
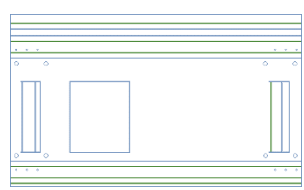


# Global Edge CAD Part Parameter Report

Part Number	Description	UOM	Type	Cat.	Style	Mtl.
BP-06-SS-304-4-075-125	BEND PROCESS TEST PART 06	EA	C	SHT	-	304-4
Setup Cost:	104.2500	Material:	304-4-STAINLESS STEEL			
Process Cost:	18.7399	Ship Weight:	110.97			
Component Cost:	525.1589	Ship Weight UOM:	lbs			
Rollup Cost:	648.1488	Standard Cost:	648.1488			


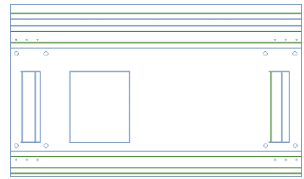
## CAD Part Parameters

Par. #	Parameter Name	Value	UOM	Par. #	Parameter Name	Value	UOM
1	Sheet Length:	0.000000	inches	25	Minimum Pem Gap:	1.200000	inches
2	Sheet Width:	0.000000	inches	26	Minimum Down Pem Gap:	1.800000	inches
3	Blank Length:	0.000000	inches	27	Minimum Emboss Gap:	3.000000	inches
4	Blank Width:	0.000000	inches	28	Minimum Down Emboss Gap:	1.200000	inches
5	Material thickness:	0.078120	inches	29	Minimum Louver Gap:	2.000000	inches
6	Perimeter:	312.338773	inches	30	Minimum Down Louver Gap:	0.000000	inches
7	Flat Length:	98.000000	inches	31	Min. Taper Bend Line Gap:	0.000000	inches
8	Flat Width:	58.169387	inches	32	Minimum Die Cutout:	0.000000	inches
9	Round Hole Count:	20.000000	-	33	Up Bend Count:	6.000000	-
10	Round Sizes Count:	2.000000	-	34	Internal Up Bends Count:	0.000000	-
11	Obround Hole Count:	0.000000	-	35	Maximum Up Bend:	0.000000	inches
12	Obround Sizes Count:	0.000000	-	36	Down Bend Count:	5.000000	-
13	Rectangular Hole Count:	1.000000	-	37	Internal Down Bends Count:	0.000000	-
14	Rectangular Sizes Count:	1.000000	-	38	Maximum Down Bend:	0.000000	inches
15	Other Hole Count:	0.000000	-	39	Fold Count:	11.000000	-
16	Other Sizes Count:	0.000000	-	40	Hem Count:	1.000000	-
17	Number of Cutouts:	21.000000	-	41	Extrude Count:	0.000000	-
18	Cutout Perimeter:	262.558000	inches	42	Bend Radius:	0.125000	inches
19	Minimum Bend Length:	35.000000	inches	43	Cutting Method:	Open	-
20	Maximum Bend Length:	80.000000	inches	44	Cutter Ref. Number:	-	-
21	Minimum Bend Angle:	45.000000	degrees	45	Certified Material:	No	-
22	Maximum Bend Angle:	90.000000	degrees	46	Material:	304-4	-
23	Minimum Flange Width:	4.000000	inches	47	Cutout Distance:	382.601221	inches
24	Maximum Flange Width:	12.000000	inches	48	Part Distance:	78.084693	inches

The "CAD Part Parameters" portion of the report includes 48 CAD Part Parameters that includes part size information, hole counts, bend lengths and angles including Pem, Embossment, and Louver gap distances. This parameter information can be directly embedded into the DXF flat file as extended data to drive "Automated Bend Program Generation". This also provides the necessary information to generate "Automated Routings" and to perform "Manufacturability Testing" on the part (refer to Page 3).

# Global Edge CAD Part Parameter Report

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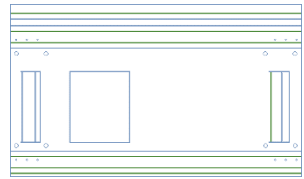
## Matching Bend Process

Bend Process #:	6	Bottom Bend, SS, 304-4, 0.07812, Radius - 0.125	Min. Bend Length:	0.750000	
Mtl. Type:	SS	Upper Tool Set:	2	Max. Bend Length:	96.000000
Material Code:	304-4	Upper Part #:	BIU-817	Min. Flange Width:	1.200000
Linear UOM:	inches	Lower Tool Set:	7	Max. Flange Width:	24.000000
Extend #:	1	Lower Part #:	OZU-318	Maximum Up Bend:	24.000000
Material Thickness:	0.078120	Inside 90 Radius:	0.125000	Maximum Down Bend:	6.000000
Minimum Thickness:	0.076120	Radius Tol:	0.010000	Min. BL Up Emboss:	1.100000
Maximum Thickness:	0.080120	K Factor 90:	0.445000	Min. BL Dn. Emboss:	1.000000
Minimum Flat Length:	6.000000	Bend Allowance 90:	0.008000	Min. BL Up Louver:	0.900000
Maximum Flat Length:	96.000000	Gage Allowance 90:	0.003000	Min. BL Down Louver:	0.000000
Minimum Flat Width:	4.000000	Tons Per Foot:	20.000000	Min. BL Up Pem:	0.800000
Maximum Flat Width:	84.000000	Maximum Tonnage:	80.000000	Min. BL Down Pem:	2.000000
Maximum Part Weight:	50.000000	Minimum Bend Angle:	39.000000	Min. BL Taper Edge:	0.000000
Mass UOM:	lbs	Maximum Bend Angle:	180.000000	Min. BL Die Cutout:	0.000000

