

**FAT Protocol;
=H03.HD02-F001
Heating Unit**

FAT

Project Name	TBD	Created	CP	2021-10-10
Project Number	TBD	Controlled	CP	2021-10-10
Project Item	Central Heating Unit	Checked	CP	2021-10-10
PID	=H03.HD02 & PFD010 =H03.HD04 & PFD010	Revision	1	2021-10-10

FAT-test	Date	TBD	Participants	CP
	Comment	TBD		TBD
	Place	TBD		TBD
				TBD

HP Hold Point for Client/Advisor Approval of test result before Continuing. Marked with initials.
WP Witness Point for Client&Adviser Participation in the Test. Marked with initials

Item	TAG	Test type	Operatio	Testing	Target	HP	WP	Accepted	Protocol
Balancing Valve	=H03.HD02.RMB13	Valve Settings	100%	Pressure Loss	Even flow rate with parallel				FPP014
Balancing Valve	=H03.HD02.RMB23	Valve Settings	100%	Pressure Loss	Even flow rate with parallel				FPP014
Balancing Valve	=H03.HD02.RMB53	Valve Settings	100%	Pressure Loss	Even flow rate with parallel				FPP014
Balancing Valve	=H03.HD02.RMB63	Valve Settings	100%	Pressure Loss	Even flow rate with parallel				FPP014
Control Valve	=H03.HD02.QNA01	Valve Operation	0-100%	VI: Valve operation	Proving Valve Operation Range				FPP011
Distict Heating Loop	N/A	Pressure Loss in the whole District Heating Loop	100%	Pressure Loss	0,2 barg with control valve				FPP006
Heat Exchanger	=H03.HD02.EPC11	Pressure Loss	0-100%	Flow and Pressure	See Spec.				FPP021
Heat Exchanger	=H03.HD02.EPC21	Pressure Loss	0-100%	Flow and Pressure	See Spec.				FPP021

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HMI	N/A	Operation	N/A	Function				N/A
Manometer	=H03.HD02.BPA11	Instrument Showing	0-100%	Correct Showing	Comparing BMS instrument			FPP101
Manometer	=H03.HD02.BPA12	Instrument Showing	0-100%	Correct Showing	Comparing BMS instrument			FPP101
Manometer	=H03.HD02.BPA21	Instrument Showing	0-100%	Correct Showing	Comparing BMS instrument			FPP101
Manometer	=H03.HD02.BPA22	Instrument Showing	0-100%	Correct Showing	Comparing BMS instrument			FPP101
Manometer	=H03.HD02.BPA51	Instrument Showing	0-100%	Correct Showing	Comparing BMS instrument			FPP101
Manometer	=H03.HD02.BPA52	Instrument Showing	0-100%	Correct Showing	Comparing BMS instrument			FPP101
Manometer	=H03.HD02.BPA61	Instrument Showing	0-100%	Correct Showing	Comparing BMS instrument			FPP101
Manometer	=H03.HD02.BPA61	Instrument Showing	0-100%	Correct Showing	Comparing BMS instrument			FPP101
Manometer	=H03.HD04.BPA12	Instrument Showing	0-100%	Correct Showing	Comparing BMS instrument			FPP101
Manometer	=H03.HD04.BPA22	Instrument Showing	0-100%	Correct Showing	Comparing BMS instrument			FPP101
Manometer	=H03.HD04.BPA32	Instrument Showing	0-100%	Correct Showing	Comparing BMS instrument			FPP101
On/off valve	=H03.HD04.QNA12	Open & Close action	0/1	Operation	Fully open and fully closed			FPP116
On/off valve	=H03.HD04.QNA22	Open & Close action	0/1	Operation	Fully open and fully closed			FPP116
On/off valve	=H03.HD04.QNA52	Open & Close action	0/1	Operation	Fully open and fully closed			FPP116
On/off valve	=H03.HD04.QNA62	Open & Close action	0/1	Operation	Fully open and fully closed			FPP116
Pressure Transmitter	=H03.HD04.BPA11	Instrument Showing @ HMI	0-100%	Correct Showing	Comparing with Manometres			FPP103
Pressure Transmitter	=H03.HD04.BPA21	Instrument Showing @ HMI	0-100%	Correct Showing	Comparing with Manometres			FPP103

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Pressure Transmitter	=H03.HD04.BPA31	Instrument Showing @ HMI	0-100%	Correct Showing	Comparing with Manometres				FPP103
Pressure Transmitter	=H03.HD04.BPA71	Instrument Showing @ HMI	0-100%	Correct Showing	Comparing with Manometres				FPP103
Pump #1	=H03.HD04.GPA11	Performance of pump	0-100%	Flow and Pressure	N/A				FPP001
Pump #2	=H03.HD04.GPA21	Performance of pump	0-100%	Flow and Pressure	N/A				FPP001
Pumps	Both parallel pumps	Load Shearing of both pump and change over from One	0-100%	Flow and Pressure	Change over at 70%				FPP001
Temperature Transmitter	=H03.HD04.BPA31	Instrument Showing @ HMI	0-100%	Correct Showing	Comparing with Manometres				FPP113
Temperature Transmitter	=H03.HD04.BPA71	Instrument Showing @ HMI	0-100%	Correct Showing	Comparing with Manometres				FPP113
Thermometer	=H03.HD02.BTA11	Instrument Showing	0-100%	Correct Showing	Comparing BMS instrument				FPP111
Thermometer	=H03.HD02.BTA12	Instrument Showing	0-100%	Correct Showing	Comparing BMS instrument				FPP111
Thermometer	=H03.HD02.BTA21	Instrument Showing	0-100%	Correct Showing	Comparing BMS instrument				FPP111
Thermometer	=H03.HD02.BTA22	Instrument Showing	0-100%	Correct Showing	Comparing BMS instrument				FPP111
Thermometer	=H03.HD02.BTA51	Instrument Showing	0-100%	Correct Showing	Comparing BMS instrument				FPP111
Thermometer	=H03.HD02.BTA52	Instrument Showing	0-100%	Correct Showing	Comparing BMS instrument				FPP111
Thermometer	=H03.HD02.BTA61	Instrument Showing	0-100%	Correct Showing	Comparing BMS instrument				FPP111
Thermometer	=H03.HD02.BTA61	Instrument Showing	0-100%	Correct Showing	Comparing BMS instrument				FPP111
Thermometer	=H03.HD04.BTA32	Instrument Showing	0-100%	Correct Showing	Comparing BMS instrument				FPP111