



OEM Projekt	
Bauteilbezeichnung:	CAD-Breuer_Homepage-PartBody
Bauteilnummer:	123.456.789-0
Änderungsstand:	A
Materialdicke:	1.500 mm
Material:	DC06
Fertigungsart	1x fallend
Dateneingang:	01.03.2022
Datenformat:	Catia CATPart R30

Herstellbarkeit			
	<span style="color: red;">●</span>	<span style="color: yellow;">●</span>	<span style="color: green;">●</span>
Risse	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Falten	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Ausdünnung	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Aufsprung	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Part Sizes			
Name	Length	Width	Height
	320.00 mm	760.00 mm	70.00 mm

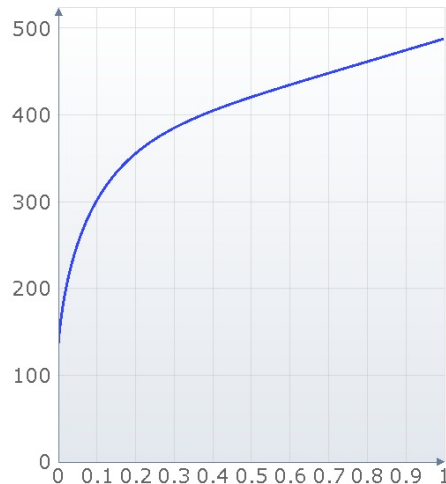
## Materialinformationen

Information	
Standard Designation	DC06
According to Standard	EN10130
Additional Designations	CR5-UC; VDA 239-100
Internal Designations	DC06
Material Supplier	Tata Steel
Comments	<p>Tata Steel Group, including its subsidiaries, do not accept responsibility or liability for errors or information which is found to be misleading.</p> <p>Hardening curve: Bergstroem / van Liempt FLC: Abspoel &amp; Scholting FLC model (midplane). Yield function: Vegter 2017 prediction by Abspoel &amp; Scholting.</p> <p>For more materials and data please check <a href="http://www.tatasteelautomotive.com">www.tatasteelautomotive.com</a></p>

### Hardening Curve

Type	Table
$\sigma_0$	133.60 MPa
$R_m$	291.26 MPa
n	0.246
$A_G$	23.6 %

### Hardening Diagram



### Information Simulation











Material Bauteil :	DC06_Vegter_1.2-1.6
Simuliert mit :	AutoForm Forming R10
Reibwert :	0.150

### Bemerkung

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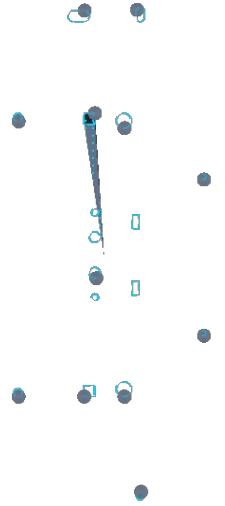
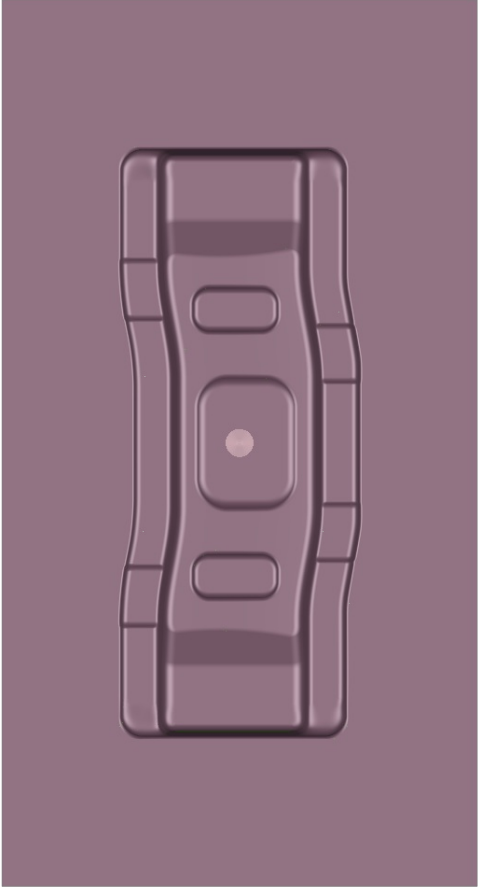
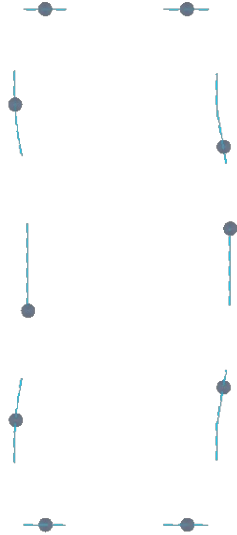
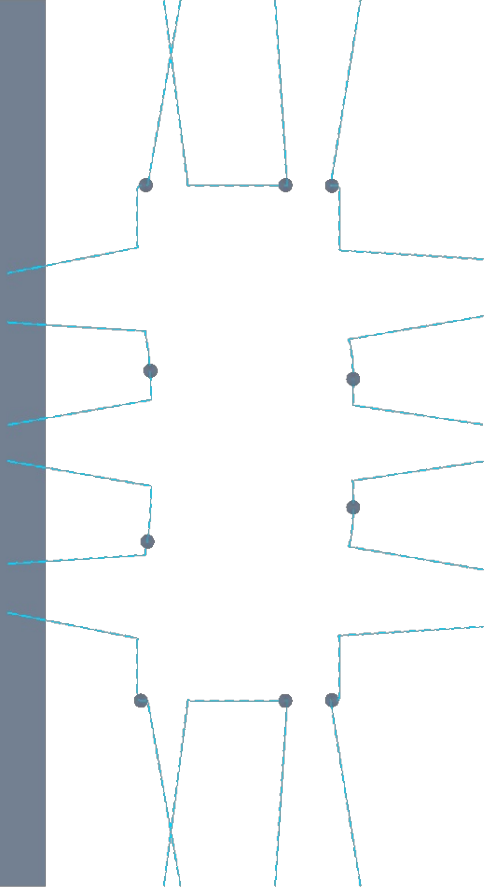
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Operations	Total Forces Legends		
B-10			
D-20	Tools	Legend Color	Max Force
	Ram		3176.6 kN
	Bed		3176.7 kN
T-30	Tools	Legend Color	Max Force
	Ram		1200.9 kN
	Bed		1200.9 kN
T-40	Tools	Legend Color	Max Force
	Ram		591.2 kN
	Bed		591.2 kN
F-50	Tools	Legend Color	Max Force
	Ram		277.1 kN
	Bed		277.2 kN
T-60	Tools	Legend Color	Max Force
	Ram		345.1 kN
	Bed		345.1 kN
M-70			
M-80			

Operations	Type
B-10	Blanking
D-20	Single Action Draw
T-30	Trim Pierce
T-40	Trim Pierce
F-50	Form Trim Pierce
T-60	Trim Pierce
M-70	Measuring
M-80	Measuring

Bemerkung
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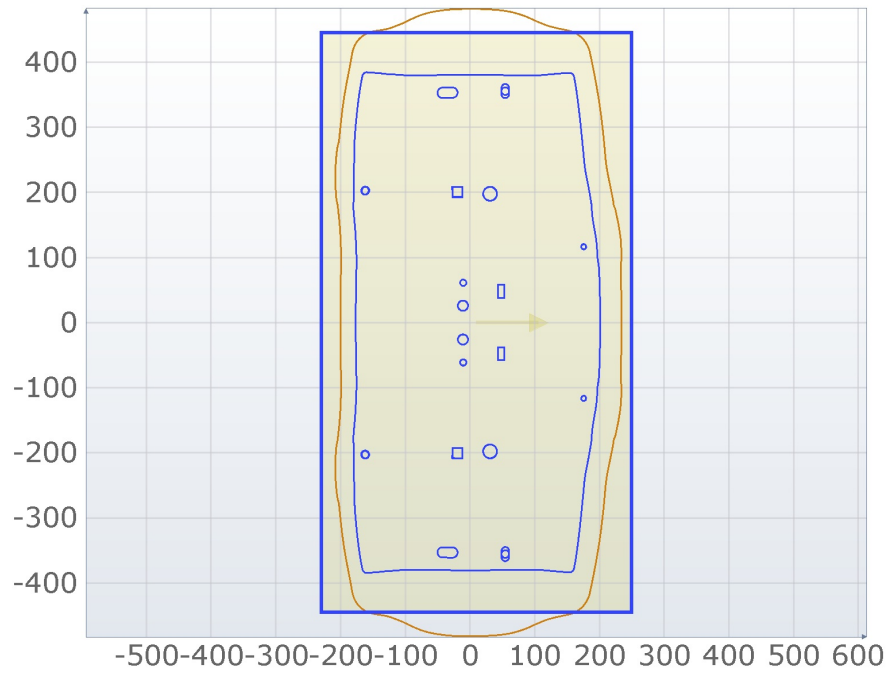


OP	Beschreibun
OP-010	- Platine schrottlos trennen
OP-020	- Ziehen
OP-030	- Bauteil beschneiden in AR
OP-040	- Bauteil beschneiden in AR
OP-050	- Bauteil kalibrieren
OP-060	- Bauteil lochen in AR
OP-070	-
OP-080	-
OP-090	-
M-070	- freier Rücksprung
M-080	- Rücksprung gespannt

