

NIST Fully-Toleranced Test Case 06 - Feature and Specification Index [FTC06]

12/14/2016

Rev. D

Bryan Fischer

Advanced Dimensional Management LLC

Feature ID	Feature Description	Specification	Element ID	Comments
F1	Datum Feature A	Flatness .01	T1	
		Datum Feature Symbol A	DF1	
F2	Datum Feature B	12.00 ±.01	D1	
		Perpendicularity .012 A	T2	
		Datum Feature Symbol B	DF2	
F3	Datum Feature C	Perpendicularity .012 A B	T3	
		Datum Feature Symbol C	DF3	
F4	Datum Feature D	Profile Surface .02 A B C	T4	
		Flatness .01	T5	
		Datum Feature Symbol D	DF4	
F5	Datum Feature E	Profile Surface .02 A B C	T6	
		Flatness .01	T7	
		Datum Feature Symbol E	DF5	
F6-F9	Datum Feature F	4X Ø.281 ±.008	D2	
		Position Ø.015 E A B	T8	
		Datum Feature Symbol F	DF6	
		4X INDIVIDUALLY	STR1	
F10	Datum Target G1	Datum Target Symbol G1	DT1	
		Represented line element	RLE1	Circular line element for datum target G1 and controlled element
		(Ø1.000)	D3	Defines RLE1
F11-F12	Datum Target H1	Datum Target Symbol H1	DT2	
		Represented line element	RLE2	Circular line element for datum target H1 and controlled element
		(Ø1.000)	D4	Defines RLE2
F12-F13	Datum Target J1, J2	Datum Target Symbols J1-J2	DT3, DT4	
		Profile Surface .05 D B C Profile Surface .01 D	T9	Surfaces are grouped
		2 SURFACES	STR2	Groups surfaces for T9
		Represented line element	RLE3	
		Represented line element	RLE4	
		(1.106)	D5	Applies to datum target lines
F14-F15	Datum Target K1, K2	Datum Target Symbols K1-K2	DT5, DT6	
		Profile Surface .05 D B C Profile Surface .01 D	T10	Surfaces are grouped
		2 SURFACES	STR3	Groups surfaces for T10
		Represented line element	RLE5	
		Represented line element	RLE6	
		(1.106)	D6	Applies to datum target lines
F16-F17	Spherical Diameter Surfaces	2X SØ 1.250 ±.008	D7	
		Position SØ.025 D B C	T11	
F18-21	Counterbored Holes - Set 1	4X Ø.415 ±.008	D8	
F22-F25		└┐Ø.625 ±.020	D9-1	
		Position Ø.025Ⓜ A B C	T12	Applies to F18-F28
F26-F29		▽.50 ±.02	D9-2	
F30-F31	Counterbored Holes - Set 2	2X Ø.562 ±.008	D10	
		Position Ø.015 C A B	T13	
F32-F33		2X └┐ Ø.812 ±.020	D11-1	
		Position Ø.025Ⓜ C A B	T14	
F34-F35		▽.56 ±.02	D11-2	
F36-F39	Counterbored Holes - Set 3	└┐Ø.40 ±.01	D12-1	
		Position Ø.02Ⓜ F	T15	Applies individually to 4 holes
F40-F43		▽.31 ±.02	D12-2	



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		4X INDIVIDUALLY	STR4	
F44-F67	Fillets	24X R.125 ±.020	D13	
F68	Spherical Cutout	(SR.500)	D14	Reference Dimension
F69-F70	Large External Rounds	2X CR.50 ±.02	D15	
F71	Tapered Center Rib Surface	 1.00 : 2.00	D16	Basic Dimension
		Profile Surface .04 A B C	T16	
F72-F73	Conic Surfaces	2X 1.00 : 3.00 	D17	Basic Dimension
	Cone w/ G1	Profile Surface .05 D B C Profile Surface .01 D	T17	Applies to cone and cylinder
F74	Cylindrical Cone Support	Profile Surface .05 D B C Profile Surface .01 D	T17	Applies to cone and cylinder
	Cone w/ H1	Profile Surface .05 D B C Profile Surface .01 D	T18	Applies to cone and cylinder
F75	Cylindrical Cone Support	Profile Surface .05 D B C Profile Surface .01 D	T18	Applies to cone and cylinder
F76	Cylindrical hole in cone w/ G1	Ø.250 ±.008	D18	
		Position Ø.015 D G	T19	
F77	Bottom of Hole	▽.50 ±.05	D19	
F78	Cylindrical hole in cone w/ H1	Ø.250 ±.008	D20	
		Position Ø.015 D H	T20	
F79	Bottom of Hole	▽.50 ±.05	D21	
F80	Width feature of size @ J1-J2	.500 ±.008	D22	
		Position .025 D C J	T21	
F81	Width feature of size @ K1-K2	.500 ±.008	D23	
		Position .025 D C K	T22	
-	General Profile Tolerance 1	Profile Surface .05 A B C	T23	
MCS1	MCS for Views 1, 2, 3		CS1-1	Main MCS for model
	MCS for DRF A		CS1-2	Same location as CS1-1
	MCS for DRF A B		CS1-3	Same location as CS1-1
	MCS for DRF A B C		CS1-4	Same location as CS1-1
	MCS for DRF C A B		CS1-5	Same location as CS1-1
MCS2	MCS for DRF D B C		CS2	
MCS3	MCS for DRF E A B		CS3	
MCS4	MCS for DRF F1		CS4	First of 4 individual datum reference frames for F
MCS5	MCS for DRF F2		CS5	Second of 4 individual datum reference frames for F
MCS6	MCS for DRF F3		CS6	Third of 4 individual datum reference frames for F
MCS7	MCS for DRF F4		CS7	Fourth of 4 individual datum reference frames for F
MCS8	MCS for DRF D G		CS8	
MCS9	MCS for DRF D H		CS9	
MCS10	MCS for DRF D C J		CS10	
MCS11	MCS for DRF D C K		CS11	
-	General Notes	NOTES...	STR5	Flat to screen

Notes:

- There are no specifications in this FTC that contain semantically-important extension lines or annotation plane placement.

Revisions:

LEGEND	
CS	Coordinate System
D	Dimension
DF	Datum Feature
DT	Datum Target
RLE	Represented Line Element
SIELD	PMI entity contains Semantically-Important Extension Line Direction
STR	String
T	Tolerance