

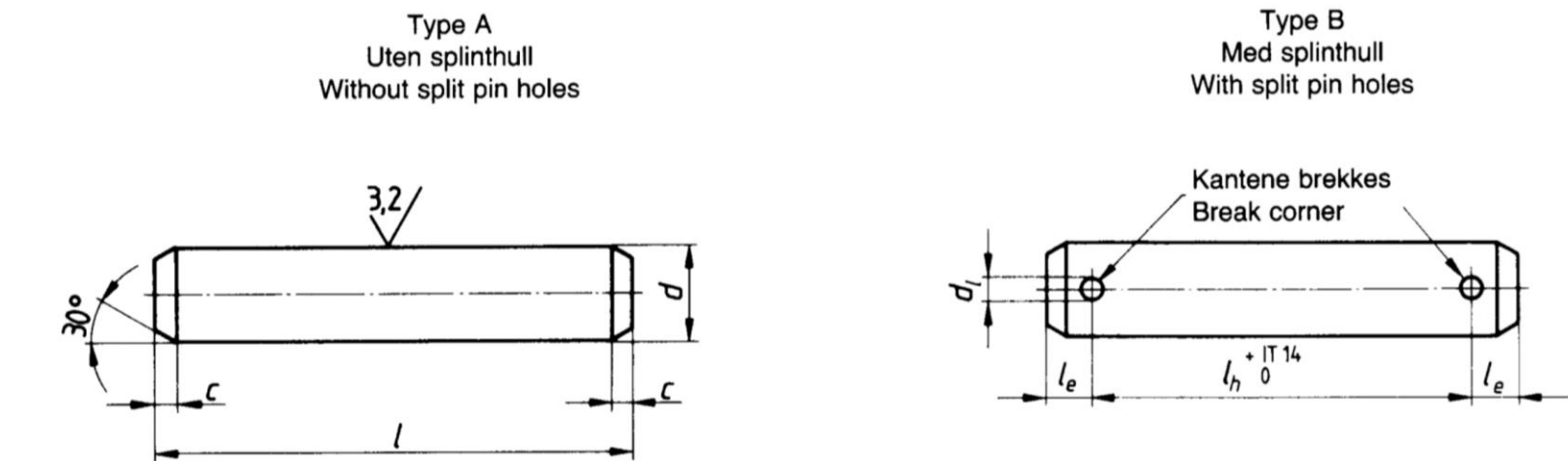
# Cadify tutorials

## Clevis Pin Tutorial

### GOAL OF THIS TUTORIAL

Create a Cadify product based on the ISO 2340 Celvis Pin standard, which has different configurations. Geometry and drive dimensions change between configurations.

### Configurations



Configuration	Split pin holes	Pin diameter $d$	Total length $l$	Split pin hole diameter $d_i$	Length between split pin holes $l_h$
Type A Standard	No	Std(1)	Std(1)	-	-
Type A Custom	No	Std(1)	Custom	-	-
Type B Standard	Yes	Std(1)	Std(1)	Std(2)	Std (3)
Type B Custom	Yes	Std(1)	Std or Custom (3)	Std or Custom (3)	Std or Custom (3)

- (1) Available values from a list.
- (2) Each pin diameter has a standard specific split pin hole diameter.
- (3) Customization can be made in one or more dimensions.

In this tutorial a clevis pin product will be created from scratch. Examples of 3D model and excel file can be found in this links: [Excel file](#) ; [SW zip folder](#)

### Steps and learning strategies

To simplify the understanding this will be split into steps, each step will add new features. Some of these features belong to Cadify and the rest are Excel functions, both together will be used to create the clevis pin product.

STEP 0 – DRAFT CLEVIS PIN. This part is like the previous tutorials and shows the strategy to draft the pin in concordance with the dimensions shown in the ISO 2340.

STEP 1 – CREATE CADIFY PRODUCT FOR CONFIGURATIONS “TYPE A & B STANDARD”. This step shows how to set up configurations and select values from lists depending on previous selected values.

STEP 2 – ADD CONFIGURATIONS “TYPE A & B CUSTOM”. This step adds extra features needed to select between standard or custom values.

STEP 3 – FORMATTING. This step shows an example of formatting excel sheet and distributing information and formulas in it.

STEP 4 – CREATE DRAWING. This step adds one drawing for both type “A” or “B” pin.

STEP 5 – IMAGES IN SUMMARY TAB. This step adds images to help the user to select proper dimensions.

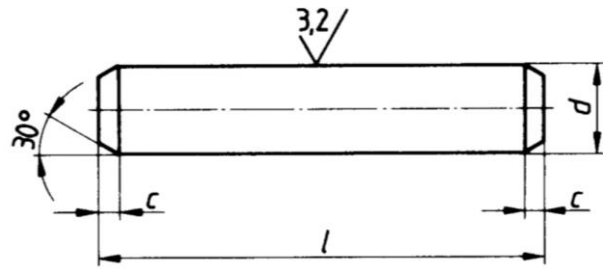
STEP 6 – PRODUCT VALIDATION. This step runs validation tools before publishing.

### STEP 0 – DRAFT CLEVIS PIN

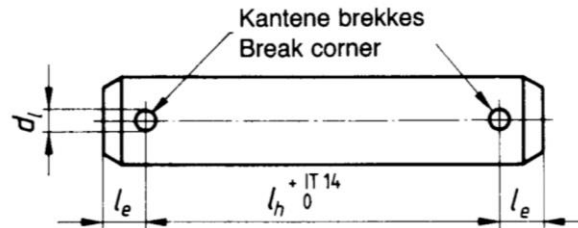
Draft the ISO 2340 clevis pin without head. The dimensions must be in concordance with the ones shown in the standard.

*Comment: use a cut-extrude feature to create the split pin holes.*

**Type A**  
Uten splinhull  
Without split pin holes



**Type B**  
Med splinhull  
With split pin holes



**Notes, type B**

1 Other dimensions, angles and surface roughness value see type A.

2 In cases where a distance  $l$  which is not in accordance with  $l-2l_e$  is necessary, this distance should be fixed in the designation (see clause 5), but in no case may the values for  $l_e$  be smaller than those given in the table.

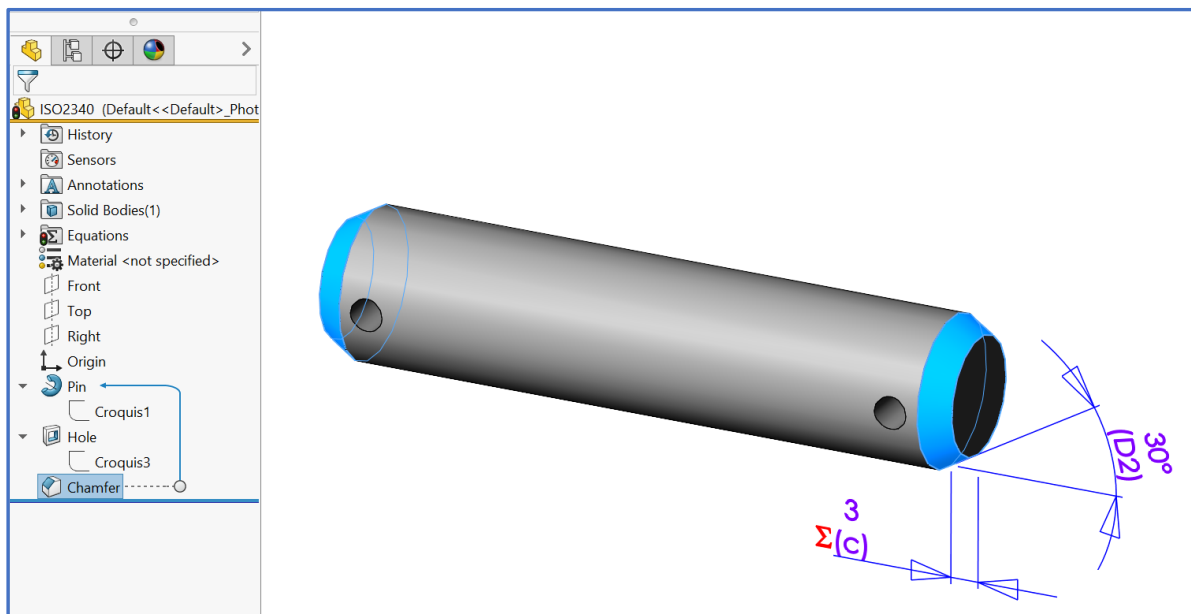
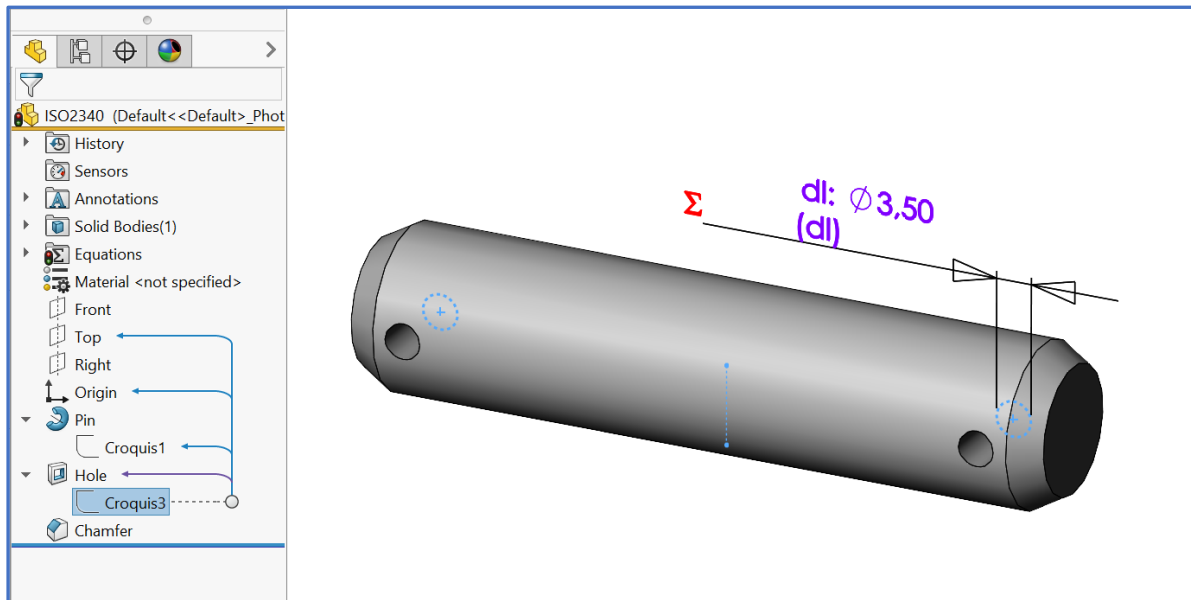
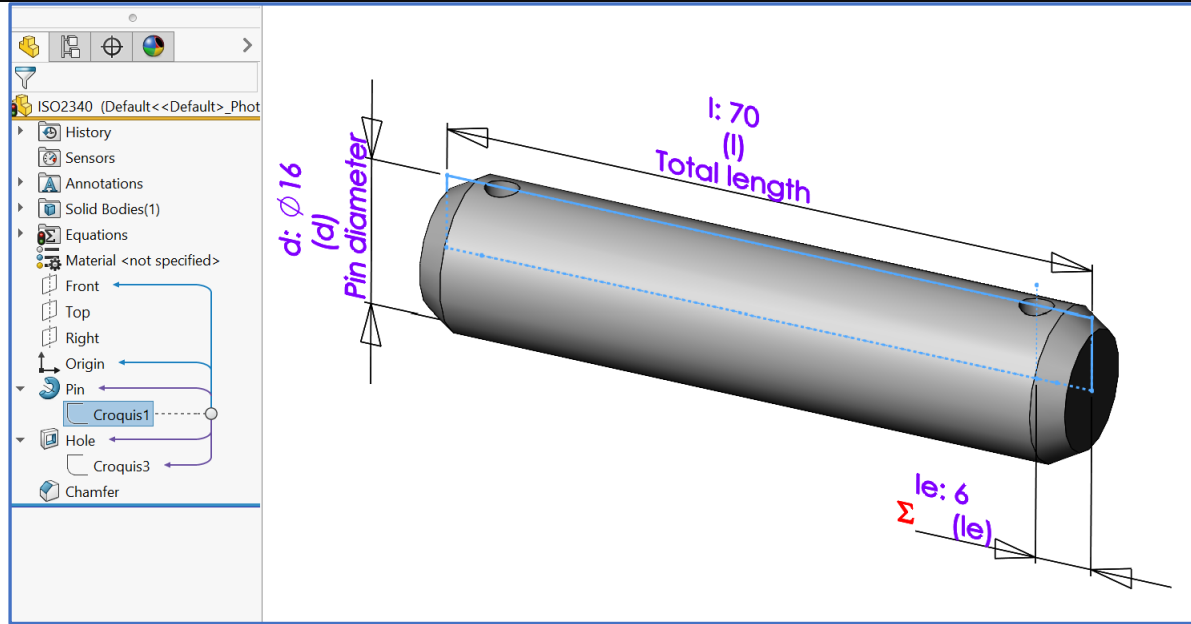
**Note**

For railway applications and in cases where the split pins are subjected to alternating transverse forces, it is recommended that the next larger split pin and corresponding hole diameter to that specified be used.

