FABRICATION ENGINEERING

열교환기 중량 계산 프로그램 -TYPE1

INPUT DATA 실 행 ***V6.0***

* ITEM NO.	H-1234		* DESCRIPTION	PES21	
* H/EX Type	AEL		* Body Specific gravity	7.85	g/cm^3
* Shell I.D	1050	mm	* Shell Length	8279	mm
* Shell thickness	14	mm	* Bellows Q'ty	1	
			* Support Q'ty	2	
* Tube Q'ty	450		* Saddle(Leg) height(Base to Vessel bottom)	250	mm
* Tube O.D	19.15	mm	* Saddle web thickness	16	mm
* Tube Thickness	2.11	mm	*Tube specific Gravity	7.85	g/cm^3
* Tube Length-straight	17066	mm	* Plate/Forging nozzle thickness	10	mm
* Tube sheet O.D	1300	mm	* C-Baffle thickness	10	mm
* Tube sheet thickness	55	mm	* C-Baffle cut-off	25	%
* Tube sheet Q'ty	2		* C- Baffle Q'ty	12	
* Sealing Strip Q'ty	4		* S- Baffle Q'ty	4	
FLOATING HEAD GEOMETRY (IF REQUIRED)					
* Floating Head Tube sheet O.D	0	mm	* Floating Head Tube sheet Thickness	0	mm
* Floating Head Flange O.D	0	mm	* Floating Head Flange Thickness	0	mm
* Floating Head Cover O.D	0	mm	* Floating Head Cover Thickness	0	mm
* Backing Device O.D	0	mm	* Backing Device Thickness	0	mm
FRONT SIDE			REAR SIDE		
* Channel cover type	2:1 ELLIP		* Channel cover type	2:1 ELLIP	
* Cover O.D	1300	mm	* Cover O.D	1250	mm
* Cover thickness	35	mm	* Cover thickness	50	mm
* Cover Q'ty	0		* Cover Q'ty	1	
* Girth Flange O.D	1300	mm	* Girth Flange O.D	1250	mm
* Girth Flange I.D	1200	mm	* Girth Flange I.D	1150	mm
* Girth Flange thickness	55	mm	* Girth Flange thickness	85	mm

* Girth Flange Q'ty	0		* Girth Flange Q'ty	1	
* Channel shell type	CYLINDER		* Channel shell type	CYLINDER	
* Channel I.D	1219	mm	* Channel I.D	1150	mm
* Channel Length	500	mm	* Channel Length	350	mm
* Channel thickness	25	mm	* Channel thickness	35	mm
* Channel Q'ty	1		* Channel Q'ty	0	
* Internal others	30	Kg	* others-2, if required	0	Kg

NOZZLE COVER

* Nozzle cover size	8"(200A)	150#	* Nozzle cover Qty	2
* Nozzle cover size	24"(600A)	150#	* Nozzle cover Qty	2

NOZZLE & FLANGE DATA

NOZZLE SIZE	SCHEDULE	RATING	CON. TYPE	LENGTH	Q'TY
1"(25A)	SCH.80	150#	B/W	200	1
4"(100A)	SCH.120	300#	L/WELD NECK	200	2
28"(700A)	BUILD-UP	400#	SLIP-ON	200	2
30"(750A)	BUILD-UP	1500#	WELD-NECK	200	1
1"(25A)	SCH.160	150#	B/W	200	0
1"(25A)	SCH.160	150#	B/W	200	0
1"(25A)	SCH.160	150#	B/W	200	0

FABRICATION WELDING DATA

* Welding process-Body	SMAW	* Nozzle inside welding	YES
* Welding process-Nozzle	SMAW	* Nozzle-Pad welding	YES
* Welding Groove type	SING-V	* Nozzle-Flange welding	YES
* Groove Angle-Body	75	* Nozzle attchment Type	FULL PEN
* Groove Angle-Nozzle	45	* Welding Overlay	20%
* Paintng Spec.	3-coating(125㎛	* Welding Inspection	FULL R/T

RESULT OF CALCULATION

NET WEIGHT SUMMARY

* Tube	6,809	Kg	* Shell	3,221	Kg
* Channel	383	Kg	* Internal others	121	Kg
* Channel cover/Head	814	Kg	* Girth flange	113	Kg
* Tube Sheet	931	Kg	* Baffle	796	Kg
* Nozzle neck & pad	680	Kg	* STD Flange	49	Kg
* Support	171	Kg	* STD Flange Cover	414	Kg

* Bolt/Nut	22	Kg			
* Total Net weight	14,474	Kg	* Total Gross weight	16,204	Kg
* Tube Bundle weight				8,606	Kg

FABRICATION INFORMATION

* Total surface Area	35	M^2	* Req'd Paint	18	ℓ
* Volume-shell side	7.2	M^3	* Volume-channel side	0.8	M^3
* Welding length-Body	21,474	mm	* Welding length-Nozzle opening side	7,686	mm
* R/T sheets-Body	86	SH	* U/T Length-Nozzle side	7.7	m
* 용접봉소요량-Shell&Cover/Channel	83	Kg	* 용접봉소요량-NOZZLE	49	Kg
* 용접봉 총소요량	132	Kg	* 용접봉 총소요량-계산/총중량	0.9%	

* Note

1. Lifting Lug 중량은 중량별 표준 사양으로 계산됨.

2. Nozzle Pad 중량은 표준 사이즈 적용됨.

3. Others 중량은 프로그램에서 지원되지 않은 중량임.

4. Internal others에는 Impingement Baffle, Sliding Strip, 기타 물량 포함됨.

5. Total Net weight에는 Tube Bundle weight 포함됨.

-->USER GUIDE

엔지니어링웹스크립-->

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