Bemerkung
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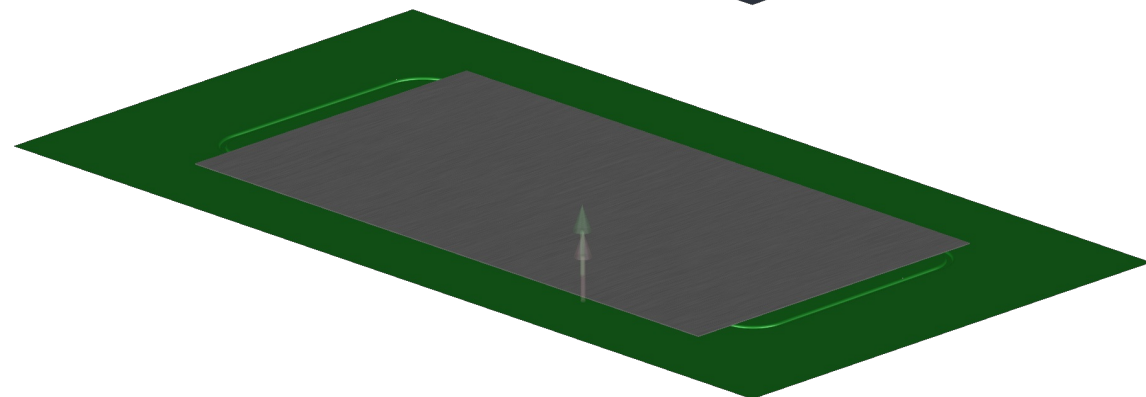
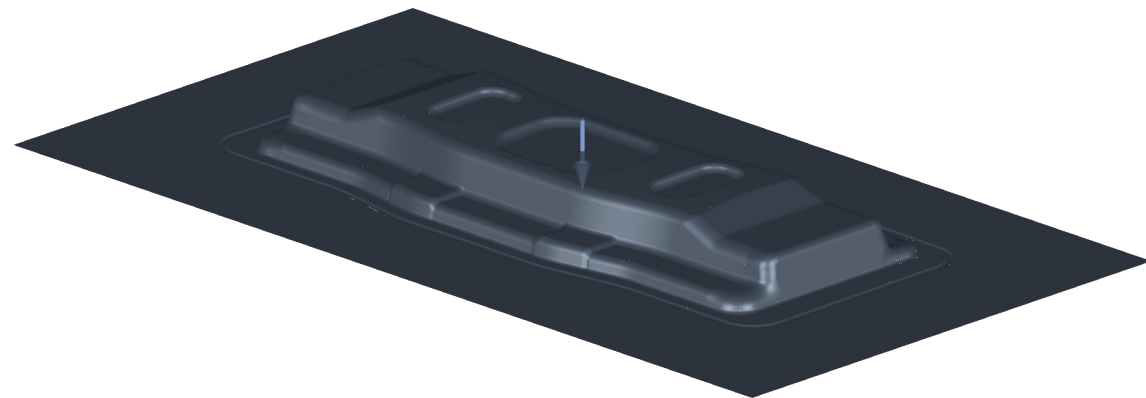
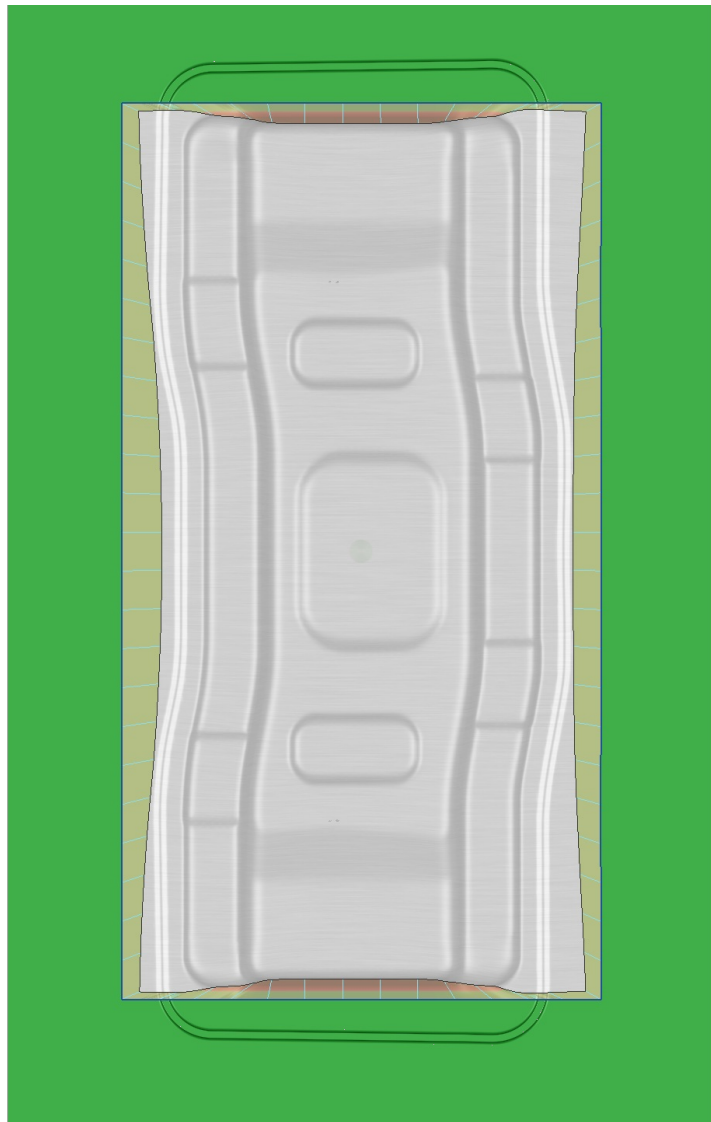
# Platine

# Coilbeschnitt OP-010



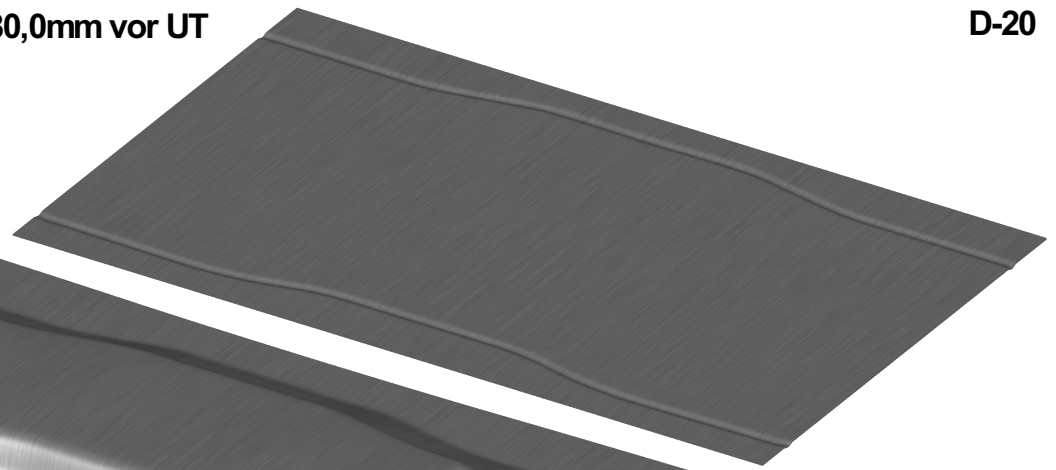
DC06\_Vegter\_1.2-1.6/1.500 mm

Platine	
Blank Length	480.00 mm
Blank Width	890.00 mm

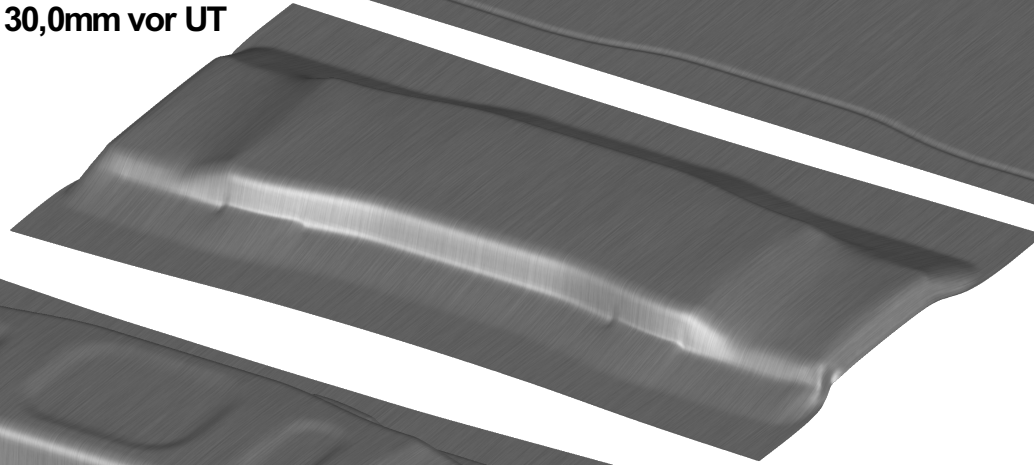


Bemerkung
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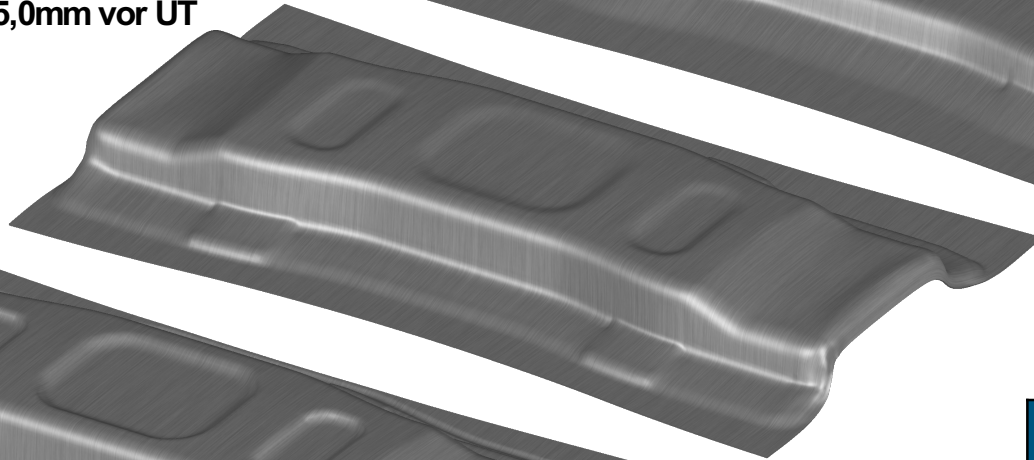
80,0mm vor UT



