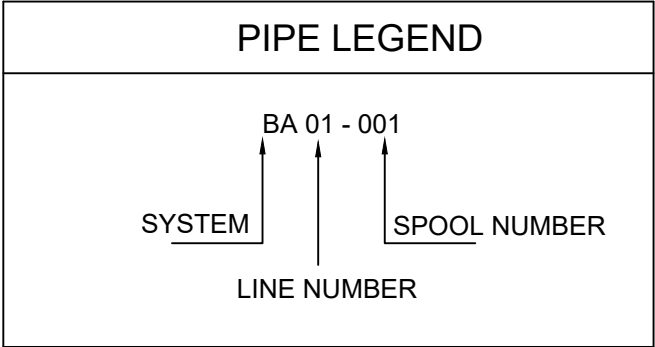


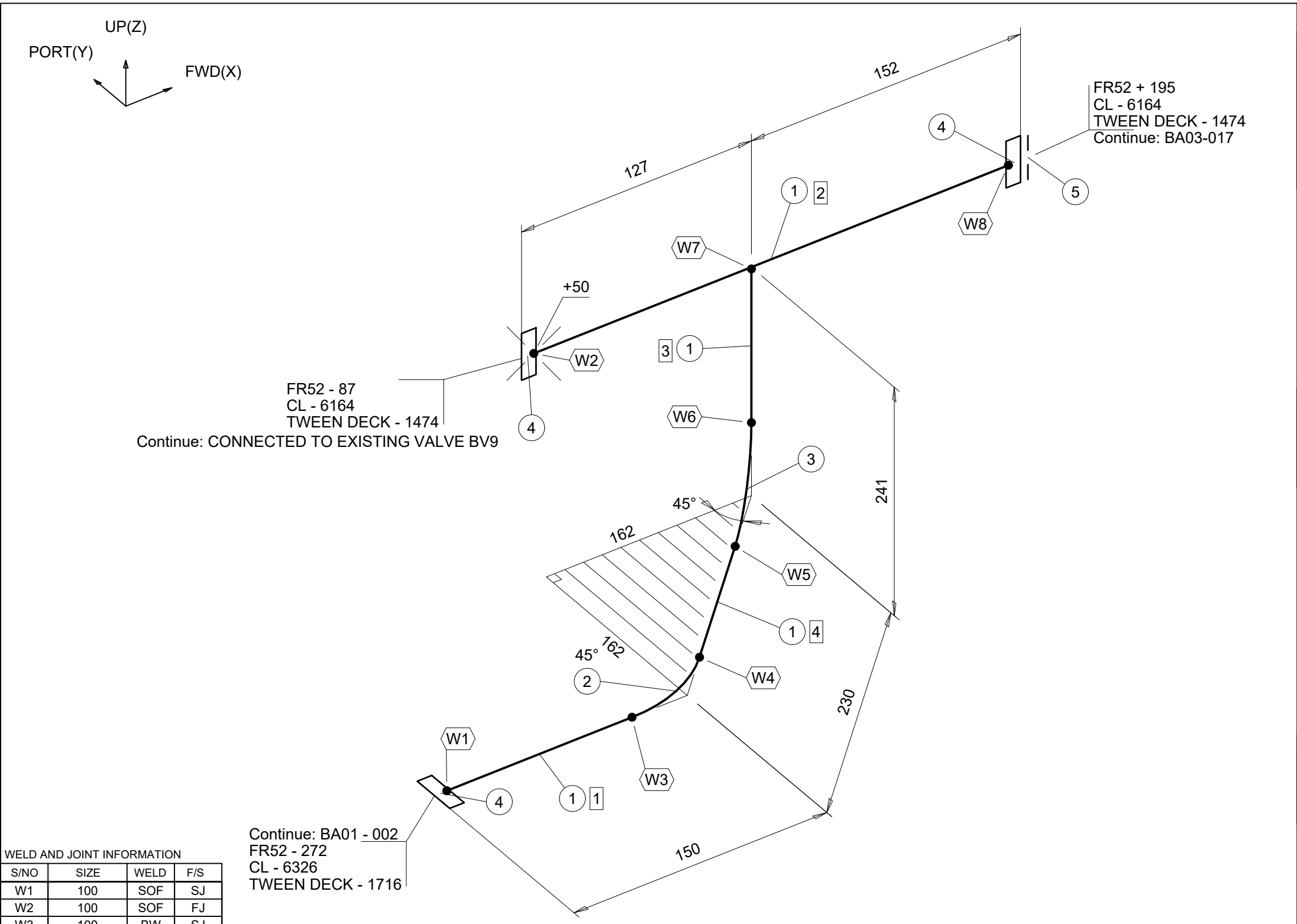
SPOOL INDEX SHEET					
SPOOL NAME	SHEET NO	DRAWN	DATE	REVISION	REMARKS
SPOOL INDEX SHEET	i		12-10-2024	B	
BA01-001	1		12-10-2024	B	
BA01-002	2		12-10-2024	B	
BA01-003	3		12-10-2024	B	
BA01-004	4		12-10-2024	B	
BA01-005	5		12-10-2024	B	
BA01-006	6		12-10-2024	B	
BA01-007	7		12-10-2024	B	
BA01-008	8		12-10-2024	B	
BA01-009	9		12-10-2024	B	
BA01-010	10		12-10-2024	B	
BA01-011	11		12-10-2024	B	
BA02-001	12		12-10-2024	B	
BA02-002	13		12-10-2024	B	
BA02-003	14		12-10-2024	B	
BA02-004	15		12-10-2024	B	
BA02-005	16		12-10-2024	B	
BA03-001	17		12-10-2024	B	
BA03-002	18		12-10-2024	B	
BA03-003	19		12-10-2024	B	
BA03-004	20		12-10-2024	B	
BA03-005	21		12-10-2024	B	
BA03-006	22		12-10-2024	B	
BA03-007	23		12-10-2024	B	
BA03-008	24		12-10-2024	B	
BA03-009	25		12-10-2024	B	
BA03-010	26		12-10-2024	B	
BA03-011	27		12-10-2024	B	
BA03-012	28		12-10-2024	B	
BA03-013	29		12-10-2024	B	
BA03-014	30		12-10-2024	B	
BA03-015	31		12-10-2024	B	
BA03-016	32		12-10-2024	B	
BA03-017	33		12-10-2024	B	
BA04-001	34		12-10-2024	B	
BA04-002	35		12-10-2024	B	
BA04-003	36		12-10-2024	B	
BA04-004	37		12-10-2024	B	
BA05-001	38		12-10-2024	B	
BA05-002	39		12-10-2024	B	
BA06-001	40		12-10-2024	B	
SAMPLING PORT	40A		12-10-2024	B	
CA01	40B		12-10-2024	B	



REFERENCE DOCUMENTS:

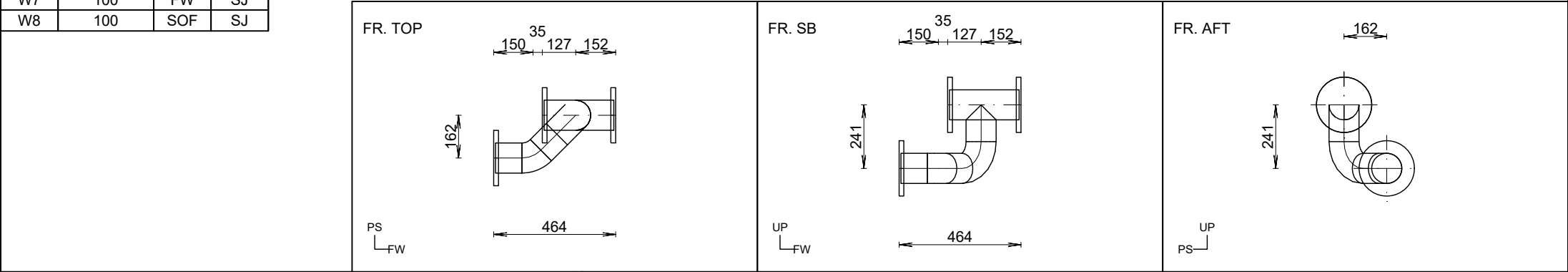
- 1.GSPL-P1482-PI-0001 BWTS Piping Schematic
- 2.GSPL-P1482-PI-0003 Compressed air system piping schematic
- 3.GSPL-P1482-PI-0004 Sanitary & F.W service system piping schematic
- 4.GSPL-P1482-PI-0201 Piping Arrangement Drawing for BWTS (1" & Above)







B	12/10/2024	ISSUED FOR CONSTRUCTION	SK	TT	GC
A	20/09/2024	ISSUED FOR CONSTRUCTION	SK	TT	GC
REV.	DATE	DESCRIPTION	DRAWN BY	CHKD BY	APPRD
<div><div><div><div></div></div><div>Goltens</div><div>Singapore Pte Ltd.</div></div></div>					
Client: EMAS OFFSHORE LIMITED			BWTS Maker :BIO-SEA		
Location: -			IMO No.: 9354947		
Project No: P1482			Project Name: JP 88 STORK		
Drawing title: <div>PIPING SPOOL DRAWING FOR BWTS (1" & ABOVE)</div>					
Scale	Format	Sheet	Drawing No:		Revision No.
N.T.S	A3	i	GSPL-P1482-PI-0301		B



WELD AND JOINT INFORMATION			
S/NO	SIZE	WELD	F/S
W1	100	SOF	SJ
W2	100	SOF	FJ
W3	100	BW	SJ
W4	100	BW	SJ
W5	100	BW	SJ
W6	100	BW	SJ
W7	100	FW	SJ
W8	100	SOF	SJ

SPECIAL NOTE: SPOOL TO BE CONNECTED TO EXISTING FLANGE AND VALVE SUITABLY ONSITE.



DRAWING SYMBOLS						SPOOL NAME:BA01-001										
SPOOL NAME	WELDING NUMBER	PART NUMBER	CUT NUMBER	SHOP JOINT (SJ)	FIELD JOINT (FJ)	PIPING STANDARD	FLUID	TEST MEDIUM	DESIGN CONDITIONS		TEST CONDITIONS		NDT GROUP	CLASS	PAINT SPECIFICATION	DRY WEIGHT
						JIS 10K	SEA WATER	WATER	Temp./ °C	Press./bar	Temp./ °C	Press./bar	100% Visual	III	Ships Paint Spec	21 kg
									AMB	6	-	9				

FABRICATION MATERIAL						
PART	QTY.	LENGTH (m)	DESCRIPTION	SIZE	MATERIAL	UNIT Wt. (kg)
1		0.64	Pipe Seamless, BW	100A Sch40	STPG370	16.00
2	1		Elbow SR, BW 45 deg	100A Sch40	PG 370	2.69
3	1		Elbow SR, BW 90 deg	100A Sch40	PG 370	2.69
4	3		Flange SOFF	100A JIS10K	SF 390A	2.39

ERECTION MATERIAL					
PART	QTY.	DESCRIPTION	SIZE	MATERIAL	UNIT Wt. (kg)
5	1	Gasket, JIS10K, Thk 3mm	100A	CNAF	

CUT INFORMATION				
CUT NO.	DESCRIPTION	SIZE	MATERIAL	CUT LENGTH (mm)
1	Pipe Seamless, BW	100A Sch40	STPG370	101
2	Pipe Seamless, BW	100A Sch40	STPG370	315
3	Pipe Seamless, BW	100A Sch40	STPG370	140
4	Pipe Seamless, BW	100A Sch40	STPG370	87

NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETERS

2. CUT PIPE LENGTHS ARE CALCULATED FOR NOMINAL FITTING DIMENSIONS

3. Y-CO-ORDINATE IS ' + ' ON PORT SIDE OF CENTER LINE, AND ' - ' ON STBD. SIDE.

4. MATERIAL : CARBON STEEL HOT DIP GALVANIZED

REV.	DATE	DESCRIPTION	DRAWN BY	CHKD BY	APPRD
B	12/10/2024	ISSUED FOR CONSTRUCTION	SK	TT	GC
A	20/09/2024	ISSUED FOR CONSTRUCTION	SK	TT	GC

Client: EMAS OFFSHORE LIMITED

Location: -

Project No: P1482

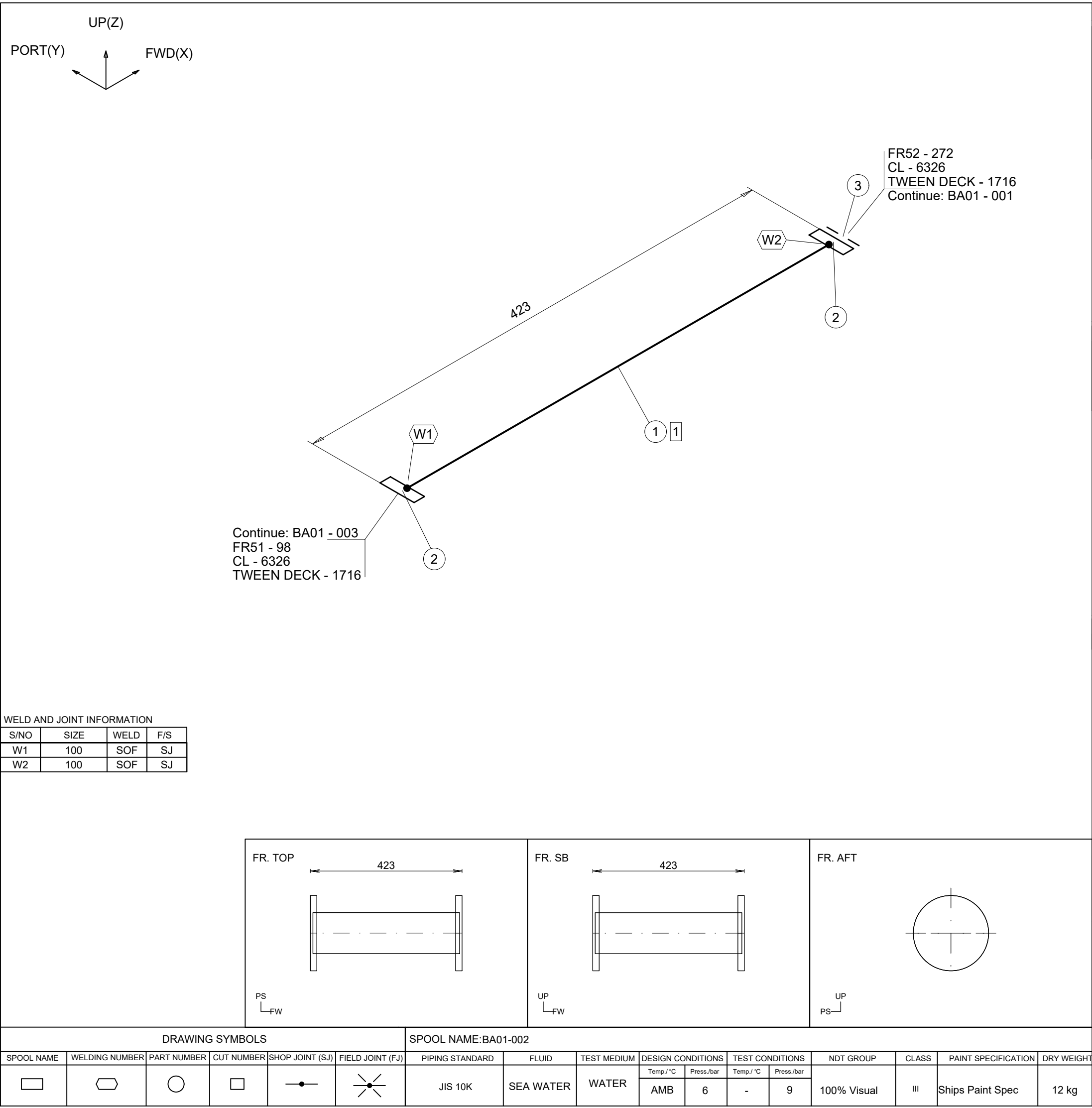
Drawing title: SPOOL-DRAWING FOR PIPE BA01

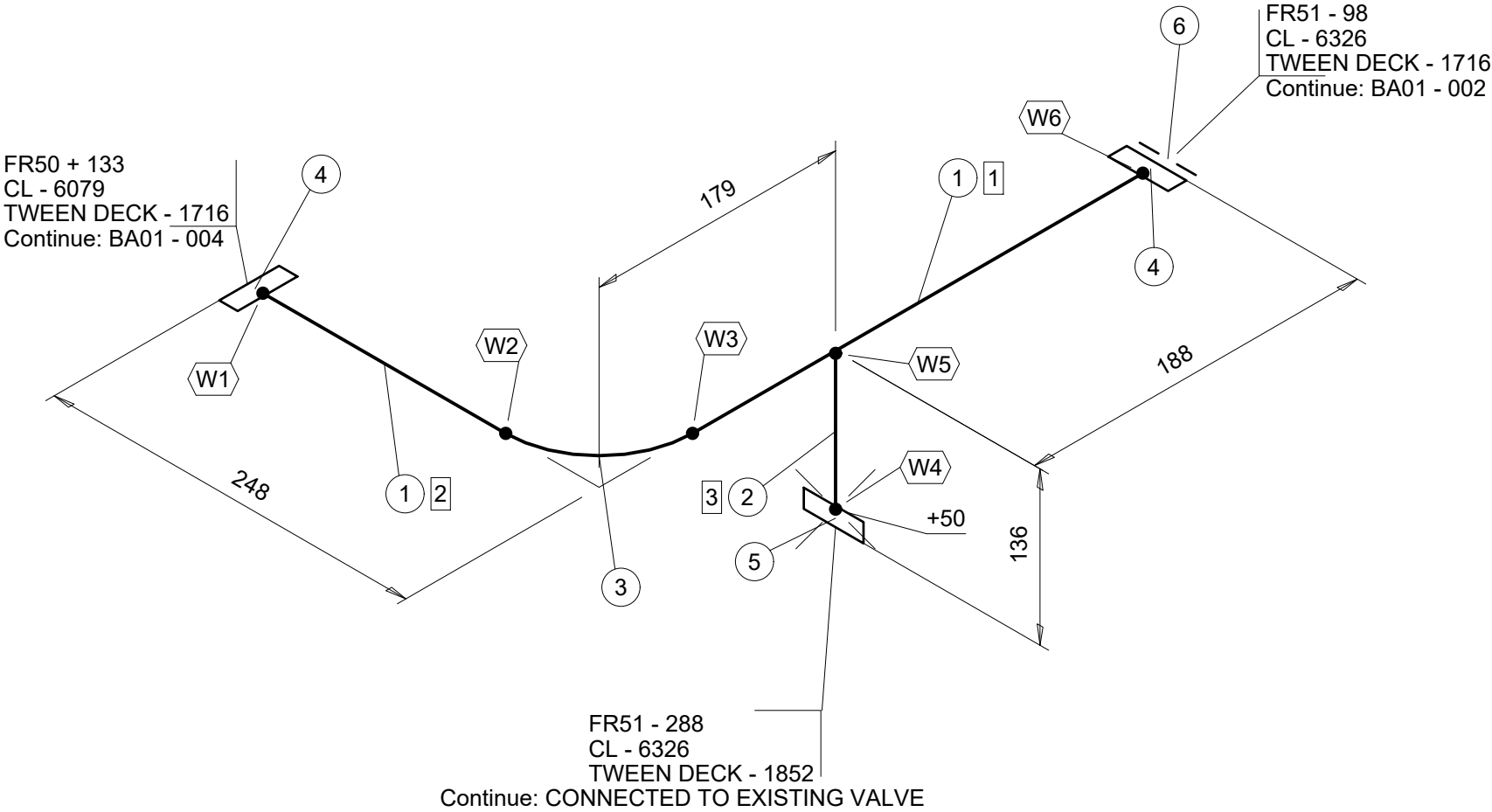
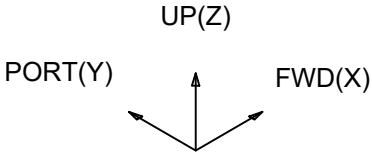
BWTS Maker Name: BIO-SEA

IMO No.: 9354947

Project Name: JP 88 STORK

Scale	Format	Sheet	Drawing No:	Revision No.
N.T.S	A3	01/40	BA01	B





FABRICATION MATERIAL						
PART	QTY.	LENGTH (m)	DESCRIPTION	SIZE	MATERIAL	UNIT Wt. (kg)
1		0.40	Pipe Seamless, BW	100A Sch40	STPG370	16.00
2		0.14	Pipe Seamless, BW	80A Sch40	STPG370	11.30
3	1		Elbow SR, BW 90 deg	100A Sch40	PG 370	2.69
4	2		Flange SOFF	100A JIS10K	SF 390A	2.39
5	1		Flange SOFF	80A JIS10K	SF 390A	2.61

ERECTION MATERIAL						
PART	QTY.	DESCRIPTION		SIZE	MATERIAL	UNIT Wt. (kg)
6	1	Gasket, JIS10K, Thk 3mm		100A	CNAF	

CUT INFORMATION				
CUT NO.	DESCRIPTION	SIZE	MATERIAL	CUT LENGTH (mm)
1	Pipe Seamless, BW	100A Sch40	STPG370	258
2	Pipe Seamless, BW	100A Sch40	STPG370	139
3	Pipe Seamless, BW	80A Sch40	STPG370	144

NOTES:
1. ALL DIMENSIONS ARE IN MILLIMETERS
2. CUT PIPE LENGTHS ARE CALCULATED FOR NOMINAL FITTING DIMENSIONS
3. Y-CO-ORDINATE IS ' + ' ON PORT SIDE OF CENTER LINE, AND ' - ' ON STBD. SIDE.
4. MATERIAL : CARBON STEEL HOT DIP GALVANIZED

B	12/10/2024	ISSUED FOR CONSTRUCTION	SK	TT	GC
A	20/09/2024	ISSUED FOR CONSTRUCTION	SK	TT	GC
REV.	DATE	DESCRIPTION	DRAWN BY	CHKD BY	APPRD







<div><div></div><div>Goltens</div><div>Singapore Pte Ltd.</div></div>					
Client: EMAS OFFSHORE LIMITED			BWTS Maker Name: BIO-SEA		
Location: -			IMO No.: 9354947		
Project No: P1482			Project Name: JP 88 STORK		

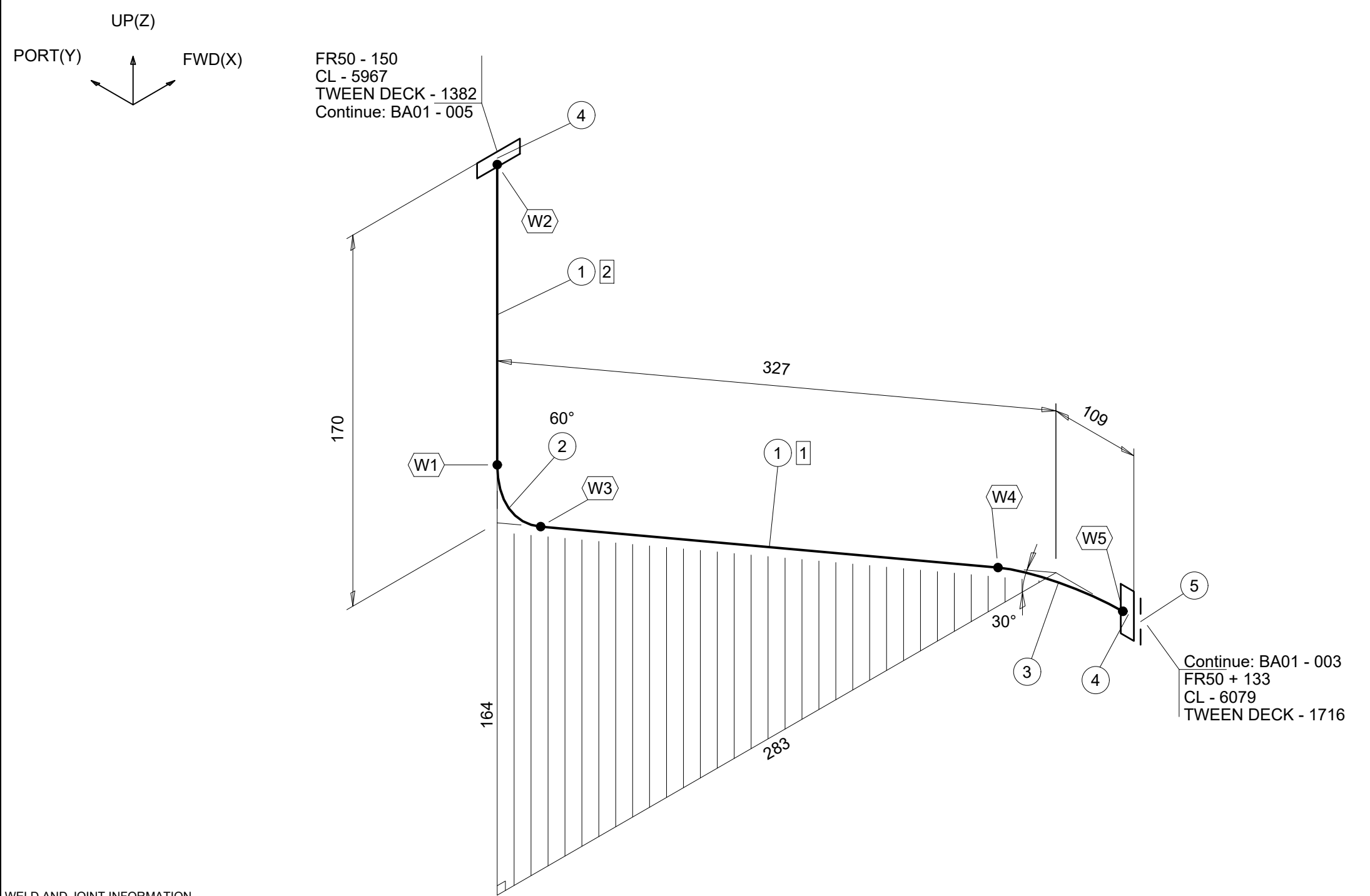
Drawing title: SPOOL-DRAWING FOR PIPE BA01					
Scale	Format	Sheet	Drawing No:		Revision No.
N.T.S	A3	03/40	BA01		B

WELD AND JOINT INFORMATION			
S/NO	SIZE	WELD	F/S
W1	100	SOF	SJ
W2	100	BW	SJ
W3	100	BW	SJ
W4	80	SOF	FJ
W5	80	FW	SJ
W6	100	SOF	SJ

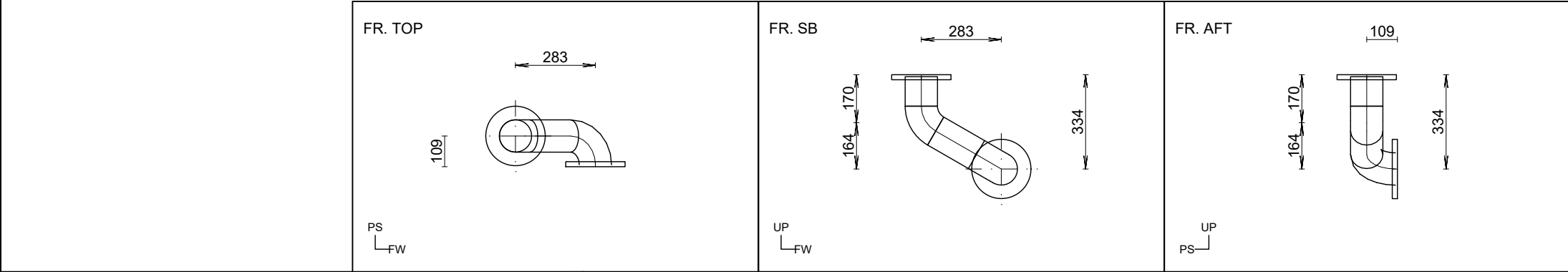
SPECIAL NOTE: SPOOL TO BE CONNECTED TO EXISTING FLANGE VALVE SUITABLY ONSITE.







