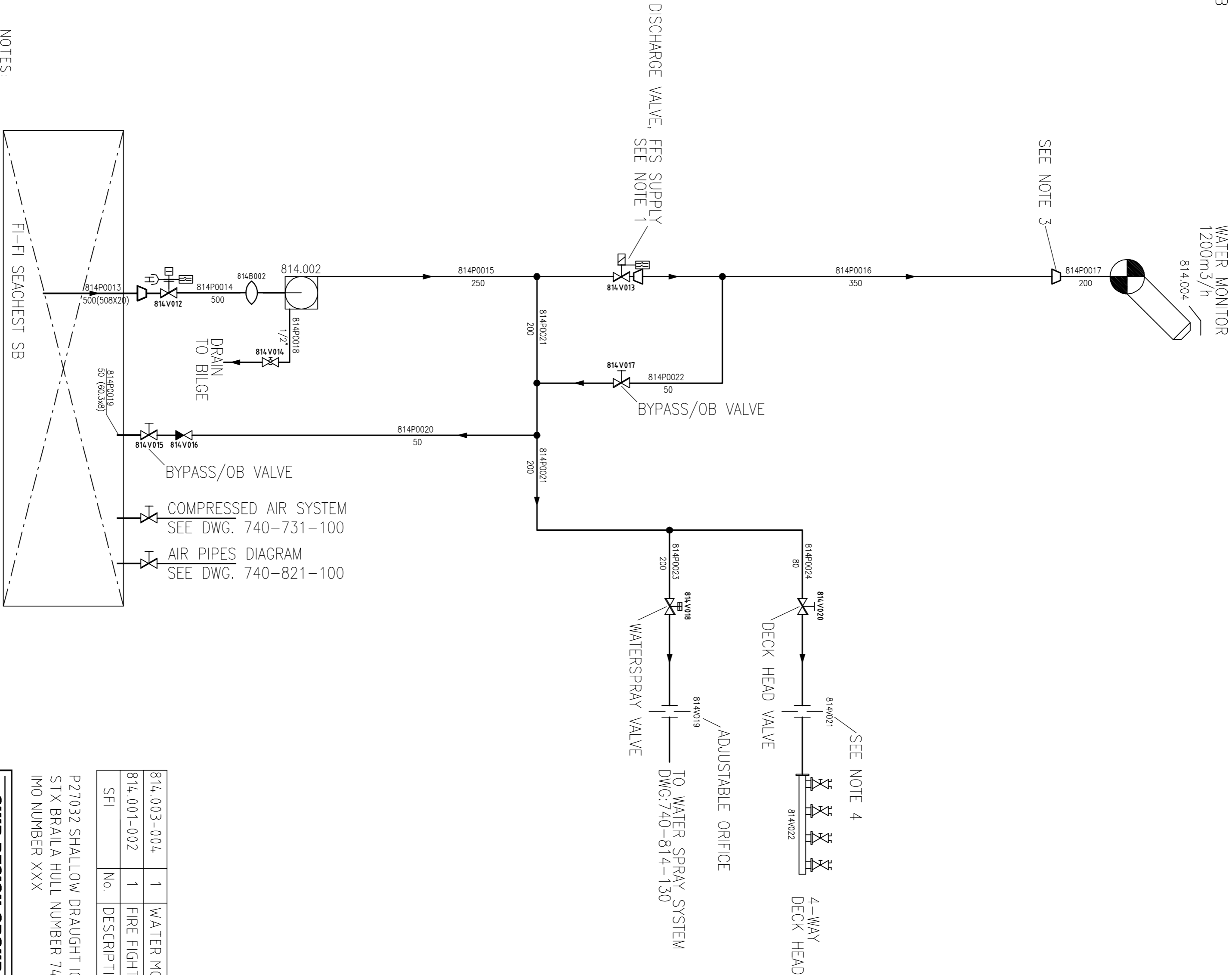
