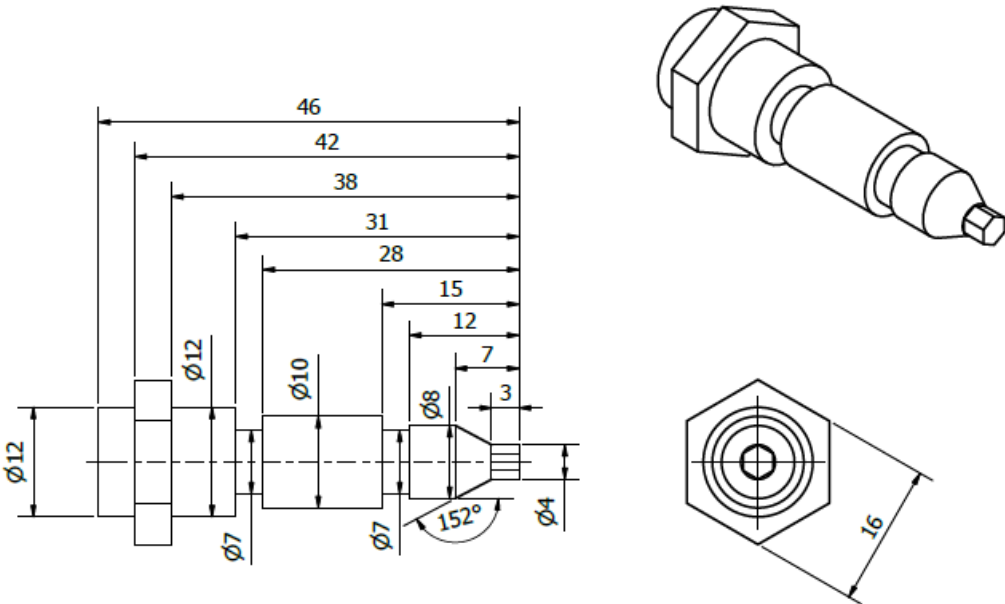
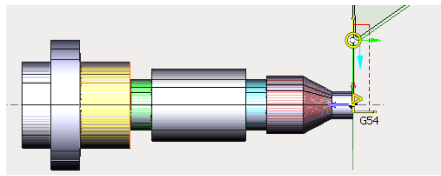
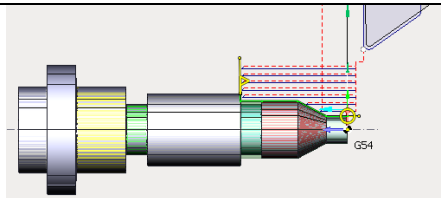
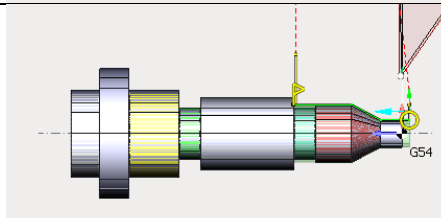
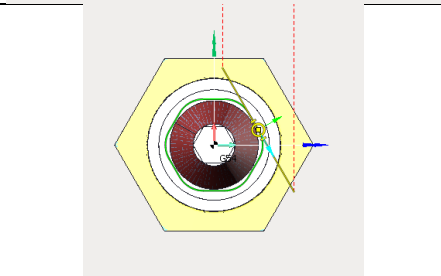
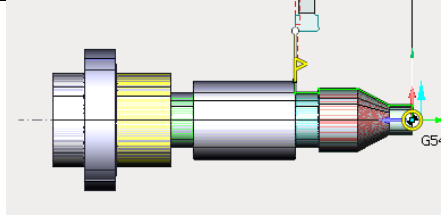
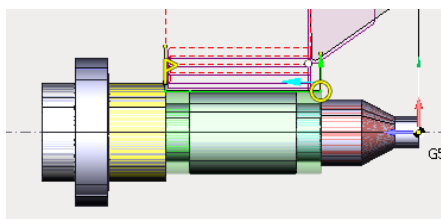


