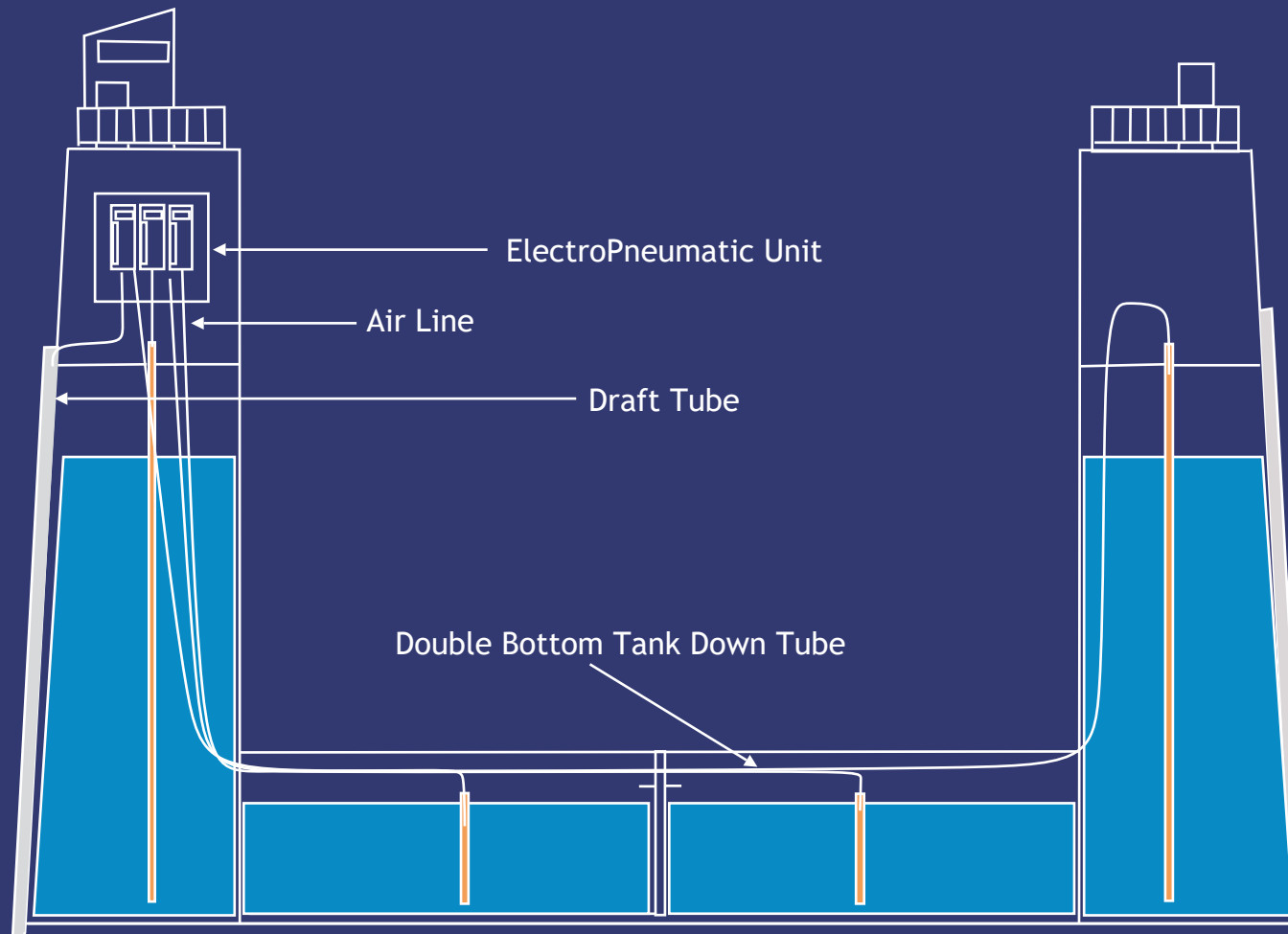




DRY DOCK PUMP & VALVE CONTROL LEVEL GAUGING SYSTEM

TANK LEVEL & DRAFT LEVEL CONTROL



Pump & Valve Control and Level Gauging Features

- Easy Installation
- Applicable for all tank shapes, no custom scales required
- Real time readings with no calculations needed displays depth
- Self diagnostic, monitors system for plugs & leaks
- Programmable display with alarms and set points
- No electronics in the tank
- Can be panel mounted in multiples for Multi tank applications
- RS232/422 and Ethernet capable
- Control Room Installation
- Network capable, connects to a HMI or Computer via MODBUS