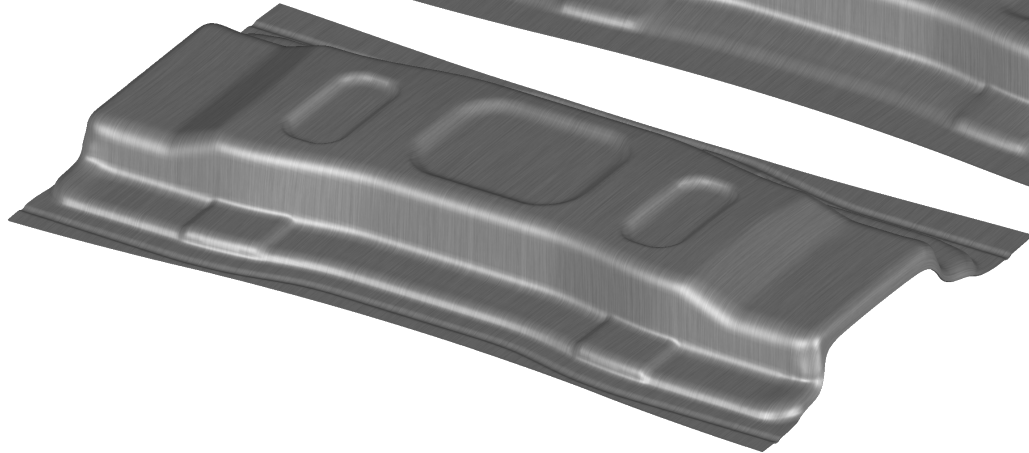
30,0mm vor UT



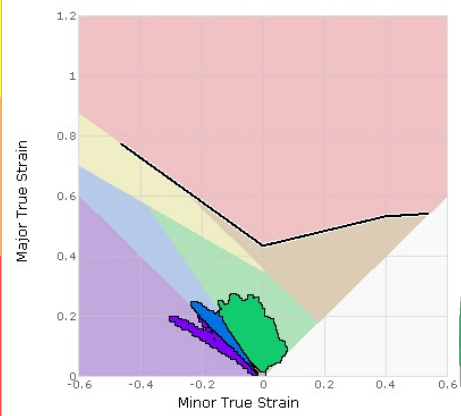
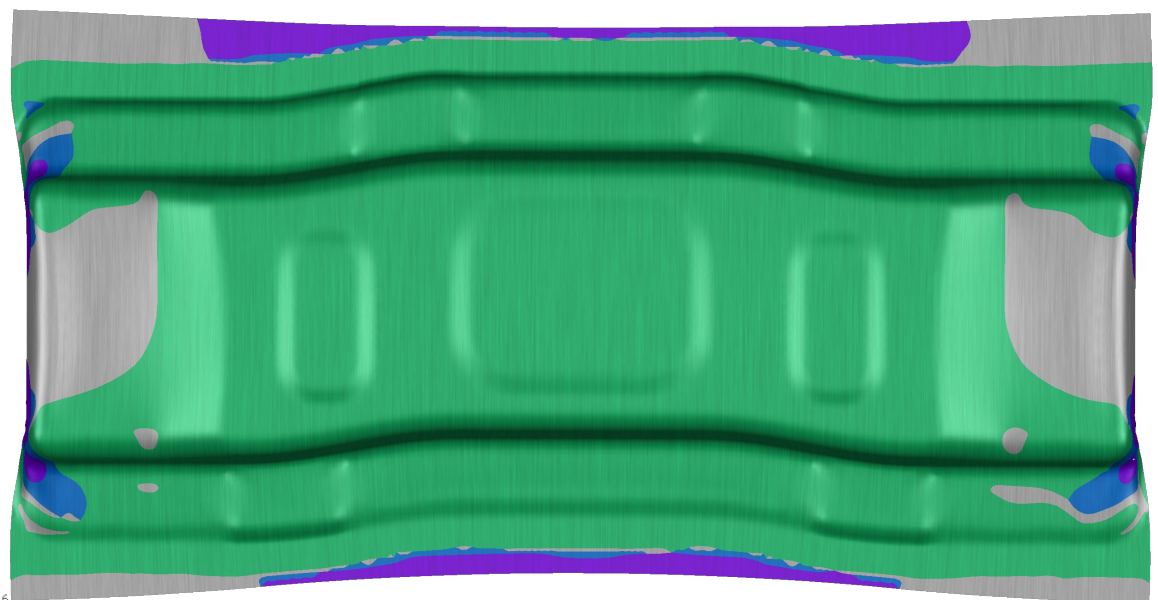
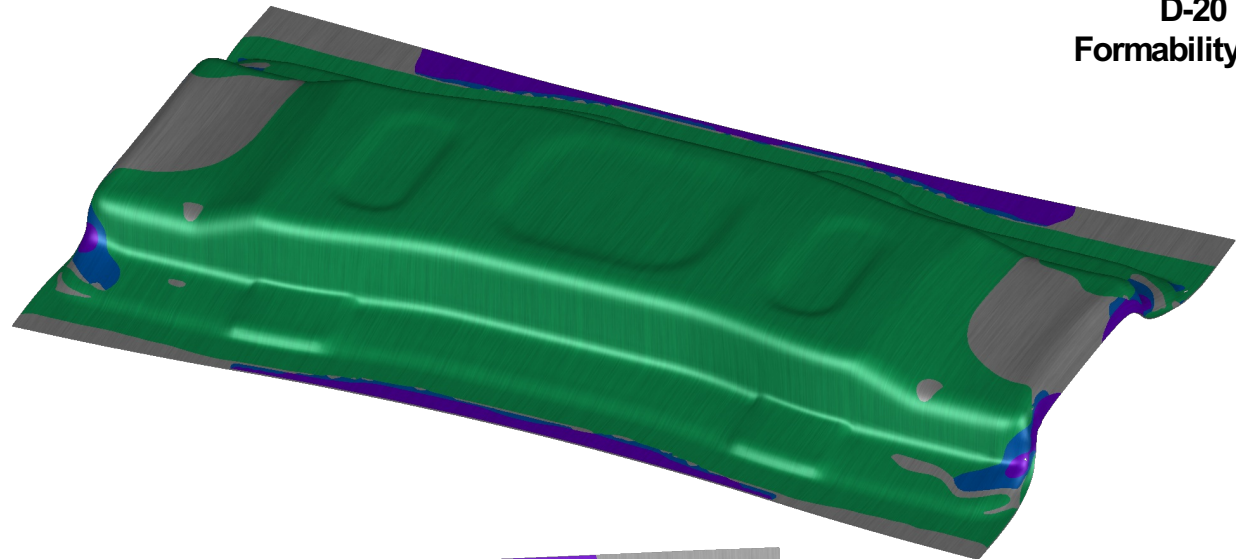
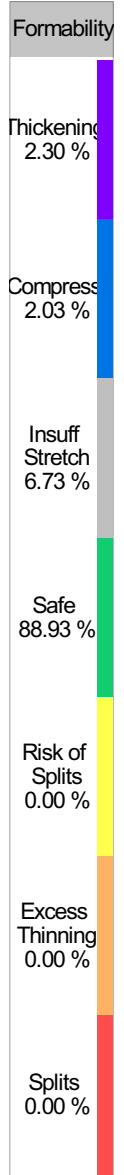
5,0mm vor UT



0,0mm vor UT

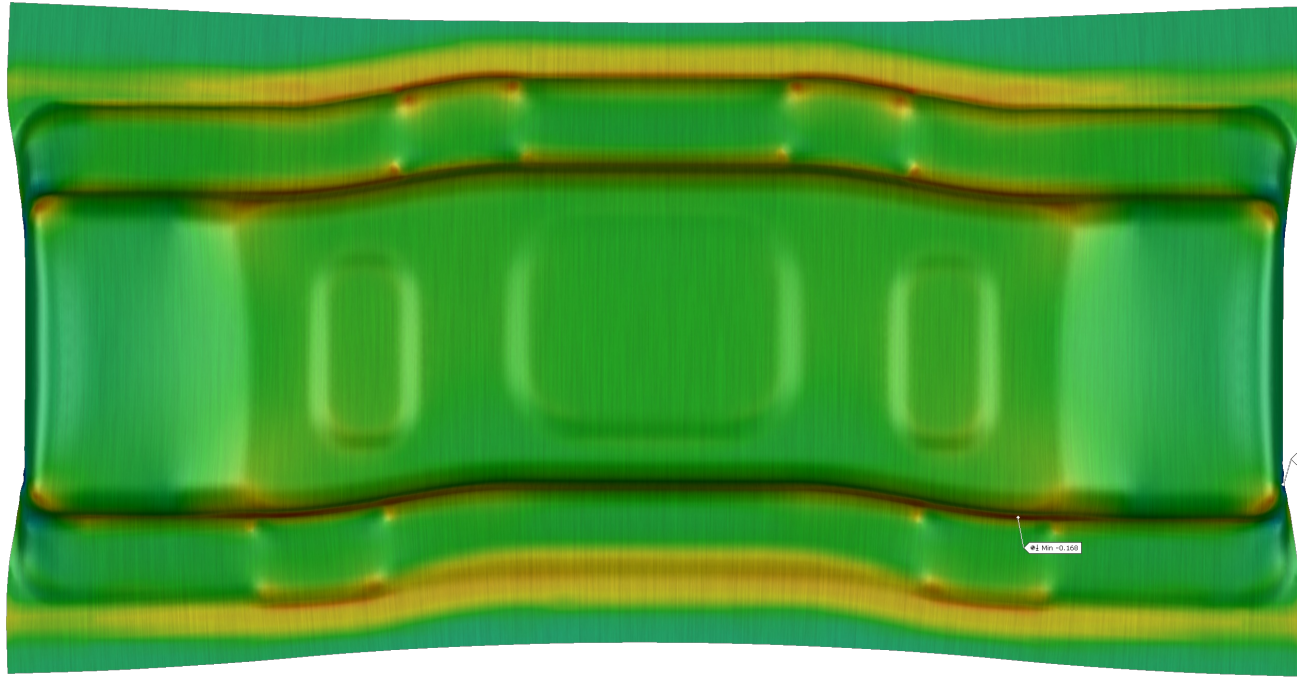
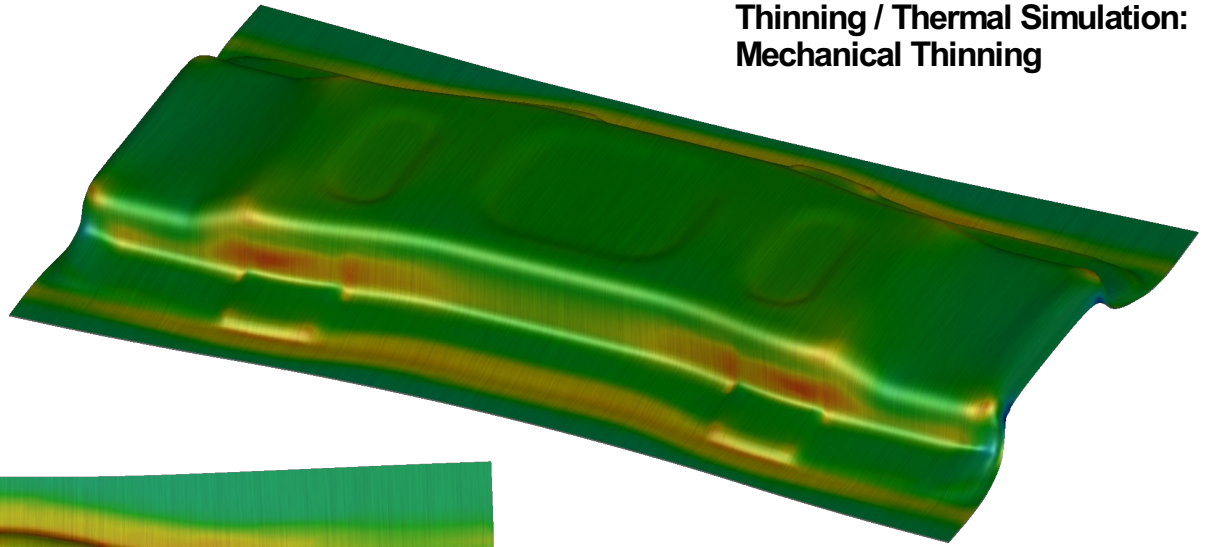
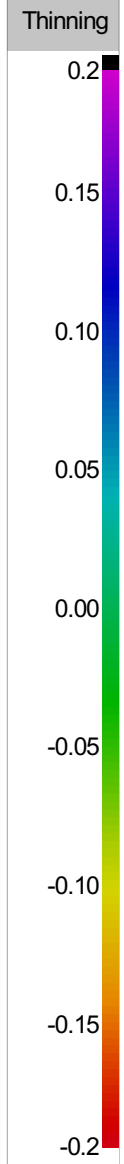