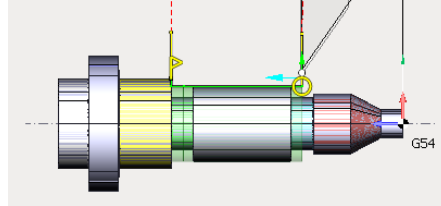
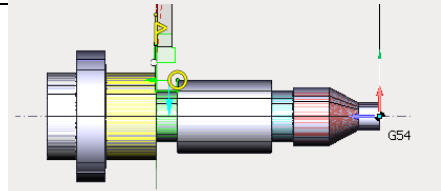
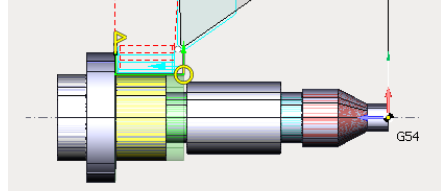
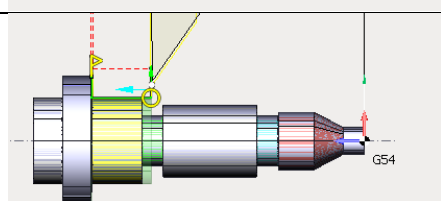
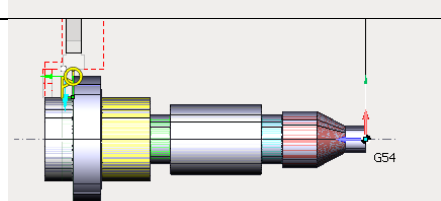
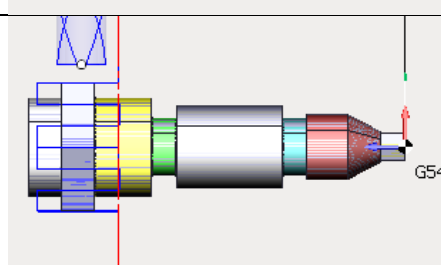
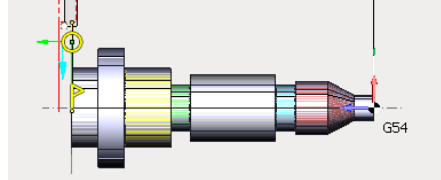
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FACULTAD DE INGENIERÍA MECÁNICA
 Proyecto de Grado
HOJA DE PROCESOS

PIEZA: Geometría Definida	MATERIAL: ACERO 1045	DIMENSIONES EN BRUTO: Cilindro $\varnothing_{base} = \frac{3}{4} in$; $h = 1 m$																						
PREPARACIÓN PREVIA DEL MATERIAL:																								
MÁQUINA: Torno Poligym20CSB	HERRAMIENTAS, DISPOSITIVOS DE FIJACIÓN E INSTRUMENTOS:																							
INSUMOS: Acero 1045 $\varnothing = 3/4"$	<table style="width: 100%; border: none;"> <tr> <td style="width: 30%;">Porta inserto</td> <td>Especificaciones</td> </tr> <tr> <td>KYOCERA</td> <td>KGMR121H-3 NR92018</td> </tr> <tr> <td>KENNAMETAL</td> <td>NASR1212M2Q I6KV06</td> </tr> <tr> <td>KYOCERA</td> <td>ADJCR1212JX 11FF</td> </tr> <tr> <td>KYOCERA</td> <td>AVJBR1212M 11F</td> </tr> <tr> <td> </td> <td></td> </tr> <tr> <td>Inserto</td> <td>Especificaciones</td> </tr> <tr> <td>KYOCERA</td> <td>GMM3020-MT</td> </tr> <tr> <td>KENNAMETAL</td> <td>KC5025</td> </tr> <tr> <td>KYOCERA</td> <td>DCMT11T308GK</td> </tr> <tr> <td>SANDVIK</td> <td>VBMT110302-PF</td> </tr> </table>		Porta inserto	Especificaciones	KYOCERA	KGMR121H-3 NR92018	KENNAMETAL	NASR1212M2Q I6KV06	KYOCERA	ADJCR1212JX 11FF	KYOCERA	AVJBR1212M 11F	 		Inserto	Especificaciones	KYOCERA	GMM3020-MT	KENNAMETAL	KC5025	KYOCERA	DCMT11T308GK	SANDVIK	VBMT110302-PF
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ELABORÓ: Andrés Camilo Guevara Pedraza	REVISÓ: Ing. Jorge García																							
PLANO:																								
 <p>The technical drawing shows a tool holder with the following dimensions: total length 46, length to the start of the insert 42, length to the start of the chamfer 38, length to the start of the chamfer 31, length to the start of the chamfer 28, length to the start of the chamfer 15, length to the start of the chamfer 12, length to the start of the chamfer 7, length to the start of the chamfer 3. Diameters are: $\varnothing 12$ for the main body, $\varnothing 10$ for the inner bore, $\varnothing 8$ for the insert bore, $\varnothing 7$ for the chamfered section, and $\varnothing 4$ for the tip. A chamfer angle of 152° is indicated. A 3D perspective view shows the tool holder with a hexagonal base and a cylindrical body. A top view shows a hexagonal base with a diameter of 16.</p>																								

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#	Designación	Croquis	Útil	Vc [m/min]	F [mm/rev]	Zona	t [s]
1	Refrentado		T0303	120	0.15	1	4
2	Desbaste 1		T0303	120	0.15	1	26
3	Acabado 1		T0404	495	0.05	1	16
4	Contorneado 2D		T1919	25	60	1	87
5	Ranurado externo 1		T0101	150	0.05	1	8
6	Desbaste 2		T0303	120	0.15	2	35

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#	Designación	Croquis	Útil	Vc [m/min]	F [mm/rev]	Zona	t [s]
7	Acabado 2		T0404	495	0.05	2	20
8	Ranurado 2		T0101	150	0.05	2	2
9	Desbaste 3		T0303	120	0.15	3	16
10	Acabado 3		T0404	495	0.05	3	11
11	Ranurado 3		T0101	150	0.05	3	10
12	Desbaste por capas		T0808	28.274	60	3	325
13	Tronzado		T0101	150	0.05	3	20
	TOTAL						9'46"

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