FR. TOP 		FR. SB 		FR. AFT 	
-------------	--	------------	--	-------------	--

DRAWING SYMBOLS						SPOOL NAME:BA01-003										
SPOOL NAME	WELDING NUMBER	PART NUMBER	CUT NUMBER	SHOP JOINT (SJ)	FIELD JOINT (FJ)	PIPING STANDARD	FLUID	TEST MEDIUM	DESIGN CONDITIONS		TEST CONDITIONS		NDT GROUP	CLASS	PAINT SPECIFICATION	DRY WEIGHT
						JIS 10K	SEA WATER	WATER	Temp./ °C	Press./bar	Temp./ °C	Press./bar	100% Visual	III	Ships Paint Spec	18 kg
									AMB	6	-	9				



WELD AND JOINT INFORMATION			
S/NO	SIZE	WELD	F/S
W1	100	BW	SJ
W2	100	SOF	SJ
W3	100	BW	SJ
W4	100	BW	SJ
W5	100	SOF	SJ



DRAWING SYMBOLS						SPOOL NAME:BA01-004										
SPOOL NAME	WELDING NUMBER	PART NUMBER	CUT NUMBER	SHOP JOINT (SJ)	FIELD JOINT (FJ)	PIPING STANDARD	FLUID	TEST MEDIUM	DESIGN CONDITIONS		TEST CONDITIONS		NDT GROUP	CLASS	PAINT SPECIFICATION	DRY WEIGHT
						JIS 10K	SEA WATER	WATER	Temp./°C	Press./bar	Temp./°C	Press./bar	100% Visual	III	Ships Paint Spec	14 kg
									AMB	6	-	9				

FABRICATION MATERIAL						
PART	QTY.	LENGTH (m)	DESCRIPTION	SIZE	MATERIAL	UNIT Wt. (kg)
1		0.27	Pipe Seamless, BW	100A Sch40	STPG370	16.00
2	1		Elbow SR, BW 60 deg	100A Sch40	PG 370	2.69
3	1		Elbow SR, BW 90 deg	100A Sch40	PG 370	2.69
4	2		Flange SOFF	100A JIS10K	SF 390A	2.39

ERECTION MATERIAL					
PART	QTY.	DESCRIPTION	SIZE	MATERIAL	UNIT Wt. (kg)
5	1	Gasket, JIS10K, Thk 3mm	100A	CNAF	

CUT INFORMATION				
CUT NO.	DESCRIPTION	SIZE	MATERIAL	CUT LENGTH (mm)
1	Pipe Seamless, BW	100A Sch40	STPG370	167
2	Pipe Seamless, BW	100A Sch40	STPG370	105

NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETERS

2. CUT PIPE LENGTHS ARE CALCULATED FOR NOMINAL FITTING DIMENSIONS

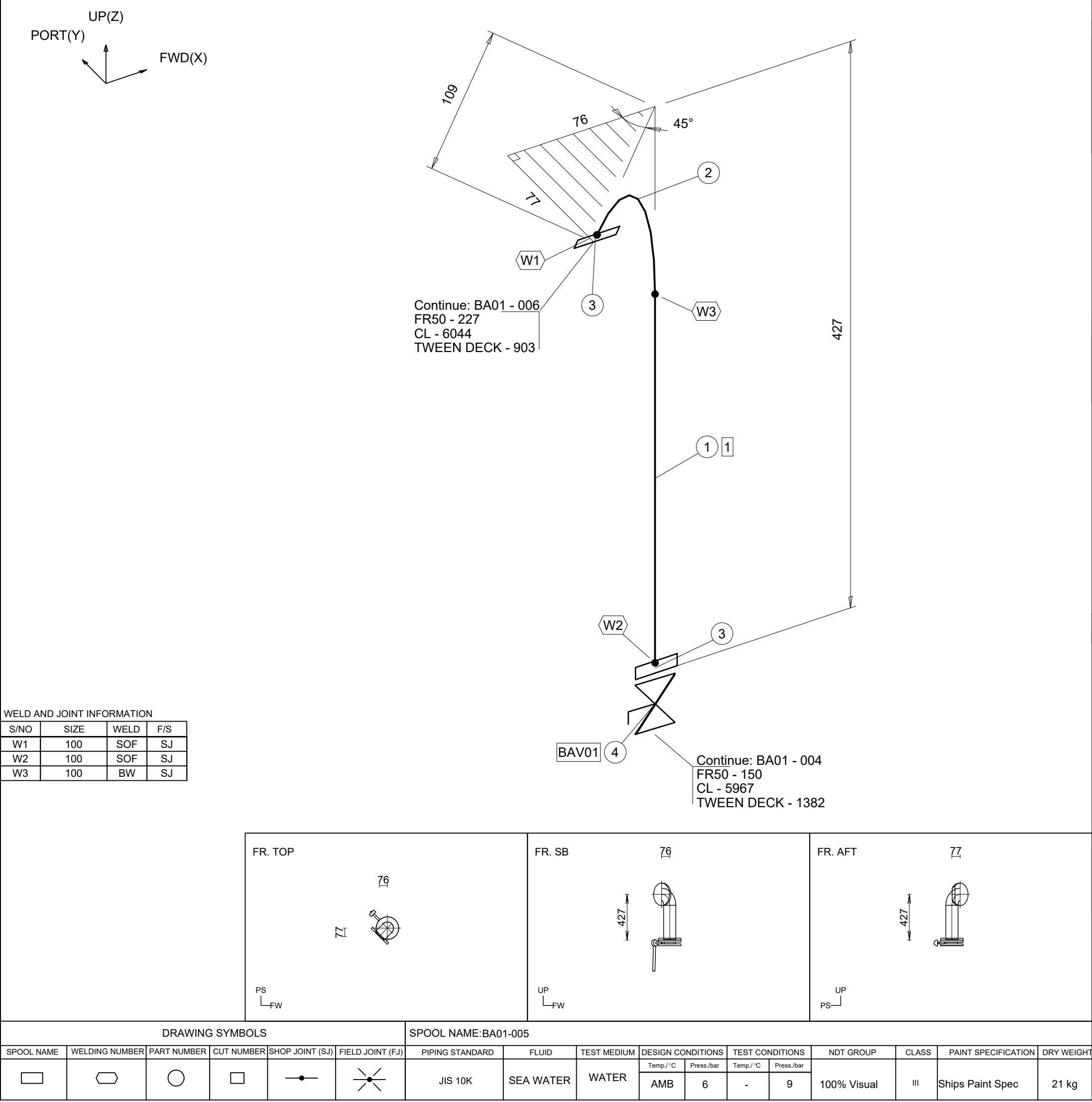
3. Y-CO-ORDINATE IS ' + ' ON PORT SIDE OF CENTER LINE, AND ' - ' ON STBD. SIDE.

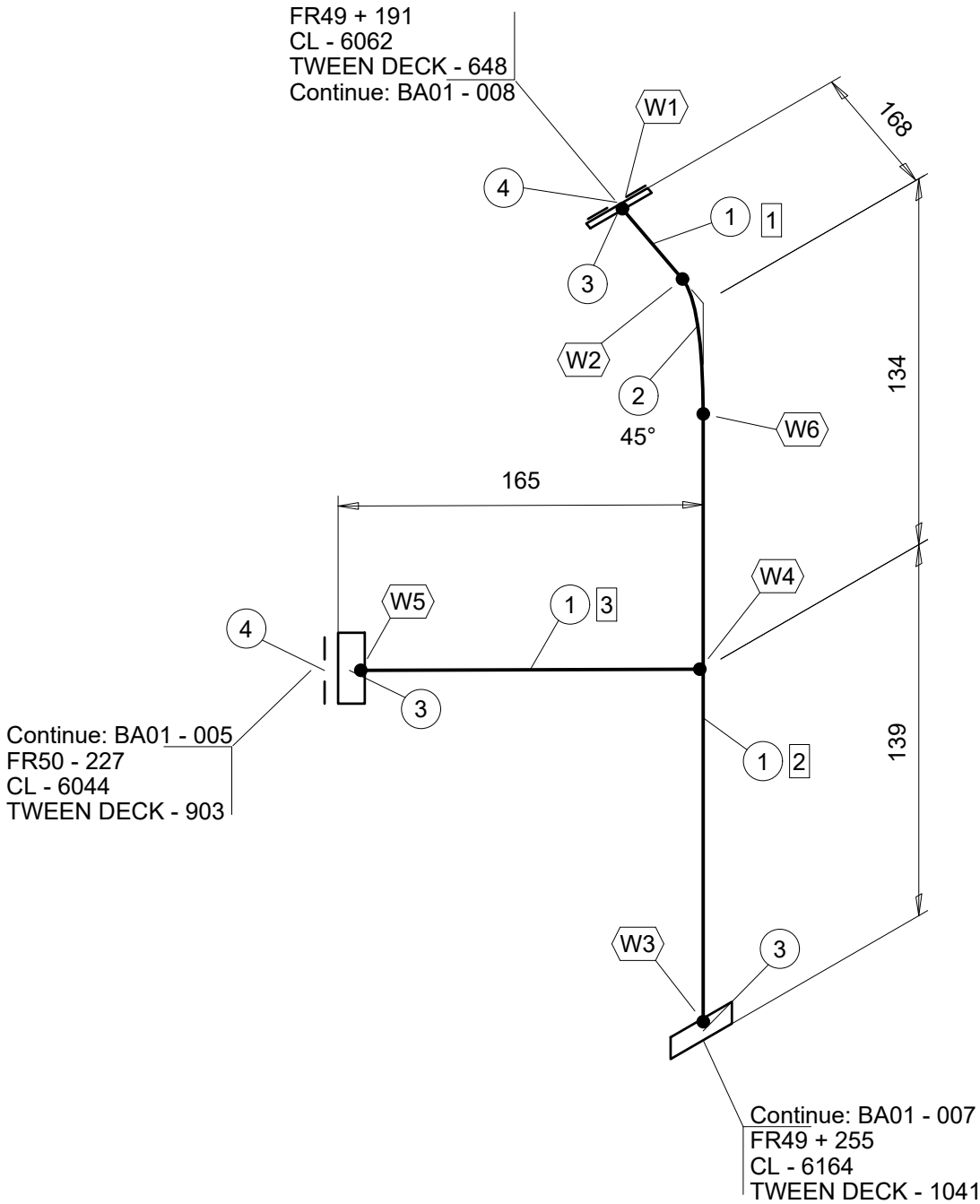
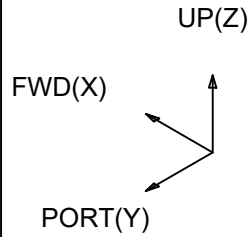
4. MATERIAL : CARBON STEEL HOT DIP GALVANIZED

B	12/10/2024	ISSUED FOR CONSTRUCTION	SK	TT	GC
A	20/09/2024	ISSUED FOR CONSTRUCTION	SK	TT	GC
REV.	DATE	DESCRIPTION	DRAWN BY	CHKD BY	APPRD

<div><div></div><div>Goltens</div><div>Singapore Pte Ltd.</div></div>					
Client: EMAS OFFSHORE LIMITED			BWTS Maker Name: BIO-SEA		
Location: -			IMO No.: 9354947		
Project No: P1482			Project Name: JP 88 STORK		

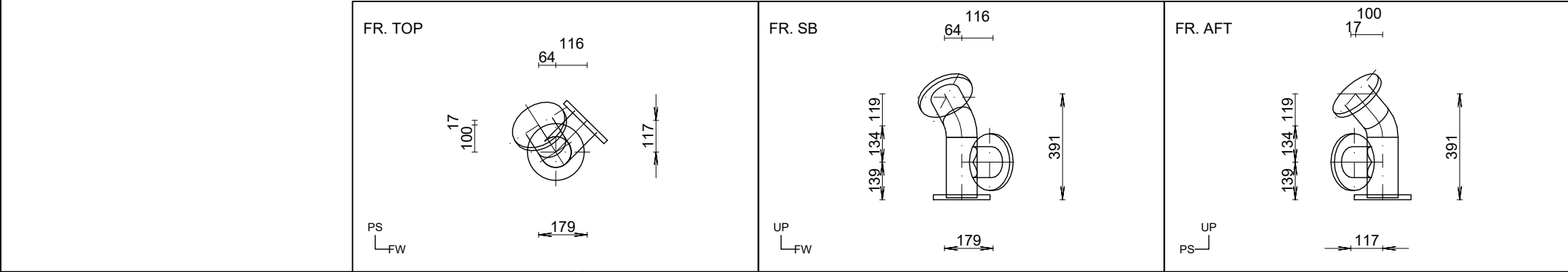
Drawing title:					
SPOOL-DRAWING FOR PIPE BA01					
Scale	Format	Sheet	Drawing No:		Revision No.
N.T.S	A3	04/40	BA01		B












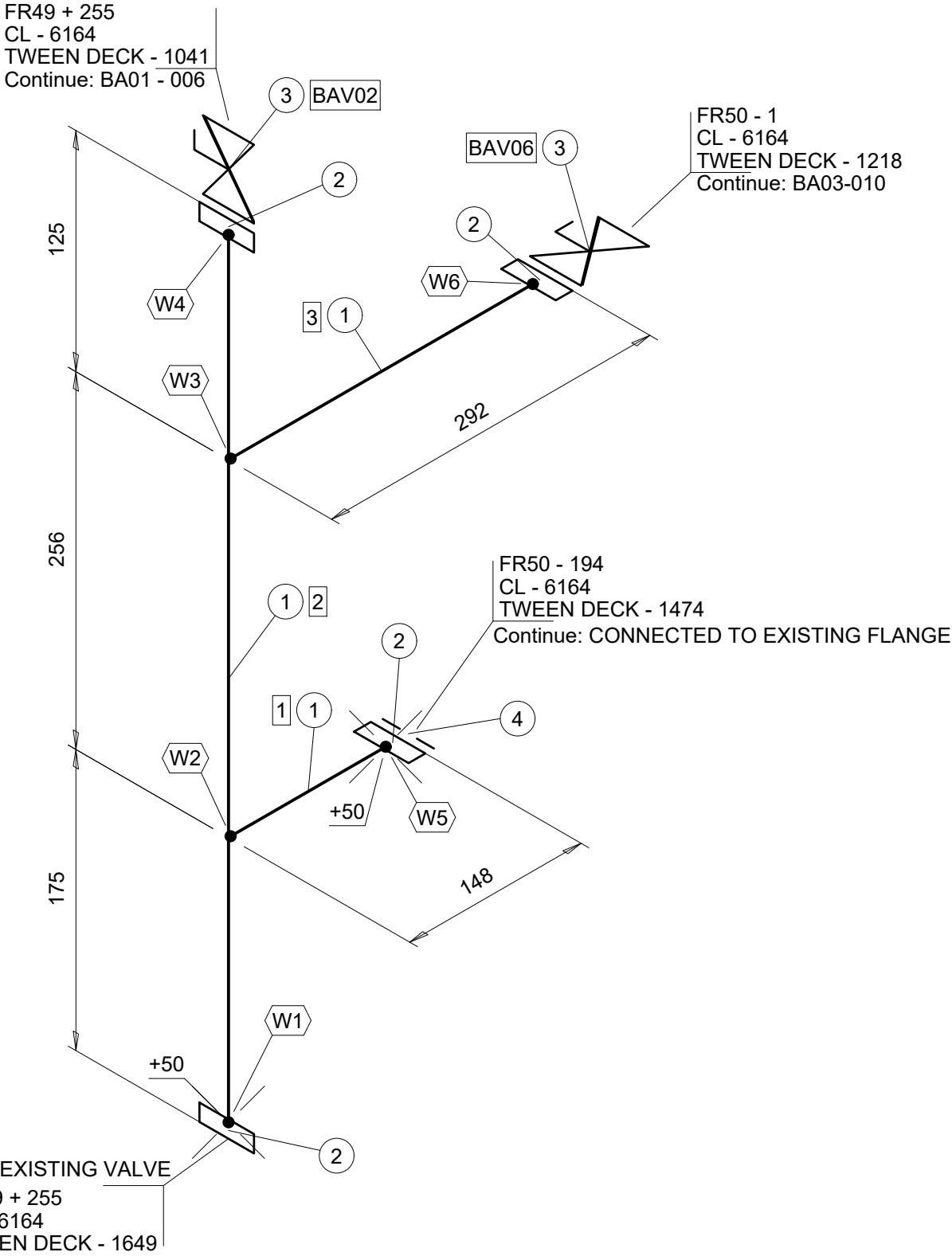
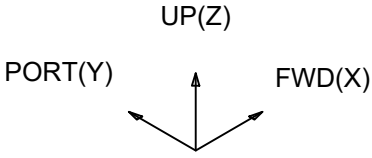
WELD AND JOINT INFORMATION

S/NO	SIZE	WELD	F/S
W1	100	SOF	SJ
W2	100	BW	SJ
W3	100	SOF	SJ
W4	100	FW	SJ
W5	100	SOF	SJ
W6	100	BW	SJ



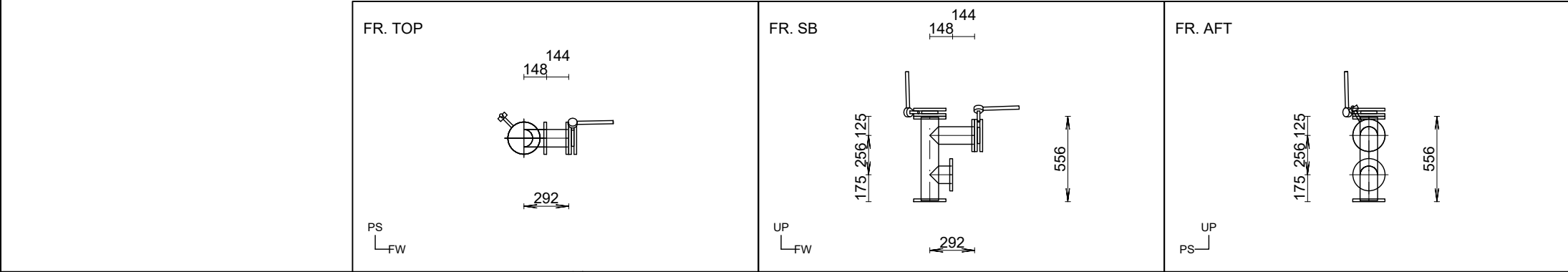
DRAWING SYMBOLS						SPOOL NAME:BA01-006										
SPOOL NAME	WELDING NUMBER	PART NUMBER	CUT NUMBER	SHOP JOINT (SJ)	FIELD JOINT (FJ)	PIPING STANDARD	FLUID	TEST MEDIUM	DESIGN CONDITIONS		TEST CONDITIONS		NDT GROUP	CLASS	PAINT SPECIFICATION	DRY WEIGHT
						JIS 10K	SEA WATER	WATER	Temp./ °C	Press./bar	Temp./ °C	Press./bar	100% Visual	III	Ships Paint Spec	16 kg
									AMB	6	-	9				







FABRICATION MATERIAL						
PART	QTY.	LENGTH (m)	DESCRIPTION	SIZE	MATERIAL	UNIT Wt. (kg)
1		0.50	Pipe Seamless, BW	100A Sch40	STPG370	16.00
2	1		Elbow SR, BW 45 deg	100A Sch40	PG 370	2.69
3	3		Flange SOFF	100A JIS10K	SF 390A	2.39
ERECTION MATERIAL						
PART	QTY.	DESCRIPTION		SIZE	MATERIAL	UNIT Wt. (kg)
4	2	Gasket, JIS10K, Thk 3mm		100A	CNAF	
CUT INFORMATION						
CUT NO.	DESCRIPTION			SIZE	MATERIAL	CUT LENGTH (mm)
1	Pipe Seamless, BW			100A Sch40	STPG370	119
2	Pipe Seamless, BW			100A Sch40	STPG370	224
3	Pipe Seamless, BW			100A Sch40	STPG370	156
NOTES:						
1. ALL DIMENSIONS ARE IN MILLIMETERS						
2. CUT PIPE LENGTHS ARE CALCULATED FOR NOMINAL FITTING DIMENSIONS						
3. Y-CO-ORDINATE IS ' + ' ON PORT SIDE OF CENTER LINE, AND ' - ' ON STBD. SIDE.						
4. MATERIAL : CARBON STEEL HOT DIP GALVANIZED						
B	12/10/2024	ISSUED FOR CONSTRUCTION			SK	TT GC
A	20/09/2024	ISSUED FOR CONSTRUCTION			SK	TT GC
REV.	DATE	DESCRIPTION			DRAWN BY	CHKD BY APPRD
<div><div></div><div><div>Goltens</div><div>Singapore Pte Ltd.</div></div></div>						
Client: EMAS OFFSHORE LIMITED				BWTS Maker Name: BIO-SEA		
Location: -				IMO No.: 9354947		
Project No: P1482				Project Name: JP 88 STORK		
Drawing title:						
SPOOL-DRAWING FOR PIPE BA01						
Scale	Format	Sheet	Drawing No:			Revision No.
N.T.S	A3	06/40	BA01			B



WELD AND JOINT INFORMATION

S/NO	SIZE	WELD	F/S
W1	100	SOF	FJ
W2	100	FW	SJ
W3	100	FW	SJ
W4	100	SOF	SJ
W5	100	SOF	FJ
W6	100	SOF	SJ



DRAWING SYMBOLS						SPOOL NAME:BA01-007										
SPOOL NAME	WELDING NUMBER	PART NUMBER	CUT NUMBER	SHOP JOINT (SJ)	FIELD JOINT (FJ)	PIPING STANDARD	FLUID	TEST MEDIUM	DESIGN CONDITIONS		TEST CONDITIONS		NDT GROUP	CLASS	PAINT SPECIFICATION	DRY WEIGHT
						JIS 10K	SEA WATER	WATER	Temp./ °C	Press./bar	Temp./ °C	Press./bar	100% Visual	III	Ships Paint Spec	42 kg
									AMB	6	-	9				

FABRICATION MATERIAL						
PART	QTY.	LENGTH (m)	DESCRIPTION	SIZE	MATERIAL	UNIT Wt. (kg)
1		1.06	Pipe Seamless, BW	100A Sch40	STPG370	16.00
2	4		Flange SOFF	100A JIS10K	SF 390A	2.39

ERECTION MATERIAL					
PART	QTY.	DESCRIPTION	SIZE	MATERIAL	UNIT Wt. (kg)
3	2	Butterfly Valve Manual 10K	100A JIS10K	-	8.40
4	1	Gasket, JIS10K, Thk 3mm	100A	CNAF	

CUT INFORMATION				
CUT NO.	DESCRIPTION	SIZE	MATERIAL	CUT LENGTH (mm)
1	Pipe Seamless, BW	100A Sch40	STPG370	190
2	Pipe Seamless, BW	100A Sch40	STPG370	592
3	Pipe Seamless, BW	100A Sch40	STPG370	284

NOTES:


1. ALL DIMENSIONS ARE IN MILLIMETERS

2. CUT PIPE LENGTHS ARE CALCULATED FOR NOMINAL FITTING DIMENSIONS

3. Y-CO-ORDINATE IS ' + ' ON PORT SIDE OF CENTER LINE, AND ' - ' ON STBD. SIDE.

4. MATERIAL : CARBON STEEL HOT DIP GALVANIZED

B	12/10/2024	ISSUED FOR CONSTRUCTION	SK	TT	GC
A	20/09/2024	ISSUED FOR CONSTRUCTION	SK	TT	GC
REV.	DATE	DESCRIPTION	DRAWN BY	CHKD BY	APPRD



Goltens
Singapore Pte Ltd.