The **“Global Edge Engineering Assistant”** provides the capability to define the various “Bend Processes” that match the capabilities of your bending machine tools that includes press brakes, panel benders, and robotic folders. As the **Global Edge** software processes each sheet metal CAD part, the software automatically matches the part with each valid bend process.

# Global Edge CAD Part Parameter Report

Part Number	Description	UOM	Type	Cat.	Style	Mtl.
BP-06-SS-304-4-075-125	BEND PROCESS TEST PART 06	EA	C	SHT	-	304-4
Setup Cost:	104.2500	Material:	304-4-STAINLESS STEEL			
Process Cost:	18.7399	Ship Weight:	110.97			
Component Cost:	525.1589	Ship Weight UOM:	lbs			
Rollup Cost:	648.1488	Standard Cost:	648.1488			

## Manufacturability Test Results

Bend Process #:	6	Bottom Bend, SS, 304-4, 0.07812, Radius - 0.125			BP-06-SS-304-4-075-125	BEND PROCESS TEST PART 06		
Material Code:	304-4	Pass	Extend #:	1	46	Material:	304-4	-
Material Thickness:	0.078120	Pass	Linear UOM:	inches	5	Material thickness:	0.078120	inches
Minimum Thickness:	0.076120		Maximum Thickness:	0.080120				
Upper Tool Set:	2		Upper Part #:	BIU-817				
Lower Tool Set:	7		Lower Part #:	OZU-318				
Inside 90 Radius:	0.125000	Pass	Radius Tol:	0.010000	42	Bend Radius:	0.125000	inches
K Factor 90:	0.445000		Bend Allowance 90:	0.008000				
Gage Allowance 90:	0.003000		Tons Per Foot:	20.000000				
Minimum Flat Length:	6.000000	302	Max. Flat Len:	96.000000	7	Flat Length:	98.000000	inches
Minimum Flat Width:	4.000000	Pass	Max. Fl. Width:	84.000000	8	Flat Width:	58.169387	inches
Maximum Tonnage:	80.000000	-						
Maximum Part Weight:	50.000000	-	Mass UOM:	lbs				
Min. Bend Length:	0.750000	Pass	-		19	Minimum Bend Length:	35.000000	inches
Max. Bend Length:	96.000000	Pass	-		20	Maximum Bend Length:	80.000000	inches
Minimum Bend Angle:	39.000000	Pass	-		21	Minimum Bend Angle:	45.000000	degrees
Maximum Bend Angle:	180.000000	Pass	-		22	Maximum Bend Angle:	90.000000	degrees
Min. Flange Width:	1.200000	Pass	-		23	Minimum Flange Width:	4.000000	inches
Max. Flange Width:	24.000000	Pass	-		24	Maximum Flange Width:	12.000000	inches
Maximum Up Bend:	24.000000	N/A	-		35	Maximum Up Bend:	0.000000	inches
Maximum Down Bend:	6.000000	N/A	-		38	Maximum Down Bend:	0.000000	inches
Min. BL Up Pem:	0.800000	Pass	-		25	Minimum Pem Gap:	1.200000	inches
Min. BL Down Pem:	2.000000	Fail	506		26	Minimum Down Pem Gap:	1.800000	inches
Min. BL Up Emboss:	1.100000	Pass	-		27	Minimum Emboss Gap:	3.000000	inches
Min. BL Dn. Emboss:	1.000000	Pass	-		28	Minimum Down Emboss Gap:	1.200000	inches
Min. BL Up Louver:	0.900000	Pass	-		29	Minimum Louver Gap:	2.000000	inches
Min. BL Down Louver:	0.000000	N/A	-		30	Minimum Down Louver Gap:	0.000000	inches
Min. BL Taper Edge:	0.000000	N/A	-		31	Min. Taper Bend Line Gap:	0.000000	inches
Min. BL Die Cutout:	0.000000	N/A	-		32	Minimum Die Cutout:	0.000000	inches

BEND PROCESS VALUE COLOR KEY

CAD MODEL / DXF VALUE COLOR KEY

The "Manufacturability Test Results" portion of the report the available 48 CAD Part Parameters with your user definable "Bend Processes" that includes the bend parameters of your available tooling sets. This process determines if a part can be successfully fabricated before it leaves engineering, subsequently saving your company thousands of dollars before a part reaches the shop floor.

