

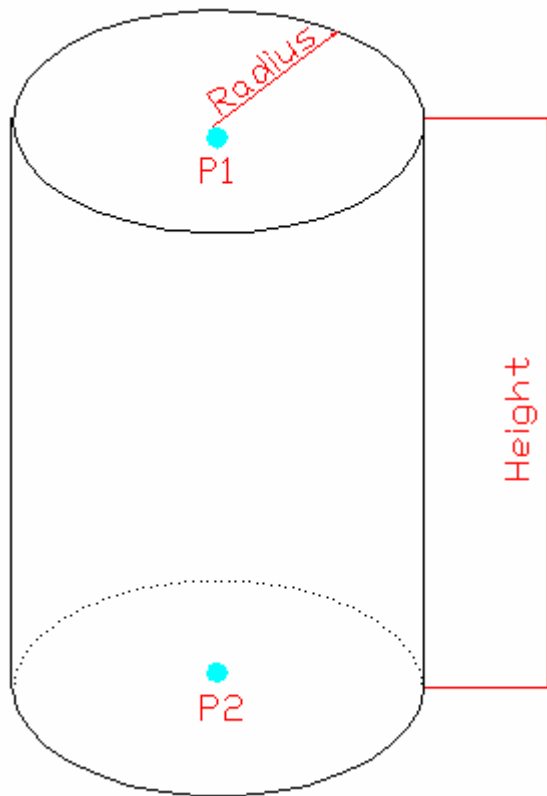
PW(PlantWAVE)

1. Pipe
2. Cylinder Element
3. Cone Element
4. Elbow
5. Tee
6. Flange
7. Box
8. Dome
9. Tetra
10. circular torus element
11. rectangular torus element
12. sphere
13. face element
14. mesh element
15. line element
16. hline element

1. Pipe<PIPE>

가 .

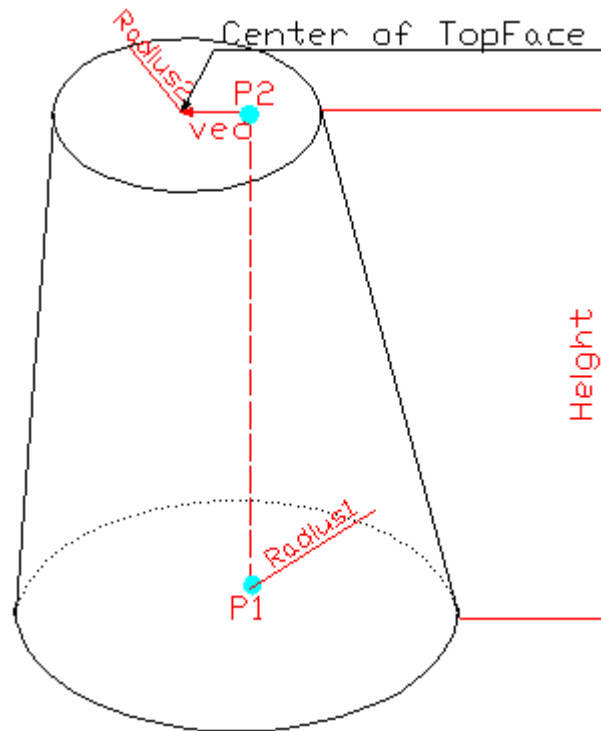
2. Cylinder Element(CYLI)



Attributes:

PT1	:	가
PT2	:	“
Radius	:	
Height	:	

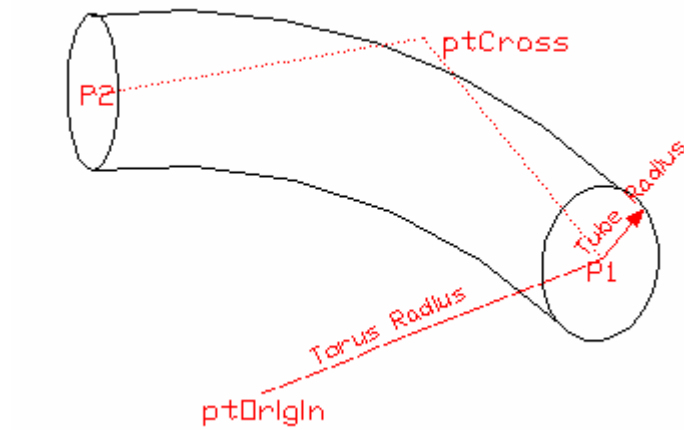
3. Cone Element(CONE)



