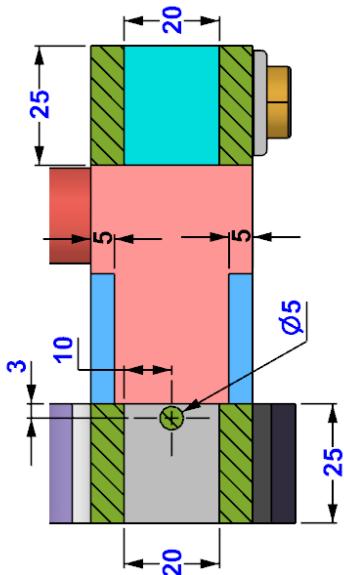
RETAINING RING



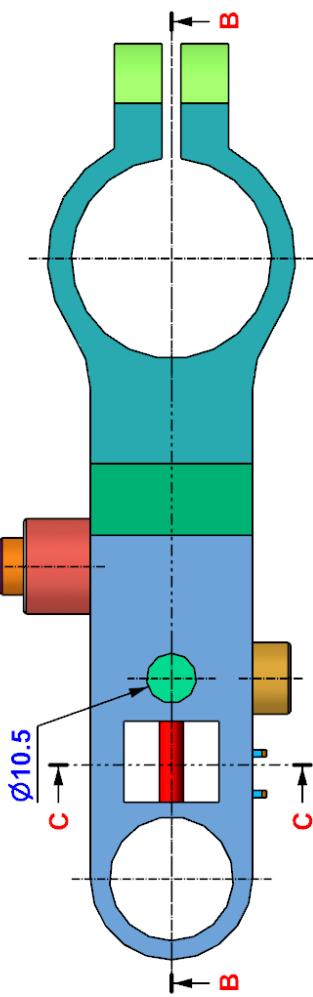


PART E

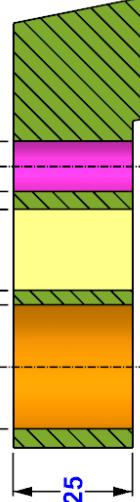




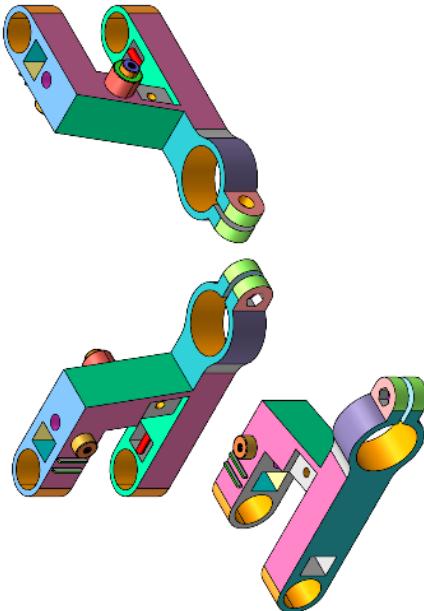
SECTION C-C



C C
Ø10.5

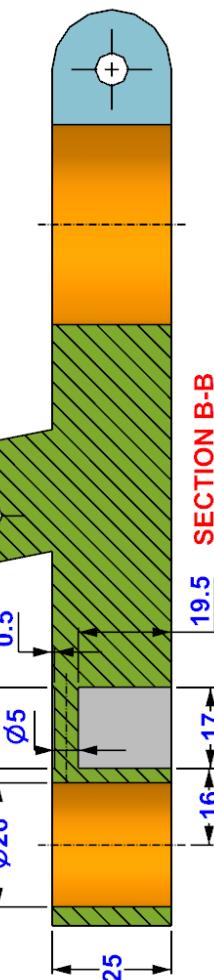


C C
Ø10.5



PART_E

SECTION B-B
19.5



Ø26
Ø5
0.5

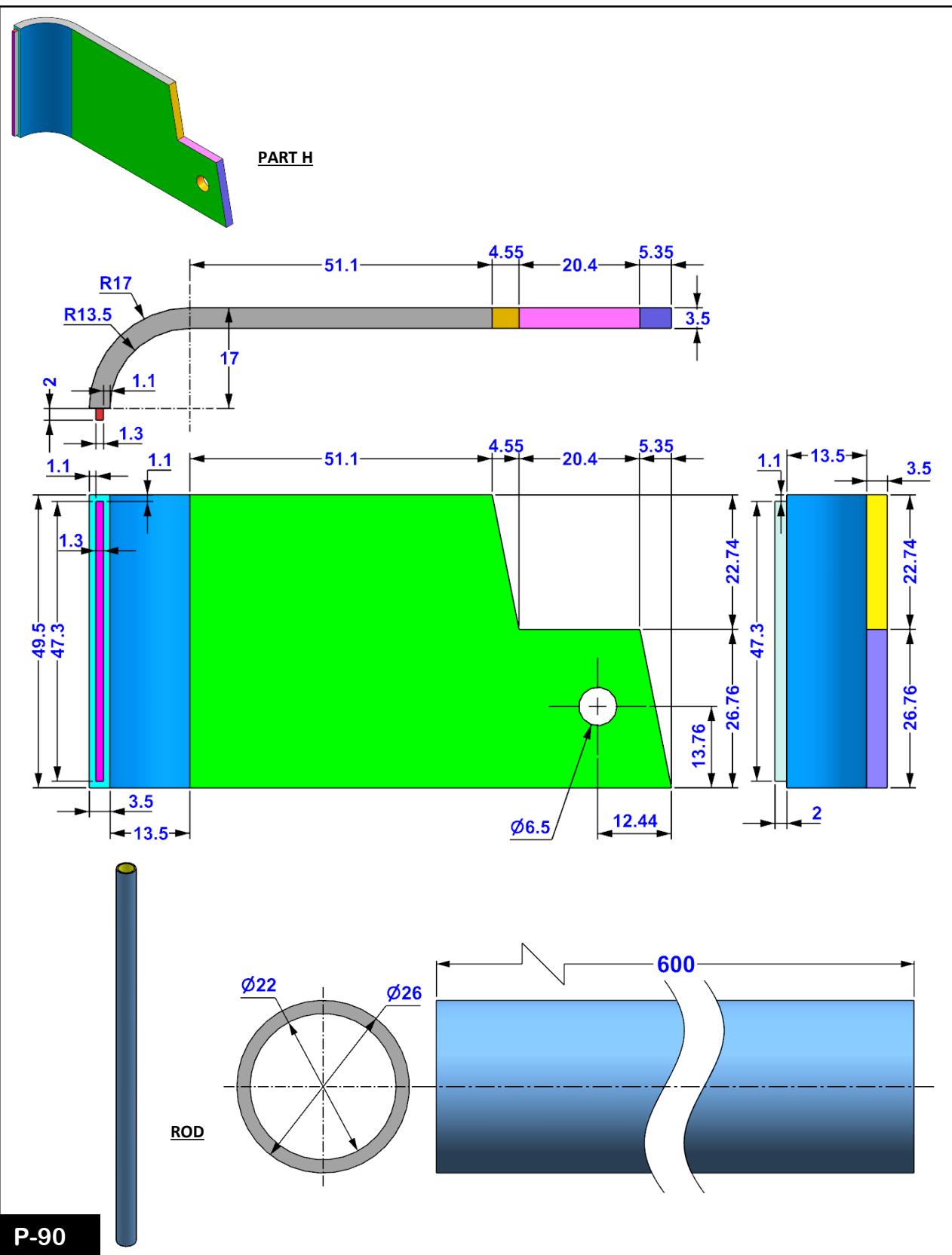
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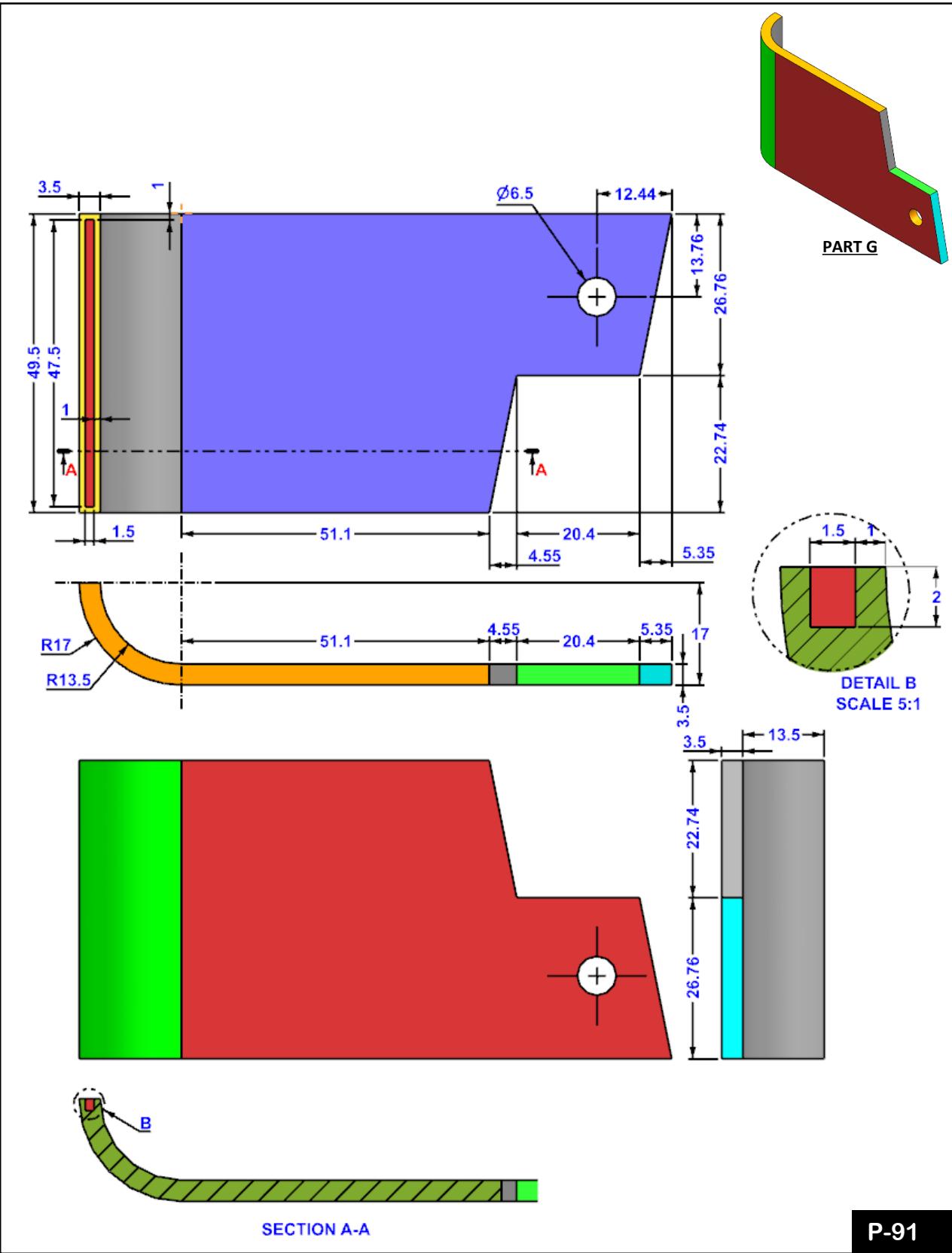