TANK LEVEL & DRAFT LEVEL CONTROL

System Description

The system is designed for measuring the level of all types of liquid products in a batch of tanks onboard all kind of vessels, ballast tanks, service tanks as well as drafts.

The principle is based on the generation of a continuous air or gas-flow bubbling through a pipe running till the bottom of the tank.

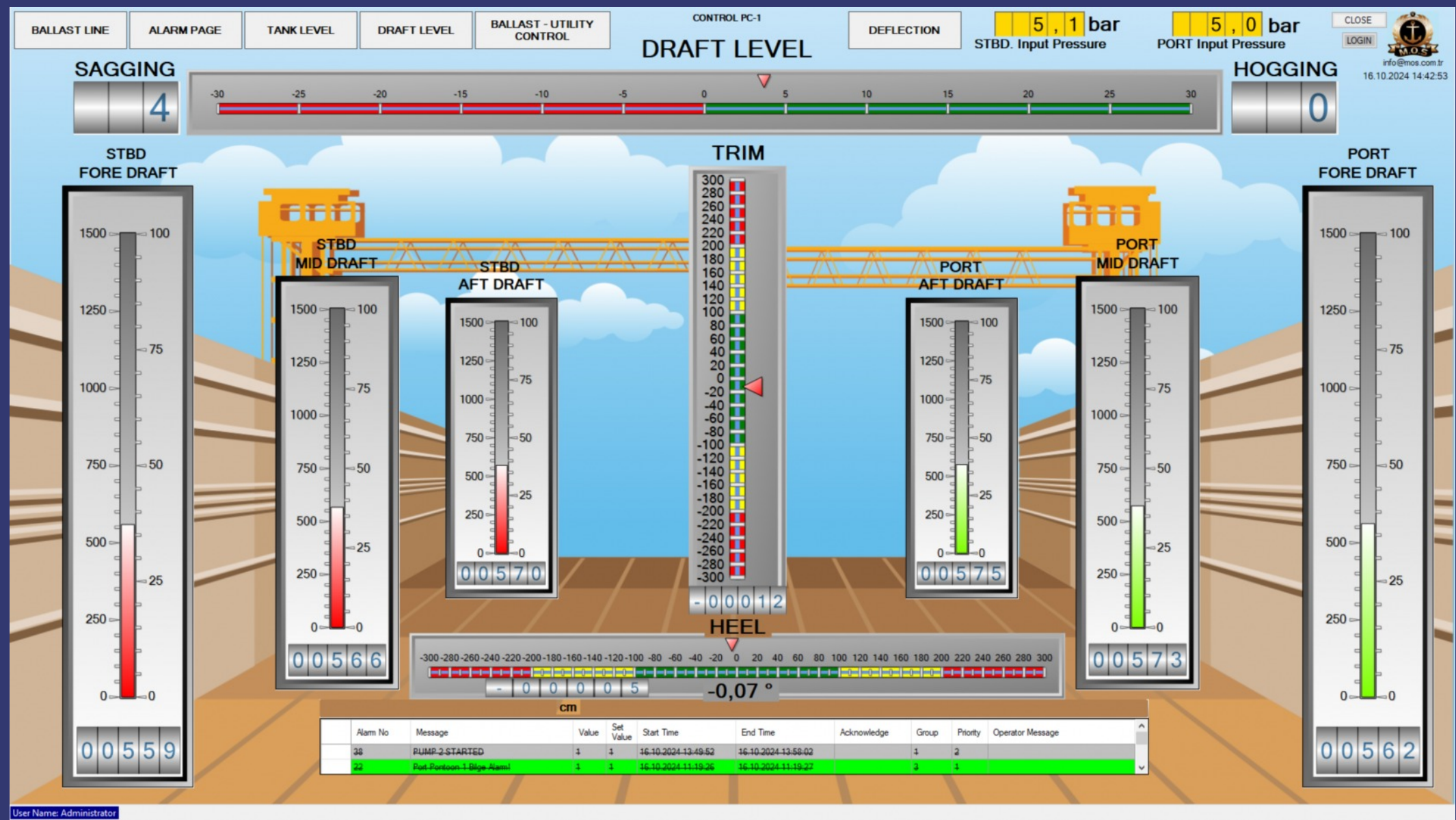
The pressure of this flow is measured as the hydrostatic pressure due to the liquid column in the tank. This measurement is transmitted by digital redundant lines towards a monitoring system.