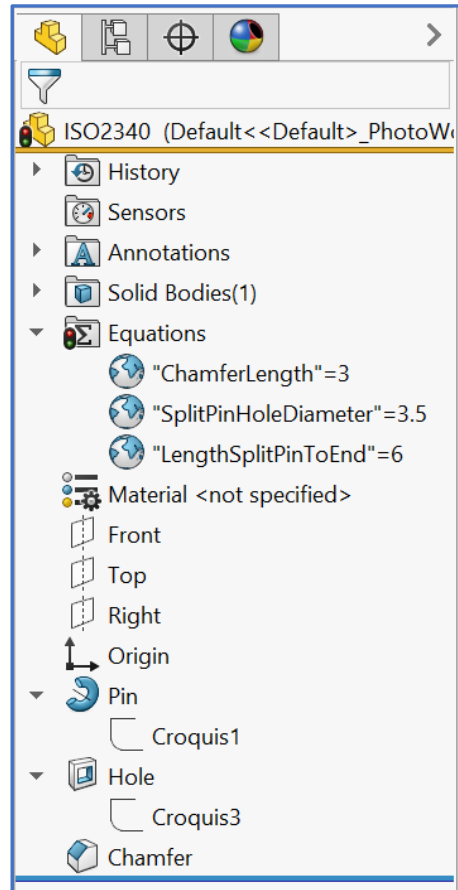
Dimensjoner i millimeter  
Dimensions in millimetres

$d$	$h_{11}^{1)}$	3	4	5	6	8	10	12	14	16	18	20	22	24	27	30	33	36	40	45	50	55	60	70	80	90	100
$d_i$	H13 <sup>2)</sup>	0,8	1	1,2	1,6	2	3,2	3,2	4	4	5	5	5	6,3	6,3	8	8	8	8	10	10	10	10	13	13	13	13
$c$	maks.	1	1	2	2	2	2	3	3	3	3	4	4	4	4	4	4	4	4	4	4	6	6	6	6	6	6
$l_e$	min.	1,6	2,2	2,9	3,2	3,5	4,5	5,5	6	6	7	8	8	9	9	10	10	10	10	10	12	12	14	14	16	16	16
	<sup>3)</sup>																										
	nom.	min.	maks.																								
6	5,75	6,25																									
8	7,75	8,25																									
10	9,75	10,25																									
12	11,5	12,5																									
14	13,5	14,5																									
16	15,5	16,5																									
18	17,5	18,5																									
20	19,5	20,5																									
22	21,5	22,5																									
24	23,5	24,5																									
26	25,5	26,5																									
28	27,5	28,5																									
30	29,5	30,5																									
32	31,5	32,5																									
35	34,5	35,5																									
40	39,5	40,5																									
45	44,5	45,5																									
50	49,5	50,5																									
55	54,25	55,75																									
60	59,25	60,75																									
65	64,25	65,75																									
70	69,25	70,75																									
75	74,25	75,75																									
80	79,25	80,75																									
85	84,25	85,75																									
90	89,25	90,75																									
95	94,25	95,75																									
100	99,25	100,75																									
120	119,25	120,75																									
140	139,25	140,75																									
160	159,25	160,75																									
180	179,25	180,75																									
200	199,25	200,75																									

Vanlig lagerførte lengder  
Range of commercial lengths



Create the shown global variables and link them with the dimensions: "ChamferLength" to "c"; "SplitPinHoleDiameter" to "dl" and "LengthSplitPinToEnd" to "le".

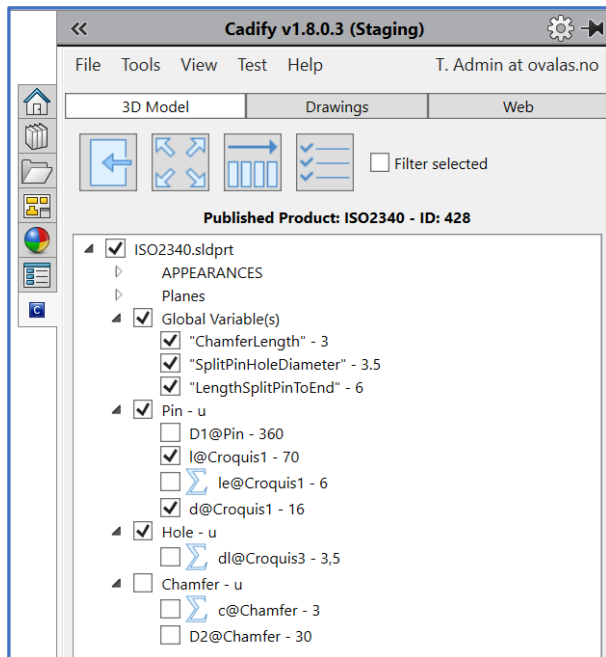


*Comment: save as raw before continuing with the tutorial. Regularly save the document.*

## STEP 1 – CREATE CADIFY PRODUCT FOR CONFIGURATIONS “TYPE A & B STANDARD”

Select dimensions and features to be controlled by Cadify

Select dimensions and features in Cadify “3D Model” tab. The “Hole” features must be selected to control the suppression state of the split pin holes. The 3D model connection section will be automatically updated.



	AE	AF	AG	AH	AI
ISO2340.sldprt					
Feature name	Value	Unit	API type		
ISO2340.sldprt			PART<		
Global Variable(s)			GLOBAL VARIABLE<		
"ChamferLength"	3		GLOBAL VARIABLE\		
"SplitPinHoleDiameter"	3,5		GLOBAL VARIABLE\		
"LengthSplitPinToEnd"	6		GLOBAL VARIABLE\		
Global Variable(s)			GLOBAL VARIABLE>		
Pin		u	BODYFEATURE<		
I@Croquis1	70 mm		DIMENSION\		
d@Croquis1	16 mm		DIMENSION\		
Pin			BODYFEATURE>		
Hole		u	BODYFEATURE\		
ISO2340.sldprt			PART>		

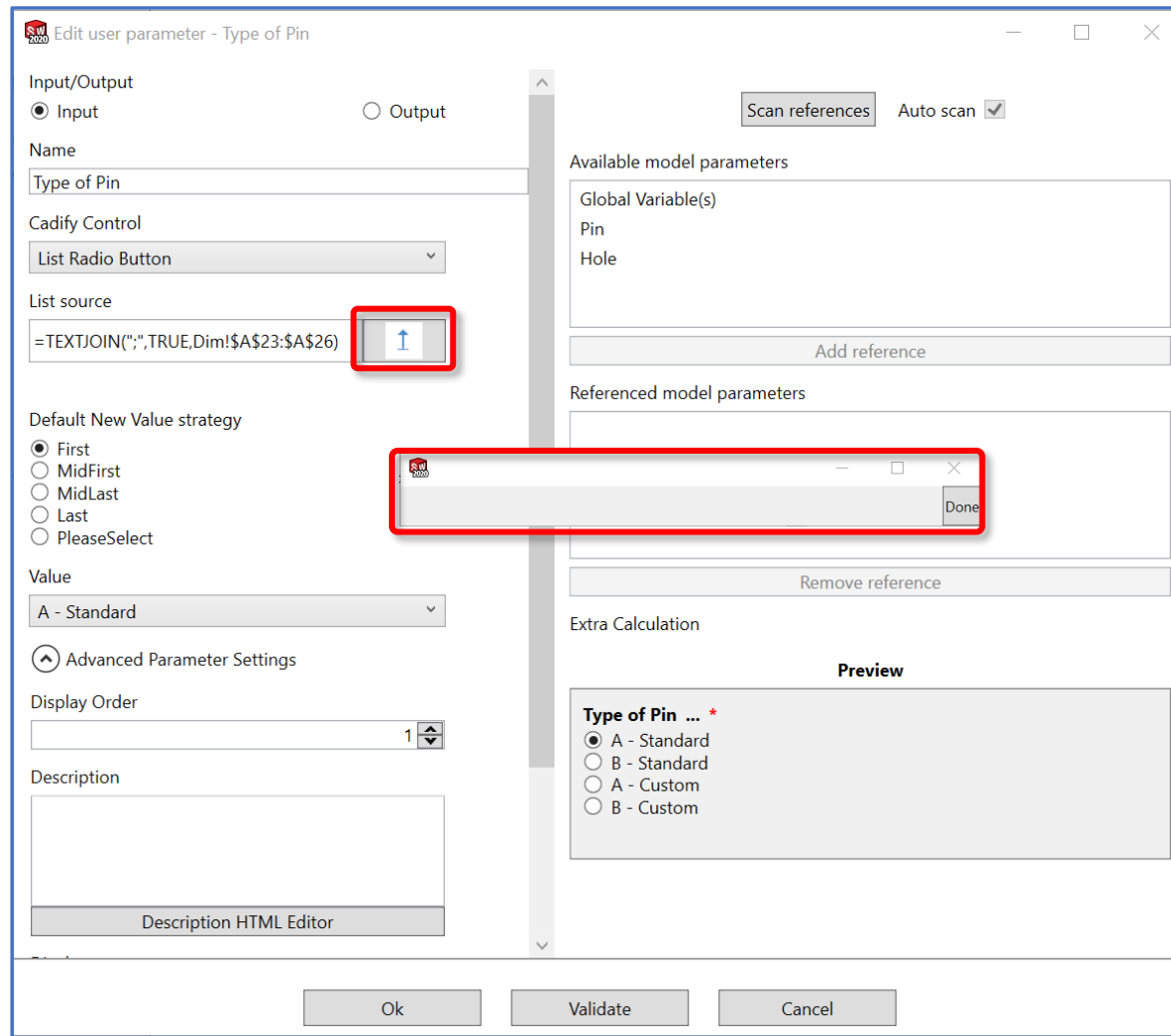
Create a list user’s parameter to select configuration

Create a new sheet in Excel (in this tutorial is “Dim”). In this sheet will be added all the data from the standard ISO 2340 and the calculations. Create a list of configurations as shown in the image.

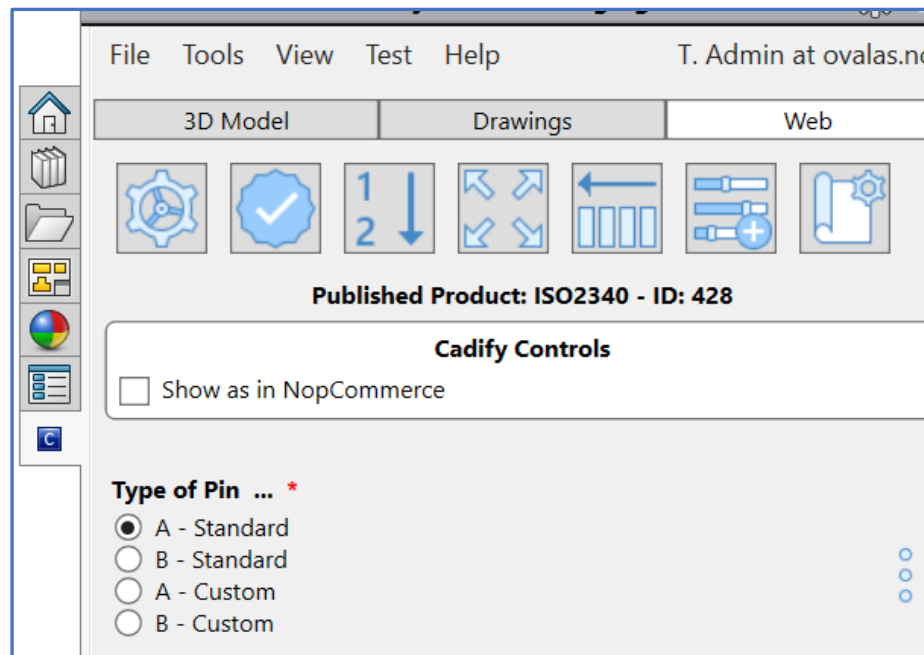
*Comment: it’s helpful to leave free rows in the top of the sheet, to add extra information or calculations later.*

	A	B	C	D	E
4					
5					
21					
22	<b>Pin Type</b>				
23	A - Standard				
24	B - Standard				
25	A - Custom				
26	B - Custom				
		Attributes	Cadify MASTER	Summary	Dim
					Cadify BOM

Create a new user's parameter based on the previous list as shown. By clicking on the "List source" button, a window will open where select the cells with the listed values.



Validate and click "ok" to finish the parameter creation.



Prepare information before creating user's parameters

Before creating the parameters, add the data of the ISO 2340 to the "Dim" sheet and apply the Excel's functions: *match*, *index*, *sort* and *filter*.

*Comment: the clevis pin diameter is the mandatory value for the rest of the dimensions. That's the reason to use match, index, sort and filter.*

Row	Pin diameter	Split pin hole diameter	Chamfer length	Split pin distance	Minimum length	Maximum length	Available standard lengths	Lengths for selected diameter
d	dl	c	le	mm	mm	mm	mm	mm
9	4	3	6,0	32	160			
1	3	0,8	1	1,6	6	30	6	32
2	4	1	1	2,2	8	40	8	35
3	5	1,2	2	2,9	10	50	10	40
4	6	1,6	2	3,2	12	60	12	45
5	8	2	2	3,5	16	80	14	50
6	10	3,2	2	4,5	20	100	16	55
7	12	3,2	3	5,5	24	120	18	60
8	14	4	3	6	28	140	20	65
9	16	4	3	6	32	160	22	70
10	18	5	3	7	35	180	24	75
11	20	5	4	8	40	200	26	80
12	22	5	4	8	45	200	28	85
13	24	6,3	4	9	50	200	30	90
14	27	6,3	4	9	55	200	32	95
15	30	8	4	10	60	200	35	100
16	33	8	4	10	65	200	40	120
17	36	8	4	10	70	200	45	140
18	40	8	4	10	80	200	50	160
19	45	10	4	12	90	200	55	
20	50	10	4	12	100	200	60	
21	55	10	6	14	120	200	65	
22	60	10	6	14	120	200	70	
23	70	13	6	16	140	200	75	
24	80	13	6	16	160	200	80	
25	90	13	6	16	180	200	85	
26	100	13	6	16	200	200	90	

	B	C	D	E	F	G	H
19		260				u	
20		270				u	
21		32;35;40;45;50;55	On;20;Required			length A-Standard	70 mm
22	Pin Diameter	; 3;4;5;6;8;10;12;14	On;10;Required;EDT;pleaseSelect	List Numeric	Pin Diameter	16	mm
23		A - Standard;B - St	On;1;Required;EDT;first	List Radio Button	Type of Pin	B - Custom	

Cell used in Dim!G21 formula. Later in the tutorial this cell creation will be explained.

