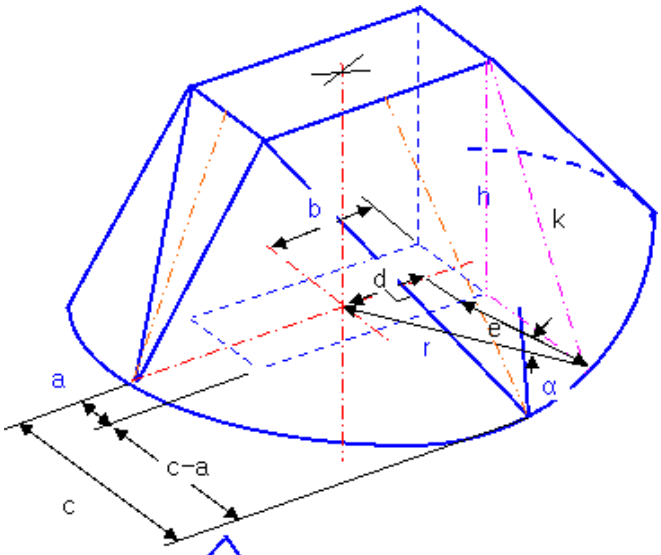
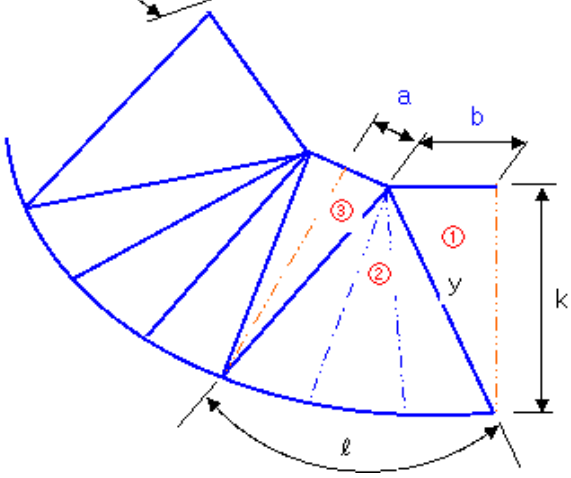
FABRICATION ENGINEERING

TRANSITION PIECES DEVELOPMENT & WEIGHT- TYPE2

INPUT DATA PGM RUN ***V1.0***

* ITEM NO.	E-1234		* DESCRIPTION	PES21	
GEOMETRY DATA					
* Radius, r	500	mm	* DIM, a	600	mm
* DIM, b	800	mm	* Height, h	900	mm
* Angle, α	45	Deg.	* Thickness, t	10	mm
* Spedific Gravity, g	7.85	g/cm^3			





RESULT OF CALCULATION

DEVELOPMENT DIMENSION

* c=r*cos α	353.6	mm	* d=r*sin α	353.6	mm
* e=((b-d)^2+(c-a)^2)^0.5	510.0	mm	* k=(e^2+h^2)^0.5	1,034.4	mm
* y=(k^2+b^2)^0.5	1,307.7	mm	* ℓ =r*3.14*90/180	785.4	mm
* Net area-①=(b*k)/2	0.414	m^2	* Net area-②=k*(ℓ/2)	0.406	m^2
* Net area-③=(a*k)/2	0.310	m^2	* Total Net Area, (①+②+③)*4 pieces	4.521	m^2

MATERIAL WEIGHT & REQUIRED AREA

* Total Net Weight	354.9	Kg	* Total gross weight	454.7	Kg
* Width per piece out of 4 piece, w=k=	1,034.4	mm	* Length per piece out of 4 piece, L=the greater of ℓ or (a+b)	1,400.0	mm
* Total required area , (w*L)*4 pieces,A	5.793	mm	* Net Vs Gross weight rate	78.0%	

TYPE1

ENGINEERING WEB PROGRAM-->

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