BALLAST LINE	ALARM PAGE	TANK LEVEL	DRAFT LEVEL	BALLAST - UTILITY CONTROL	CONTROL PC-1 TANK LEVEL	DEFLECTION	STBD. Air Pressure 5,1 bar	PORT Air Pressure 5,0 bar	CLOSE	LOGIN	info@mos.com.tr 16.10.2024 14:42:34
<div><div><div>30,00 Set Value: 30</div><div>PONTOON 1</div><div>P1 - NO.3S</div><div>+ 410,1</div><div>26,00 Set Value: 26</div><div>P1 - NO.2S</div><div>+ 407,1</div><div>29,00 Set Value: 29</div><div>P1 - NO.1S</div><div>+ 420,9</div><div>24,00 Set Value: 24</div><div>P1 - NO.1P</div><div>+ 353,1</div><div>31,00 Set Value: 31</div><div>P1 - NO.2P</div><div>+ 383,9</div><div>32,00 Set Value: 32</div><div>P1 - NO.3P</div><div>+ 371,8</div></div><div><div>4,00 Set Value: 4</div><div>PONTOON 2</div><div>P2 - NO.3S</div><div>+ 359,6</div><div>30,00 Set Value: 30</div><div>P2 - NO.2S</div><div>+ 334,0</div><div>16,00 Set Value: 16</div><div>P2 - NO.1S</div><div>+ 329,5</div><div>24,00 Set Value: 16</div><div>P2 - NO.1P</div><div>+ 401,0</div><div>34,50 Set Value: 34</div><div>P2 - NO.2P</div><div>+ 403,9</div><div>33,50 Set Value: 34</div><div>P2 - NO.3P</div><div>+ 394,9</div></div><div><div>25,00 Set Value: 25</div><div>PONTOON 3</div><div>P3 - NO.3S</div><div>+ 344,8</div><div>30,00 Set Value: 30</div><div>P3 - NO.2S</div><div>+ 355,2</div><div>30,00 Set Value: 30</div><div>P3 - NO.1S</div><div>+ 362,5</div><div>41,00 Set Value: 41</div><div>P3 - NO.1P</div><div>+ 352,5</div><div>35,00 Set Value: 35</div><div>P3 - NO.2P</div><div>+ 349,2</div><div>0,00 Set Value: 0</div><div>P3 - NO.3P</div><div>+ 330,4</div></div><div><div>29,00 Set Value: 29</div><div>PONTOON 4</div><div>P4 - NO.3S</div><div>+ 495,6</div><div>30,00 Set Value: 30</div><div>P4 - NO.2S</div><div>+ 499,6</div><div>30,00 Set Value: 30</div><div>P4 - NO.1S</div><div>+ 466,9</div><div>26,00 Set Value: 26</div><div>P4 - NO.1P</div><div>+ 441,9</div><div>29,00 Set Value: 29</div><div>P4 - NO.2P</div><div>+ 443,4</div><div>30,00 Set Value: 30</div><div>P4 - NO.3P</div><div>+ 444,2</div></div></div>											