**A:** data copied from the standard.

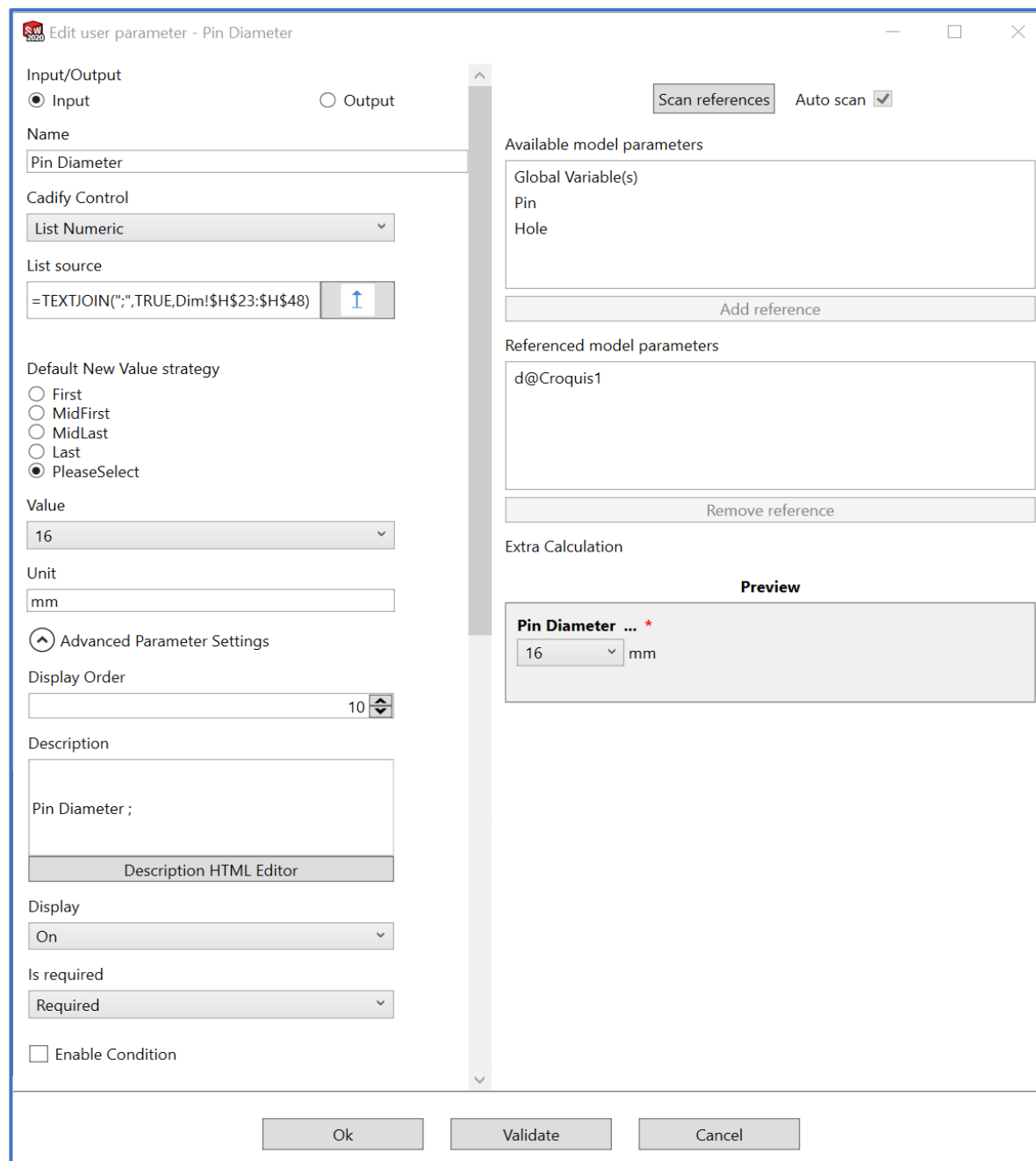
**B:** numbering rows; it's information added to help Excel programming.

**C & D:** cells with formulas.

- $G21 = MATCH('Cadify MASTER'!G22;H23:H48;0)$ ; this formula returns the row number that matches the selected pin diameter.
- $I21 = INDEX(I23:I48;G$21)$ ; this formula returns the “dI” value that corresponds to selected pin diameter.
- $J21 = INDEX(J23:J48;G$21)$ ; this formula returns the “c” value that corresponds to selected pin diameter.
- $K21 = INDEX(K23:K48;G$21)$ ; this formula returns the “le” value that corresponds to selected pin diameter.
- $L21 = INDEX(L23:L48;G$21)$ ; this formula returns the “Minimum length” value that corresponds to selected pin diameter.
- $M21 = INDEX(M23:M48;G$21)$ ; this formula returns the “Maximum length” value that corresponds to selected pin diameter.
- $P23 \text{ to } P40 = SORT(FILTER(O23:O55;(O23:O55>=L21)*(O23:O55<=M21)))$ ; this formula returns the range of lengths that correspond to the selected pin diameter.

### Create user's parameters for the pin diameter

Create the parameter for the pin diameter, that the user will select from the list “Dim!H23:H48”.





Create user's parameters for the pin length

For Cadify programming purposes, each pin configuration requires individual length's parameter. In both parameters the available values are those listed by the standard.

Create parameter for the "A – Standard" configuration.

Input/Output  
 Input  Output

Name  
 Pin Total Length A-Standard

Cadify Control  
 List Numeric

List source  
 =TEXTJOIN(";",TRUE,Dim!\$P\$23:\$P\$55)

Default New Value strategy  
 First  
 MidFirst  
 MidLast  
 Last

Value  
 70

Unit  
 mm

Advanced Parameter Settings

Display Order  
 20

Description  
 Description HTML Editor

Display  
 On

Is required  
 Required

Enable Condition  
 Conditional property  
 Type of Pin  
 Conditional value  
 A - Standard

Available model parameters  
 Global Variable(s)  
 Pin  
 Hole  
 Add reference

Referenced model parameters  
 Remove reference

Extra Calculation  
**Preview**  
 Pin Total Length A-Standard ... \*  
 70 mm

Ok Validate Cancel

These variables control the visualization of the parameter base on the selected "Type of pin".

Validate before accepting the parameter.

Create parameter for the “B – Standard” configuration.

SW Edit user parameter - Pin Total Length B-Standard

Input/Output  
 Input  Output

Name  
 Pin Total Length B-Standard

Cadify Control  
 List dropdown

List source  
 =TEXTJOIN(";",TRUE,Dim!\$P\$23:\$P\$55

Default New Value strategy  
 First  
 MidFirst  
 MidLast  
 Last

Value  
 75

Advanced Parameter Settings

Display Order  
 30

Description  
 Description HTML Editor

Display  
 On

Is required  
 Required

Enable Condition  
 Conditional property  
 Type of Pin  
 Conditional value  
 B - Standard

Available model parameters  
 Global Variable(s)  
 Pin  
 Hole

Referenced model parameters

Extra Calculation

Preview  
 Pin Total Length B-Standard ... \*  
 75

Ok Validate Cancel

These variables control the visualization of the parameter base on the selected “Type of pin”.

File Tools View Test Help T. Admin at ovalas.no

3D Model Drawings Web

Raw Product: ISO2340 Ribone20230828a

Cadify Controls

Show as in NopCommerce

Type of Pin ... \*  
 A - Standard  
 B - Standard  
 A - Custom  
 B - Custom

Pin Diameter ... \*  
 16 mm

Pin Total Length A-Standard ... \*  
 70 mm

Pin Total Length B-Standard ... \*  
 75

The parameter for “A – Standard” is enable and the one for “B – Standard” is disable (in dark grey fill).

Create the formulas to select the length's parameter in concordance with type of pin.

	T	U	V	W	X
17	Detail from "Dim" sheet.				
18	Type of Pin	Le		B-Custom length	Total length
19					
20		mm	mm		mm
21	A	6	70		70
22					
23					

Cell with formula to select the proper length parameter.

	A
19	
20	
21	
22	<b>Pin Type</b>
23	A - Standard
24	B - Standard
25	A - Custom
26	B - Custom

Detail from "Dim" sheet, showing reference cells used in the formula.

	A	B	C	D	E	F	G	H
7	Range of numeric value: Minimum, Maximum, DecimalPlaces, Increment For Instance: 100;2;1;5							
8	Range of the list: Min:StartCell;Max:EndCell - For Instance: A1;A5							
9	Range of the logic values:Min:u - unsuppressed; Max:s - suppressed							
10	Project Name:	ISO2340.SLDPRT						
11	Language:	en-US						
12	<b>Advanced Parameter Settings</b>							<b>Basic Pa</b>
13								
14	<b>Display Name ; Description</b>	<b>List values</b>	<b>CT Settings</b>	<b>Condition</b>	<b>Control Type</b>	<b>Name</b>	<b>Value</b>	<b>Unit</b>
15		32;35;40;45;50;55;60;65;70	On;20;Required;EDT;fir	Type of Pin;A - Standard	List Numeric	Pin Total Length A-Standard	70	mm
16	Pin Diameter ;	3;4;5;6;8;10;12;14;16;18;20	On;10;Required;EDT;pleaseSelect		List Numeric	Pin Diameter	16	mm
17		A - Standard;B - Standard;	On;1;Required;EDT;first		List Radio Button	Type of Pin	A - Standard	
18	5	0,8;1;1,2;1,6;2;2,5;3,2;3,5;4	On;60;Optional;EDT;fir	Type of Pin;B - Custom	List dropdown	Custom Split Pin Hole Diameter	3,5	mm
19		32;35;40;45;50;55;60;65;70	On;30;Required;EDT;fir	Type of Pin;B - Standard	List dropdown	Pin Total Length B-Standard	75	
20		10;;100;	On;40;Optional;EDT;fir	Type of Pin;A - Custom	Numerical	Pin Total Length A-Custom	50	mm
21		10;Minimun is 10 mm;160	On;62;Optional;EDT;fir	Type of Pin;B - Custom	Numerical	Custom holes distance	58	mm
22		70;;172;;1	On;70;Optional;EDT;fir	Type of Pin;B - Custom	Spinbox Up Down	Pin Total Length B-Custom	70	mm

Detail from "Cadify MASTER" sheet, showing reference cells used in the formula.

	AE	AF	AG	AH
1	ISO2340.sldprt			
2	Feature name	Value	Unit	API type
3	ISO2340.sldprt			PART<
4	Global Variable(s)			GLOBAL VARIABLE<
5	"ChamferLength"	3		GLOBAL VARIABLE\
6	"SplitPinHoleDiameter"	4		GLOBAL VARIABLE\
7	"LengthSplitPinToEnd"	6		GLOBAL VARIABLE\
8	Global Variable(s)			GLOBAL VARIABLE>
9	Pin	u		BODYFEATURE<
10	l@Croquis1	70	mm	DIMENSION\
11	d@Croquis1	16	mm	DIMENSION\
12	Pin			BODYFEATURE>
13	Hole	s		BODYFEATURE\
14	ISO2340.sldprt			PART>

Detail from "Cadify MASTER" sheet, this cell links the length's value to the 3D model.

- *Dim!W21 = IF('Cadify MASTER'!G17=Dim!A23;'Cadify MASTER'!G15;IF('Cadify MASTER'!G17=Dim!A24;'Cadify MASTER'!G19;IF('Cadify MASTER'!G17=Dim!A25;'Cadify MASTER'!G20;W21))), this formula returns the length value in concordance with the selected type of pin. The underlined part of the formula corresponds to the A & B custom lengths (it will be explained later in this tutorial)*
- *'Cadify MASTER'!AF10 = Dim!X21, this formula returns the selected length's value.*

### Control of the hole suppress state based on configuration A or B

The difference between types of pin A or B is the split pin hole: type A without and type B with. To apply this, it is necessary to create a formula to control the suppress state of the Solidworks hole feature.

Create a formula that returns type of pin: "A" or "B" (Dim!U21). Create a formula that returns the suppress status: "u" or "s" (Dim!S21) and link this status to the 3D model.

	S	T	U	V	W	X
17	Detail from "Dim" sheet.				B-Custom length	Total length
18			Type of Pin	Le		
19						
20	Hole status			mm	mm	mm
21	s		A	6	70	70
22						

	AE	AF	AG	AH
1	ISO2340.sldprt			
2	Feature name	Detail from "Cadify MASTER" sheet.		
3	ISO2340.sldprt			PART<
4	Global Variable(s)			GLOBAL VARIABLE<
5	"ChamferLength"	3		GLOBAL VARIABLE\
6	"SplitPinHoleDiameter"	4		GLOBAL VARIABLE\
7	"LengthSplitPinToEnd"	6		GLOBAL VARIABLE\
8	Global Variable(s)			GLOBAL VARIABLE>
9	Pin	u		BODYFEATURE<
10	l@Croquis1	70 mm		DIMENSION\
11	d@Croquis1	16 mm		DIMENSION\
12	Pin			BODYFEATURE>
13	Hole	s		BODYFEATURE\
14	ISO2340.sldprt			PART>

- $Dim!S21 = IF(OR('Cadify MASTER'!G17=A23;'Cadify MASTER'!G17=A25);"s";"u");$  this formula returns the suppress state: "u" – unsuppressed; "s" – suppressed.
- $Dim!U21 = IF(OR('Cadify MASTER'!G17=A23;'Cadify MASTER'!G17=A25);"A";IF(OR('Cadify MASTER'!G17=A24;'Cadify MASTER'!G17=A26);"B";"Error"));$  this formula returns the type of selected pin: A (standard and custom) or B (standard and custom) based on the user's selection.
- $'Cadify MASTER'!AF13 = Dim!S21;$  this formula links the suppression status to the 3D model.

A good strategy is to keep formulas and functions in "Dim" sheet and link them in "CadifyMaster" to avoid any accidentally modifications (instead of writing formulas in "Cadify MASTER" sheet). In this tutorial this strategy is applied to.

Link split pin holes data to 3D model

	AE	AF	AG	AH
1	ISO2340.sldprt			
2	Feature name	Detail from "Cadify MASTER" sheet.		
3	ISO2340.sldprt			PART<
4	Global Variable(s)			GLOBAL VARIABLE<
5	"ChamferLength"	3		GLOBAL VARIABLE\
6	"SplitPinHoleDiameter"	4		GLOBAL VARIABLE\
7	"LengthSplitPinToEnd"	6		GLOBAL VARIABLE\
8	Global Variable(s)			GLOBAL VARIABLE>
9	Pin	u		BODYFEATURE<
10	l@Croquis1		70 mm	DIMENSION\
11	d@Croquis1		16 mm	DIMENSION\
12	Pin			BODYFEATURE>
13	Hole	s		BODYFEATURE\
14	ISO2340.sldprt			PART>

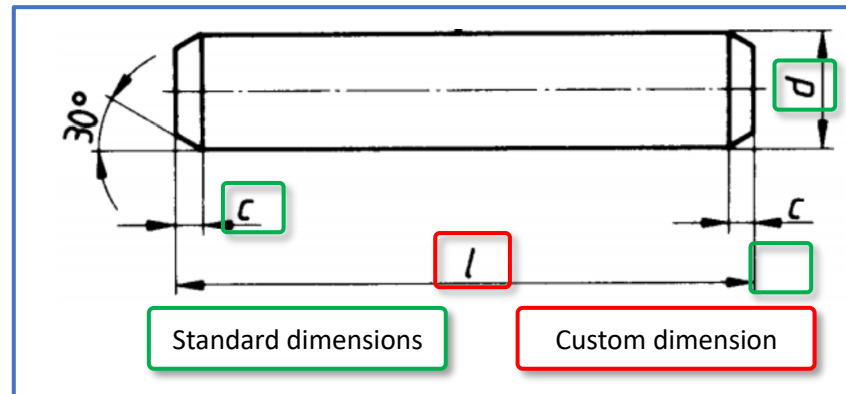
- 'Cadify MASTER'!AF5 = Dim!J21; this formula links the chamfer's length to the 3D model.
- 'Cadify MASTER'!AF6 = Dim!J21; this formula links the split pin hole diameter to the 3D model.
- 'Cadify MASTER'!AF7 = Dim!K21; this formula links the "le" dimension to the 3D model.

The values in the cells Dim!J21 / Dim!J21 / Dim!K21 are in concordance to standard value of the selected pin diameter. The formulas in cells 'Cadify MASTER'!AF6 / 'Cadify MASTER'!AF7 will be modified later.