Bemerkung
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Formabilities	
Material	DC06_Vegter_1.2-1.6
Settings Source	Formability_Default.xml
FLC Limit	0.000
Acceptable Thinning	0.300
Safety Margin	20.0 %
Required Thinning	0.020
Use Compression	Enable
Acceptable Thickening	0.010

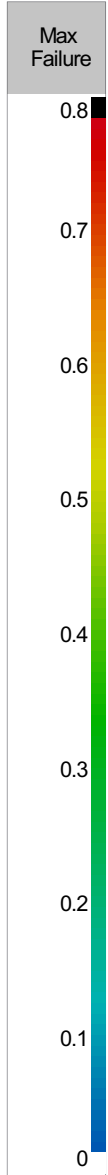
# Thinning / Thermal Simulation: Mechanical Thinning



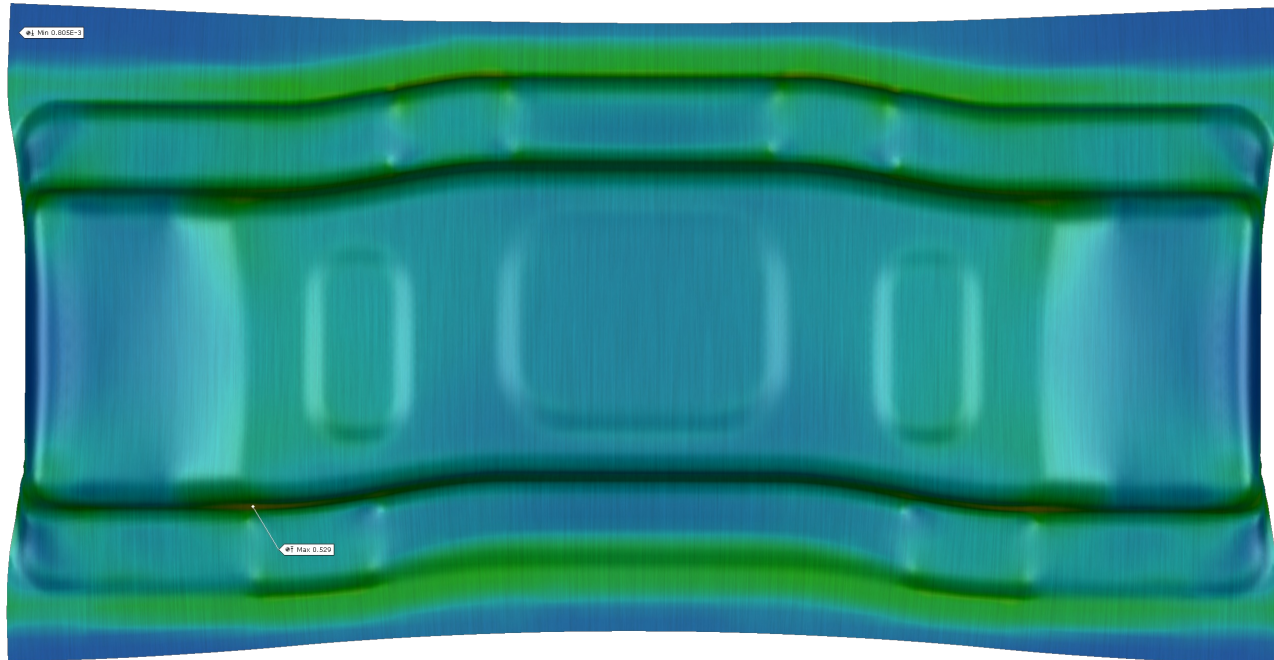
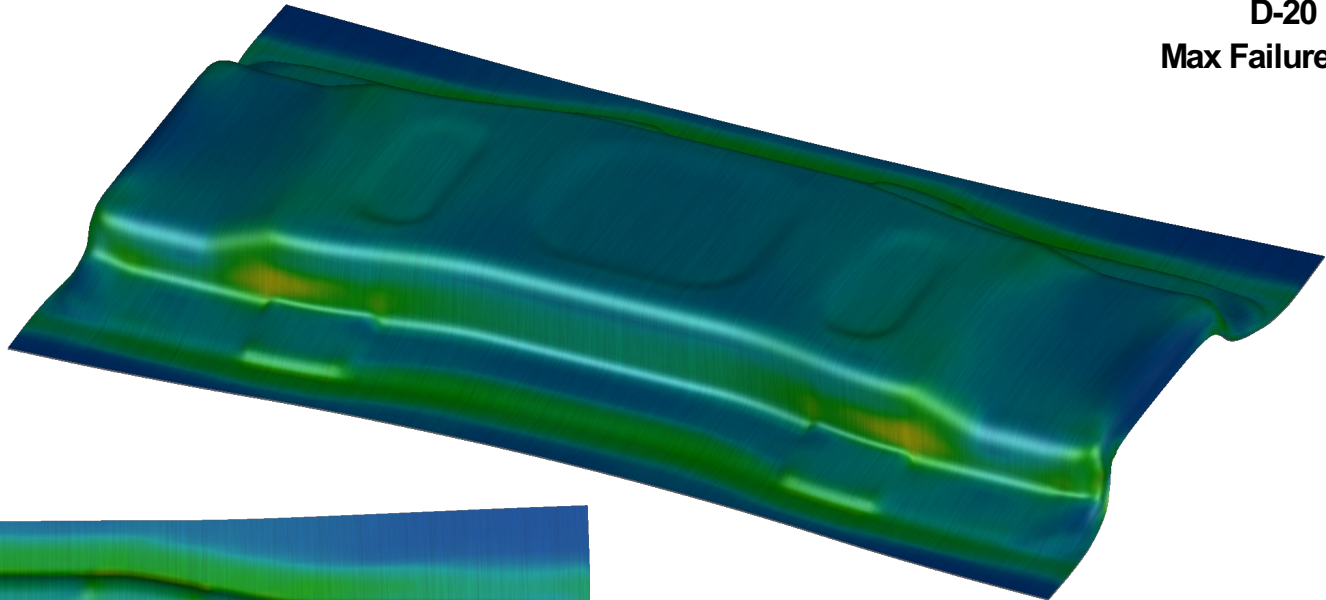
Max 0.112