DRAFT LEVEL SCREEN

System Description

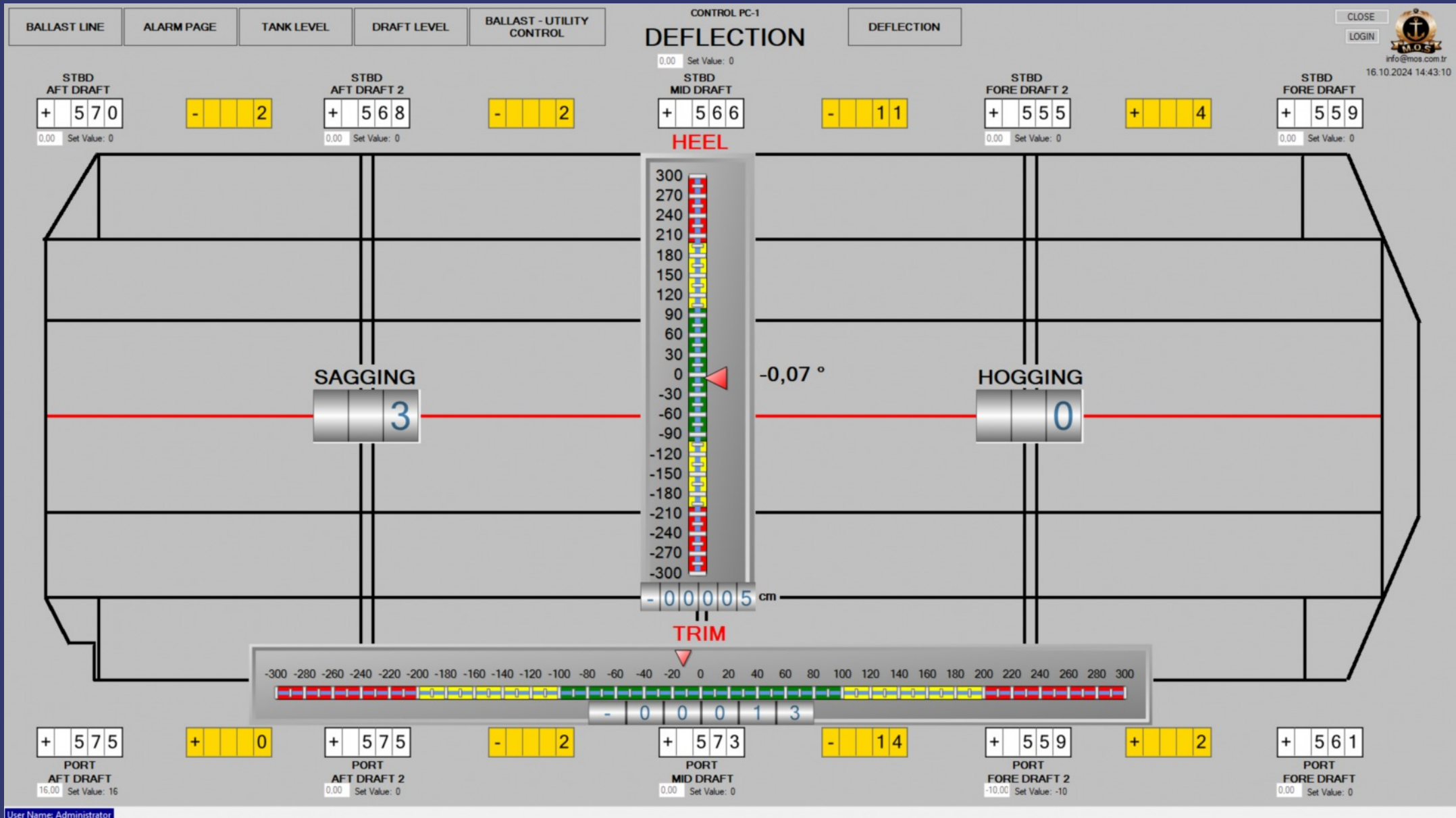
The Draft Level page displays the main draft levels of the system. Additionally, the trim, heel, and deflection data, along with the air pressure information entered into the system, are shown on the screen.