Client: EMAS OFFSHORE LIMITED

BWTS Maker Name: BIO-SEA

Location: -

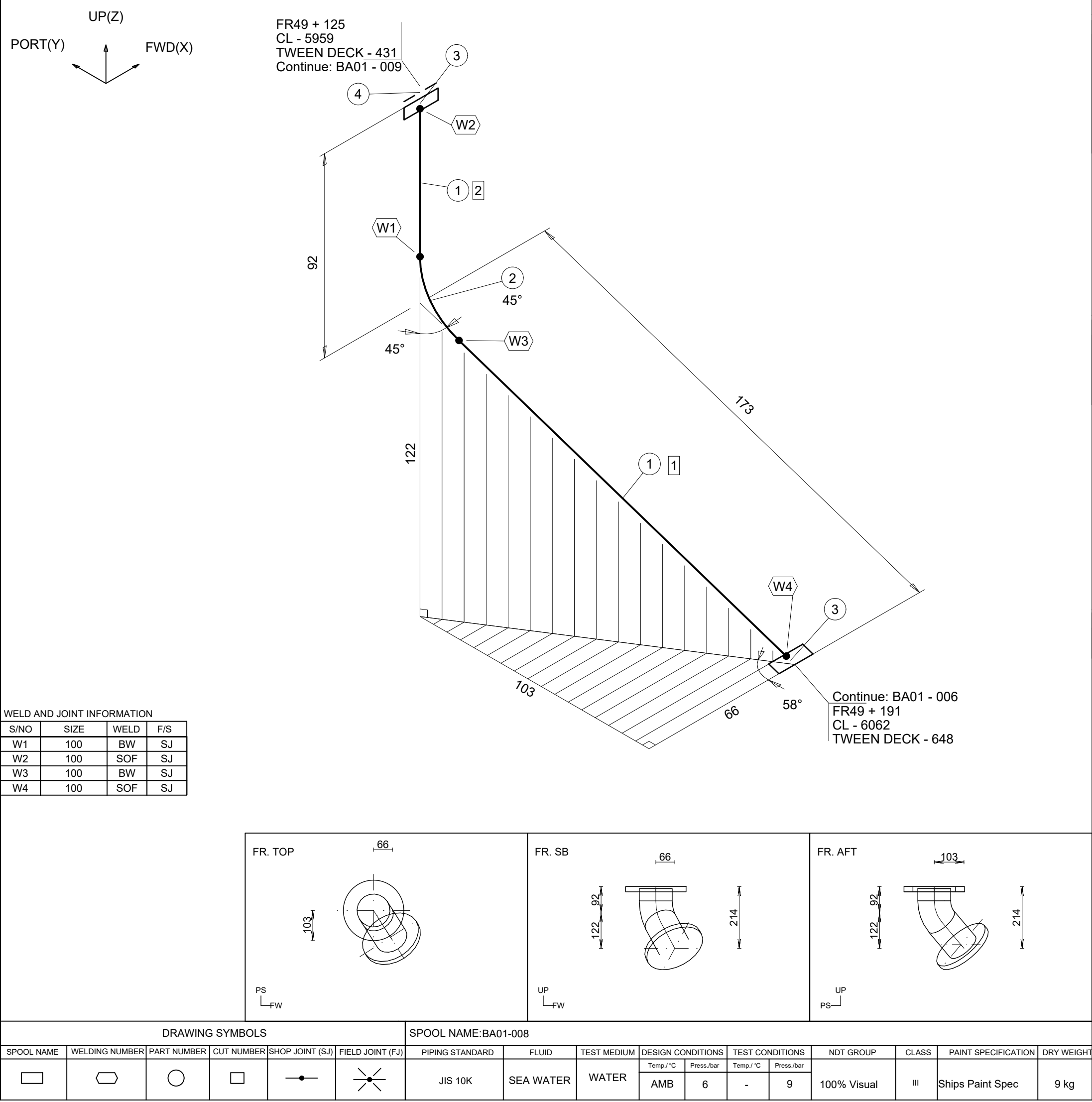
IMO No.: 9354947

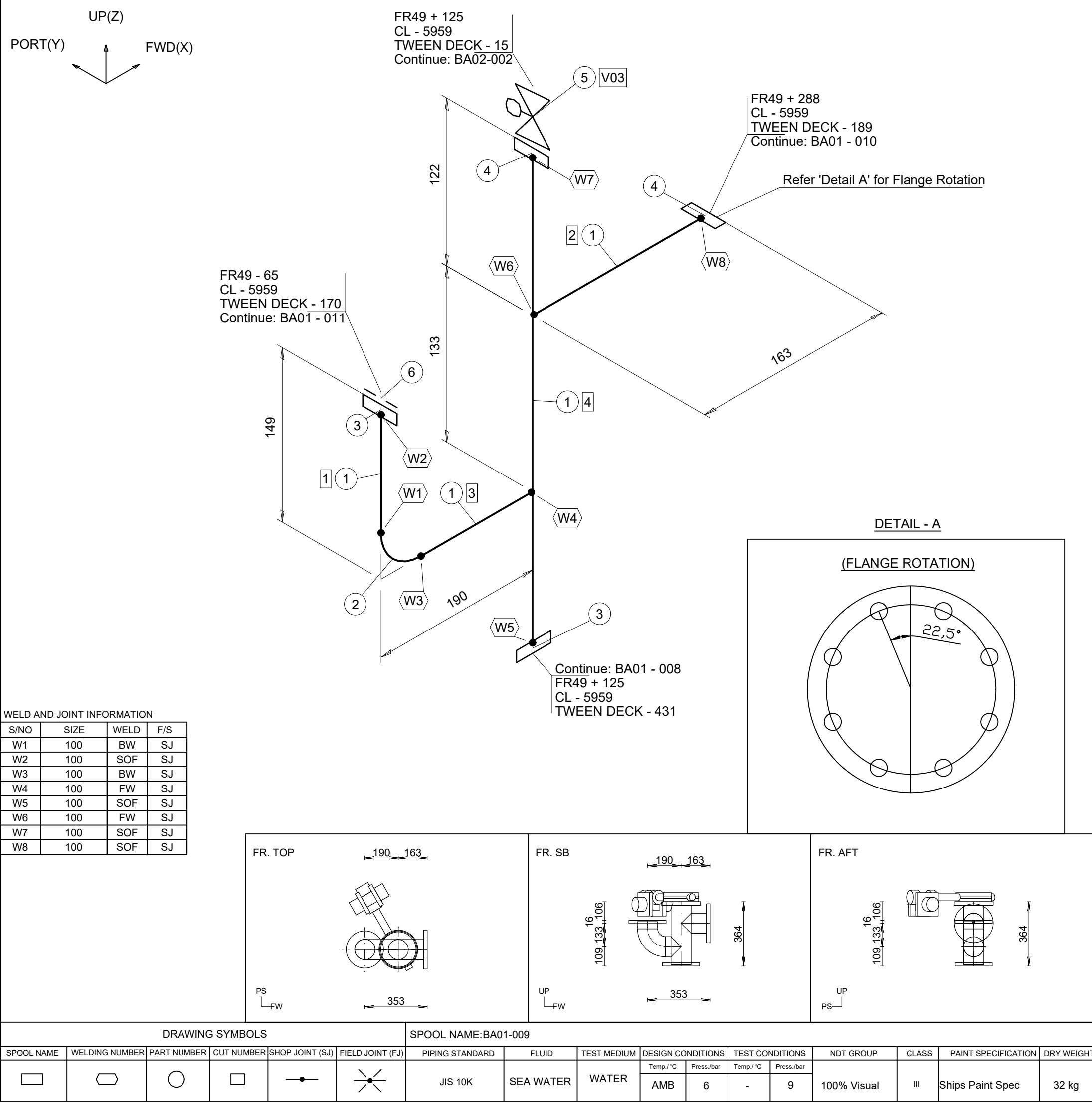
Project No: P1482

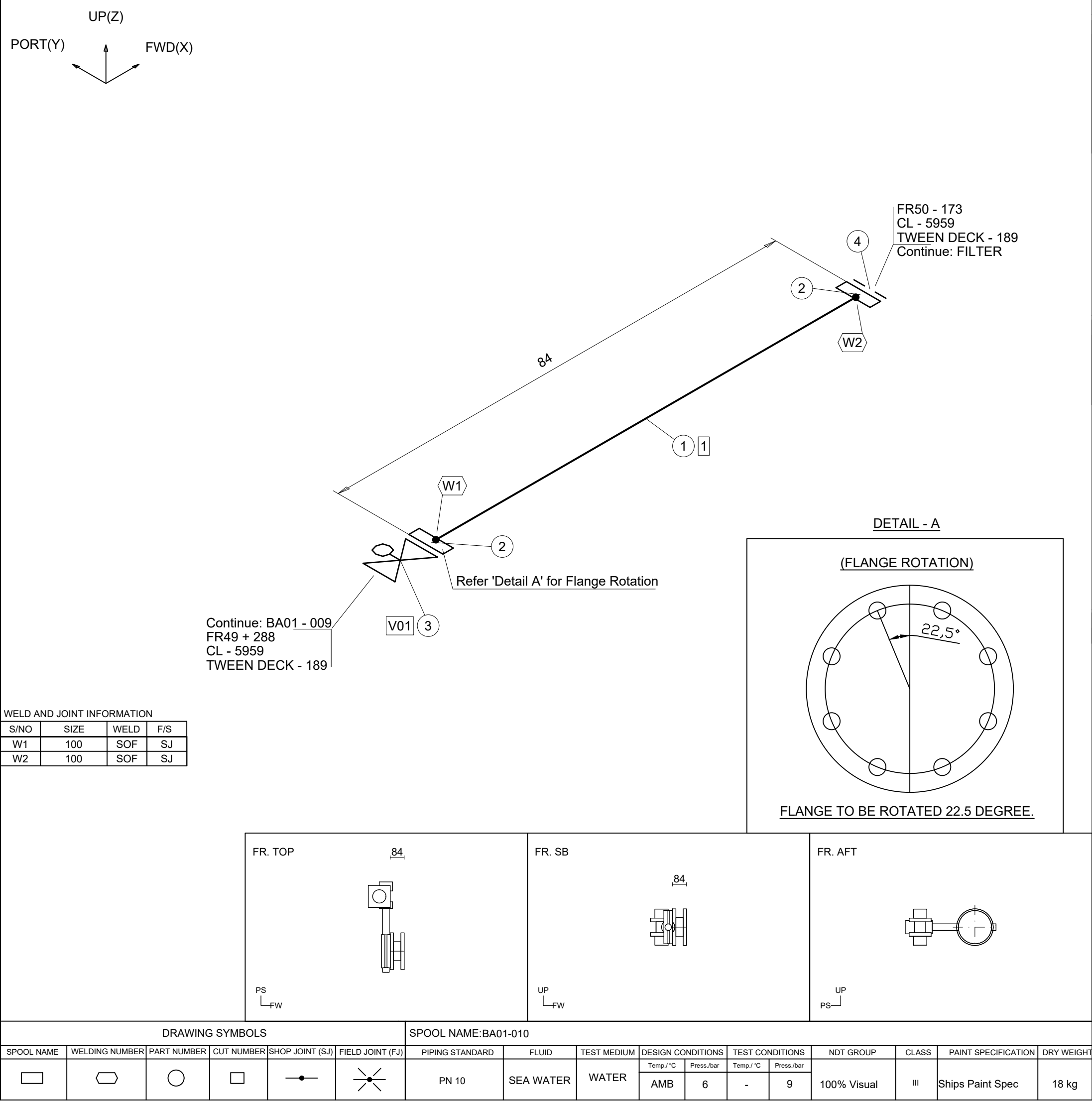
Project Name: JP 88 STORK


Drawing title: SPOOL-DRAWING FOR PIPE BA01

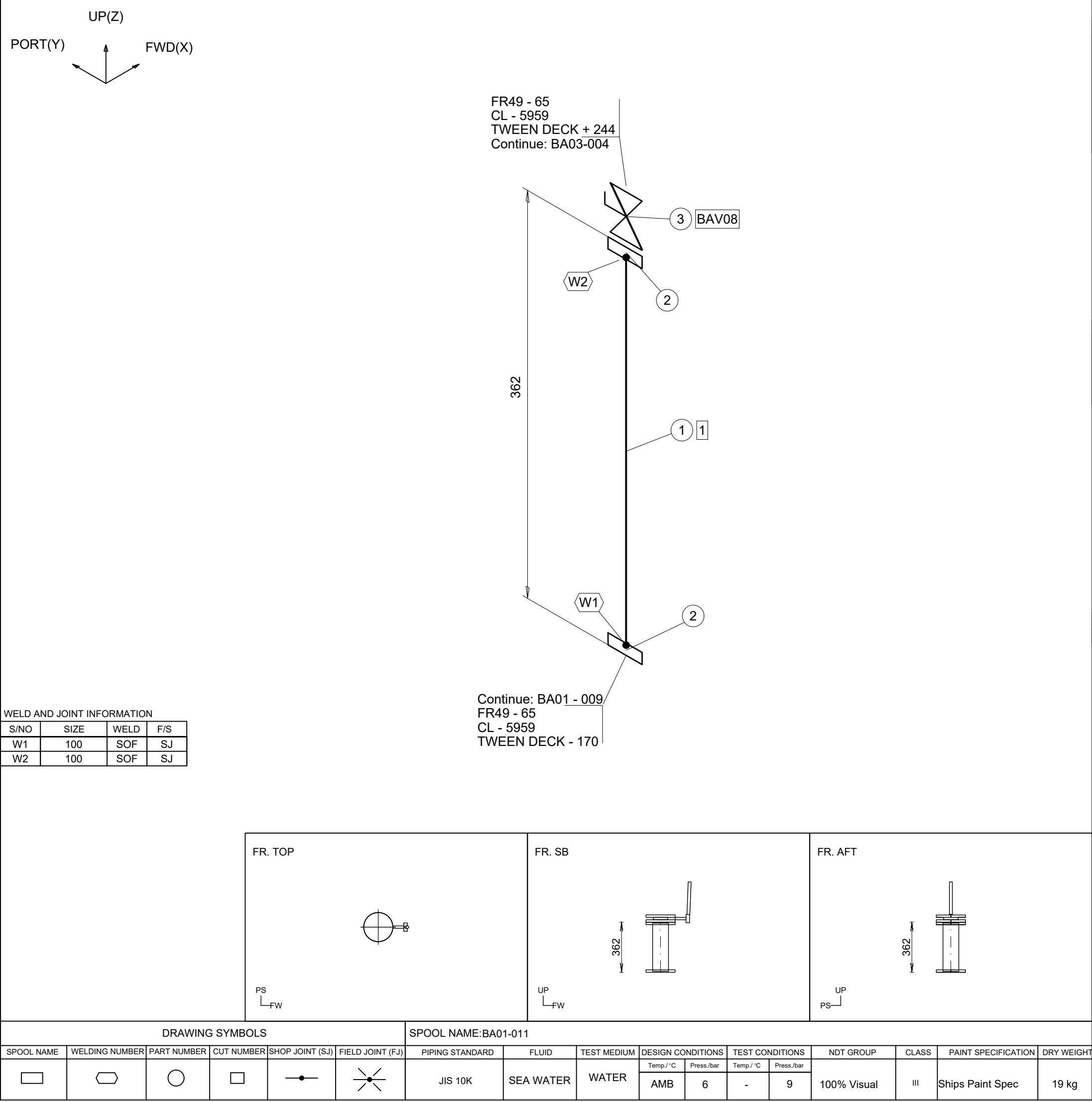
Scale	Format	Sheet	Drawing No:	Revision No.
N.T.S	A3	07/40	BA01	B




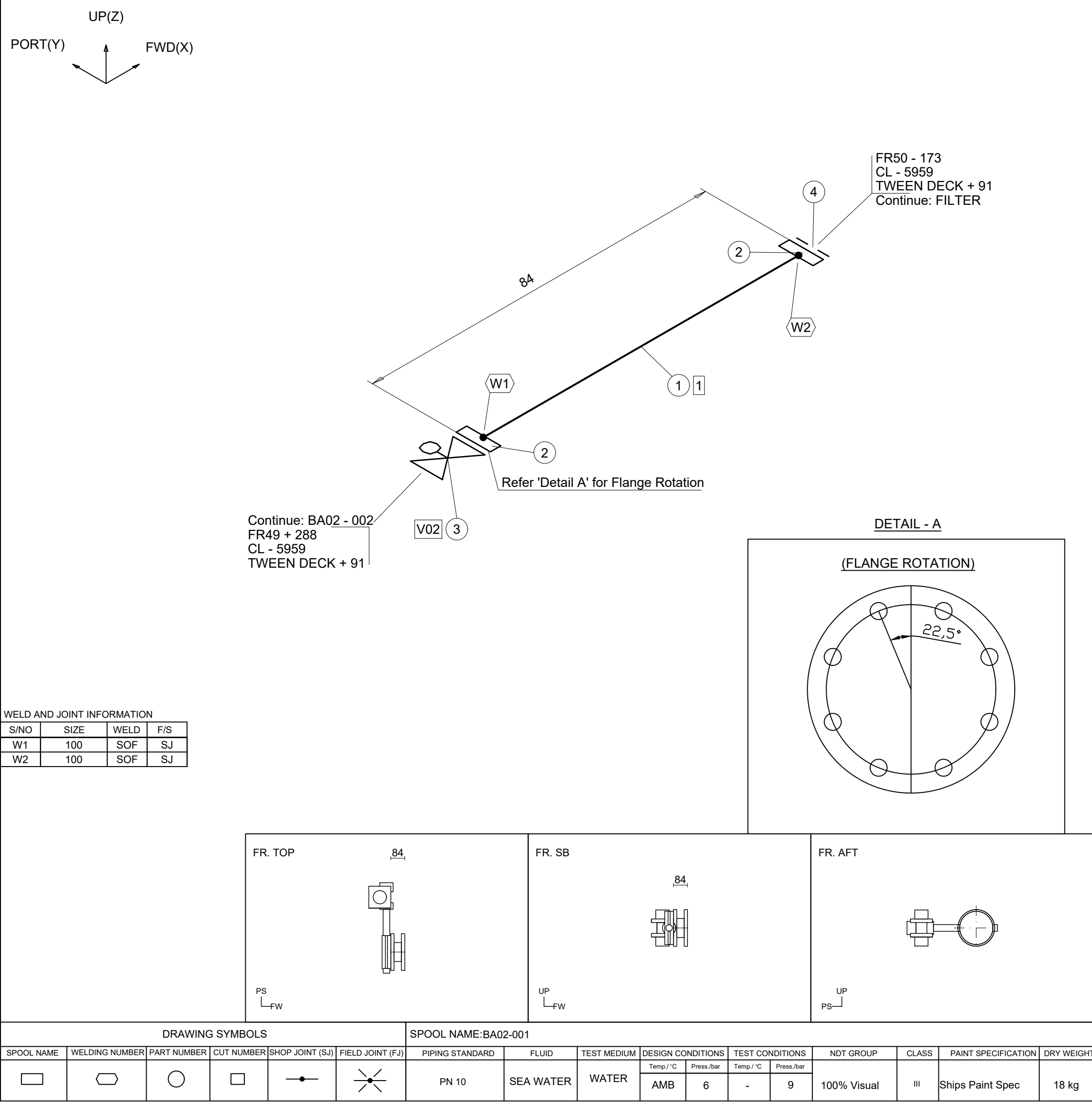




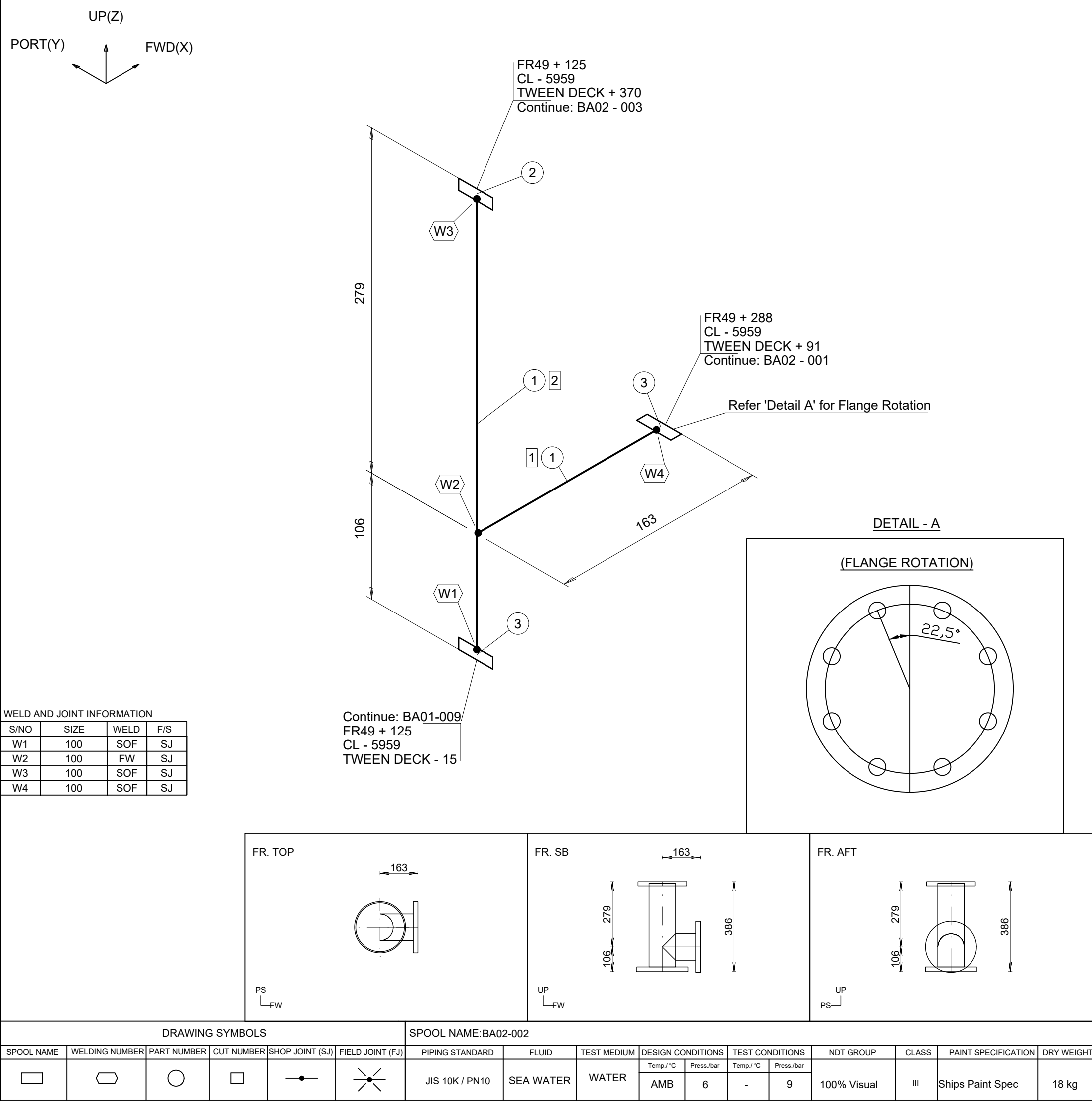
FABRICATION MATERIAL							
PART	QTY.	LENGTH (m)	DESCRIPTION	SIZE	MATERIAL	UNIT Wt. (kg)	
1		0.06	Pipe Seamless, BW	100A Sch40	STPG370	16.00	
2	2		Flange SOFF	DN100 PN10	Carbon Steel	4.03	
ERECTION MATERIAL							
PART	QTY.	DESCRIPTION		SIZE	MATERIAL	UNIT Wt. (kg)	
3	1	Butterfly Valve Remote		DN100 PN10	-	8.10	
4	1	Gasket, PN10, Thk 3mm		DN100	CNAF		
CUT INFORMATION							
CUT NO.	DESCRIPTION			SIZE	MATERIAL	CUT LENGTH (mm)	
1	Pipe Seamless, BW			100A Sch40	STPG370	61	
NOTES:							
1. ALL DIMENSIONS ARE IN MILLIMETERS							
2. CUT PIPE LENGTHS ARE CALCULATED FOR NOMINAL FITTING DIMENSIONS							
3. Y-CO-ORDINATE IS ' + ' ON PORT SIDE OF CENTER LINE, AND ' - ' ON STBD. SIDE.							
4. MATERIAL : CARBON STEEL HOT DIP GALVANIZED							
B	12/10/2024	ISSUED FOR CONSTRUCTION			SK	TT	GC
A	20/09/2024	ISSUED FOR CONSTRUCTION			SK	TT	GC
REV.	DATE	DESCRIPTION			DRAWN BY	CHKD BY	APPRD
<div><div></div><div><div>Goltens</div><div>Singapore Pte Ltd.</div></div></div>							
Client: EMAS OFFSHORE LIMITED				BWTS Maker Name: BIO-SEA			
Location: -				IMO No.: 9354947			
Project No: P1482				Project Name: JP 88 STORK			
Drawing title:							
SPOOL-DRAWING FOR PIPE BA01							
Scale	Format	Sheet	Drawing No:			Revision No.	
N.T.S	A3	10/40	BA01			B	



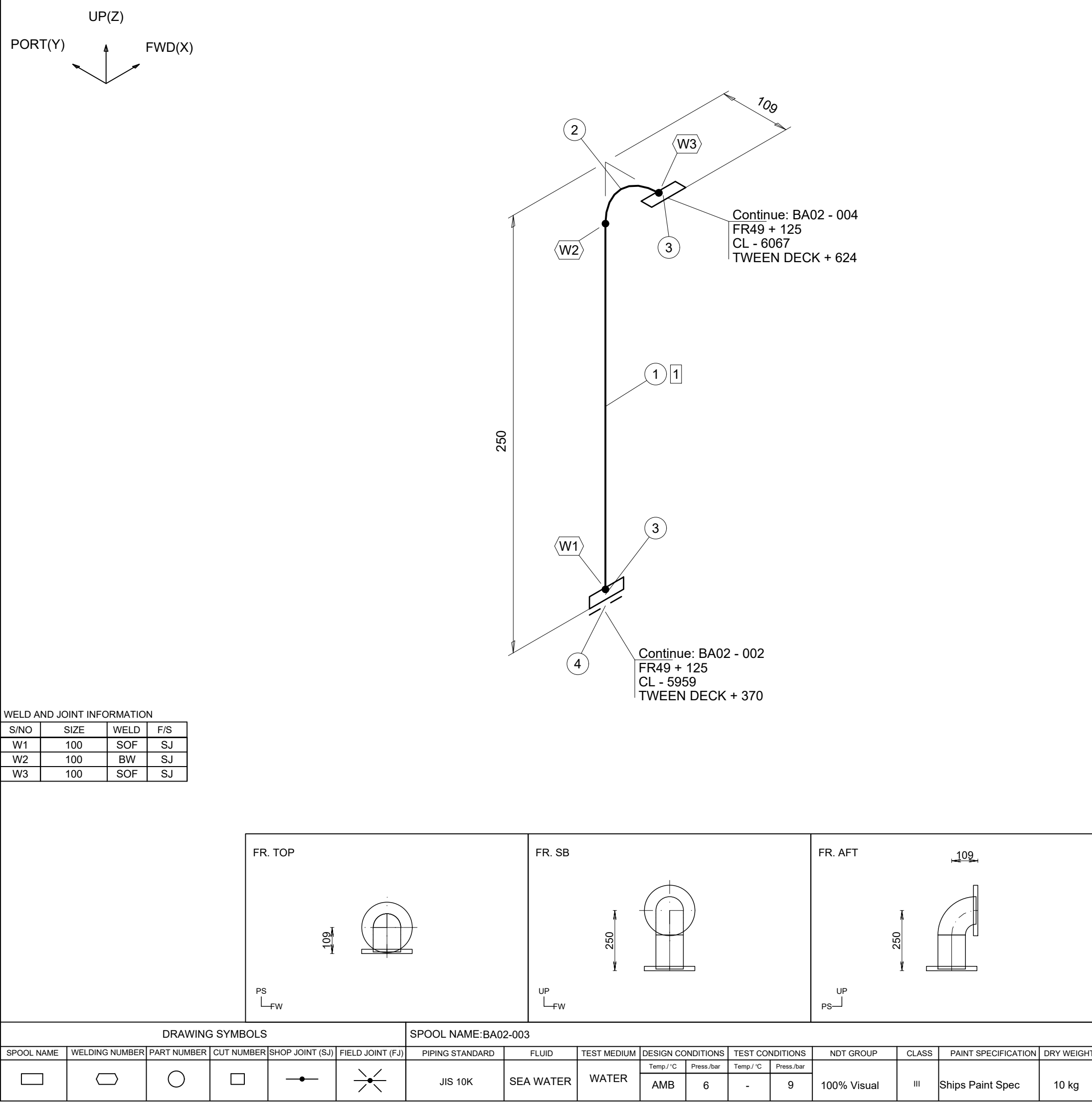
FABRICATION MATERIAL							
PART	QTY.	LENGTH (m)	DESCRIPTION	SIZE	MATERIAL	UNIT Wt. (kg)	
1		0.35	Pipe Seamless, BW	100A Sch40	STPG370	16.00	
2	2		Flange SOFF	100A JIS10K	SF 390A	2.39	
ERECTION MATERIAL							
PART	QTY.	DESCRIPTION		SIZE	MATERIAL	UNIT Wt. (kg)	
3	1	Butterfly Valve Manual 10K		100A JIS10K	-	8.40	
CUT INFORMATION							
CUT NO.	DESCRIPTION			SIZE	MATERIAL	CUT LENGTH (mm)	
1	Pipe Seamless, BW			100A Sch40	STPG370	349	
NOTES:							
1. ALL DIMENSIONS ARE IN MILLIMETERS							
2. CUT PIPE LENGTHS ARE CALCULATED FOR NOMINAL FITTING DIMENSIONS							
3. Y-CO-ORDINATE IS ' + ' ON PORT SIDE OF CENTER LINE, AND ' - ' ON STBD. SIDE.							
4. MATERIAL : CARBON STEEL HOT DIP GALVANIZED							
B	12/10/2024	ISSUED FOR CONSTRUCTION			SK	TT	GC
A	20/09/2024	ISSUED FOR CONSTRUCTION			SK	TT	GC
REV.	DATE	DESCRIPTION			DRAWN BY	CHKD BY	APPRD
<div><div></div><div><div>Goltens</div><div>Singapore Pte Ltd.</div></div></div>							
Client: EMAS OFFSHORE LIMITED				BWTS Maker Name: BIO-SEA			
Location: -				IMO No.: 9354947			
Project No: P1482				Project Name: JP 88 STORK			
Drawing title:							
SPOOL-DRAWING FOR PIPE BA01							
Scale	Format	Sheet	Drawing No:			Revision No.	
N.T.S	A3	11/40	BA01			B	

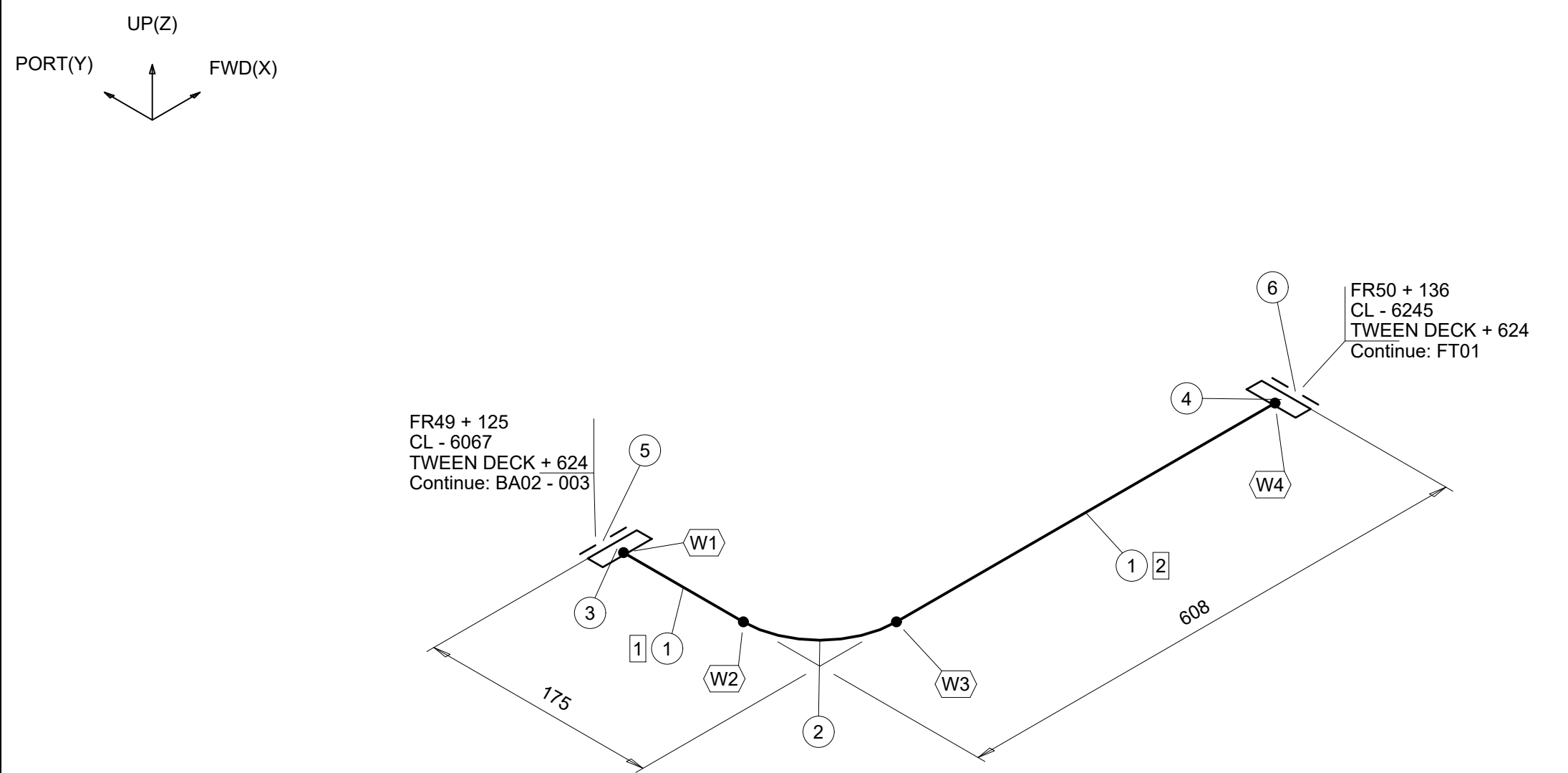


FABRICATION MATERIAL						
PART	QTY.	LENGTH (m)	DESCRIPTION	SIZE	MATERIAL	UNIT Wt. (kg)
1		0.06	Pipe Seamless, BW	100A Sch40	STPG370	16.00
2	2		Flange SOFF	DN100 PN10	Carbon Steel	4.03
ERECTION MATERIAL						
PART	QTY.	DESCRIPTION		SIZE	MATERIAL	UNIT Wt. (kg)
3	1	Butterfly Valve Remote		DN100 PN10	-	8.10
4	1	Gasket, PN10, Thk 3mm		DN100	CNAF	
CUT INFORMATION						
CUT NO.	DESCRIPTION			SIZE	MATERIAL	CUT LENGTH (mm)
1	Pipe Seamless, BW			100A Sch40	STPG370	61
NOTES:						
1. ALL DIMENSIONS ARE IN MILLIMETERS						
2. CUT PIPE LENGTHS ARE CALCULATED FOR NOMINAL FITTING DIMENSIONS						
3. Y-CO-ORDINATE IS ' + ' ON PORT SIDE OF CENTER LINE, AND ' - ' ON STBD. SIDE.						
4. MATERIAL : CARBON STEEL HOT DIP GALVANIZED						



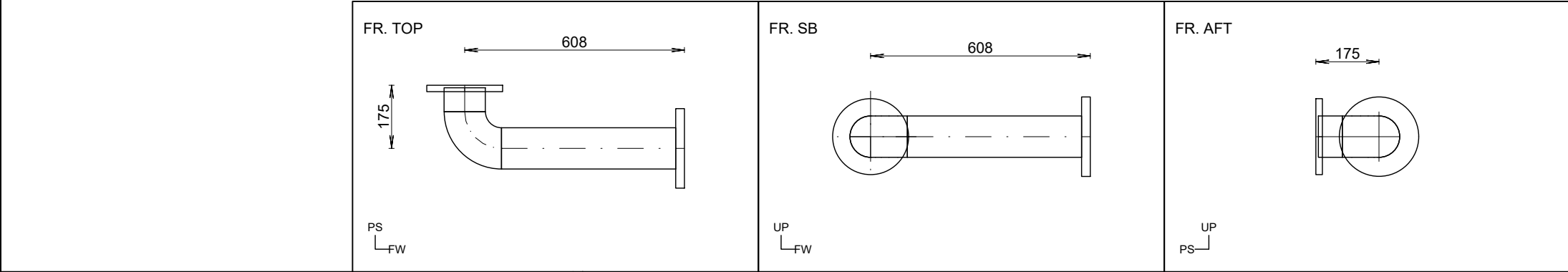
FABRICATION MATERIAL							
PART	QTY.	LENGTH (m)	DESCRIPTION	SIZE	MATERIAL	UNIT Wt. (kg)	
1		0.52	Pipe Seamless, BW	100A Sch40	STPG370	16.00	
2	1		Flange SOFF	100A JIS10K	SF 390A	2.39	
3	2		Flange SOFF	DN100 PN10	Carbon Steel	4.03	
ERECTION MATERIAL							
PART	QTY.	DESCRIPTION		SIZE	MATERIAL	UNIT Wt. (kg)	
CUT INFORMATION							
CUT NO.	DESCRIPTION			SIZE	MATERIAL	CUT LENGTH (mm)	
1	Pipe Seamless, BW			100A Sch40	STPG370	152	
2	Pipe Seamless, BW			100A Sch40	STPG370	367	
NOTES:							
1. ALL DIMENSIONS ARE IN MILLIMETERS							
2. CUT PIPE LENGTHS ARE CALCULATED FOR NOMINAL FITTING DIMENSIONS							
3. Y-CO-ORDINATE IS ' + ' ON PORT SIDE OF CENTER LINE, AND ' - ' ON STBD. SIDE.							
4. MATERIAL : CARBON STEEL HOT DIP GALVANIZED							
B	12/10/2024	ISSUED FOR CONSTRUCTION			SK	TT	GC
A	20/09/2024	ISSUED FOR CONSTRUCTION			SK	TT	GC
REV.	DATE	DESCRIPTION			DRAWN BY	CHKD BY	APPRD
<div><div><div><div></div><div></div></div><div>Goltens</div><div>Singapore Pte Ltd.</div></div></div>							
Client: EMAS OFFSHORE LIMITED				BWTS Maker Name: BIO-SEA			
Location: -				IMO No.: 9354947			
Project No: P1482				Project Name: JP 88 STORK			
Drawing title: SPOOL-DRAWING FOR PIPE BA02							
Scale	Format	Sheet	Drawing No:			Revision No.	
N.T.S	A3	13/40	BA02			B	