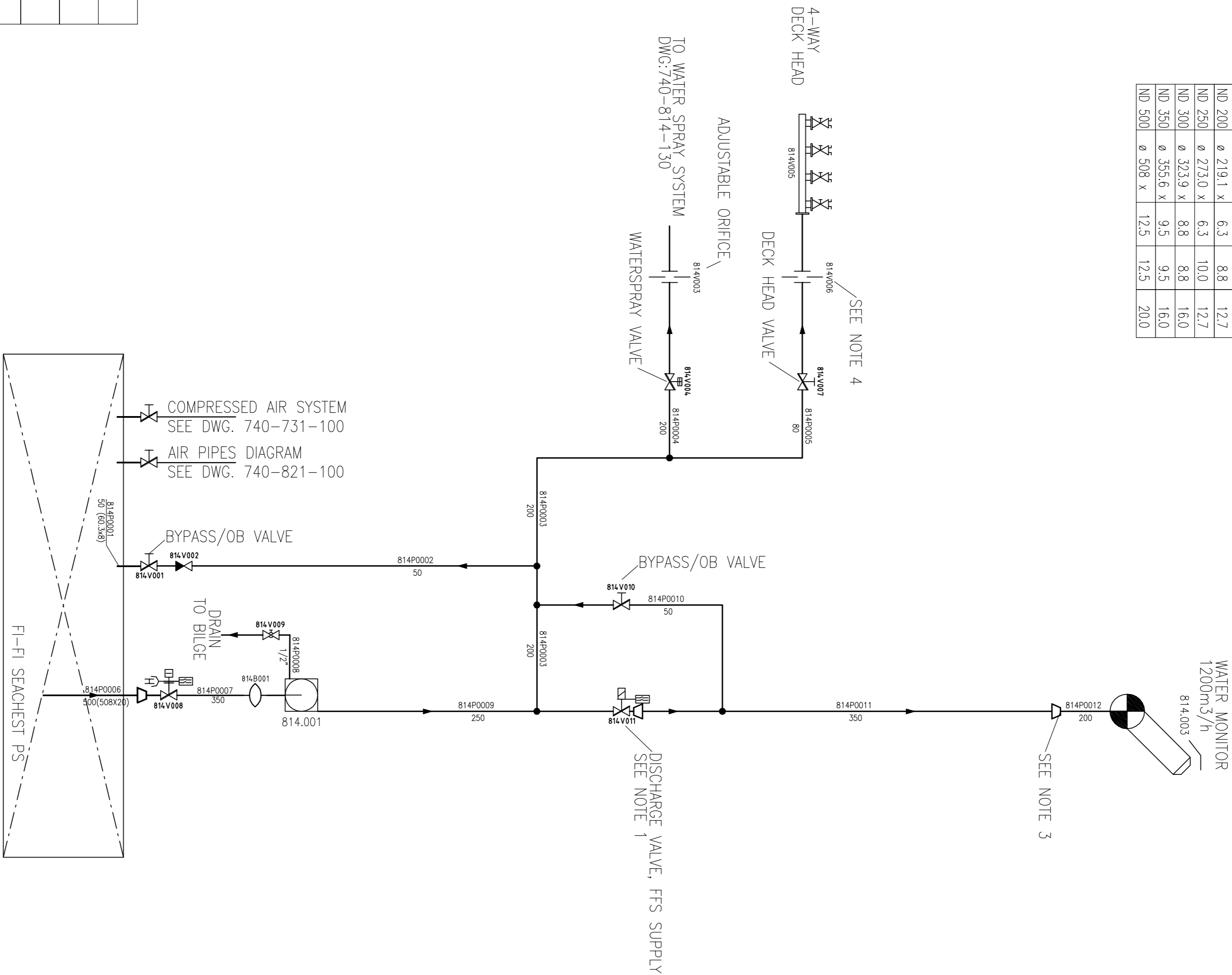