Attributes:

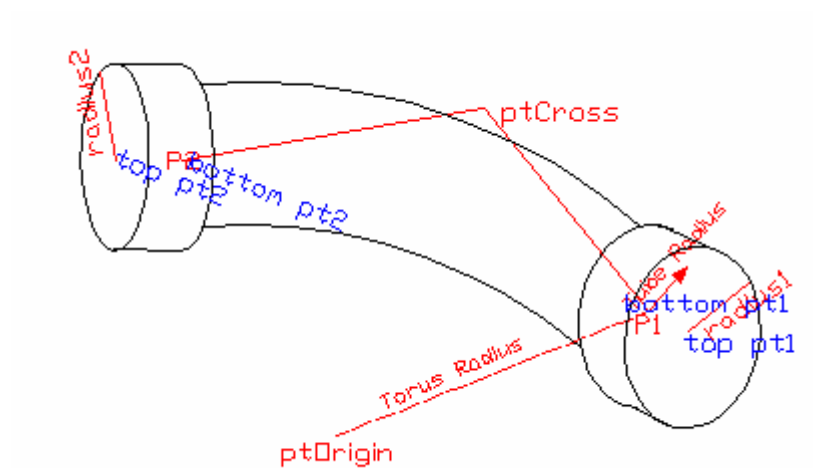
P1 :
P2 :
Vec : = P2 + Vec
Radius1 :
Radius2 :
Height :

4. Elbow<ELBO>



Attributes:

ptOrigin : Elbow
P1 : Elbow
P2 : Elbow
ptCross : Elbow
Torus Radius:
Tube Radius :



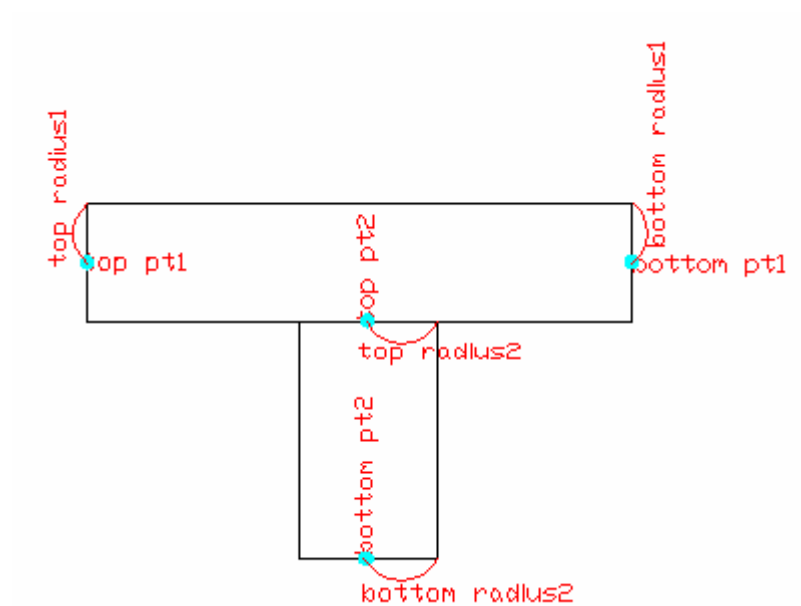
Desc:

Attributes:

ptOrigin , P1 , P2 , ptCross , Torus Radius , Tube Radius .

