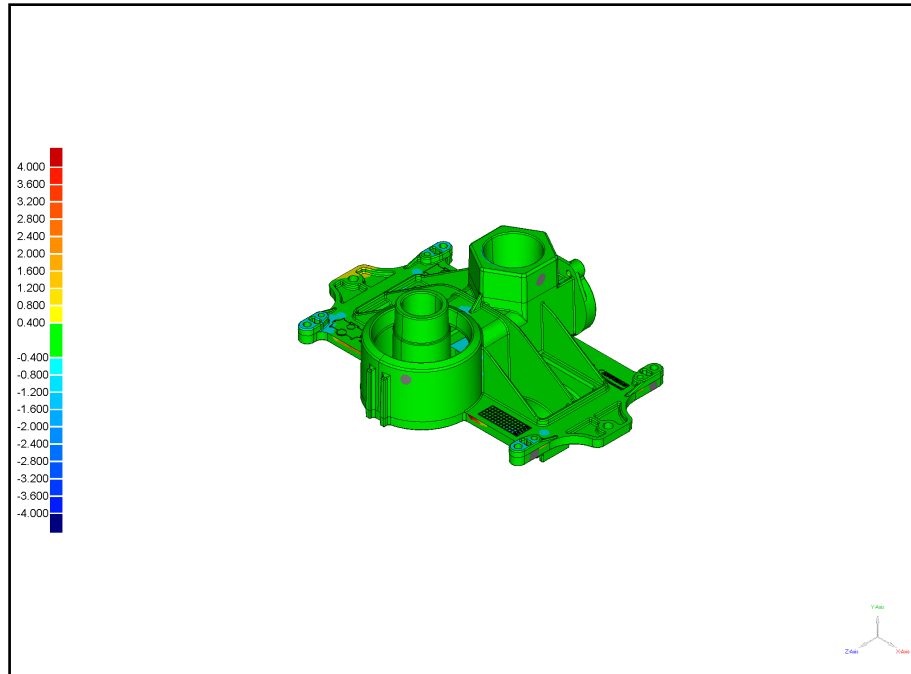


Qualify Report

Title: RE Check Pump Casting
Date Inspected: 8/2/2009
Date Generated: 11/3/2009, 11:34 am



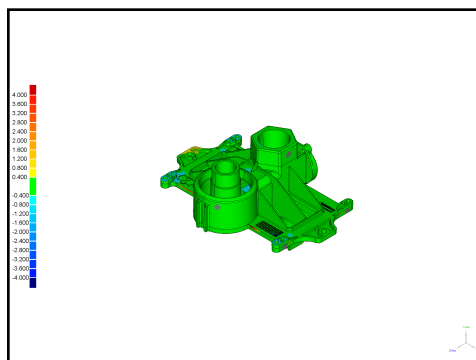
Author: GKS Global Services
Part: Cav2
Test: wm025867-0002

3D Comparison Results

Reference Model	Cav2
Test Model	wm025867-0002
No. of Data Points	4178823
# Outliers	5152

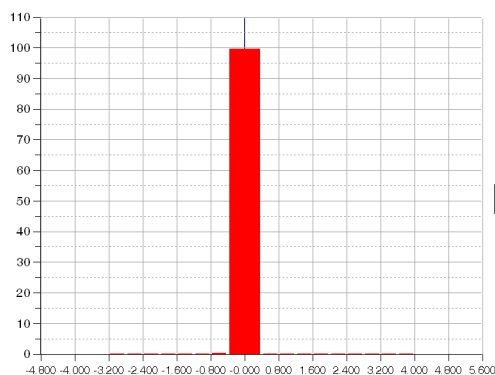
Tolerance Type	3D Deviation
Units	mm
Max. Critical	4.000
Max. Nominal	0.400
Min. Nominal	-0.400
Min. Critical	-4.000

Deviation	mm
Max. Upper Dev.	6.104
Max. Lower Dev.	-3.668
Average Deviation	0.116 /-0.165
Standard Deviation	0.190



