#### **Autodesk Inventor**

# Tips 'n Tricks Raffle

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# <u>Agenda:</u>

- Gebruikers omgeving
- Sketch omgeving
- Part omgeving
- Assembly omgeving
- Drawing omgeving



# Tips'n Tricks Raffle Gebruikers omgeving



 Inventor instellingen (Application Options) even bijsturen

Application Options
General Save File Colors Display Hardware Prompts Drawing
Notebook Sketch Part iFeature Assembly Content Center
Defer update
Delete component pattern source(s)
Enable constraint redundancy analysis
Enable related constraint failure analysis
Features are initially adaptive
Section all parts
Use last occurrence orientation for component placement
Constraint audio notification
Display component names after constraint names
Display component names after constraint names
Constraint audio notification
Use last occurrence orientation for component placement
Highlight
Enable Prehighlight
Enable Enhanced Highlighting

pplication Options	
General Save File Colors D Notebook Sketch Part iFe	isplay Hardware Prompts Drawing eature Assembly Content Center
2D Sketch	
Constraint placement priority  Parallel and perpendicular Horizontal and vertical  Overconstrained dimension  Apply driven dimension  Warn of overconstrained condition	Display Grid lines Minor grid lines Axes Coordinate system indicator Display coincident constraints on creation Constraint and DOF symbol scale
Spline fit method  Standard  AutoCAD	Heads-Up Display  Finable Heads-Up Display (HUD)  Settings
Minimum Energy - Default Tension	
0 100	
Snap to grid  Calculate timension when created  Autoproject edges during curve creation  Autoproject edges for sketch creation and edit  Look at sketch plane on sketch creation  Autoproject part origin on sketch create  Point alignment  Do Sketch	3 )5
Auto-bend with 3D line creation	
Import Export	OK Cancel Apply
3 [Import] Export	) OK Cancel Apply
3D Sketch Auto-bend with 3D line creation	



- Viewcube
  - RMK zicht als voor, top en Home instellen

#### • F3

- zoom
- shift + F3  $\rightarrow$  Zoom venster
- F4
  - orbit
  - ctrl + F4 → Sluiten documenten
- Shift + middelste muisknop - orbit
- F5
  - vorige aanzicht
  - shift + F5  $\rightarrow$  Volgende aanzicht
- Shift + F10 of CTRL+Shift+RMK





Ungroupen van commando's



 Weergave van Inventor bestanden in Windows verkenner



File Edit Format View Help	
<pre>&amp;PropertySetInformation&gt;</pre> &PropertyId="In mame"Title" exclude="yes"/> &PropertyId="3" name="Subject" exclude="yes"/> &PropertyId="3" name="Authon" exclude="no"/> &PropertyId="3" name="Keyords" exclude="yes"/> &PropertyId="3" name="Comments" exclude="no"/> &PropertyId="3" name="Company" exclude="no"/> &PropertyId="3" name="Company" exclude="iss"/> &PropertyId="3" name="Company" exclude="iss"/> &PropertyId="3" name="Company" exclude="iss"/> &PropertyId="3" name="Company" exclude="iss"/> &PropertyId="3" name="CostCenter" exclude="no"/> &PropertyId="3" name="CostCenter" exclude="yes"/> &PropertyId="3" name="Eng.Approved By" exclude="yes"/> &PropertyId="3" name="SestIds" exclude="yes"/> &PropertyId="3" name="SestIds" exclude="yes"/> &PropertyId="3" name="CostCenter" exclude="yes"/> &PropertyId="3" name="	
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Win7 & Vista: C:\ProgramData\Autodesk\Inventor 20xx Win XP: C:\Documents and Settings\All Users\Application Data\Autodesk\Inventor 20xx

# Tips'n Tricks Raffle Sketch omgeving



 Tijdelijk opheffen 2D constraints → CTRL

10

Coördinatensysteem in een schets verleggen

- Handige snelfuncties voor tijdens het schetsen



~0



Sneltoets "equal constraint"
 → "="





Centerlijnen gebruiken voor een revolve, veel sneller!



- Selecteren van overlappende schetsen
   → met punten of split
- Wisselen tussen trim en extend
   → "Shift"





 Afstanden gelijk verdelen dmv Driven Dimensions



 Benamingen Fx parameters snel aanmaken tijdens bematen

Edit Dimension :	dikte	X
dikte = 5	>	$\checkmark$
dikte = 5	>	



http://www.inventorwizard.be/tools/macro/index.html

→ Center Point Rectangle (Qube-It Design Tools R2)

Loop select bij offset





#### Intersection curve





# Tips'n Tricks Raffle Part omgeving



Roteren van textures op alle vlakken

bitmap&X.bmp --> in X richting bitmap&Y.bmp --> in Y richting bitmap&Z.bmp --> in Z richting

- Zet features aan of uit met parameters
- Optimaliseer uw patterns/adjust patterns





Suppress	
🔽 Īt	
d4	
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18	•



Gaten plaatsen in een cirkel zonder pattern feature

Maak een decal gedeeltelijk transparant





 Boutkopje met match shape (feature bewerkingen met open schets)