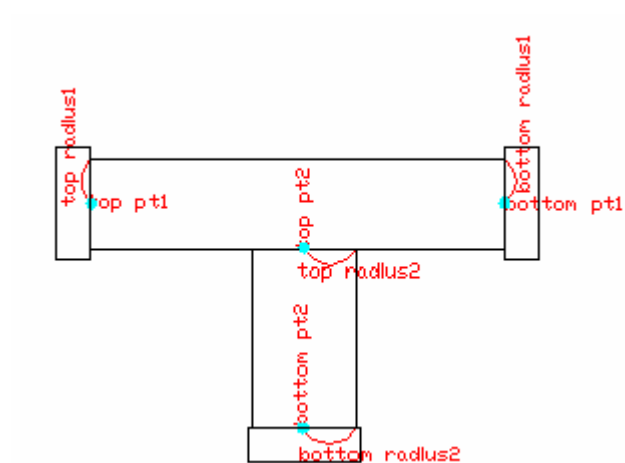
radius1	: Elbow	Pipe
top pt1	: Elbow	Pipe
bottom pt1	: Elbow	Pipe
radius2	: Elbow	Pipe
top pt2	: Elbow	Pipe
bottom pt2	: Elbow	Pipe

5. TEE <TEE>



Attributes:

top radius1	: TEE	Pipe
top pt1	: TEE	Pipe
bottom radius1	: TEE	Pipe
bottom pt1	: TEE	Pipe
top radius2	: TEE	Pipe
top pt2	: TEE	Pipe
bottom radius2	: TEE	Pipe
bottom pt2	: TEE	Pipe



Desc:

TEE , Pipe .

Attributes:

top radius1 ~ top radius5 : Pipe

top pt1 ~ top pt5 : Pipe

bottom radius1 ~ bottom radius5 : Pipe

bottom pt1 ~ bottom pt5 : Pipe

6. Flange <FLAN>

Desc:

가 .

Attributes:

radius :

P1 :

P2 :

Desc:

가 .

Attributes:

radius1 :

P1 :

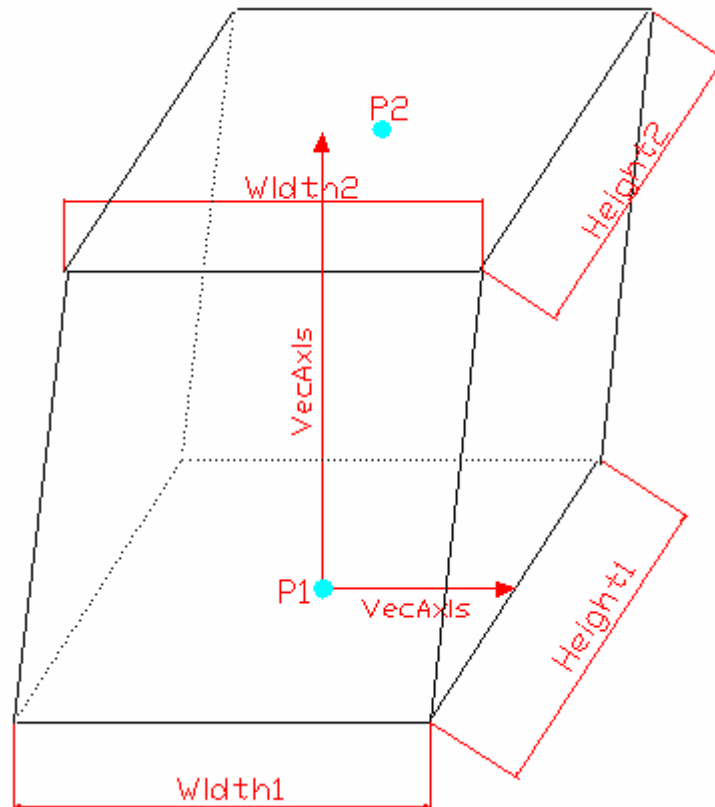
P2 :

radius2 :

P3 :