Percentage Deviations

>=Min	<Max	# Points	%
-4.000	-3.600	0	0.000
-3.600	-3.200	0	0.000
-3.200	-2.800	1	0.000
-2.800	-2.400	1	0.000
-2.400	-2.000	6	0.000
-2.000	-1.600	9	0.000
-1.600	-1.200	29	0.001
-1.200	-0.800	127	0.003
-0.800	-0.400	13366	0.320
-0.400	0.400	4161181	99.578
0.400	0.800	2455	0.059
0.800	1.200	374	0.009
1.200	1.600	237	0.006
1.600	2.000	188	0.004
2.000	2.400	249	0.006
2.400	2.800	150	0.004
2.800	3.200	92	0.002
3.200	3.600	95	0.002
3.600	4.000	70	0.002

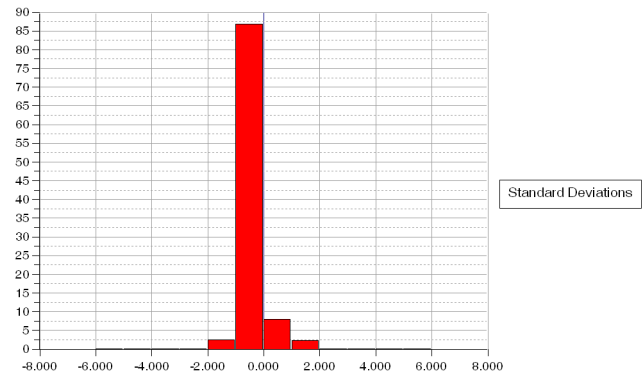


Deviation Distribution

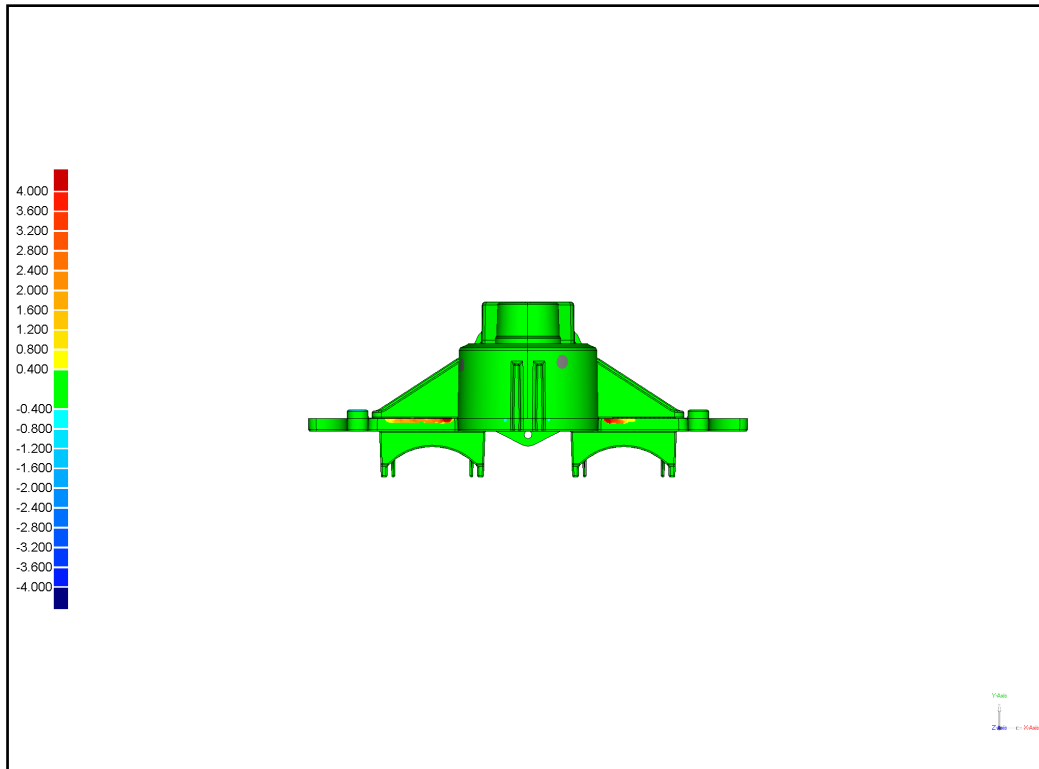
Out of Upper Critical	193	0.005
Out of Lower Critical	0	0.000

