STEEL STRUCTURE

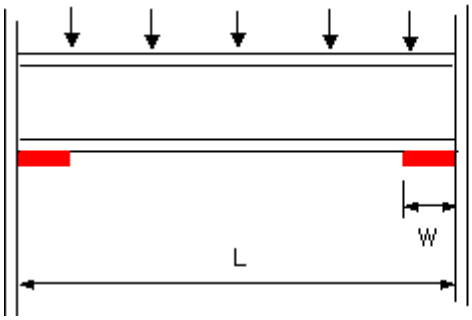
SUPPORT BEAM DEFLECTION

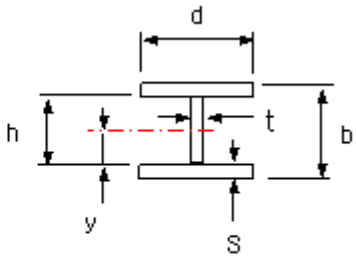
INPUT DATA 계산실행

* Description	PES21		* Item No.	E-2007	
* DWG No.	PE-DW-DU-01		* Part No.	E9	
* Total Load = wp	8000	Kg	* Yield stress @ design Temp., sy	21.09	Kg/mm^2
* Modulus of elasticity @ design Temp., E =	20760	Kg/mm^2	* Maxinum support beam length,L	6000	mm

H-BEAM SIZE

* LENGTH, b	250	mm	* LENGTH, d	250	mm
* THICKNESS, t	9	mm	* THICKNESS, s	14	mm





RESULT OF CALCULATION

* y, Distance from neutral axis to extreme fiber	125.0	mm
* I, Moment of inertia, ((b*d^3)-h^3*(b-t^3))/12	104,229,020.0	mm^4
* Z, Section modulus, I/y	833,832.2	mm^3
* Allowable bending stress, Sba = 0.66sy =	13.9	Kg/mm^2
* Uniformly distributed load, w =	1.3	Kg/mm
* Uniform load over entire span, R = w*L/2	4,000	Kg-mm
* Moment at center, M=w*L^2/24 =	2,000,000	Kg-mm
* Max. deflection at center, ∠Max = w*L^4/384*E*L	2.08	mm
* Bending stress, Sb = M/Z =	2.4	Kg/mm^2
* Judgement	O.K	

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