Min -0.350

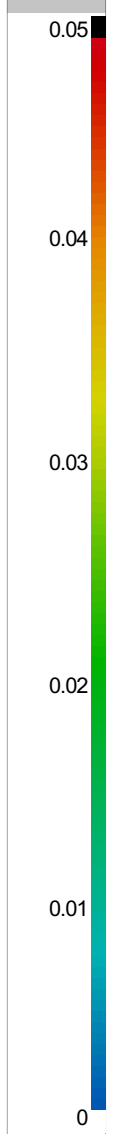




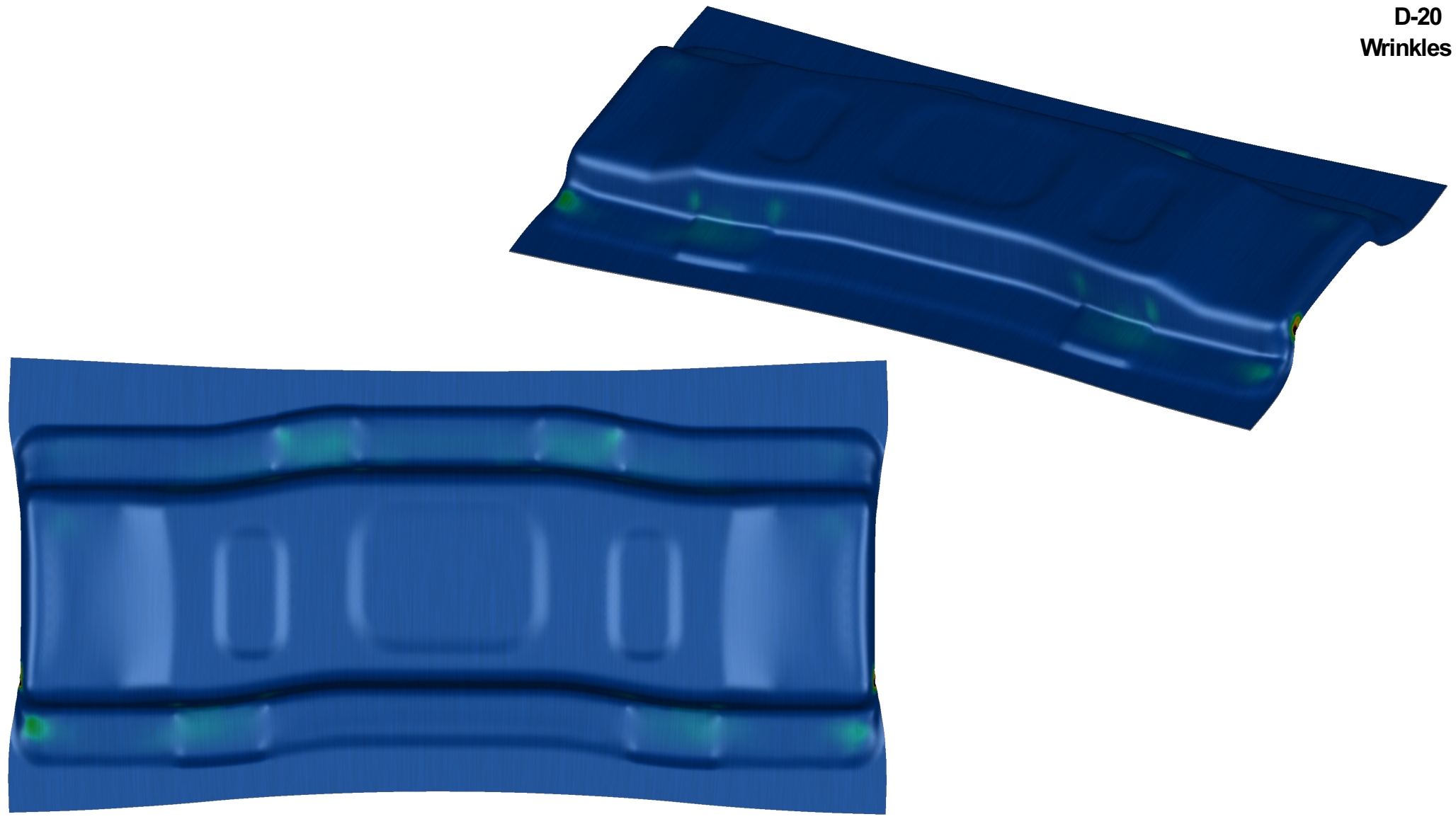
D-20  
Max Failure



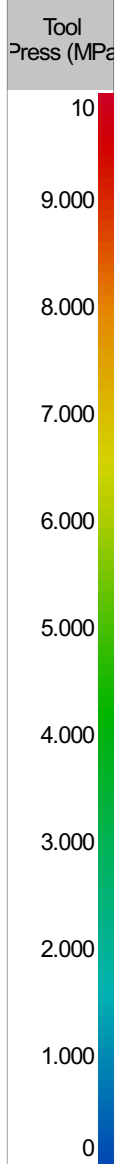
Wrinkles

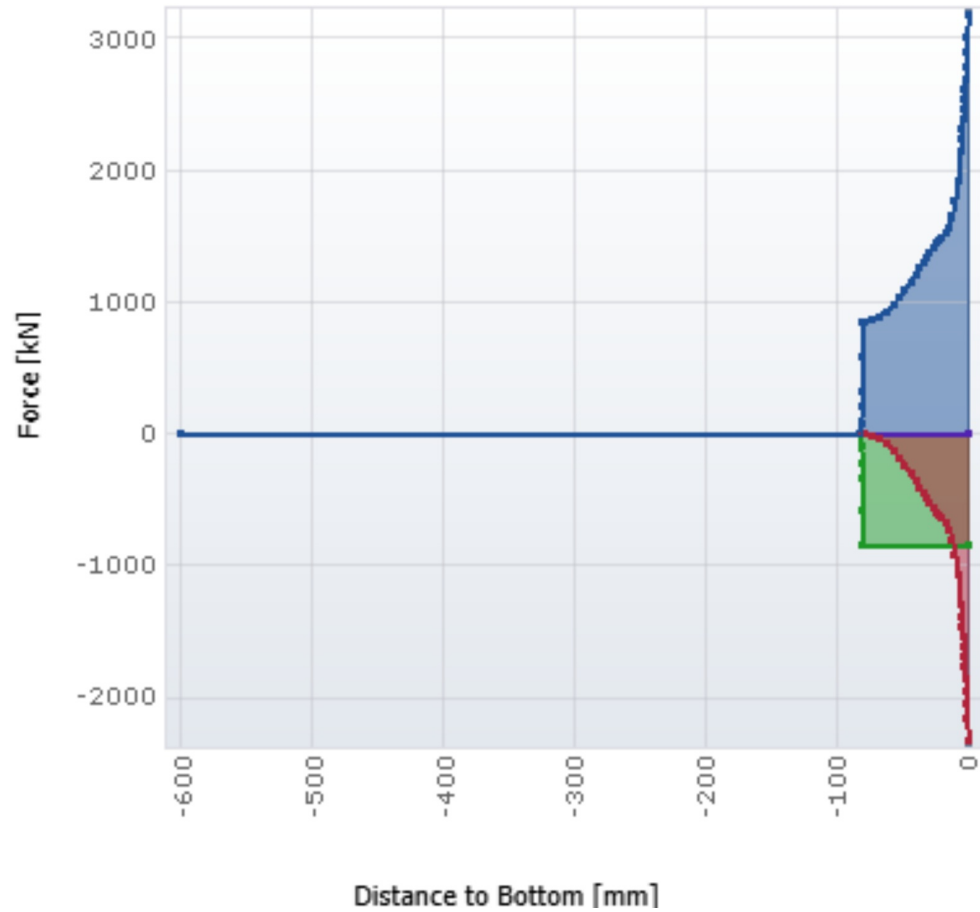


D-20  
Wrinkles









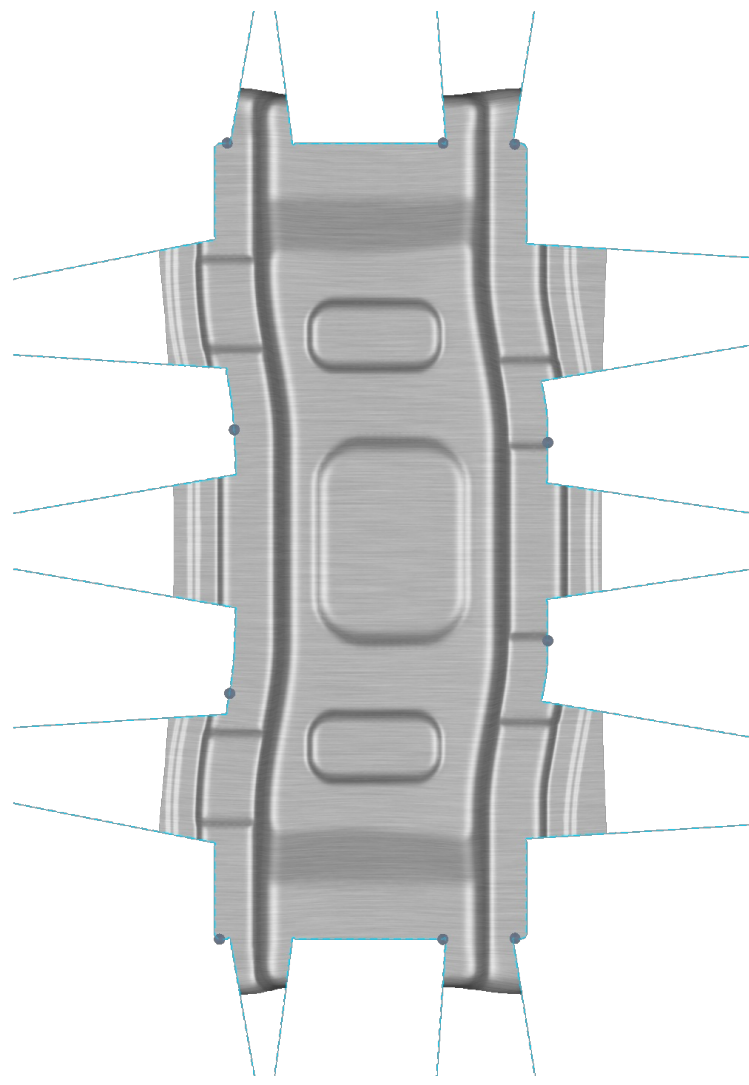
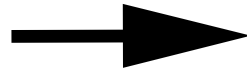
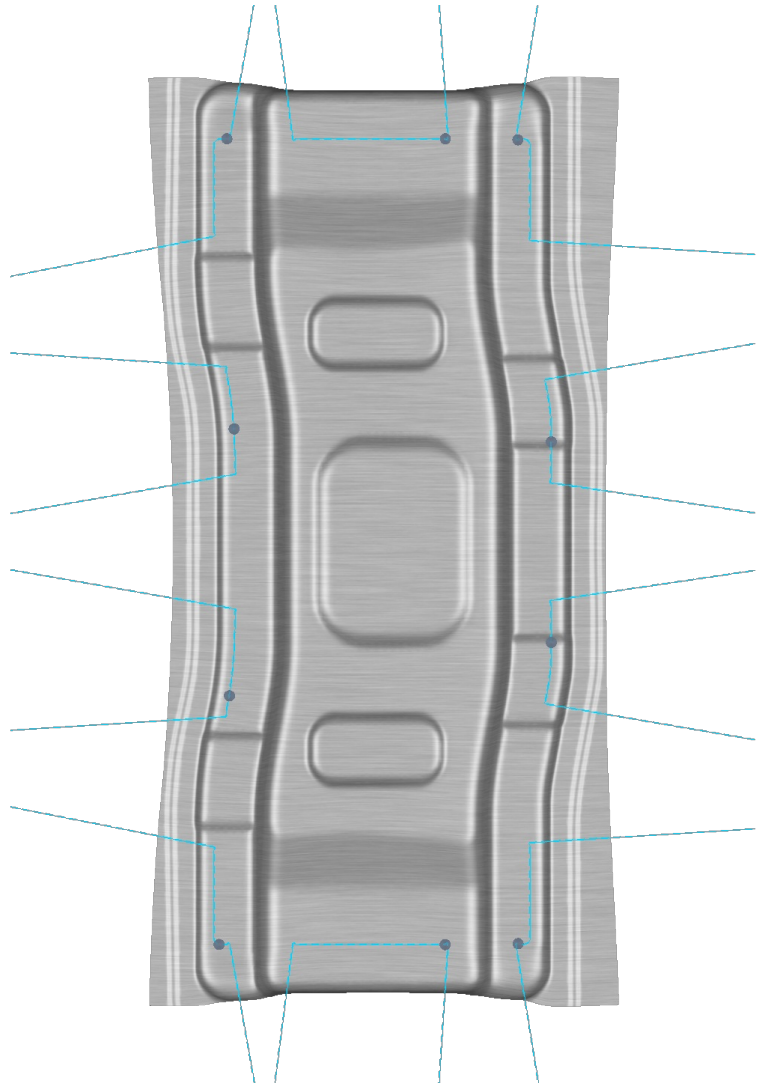
Operation View Legends		
Tools	Legend Color	Max Force
Die	<span style="color: blue;">■</span>	3176.6 kN
Punch	<span style="color: red;">■</span>	2326.7 kN
Binder	<span style="color: green;">■</span>	850.0 kN
Weight	<span style="color: purple;">■</span>	49.20 N