Standard Deviations

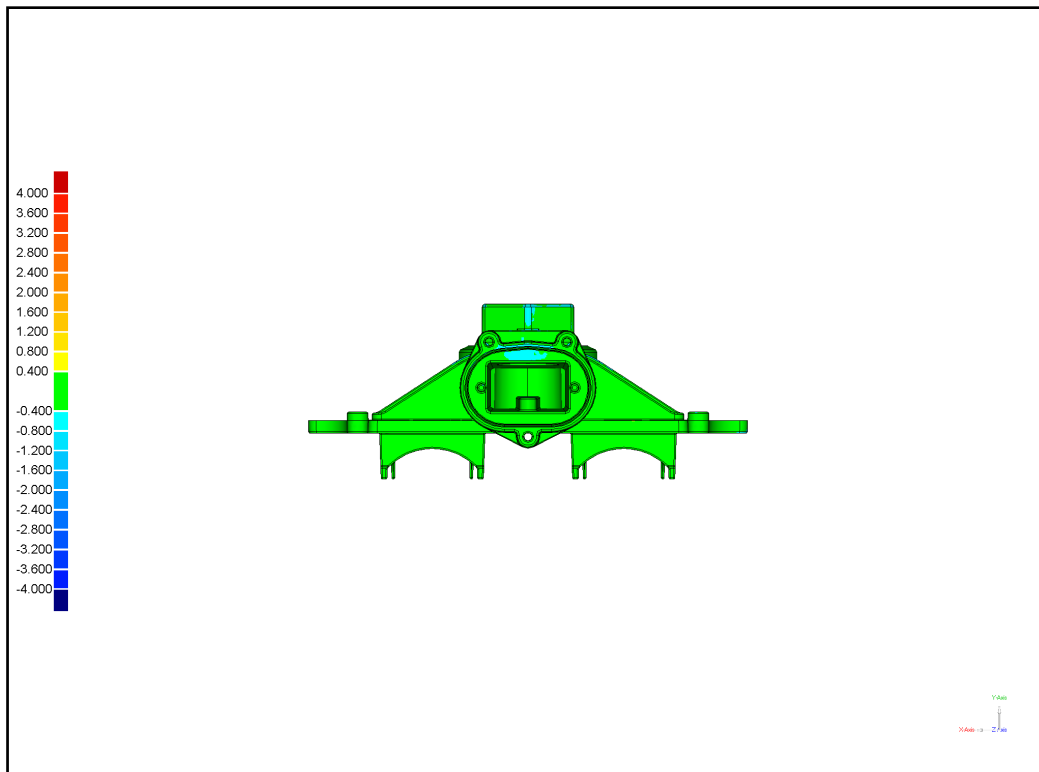
Distribution (+/-)	# Points	%
-6 * Std. Dev.	77	0.002
-5 * Std. Dev.	72	0.002
-4 * Std. Dev.	301	0.007
-3 * Std. Dev.	2550	0.061
-2 * Std. Dev.	105613	2.527
-1 * Std. Dev.	3630777	86.885
1 * Std. Dev.	333787	7.988
2 * Std. Dev.	97229	2.327
3 * Std. Dev.	5222	0.125
4 * Std. Dev.	1089	0.026
5 * Std. Dev.	562	0.013
6 * Std. Dev.	1544	0.037