> O,600 cm O,600 cm O,600 cm O,600 cm O,600 cm O (Esc) Done [Esc] Pepeat command Febeer coursed Doue [Esc] Course of the set of the se

Repeat commando



Dimension visibility





Meerdere bematingen in één keer aanpassen





Project Curve to surface



Parameters hergebruiken





Puntenwolk inladen

	Inner Housing S	Shape		Outer Rotor Shape	
	Coord	inates		Coordi	nates
Angle α	x	У	Angle = 0	x	У
0	120,00000000	0,00000000	Rotor Tip 1	-36,00000000000000000000	-90,0666419935816000000
5	119,05906182	13,20530197	Rotor Tip 2	-36,00000000000000000000	-0,00000000000294036
10	116,27641277	26,05941048	Rotor Tip 3	120,000000000000000000000	90,0666419935817000000
15	111,76999443	38,23088919			
20	105,72803256	49,42650137			
25	98,39711457	59,40711244	Epitrocho	iid Shape Formula	
30	90,06664199	68,00000000	x = e cos 3	3 α+R cos α	
35	81,05070788	75,10676260	y = e sin 3	α+R sin α	
40	71,66862208	80,70631787			
45	62,22539674	84,85281374			
50	52,99350495	87,66862208			
55	44,19713616	89,33291733		1	
60	36,0000000	90,06664199		Y T	
65	28,49748600	90,11490513			
70	21,71368845	89,72803256			
75	15,60347219	89,14257744			
80	10,05941048	88,56359985		3-	
85	4,92309252	88,14943538			
90	0,0000000	88,00000000			
95	-4,92309252	88,14943538		2	
100	-10,05941048	88,56359985			
105	-15,60347219	89,14257744			
110	-21,71368845	89,72803256		1+	
115	-28,49748600	90,11490513			
120	-36,0000000	90,06664199			
125	-44,19713616	89,33291733	-4	-3 -1	1 3 4
130	-52,99350495	87,66862208			
135	-62,22539674	84,85281374		-1+	
140	-71,66862208	80,70631787			
145	-81,05070788	75,10676260			
150	-90,06664199	68,00000000		-2	
155	-98,39711457	59,40711244			
160	-105,72803256	49,42650137			
165	-111,76999443	38,23088919		-3 -	
170	-116,27641277	26,05941048			
175	-119,05906182	13,20530197			
180	-120,00000000	0,0000000		-4	
185	-119,05906182	-13,20530197			





Intersect Extrude, wie gebruikt het?

3D Tube



# Tips'n Tricks Raffle Assembly omgeving



# Hoofdstuk 3: Assembly omgeving

Contact set vs. FX parameters



Edit Constraint

# Hoofdstuk 4: Assembly omgeving

Associatief patroon





Thumbnails in BOM



# Hoofdstuk 4: Assembly omgeving

 Update uw samenstelling nooit bij openen

Vlakken constrainen, royal flush!





# Tips'n Tricks Raffle Drawing omgeving



Front View Plane

- A Standard	Back New Save Pecet	V Local Styles
ANSI		Cocal Styles
Atlas Conco	⊂ Standard [ Atlas Copco ]	
BSI		
DIN	General View Preferences Available Styles Object Defaults Material Hate	h Pattern Defaults
GB	View Label Defaults	
150	View Type Display	
JIS	Base VIEW>( <scale> )</scale>	
Balloon		
Center Mark	Label Prefix	
Datum Target	VISTA	
-  ++  Dimension		Position Visibility
- 🖶 Feature Control Frame	Constrain to View Border	Above
Hatch	Lise Delimiter	Rolow
Hole Table		
⊡¶_ID	Operault Thread Edge Display     Projection Type     Front V	diew Plane
🖂 🚝 Layers	For the second sec	
	First Angle XY Pla	ane 💙
🕀 💮 Object Defaults	XY Pla	ne
Parts List		ne
Revision Table		ine i i i i i i i i i i i i i i i i i i
Surface Texture	Third Apole	Model
		~
View Annotation (AIV51)		
View Annotation (Atlas Copco)		
View Annotation (BSI)		
View Annotation (DIN)		
<ul> <li>View Annotation (GB)</li> </ul>		
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View Annotation (JIS)		
🖉 🖌 Weld Symbol		
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Weld Bead		
8 📈 Weld Symbol		
- View Annotation (JIS)		
LIGHT LETTERSTORENT (TRUE)		
<ul> <li>View Annotation (150)</li> </ul>		
<ul> <li>View Annotation (GB)</li> <li>View Annotation (TSO)</li> </ul>		
<ul> <li>View Annotation (DIN)</li> <li>View Annotation (GB)</li> <li>View Annotation (ISO)</li> </ul>		
View Annotation (DSI) View Annotation (DIN) View Annotation (GB)		
View Annotation (SSI) View Annotation (SSI) View Annotation (DIN) View Annotation (SB) View Annotation (ISO)		
<ul> <li>Yew Amobalon (Alias Copco)</li> <li>Yiew Annobalon (Alias Copco)</li> <li>Yiew Annobalon (BSI)</li> <li>Yiew Annobalon (GDN)</li> <li>Yiew Annobalon (GB)</li> <li>Yiew Annobalon (GD)</li> </ul>		
View Annotation (AVSI) View Annotation (Atlas Copco) View Annotation (BSI) View Annotation (DIN) View Annotation (GB)		

