Datum Feature Degrees of Freedom Constraint Table:

Feature		1D/2D/3D	Translational [1]DOF	Rotational DOF	Minimum Required Probe points
	L/R/O[5]				
Point	-/-/O	1D	1	0	[3]1
Line	-/R/O	2D	1	1	[4]2
Circle	-/-/O	2D	2	0	[4]3
Plane	L/R/O	3D	1	2	3
Cylinder	L/R/O	3D	2	2	6 ([2]3)
Cone	L/R/O	3D	3	2	6 ([2]3)
Sphere	-/-/O	3D	3	0	4

1. DOF = Degrees of Freedom
2. First three points must lie on a plane perpendicular to the axis
3. Should only be used if a part alignment has been completed
4. Must have the proper Projection plane (or Workplane)
5. L/R/O = (**L**evel Feature/**R**otate Feature/**O**rigin Feature)

Degrees of Freedom Alignment Examples:

Alignment [3]DRF									
	Primary			**Secondary**			**Tertiary**		
		[1]Trans	**[2]Rot**		**Trans**	**Rot**		**Trans**	**Rot**
ABC	plane	1	2	plane	1	1	plane	1	
ADB	Plane	1	2	Cylinder	2		plane		1
AGD	Plane	1	2	Cylinder	2	1→	Cylinder		←1
EBA	Cylinder	2	2	Plane		1	Plane	1	
EF	Cylinder	2	2	Cylinder	1	1			

1. Translational
2. Rotational
3. **D**atum **R**eference **F**rame