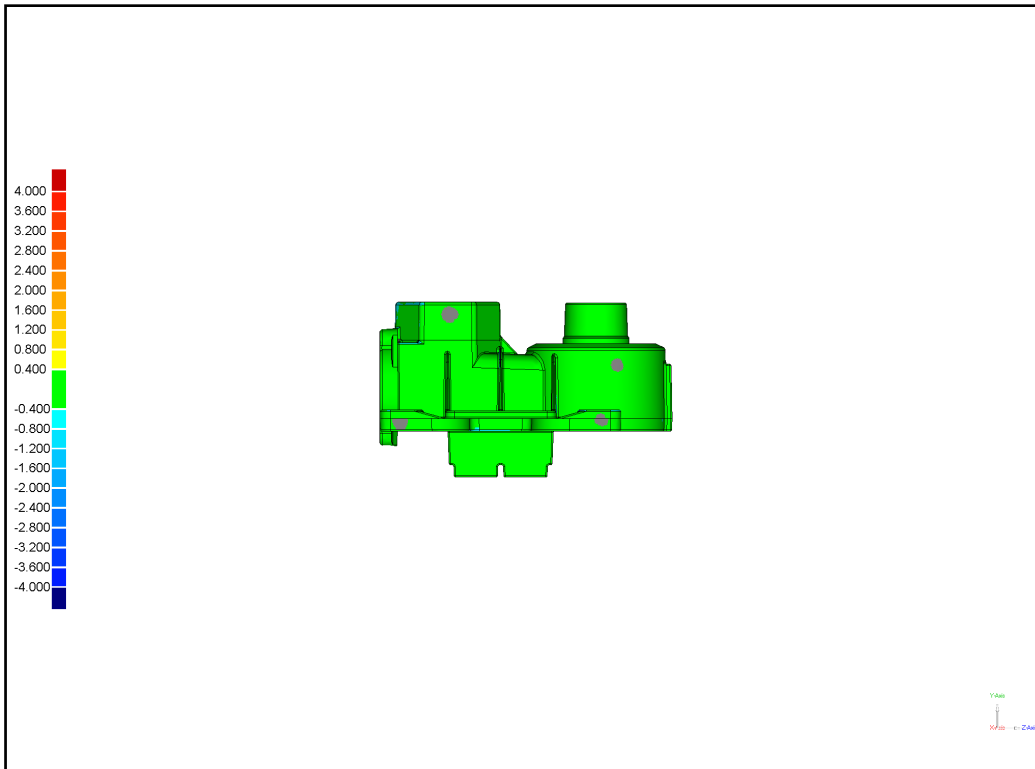
Predefined: Front



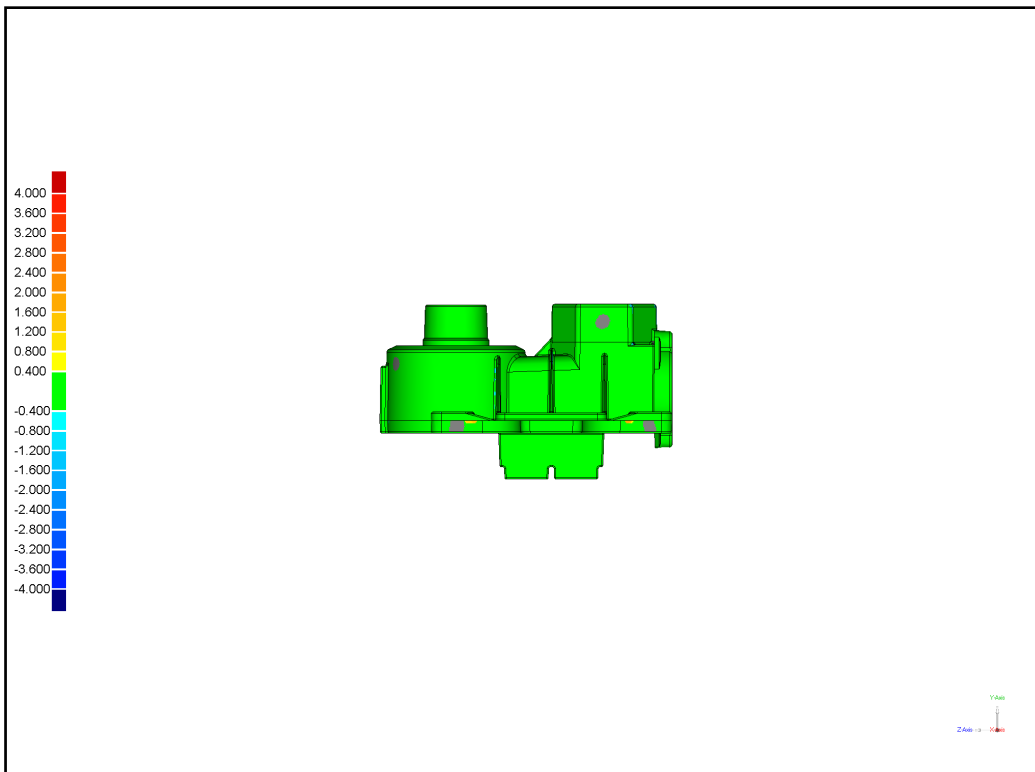
Predefined: Back



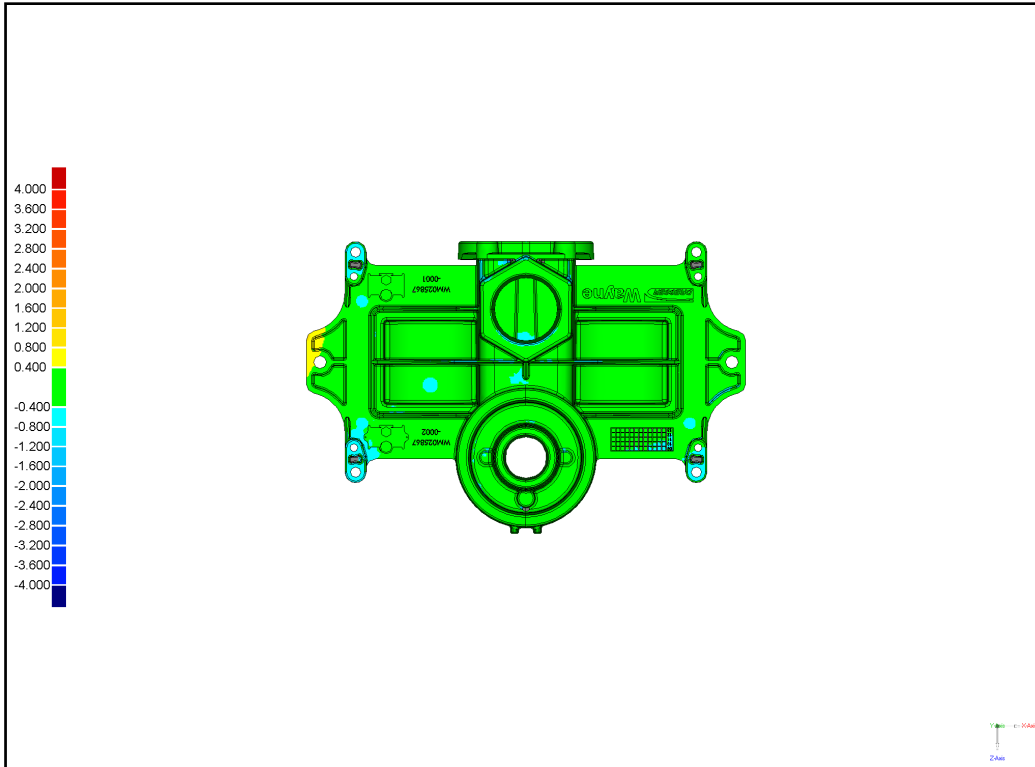
Predefined: Left



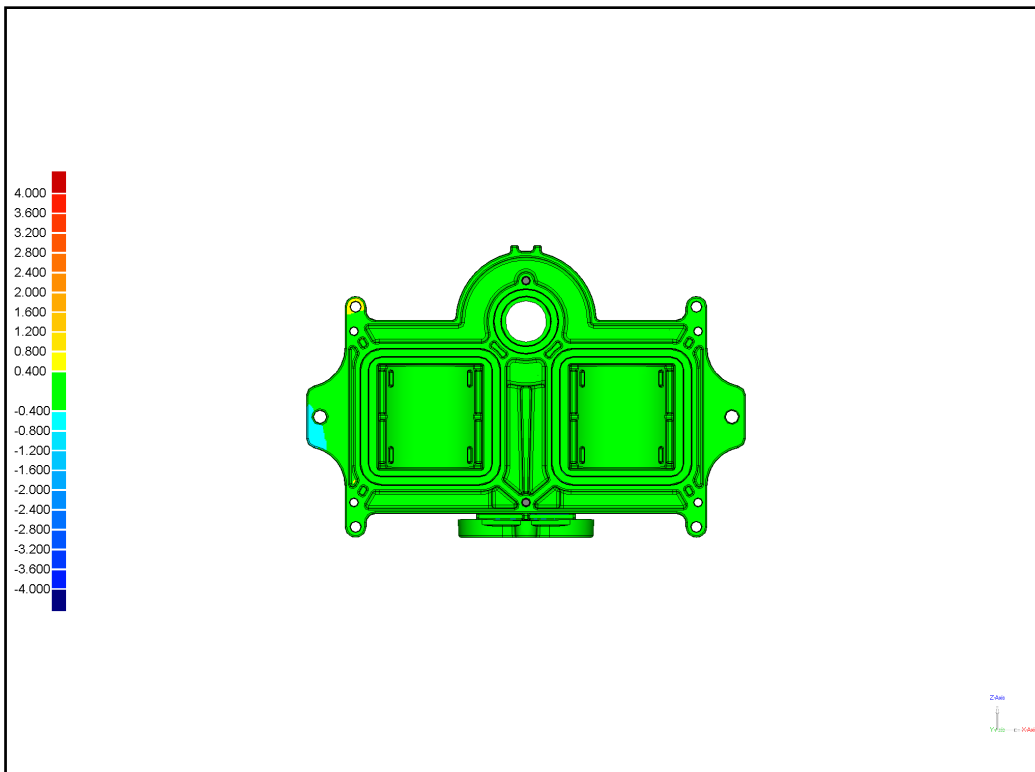
Predefined: Right



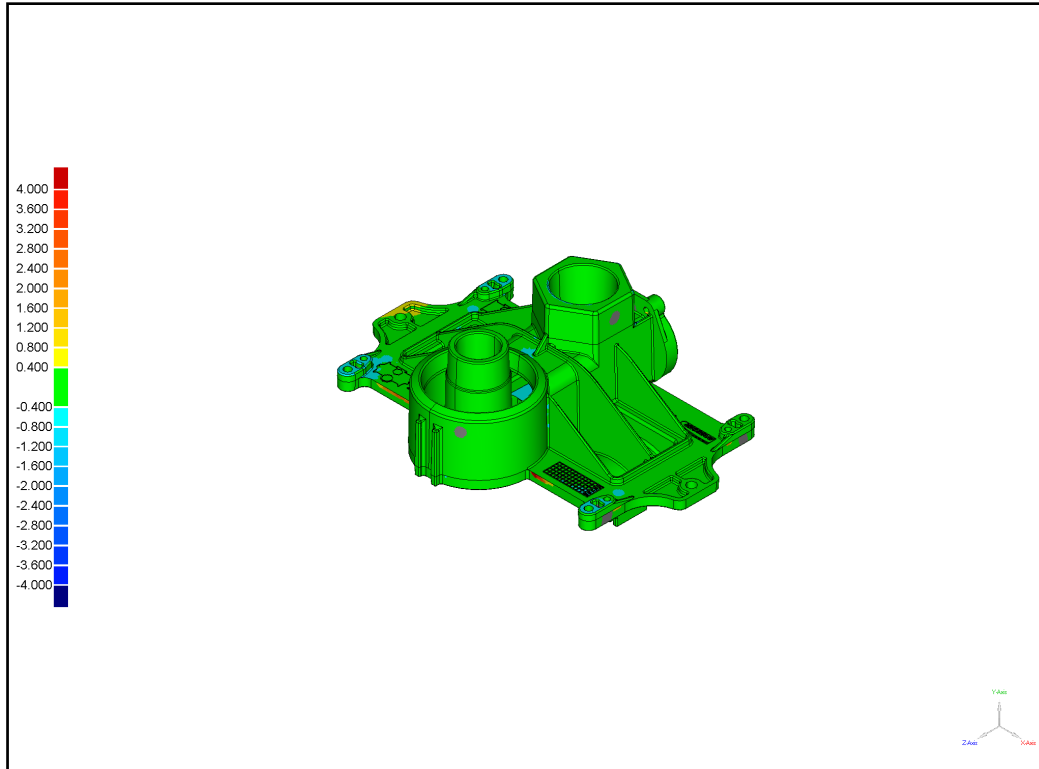
Predefined: Top



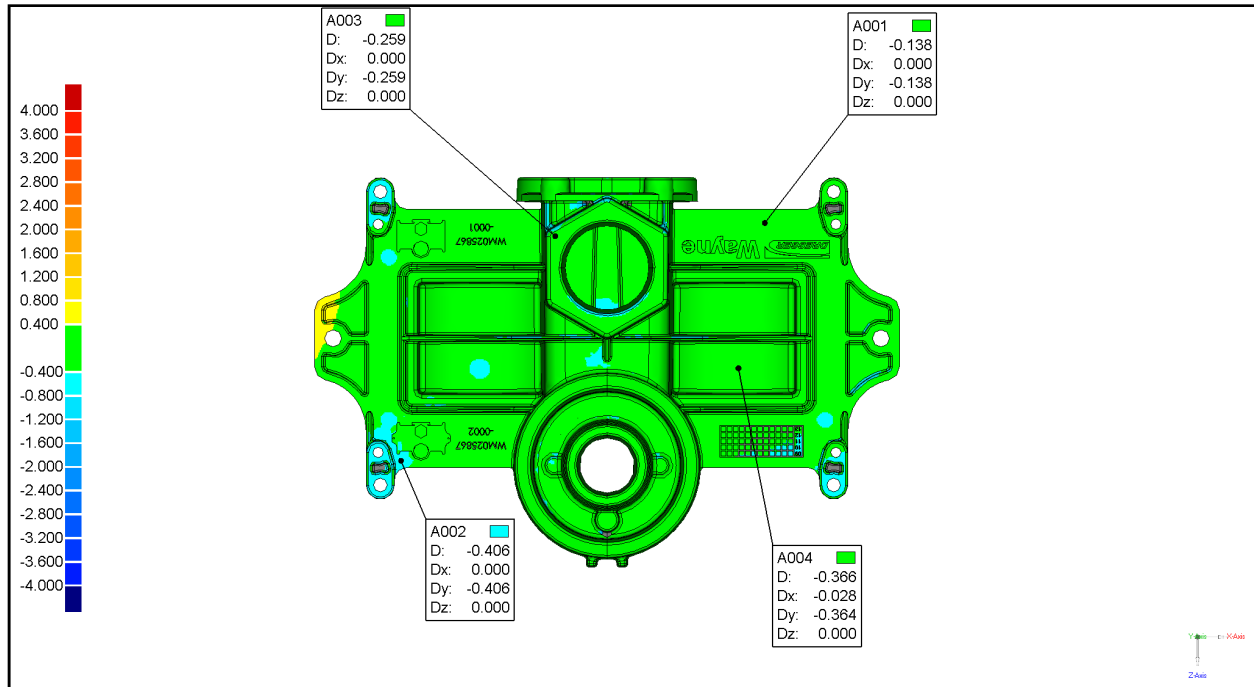
Predefined: Bottom



Predefined: Isometric

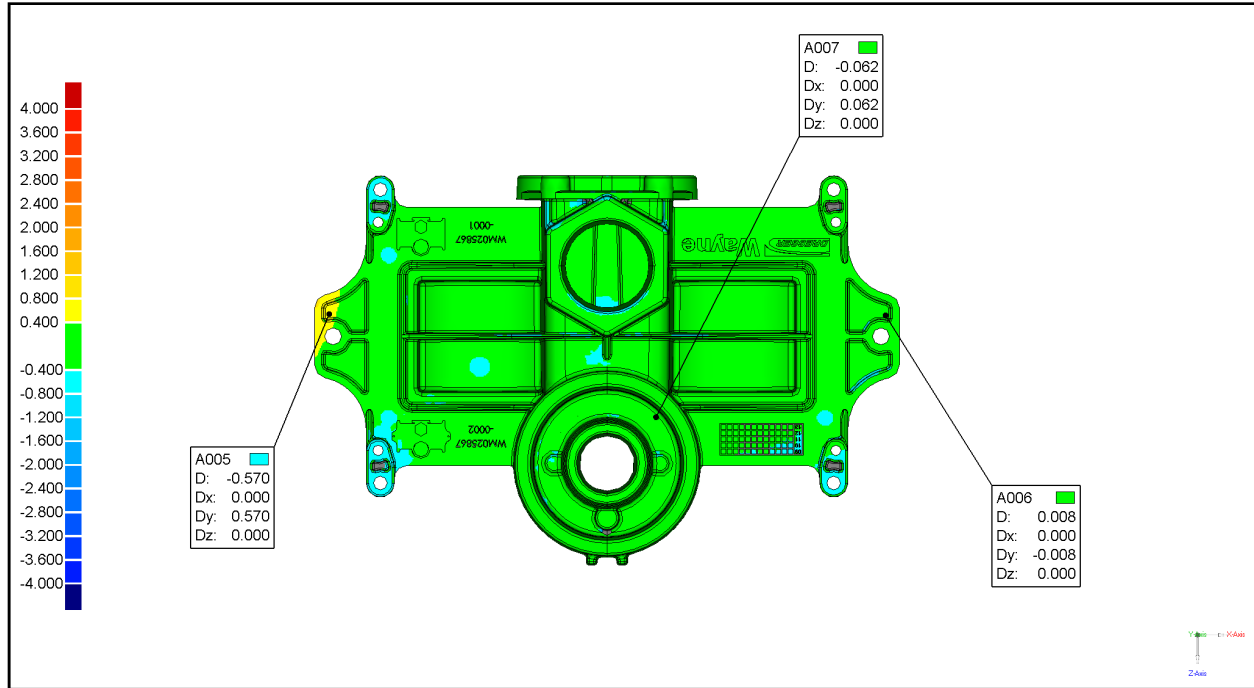


Annotated: Annotation View 1



Name	Dev	Status	Upper Tol.	Lower Tol.	Ref X	Ref Y	Ref Z	Dev Radius	Dev X	Dev Y	Dev Z	Test X	Test Y	Test Z	Normal X	Normal Y	Normal Z