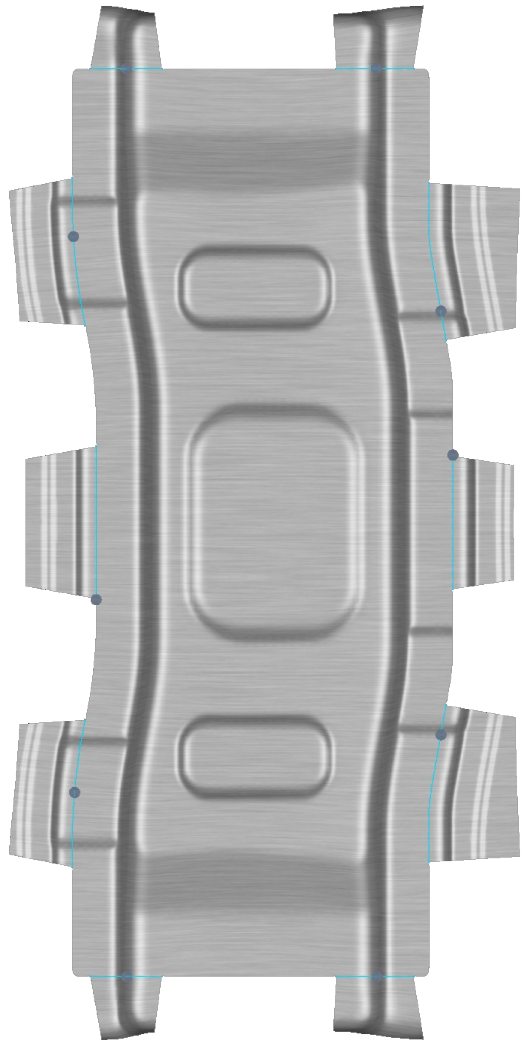
### Bemerkung

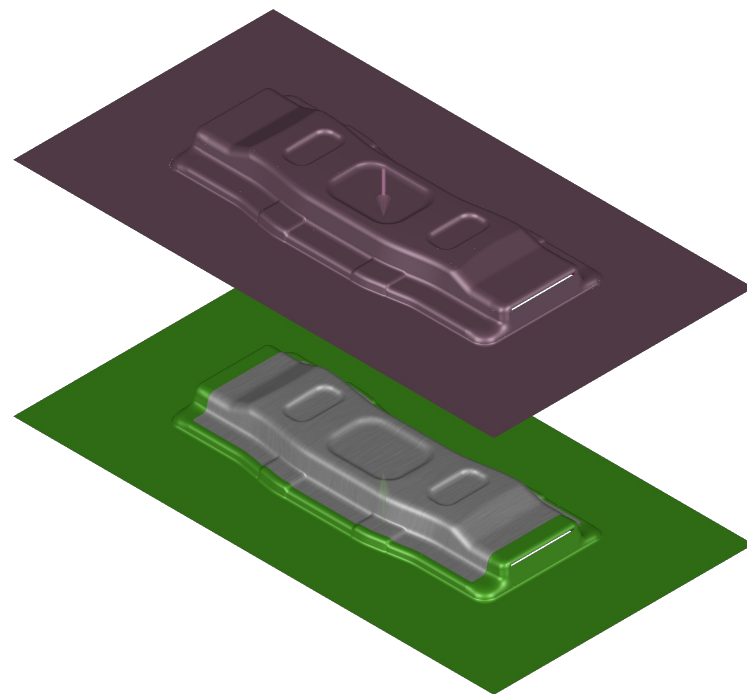
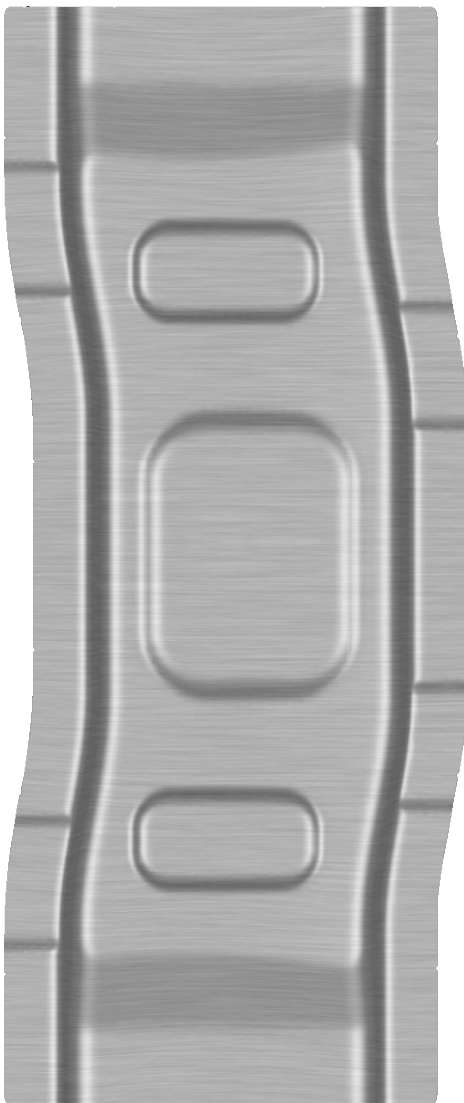
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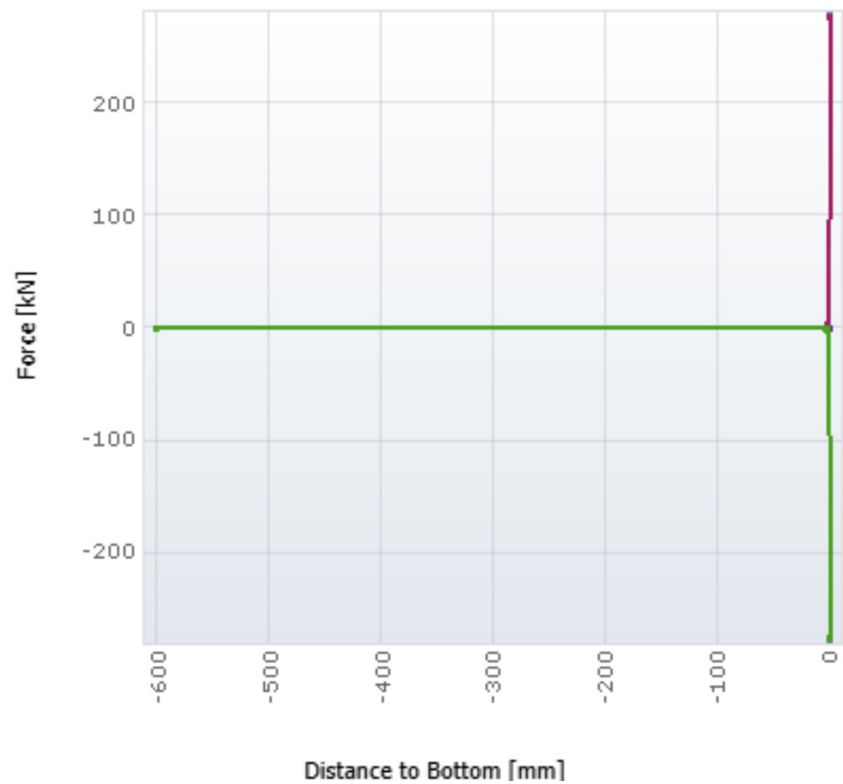
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Bemerkung
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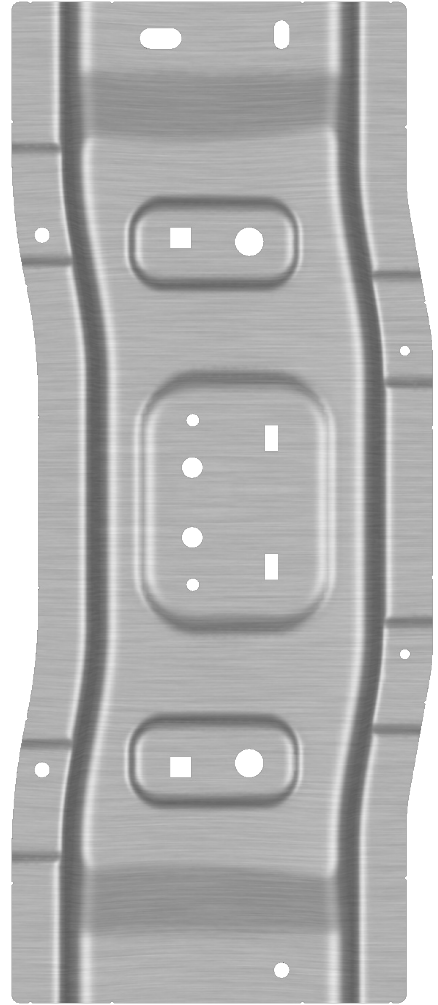
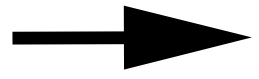
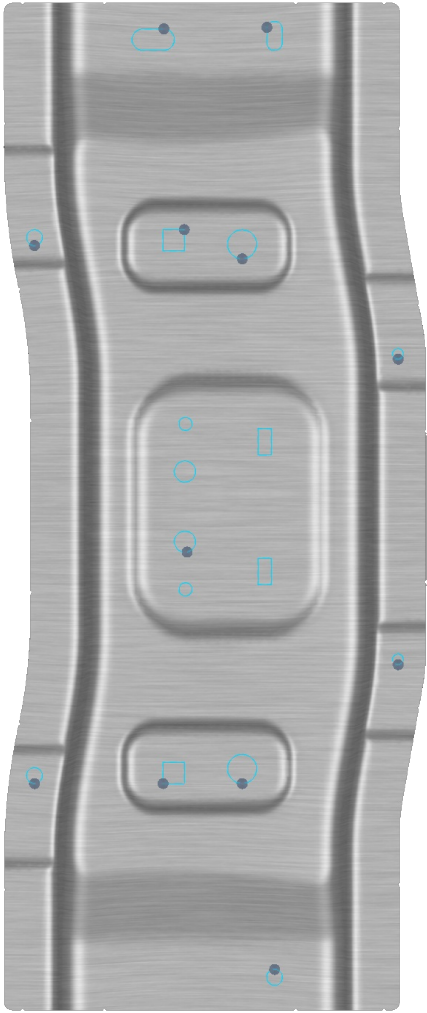
Total Forces Legends		
Tools	Legend Color	Max Force
Ram	<span style="color: red;">■</span>	277.1 kN
Bed	<span style="color: green;">■</span>	277.2 kN