## STEP 2 – ADD CONFIGURATIONS “TYPE A & B CUSTOM”

### Customization for type “A” of pins

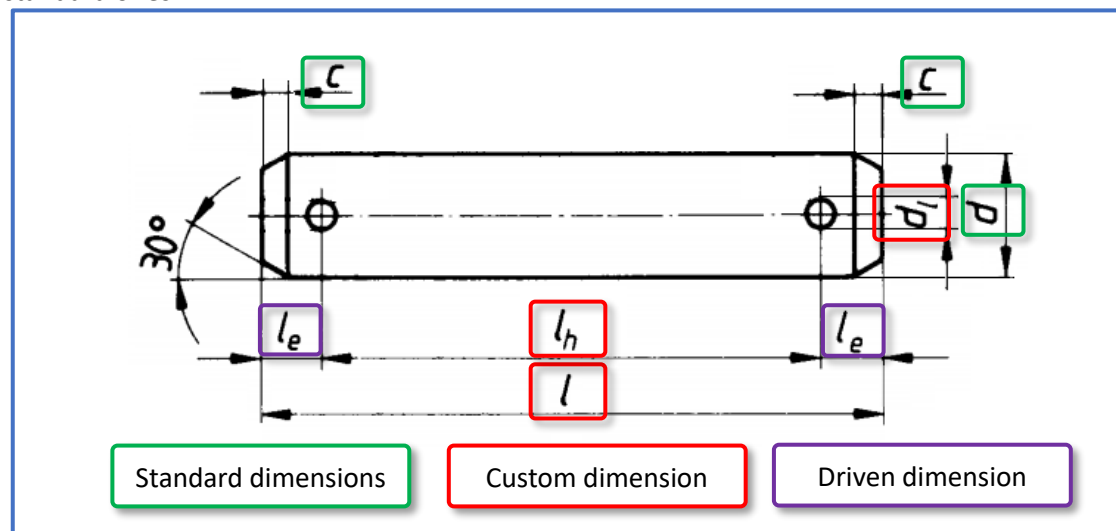
ISO 2340 allows to specify custom length for “A” type of pin, but diameter and chamfer must be standard. Next image shows an example of this situation and its corresponding designation.



Designation example: **Clevis pin ISO 2340 - A – 20 x 155 – St**, it's steel type “A” pin,  $\varnothing$  20 mm and 155 mm length.

### Customization for type “B” of pins

ISO 2340 allows to specify custom total length, distance between split pin holes and their diameter, while pin diameter and chamfer keep as standard values. The custom dimensions can be combined with the standard ones.



Designation example: **Clevis pin ISO 2340 - A – 20 x 155 x 145 x 4 – St**, it's steel type “B” pin,  $\varnothing$  20 mm, 155 mm length, 145 mm distance between holes and their diameter is 4 mm.

Creating user's parameters for custom dimensions

Create parameters for "A – Custom" length and "B – Custom" length.

Minimum and maximum values, increment and decimals are based on manufacturer capabilities.

These variables control the visualization of the parameter base on the selected "Type of pin".

Minimum and maximum values can be automatically calculated. It will be explained at the end of this step.

These variables control the visualization of the parameter base on the selected "Type of pin".

Create a list of the available custom diameters for split pin holes (in concordance to DIN 94).

	AA	AB	AC
17	Detail from "Dim" sheet.		
18	Max. split pin hole diameter	Split pin hole diameter	Split pin hole diameter selected
19		DIN 94	DIN 94
20	mm	mm	mm
21	6,4		
22			
23		0,8	0,8
24		1	1
25		1,2	1,2
26		1,6	1,6
27		2	2
28		2,5	2,5
29		3,2	3,2
30		3,5	3,5
31		4	4
32		4,5	4,5
33		5	5
34		6,3	6,3
35		7	
36		8	
37		9	
38		10	
39		12	
40		13	
41		16	
42		20	
43			

Standard split pin hole diameters in concordance to DIN 94.

Filtered standard split pin hole diameters.

- $Dim!AA21 = 'Cadify\ MASTER'!G16*0,4$ ; this formula returns the maximum value for the custom split pin hole diameter. This is a manufacturer's criteria.
- $Dim!AC23 = SORT(FILTER(AB23:AB42;(AB23:AB42 \leq AA21)))$ ; this formula returns a list of the custom available split pin hole diameters.

*Comment: the chosen criteria for the custom split pin hole diameters is that the user can select a different value than the one in ISO 2340 for the selected clevis pin diameter, but in concordance to the listed values in DIN 94. The available values for each clevis pin diameter are minimum or equal to 40% of this one. This criteria may change depending on the manufacturer's choices.*



Create parameter for the custom split pin diameter.

**Input/Output**  
 Input  Output

**Name**  
 Custom Split Pin Hole Diameter

**Cadify Control**  
 List dropdown  
 List source  
 =TEXTJOIN(";",TRUE,Dim!\$AC\$23:\$AC\$55)

**Default New Value strategy**  
 First  
 MidFirst  
 MidLast  
 Last

**Value**  
 3,5

**Advanced Parameter Settings**  
 Display Order: 60

**Description**  
 Description HTML Editor

**Display**  
 On

**Is required**  
 Optional

**Enable Condition**  
 Conditional property: Type of Pin  
 Conditional value: B - Custom

**Available model parameters**  
 Global Variable(s)  
 Pin  
 Hole

**Referenced model parameters**

**Extra Calculation**  
**Preview**  
 Custom Split Pin Hole Diameter ...  
 3,5

**Annotations:**  
 - This source returns the values from the filtered list of split pin hole diameters.  
 - Display order.  
 - These variables control the visualization of the parameter base on the selected "Type of pin".

Buttons: Ok, Validate, Cancel

The display order indicates the relative position of the parameter in the web. Use this value to define the order that parameters will be shown. It is not mandatory to put consecutive values. A good strategy is to put values from ten to ten, this will be very helpful when new parameters must be shown between two existing ones.

Create parameters for split pin holes distance.

Input/Output  
 Input  Output

Name  
 Custom holes distance

Cadify Control  
 Numerical

Value  
 58

Minimum  
 10

Maximum  
 160

Increment  
 1

Decimals  
 0

Unit  
 mm

Advanced Parameter Settings

Display Order  
 62

Description  
 Description HTML Editor

Display  
 On

Minimum message  
 Minimun is 10 mm

Maximum message  
 Maximum is 160 mm

Enable Condition

Conditional property  
 Type of Pin

Conditional value  
 B - Custom

Available model parameters  
 "ChamferLength"  
 "SplitPinHoleDiameter"  
 "LengthSplitPinToEnd"  
 l@Croquis1  
 d@Croquis1

Referred model parameters

Extra Calculation  
**Preview**  
 Custom holes distance ... \*  
 58 mm

Minimum and maximum values, increment and decimals are based on manufacturer capabilities.

These variables control the visualization of the parameter base on the selected "Type of pin".

Ok Validate Cancel

Modifying “ $l_e$ ” and “ $d_l$ ” for “B – Custom” type of pin

Create a new formula where the values of “ $l_e$ ” and “ $d_l$ ” will be different from the standard ones when “B – Custom” type of pin is selected. Update the formulas in ‘Cadify MASTER’! sheet.

	U	V	W	X	Y	Z
17	Detail from “Dim” sheet.					
			B custom length	Total length		Split pin hole diameter
18	Type of Pin	$l_e$				
19						$d_l$
20		mm	mm	mm		mm
21	B	15	70	70		3,5

	AE	AF	AG	AH
1	ISO2340.sldprt			
2	Feature name	Detail from “Cadify MASTER” sheet.		
3	ISO2340.sldprt			PART<
4	Global Variable(s)			GLOBAL VARIABLE<
5	"ChamferLength"		3	GLOBAL VARIABLE\
6	"SplitPinHoleDiameter"		4	GLOBAL VARIABLE\
7	"LengthSplitPinToEnd"		6	GLOBAL VARIABLE\
8	Global Variable(s)			GLOBAL VARIABLE>
9	Pin	u		BODYFEATURE<
10	l@Croquis1		70 mm	DIMENSION\
11	d@Croquis1		16 mm	DIMENSION\
12	Pin			BODYFEATURE>
13	Hole	s		BODYFEATURE\
14	ISO2340.sldprt			PART>

- $Dim!V21 = IF(OR('Cadify MASTER'!G17=Dim!A23; 'Cadify MASTER'!G17=Dim!A24; 'Cadify MASTER'!G17=Dim!A25);Dim!K21;(W21-'Cadify MASTER'!G21)/2)$ ; this formula returns custom “ $l_e$ ” value for “B – Custom” type of pin, and the standard value for the other types of pin.
- $Dim!Z21 = =IF('Cadify MASTER'!G17=A26;'Cadify MASTER'!G18;I21)$ ; this formula returns the custom “ $d_l$ ” value for “B – Custom” type of pin and the standard value for the other types of pin.
- $'Cadify MASTER'!AF6 = Dim!Z21$ ; this formula links the split pin hole diameter to the 3D model.
- $'Cadify MASTER'!AF7 = Dim!V21$ ; this formula links the “ $l_e$ ” dimension to the 3D model.

*Comment: the last two formulas modify the ones shown in “Link split pin holes data to 3D model”*

Adding formulas for minimum and maximum values

Add formula for minimum and maximum values of "B-Custom" length.

	D	E	F	G	H	I	J	K	L
10	Detail from "Cadify MASTER" sheet.								
11									
12	Basic Parameter Settings								
13									
14	<b>Condition</b>	<b>Control Type</b>	<b>Name</b>	<b>Value</b>	<b>Unit</b>	<b>Min</b>	<b>Min message</b>	<b>Max</b>	<b>Max message</b>
15	Type of Pin;A - Standard	List Numeric	Pin Total Length A-Standard	70	mm				
16	pleaseSelect	List Numeric	Pin Diameter	16	mm				
17	rst	List Radio Button	Type of Pin	B - Custom					
18	Type of Pin;B - Custom	List dropdown	Custom Split Pin Hole Diameter	3,5	mm				
19	Type of Pin;B - Standard	List dropdown	Pin Total Length B-Standard	75					
20	Type of Pin;A - Custom	Numerical	Pin Total Length A-Custom	50	mm	10		100	
21	Type of Pin;B - Custom	Numerical	Custom holes distance	58	mm	10	Minimun is 10 mm	160	Maximum is 160 mm
22	Type of Pin;B - Custom	Spinbox Up Down	Pin Total Length B-Custom	70	mm	70	Minimun is 70 mm	172	Maximum is 172 mm

- 'Cadify MASTER'!I22 = G21+2\*Dim!K21; this formula returns the minimum value as the addition of "Custom holes distance" and "l<sub>e</sub>". This is a manufacturer's criteria.
- 'Cadify MASTER'!J22 = CONCAT("Minimun is ";I22; " mm"); this formula returns the message with the minimum value.
- 'Cadify MASTER'!K22 = K21+2\*Dim!V21; this formula returns the maximum value as the addition of "Maximum Custom holes distance" and "l<sub>e</sub>". This is a manufacturer's criteria.
- 'Cadify MASTER'!L22 = CONCAT("Minimun is ";I22; " mm"); this formula returns the message with the maximum value.

### STEP 3 – FORMATTING

Some formatting advice

A good strategy is to apply formatting that helps the edition of Excel sheets. An example can be shown in “Dim!” sheet.

**Detail from “Dim” sheet.**

**“A & B- Standard” pins dimensions.**

**“A & B- Custom” pins formulas.**

**Hole suppress status (Type A or B)**

**Description and units of the parameters.**

Row	Standard values from table below for each diameter						Filtering lengths for each selected diameter		Type of Pin	Le	B-Custom length	Total length	Split pin hole diameter	Max. split pin hole diameter	Split pin hole diameter	Split pin hole diameter selected
	Pin diameter	Split pin hole diameter	Chamfer length	Split pin distance	Minimum length	Maximum length	Available standard lengths	Lengths for selected diameter								
9	d	d1	c	le	mm	mm	l	mm	mm	mm	mm	d1	mm	mm	DIN 94	mm
9	4	3	6,0	32	160			u	B	15	70	70	3,5	6,4		

**List of type of pins.**

**Data copied from the ISO 2340 document.**

Pin Type	d	d1	c	le	mm	mm	l	mm
A - Standard	1	3	0,8	1	1,6	6	30	6
B - Standard	2	4	1	1	2,2	8	40	8
A - Custom	3	5	1,2	2	2,9	10	50	10
B - Custom	4	6	1,6	2	3,2	12	60	12
	5	8	2	2	3,5	16	80	14
	6	10	3,2	2	4,5	20	100	16
	7	12	3,2	3	5,5	24	120	18
	8	14	4	3	6	28	140	20
	9	16	4	3	6	32	160	22
	10	18	5	3	7	35	180	24
	11	20	5	4	8	40	200	26
	12	22	5	4	8	45	200	28
	13	24	6,3	4	9	50	200	30
	14	27	6,3	4	9	55	200	32
	15	30	8	4	10	60	200	35
	16	33	8	4	10	65	200	40
	17	36	8	4	10	70	200	45
	18	40	8	4	10	80	200	50
	19	45	10	4	12	90	200	55
	20	50	10	4	12	100	200	60
	21	55	10	6	14	120	200	65
	22	60	10	6	14	120	200	70
	23	70	13	6	16	140	200	75
	24	80	13	6	16	160	200	80
	25	90	13	6	16	180	200	85
	26	100	13	6	16	200	200	90
								95
								100
								120
								140
								160
								180
								200

**In the yellow row are the current values of the drafted pin. These values are obtained by formulas.**

**Custom split pin holes diameter data.**

0,8	0,8
1	1
1,2	1,2
1,6	1,6
2	2
2,5	2,5
3,2	3,2
3,5	3,5
4	4
4,5	4,5
5	5
6,3	6,3
7	
8	
9	
10	
12	
13	
16	
20	

**Drawings and tables from the ISO 2340 document.**

**3 Dimensjoner**

**3 Dimensions**

Verdier for overflatehet i mikrometer  
Surface roughness values in micrometres

Type A  
Uten splinhull  
Without split pin holes

Type B  
Med splinhull  
With split pin holes

Kantene brykkes  
Break corner

Dimensjoner i millimeter  
Dimensions in millimetres

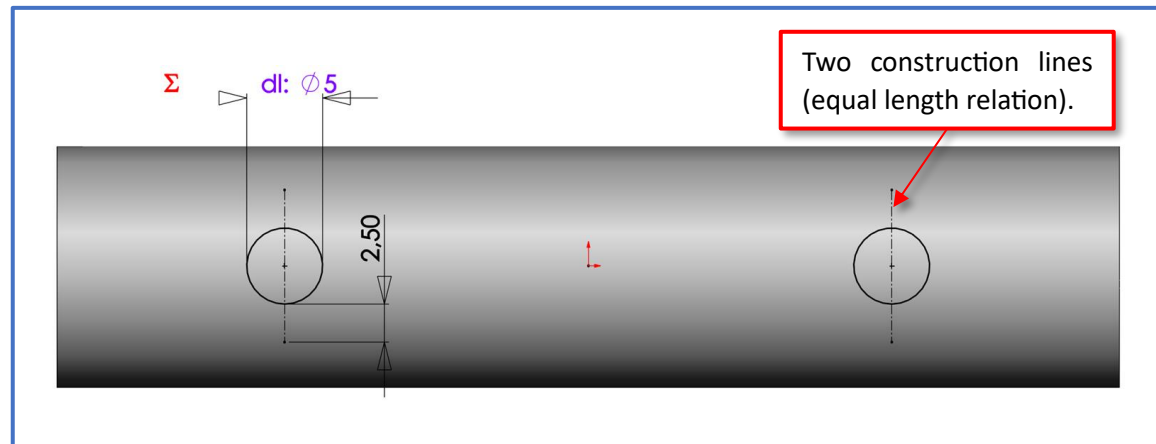
d	h11 <sup>1)</sup>	3	4	5	6	8	10	12	14	16	18	20	22	24	27	30	33	36	40	45	50	55	60	70	80	90	100
d <sub>1</sub>	H13 <sup>2)</sup>	0,8	1	1,2	1,6	2	3,2	3,2	4	4	5	5	6,3	6,3	8	8	8	8	10	10	10	10	10	13	13	13	13
c	maks.	1	1	2	2	2	2	3	3	3	3	4	4	4	4	4	4	4	4	4	4	4	6	6	6	6	6
l <sub>s</sub>	min.	1,6	2,2	2,9	3,2	3,5	4,5	5,5	6	6	7	8	8	9	9	10	10	10	10	10	12	14	14	16	16	16	16

Comment: “Attributes / Cadify MASTERS / Summary / Cadify BOM / Proxy / Lists” sheets have a default formatting that is not recommended to modify.