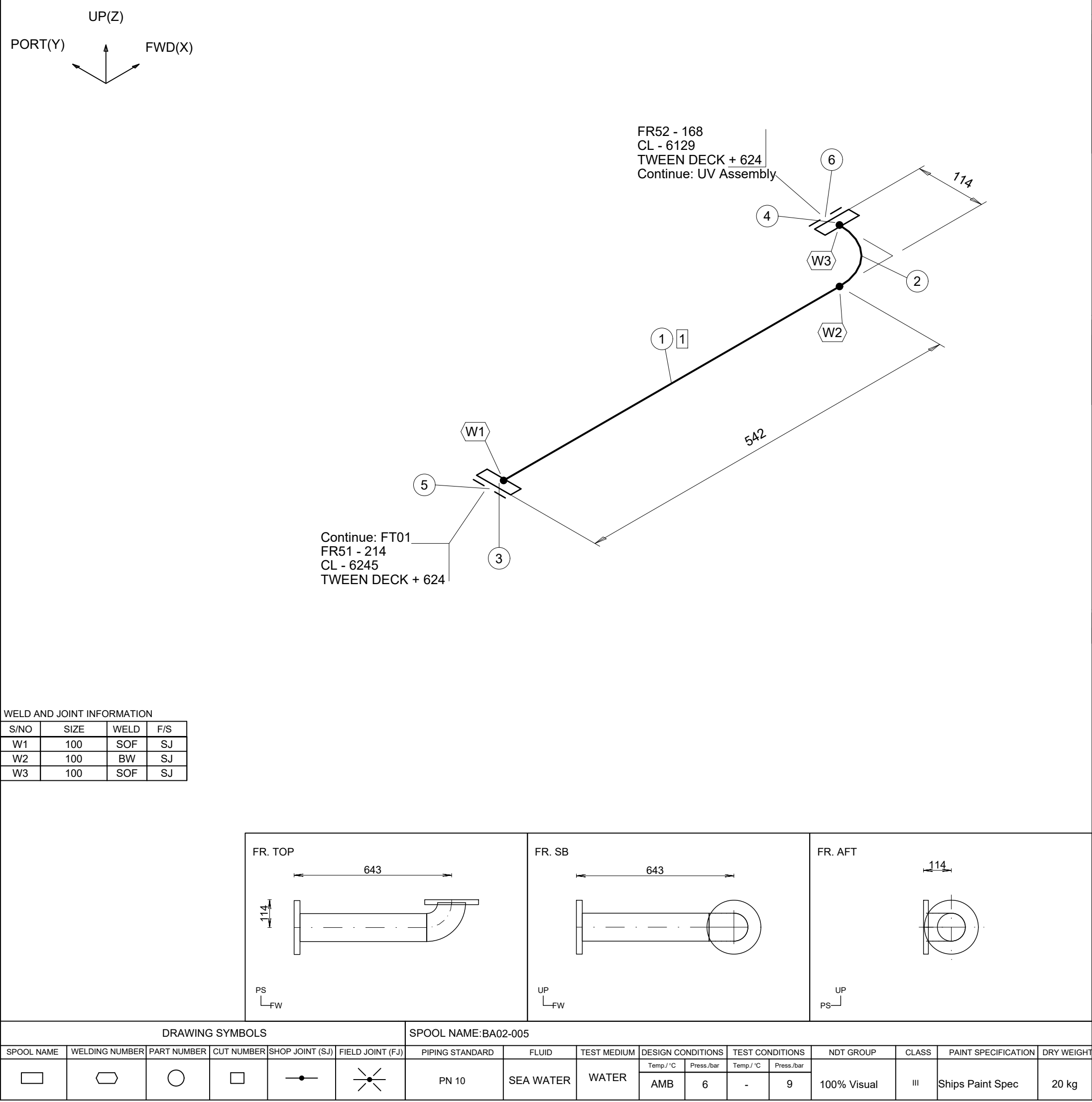
WELD AND JOINT INFORMATION


S/NO	SIZE	WELD	F/S
W1	100	SOF	SJ
W2	100	BW	SJ
W3	100	BW	SJ
W4	100	SOF	SJ

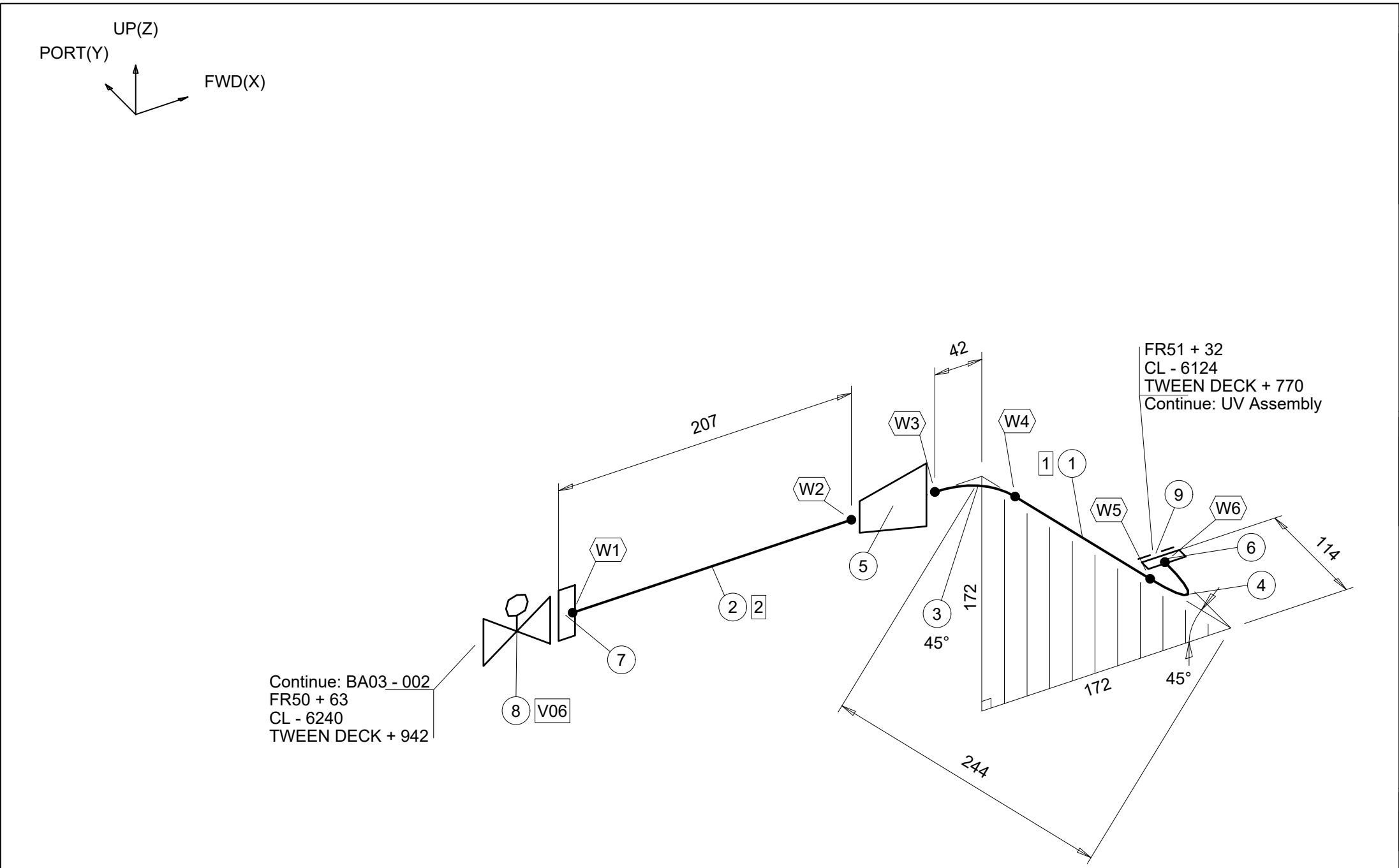



DRAWING SYMBOLS						SPOOL NAME:BA02-004										
SPOOL NAME	WELDING NUMBER	PART NUMBER	CUT NUMBER	SHOP JOINT (SJ)	FIELD JOINT (FJ)	PIPING STANDARD	FLUID	TEST MEDIUM	DESIGN CONDITIONS		TEST CONDITIONS		NDT GROUP	CLASS	PAINT SPECIFICATION	DRY WEIGHT
						JIS 10K / PN10	SEA WATER	WATER	Temp./ °C	Press./bar	Temp./ °C	Press./bar	100% Visual	III	Ships Paint Spec	19 kg
									AMB	6	-	9				

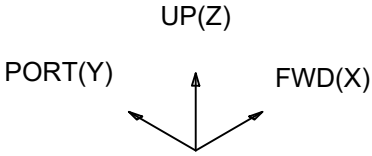
FABRICATION MATERIAL							
PART	QTY.	LENGTH (m)	DESCRIPTION	SIZE	MATERIAL	UNIT Wt. (kg)	
1		0.56	Pipe Seamless, BW	100A Sch40	STPG370	16.00	
2	1		Elbow SR, BW 90 deg	100A Sch40	PG 370	2.69	
3	1		Flange SOFF	100A JIS10K	SF 390A	2.39	
4	1		Flange SORF	DN100 PN10	Carbon Steel	4.50	
ERECTION MATERIAL							
PART	QTY.	DESCRIPTION		SIZE	MATERIAL	UNIT Wt. (kg)	
5	1	Gasket, JIS10K, Thk 3mm		100A	CNAF		
6	1	Gasket Ring Type, PN10, Thk 3mm		DN100	CNAF		
CUT INFORMATION							
CUT NO.	DESCRIPTION			SIZE	MATERIAL	CUT LENGTH (mm)	
1	Pipe Seamless, BW			100A Sch40	STPG370	67	
2	Pipe Seamless, BW			100A Sch40	STPG370	495	
NOTES:							
1. ALL DIMENSIONS ARE IN MILLIMETERS							
2. CUT PIPE LENGTHS ARE CALCULATED FOR NOMINAL FITTING DIMENSIONS							
3. Y-CO-ORDINATE IS ' + ' ON PORT SIDE OF CENTER LINE, AND ' - ' ON STBD. SIDE.							
4. MATERIAL : CARBON STEEL HOT DIP GALVANIZED							
B	12/10/2024	ISSUED FOR CONSTRUCTION			SK	TT	GC
A	20/09/2024	ISSUED FOR CONSTRUCTION			SK	TT	GC
REV.	DATE	DESCRIPTION			DRAWN BY	CHKD BY	APPRD
<div><div></div><div><div>Goltens</div><div>Singapore Pte Ltd.</div></div></div>							
Client: EMAS OFFSHORE LIMITED				BWTS Maker Name: BIO-SEA			
Location: -				IMO No.: 9354947			
Project No: P1482				Project Name: JP 88 STORK			
Drawing title:							
SPOOL-DRAWING FOR PIPE BA02							
Scale	Format	Sheet	Drawing No:			Revision No.	
N.T.S	A3	15/40	BA02			B	



FABRICATION MATERIAL							
PART	QTY.	LENGTH (m)	DESCRIPTION	SIZE	MATERIAL	UNIT Wt. (kg)	
1		0.53	Pipe Seamless, BW	100A Sch40	STPG370	16.00	
2	1		Elbow SR, BW 90 deg	100A Sch40	PG 370	2.69	
3	1		Flange SORF	DN100 PN10	Carbon Steel	4.50	
4	1		Flange SOFF	DN100 PN10	Carbon Steel	4.03	
ERECTION MATERIAL							
PART	QTY.	DESCRIPTION		SIZE	MATERIAL	UNIT Wt. (kg)	
5	1	Gasket Ring Type, PN10, Thk 3mm		DN100	CNAF		
6	1	Gasket, PN10, Thk 3mm		DN100	CNAF		
CUT INFORMATION							
CUT NO.	DESCRIPTION			SIZE	MATERIAL	CUT LENGTH (mm)	
1	Pipe Seamless, BW			100A Sch40	STPG370	530	
NOTES:							
1. ALL DIMENSIONS ARE IN MILLIMETERS							
2. CUT PIPE LENGTHS ARE CALCULATED FOR NOMINAL FITTING DIMENSIONS							
3. Y-CO-ORDINATE IS ' + ' ON PORT SIDE OF CENTER LINE, AND ' - ' ON STBD. SIDE.							
4. MATERIAL : CARBON STEEL HOT DIP GALVANIZED							
B	12/10/2024	ISSUED FOR CONSTRUCTION			SK	TT	GC
A	20/09/2024	ISSUED FOR CONSTRUCTION			SK	TT	GC
REV.	DATE	DESCRIPTION			DRAWN BY	CHKD BY	APPRD
<div><div></div><div><div>Goltens</div><div>Singapore Pte Ltd.</div></div></div>							
Client: EMAS OFFSHORE LIMITED				BWTS Maker Name: BIO-SEA			
Location: -				IMO No.: 9354947			
Project No: P1482				Project Name: JP 88 STORK			
Drawing title:							
SPOOL-DRAWING FOR PIPE BA02							
Scale	Format	Sheet	Drawing No:			Revision No.	
N.T.S	A3	16/40	BA02			B	

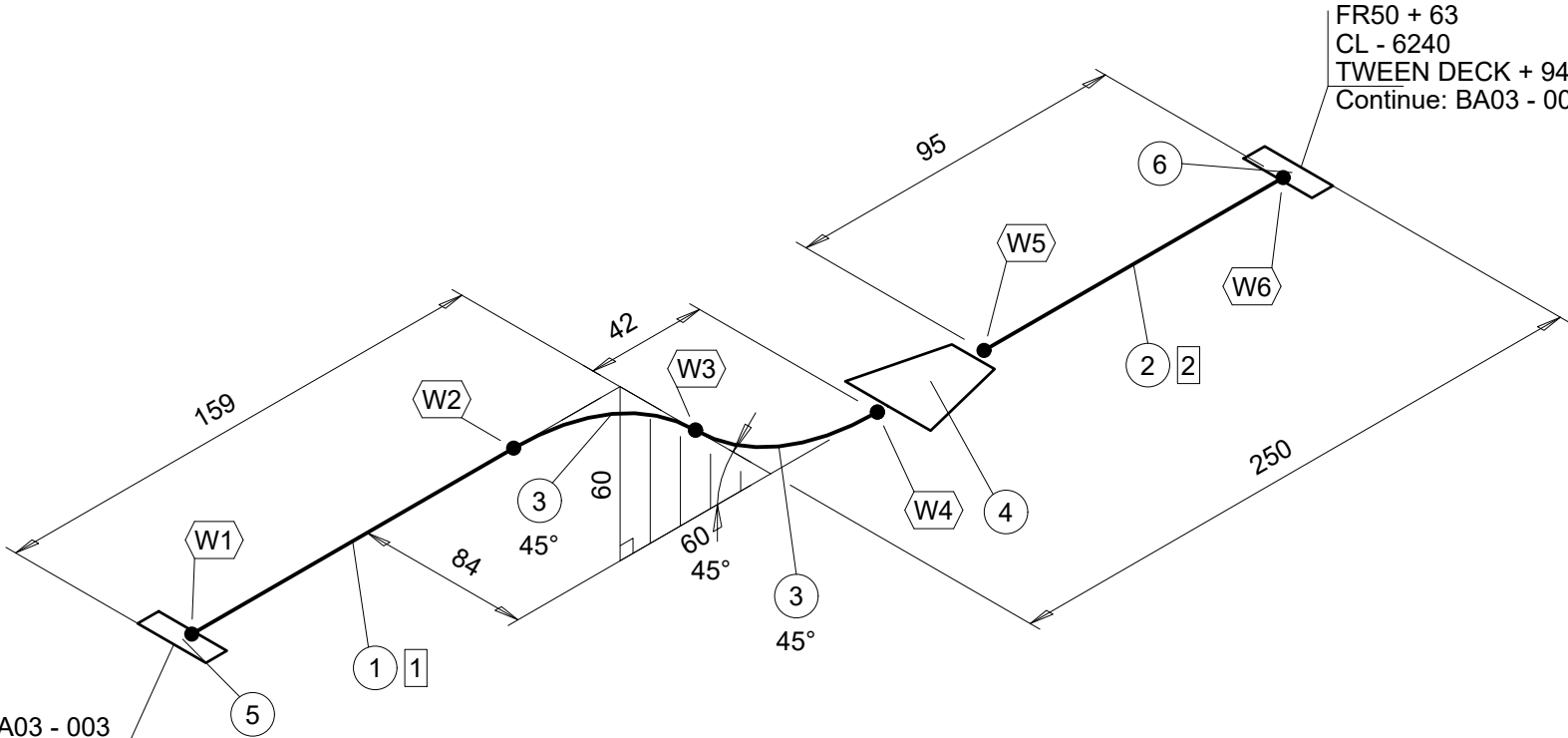


FABRICATION MATERIAL						
PART	QTY.	LENGTH (m)	DESCRIPTION	SIZE	MATERIAL	UNIT Wt. (kg)
1		0.10	Pipe Seamless, BW	100A Sch40	STPG370	16.00
2		0.19	Pipe Seamless, BW	80A Sch40	STPG370	11.30
3	1		Elbow SR, BW 45 deg	100A Sch40	PG 370	2.69
4	1		Elbow SR, BW 90 deg	100A Sch40	PG 370	2.69
5	1		Reducer Concentric, BW	100Ax80ASch40	PG 370	1.45
6	1		Flange SOFF	DN100 PN10	Carbon Steel	4.03
7	1		Flange SOFF	DN80 PN10	Carbon Steel	3.79
ERECTION MATERIAL						
PART	QTY.	DESCRIPTION		SIZE	MATERIAL	UNIT Wt. (kg)
8	1	Butterfly Valve Remote		DN80 PN10	-	28.57
9	1	Gasket, PN10, Thk 3mm		DN100	CNAF	
CUT INFORMATION						
CUT NO.	DESCRIPTION			SIZE	MATERIAL	CUT LENGTH (mm)
1	Pipe Seamless, BW			100A Sch40	STPG370	101
2	Pipe Seamless, BW			80A Sch40	STPG370	195
NOTES:						
1. ALL DIMENSIONS ARE IN MILLIMETERS						
2. CUT PIPE LENGTHS ARE CALCULATED FOR NOMINAL FITTING DIMENSIONS						
3. Y-CO-ORDINATE IS ' + ' ON PORT SIDE OF CENTER LINE, AND ' - ' ON STBD. SIDE.						
4. MATERIAL : CARBON STEEL HOT DIP GALVANIZED						
B	12/10/2024	ISSUED FOR CONSTRUCTION			SK	TT GC
A	20/09/2024	ISSUED FOR CONSTRUCTION			SK	TT GC
REV.	DATE	DESCRIPTION			DRAWN BY	CHKD BY APPRD
<div><div><div></div><div><div>Goltens</div><div>Singapore Pte Ltd.</div></div></div></div>						
Client: EMAS OFFSHORE LIMITED				BWTS Maker Name: BIO-SEA		
Location: -				IMO No.: 9354947		
Project No: P1482				Project Name: JP 88 STORK		
Drawing title:						
SPOOL-DRAWING FOR PIPE BA03						
Scale	Format	Sheet	Drawing No:			Revision No.
N.T.S	A3	17/40	BA03			B



Continue: BA03 - 003
FR49 + 195
CL - 6240
TWEEN DECK + 1002

FR50 + 63
CL - 6240
TWEEN DECK + 942
Continue: BA03 - 001



FABRICATION MATERIAL						
PART	QTY.	LENGTH (m)	DESCRIPTION	SIZE	MATERIAL	UNIT Wt. (kg)
1		0.11	Pipe Seamless, BW	100A Sch40	STPG370	16.00
2		0.09	Pipe Seamless, BW	80A Sch40	STPG370	11.30
3	2		Elbow SR, BW 45 deg	100A Sch40	PG 370	2.69
4	1		Reducer Concentric, BW	100Ax80ASch40	PG 370	1.45
5	1		Flange SOFF	100A JIS10K	SF 390A	2.39
6	1		Flange SOFF	DN80 PN10	Carbon Steel	3.79

ERECTION MATERIAL					
PART	QTY.	DESCRIPTION	SIZE	MATERIAL	UNIT Wt. (kg)

CUT INFORMATION				
CUT NO.	DESCRIPTION	SIZE	MATERIAL	CUT LENGTH (mm)
1	Pipe Seamless, BW	100A Sch40	STPG370	110
2	Pipe Seamless, BW	80A Sch40	STPG370	95

NOTES:
1. ALL DIMENSIONS ARE IN MILLIMETERS
2. CUT PIPE LENGTHS ARE CALCULATED FOR NOMINAL FITTING DIMENSIONS
3. Y-CO-ORDINATE IS ' + ' ON PORT SIDE OF CENTER LINE, AND ' - ' ON STBD. SIDE.
4. MATERIAL : CARBON STEEL HOT DIP GALVANIZED

B	12/10/2024	ISSUED FOR CONSTRUCTION	SK	TT	GC
A	20/09/2024	ISSUED FOR CONSTRUCTION	SK	TT	GC
REV.	DATE	DESCRIPTION	DRAWN BY	CHKD BY	APPRD



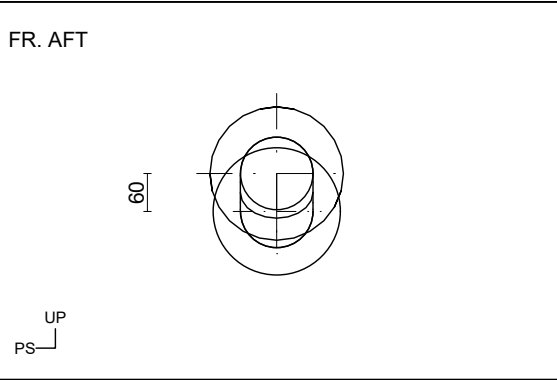
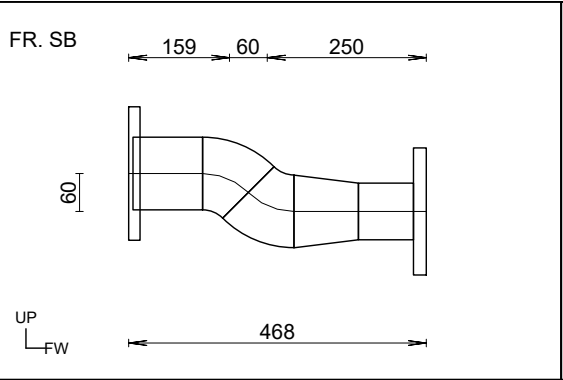
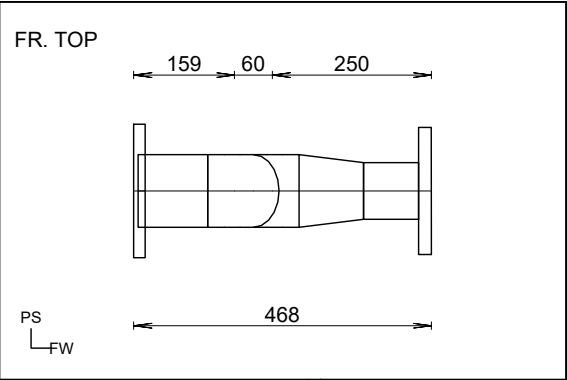
Client:	EMAS OFFSHORE LIMITED	BWTS Maker Name:	BIO-SEA
Location:	-	IMO No.:	9354947
Project No:	P 1482	Project Name:	JP 88 STORK







Drawing title:					
SPOOL-DRAWING FOR PIPE BA03					

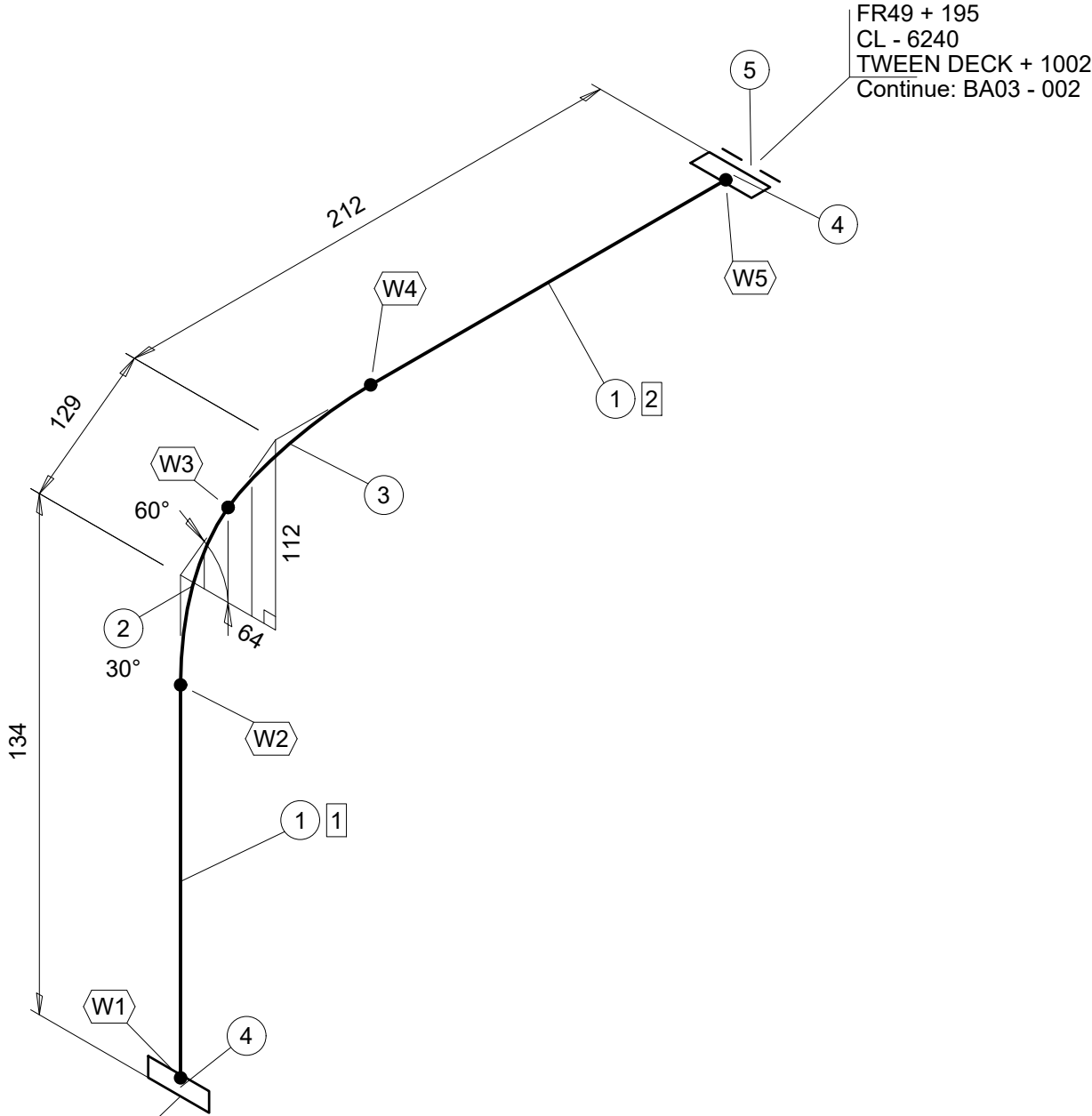
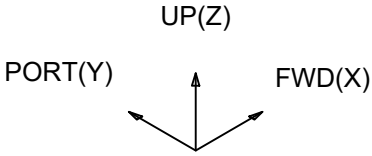
Scale	Format	Sheet	Drawing No:	Revision No.
N.T.S	A3	18/40	BA03	B

WELD AND JOINT INFORMATION

S/NO	SIZE	WELD	F/S
W1	100	SOF	SJ
W2	100	BW	SJ
W3	100	BW	SJ
W4	100	BW	SJ
W5	80	BW	SJ
W6	80	SOF	SJ



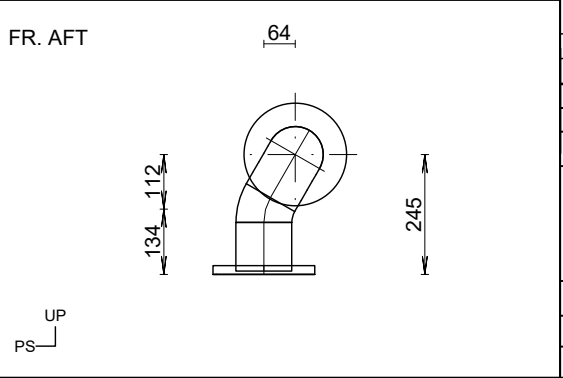
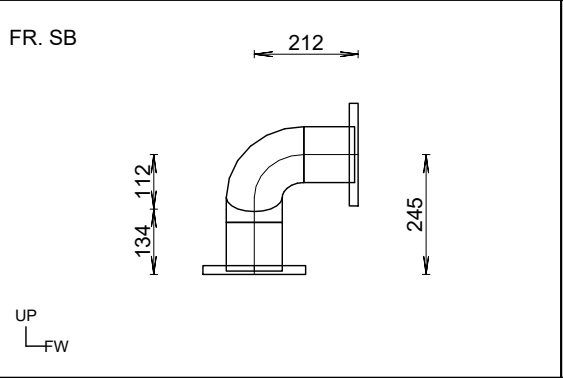
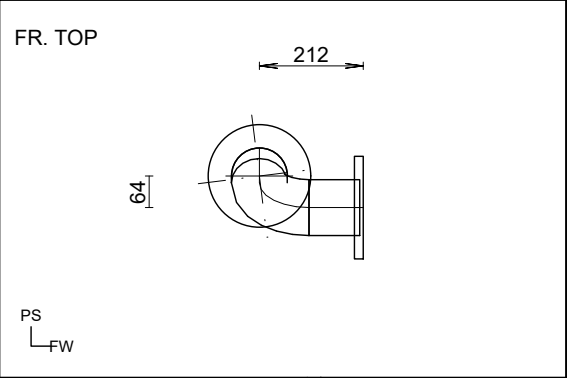
DRAWING SYMBOLS						SPOOL NAME:BA03-002										
SPOOL NAME	WELDING NUMBER	PART NUMBER	CUT NUMBER	SHOP JOINT (SJ)	FIELD JOINT (FJ)	PIPING STANDARD	FLUID	TEST MEDIUM	DESIGN CONDITIONS		TEST CONDITIONS		NDT GROUP	CLASS	PAINT SPECIFICATION	DRY WEIGHT
						JIS 10K / PN10	SEA WATER	WATER	Temp./ °C	Press./bar	Temp./ °C	Press./bar	100% Visual	III	Ships Paint Spec	14 kg
									AMB	6	-	9				









WELD AND JOINT INFORMATION

S/NO	SIZE	WELD	F/S
W1	100	SOF	SJ
W2	100	BW	SJ
W3	100	BW	SJ
W4	100	BW	SJ
W5	100	SOF	SJ

Continue: BA03 - 004
FR49 - 21
CL - 6176
TWEEN DECK + 756



DRAWING SYMBOLS						SPOOL NAME:BA03-003										
SPOOL NAME	WELDING NUMBER	PART NUMBER	CUT NUMBER	SHOP JOINT (SJ)	FIELD JOINT (FJ)	PIPING STANDARD	FLUID	TEST MEDIUM	DESIGN CONDITIONS		TEST CONDITIONS		NDT GROUP	CLASS	PAINT SPECIFICATION	DRY WEIGHT
						JIS 10K	SEA WATER	WATER	Temp./ °C	Press./bar	Temp./ °C	Press./bar	100% Visual	III	Ships Paint Spec	12 kg
									AMB	6	-	9				


FABRICATION MATERIAL						
PART	QTY.	LENGTH (m)	DESCRIPTION	SIZE	MATERIAL	UNIT Wt. (kg)
1		0.20	Pipe Seamless, BW	100A Sch40	STPG370	16.00
2	1		Elbow SR, BW 30 deg	100A Sch40	PG 370	2.69
3	1		Elbow SR, BW 90 deg	100A Sch40	PG 370	2.69
4	2		Flange SOFF	100A JIS10K	SF 390A	2.39