Intersectie bematen
 →RMK → Intersection



Attach detail view
 → RMK → Attach

Diameter in detail aanzicht
 → mbv. Automated centerlines







Custom filter



Snel rangen na de komma wijzigen

olerance Method Default		Precision Primary Unit
Basic Reference Symmetric Deviation Limits - Stacked	Ш	2,12 V Primary Tolerance
Limits - Linear MAX	~	Alternate Unit
Upper	Hole	3,123 🗸
+ 0,0000	Chaft	Alternate Tolerance
0,0000	h7 V	3,123 🗸
Edit dimensio	on when created	OK Can
Edit dimensio	n when created	OK Can



Hidden lines per onderdeel
 →RMK → Part priority
 →RMK → Hidden lines



Hoofdletters in stuklijst

Item		Part Number	BOM Structure	Unit QTY	QTY	Stock Nu	nber	Description	REV
- <b>B</b>	25	1627002100-M1	📲 Normal	Each	2			Support	
-4	34	1624170000-M1	📲 Normal	Each	4			SUPPORT	
	39	0852001057	📲 Normal	Each	1			Valve	
	40	0823005027-M1	📲 Normal	Each	1			BUSHING	
	40	0823005027-M1	The Normal		1			BUSHING	
		0852001057	Tel Normal		T				

🔽 Filter

2

#### Filter partslist / Link to view rep

				Parts List		
Pos	Qty	Partnumber	R/S	Name	Materia	Comments
1	2	1627002100	R	ASSEMBLY		
2	4	1624170000	R	PIPE	0011 9034 94	
3	1	0852001057	s	VALVE	SEE	0852001057-
					STANDARDS	1-tmp valve
4	1	0823005027	s	VALVE	See Standards	
6	1	1624061300	R	TEE	0011 2343 02	
8	6	0571 0035 27	ŝ	NIPPLE	0011 1914 04	
9	2	0605 8700 70	S	BUSHING	Default	
10	5	0605950019	s	ELBOW	SEE	
					STANDARDS	
12	1	9827819500	R	ASSEMBLY		
13	1	9827819400	R	ASSEMBLY		
15	2	8102297069	R	FILTER	Default	PDp 120 (G 1
						1/2") special
						cleaned for M
16	2	0603410098	S	NIPPLE	See Standards	

16	2	0603410098	S	ИІРРЕЕ	See Standards	
						cleaned for M
						1/2") special
15	2	8102297069	В	FILTER	Default	PDp 120 (G 1

Center of Gravity

VIEW3:assembl	y.iam
Parts List:asser	🙀 <u>R</u> epeat Open
· : 📰 Parts List: asser	Open
	∎ Bill of Materials
	Visibility Section Participation
	Include All Surfaces
	Center of Gravity



#### Hoofdstuk 5: Drawing Bematingen verplaatsen 23 23 40 Π 54 20 🔯 <u>R</u>epeat Open... 28 Delete Move Dimension 🛗 Arrange Dimensionが

Centerlijn van sweeps





 File Open Options
 Image: Constraint of the second seco

Defer updates/skip unresolved

→ Annotations kunnen nog geplaatst worden!

Parameters in stuklijst

P	arameters										X
Γ	Parameter Name	Unit/Typ	Equation		Nominal Valu	Tol.	Model Value	Кеу	E	Comment	
Þ	· d0	cm	5 cm	Cust	a :om Property Fr	ormat	20000			lengte	
	d1	cm	3 cm	Make	e Multi-Value		20000		V	breedte	
	d2	cm	2 cm		2,00000	$\overline{}$	2,000000			dikte	
	d3	deg	0,0 deg		0,000000	0	0,000000				
	User Parameters										
	User Parameters										0.02
	93	deg	0,0 deg		0,000000	0	0,000000				

隆 Part5.ipt iProperti	ies	X
General Summary Pro	ject Status Custom Save Physical	
Location:	C:\Documents and Settings\air14525\Desktop	-
File Subtype:	Modeling	
Part Number:	Part5	
Stock Number:		
Description:	۵ cm × 3 cm × 2 cm	$f_x$
Revision Number:	= <d0> x <d1> x <d2></d2></d1></d0>	]
Revision Number:	<pre><rp>&lt;<rp>&lt;<rp>&lt;<rp>&lt;</rp></rp></rp></rp></pre>	
Description:	ž cm x 3 cm x 2 cm	$f_x$



erial	Comments	DESCRIPTION
		5 cm x 3 cm x 2 cm

		5 cm x 3 cm x 2 cm
erial	Comments	DESCRIPTION

#### Dank voor uw aandacht!



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