## STEP 4 – CREATE DRAWING

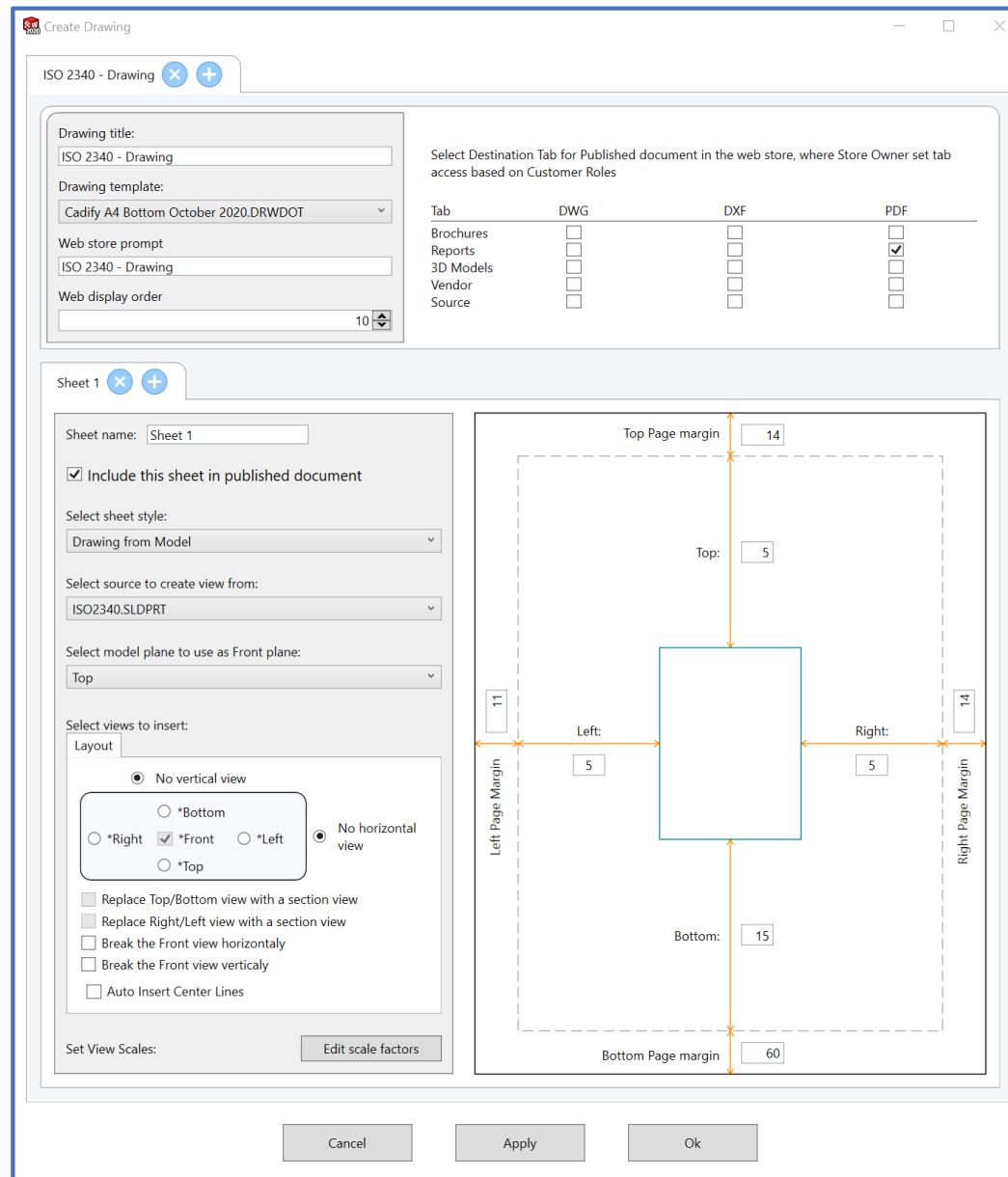
Modify current sketch

Open the sketch “Croquis3@Hole” and add construction lines as shown. These lines will be used as center marks in the drawing.



Create drawing

In Cadify tab, open “Tool > Create drawing” and configure as shown in the next image. Then click on “Ok”. Before creating drawing any “B” type must be activated.



After drawing is created:

- Delete any Center Mark that may have been automatically created.
- Make visible “Croquis3@Hole”.
- Add Center Line of the pin itself.
- Add dimensions.

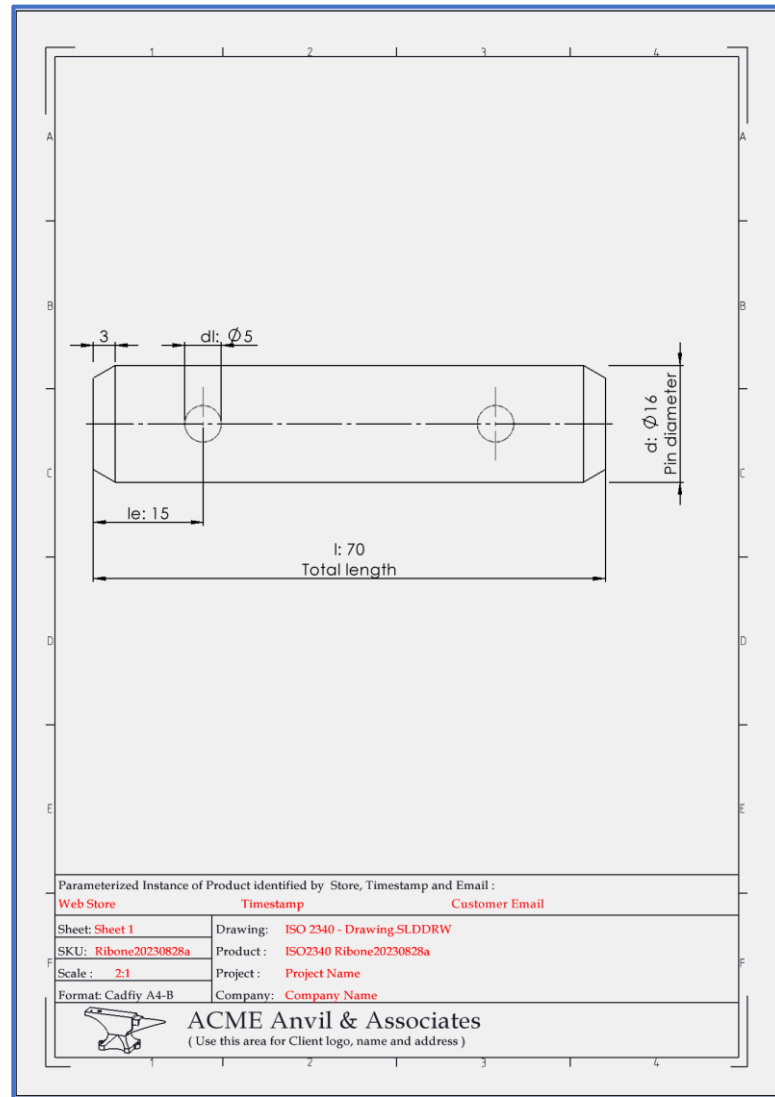
*Comment: chamfer's angle dimension will be added later as a “Relative Note”.*

The screenshot displays the SolidWorks CAD environment with a drawing of a clevis pin. The interface includes the following elements:

- Left Panel (Feature Tree):** Shows the hierarchy of the drawing, including 'ISO2340 <1>' with sub-features like 'History', 'Sensors', 'Annotations', 'Equations', 'Material <not specified>', 'Front', 'Top', 'Right', 'Origin', 'Pin', 'Hole', 'Croquis3', and 'Chamfer'. A red box labeled 'Visible sketch' points to the 'Croquis3' feature.
- Main Drawing Area:** Shows a technical drawing of a clevis pin with a center line. A red box labeled 'Added Center Line' points to the center line.
- Right Panel (Properties and Dimension Lists):**
  - Model Dimension(s):** Lists dimensions for the pin and hole, including 'D1@Pin - 360', 'l@Croquis1 - 70', 'le@Croquis1 - 15', 'd@Croquis1 - 16', 'dl@Croquis3 - 5', 'D1@Croquis3 - 2,5', 'c@Chamfer - 3', and 'D2@Chamfer - 30'.
  - Drawing Dimension(s):** Lists dimensions for the drawing, including 'D1@Pin - 360', 'l@Croquis1 - 70', 'le@Croquis1 - 15', 'd@Croquis1 - 16', 'dl@Croquis3 - 5', 'D1@Croquis3 - 2,5', 'c@Chamfer - 3', and 'D2@Chamfer - 30'.
  - A red box labeled 'Dimensions to activate' points to the drawing dimension list.
- Bottom Panel (Title Block):** Contains a table with the following data:
 

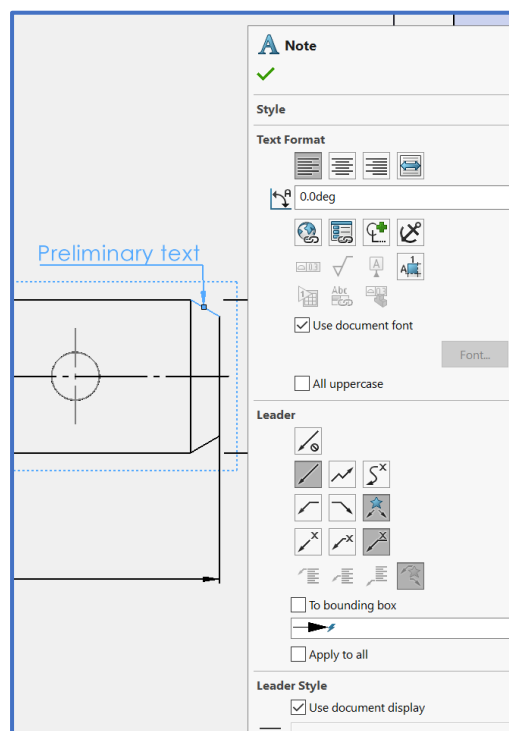
Web Store	Timestamp	Customer Email
Sheet: Sheet 1	Drawing: ISO 2340 - Drawing.SLDDRW	
SKU: Ribone20230828a	Product: ISO2340 Ribone20230828a	
Scale: 2:1	Project: Project Name	
Format: Cadfiv A4-B	Company: Company Name	

 Below the table is the logo for 'ACME Anvil & Associates' and the text '( Use this area for Client logo, name and address )'.



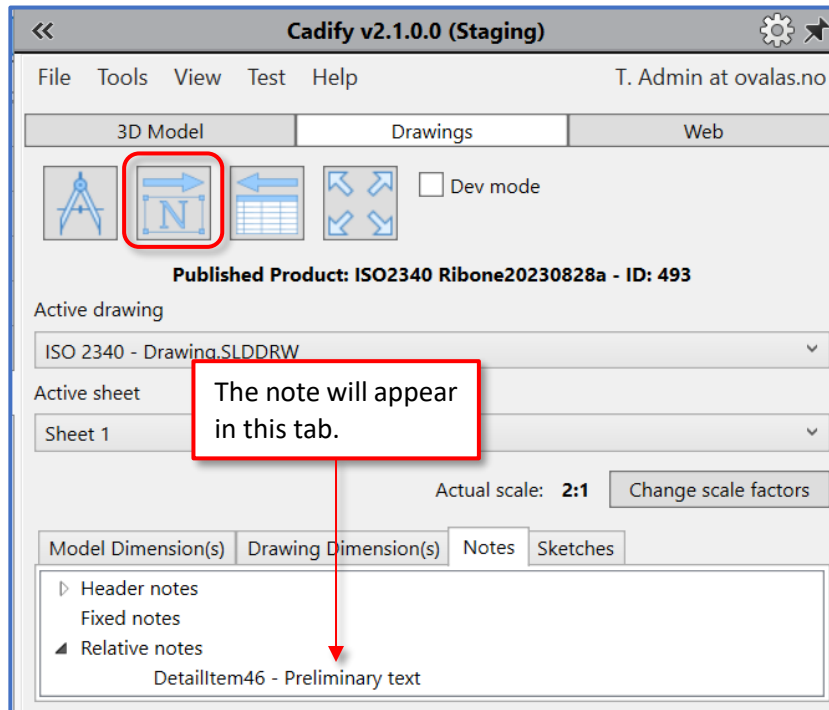
Add "Relative Note"

Add a leader as shown in the image.





In “Cadify” tab click on the mark button that read and upload the notes to Excel file (Cadify MASTER sheet), where the note’s properties can be controlled by formulas.