# Global Edge CAD Part Parameter Report


Code	Manufacturability Error Codes
101	Material Not Defined in Part
102	Material Unit of Measure Missing from Part
103	Part Less Than Minimum Material Thickness
104	Part Exceeds Maximum Material Thickness
201	Part Exceeds Maximum Part Weight
202	Part Exceeds Maximum Allowable Tonnage
301	Part Less Than Minimum Flat Length
302	Part Exceeds Maximum Flat Length
303	Part Less Than Minimum Flat Width
304	Part Exceeds Maximum Flat Width
305	Part Exceeds Maximum Bend Length
306	Part Shortest Bend Length Less Than Minimum Bend Length
307	Part Flange Less Than Minimum Flange Width
308	Part Flange Exceeds Maximum Flange Width
309	Part Maximum Up Bend Exceeds Maximum Allowable Up Bend
310	Part Maximum Down Bend Exceeds Maximum Allowable Down Bend
401	Part Bend Angle Less Than Allowable Minimum Angle
402	Part Bend Angle Exceeds Allowable Maximum Angle
501	Part Up Embossment Too Close to Bend Line
502	Part Down Embossment Too Close to Bend Line
503	Part Up Louver Too Close to Bend Line
504	Part Down Louver Too Close to Bend Line
505	Part Up Pem Too Close to Bend Line
506	Part Down Pem Too Close to Bend Line
507	Part Taper Edge Too Close to Bend Line
508	Part Die Cutout Too Close to Bend Line

	DIM #	Variable	UOM
Material	46	Material	
Material			
Material	5	Material_Thickness	inches
Material	5	Material_Thickness	inches
Weight			
Weight			
Length	7	Flat_Length	inches
Length	7	Flat_Length	inches
Length	8	Flat_Width	inches
Length	8	Flat_Width	inches
Length	20	Max_Bend_Length	inches
Length	19	Min_Bend_Length	inches
Length	23	Min_Flange_Width	inches
Length	24	Max_Flange_Width	inches
Length	35	Max_Up_Bend	inches
Length	38	Max_Down_Bend	inches
Angle	21	Min_Bend_Angle	inches
Angle	22	Max_Bend_Angle	inches
Bend Line	27	Min_Emboss_Gap	inches
Bend Line	28	Min_Dn_Emboss_Gap	inches
Bend Line	29	Min_Louver_Gap	inches
Bend Line	30	Min_Dn_Louver_Gap	inches
Bend Line	25	Min_Pem_Gap	inches
Bend Line	26	Min_Dn_Pem_Gap	inches
Bend Line	31	Min_Taper_Bl_Gap	inches
Bend Line	32	Min_Die_Cutout	inches

The **“Global Edge Engineering Assistant”** includes a list of **“Manufacturability Error Codes”** that are included in the Manufacturability Testing process and will be displayed with the specific CAD part parameters that fail the test.

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Extended DXF Data						
Bend Process #:	6	Bottom Bend, SS, 304-4, 0.07812, Radius - 0.125				
Material Code:	304-4	Upper Tool Set:	2	Lower Tool Set:	7	
Material Thickness:	0.078120	inches	Upper Part #:	BIU-817	Lower Part #:	OZU-318

The *“Global Edge Engineering Assistant”* automatically incorporates the above Extended Data Part Parameters into Extended Data DXF Flat Files that can be automatically read by most Bend Simulation Software to facilitate Automated Bend Program Generation.

Part Routing								
Trans #	Seq. #	Process	Description	UOM	Setup Time	Setup Cost	Process Time	Std. Proc. Cost
377	1	LASER-CUT	Laser Cut Operation	hours	0.100000	14.0000	0.048142	6.7399
378	2	BEND	Press Brake Bending Operation	hours	0.500000	37.5000	0.050000	3.7500
379	3	INSTALL-PEM-STUDS	Install Pem Studs	hours	0.350000	17.5000	0.010000	0.5000
380	4	GENERAL-LABOR	General Labor Operation	hours	0.250000	12.5000	0.050000	2.5000
381	5	FINAL-INSPECT	Final Inspection Operation	hours	0.250000	8.7500	0.050000	1.7500
382	6	PACKAGE	Package Operation	hours	0.250000	8.7500	0.050000	1.7500
383	7	SHIPPING	Shipping Operation	hours	0.150000	5.2500	0.050000	1.7500
					1.850000	\$104.2500	0.308142	\$18.7399

The *“Part Routing”* portion of the report includes optimal the routing that are automatically generated based on user definable utilizing the available 48 CAD Part Parameters. The *“Global Edge Routing Configurator”* generates routings according to the capabilities of your machine tools and provides accurate time and material cost rollups. The above sample is based on a part quantity of one and also generates quantity pricing based on various levels of production.