ERECTION MATERIAL					
PART	QTY.	DESCRIPTION	SIZE	MATERIAL	UNIT Wt. (kg)
5	1	Gasket, JIS10K, Thk 3mm	100A	CNAF	

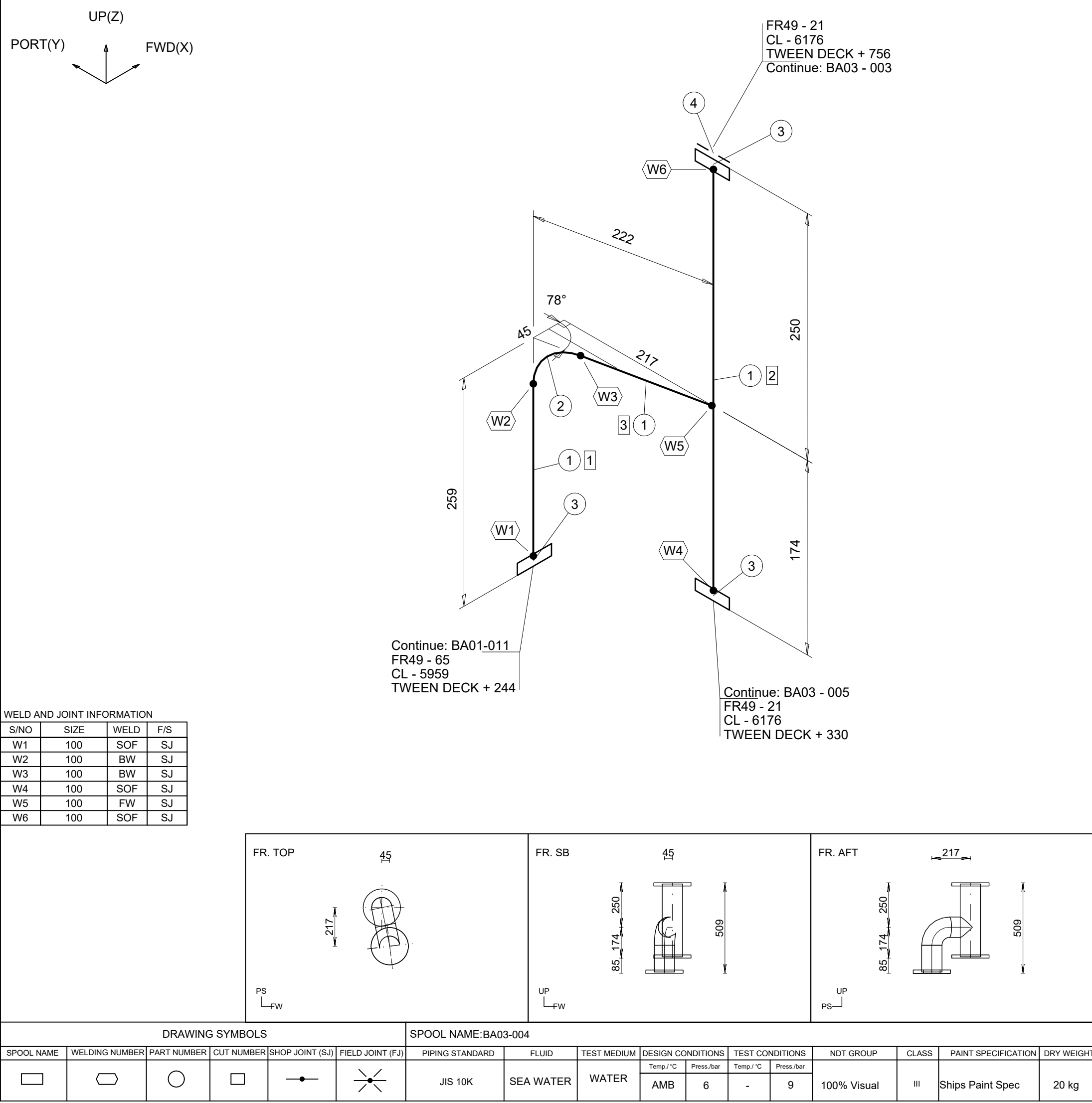
CUT INFORMATION				
CUT NO.	DESCRIPTION	SIZE	MATERIAL	CUT LENGTH (mm)
1	Pipe Seamless, BW	100A Sch40	STPG370	100
2	Pipe Seamless, BW	100A Sch40	STPG370	104

- NOTES:
- ALL DIMENSIONS ARE IN MILLIMETERS
 - CUT PIPE LENGTHS ARE CALCULATED FOR NOMINAL FITTING DIMENSIONS
 - Y-CO-ORDINATE IS ' + ' ON PORT SIDE OF CENTER LINE, AND ' - ' ON STBD. SIDE.
 - MATERIAL : CARBON STEEL HOT DIP GALVANIZED

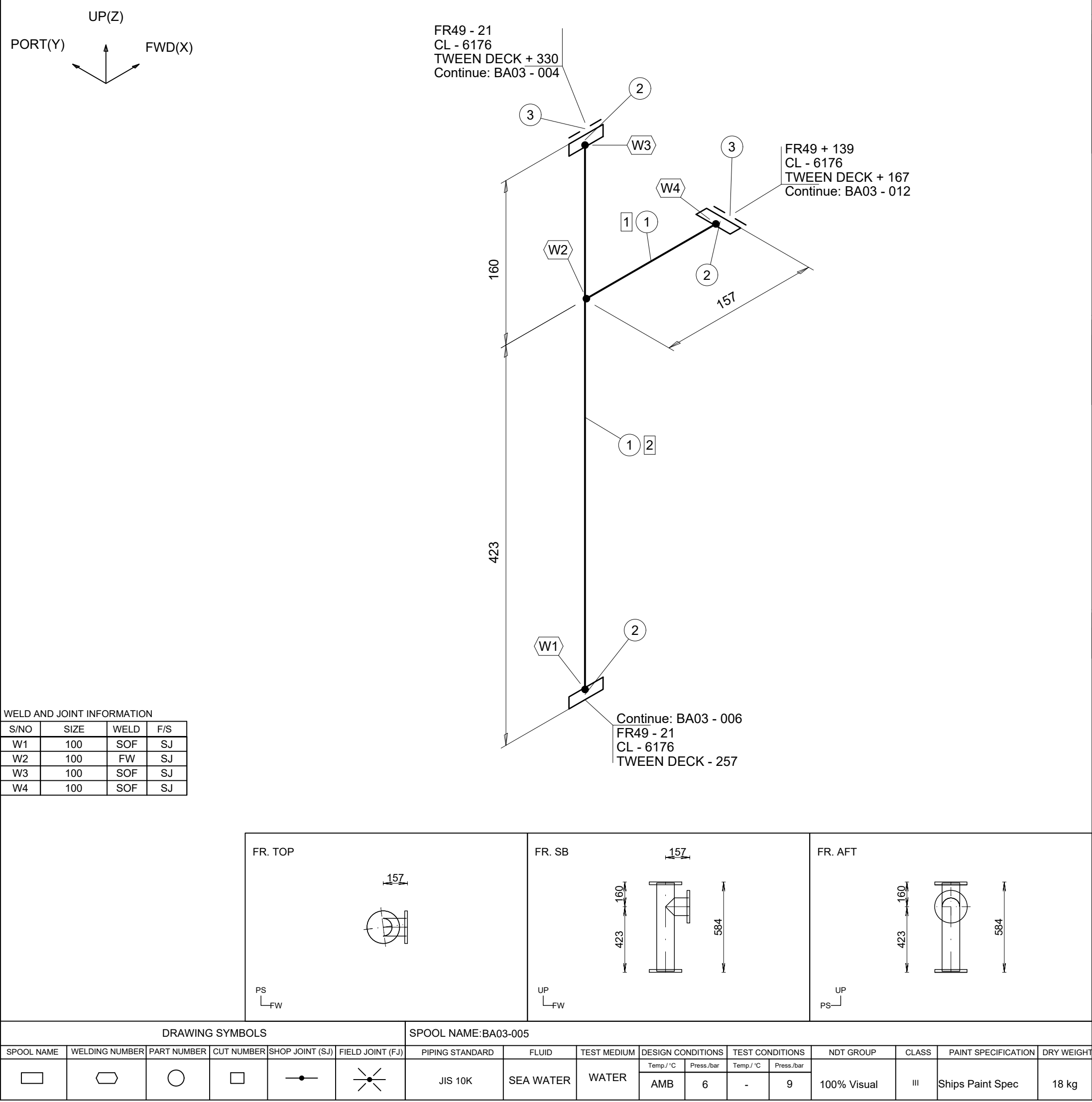
B	12/10/2024	ISSUED FOR CONSTRUCTION	SK	TT	GC
A	20/09/2024	ISSUED FOR CONSTRUCTION	SK	TT	GC
REV.	DATE	DESCRIPTION	DRAWN BY	CHKD BY	APPRD


		<h1>Goltens</h1> <p>Singapore Pte Ltd.</p>	
Client:	EMAS OFFSHORE LIMITED	BWTS Maker Name:	BIO-SEA
Location:	-	IMO No.:	9354947
Project No:	P1482	Project Name:	JP 88 STORK
Drawing title:			
SPOOL-DRAWING FOR PIPE BA03			

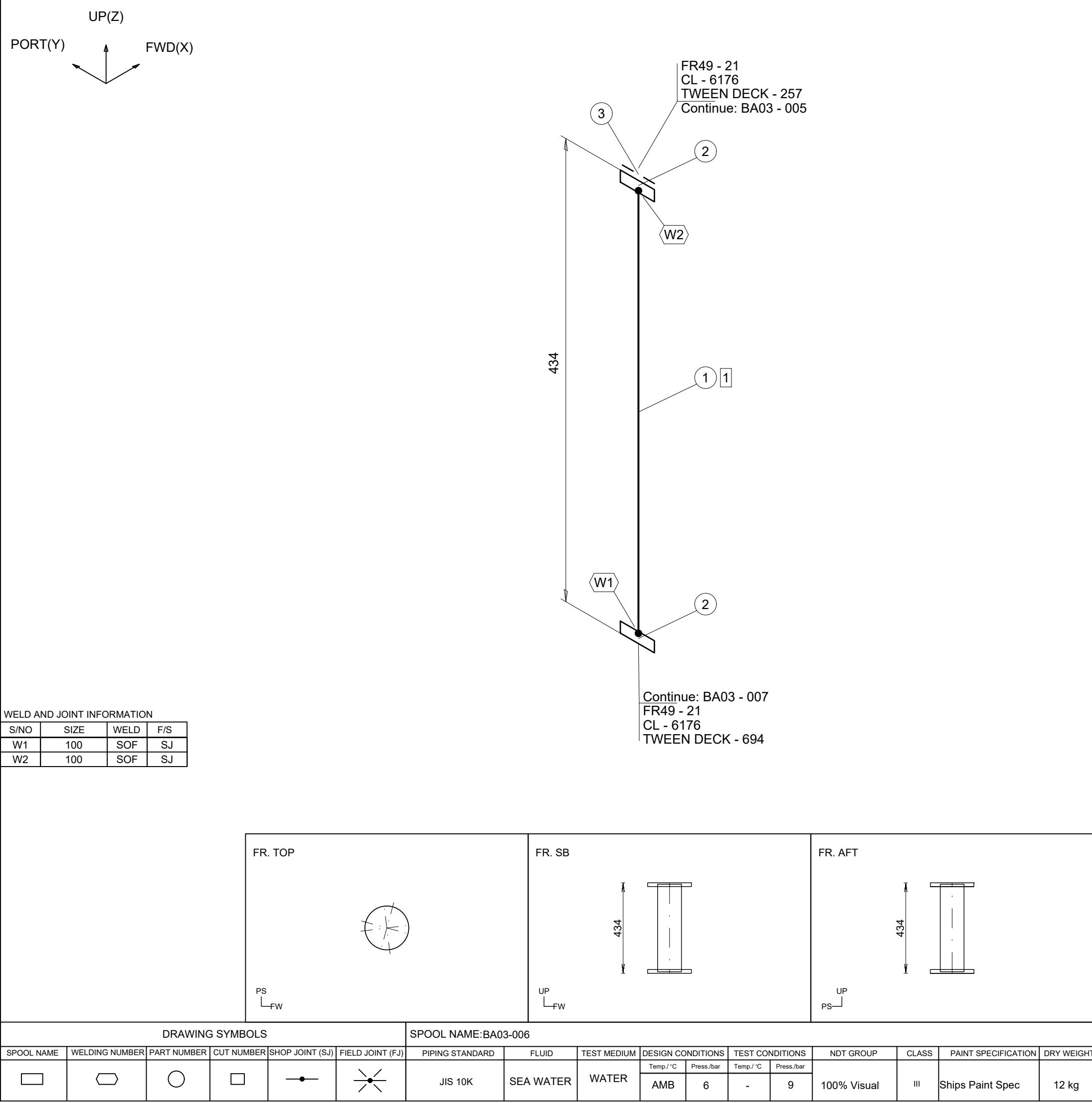
Scale	Format	Sheet	Drawing No:	Revision No.
N.T.S	A3	19/40	BA03	B

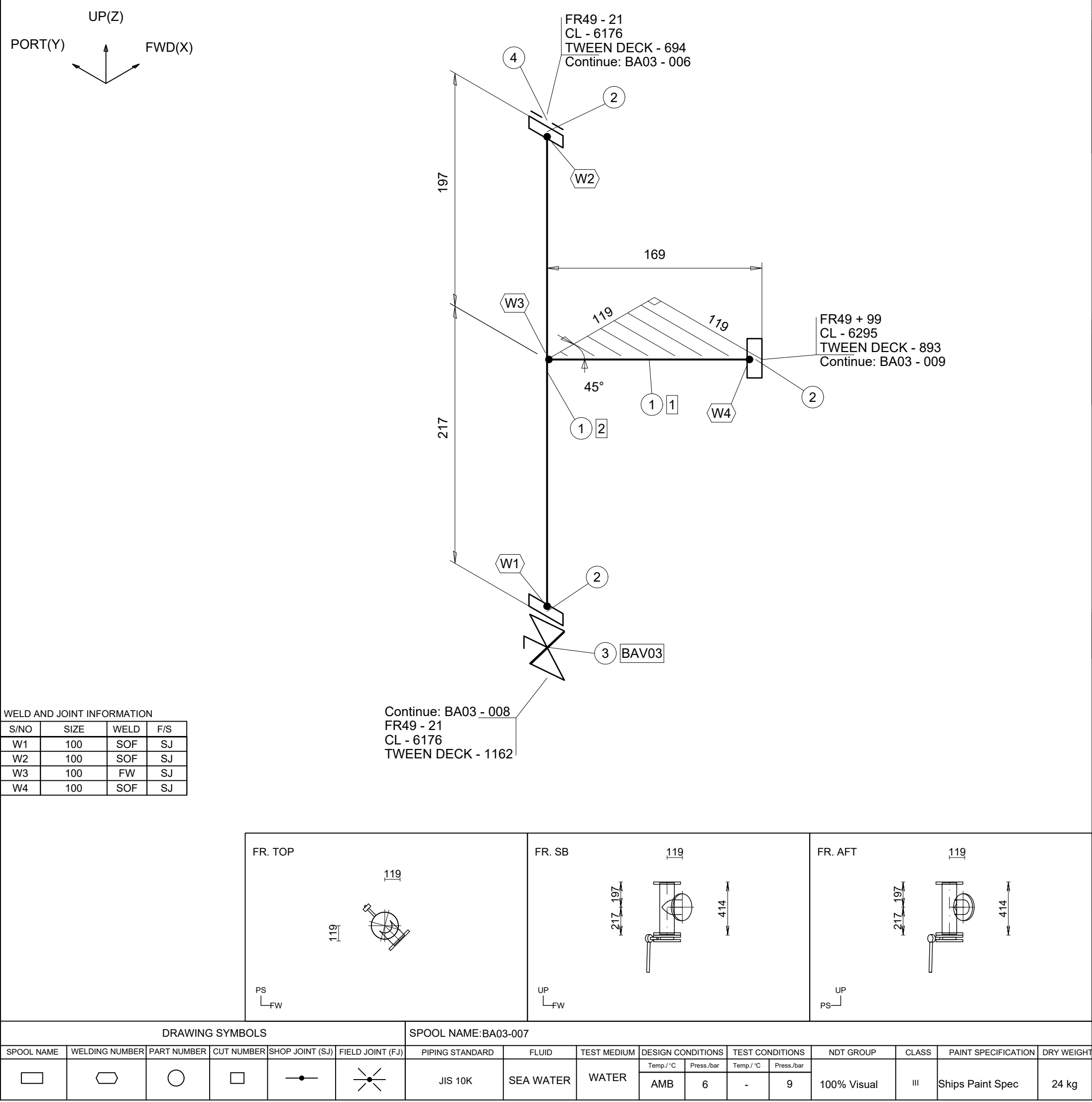



FABRICATION MATERIAL							
PART	QTY.	LENGTH (m)	DESCRIPTION	SIZE	MATERIAL	UNIT Wt. (kg)	
1		0.68	Pipe Seamless, BW	100A Sch40	STPG370	16.00	
2	1		Elbow SR, BW 90 deg	100A Sch40	PG 370	2.69	
3	3		Flange SOFF	100A JIS10K	SF 390A	2.39	
ERECTION MATERIAL							
PART	QTY.	DESCRIPTION		SIZE	MATERIAL	UNIT Wt. (kg)	
4	1	Gasket, JIS10K, Thk 3mm		100A	CNAF		
CUT INFORMATION							
CUT NO.	DESCRIPTION			SIZE	MATERIAL	CUT LENGTH (mm)	
1	Pipe Seamless, BW			100A Sch40	STPG370	151	
2	Pipe Seamless, BW			100A Sch40	STPG370	410	
3	Pipe Seamless, BW			100A Sch40	STPG370	118	
NOTES:							
1. ALL DIMENSIONS ARE IN MILLIMETERS							
2. CUT PIPE LENGTHS ARE CALCULATED FOR NOMINAL FITTING DIMENSIONS							
3. Y-CO-ORDINATE IS ' + ' ON PORT SIDE OF CENTER LINE, AND ' - ' ON STBD. SIDE.							
4. MATERIAL : CARBON STEEL HOT DIP GALVANIZED							
B	12/10/2024	ISSUED FOR CONSTRUCTION			SK	TT	GC
A	20/09/2024	ISSUED FOR CONSTRUCTION			SK	TT	GC
REV.	DATE	DESCRIPTION			DRAWN BY	CHKD BY	APPRD
<div><div><div></div><div></div></div><div>Goltens</div><div>Singapore Pte Ltd.</div></div>							
Client: EMAS OFFSHORE LIMITED			BWTS Maker Name: BIO-SEA				
Location: -			IMO No.: 9354947				
Project No: P1482			Project Name: JP 88 STORK				
Drawing title:							
SPOOL-DRAWING FOR PIPE BA03							
Scale	Format	Sheet	Drawing No:			Revision No.	
N.T.S	A3	20/40	BA03			B	

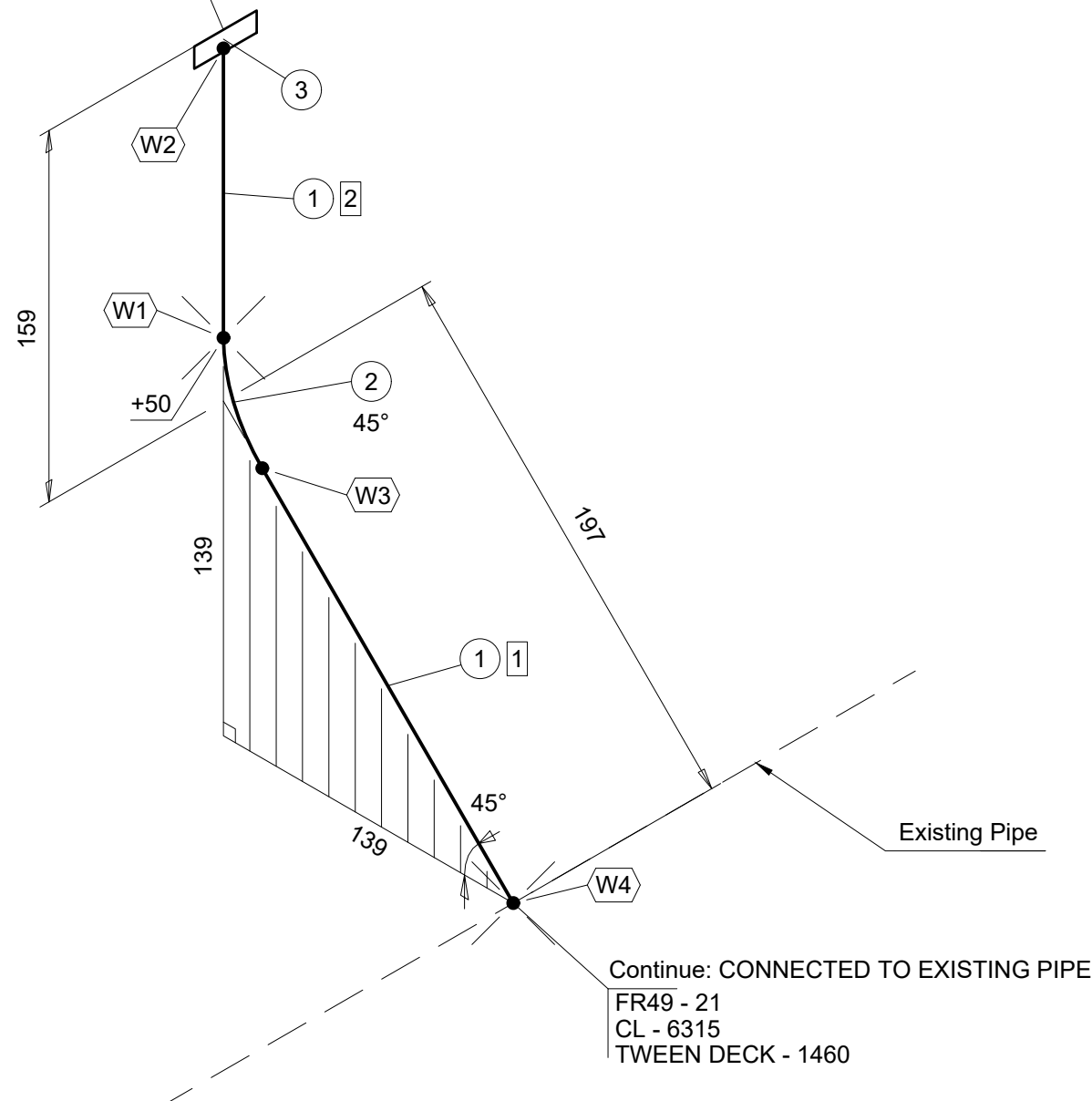


FABRICATION MATERIAL							
PART	QTY.	LENGTH (m)	DESCRIPTION	SIZE	MATERIAL	UNIT Wt. (kg)	
1		0.72	Pipe Seamless, BW	100A Sch40	STPG370	16.00	
2	3		Flange SOFF	100A JIS10K	SF 390A	2.39	
ERECTION MATERIAL							
PART	QTY.	DESCRIPTION		SIZE	MATERIAL	UNIT Wt. (kg)	
3	2	Gasket, JIS10K, Thk 3mm		100A	CNAF		
CUT INFORMATION							
CUT NO.	DESCRIPTION			SIZE	MATERIAL	CUT LENGTH (mm)	
1	Pipe Seamless, BW			100A Sch40	STPG370	150	
2	Pipe Seamless, BW			100A Sch40	STPG370	570	
NOTES:							
1. ALL DIMENSIONS ARE IN MILLIMETERS							
2. CUT PIPE LENGTHS ARE CALCULATED FOR NOMINAL FITTING DIMENSIONS							
3. Y-CO-ORDINATE IS ' + ' ON PORT SIDE OF CENTER LINE, AND ' - ' ON STBD. SIDE.							
4. MATERIAL : CARBON STEEL HOT DIP GALVANIZED							
B	12/10/2024	ISSUED FOR CONSTRUCTION			SK	TT	GC
A	20/09/2024	ISSUED FOR CONSTRUCTION			SK	TT	GC
REV.	DATE	DESCRIPTION			DRAWN BY	CHKD BY	APPRD
<div><div></div><div><div>Goltens</div><div>Singapore Pte Ltd.</div></div></div>							
Client: EMAS OFFSHORE LIMITED				BWTS Maker Name: BIO-SEA			
Location: -				IMO No.: 9354947			
Project No: P1482				Project Name: JP 88 STORK			
Drawing title:							
SPOOL-DRAWING FOR PIPE BA03							
Scale	Format	Sheet	Drawing No:			Revision No.	
N.T.S	A3	21/40	BA03			B	



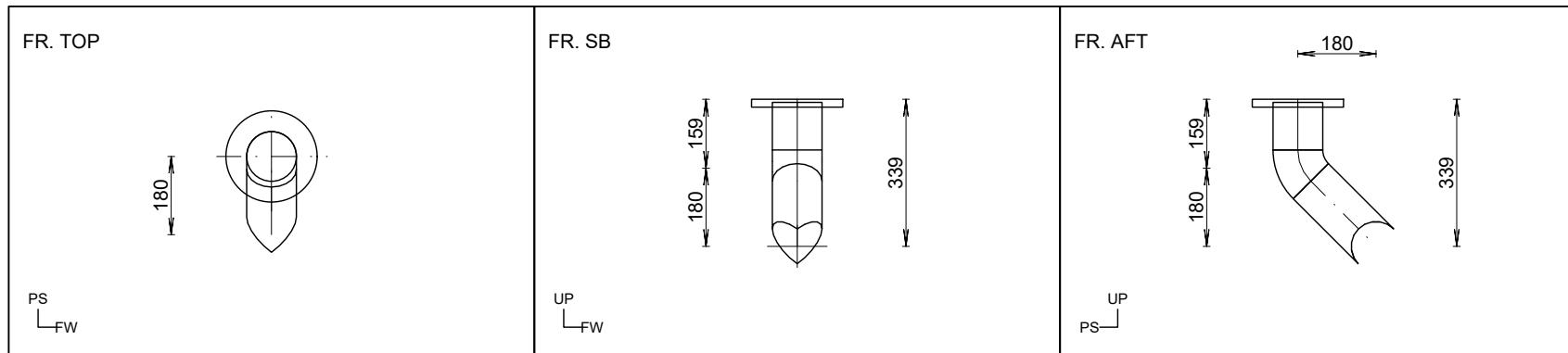








FABRICATION MATERIAL						
PART	QTY.	LENGTH (m)	DESCRIPTION	SIZE	MATERIAL	UNIT Wt. (kg)
1		0.56	Pipe Seamless, BW	100A Sch40	STPG370	16.00
2	3		Flange SOFF	100A JIS10K	SF 390A	2.39
ERECTION MATERIAL						
PART	QTY.	DESCRIPTION		SIZE	MATERIAL	UNIT Wt. (kg)
3	1	Butterfly Valve Manual 10K		100A JIS10K	-	8.40
4	1	Gasket, JIS10K, Thk 3mm		100A	CNAF	
CUT INFORMATION						
CUT NO.	DESCRIPTION			SIZE	MATERIAL	CUT LENGTH (mm)
1	Pipe Seamless, BW			100A Sch40	STPG370	160
2	Pipe Seamless, BW			100A Sch40	STPG370	400
NOTES:						
1. ALL DIMENSIONS ARE IN MILLIMETERS						
2. CUT PIPE LENGTHS ARE CALCULATED FOR NOMINAL FITTING DIMENSIONS						
3. Y-CO-ORDINATE IS ' + ' ON PORT SIDE OF CENTER LINE, AND ' - ' ON STBD. SIDE.						
4. MATERIAL : CARBON STEEL HOT DIP GALVANIZED						
B	12/10/2024	ISSUED FOR CONSTRUCTION			SK	TT GC
A	20/09/2024	ISSUED FOR CONSTRUCTION			SK	TT GC
REV.	DATE	DESCRIPTION			DRAWN BY	CHKD BY APPRD
<div><div></div><div><div>Goltens</div><div>Singapore Pte Ltd.</div></div></div>						
Client: EMAS OFFSHORE LIMITED				BWTS Maker Name: BIO-SEA		
Location: -				IMO No.: 9354947		
Project No: P1482				Project Name: JP 88 STORK		
Drawing title:						
SPOOL-DRAWING FOR PIPE BA03						
Scale	Format	Sheet	Drawing No:			Revision No.
N.T.S	A3	23/40	BA03			B



WELD AND JOINT INFORMATION			
S/NO	SIZE	WELD	F/S
W1	100	BW	FJ
W2	100	SOF	SJ
W3	100	BW	SJ

SPECIAL NOTE: SPOOL TO BE CONNECTED TO EXISTING PIPE SUITABLY ONSITE.