### Bemerkung

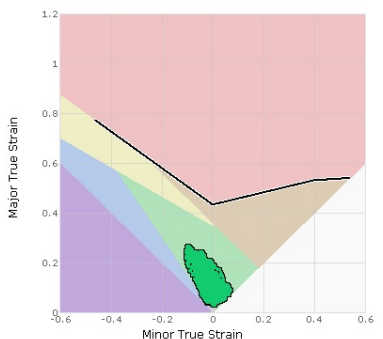
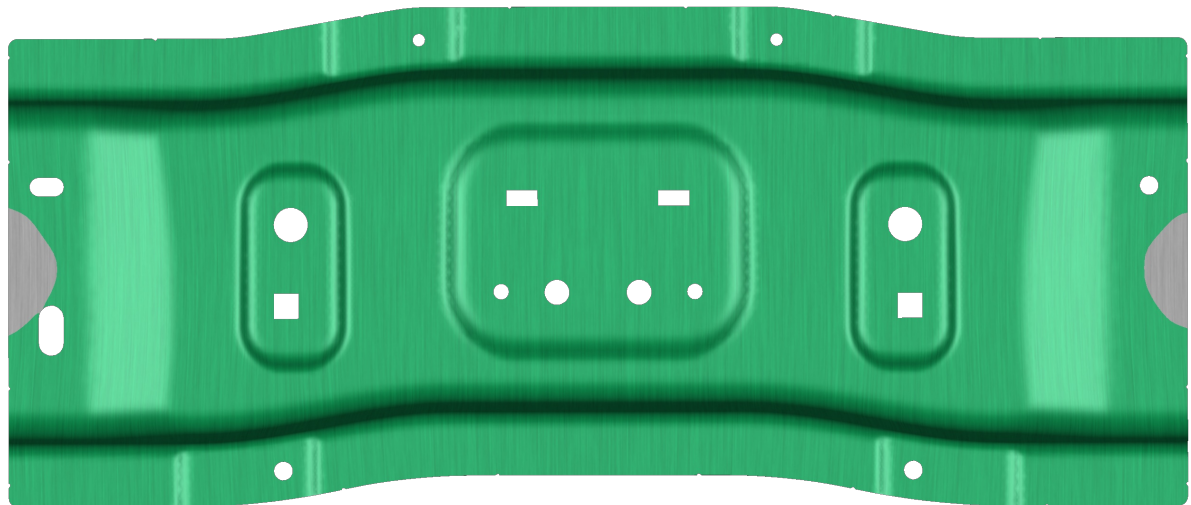
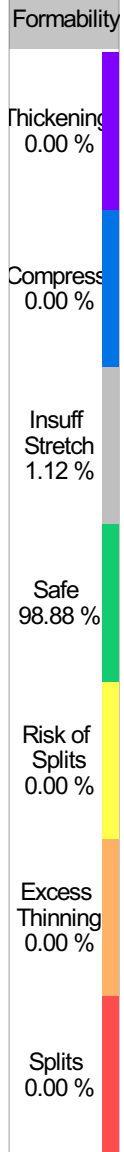
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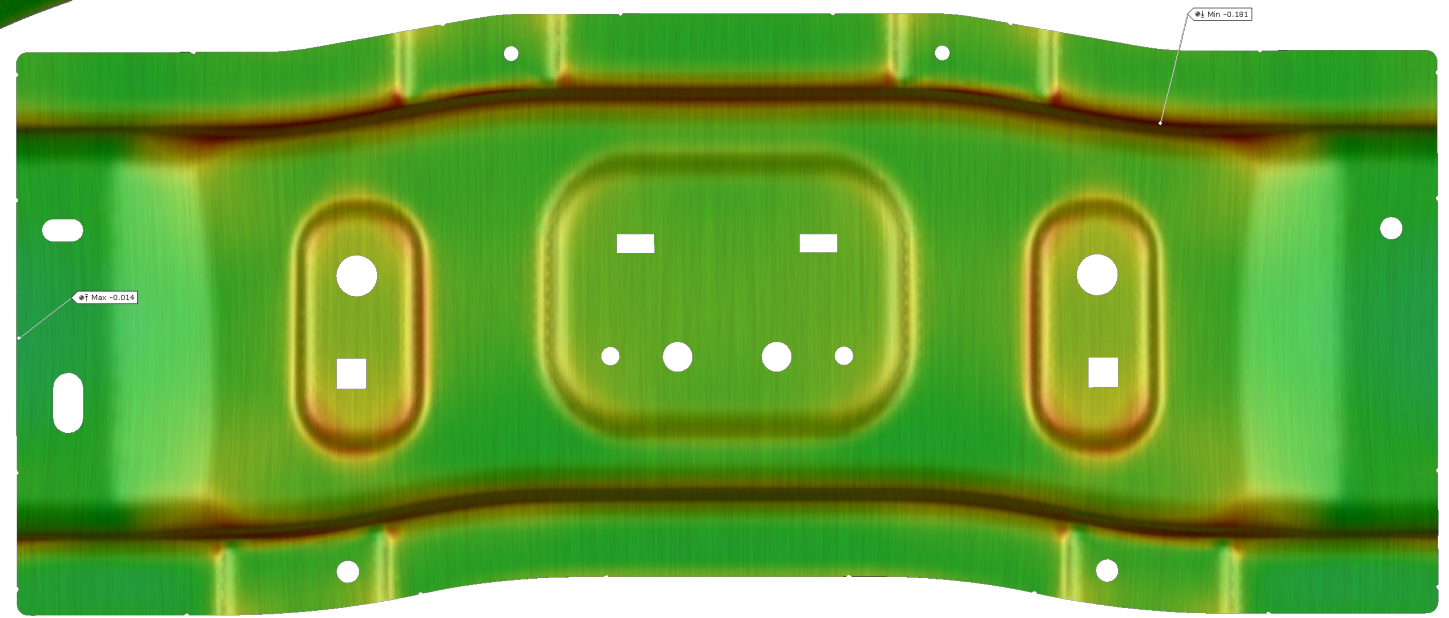
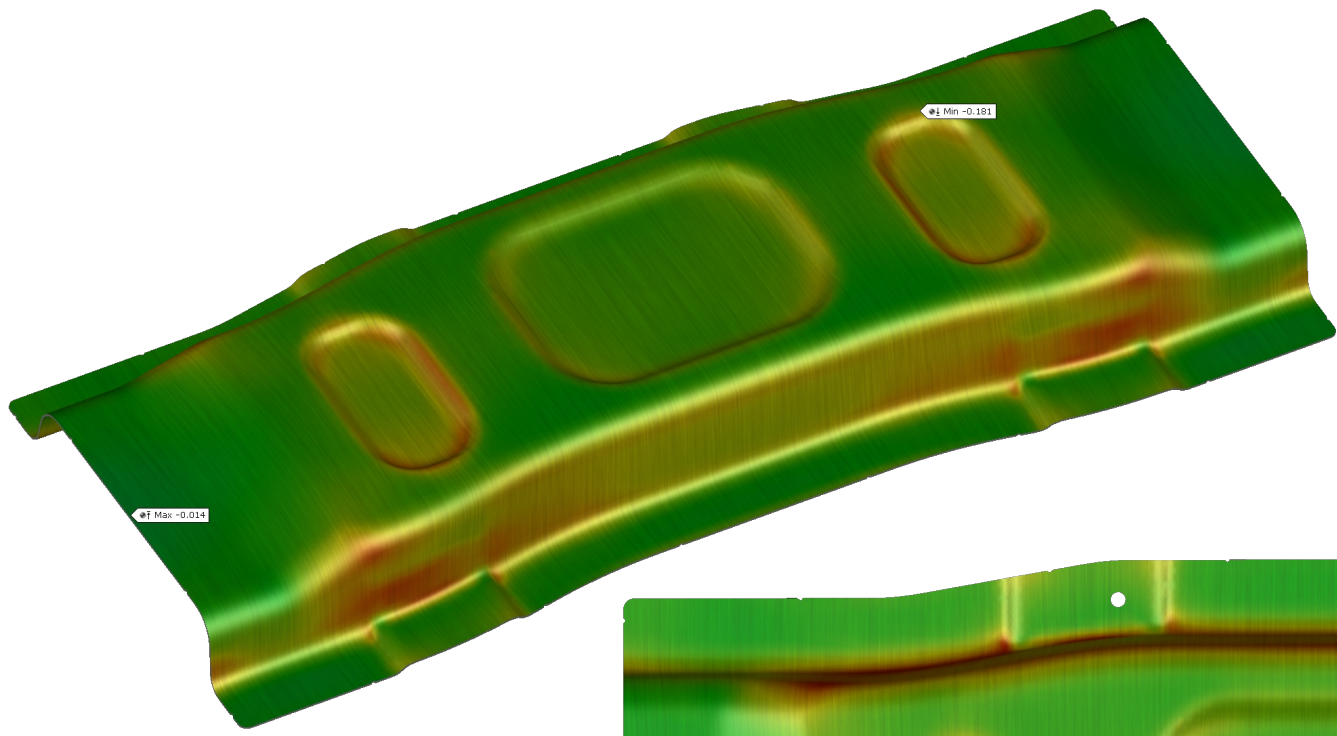
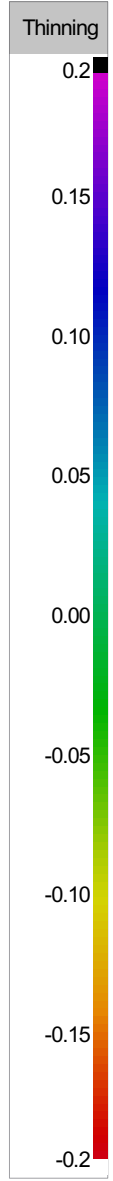