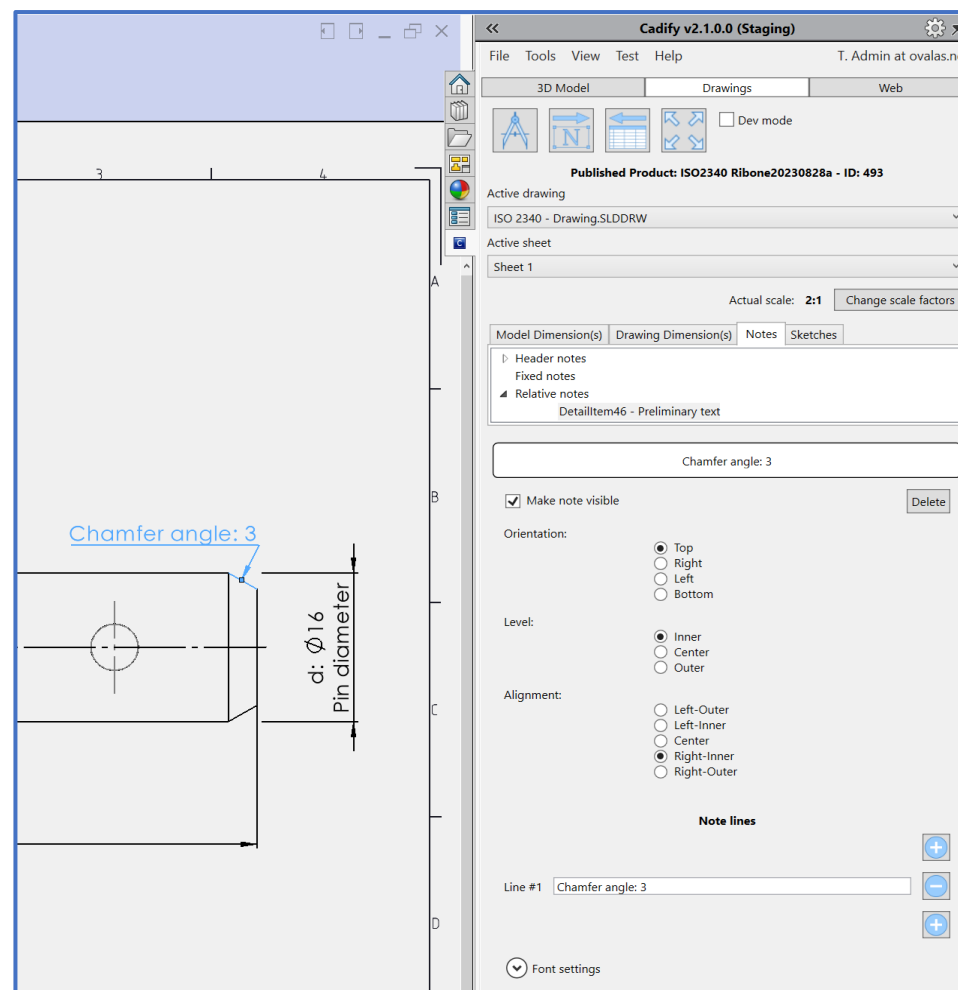
Detail from “Cadify MASTER” sheet.

Z	AA	AB	AC	AD
	SheetStyle		0	SHEETPROPERTY\
	DetailItem46	u	validation	NOTERELATIVE<
	Orientation	Top		NOTEPROPERTY\
	Level	Inner		NOTEPROPERTY\
	Alignment	Leftouter		NOTEPROPERTY\
	FontFamily	century gothic	logic	NOTESTYLE\
	FontSize		13 point	NOTESTYLE\
	NoteUnderline	FALSE	logic	NOTESTYLE\
	NoteLine1			NOTEPROPERTY\
	DetailItem46		Chamfer angle: 3	NOTERELATIVE>
	Drawing View1	u	validation	VIEW<

Note's properties

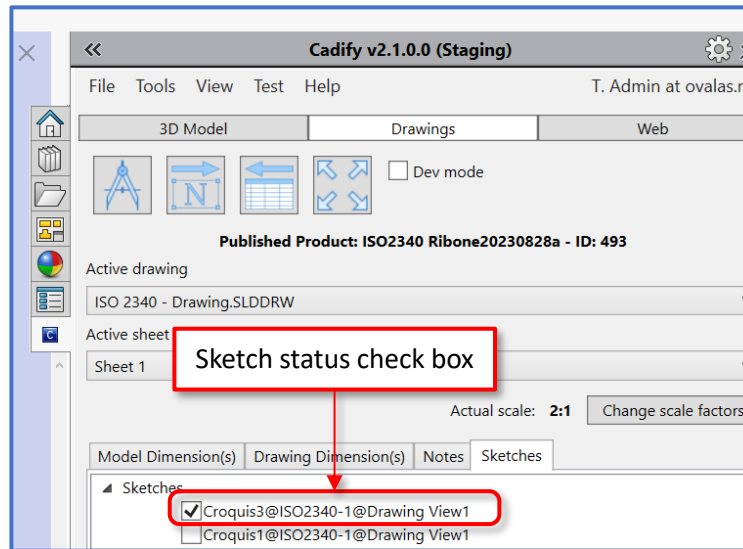
- *‘Cadify MASTER’!AB18 =CONCAT(“Chamfer angle: ”; Dim!J21); this formula returns the note including the value of the chamfer angle.*

In the “Web” tab click on the “Update” button to update the drawing. In the “Drawing” tab configure the note’s properties.



Modify drawing for type “A” pins

Activate sketch status for “Croquis3”. This allows to hide or make visible the sketch. This property will be used to hide the “center marks” for type “A” pins.



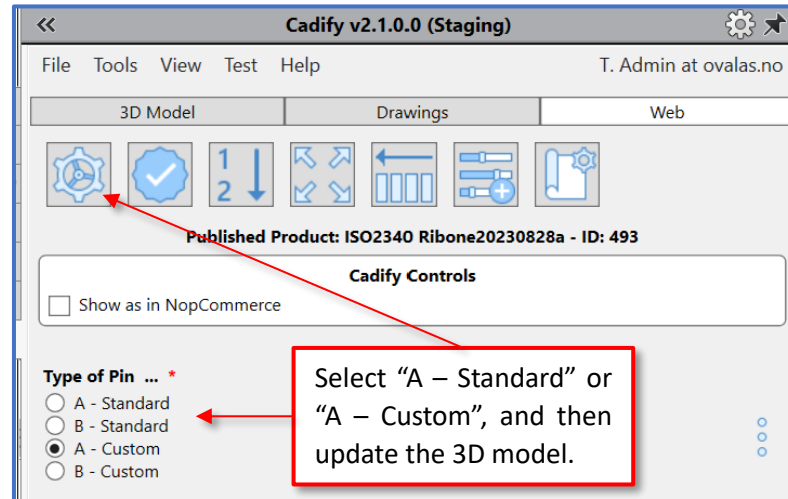
Create formulas to control the drawing feature’s status and link these status to the 3D model.

	AE	AF	AG	AH
18	Detail from “Dim” sheet.			
19	Split pin hole status			
20	le	dl	Croquis3	
21	u	u	u	
22				

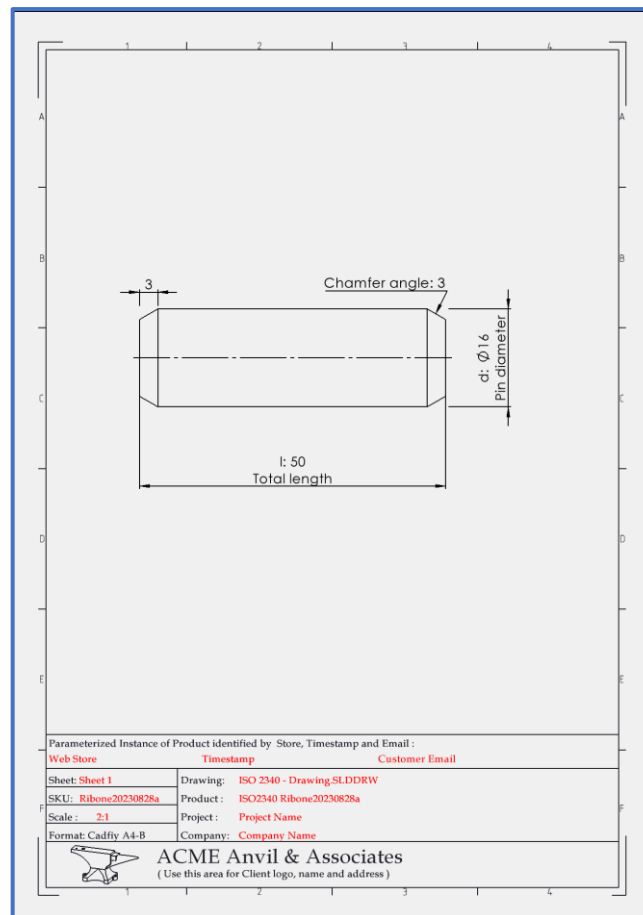
	AB	AC	AD
19	Detail from “Cadify MASTER” sheet.		
20	Drawing View1	u	validation
21	Croquis3@ISO2340-1@Drawing View1	s	validation
22	Quarter	UPPERLEFT	VIEWPROPERTY\
23	l@Croquis1@ISO2340-1@Drawing View1	u	validation
24	Orientation	BOTTOM	DIMASPECT\
38	DimBelowText	Total length	DIMSTYLE\
39	l@Croquis1@ISO2340-1@Drawing View1		DIMORTHO>
40	le@Croquis1@ISO2340-1@Drawing View1	s	validation
41	Orientation	BOTTOM	DIMASPECT\
42	Level	Inner	DIMASPECT\
43	PrimaryValue	6 mm	DIMASPECT\
44	ExtensionLineGapBefore	1	DIMASPECT\
69	FontSize	13 point	DIMSTYLE\
70	DimUnderline	FALSE	logic
71	DimAboveText		DIMSTYLE\
72	DimBelowText	Pin diameter	DIMSTYLE\
73	d@Croquis1@ISO2340-1@Drawing View1		DIMORTHO>
74	dl@Croquis3@ISO2340-1@Drawing View1	s	validation
75	Orientation	TOP	DIMASPECT\
76	Level	Inner	DIMASPECT\
77	PrimaryValue	4 mm	DIMASPECT\

- $Dim!AF21 = IF(OR('Cadify MASTER'!G17=A23;'Cadify MASTER'!G17=A25);"s";"u");$  this formula returns the suppress state for “l<sub>e</sub>” dimension: “u” – unsuppressed; “s” – suppressed, based on type of pin.
- $Dim!AG21 = IF(OR('Cadify MASTER'!G17=A23;'Cadify MASTER'!G17=A25);"s";"u");$  this formula returns the suppress state for “d<sub>i</sub>” dimension: “u” – unsuppressed; “s” – suppressed, based on type of pin.
- $Dim!AH21 = IF(OR('Cadify MASTER'!G17=A23;'Cadify MASTER'!G17=A25);"s";"u");$  this formula returns the suppress state for “Croquis3”: “u” – unsuppressed; “s” – suppressed, based on type of pin.
- ‘Cadify MASTER’!AB21 = Dim!AH21; ; this formula links the suppression status to the 3D model.
- ‘Cadify MASTER’!AB40 = Dim!AF21; ; this formula links the suppression status to the 3D model.
  - ‘Cadify MASTER’!AB74 = Dim!AG21; ; this formula links the suppression status to the 3D model.

Change the type of pin and update the 3D model.

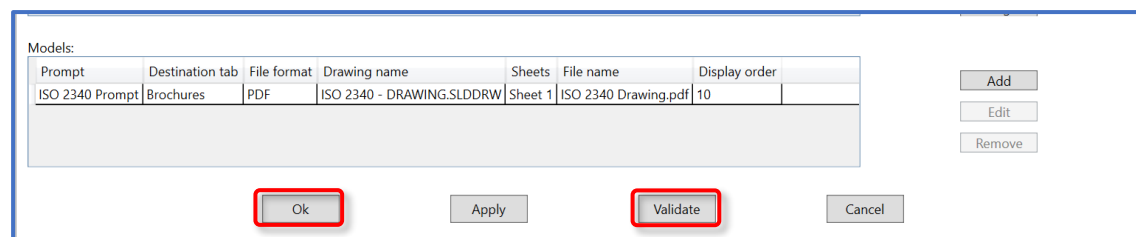
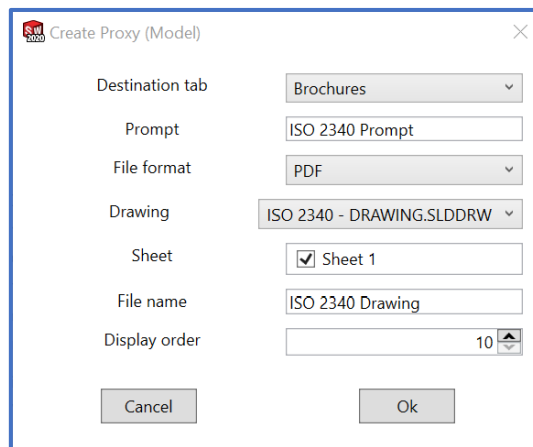
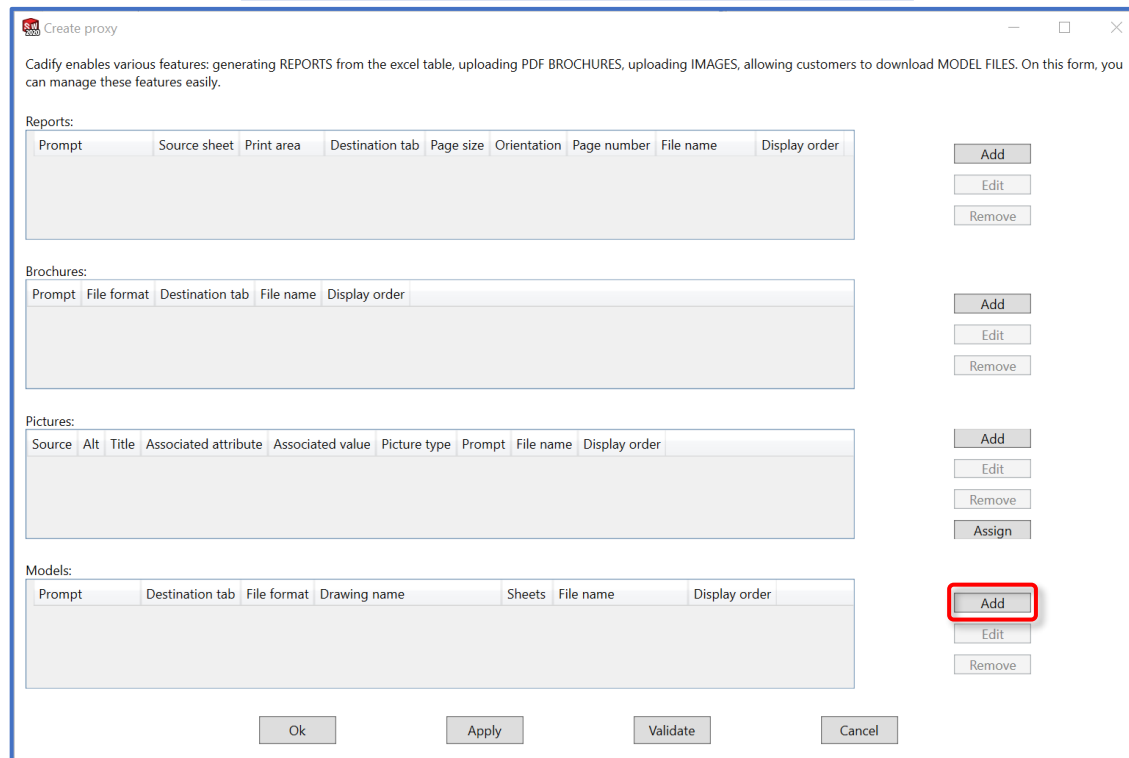
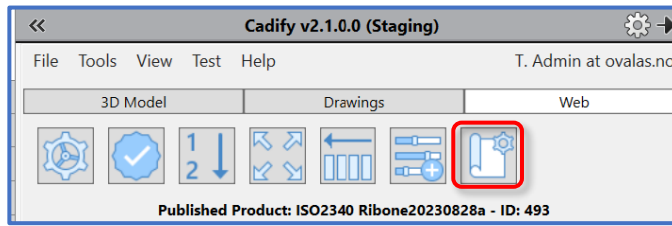


The next image shows the drawing for type “A” pins.