DRAWING SYMBOLS						SPOOL NAME:BA03-008										
SPOOL NAME	WELDING NUMBER	PART NUMBER	CUT NUMBER	SHOP JOINT (SJ)	FIELD JOINT (FJ)	PIPING STANDARD	FLUID	TEST MEDIUM	DESIGN CONDITIONS		TEST CONDITIONS		NDT GROUP	CLASS	PAINT SPECIFICATION	DRY WEIGHT
						JIS 10K	SEA WATER	WATER	Temp./℃	Press./bar	Temp./℃	Press./bar	100% Visual	III	Ships Paint Spec	9 kg
									AMB	6	-	9				

FABRICATION MATERIAL						
PART	QTY.	LENGTH (m)	DESCRIPTION	SIZE	MATERIAL	UNIT Wt. (kg)
1		0.37	Pipe Seamless, BW	100A Sch40	STPG370	16.00
2	1		Elbow SR, BW 45 deg	100A Sch40	PG 370	2.69
3	1		Flange SOFF	100A JIS10K	SF 390A	2.39

ERECTION MATERIAL					
PART	QTY.	DESCRIPTION	SIZE	MATERIAL	UNIT WT. (kg)

CUT INFORMATION				
CUT NO.	DESCRIPTION	SIZE	MATERIAL	CUT LENGTH (mm)
1	Pipe Seamless, BW	100A Sch40	STPG370	211
2	Pipe Seamless, BW	100A Sch40	STPG370	160

NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETERS
2. CUT PIPE LENGTHS ARE CALCULATED FOR NOMINAL FITTING DIMENSIONS
3. Y-CO-ORDINATE IS ' + ' ON PORT SIDE OF CENTER LINE, AND ' - ' ON STBD. SIDE.
4. MATERIAL : CARBON STEEL HOT DIP GALVANIZED

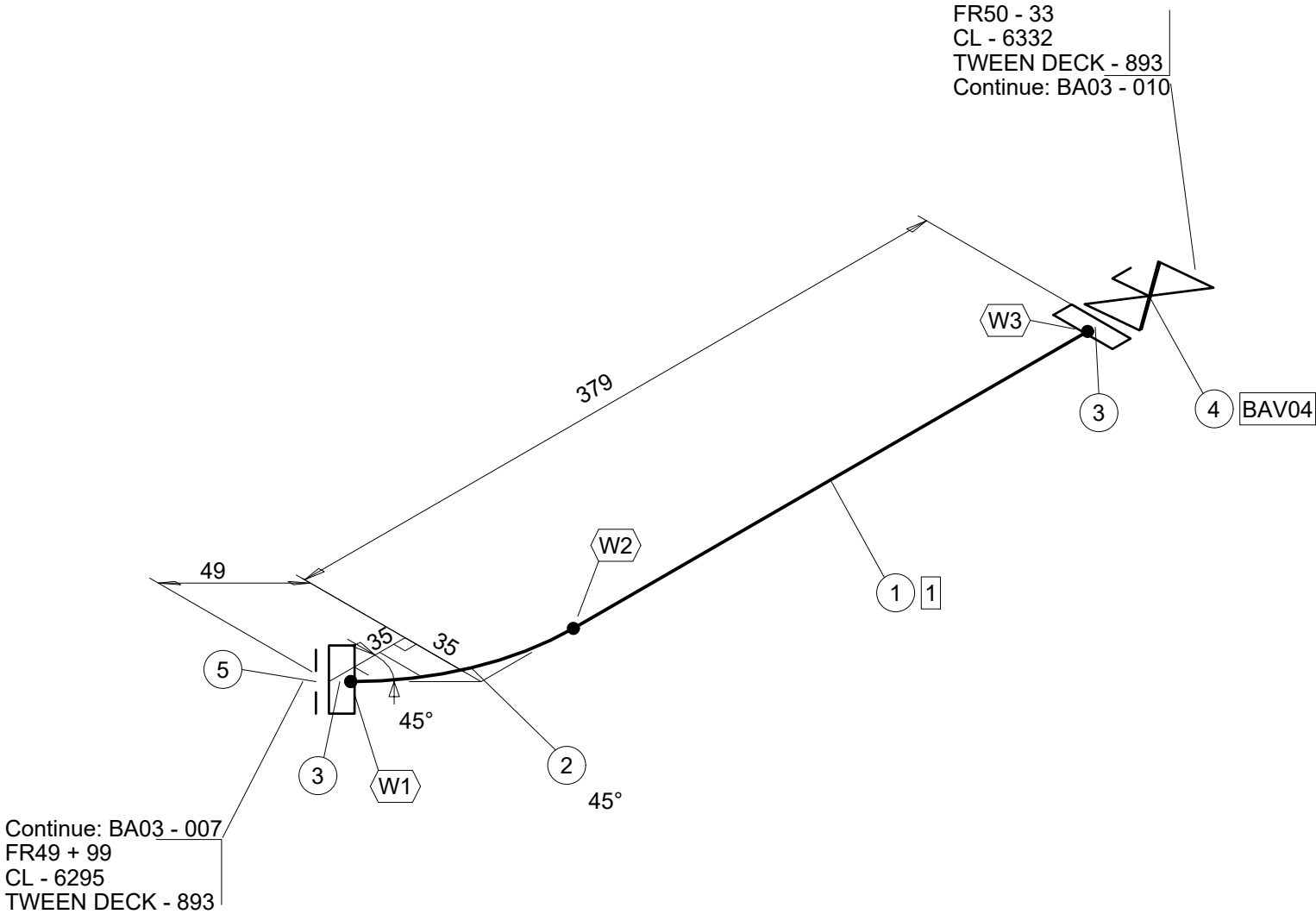
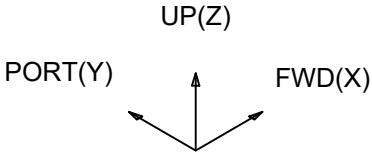
B	12/10/2024	ISSUED FOR CONSTRUCTION	SK	TT	GC
A	20/09/2024	ISSUED FOR CONSTRUCTION	SK	TT	GC
REV.	DATE	DESCRIPTION	DRAWN BY	CHKD BY	APPRD



Client: EMAS OFFSHORE LIMITED	BWTS Maker Name: BIO-SEA
Location: -	IMO No.: 9354947
Project No: P1482	Project Name: JP 88 STORK

	Drawing title:
--	----------------

SPOOL-DRAWING FOR PIPE BA03				
Scale	Format	Sheet	Drawing No:	Revision No:
N.T.S	A3	24/40	BA03	B



FABRICATION MATERIAL						
PART	QTY.	LENGTH (m)	DESCRIPTION	SIZE	MATERIAL	UNIT Wt. (kg)
1		0.33	Pipe Seamless, BW	100A Sch40	STPG370	16.00
2	1		Elbow SR, BW 45 deg	100A Sch40	PG 370	2.69
3	2		Flange SOFF	100A JIS10K	SF 390A	2.39

ERECTION MATERIAL					
PART	QTY.	DESCRIPTION	SIZE	MATERIAL	UNIT Wt. (kg)
4	1	Butterfly Valve Manual 10K	100A JIS10K	-	8.40
5	1	Gasket, JIS10K, Thk 3mm	100A	CNAF	

CUT INFORMATION				
CUT NO.	DESCRIPTION	SIZE	MATERIAL	CUT LENGTH (mm)
1	Pipe Seamless, BW	100A Sch40	STPG370	331

NOTES:
1. ALL DIMENSIONS ARE IN MILLIMETERS
2. CUT PIPE LENGTHS ARE CALCULATED FOR NOMINAL FITTING DIMENSIONS
3. Y-CO-ORDINATE IS ' + ' ON PORT SIDE OF CENTER LINE, AND ' - ' ON STBD. SIDE.
4. MATERIAL : CARBON STEEL HOT DIP GALVANIZED

B	12/10/2024	ISSUED FOR CONSTRUCTION	SK	TT	GC
A	20/09/2024	ISSUED FOR CONSTRUCTION	SK	TT	GC
REV.	DATE	DESCRIPTION	DRAWN BY	CHKD BY	APPRD



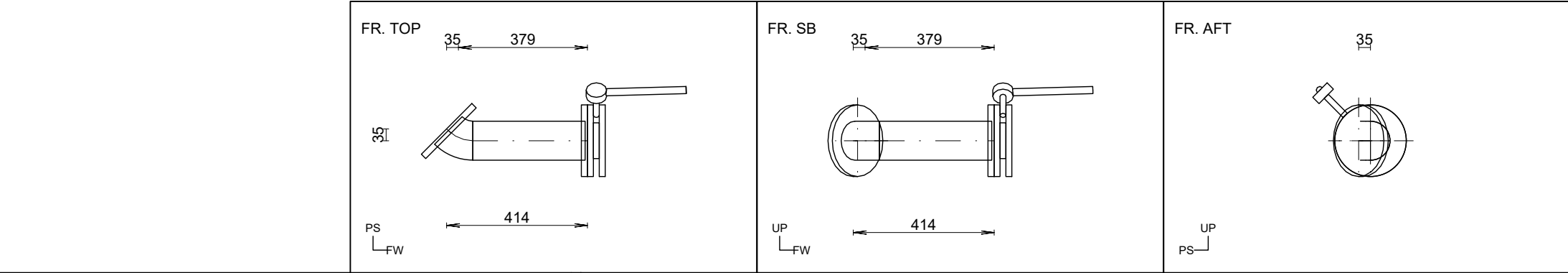
Client:	EMAS OFFSHORE LIMITED	BWTS Maker Name:	BIO-SEA
Location:	-	IMO No.:	9354947
Project No:	P1482	Project Name:	JP 88 STORK







Drawing title:					
SPOOL-DRAWING FOR PIPE BA03					

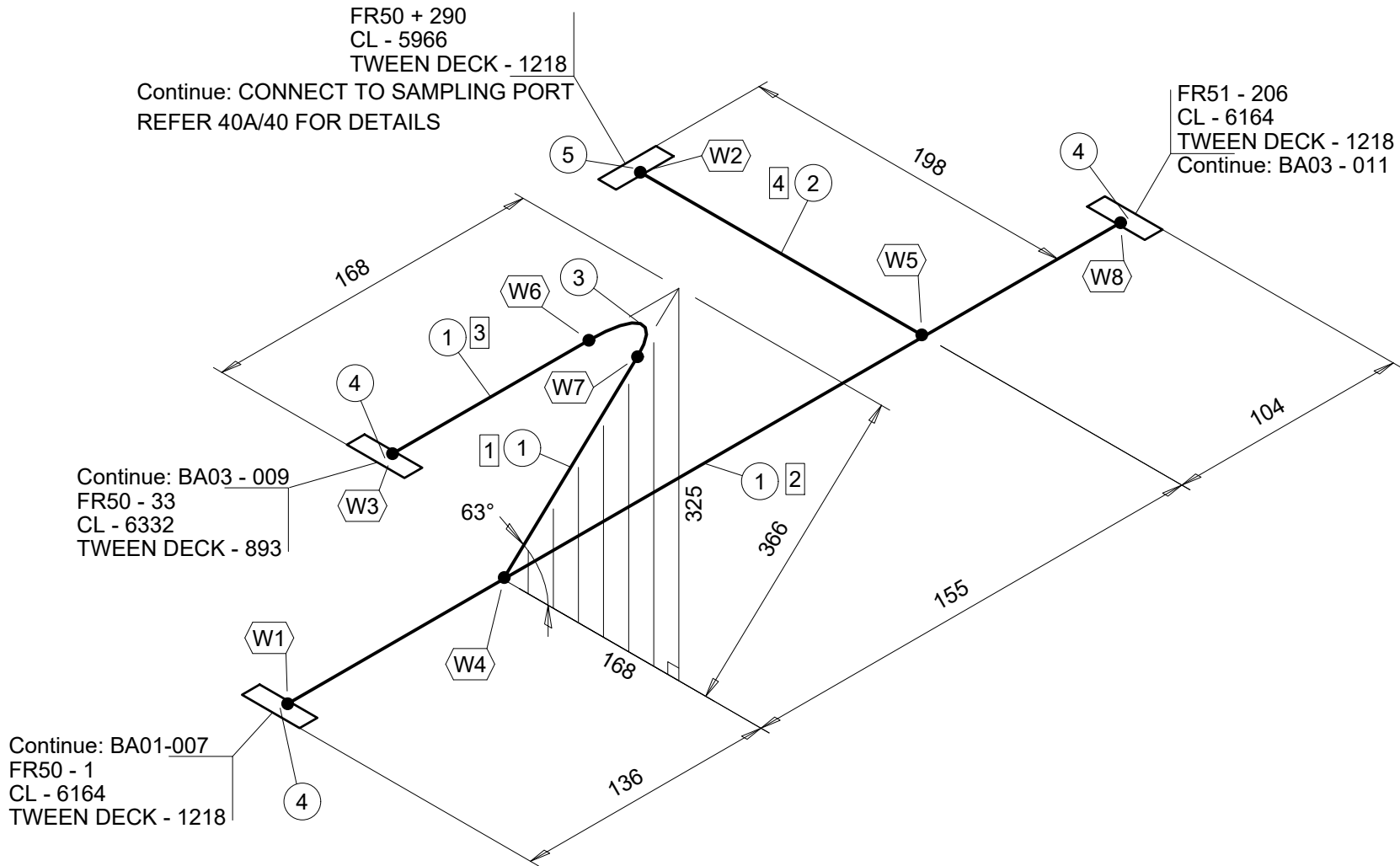
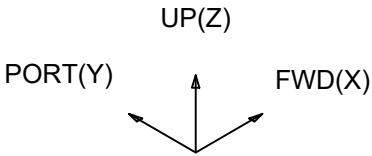
Scale	Format	Sheet	Drawing No:	Revision No.
N.T.S	A3	25/40	BA03	B

WELD AND JOINT INFORMATION

S/NO	SIZE	WELD	F/S
W1	100	SOF	SJ
W2	100	BW	SJ
W3	100	SOF	SJ



DRAWING SYMBOLS						SPOOL NAME:BA03-009										
SPOOL NAME	WELDING NUMBER	PART NUMBER	CUT NUMBER	SHOP JOINT (SJ)	FIELD JOINT (FJ)	PIPING STANDARD	FLUID	TEST MEDIUM	DESIGN CONDITIONS		TEST CONDITIONS		NDT GROUP	CLASS	PAINT SPECIFICATION	DRY WEIGHT
						JIS 10K	SEA WATER	WATER	Temp./ °C	Press./bar	Temp./ °C	Press./bar	100% Visual	III	Ships Paint Spec	20 kg
									AMB	6	-	9				



FABRICATION MATERIAL						
PART	QTY.	LENGTH (m)	DESCRIPTION	SIZE	MATERIAL	UNIT Wt. (kg)
1		0.70	Pipe Seamless, BW	100A Sch40	STPG370	16.00
2		0.15	Pipe Seamless, BW	80A Sch40	STPG370	11.30
3	1		Elbow SR, BW 90 deg	100A Sch40	PG 370	2.69
4	3		Flange SOFF	100A JIS10K	SF 390A	2.39
5	1		Flange SOFF	DN80 PN10	Carbon Steel	3.79

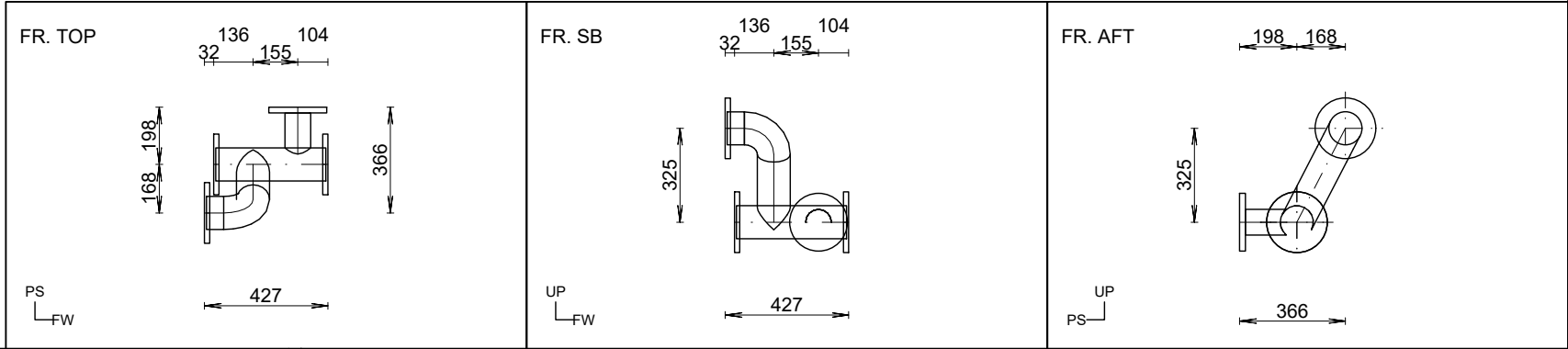
ERECTION MATERIAL					
PART	QTY.	DESCRIPTION	SIZE	MATERIAL	UNIT Wt. (kg)







CUT INFORMATION				
CUT NO.	DESCRIPTION	SIZE	MATERIAL	CUT LENGTH (mm)
1	Pipe Seamless, BW	100A Sch40	STPG370	262
2	Pipe Seamless, BW	100A Sch40	STPG370	382
3	Pipe Seamless, BW	100A Sch40	STPG370	60
4	Pipe Seamless, BW	80A Sch40	STPG370	151


NOTES:
1. ALL DIMENSIONS ARE IN MILLIMETERS
2. CUT PIPE LENGTHS ARE CALCULATED FOR NOMINAL FITTING DIMENSIONS
3. Y-CO-ORDINATE IS ' + ' ON PORT SIDE OF CENTER LINE, AND ' - ' ON STBD. SIDE.
4. MATERIAL : CARBON STEEL HOT DIP GALVANIZED

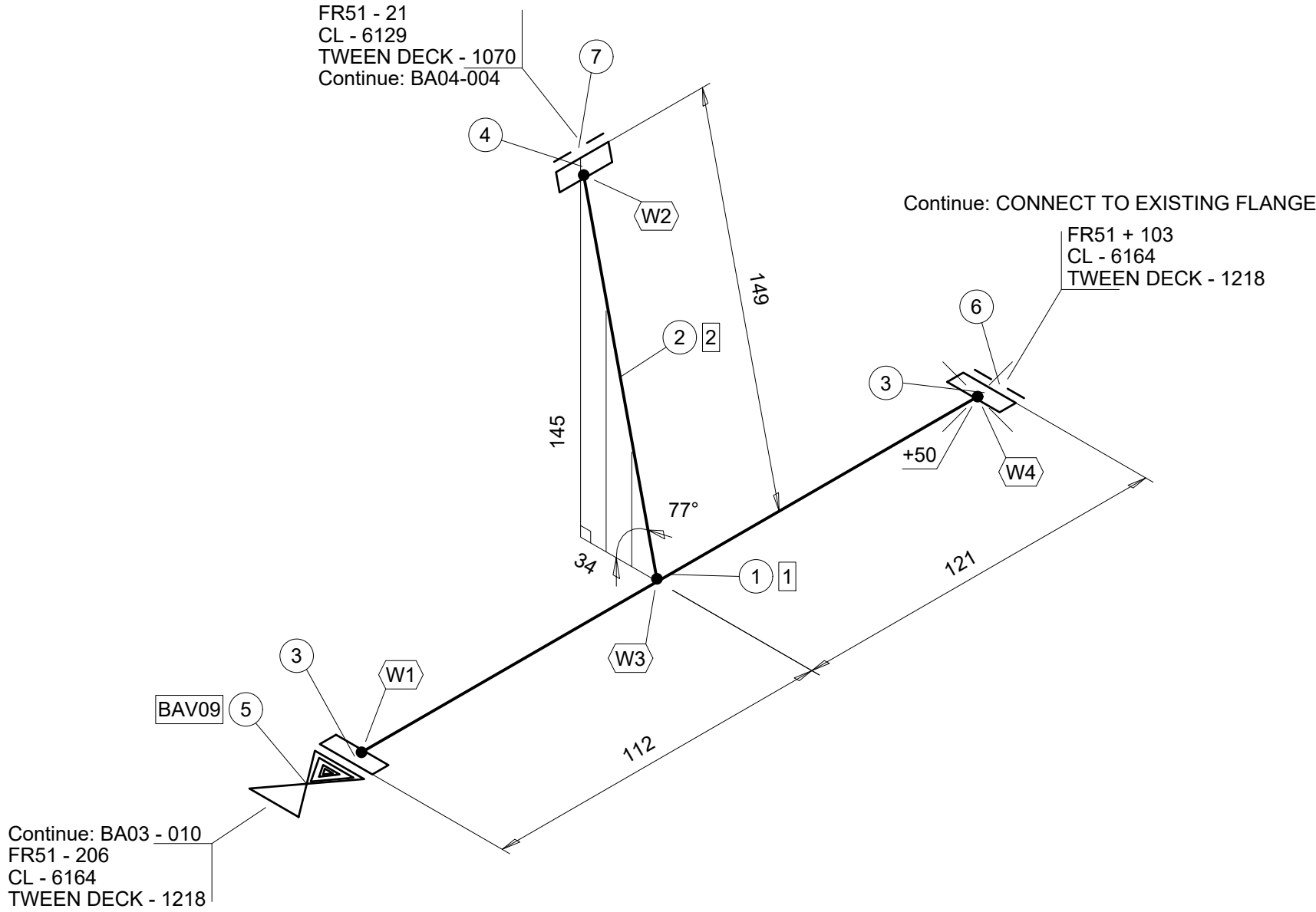
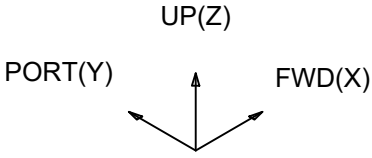
WELD AND JOINT INFORMATION

S/NO	SIZE	WELD	F/S
W1	100	SOF	SJ
W2	80	SOF	SJ
W3	100	SOF	SJ
W4	100	FW	SJ
W5	80	FW	SJ
W6	100	BW	SJ
W7	100	BW	SJ
W8	100	SOF	SJ



DRAWING SYMBOLS						SPOOL NAME:BA03-010										
SPOOL NAME	WELDING NUMBER	PART NUMBER	CUT NUMBER	SHOP JOINT (SJ)	FIELD JOINT (FJ)	PIPING STANDARD	FLUID	TEST MEDIUM	DESIGN CONDITIONS		TEST CONDITIONS		NDT GROUP	CLASS	PAINT SPECIFICATION	DRY WEIGHT
						JIS 10K	SEA WATER	WATER	Temp./ °C	Press./bar	Temp./ °C	Press./bar	100% Visual	III	Ships Paint Spec	26 kg
									AMB	6	-	9				

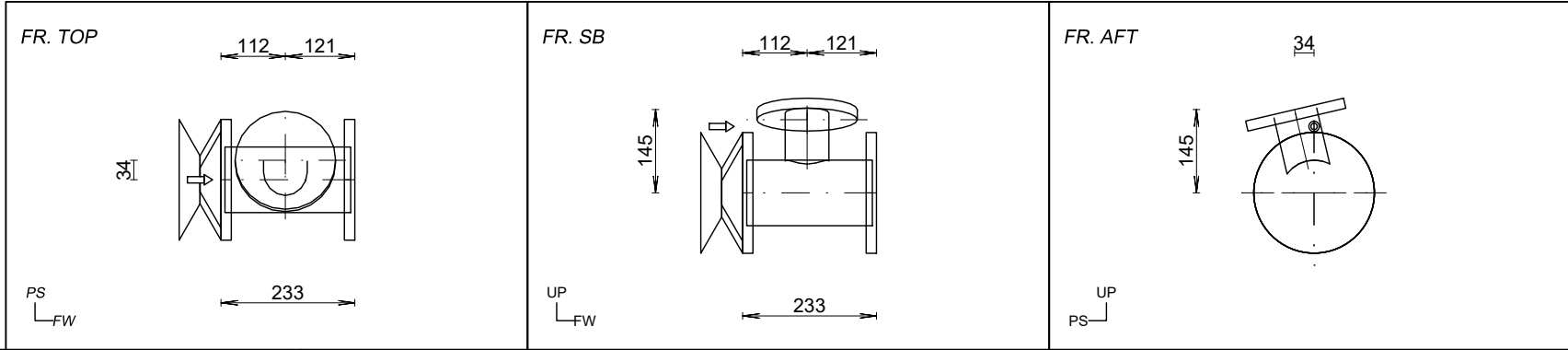
B	12/10/2024	ISSUED FOR CONSTRUCTION	SK	TT	GC
A	20/09/2024	ISSUED FOR CONSTRUCTION	SK	TT	GC
REV.	DATE	DESCRIPTION	DRAWN BY	CHKD BY	APPRD
<div><div></div><div><div>Goltens</div><div>Singapore Pte Ltd.</div></div></div>					
Client: EMAS OFFSHORE LIMITED		BWTS Maker Name: BIO-SEA			
Location: -		IMO No.: 9354947			
Project No: P1482		Project Name: JP 88 STORK			
Drawing title: SPOOL-DRAWING FOR PIPE BA03					
Scale	Format	Sheet	Drawing No:		Revision No.
N.T.S	A3	26/40	BA03		B



WELD AND JOINT INFORMATION

S/NO	SIZE	WELD	F/S
W1	100	SOF	SJ
W2	65	SOF	SJ
W3	65	FW	SJ
W4	100	SOF	FJ

SPECIAL NOTE: SPOOL TO BE CONNECTED TO EXISTING FLANGE SUITABLY ONSITE.



DRAWING SYMBOLS

SPOOL NAME:BA03-011

SPOOL NAME	WELDING NUMBER	PART NUMBER	CUT NUMBER	SHOP JOINT (SJ)	FIELD JOINT (FJ)	PIPING STANDARD	FLUID	TEST MEDIUM	DESIGN CONDITIONS		TEST CONDITIONS		NDT GROUP	CLASS	PAINT SPECIFICATION	DRY WEIGHT
						JIS 10K	SEA WATER	WATER	Temp./ °C	Press./bar	Temp./ °C	Press./bar	100% Visual	III	Ships Paint Spec	22 kg
									AMB	6	-	9				

FABRICATION MATERIAL						
PART	QTY.	LENGTH (m)	DESCRIPTION	SIZE	MATERIAL	UNIT Wt. (kg)
1		0.27	Pipe Seamless, BW	100A Sch40	STPG370	16.00
2		0.10	Pipe Seamless, BW	65A Sch40	STPG370	9.12
3	2		Flange SOFF	100A JIS10K	SF 390A	2.39
4	1		Flange SOFF	65A JIS10K	SF 390A	2.60

ERECTION MATERIAL

PART	QTY.	DESCRIPTION	SIZE	MATERIAL	UNIT Wt. (kg)
5	1	Dual Plate Check valve JIS10K	100A		9.00
6	1	Gasket, JIS10K, Thk 3mm	100A	CNAF	
7	1	Gasket, JIS10K, Thk 3mm	65A	CNAF	

CUT INFORMATION

CUT NO.	DESCRIPTION	SIZE	MATERIAL	CUT LENGTH (mm)
1	Pipe Seamless, BW	100A Sch40	STPG370	270
2	Pipe Seamless, BW	65A Sch40	STPG370	101

NOTES:

- ALL DIMENSIONS ARE IN MILLIMETERS
- CUT PIPE LENGTHS ARE CALCULATED FOR NOMINAL FITTING DIMENSIONS
- Y-CO-ORDINATE IS ' + ' ON PORT SIDE OF CENTER LINE, AND ' - ' ON STBD. SIDE.
- MATERIAL : CARBON STEEL HOT DIP GALVANIZED

REV.	DATE	DESCRIPTION	DRAWN BY	CHKD BY	APPRD
B	12/10/2024	ISSUED FOR CONSTRUCTION	SK	TT	GC
A	20/09/2024	ISSUED FOR CONSTRUCTION	SK	TT	GC

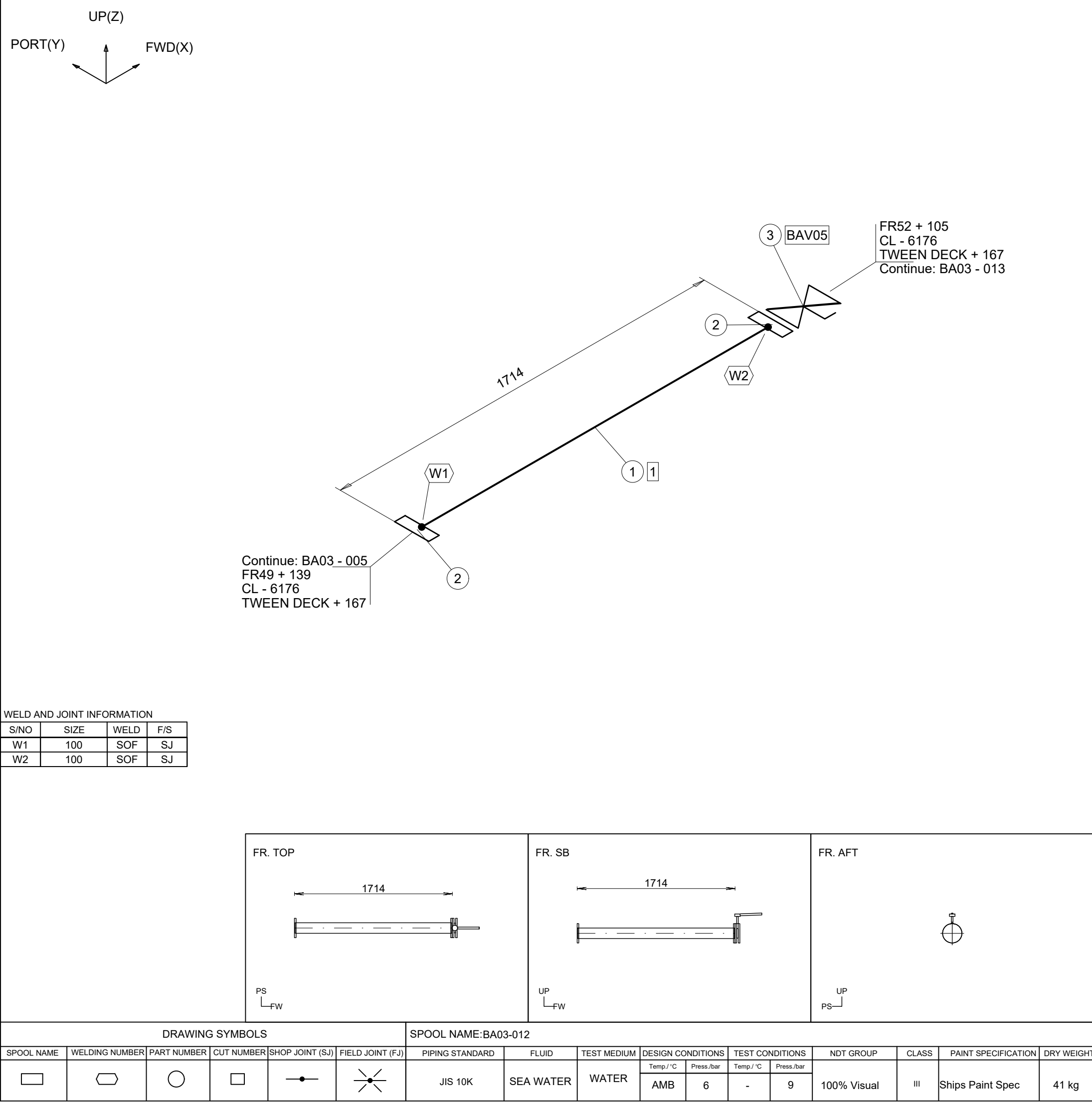



Goltens
Singapore Pte Ltd.