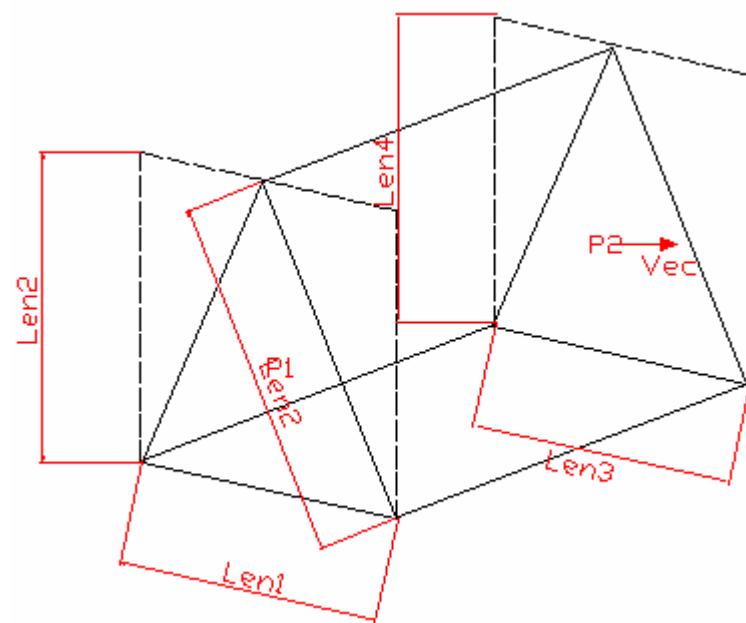
P4 :

7. BOX Element(BOX)



Attributes:

P1	:	Box	
P2	:	Box	
WIDTH1	:	P1	vec
HEIGHT1	:	P1	vec
WIDTH2	:	P2	vec
HEIGHT2	:	P2	vec
VecAxis	:	Width1	Width2가
VecNorm	:	P1,P2가	가

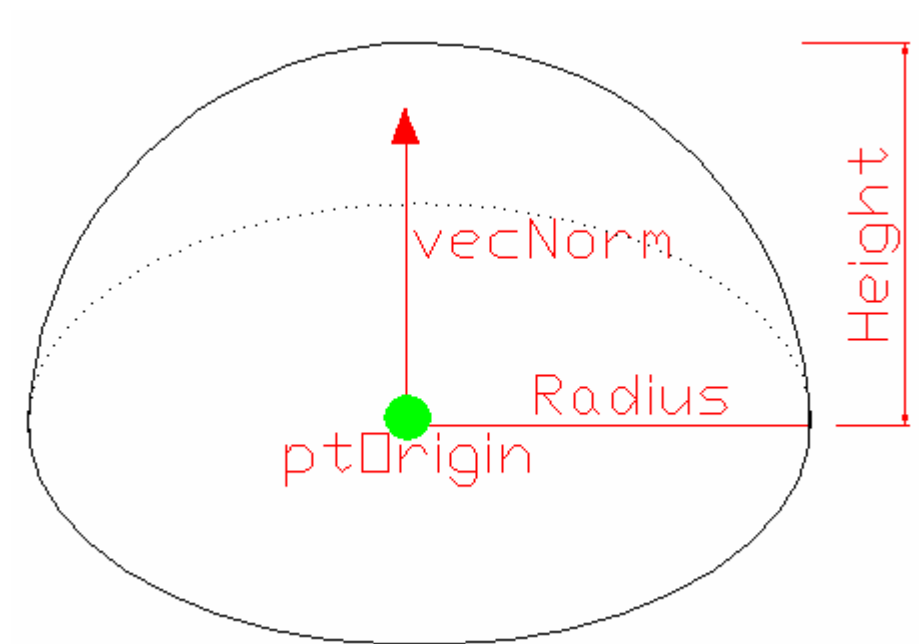


P1,P2

.(Len1 Len3,Len2 Len471

.)

