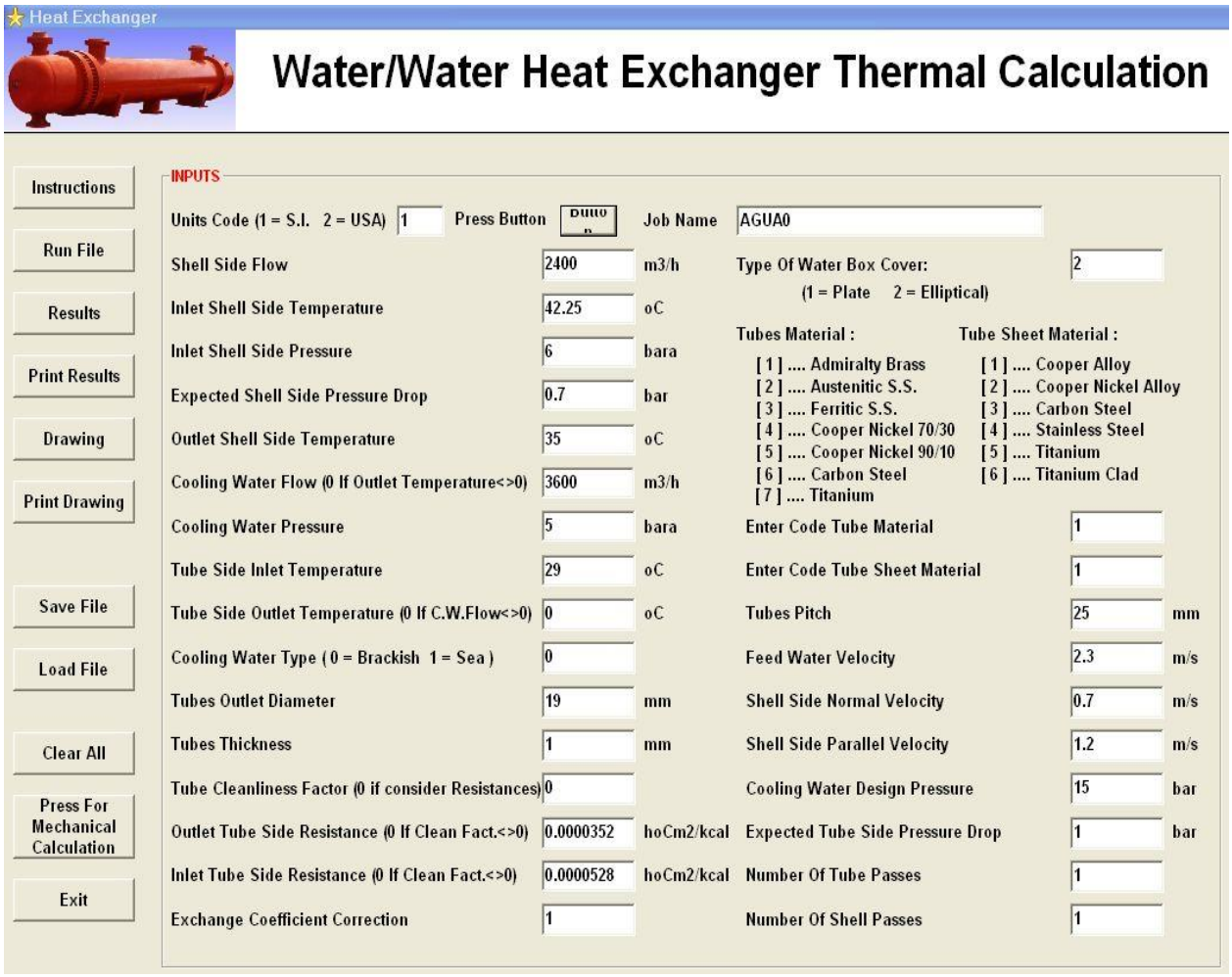
WATER–WATER EXCHANGER

PROGRAM WINDOWS



DATA ENTRY WINDOW

WATER/WATER HEAT EXCHANGER - Data Results

Job Name : AGUA0

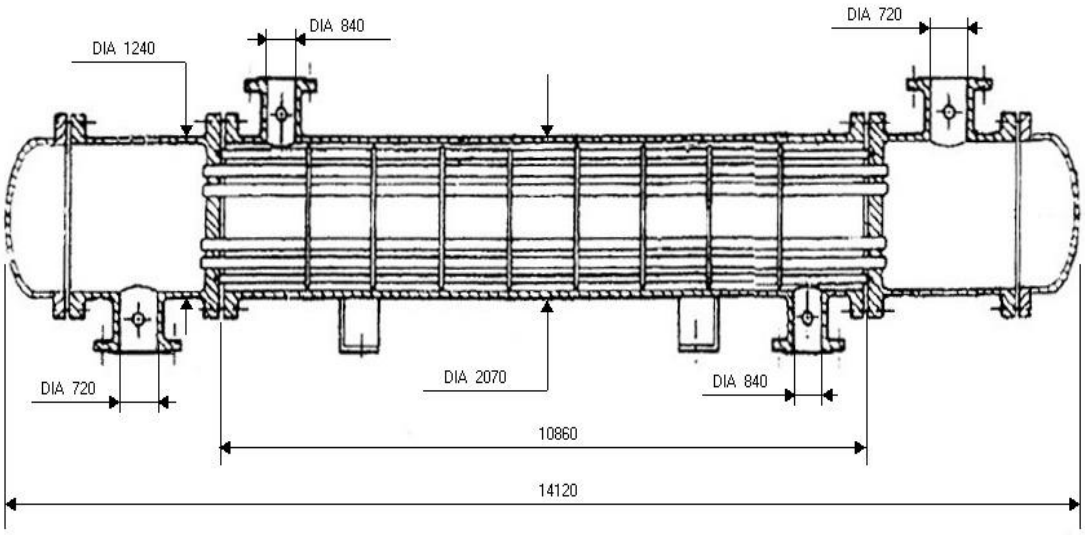
■ Data

Shell Side Flow	2400	m3/h
Inlet Shell Side Temperature	42,25	oC
Inlet Shell Side Pressure	6	bara
Expected Shell Side Pressure Drop	0,7	bar
Outlet Shell Side Temperature	35	oC
Cooling Water Flow	3600	m3/h
Tube Side Inlet Temperature	29	oC
Tube Side Outlet Temperatura	33,83	oC
Cooling Water Pressure	5	bara
Cooling Water Type	Brackish	
Tube Cleanliness Factor	0	
Outlet Tube Side Resistance	0,0000352	hoCm2/kcal
Inlet Tube Side Resistance	0,0000528	hoCm2/kcal
Exchange Coefficient Correction	1	
Tube Outlet Diameter	19	mm
Tube Thickness	1	mm
Tubes Pitch	25	mm
Inlet Tubes Velocity	2,3	m/s
Tubes Material	Admiralty Brass	
Expected Tube Side Pressure Drop	1	bar
Number Of Tube Passes	1	
Number Of Shell Passes	1	

■ Results

Exchanged Duty	17274,6	Mcal/h
L.M.T.D. Correction	1	
L.M.T.D. Corrected	7,14	oC
Exchanged Coefficient	1946	kcal/hoCm2
Exchange Surface	1242	m2
Number Of Tubes	1915	
Length Between Tube Sheets	10,86	m
Shell Side Velocity	0,56	m/s
Tube Side Pressure Drop	4,52	m.c.a.
Aprox. Shell Side Presure Drop	1,56	m.c.a.
Shell Diameter	2070	mm
Channel Diameter	1240	mm
Tube Sheet Diameter Flanged Type	1400	mm
Channel Nozzles Diameter	720	mm
Shell Nozzles Inlet/Outlet Diameter	840	mm
Full Spacing Tubes Support Plates	2	
Antivibration Tubes Support Plates	12	
Length Of Equipement	14,12	m