DEFLECTION SCREEN

System Description

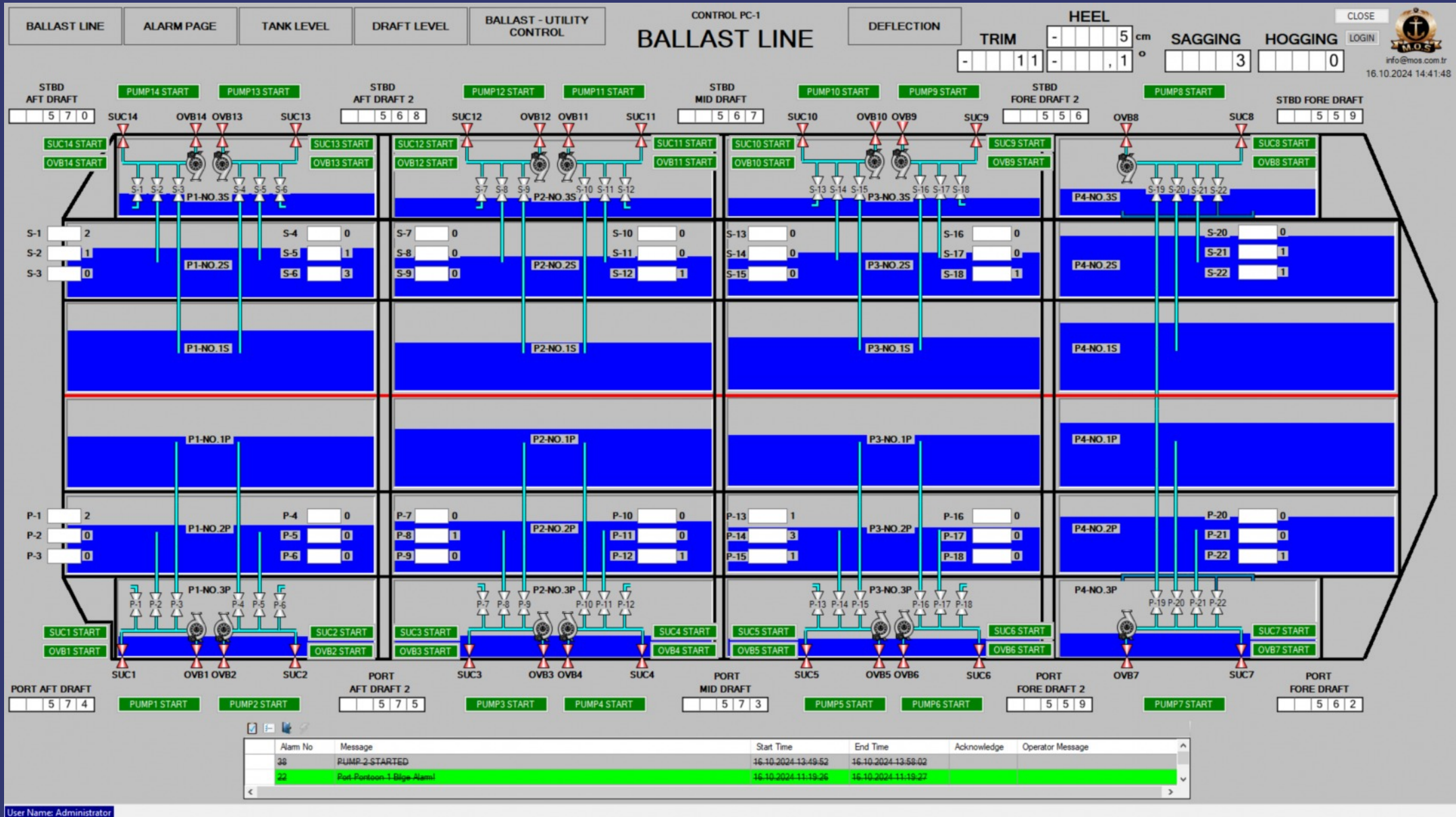
The deflection page displays the draft levels, deflection data between these levels, and the values for hogging, sagging, trim, and heel. Additionally, the air pressure data entered into the level gauge system is shown on the screen. Calibration boxes have been added next to each draft level for system calibration.