A001	-0.138	PASS	1.000	-1.000	77.624	4.000	-56.626	1.000	0.000	-0.138	0.000	77.624	3.862	-56.626	0.000	1.000	0.000
A002	-0.406	PASS	1.000	-1.000	-101.369	4.000	60.109	1.000	0.000	-0.406	0.000	-101.369	3.594	60.109	0.000	1.000	0.000
A003	-0.259	PASS	1.000	-1.000	-25.492	80.400	-50.140	1.000	0.000	-0.259	0.000	-25.492	80.141	-50.140	0.000	1.000	0.000
A004	-0.366	PASS	1.000	-1.000	64.654	-10.555	14.712	1.000	-0.028	-0.364	0.000	64.626	-10.920	14.712	0.076	0.997	-0.000

Annotated: Annotation View 2



Units:mm

CSYS: World CSYS

Name	Dev	Status	Upper Tol.	Lower Tol.	Ref X	Ref Y	Ref Z	Dev Radius	Dev X	Dev Y	Dev Z	Test X	Test Y	Test Z	Normal X	Normal Y	Normal Z
A005	-0.570	PASS	1.000	-1.000	-136.679	-4.380	-10.929	1.000	0.000	0.570	0.000	-136.679	-3.810	-10.929	0.000	-1.000	0.000
A006	0.008	PASS	1.000	-1.000	136.999	-4.380	-10.281	1.000	0.000	-0.008	0.000	136.999	-4.388	-10.281	0.000	-1.000	0.000
A007	-0.062	PASS	1.000	-1.000	24.155	-1.380	39.656	1.000	0.000	0.062	0.000	24.155	-1.318	39.656	0.000	-1.000	0.000

Annotated: All

Units:mm

Name	Dev	Status	Upper Tol.	Lower Tol.	Ref X	Ref Y	Ref Z	Dev Radius	Dev X	Dev Y	Dev Z	Test X	Test Y	Test Z	Normal X	Normal Y	Normal Z