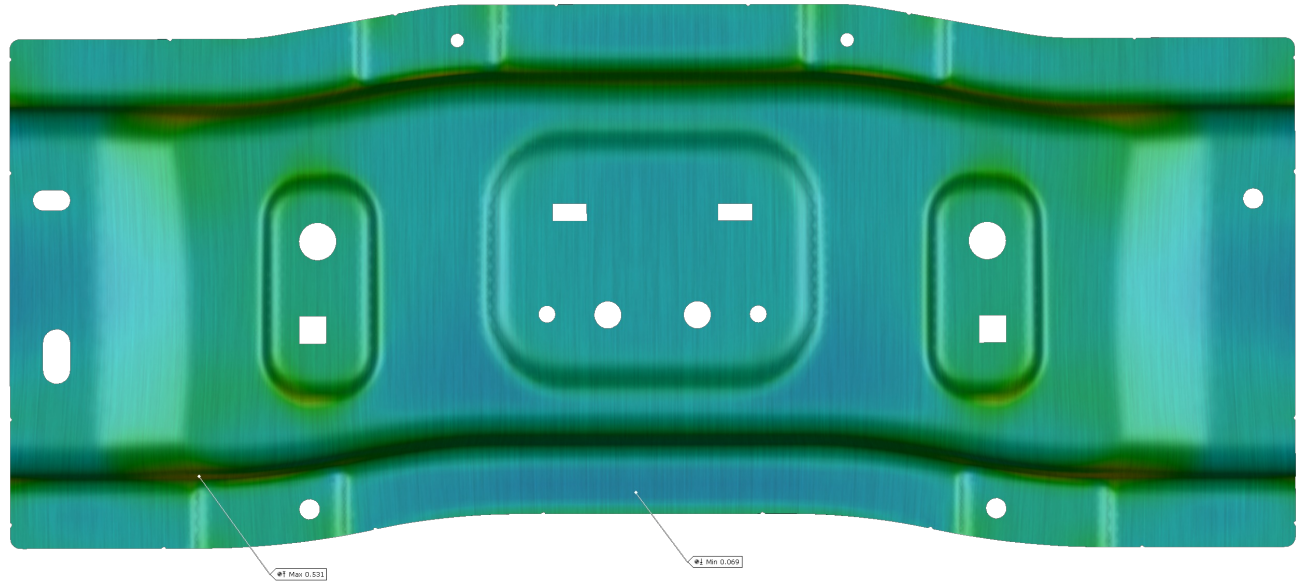
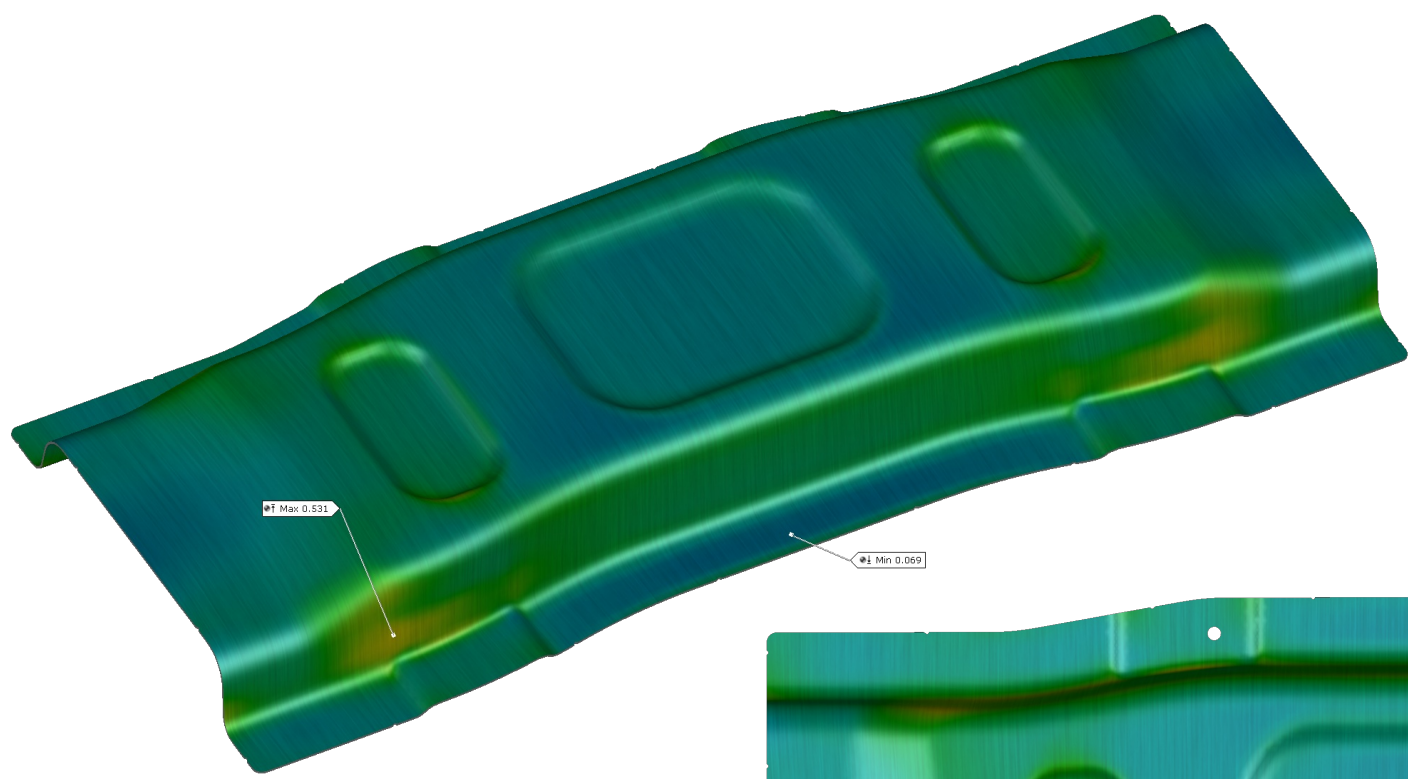
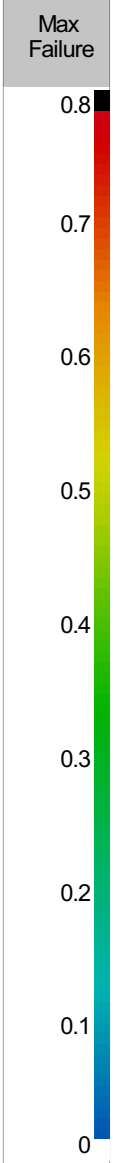


Formabilities	
Material	DC06_Vegter_1.2-1.6
Settings Source	Formability_Default.xml
FLC Limit	0.000
Acceptable Thinning	0.300
Safety Margin	20.0 %
Required Thinning	0.020
Use Compression	Enable
Acceptable Thickening	0.010

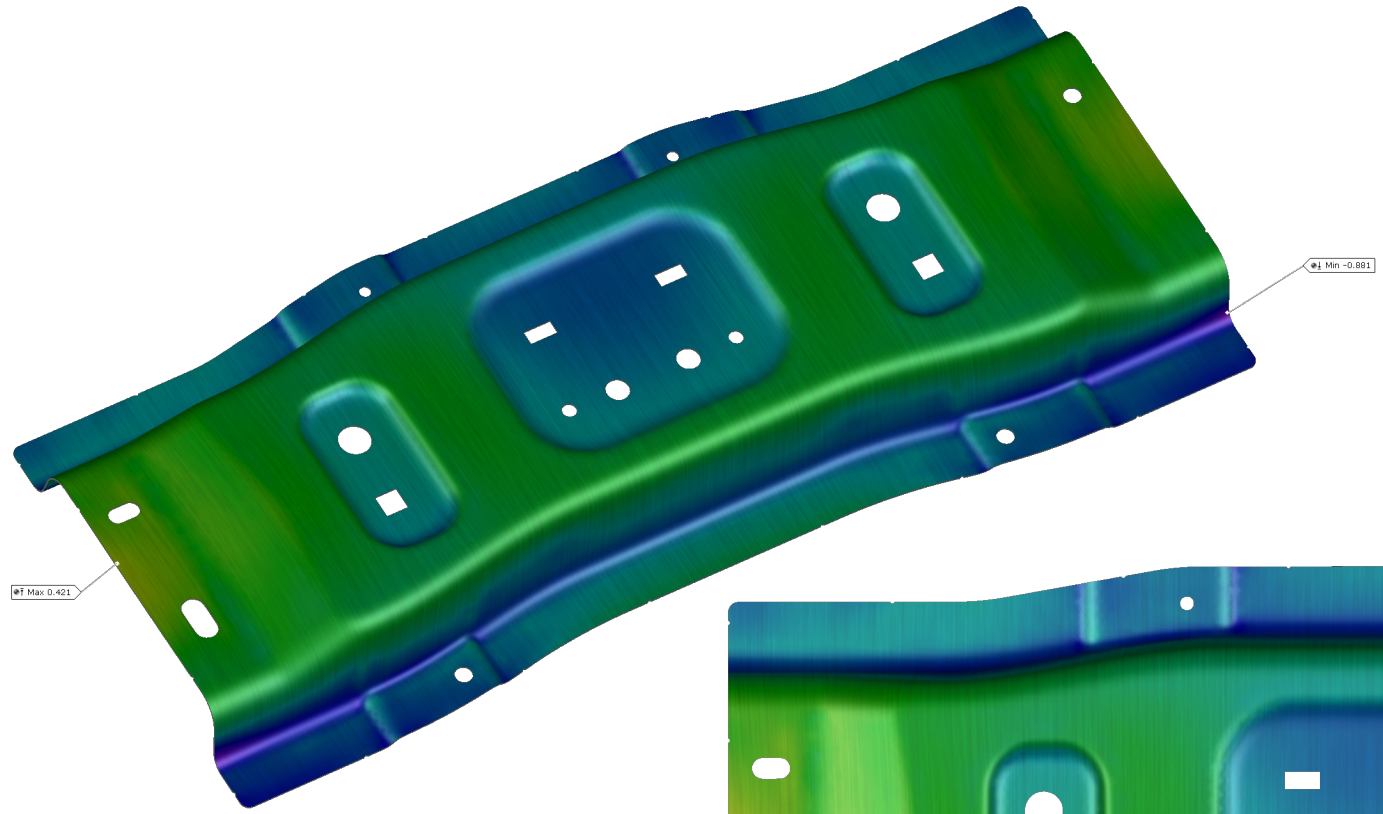
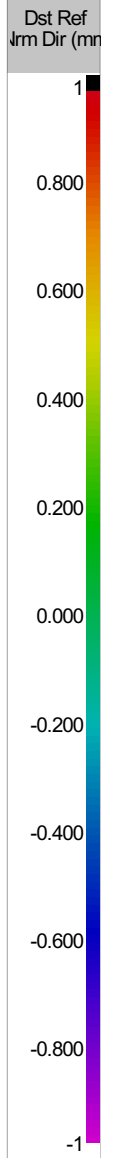


### Thinning / Thermal Simulation: Mechanical Thinning



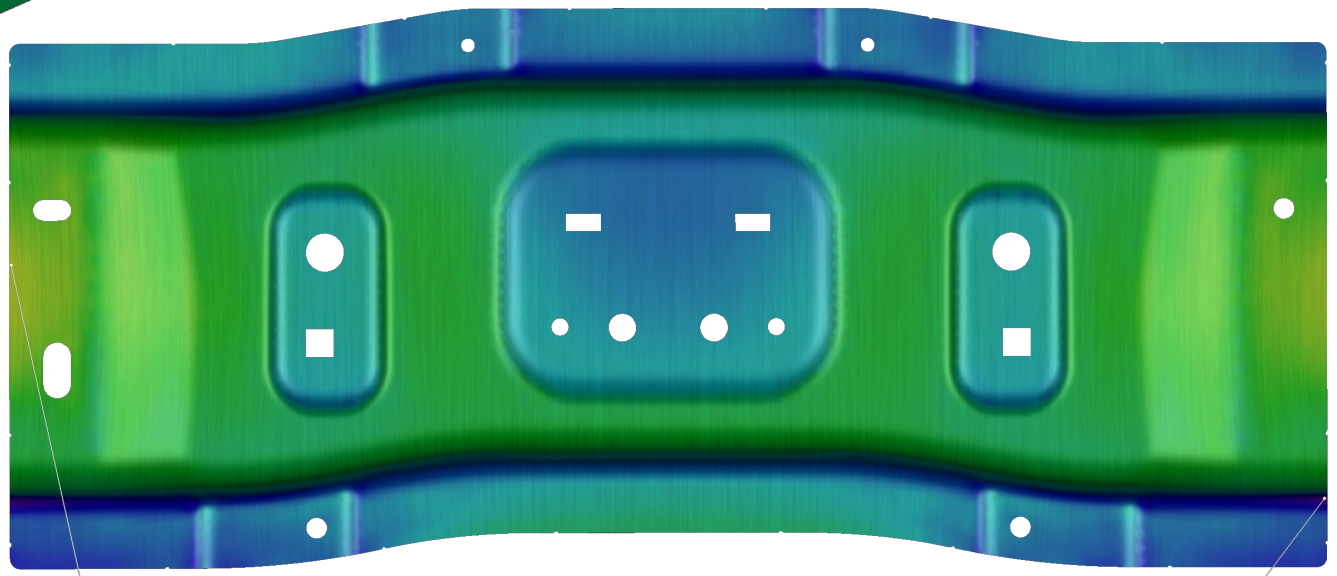


Distance from Ref in Normal Dir



Min -0.881

Max 0.421



Max 0.421

Min -0.801



Distance from Ref in Normal Dir