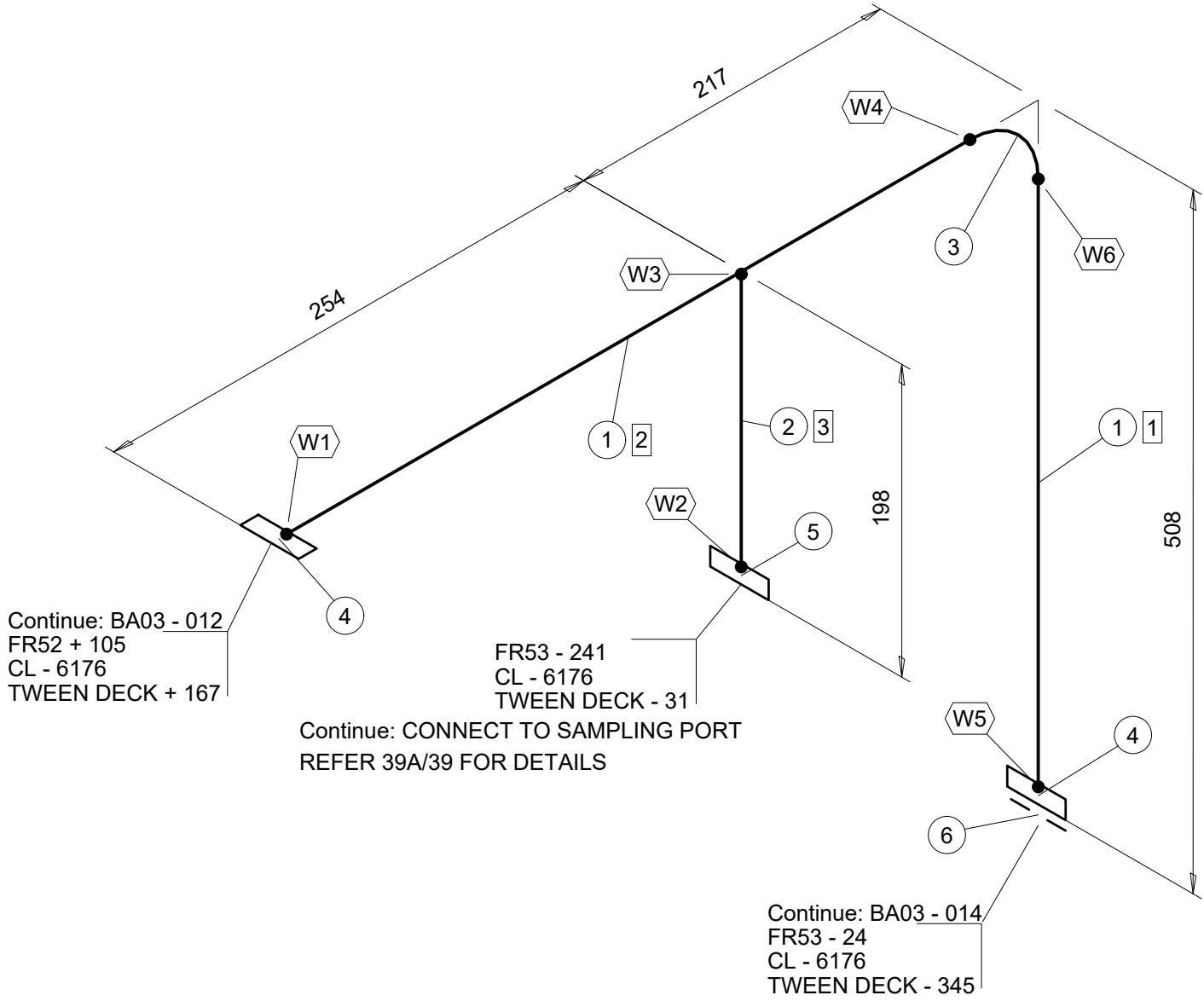
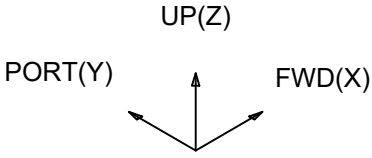
Client:	EMAS OFFSHORE LIMITED	BWTS Maker Name:	BIO-SEA
Location:	-	IMO No.:	9354947
Project No:	P1482	Project Name:	JP 88 STORK

Drawing title:					SPOOL-DRAWING FOR PIPE BA03				
----------------	--	--	--	--	-----------------------------	--	--	--	--

Scale	Format	Sheet	Drawing No:	Revision No.	
N.T.S	A3	27/40	BA03	B	



FABRICATION MATERIAL							
PART	QTY.	LENGTH (m)	DESCRIPTION	SIZE	MATERIAL	UNIT Wt. (kg)	
1		1.70	Pipe Seamless, BW	100A Sch40	STPG370	16.00	
2	2		Flange SOFF	100A JIS10K	SF 390A	2.39	
ERECTION MATERIAL							
PART	QTY.	DESCRIPTION		SIZE	MATERIAL	UNIT Wt. (kg)	
3	1	Butterfly Valve Manual 10K		100A JIS10K	-	8.40	
CUT INFORMATION							
CUT NO.	DESCRIPTION			SIZE	MATERIAL	CUT LENGTH (mm)	
1	Pipe Seamless, BW			100A Sch40	STPG370	1701	
NOTES:							
1. ALL DIMENSIONS ARE IN MILLIMETERS							
2. CUT PIPE LENGTHS ARE CALCULATED FOR NOMINAL FITTING DIMENSIONS							
3. Y-CO-ORDINATE IS ' + ' ON PORT SIDE OF CENTER LINE, AND ' - ' ON STBD. SIDE.							
4. MATERIAL : CARBON STEEL HOT DIP GALVANIZED							
B	12/10/2024	ISSUED FOR CONSTRUCTION			SK	TT	GC
A	20/09/2024	ISSUED FOR CONSTRUCTION			SK	TT	GC
REV.	DATE	DESCRIPTION			DRAWN BY	CHKD BY	APPRD
<div><div></div><div><div>Goltens</div><div>Singapore Pte Ltd.</div></div></div>							
Client: EMAS OFFSHORE LIMITED			BWTS Maker Name: BIO-SEA				
Location: -			IMO No.: 9354947				
Project No: P1482			Project Name: JP 88 STORK				
Drawing title:							
SPOOL-DRAWING FOR PIPE BA03							
Scale	Format	Sheet	Drawing No:			Revision No.	
N.T.S	A3	28/40	BA03			B	



FABRICATION MATERIAL						
PART	QTY.	LENGTH (m)	DESCRIPTION	SIZE	MATERIAL	UNIT Wt. (kg)
1		0.76	Pipe Seamless, BW	100A Sch40	STPG370	16.00
2		0.15	Pipe Seamless, BW	80A Sch40	STPG370	11.30
3	1		Elbow SR, BW 90 deg	100A Sch40	PG 370	2.69
4	2		Flange SOFF	100A JIS10K	SF 390A	2.39
5	1		Flange SOFF	DN80 PN10	Carbon Steel	3.79

ERECTION MATERIAL						
PART	QTY.	DESCRIPTION		SIZE	MATERIAL	UNIT Wt. (kg)
6	1	Gasket, JIS10K, Thk 3mm		100A	CNAF	

CUT INFORMATION				
CUT NO.	DESCRIPTION	SIZE	MATERIAL	CUT LENGTH (mm)
1	Pipe Seamless, BW	100A Sch40	STPG370	400
2	Pipe Seamless, BW	100A Sch40	STPG370	362
3	Pipe Seamless, BW	80A Sch40	STPG370	151

NOTES:
1. ALL DIMENSIONS ARE IN MILLIMETERS
2. CUT PIPE LENGTHS ARE CALCULATED FOR NOMINAL FITTING DIMENSIONS
3. Y-CO-ORDINATE IS ' + ' ON PORT SIDE OF CENTER LINE, AND ' - ' ON STBD. SIDE.
4. MATERIAL : CARBON STEEL HOT DIP GALVANIZED

B	12/10/2024	ISSUED FOR CONSTRUCTION	SK	TT	GC
A	20/09/2024	ISSUED FOR CONSTRUCTION	SK	TT	GC
REV.	DATE	DESCRIPTION	DRAWN BY	CHKD BY	APPRD

<div><div></div><div>Goltens</div><div>Singapore Pte Ltd.</div></div>					
Client: EMAS OFFSHORE LIMITED			BWTS Maker Name: BIO-SEA		
Location: -			IMO No.: 9354947		
Project No: P1482			Project Name: JP 88 STORK		

Drawing title: SPOOL-DRAWING FOR PIPE BA03					
--	--	--	--	--	--







Scale	Format	Sheet	Drawing No:		Revision No.
N.T.S	A3	29/40	BA03		B

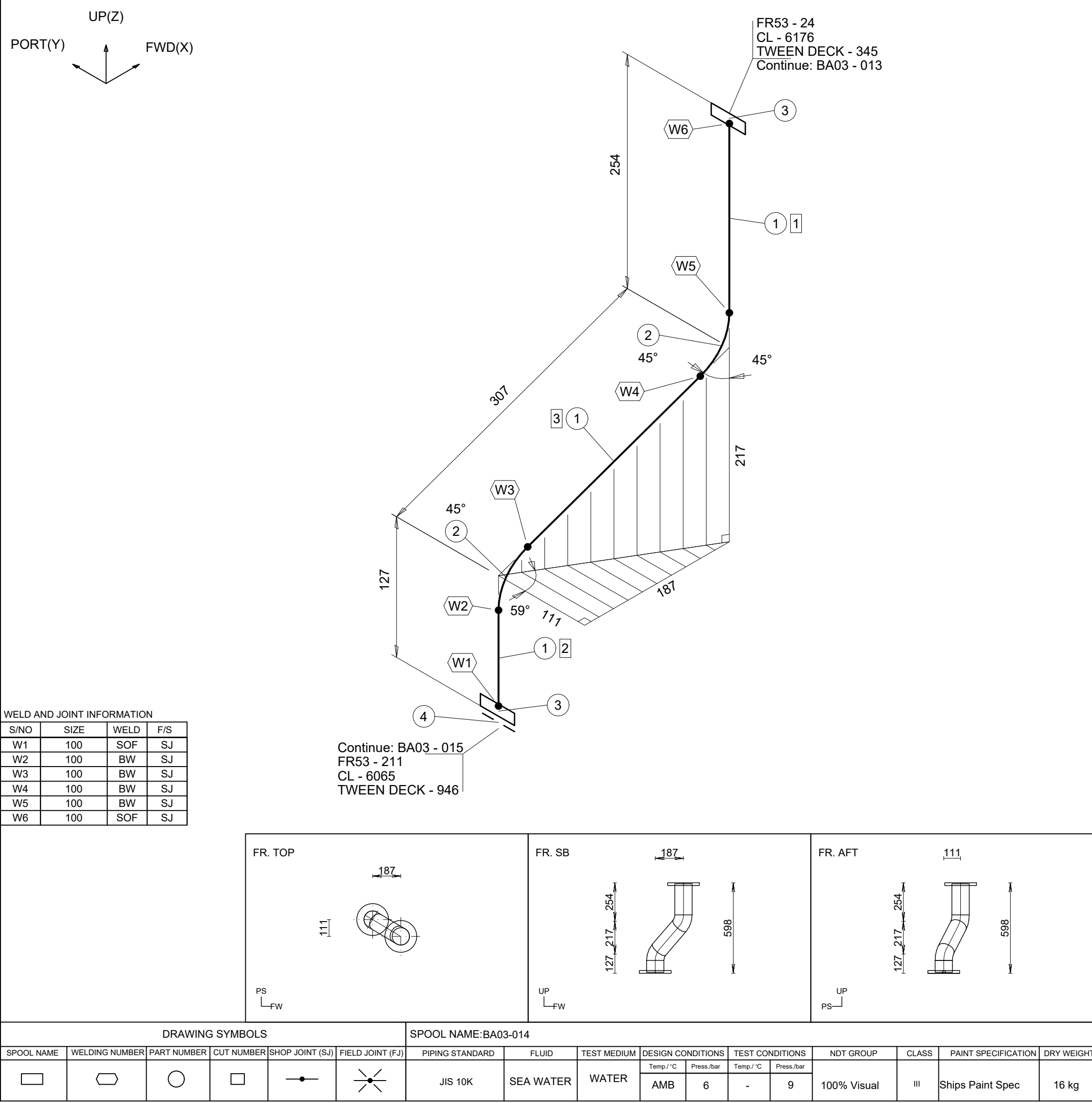
WELD AND JOINT INFORMATION			
S/NO	SIZE	WELD	F/S
W1	100	SOF	SJ
W2	80	SOF	SJ
W3	80	FW	SJ
W4	100	BW	SJ
W5	100	SOF	SJ
W6	100	BW	SJ

FR. TOP

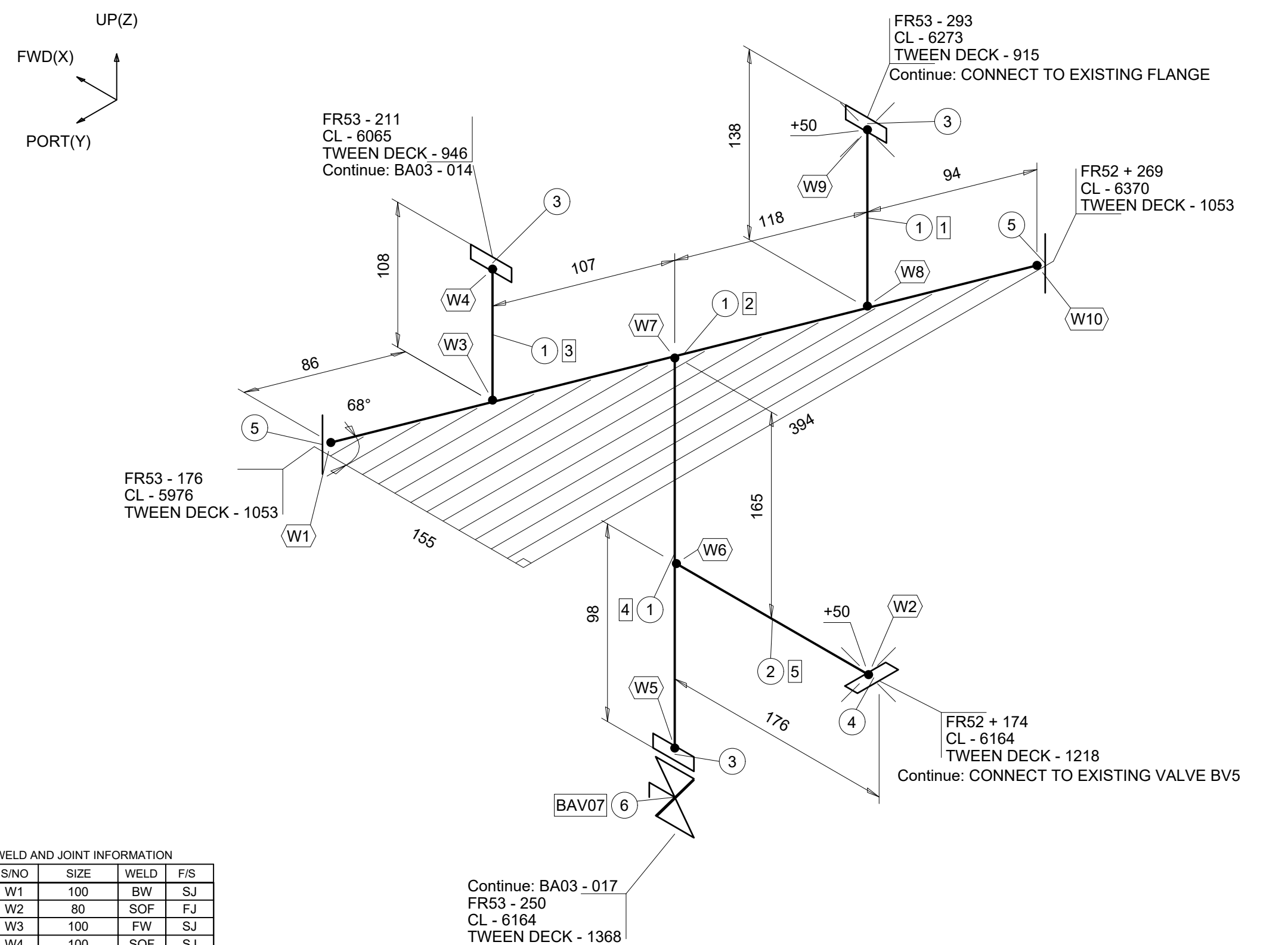
FR. SB

FR. AFT

DRAWING SYMBOLS						SPOOL NAME:BA03-013										
SPOOL NAME	WELDING NUMBER	PART NUMBER	CUT NUMBER	SHOP JOINT (SJ)	FIELD JOINT (FJ)	PIPING STANDARD	FLUID	TEST MEDIUM	DESIGN CONDITIONS		TEST CONDITIONS		NDT GROUP	CLASS	PAINT SPECIFICATION	DRY WEIGHT
						JIS 10K	SEA WATER	WATER	Temp./ °C	Press./bar	Temp./ °C	Press./bar	100% Visual	III	Ships Paint Spec	25 kg
									AMB	6	-	9				

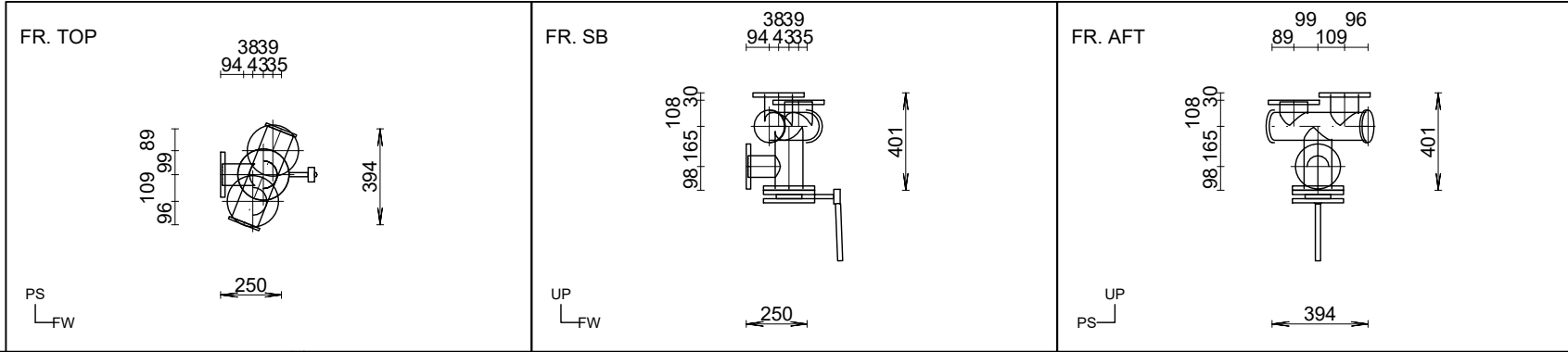








FABRICATION MATERIAL						
PART	QTY.	LENGTH (m)	DESCRIPTION	SIZE	MATERIAL	UNIT Wt. (kg)
1		0.51	Pipe Seamless, BW	100A Sch40	STPG370	16.00
2	2		Elbow SR, BW 45 deg	100A Sch40	PG 370	2.69
3	2		Flange SOFF	100A JIS10K	SF 390A	2.39



WELD AND JOINT INFORMATION			
S/NO	SIZE	WELD	F/S
W1	100	BW	SJ
W2	80	SOF	FJ
W3	100	FW	SJ
W4	100	SOF	SJ
W5	100	SOF	SJ
W6	80	FW	SJ
W7	100	FW	SJ
W8	100	FW	SJ
W9	100	SOF	FJ
W10	100	BW	SJ

SPECIAL NOTE: SPOOL TO BE CONNECTED TO EXISTING FLANGE AND VALVE SUITABLY ONSITE.



DRAWING SYMBOLS						SPOOL NAME:BA03-015										
SPOOL NAME	WELDING NUMBER	PART NUMBER	CUT NUMBER	SHOP JOINT (SJ)	FIELD JOINT (FJ)	PIPING STANDARD	FLUID	TEST MEDIUM	DESIGN CONDITIONS		TEST CONDITIONS		NDT GROUP	CLASS	PAINT SPECIFICATION	DRY WEIGHT
						JIS 10K	SEA WATER	WATER	Temp./°C	Press./bar	Temp./°C	Press./bar	100% Visual	III	Ships Paint Spec	34 kg
									AMB	6	-	9				

FABRICATION MATERIAL						
PART	QTY.	LENGTH (m)	DESCRIPTION	SIZE	MATERIAL	UNIT Wt. (kg)
1		0.93	Pipe Seamless, BW	100A Sch40	STPG370	16.00
2		0.18	Pipe Seamless, BW	80A Sch40	STPG370	11.30
3	3		Flange SOFF	100A JIS10K	SF 390A	2.39
4	1		Flange SOFF	80A JIS10K	SF 390A	2.61
5	2		Blind plate	100A	SF 390A	0.77

ERECTION MATERIAL					
PART	QTY.	DESCRIPTION	SIZE	MATERIAL	UNIT Wt. (kg)
6	1	Butterfly Valve Manual 10K	100A JIS10K	-	8.40

CUT INFORMATION				
CUT NO.	DESCRIPTION	SIZE	MATERIAL	CUT LENGTH (mm)
1	Pipe Seamless, BW	100A Sch40	STPG370	179
2	Pipe Seamless, BW	100A Sch40	STPG370	404
3	Pipe Seamless, BW	100A Sch40	STPG370	99
4	Pipe Seamless, BW	100A Sch40	STPG370	254
5	Pipe Seamless, BW	80A Sch40	STPG370	183

NOTES:


1. ALL DIMENSIONS ARE IN MILLIMETERS

2. CUT PIPE LENGTHS ARE CALCULATED FOR NOMINAL FITTING DIMENSIONS

3. Y-CO-ORDINATE IS ' + ' ON PORT SIDE OF CENTER LINE, AND ' - ' ON STBD. SIDE.

4. MATERIAL : CARBON STEEL HOT DIP GALVANIZED

REV.	DATE	DESCRIPTION	DRAWN BY	CHKD BY	APPRD
B	12/10/2024	ISSUED FOR CONSTRUCTION	SK	TT	GC
A	20/09/2024	ISSUED FOR CONSTRUCTION	SK	TT	GC



Goltens
Singapore Pte Ltd.

Client: EMAS OFFSHORE LIMITED

BWTS Maker Name: BIO-SEA

Location: -

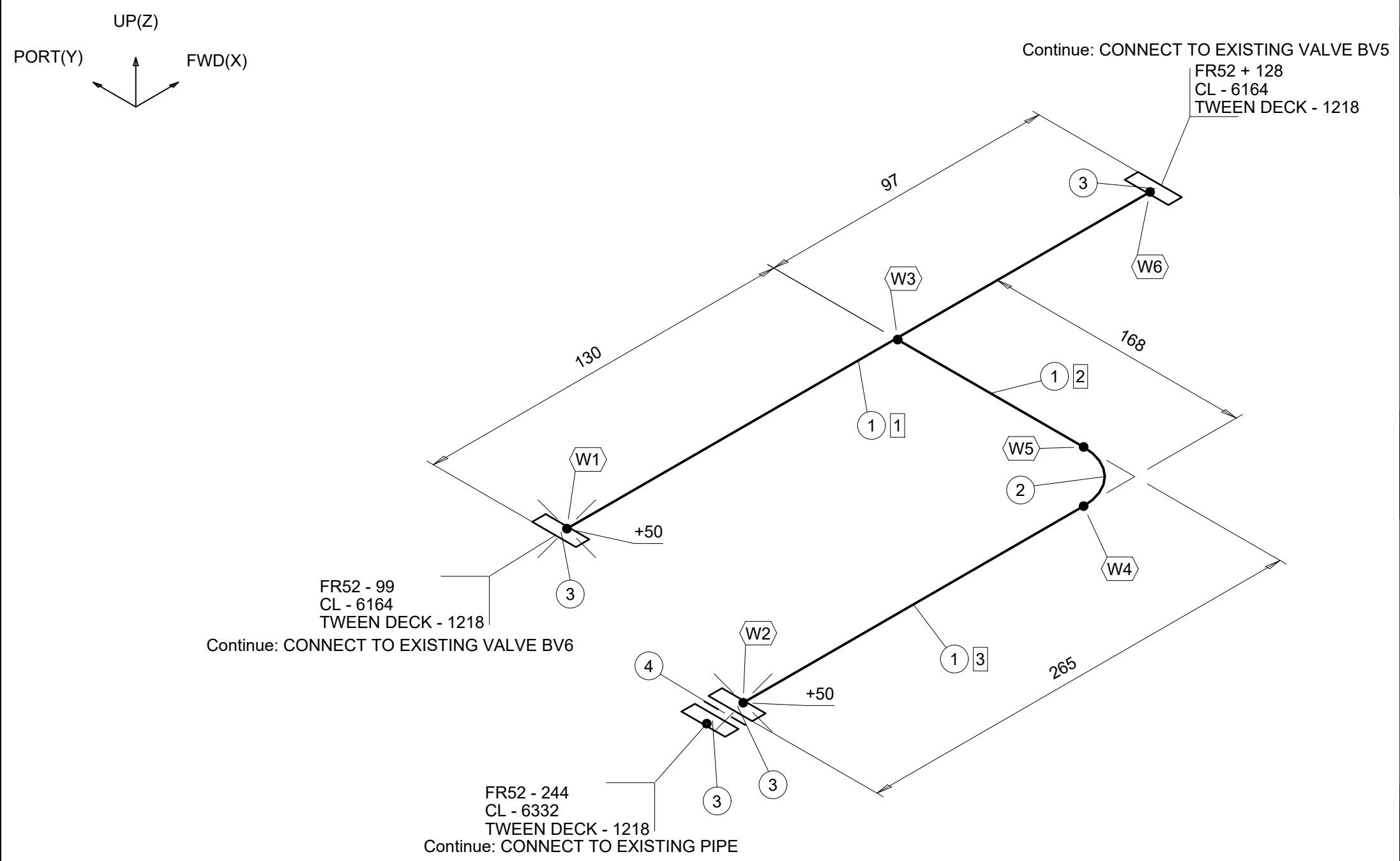
IMO No.: 9354947

Project No: P1482

Project Name: JP 88 STORK

Drawing title: SPOOL-DRAWING FOR PIPE BA03

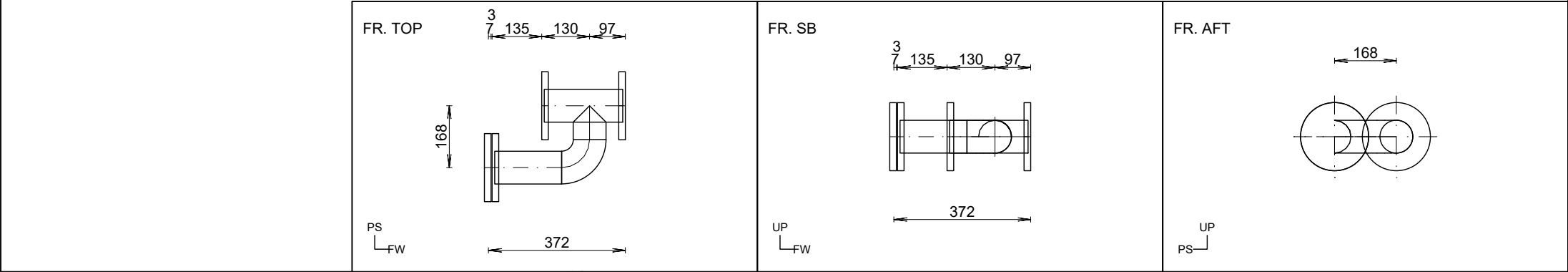
Scale	Format	Sheet	Drawing No:	Revision No.
N.T.S	A3	31/40	BA03	B










WELD AND JOINT INFORMATION

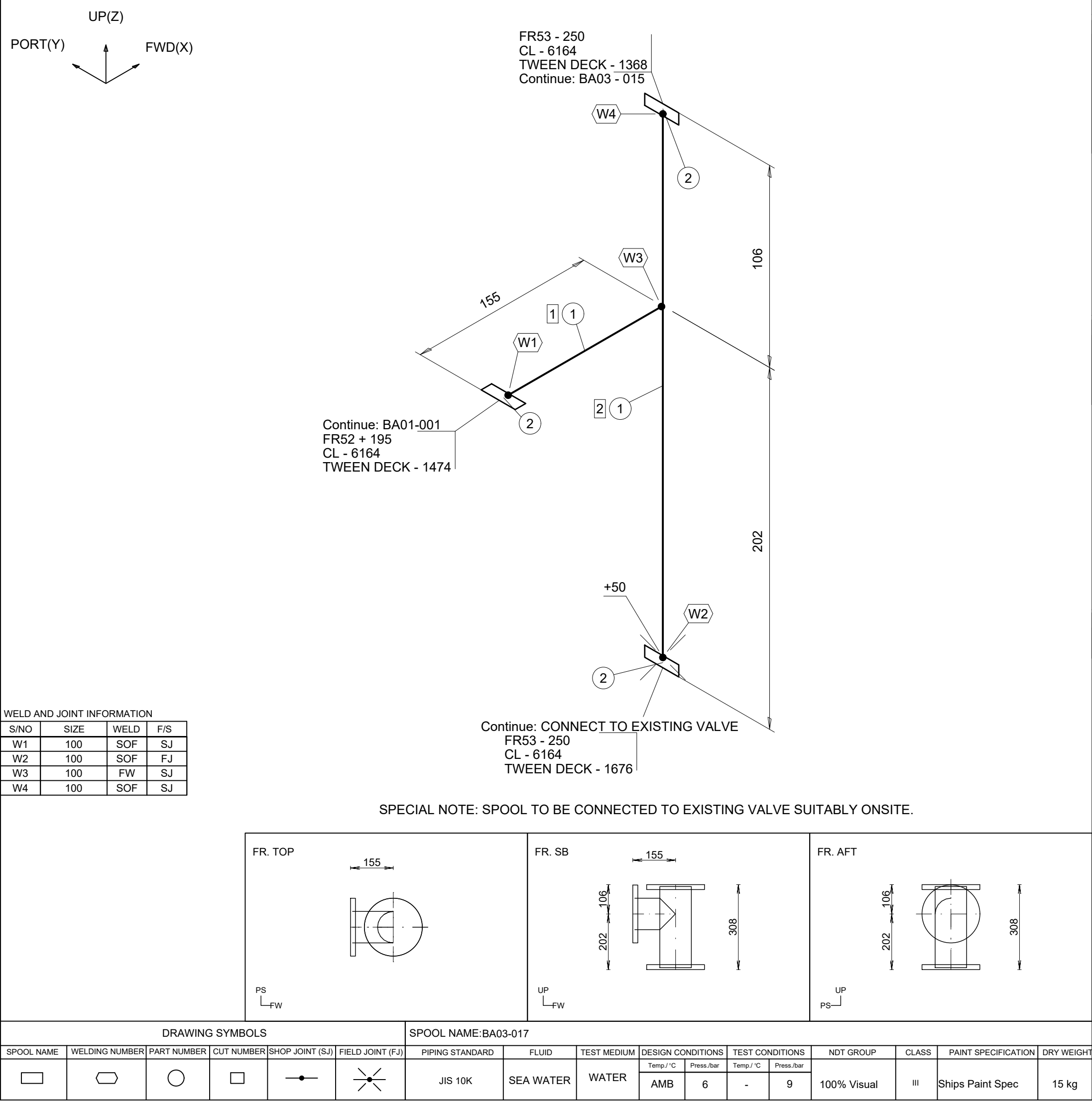
S/NO	SIZE	WELD	F/S
W1	80	SOF	FJ
W2	80	SOF	FJ
W3	80	FW	SJ
W4	80	BW	SJ
W5	80	BW	SJ
W6	80	SOF	SJ


SPECIAL NOTE: SPOOL TO BE CONNECTED TO EXISTING PIPE AND VALVE SUITABLY ONSITE.