RESULTS SHEET

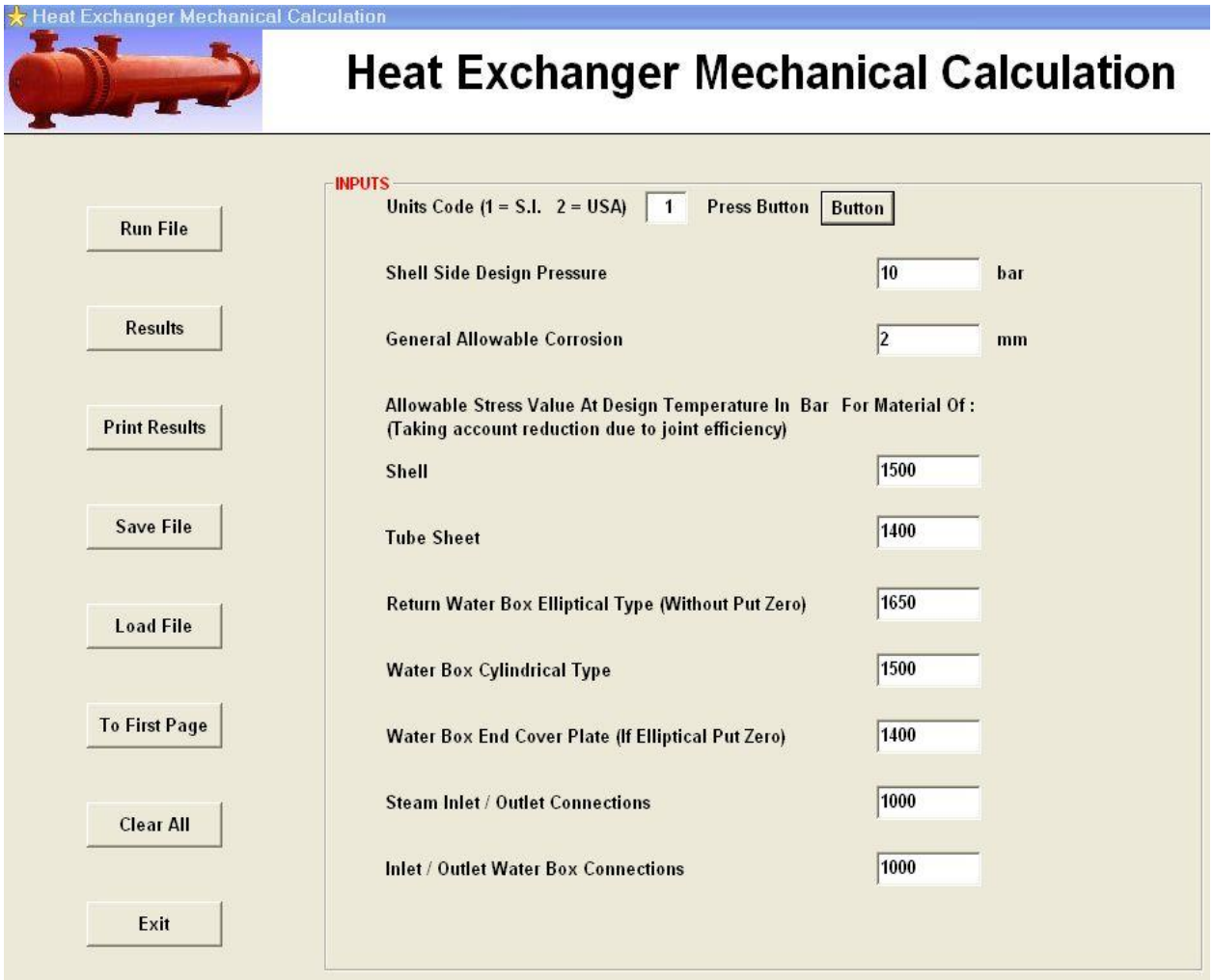


Dimensions in mm

DIMENSIONAL DRAWING

MECHANICAL CALCULATION

Pressing the button for the mechanical calculation in main window is accessed this window. Once completed and using Run File and Results buttons you see the output window on the next page.
Other buttons have the same functions as those set for the main window.



MECHANICAL CALCULATION DATA WINDOW

EXCHANGER RESULTS - Thickness (mm) and Weights (Kg)

Job Name : AGUA0

■ THICKNESSES

Shell	12
Shell Pass Partition Sheet	8
Tube Sheet	90
Elliptical Water Box	8
Cylindrical Water Box	9
Flat Cover End Water Box	0
Tubes Support Plate	10
Water Box Pass Partition Sheet	16
Shell Inlet / Outlet Pipe	7
Water Box Inlet / Outlet Pipe	8

■ WEIGHTS

Exchange Tubes	10190
Gross Tube Sheet	1170
Net Tube Sheet	750
Shell With Flanges, Pipes And Internals	8580
Water Boxes Flanges, Cover End And Pipes	1240
Net Tubes Support Plates (Including In Shell)	1050
Supports	490
Total Empty	21250
Total In Operation (Full Of Water)	54850

RESULTS SHEET