PUMP & VALVE CONTROL

System Description

The main page displays all the indicators included in the automation system. In addition to these indicators, there are control buttons for on/off valves, proportional control valves, and pumps, allowing the entire system to be controlled from a single screen. Furthermore, all the lines included in the Level Gauge system are shown on this screen, enabling the automation system to be both monitored and controlled from one interface.



ALARM SCREEN

System Description

On the Alarm Page, the error states, warning statuses, and alarm conditions of all electronic components included in the automation system are displayed in real time. Errors are presented to the user with both audible and visual alerts.

BALLAST LINE

ALARM PAGE

TANK LEVEL

DRAFT LEVEL

BALLAST - UTILITY CONTROL


CONTROL PC-1





DEFLECTION


NETWORK STATUS



CLOSE

LOGIN



info@mos.com.tr
16.10.2024 14:42:15








EVENT LIST



Alarm No	Message	Value	Set Value	Start Time	End Time	Acknowledge	Priority	Operator Message
38	PUMP-2-STARTED	1	1	16.10.2024-13:49:52	16.10.2024-13:58:02		2	
22	Port Pontoon-1 Bilge Alarm!	1	1	16.10.2024-11:19:26	16.10.2024-11:19:27		1	
38	PUMP-2-STARTED	1	1	16.10.2024-10:47:11	16.10.2024-10:50:27		2	
19	PUMP-13-STARTED	1	1	16.10.2024-10:45:21	16.10.2024-10:49:24		2	
39	PUMP-1-STARTED	1	1	16.10.2024-10:44:19	16.10.2024-10:46:45		2	
23	Port Pontoon-2 Bilge Alarm!	1	1	16.10.2024-10:23:58	16.10.2024-10:23:58		1	
23	Port Pontoon-2 Bilge Alarm!	1	1	16.10.2024-10:22:40	16.10.2024-10:22:41		1	
23	Port Pontoon-2 Bilge Alarm!	1	1	16.10.2024-10:21:59	16.10.2024-10:22:39		1	
23	Port Pontoon-2 Bilge Alarm!	1	1	16.10.2024-10:21:40	16.10.2024-10:21:58		1	
23	Port Pontoon-2 Bilge Alarm!	1	1	16.10.2024-10:18:38	16.10.2024-10:20:52		1	
23	Port Pontoon-2 Bilge Alarm!	1	1	16.10.2024-10:16:09	16.10.2024-10:18:35		1	
22	Port Pontoon-1 Bilge Alarm!	1	1	16.10.2024-10:05:01	16.10.2024-10:05:06		1	
35	PUMP-5-STARTED	1	1	16.10.2024-09:17:41	16.10.2024-09:20:07		2	
37	PUMP-3-STARTED	1	1	16.10.2024-09:17:31	16.10.2024-09:20:08		2	
38	PUMP-2-STARTED	1	1	16.10.2024-09:17:19	16.10.2024-09:20:10		2	
38	PUMP-2-STARTED	1	1	16.10.2024-07:12:11	16.10.2024-07:14:11		2	
39	PUMP-1-STARTED	1	1	16.10.2024-07:11:57	16.10.2024-07:14:11		2	
19	PUMP-13-STARTED	1	1	15.10.2024-19:11:55	15.10.2024-19:14:25		2	
38	PUMP-2-STARTED	1	1	15.10.2024-19:11:35	15.10.2024-19:16:59		2	
36	PUMP-4-STARTED	1	1	15.10.2024-19:05:03	15.10.2024-19:06:18		2	
38	PUMP-2-STARTED	1	1	15.10.2024-19:05:03	15.10.2024-19:09:27		2	
19	PUMP-13-STARTED	1	1	15.10.2024-15:24:52	15.10.2024-15:26:17		2	