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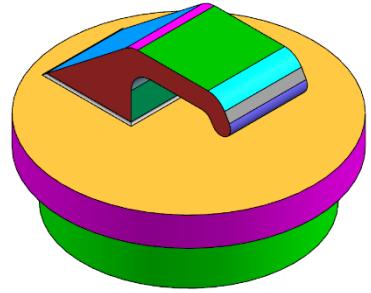
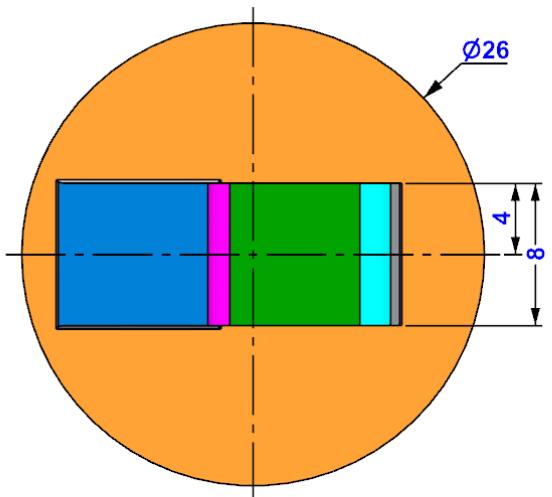
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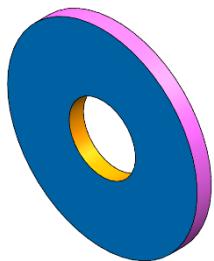
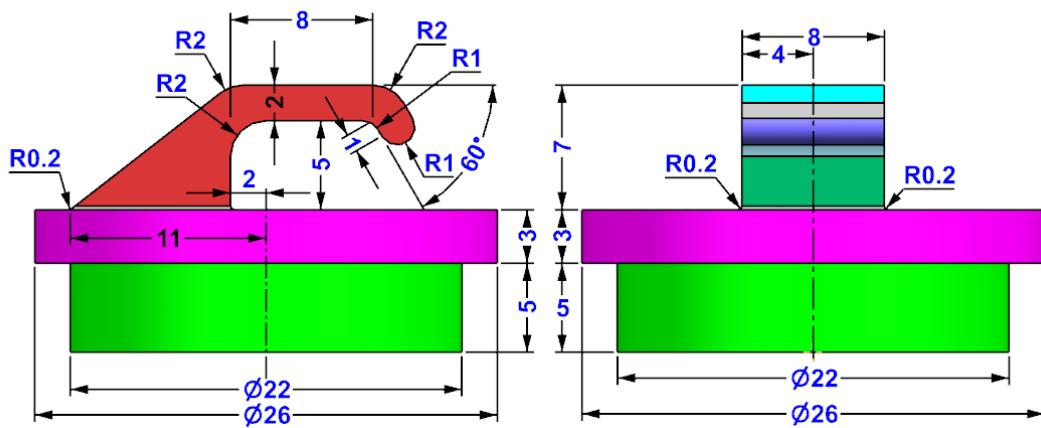
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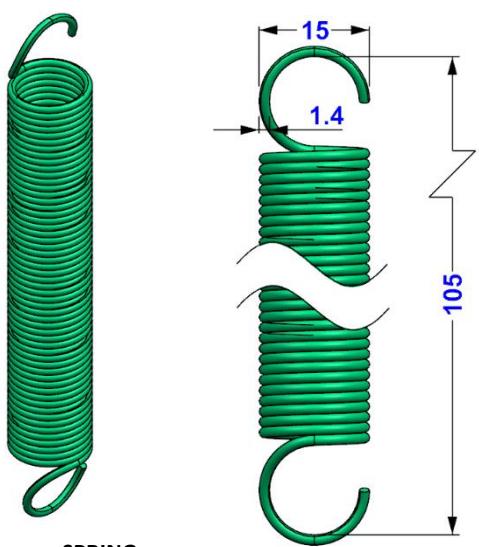
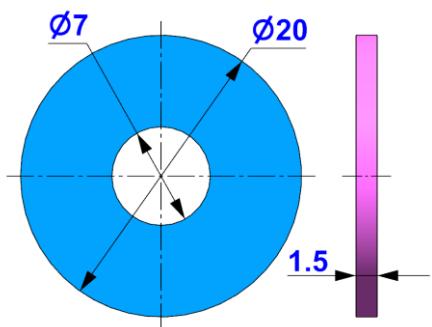




ROD CAP



SMALL WASHER M6



SPRING

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For Engineers & Designers

Onshape Assembly Drawings

FOR PRACTICE

ABOUT THE BOOK

- ❖ S.I Units
- ❖ Predominantly used Third Angle Projection.
- ❖ This book provides Assembly drawings for practice.
- ❖ This book is for **Onshape** Program and other Feature-Based Modeling Software such as Autodesk Inventor, Catia, SolidWorks, NX, Solid Edge, AutoCAD etc.
- ❖ It is intended to provide Drafters, Designers and Engineers with enough CAD Assembly drawings for practice on any CAD Program.
- ❖ It includes almost all types of exercises that are necessary to provide, clear, concise and systematic information required on industrial machine part drawings.
- ❖ Third Angle Projection is intentionally used to familiarize Drafters, Designers and Engineers in Third Angle Projection to meet the expectation of world wide Engineering drawing print.
- ❖ Clear and well drafted drawing help easy understanding of the design.