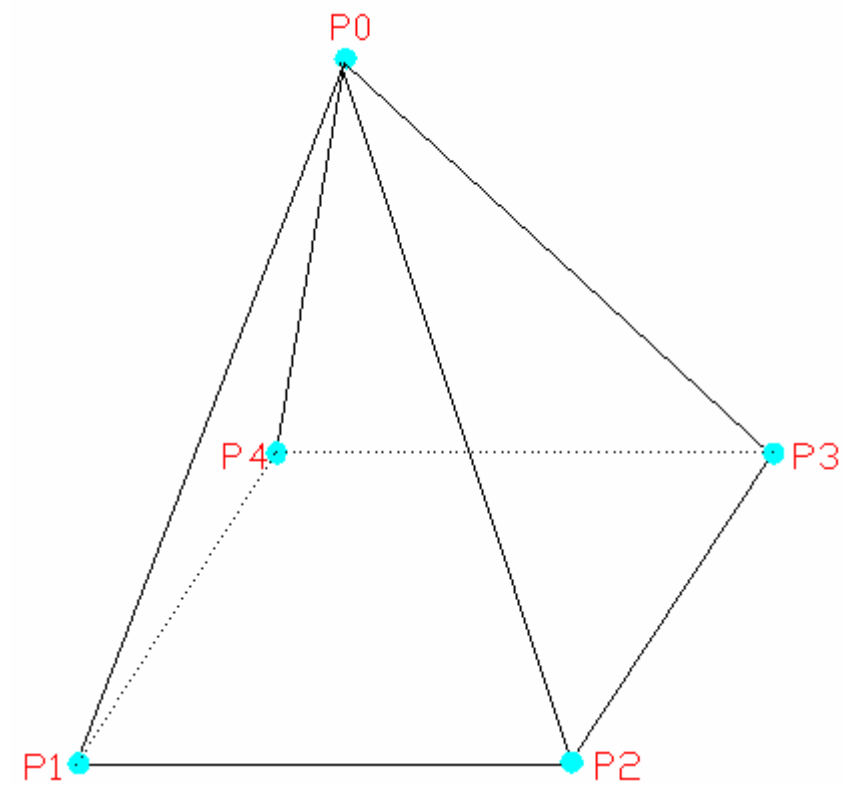
8. Dome Element <DOME>



Attributes:

PtOrigin	:
Radius	:
Height	:
VecNorm	: DOME

9. Tetra Element <TETRA>

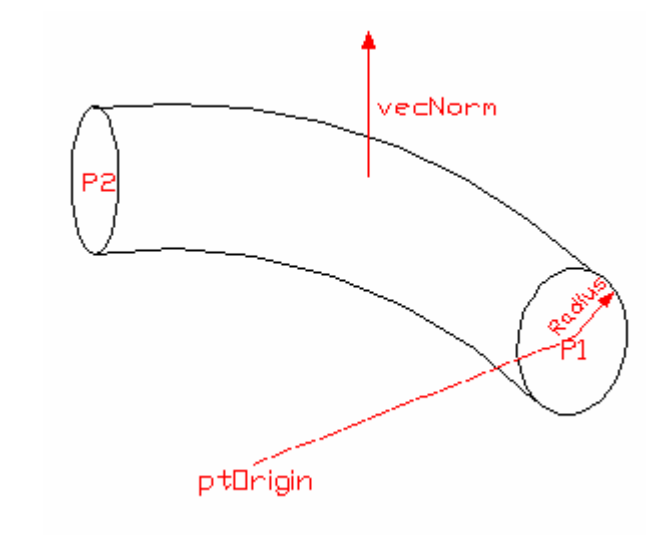


Attributes:

P0 :
P1 :
P2 :
P3 :
P4 :