195	Trim value is lower than -50!	-50.00...	-50	15.10.2024-15:14:48	15.10.2024-15:14:48		1	
195	Trim value is lower than -50!	-50.00...	-50	15.10.2024-15:14:48	15.10.2024-15:14:48		1	
195	Trim value is lower than -50!	-50.05...	-50	15.10.2024-15:14:48	15.10.2024-15:14:54		1	
38	PUMP-2-STARTED	1	1	15.10.2024-15:13:47	15.10.2024-15:36:02		2	
19	PUMP-13-STARTED	1	1	15.10.2024-15:13:40	15.10.2024-15:15:54		2	
49	PORT-FIRE PUMP FAULT!	1	1	15.10.2024-15:13:06	15.10.2024-15:13:16		2	
49	PORT-FIRE PUMP FAULT!	1	1	15.10.2024-15:06:42	15.10.2024-15:08:23		2	
171	OVB-3-CLOSE FAULT!	1	1	15.10.2024-14:59:29	15.10.2024-15:00:30		2	
195	Trim value is lower than -50!	-50.45...	-50	15.10.2024-14:54:38	15.10.2024-15:14:48		1	
195	Trim value is lower than -50!	-50.00...	-50	15.10.2024-14:54:32	15.10.2024-14:54:33		1	
195	Trim value is lower than -50!	-50.10...	-50	15.10.2024-14:54:26	15.10.2024-14:54:29		1	
171	OVB-3-CLOSE FAULT!	1	1	15.10.2024-14:16:56	15.10.2024-14:58:51		2	
195	Trim value is lower than -50!	-50.29...	-50	15.10.2024-14:11:18	15.10.2024-14:11:22		1	
195	Trim value is lower than -50!	-50.45...	-50	15.10.2024-14:07:18	15.10.2024-14:11:18		1	
195	Trim value is lower than -50!	-50.35...	-50	15.10.2024-14:07:13	15.10.2024-14:07:15		1	
195	Trim value is lower than -50!	-50.14...	-50	15.10.2024-14:07:08	15.10.2024-14:07:10		1	
195	Trim value is lower than -50!	-50.19...	-50	15.10.2024-14:03:22	15.10.2024-14:03:25		1	
195	Trim value is lower than -50!	-50.14...	-50	15.10.2024-14:03:17	15.10.2024-14:03:18		1	
195	Trim value is lower than -50!	-50.09...	-50	15.10.2024-14:03:12	15.10.2024-14:03:13		1	
195	Trim value is lower than -50!	-50.14...	-50	15.10.2024-14:03:08	15.10.2024-14:03:10		1	

3

BILGE ALARM VIEW



Alarm No	Message	Start Time	End Time
22	Port Pontoon-1 Bilge Alarm!	16.10.2024-11:19:26	16.10.2024-11:19:27
23	Port Pontoon-2 Bilge Alarm!	16.10.2024-10:23:58	16.10.2024-10:23:58
23	Port Pontoon-2 Bilge Alarm!	16.10.2024-10:22:40	16.10.2024-10:22:41
23	Port Pontoon-2 Bilge Alarm!	16.10.2024-10:21:59	16.10.2024-10:22:39
23	Port Pontoon-2 Bilge Alarm!	16.10.2024-10:21:40	16.10.2024-10:21:58
23	Port Pontoon-2 Bilge Alarm!	16.10.2024-10:18:38	16.10.2024-10:20:52
23	Port Pontoon-2 Bilge Alarm!	16.10.2024-10:16:09	16.10.2024-10:18:35
22	Port Pontoon-1 Bilge Alarm!	16.10.2024-10:05:01	16.10.2024-10:05:06

User Name: Administrator

NETWORK STATUS SCREEN

System Description

The communication status between the PLC and modules in the automation system is continuously monitored, and if any disconnection occurs in this communication, an alarm indicator is triggered to alert the system.