Create proxy for drawing

In Cadify “Web” tab, click on “Create or Edit Proxy” and complete the “Create proxy (Model)” windows as shown (click on “Add” to create a new row); then click on “Validate” and “Ok”.



## STEP 5 – IMAGES IN SUMMARY TAB

Create images in the summary tab that will help the user during parameters identification and selection. These images will have dimensions which will be updated while the parameters are changed by the user.

View of summary tab

The screenshot shows an Excel spreadsheet with the following content:

**Table 1: Image Cell Specifications**

Type A image cells	K5	Q25
Type B image cells	K30	Q50
Selected cells for web summary	K30	Q50

**Table 2: Code Formula**

Code, identical for standard and custome  
 Clevis pin ISO 2340 - A - 16 x 70 - St

**Table 3: Pin Configuration Table**

State	Code
B-Standard	0 Clevis pin ISO 2340 - B - 16 x 70 - St
B-Custom hole $\emptyset$	0 Clevis pin ISO 2340 - B - 16 x 70 x 5 - St
B-Custom hole $\emptyset$ & $l_h$	1 Clevis pin ISO 2340 - B - 16 x 70 x 5 x 40 - St
B-Custom $l_h$	0 Clevis pin ISO 2340 - B - 16 x 70 x 40 - St

**Technical Drawing 1: Clevis pin ISO 2340 - A - 16 x 70 - St**

Dimensions:  $30^\circ$ ,  $3,2$ ,  $d: 16$ ,  $c: 3$ ,  $l: 70$ .

**Technical Drawing 2: Clevis pin ISO 2340 - B - 16 x 70 x 5 x 40 - St**

Dimensions:  $c: 3$ ,  $3,2$ ,  $30^\circ$ ,  $min. distance: 36$ ,  $d: 16$ ,  $dl: 5$ ,  $le: 15$ ,  $lh: 40$ ,  $l: 70$ .

### Images: type of file and dimensions

The concept behind summary tab images has two parts:

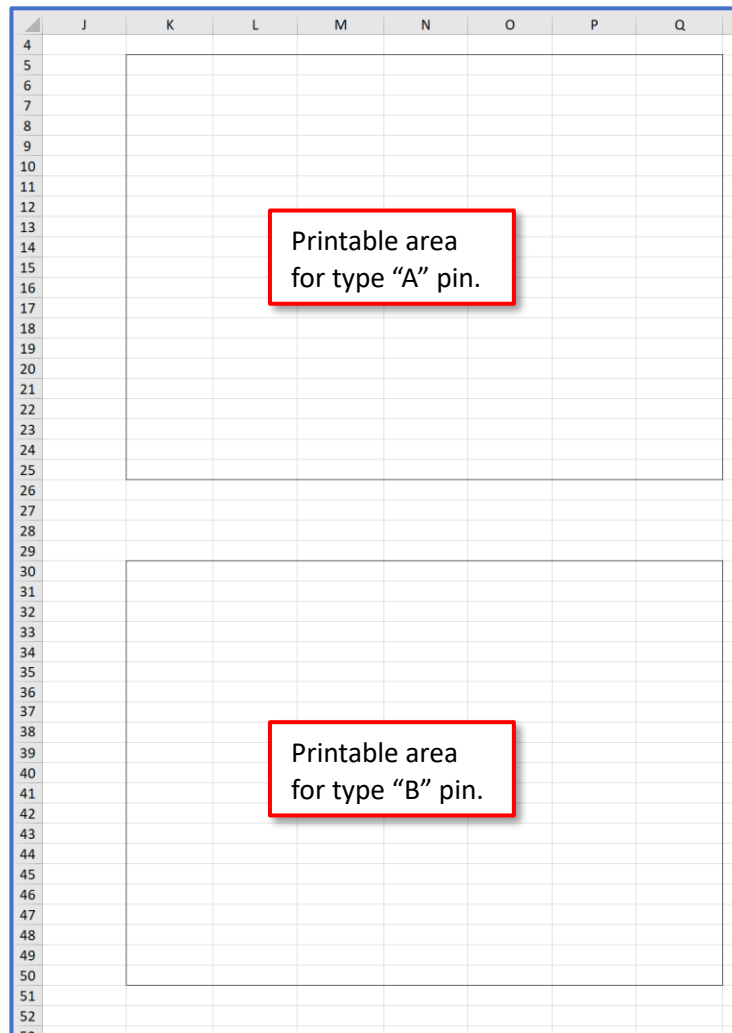
- Static “.svg” image (scalable vector graphics).
- Value of the dimensions, as formulas in cells, to be over impose the images.

The size and proportions of the images depend on the product itself. The dimensions must be drawn in coordination with excel cells in such a way that the values appear aligned with the dimensions. The values of the dimensions will be linked to the user’s parameters.

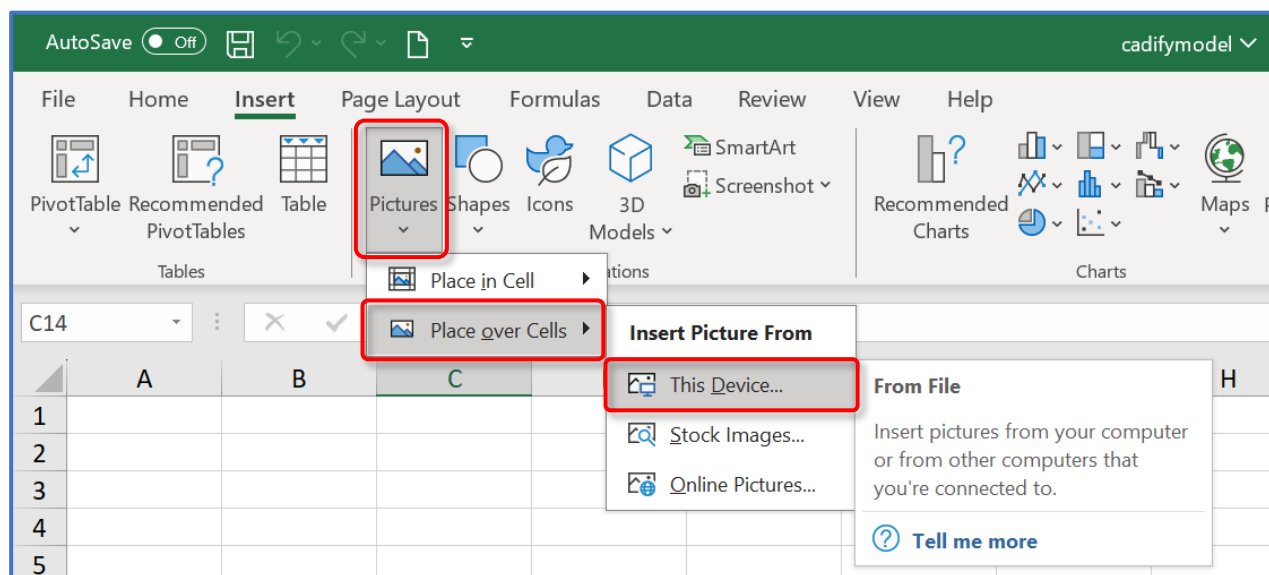
Create printable area and insert images

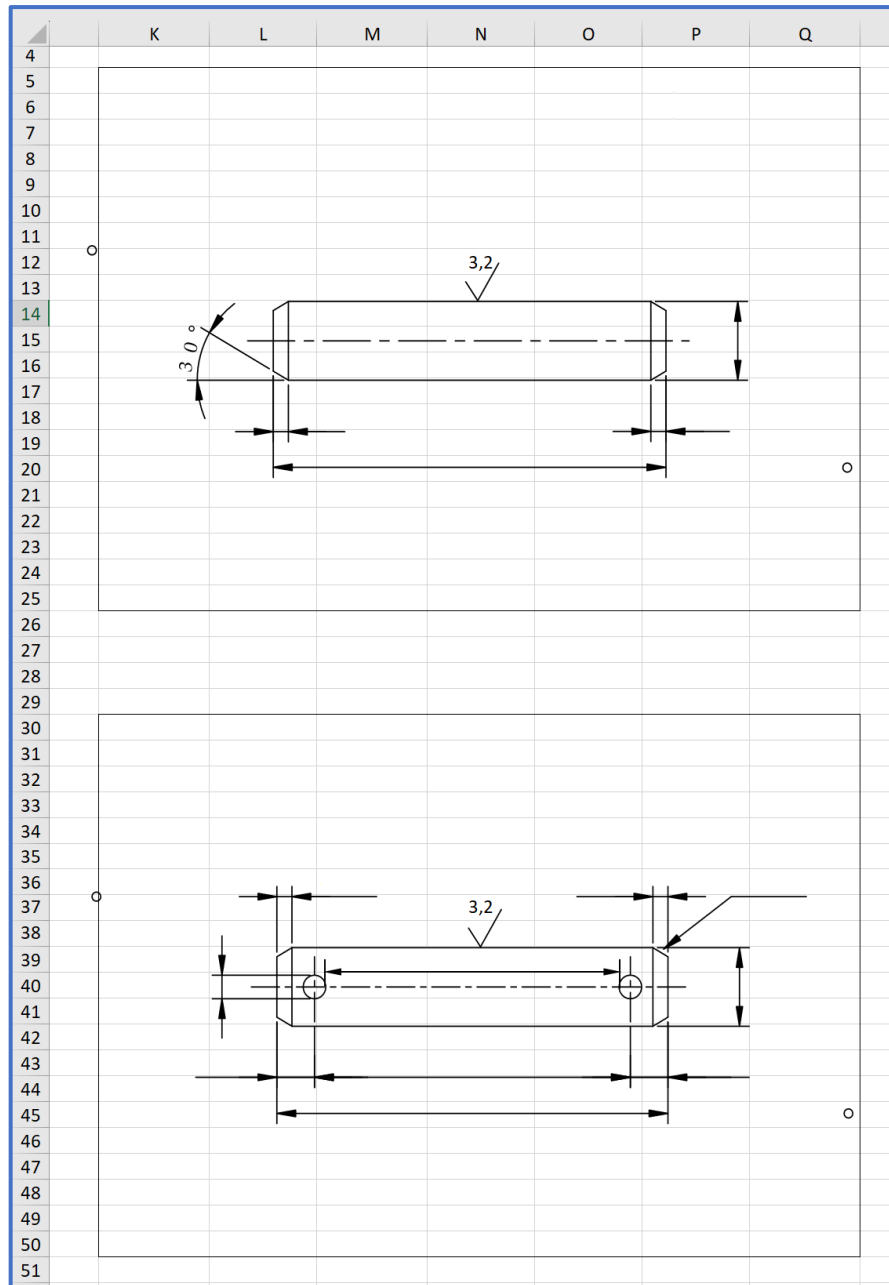
*Comment: ".svg" images can be created with Paint, AutoCAD, etc.*

In summary tab define the printable area by adding border.

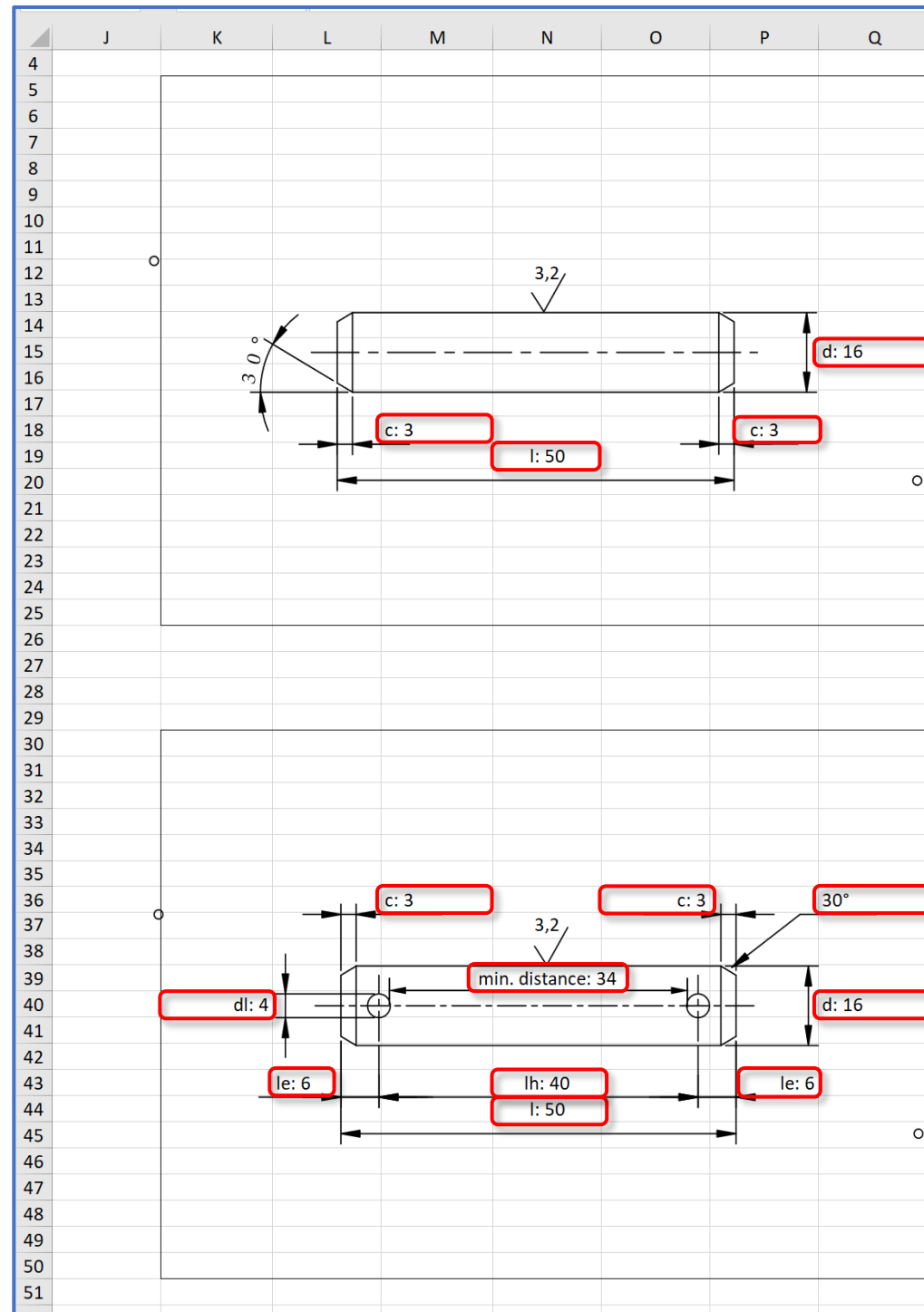


Insert images over the cells.