<BOX>

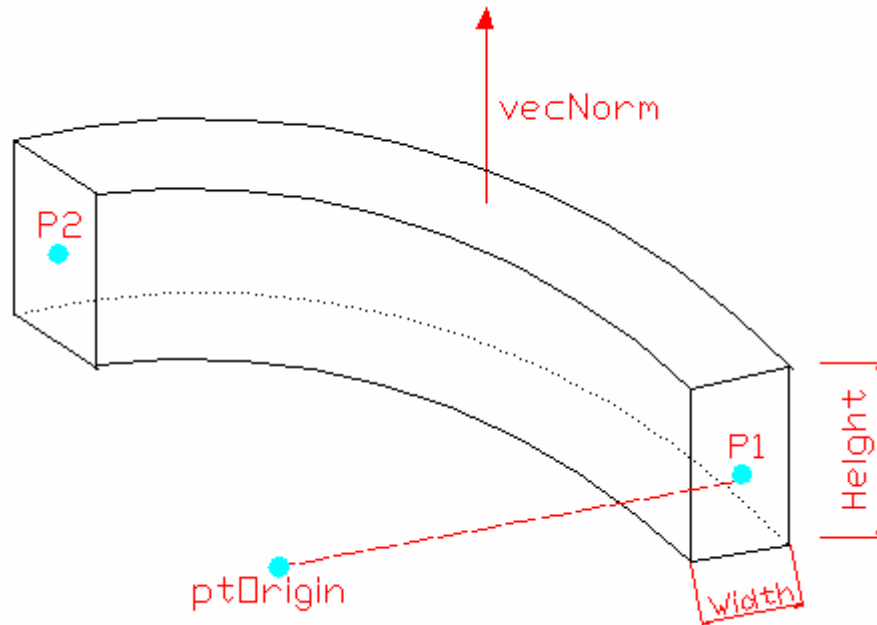
10. Circular Torus Element
<CTOR>, <TORS_EQP>



Attributes:

PtOrigin :
P1 :
P2 :
Radius :
VecNorm : 가

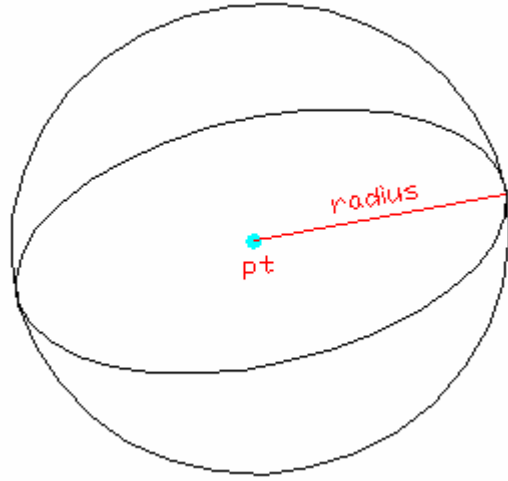
11. Rectangular Torus Element <RTOR>



Attributes:

PtOrigin :
P1 :
P2 :
Width :
Height :
VecNorm : 가

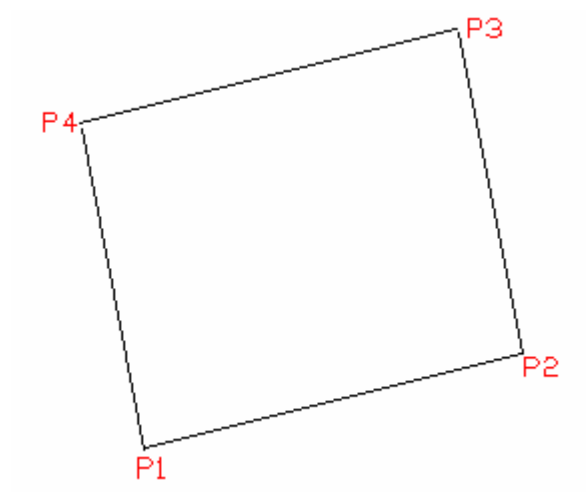
12. Sphere <SPHERE>



Attributes:

pt :
radius :

13. Face Element <3D_FACE>



Attributes:

Pn : ...

14. MESH Element

<MESH>,<MESH_FACE>

	0	1	2	
12	15	18	21	
	3	4	5	
13	16	19	22	
	6	7	8	
14	17	20	23	
	9	10	11	

0	1	2
3	4	5
6	7	8

15. LINE Element <LINE>,LINE

Desc:

group 가 line .

Attributes:

group : line .
pt1 : line
pt2 : line

16. HLINE Element <LINE>,LINE

Desc:

group 가 line .
line 가 .

Attributes:

```
group      : line
pt1       : line
pt2       : line
visible   : line
```