Rev.	Part no.	Field	Approval or remark	Date	Approved by
	Verica	Drawing	Master to homologous	P.m.	Hydrology

PIPE ID : 814_P xxxx	RUNNING NUMBER		ND	Ø	Woll thickness
	Pipe	00	ND 15	Ø 22.3 x	3.6
	SFI NUMBER		ND 20	Ø 26.9 x	4.0
ARMATURES ID : 814_V xxx	RUNNING NUMBER		ND 25	Ø 33.7 x	4.5
	VALVE		ND 32	Ø 42.4 x	4.5
	SFI NUMBER		ND 40	Ø 48.3 x	4.5
EQUIPMENT ID : 814_XXX	RUNNING NUMBER		ND 50	Ø 60.3 x	4.5
			ND 65	Ø 76.1 x	4.5
			ND 80	Ø 88.9 x	4.5
			ND 100	Ø 114.3 x	4.5
			ND 125	Ø 139.7 x	4.5
			ND 150	Ø 168.3 x	4.5
			ND 200	Ø 219.1 x	6.3
			ND 250	Ø 273.0 x	6.3
			ND 300	Ø 323.9 x	8.8
			ND 350	Ø 355.6 x	9.5
			ND 500	Ø 508 x	12.5

ND 15	Ø 22.3 x	3.6	
ND 20	Ø 26.9 x	4.0	
ND 25	Ø 33.7 x	4.5	
ND 32	Ø 42.4 x	4.5	
ND 40	Ø 48.3 x	4.5	10.0
ND 50	Ø 60.3 x	4.5	6.3
ND 65	Ø 76.1 x	4.5	6.3
ND 80	Ø 88.9 x	4.5	8.0
ND 100	Ø 114.3 x	4.5	8.8
ND 125	Ø 139.7 x	4.5	8.8
ND 150	Ø 168.3 x	4.5	8.8
ND 200	Ø 219.1 x	6.3	12.7
ND 250	Ø 273.0 x	6.3	10.0
ND 300	Ø 323.9 x	8.8	16.0
ND 350	Ø 355.6 x	9.5	16.0
ND 500	Ø 508 x	12.5	20.0

MINIMUM WALL THICKNESS OF PIPES
ACCORDING TO BV Rules Pt.C, Ch.1, Sec.10, Table 6



NOTES:

1. DISCHARGE VALVE MAX 1m FROM THE PUMP.
2. PIPE INCREASE IMMEDIATE AFTER THE DISCHARGE VALVE.
3. REDUCER ND350 TO ND200 MAX 1m FROM WATER MONITOR.
4. SET ND80 ORIFICE BEFORE DECK HEAD TO MINIMUM FLOW AREA.
5. ENSURE PROPER DRAINAGE OF THE PIPING SYSTEM.
6. WATER SPRAY VALVE AND DECK HEAD VALVE MAX 3m FROM PUMP.
7. DISCHARGE VALVE TO BE IN CLOSED PRIOR TO CLUTCH-IN TO AVOID WATER HAMMER.
8. BYPASS/OB VALVES SHOULD BE OPEN TO AVOID PUMP OVERHEATING AT LOW RATE DELIVERY RATES.
9. OBSERVE PEAK OF PUMP CURVE FOR PRESSURE CLASS SELECTION OF VALVES.
10. THE SEA WATER SUCTION VALVE AND WATER DELIVERY VALVE AND PUMP PRIME MOVER ARE TO BE OPERABLE FROM THE SAME POSITION.
11. THE STARTING OF FIRE FIGHTING PUMP WHEN SEA WATER INLET VALVES ARE CLOSED IS EITHER TO BE PREVENTED BY AN INTER-LOCK SYSTEM OR TO TRIGGER AN AUDIBLE AND VISUAL ALARM.
12. THE FOUNDATION OF THE MONITOR SHOULD BE CAPABLE OF WITHSTANDING THE REACTION FORCES OF THE WATER JET.

814.003-004	1	WATER MONITOR 1	1200 m3/h	FFS 1200 LB	
814.001-002	1	FIRE FIGHTER PUMP	1500 m3/h, 15bar	CENTRIFUGAL	
SFI	No.	DESCRIPTION	CAPACITY	TYPE	REMARKS

P27032 SHALLOW DRAUGHT ICEBREAKING TUG (ISDBT)
STX BRAILA HULL NUMBER 740
IMO NUMBER XXX

SHIP DESIGN GROUP

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STATUS

Date Pym.
2009-08-08

☐ 1 VERY PRELIMINARY

☒ 2 FOR OTHER DESIGN

☐ 3 FOR WORKSHOP DESIGN

☐ 4 AS DESIGN

☐ 5 AS BUILT

☐ 2P FOR OTHER DESIGN



Aker Arctic

	WATER MONITOR
	BALL VALVE
	RETAINING POSITION ON FAILURE
	LIMIT SWITCHES
	WIRE HAND OPERATION OF QUICK CLOSING VALVE
	BUTTERFLY VALVE
	BUTTERFLY VALVE REMOTE CONTROL
	EXPANSION PIECE
	CENTRIFUGAL PUMP
	ORIFICE
	NON-RETURN VALVE
SYMBOLS	

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