## Add values of dimensions



- Summary!Q15 = CONCAT("d: ";'Cadify MASTER'!G16); this formula returns the value of "d".
- Summary!M18 = CONCAT("c: ";Dim!J21); this formula returns the value of "c".
- Summary!P18 = CONCAT("c: ";Dim!J21); this formula returns the value of "c".
- Summary!N19 = CONCAT("l: ";Dim!X21); this formula returns the value of "l".
- Summary!M36 = CONCAT("c: ";Dim!J21); this formula returns the value of "c".
- Summary!O36 = CONCAT("c: ";Dim!J21); this formula returns the value of "c".
- Summary!Q36 = 30°; this formula returns the angle of the chamfer.
- Summary!N39 = CONCAT("min. distance: ";Dim!X21-2\*Dim!V21-Dim!I21); this formula returns the value of the minimum distance between holes.
- Summary!K40 = CONCAT("dl: ";Dim!Z21); this formula returns the value of "dl".
- Summary!Q40 = CONCAT("d: ";'Cadify MASTER'!G16); this formula returns the value of "".



- Summary!L43 = CONCAT("le: ";Dim!V21); this formula returns the value of "l<sub>e</sub>".
- Summary!N43 = CONCAT("lh: ";'Cadify MASTER'!G21); this formula returns the value of "l<sub>h</sub>".
- Summary!P43 = CONCAT("le: ";Dim!V21); this formula returns the value of "l<sub>e</sub>".
- Summary!N44 = CONCAT("l: ";Dim!X21); this formula returns the value of "l".

### Create formulas for the pin's description

ISO 2340 specifies how to describe the pins based on their type and if they are standard or custom (the descriptions vary based on which dimensions are custom). See next image.

#### 5 Designation

Example for the designation of a clevis pin, steel, type B, with nominal diameter  $d = 20$  mm and nominal length  $l = 100$  mm:

Clevis pin ISO 2340 – B – 20 × 100 – St

Example for the same pin with a split pin hole of  $\varnothing 6,3$  mm:

Clevis pin ISO 2340 – B – 20 × 100 × 6,3 – St

Example for the same pin with distance  $l_h = 80$  mm:

Clevis pin ISO 2340 – B – 20 × 100 × 6,3 × 80 – St

Example for the same pin with a standard split pin hole:

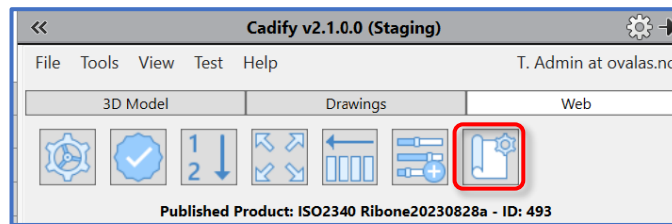
Clevis pin ISO 2340 – B – 20 × 100 × 80 St

	C	D	E	F	G	H	I	J	K	L	M	N	O
4									K5				
5													
6				Type A image cells		K5	Q25						
7				Type B image cells		K30	Q50						
8				Selected cells for web summary		K30	Q50						
9													
10													
11				Code, identical for standard and custome									
12				Clevis pin ISO 2340 - A - 16 x 70 - St									
13													
14													
15													
16													
17													
18													
19													
20													
21													
22													
23													
24													
25													
26													
27													
28													
29									K30				
30				Clevis pin ISO 2340 - B - 16 x 70 x 5 x 40 - St									
31													
32													
33													
34				State		Code							
35				B-Standard	0	Clevis pin ISO 2340 - B - 16 x 70 - St							
36				B-Custom hole $\varnothing$	0	Clevis pin ISO 2340 - B - 16 x 70 x 5 - St							
37				B-Custom hole $\varnothing$ & l <sub>h</sub>	1	Clevis pin ISO 2340 - B - 16 x 70 x 5 x 40 - St							
38				B-Custom l <sub>h</sub>	0	Clevis pin ISO 2340 - B - 16 x 70 x 40 - St							

- Summary!F12 = CONCAT("Clevis pin ISO 2340 - A - ";'Cadify MASTER'!G16;" x ";Dim!X21; " - St"); this formula returns description for type "A" pin (standard & custom).
- Summary!N6 = F12; this formula returns the description of previous item.
- Summary!E35 = IF(OR('Cadify MASTER'!G17=Dim!A24;AND('Cadify MASTER'!G17=Dim!A26;Dim!Z21=Dim!I21;Dim!V21=Dim!K21));1;0); this formula returns "1" if the pin is "B – Standard" and "0" in the other cases.
- Summary!F35 = CONCAT("Clevis pin ISO 2340 - B - ";'Cadify MASTER'!G16;" x ";Dim!X21; " - St"); this formula returns description for previous item case.
- Summary!E36 = IF(AND('Cadify MASTER'!G17=Dim!A26;NOT(Dim!Z21=Dim!I21);Dim!V21=Dim!K21);1;0); this formula returns "1" if the pin is "B – Custom" only with "d," different from standard value; and "0" in the other cases.
- Summary!F36 = CONCAT("Clevis pin ISO 2340 - B - ";'Cadify MASTER'!G16;" x ";Dim!X21;" x ";Dim!Z21; " - St"); this formula returns description for previous item case.
- Summary!E37 = IF(AND('Cadify MASTER'!G17=Dim!A26;NOT(Dim!Z21=Dim!I21);NOT(Dim!V21=Dim!K21));1;0) ; this formula returns 1" if the pin is "B – Custom" with "d," & "h" different from standard value; and "0" in the other cases.
- Summary!F37 = CONCAT("Clevis pin ISO 2340 - B - ";'Cadify MASTER'!G16;" x ";Dim!X21;" x ";Dim!Z21;" x ";'Cadify MASTER'!G21; " - St"); this formula returns description for previous item case.
- Summary!E38 = IF(AND('Cadify MASTER'!G17=Dim!A26;Dim!Z21=Dim!I21;NOT(Dim!V21=Dim!K21));1;0); this formula returns "1" if the pin is "B – Custom" only with "h" different from standard value; and "0" in the other cases.
- Summary!F38 = CONCAT("Clevis pin ISO 2340 - B - ";'Cadify MASTER'!G16;" x ";Dim!X21;" x ";'Cadify MASTER'!G21; " - St"); this formula returns description for previous item case.
- Summary!E30 = VLOOKUP(1;E35:F38;2;FALSE); this formula returns the description of the row which state is "1".
- Summary!N31 = E30; this formula returns the description of previous item.

Create proxy for the printable area

In Cadify "Web" tab, click on "Create or Edit Proxy" and complete the "Create proxy" windows as shown (click on "Add" to create a new row); then click on "Validate" and "Ok".



**Create proxy**

Cadify enables various features: generating REPORTS from the excel table, uploading PDF BROCHURES, uploading IMAGES, allowing customers to download MODEL FILES. On this form, you can manage these features easily.

**Reports:**

Prompt	Source sheet	Print area	Destination tab	Page size	Orientation	Page number	File name	Display order
PinDeawingPrompt	Summary	Indirect H8:I8				1	PinDrawing.png	10

**Brochures:**

Prompt	File format	Destination tab	File name	Display order

**Pictures:**

Source	Alt	Title	Associated attribute	Associated value	Picture type	Prompt	File name	Display order

**Models:**

Prompt	Destination tab	File format	Drawing name	Sheets	File name	Display order

In "Summary" tab create the formulas to select image for type "A" or "B". The proxy read cells "H8:I8" to select the printable area.

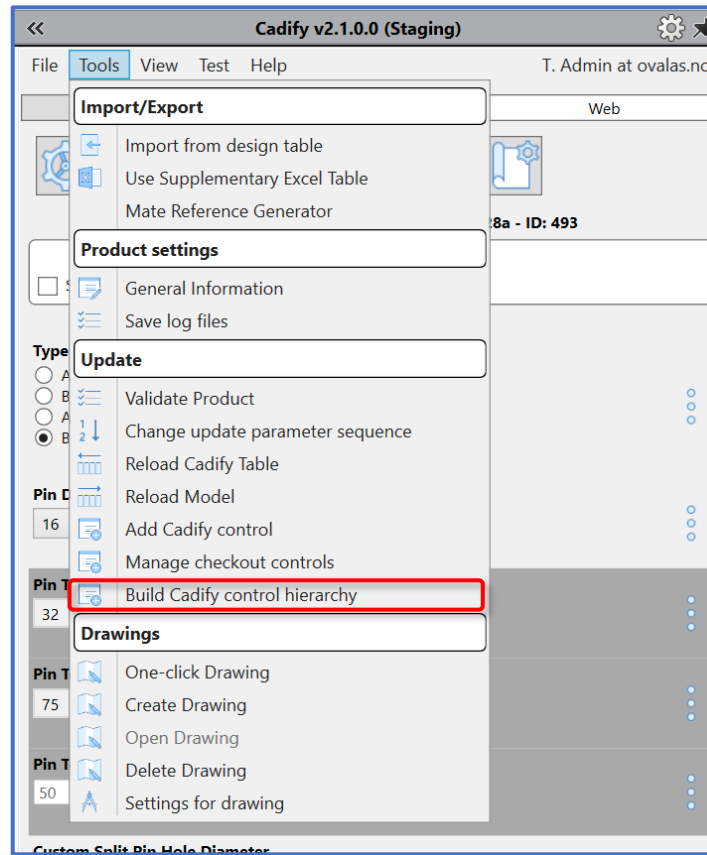
	E	F	G	H	I
5					
6		Type A image cells		K5	Q25
7		Type B image cells		K30	Q50
8		Selected cells for web summary		K30	Q50

- *Summary!H6 = K5; this is the top-left cell of type "A" pin printable area.*
- *Summary!I6 = Q25; this is the bottom-right cell of type "A" pin printable area.*
- *Summary!H7 = K30; this is the top-left cell of type "B" pin printable area.*
- *Summary!I7 = Q50; this is the bottom-right cell of type "B" pin printable area.*
- *Summary!H8 = IF(Dim!U21="A";H6;H7); this formula returns the top-left cell of the printable area based on the selected type of pin.*
- *Summary!I8 = IF(Dim!U21="A";I6;I7); this formula returns the bottom-right cell of the printable area based on the selected type of pin.*

## STEP 6 – PRODUCT VALIDATION

### Build Cadify control hierarchy

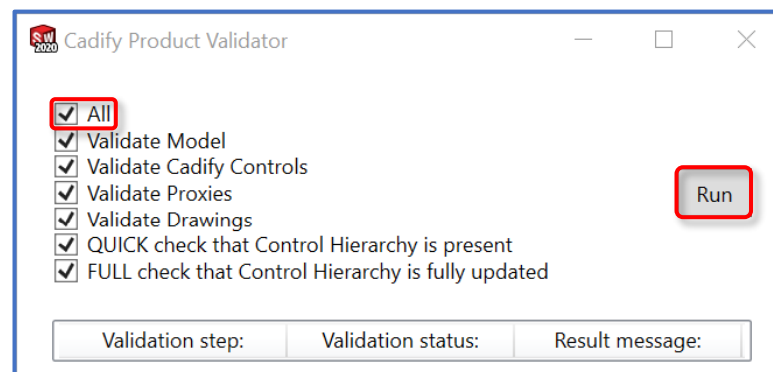
In “Cadify” tab select “Tools > Build Cadify control hierarchy”. This tool identifies parameters hierarchy and adds the dependencies for each in the “References” column.



	D	E	F	G	H	I	J	K	L	M	N	O	P
10													
11													
12													
13													
14	Condition	Control Type	Name	Value	Unit	Min	Min message	Max	Max message	Decimal	Increment	Type	References
15	;EDT;f Type of Pin;A - Standard	List Numeric	Pin Total Length A-Standard	32	mm					0		Input	Pin Total Length A-Standard;Pin Total Length B-Standard;Custom Split Pin Hole Diameter;Custom holes distance;Pin Total Length B-Custom
16	;EDT;f pleaseSelect	List Numeric	Pin Diameter	16	mm					0		Input	Pin Total Length A-Standard;Pin Total Length B-Standard;Custom Split Pin Hole Diameter;Custom holes distance;Pin Total Length B-Custom
17	;EDT;f first	List Radio Button	Type of Pin	B - Custom								Input	Pin Total Length B-Custom
18	;EDT;f Type of Pin;B - Custom	List dropdown	Custom Split Pin Hole Diameter	5	mm							Input	
19	;EDT;f Type of Pin;B - Standard	List dropdown	Pin Total Length B-Standard	75							1	Input	
20	;EDT;f Type of Pin;A - Custom	Numerical	Pin Total Length A-Custom	50	mm	10		100		0		Input	
21	;EDT;f Type of Pin;B - Custom	Numerical	Custom holes distance	40	mm	10	Minimum is 10 mm	160	Maximum is 160 mm	0	1	Input	Pin Total Length B-Custom
22	;EDT;f Type of Pin;B - Custom	Spinbox Up Down	Pin Total Length B-Custom	70	mm	52	Minimum is 52 mm	190	Maximum is 190 mm	0	1	Input	Pin Total Length B-Custom
23		CalculateBtn	Calculate Button		u							Checkout	
24		PriceTxt	Price Text		u							Checkout	
25		Add2CartBtn	Add To Cart Button		u							Checkout	
26		SelAddressCbz	Select Address Combobox		u							Checkout	
27		Add2PrjBtn	Add To Project Button		u							Checkout	
28		EmailBtn	Email Button		u							Checkout	

### Validate product

In “Cadify” tab select “Tools > Validate product”. In “Cadify Product Validator” select “All” and click on “Run”.



In this product all validations are ok. The product is ready to be published. Follow instructions in previous tutorials to publish it.