A001	-0.138	PASS	1.000	-1.000	77.624	4.000	-56.626	1.000	0.000	-0.138	0.000	77.624	3.862	-56.626	0.000	1.000	0.000
A002	-0.406	PASS	1.000	-1.000	-101.369	4.000	60.109	1.000	0.000	-0.406	0.000	-101.369	3.594	60.109	0.000	1.000	0.000
A003	-0.259	PASS	1.000	-1.000	-25.492	80.400	-50.140	1.000	0.000	-0.259	0.000	-25.492	80.141	-50.140	0.000	1.000	0.000
A004	-0.366	PASS	1.000	-1.000	64.654	-10.555	14.712	1.000	-0.028	-0.364	0.000	64.626	-10.920	14.712	0.076	0.997	-0.000
A005	-0.570	PASS	1.000	-1.000	-136.679	-4.380	-10.929	1.000	0.000	0.570	0.000	-136.679	-3.810	-10.929	0.000	-1.000	0.000
A006	0.008	PASS	1.000	-1.000	136.999	-4.380	-10.281	1.000	0.000	-0.008	0.000	136.999	-4.388	-10.281	0.000	-1.000	0.000
A007	-0.062	PASS	1.000	-1.000	24.155	-1.380	39.656	1.000	0.000	0.062	0.000	24.155	-1.318	39.656	0.000	-1.000	0.000

Locations: Upper and Lower Deviations

Units:mm

Name	Dev	Status	Upper Tol	Lower Tol	Ref X	Ref Y	Ref Z	Radius	Dev X	Dev Y	Dev Z	Measured X	Measured Y	Measured Z	Normal X	Normal Y	Normal Z
Lower Dev.	-3.470				19.797	49.130	-66.453	n/a	0.000	-3.361	-0.862	19.797	45.769	-67.315	0.000	0.969	0.249
Upper Dev.	6.104				51.706	2.490	63.290	n/a	0.000	-0.213	6.100	51.706	2.277	69.390	0.000	-0.035	0.999