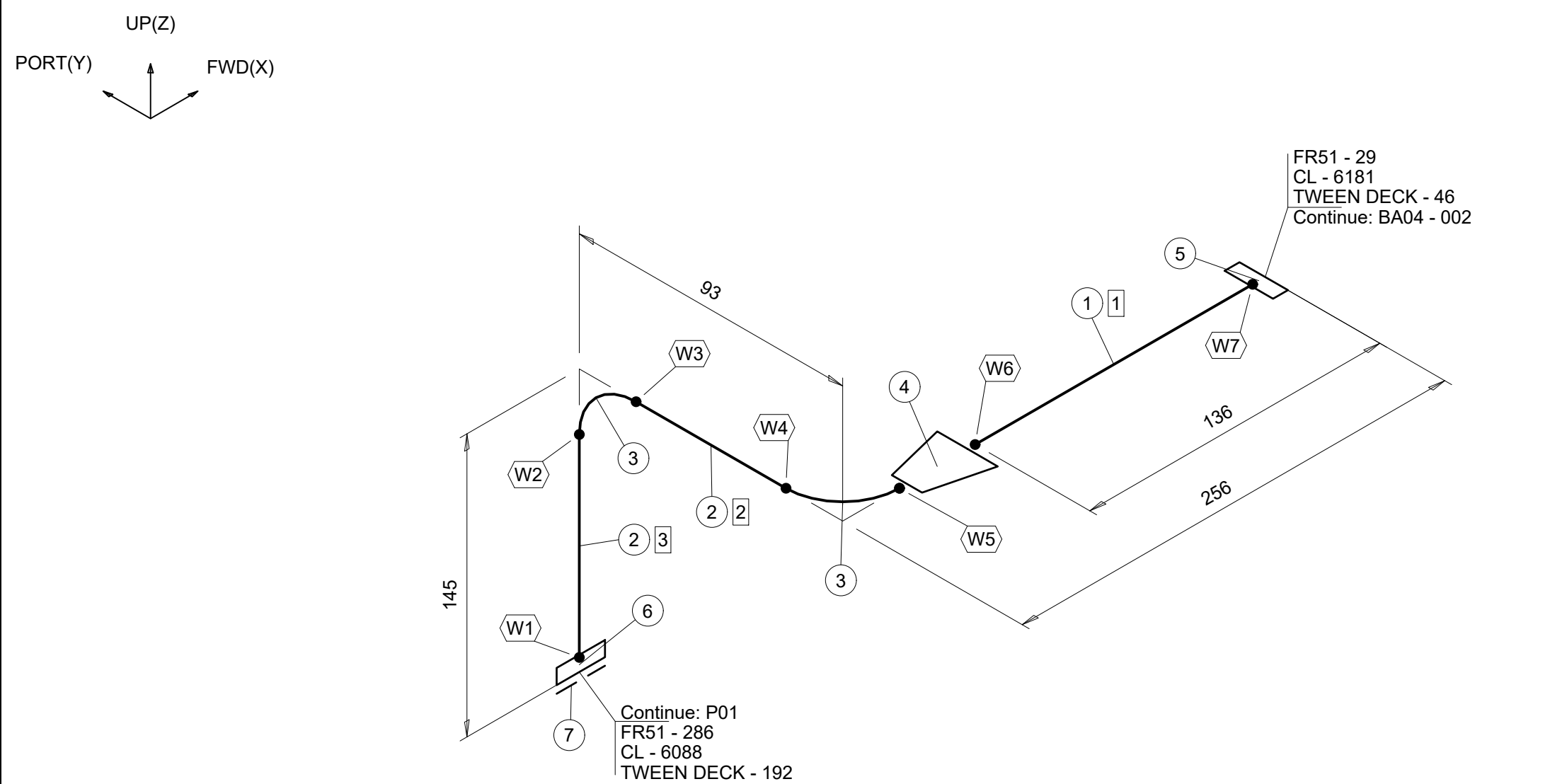


DRAWING SYMBOLS						SPOOL NAME:BA03-016										
SPOOL NAME	WELDING NUMBER	PART NUMBER	CUT NUMBER	SHOP JOINT (SJ)	FIELD JOINT (FJ)	PIPING STANDARD	FLUID	TEST MEDIUM	DESIGN CONDITIONS		TEST CONDITIONS		NDT GROUP	CLASS	PAINT SPECIFICATION	DRY WEIGHT
						JIS 10K	SEA WATER	WATER	Temp./ °C	Press./bar	Temp./ °C	Press./bar	100% Visual	III	Ships Paint Spec	18 kg
									AMB	6	-	9				

FABRICATION MATERIAL							
PART	QTY.	LENGTH (m)	DESCRIPTION	SIZE	MATERIAL	UNIT Wt. (kg)	
1		0.59	Pipe Seamless, BW	80A Sch40	STPG370	11.30	
2	1		Elbow SR, BW 90 deg	80A Sch40	PG 370	1.43	
3	4		Flange SOFF	80A JIS10K	SF 390A	2.61	
ERECTION MATERIAL							
PART	QTY.	DESCRIPTION		SIZE	MATERIAL	UNIT Wt. (kg)	
4	1	Gasket, JIS10K, Thk 3mm		80A	CNAF		
CUT INFORMATION							
CUT NO.	DESCRIPTION			SIZE	MATERIAL	CUT LENGTH (mm)	
1	Pipe Seamless, BW			80A Sch40	STPG370	264	
2	Pipe Seamless, BW			80A Sch40	STPG370	92	
3	Pipe Seamless, BW			80A Sch40	STPG370	233	
NOTES:							
1. ALL DIMENSIONS ARE IN MILLIMETERS							
2. CUT PIPE LENGTHS ARE CALCULATED FOR NOMINAL FITTING DIMENSIONS							
3. Y-CO-ORDINATE IS ' + ' ON PORT SIDE OF CENTER LINE, AND ' - ' ON STBD. SIDE.							
4. MATERIAL : CARBON STEEL HOT DIP GALVANIZED							
B	12/10/2024	ISSUED FOR CONSTRUCTION			SK	TT	GC
A	20/09/2024	ISSUED FOR CONSTRUCTION			SK	TT	GC
REV.	DATE	DESCRIPTION			DRAWN BY	CHKD BY	APPRD
<div><div></div><div><div>Goltens</div><div>Singapore Pte Ltd.</div></div></div>							
Client: EMAS OFFSHORE LIMITED				BWTS Maker Name: BIO-SEA			
Location: -				IMO No.: 9354947			
Project No: P1482				Project Name: JP 88 STORK			
Drawing title: SPOOL-DRAWING FOR PIPE BA03							
Scale	Format	Sheet	Drawing No:			Revision No.	
N.T.S	A3	32/40	BA03			B	

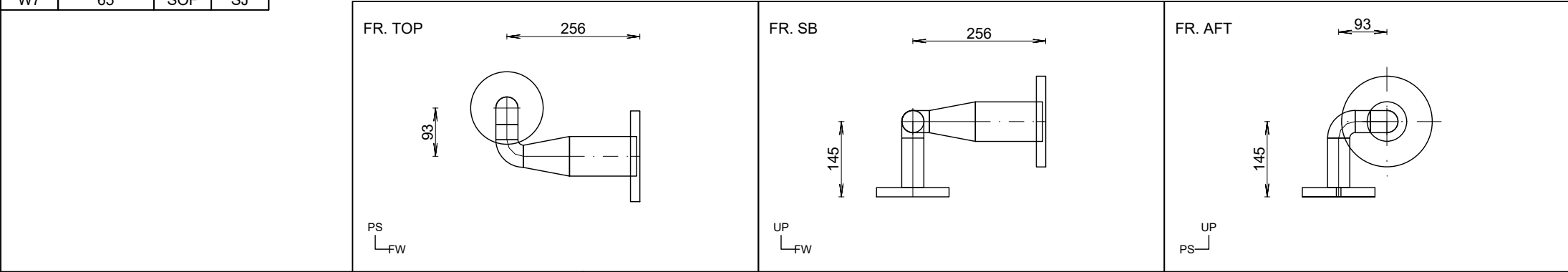








FABRICATION MATERIAL							
PART	QTY.	LENGTH (m)	DESCRIPTION	SIZE	MATERIAL	UNIT Wt. (kg)	
1		0.49	Pipe Seamless, BW	100A Sch40	STPG370	16.00	
2	3		Flange SOFF	100A JIS10K	SF 390A	2.39	
ERECTION MATERIAL							
PART	QTY.	DESCRIPTION		SIZE	MATERIAL	UNIT Wt. (kg)	
CUT INFORMATION							
CUT NO.	DESCRIPTION			SIZE	MATERIAL	CUT LENGTH (mm)	
1	Pipe Seamless, BW			100A Sch40	STPG370	149	
2	Pipe Seamless, BW			100A Sch40	STPG370	345	
NOTES:							
1. ALL DIMENSIONS ARE IN MILLIMETERS							
2. CUT PIPE LENGTHS ARE CALCULATED FOR NOMINAL FITTING DIMENSIONS							
3. Y-CO-ORDINATE IS ' + ' ON PORT SIDE OF CENTER LINE, AND ' - ' ON STBD. SIDE.							
4. MATERIAL : CARBON STEEL HOT DIP GALVANIZED							
B	12/10/2024	ISSUED FOR CONSTRUCTION			SK	TT	GC
A	20/09/2024	ISSUED FOR CONSTRUCTION			SK	TT	GC
REV.	DATE	DESCRIPTION			DRAWN BY	CHKD BY	APPRD
<div><div><div></div><div><div>Goltens</div><div>Singapore Pte Ltd.</div></div></div></div>							
Client: EMAS OFFSHORE LIMITED				BWTS Maker Name: BIO-SEA			
Location: -				IMO No.: 9354947			
Project No: P1482				Project Name: JP 88 STORK			
Drawing title:							
SPOOL-DRAWING FOR PIPE BA03							
Scale	Format	Sheet	Drawing No:			Revision No.	
N.T.S	A3	33/40	BA03			B	




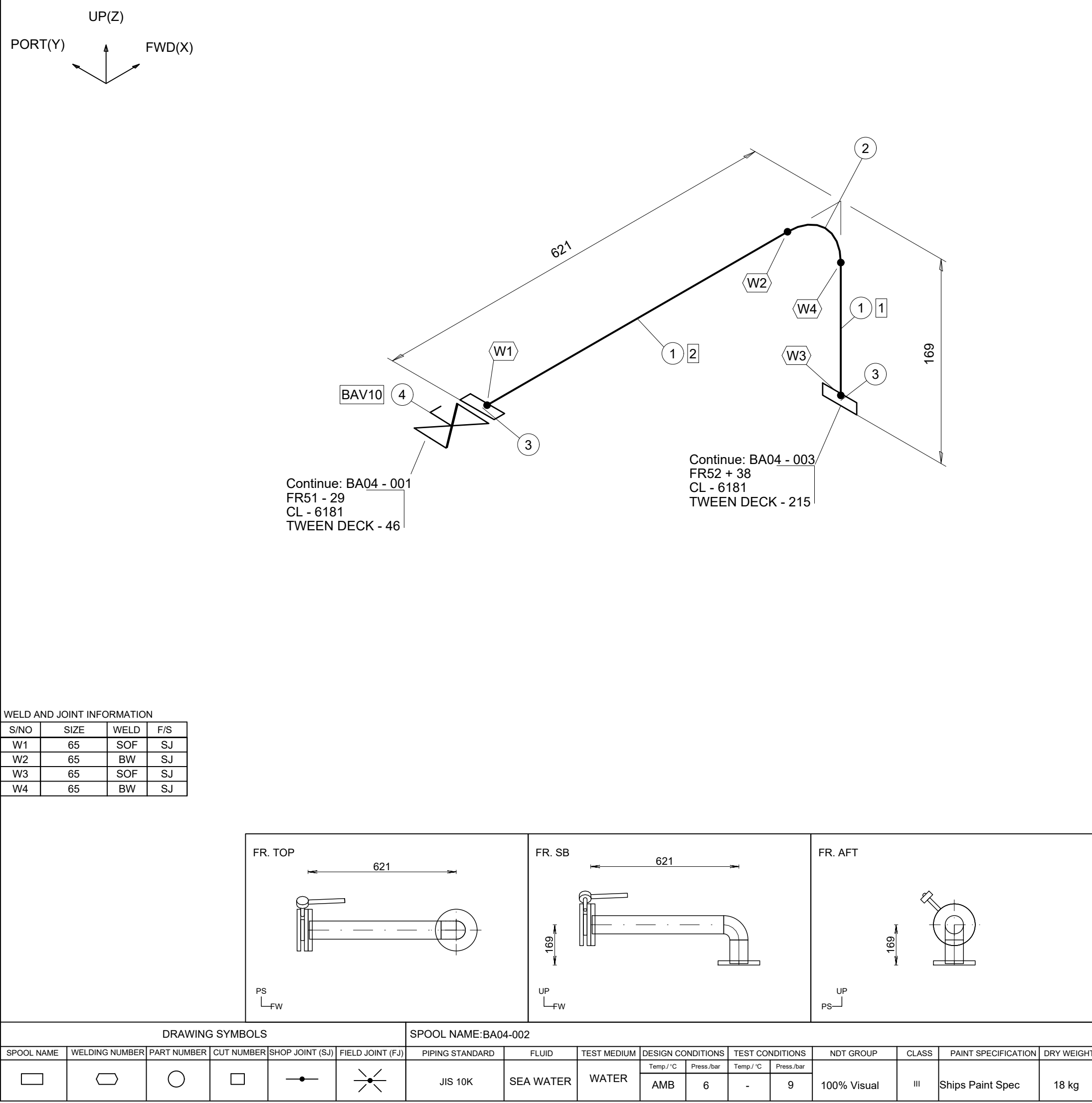
WELD AND JOINT INFORMATION

S/NO	SIZE	WELD	F/S
W1	32	SOF	SJ
W2	32	BW	SJ
W3	32	BW	SJ
W4	32	BW	SJ
W5	32	BW	SJ
W6	65	BW	SJ
W7	65	SOF	SJ

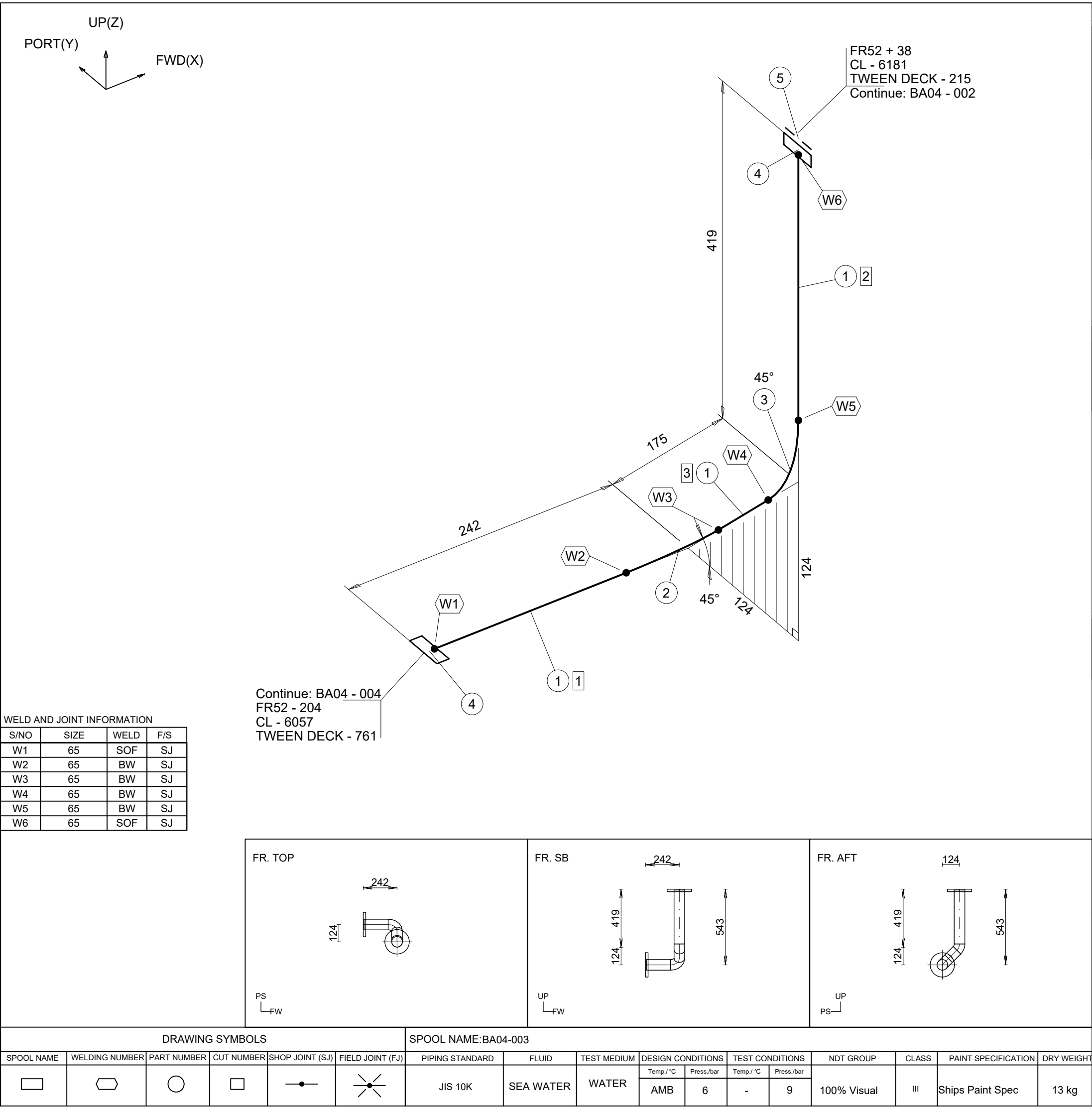


DRAWING SYMBOLS						SPOOL NAME:BA04-001										
SPOOL NAME	WELDING NUMBER	PART NUMBER	CUT NUMBER	SHOP JOINT (SJ)	FIELD JOINT (FJ)	PIPING STANDARD	FLUID	TEST MEDIUM	DESIGN CONDITIONS		TEST CONDITIONS		NDT GROUP	CLASS	PAINT SPECIFICATION	DRY WEIGHT
						JIS 10K / PN40	SEA WATER	WATER	Temp./ °C	Press./bar	Temp./ °C	Press./bar	100% Visual	III	Ships Paint Spec	7 kg
									AMB	6	-	9				

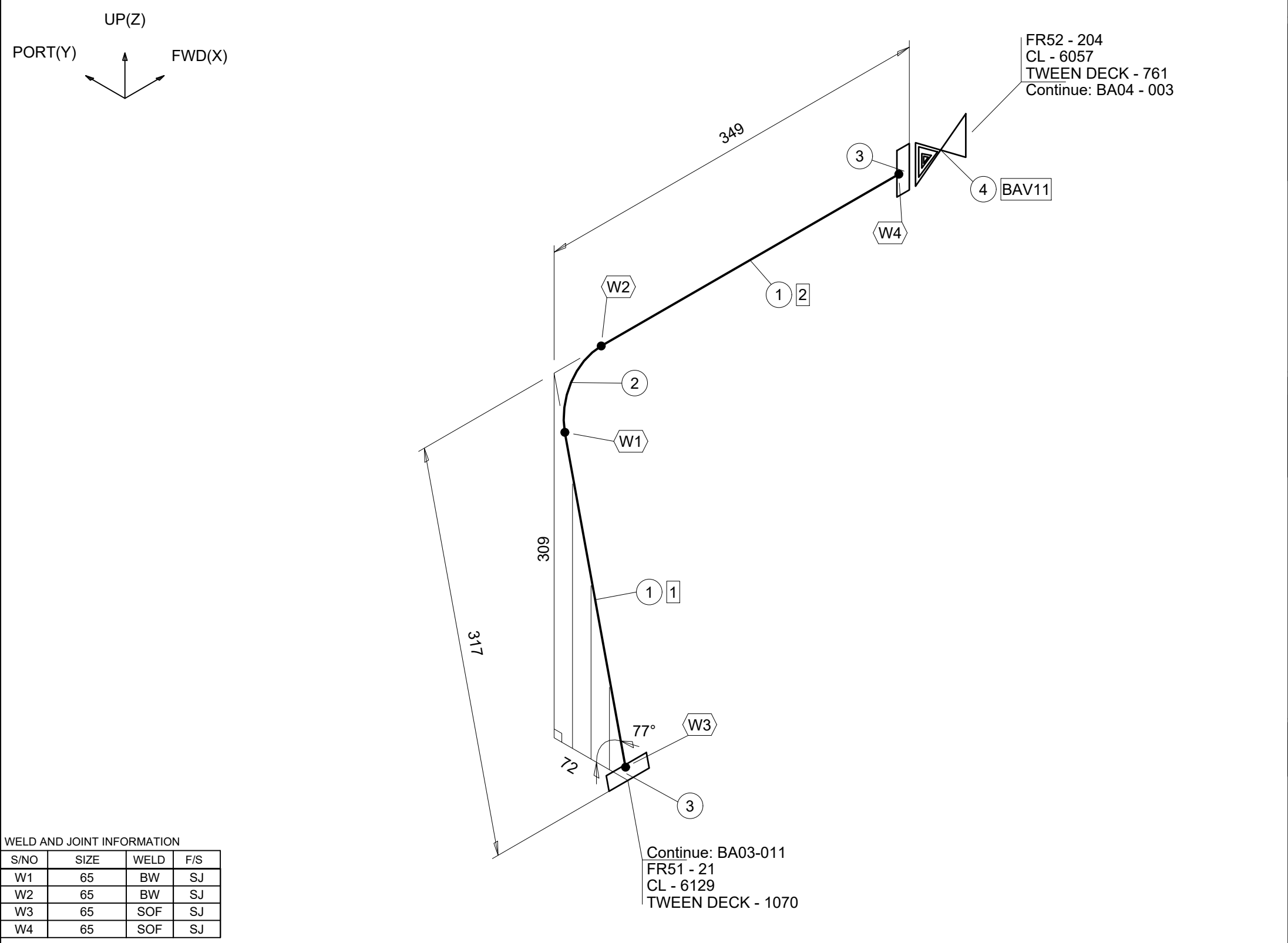
FABRICATION MATERIAL						
PART	QTY.	LENGTH (m)	DESCRIPTION	SIZE	MATERIAL	UNIT Wt. (kg)
1		0.13	Pipe Seamless, BW	65A Sch40	STPG370	9.12
2		0.13	Pipe Seamless, BW	32A Sch40	STPG370	3.47
3	2		Elbow SR, BW 90 deg	32A Sch40	PG 370	0.18
4	1		Reducer Concentric, BW	65Ax32ASch40	PG 370	0.63
5	1		Flange SOFF	65A JIS10K	SF 390A	2.60
6	1		Flange SORF	DN32 PN10	Carbon Steel	1.62
ERECTION MATERIAL						
PART	QTY.	DESCRIPTION		SIZE	MATERIAL	UNIT Wt. (kg)
7	1	Gasket, Ring Type, PN10, Thk 3mm		DN32	CNAF	
CUT INFORMATION						
CUT NO.	DESCRIPTION			SIZE	MATERIAL	CUT LENGTH (mm)
1	Pipe Seamless, BW			65A Sch40	STPG370	130
2	Pipe Seamless, BW			32A Sch40	STPG370	30
3	Pipe Seamless, BW			32A Sch40	STPG370	103
NOTES:						
1. ALL DIMENSIONS ARE IN MILLIMETERS						
2. CUT PIPE LENGTHS ARE CALCULATED FOR NOMINAL FITTING DIMENSIONS						
3. Y-CO-ORDINATE IS ' + ' ON PORT SIDE OF CENTER LINE, AND ' - ' ON STBD. SIDE.						
4. MATERIAL : CARBON STEEL HOT DIP GALVANIZED						
B	12/10/2024	ISSUED FOR CONSTRUCTION			SK	TT GC
A	20/09/2024	ISSUED FOR CONSTRUCTION			SK	TT GC
REV.	DATE	DESCRIPTION			DRAWN BY	CHKD BY APPRD
<div><div></div><div><div>Goltens</div><div>Singapore Pte Ltd.</div></div></div>						
Client: EMAS OFFSHORE LIMITED				BWTS Maker Name: BIO-SEA		
Location: -				IMO No.: 9354947		
Project No: P1482				Project Name: JP 88 STORK		
Drawing title:						
SPOOL-DRAWING FOR PIPE BA04						
Scale	Format	Sheet	Drawing No:			Revision No.
N.T.S	A3	34/40	BA04			B




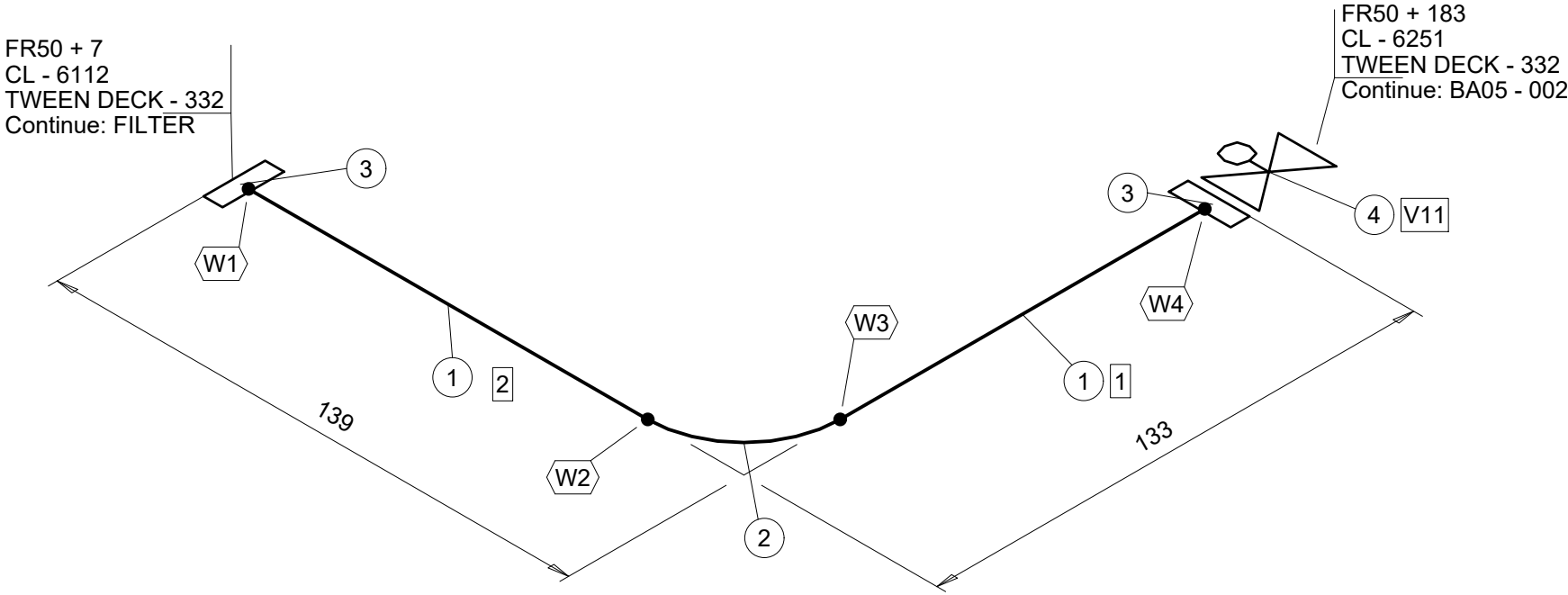
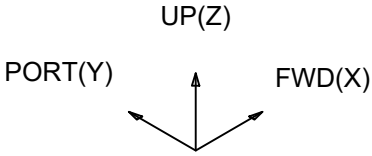
FABRICATION MATERIAL						
PART	QTY.	LENGTH (m)	DESCRIPTION	SIZE	MATERIAL	UNIT Wt. (kg)
1		0.65	Pipe Seamless, BW	65A Sch40	STPG370	9.12
2	1		Elbow SR, BW 90 deg	65A Sch40	PG 370	0.96
3	2		Flange SOFF	65A JIS10K	SF 390A	2.60



FABRICATION MATERIAL							
PART	QTY.	LENGTH (m)	DESCRIPTION	SIZE	MATERIAL	UNIT Wt. (kg)	
1		0.64	Pipe Seamless, BW	65A Sch40	STPG370	9.12	
2	1		Elbow SR, BW 90 deg	65A Sch40	PG 370	0.96	
3	1		Elbow SR, BW 45 deg	65A Sch40	PG 370	0.96	
4	2		Flange SOFF	65A JIS10K	SF 390A	2.60	
ERECTION MATERIAL							
PART	QTY.	DESCRIPTION		SIZE	MATERIAL	UNIT Wt. (kg)	
5	1	Gasket, JIS10K, Thk 3mm		65A	CNAF		
CUT INFORMATION							
CUT NO.	DESCRIPTION			SIZE	MATERIAL	CUT LENGTH (mm)	
1	Pipe Seamless, BW			65A Sch40	STPG370	173	
2	Pipe Seamless, BW			65A Sch40	STPG370	387	
3	Pipe Seamless, BW			65A Sch40	STPG370	86	
NOTES:							
1. ALL DIMENSIONS ARE IN MILLIMETERS							
2. CUT PIPE LENGTHS ARE CALCULATED FOR NOMINAL FITTING DIMENSIONS							
3. Y-CO-ORDINATE IS ' + ' ON PORT SIDE OF CENTER LINE, AND ' - ' ON STBD. SIDE.							
4. MATERIAL : CARBON STEEL HOT DIP GALVANIZED							
B	12/10/2024	ISSUED FOR CONSTRUCTION			SK	TT	GC
A	20/09/2024	ISSUED FOR CONSTRUCTION			SK	TT	GC
REV.	DATE	DESCRIPTION			DRAWN BY	CHKD BY	APPRD
<div><div><div><div></div><div></div><div></div></div><div><div>G</div><div>Goltens</div><div>Singapore Pte Ltd.</div></div></div></div>							
Client: EMAS OFFSHORE LIMITED				BWTS Maker Name: BIO-SEA			
Location: -				IMO No.: 9354947			
Project No: P1482				Project Name: JP 88 STORK			
Drawing title:							
SPOOL-DRAWING FOR PIPE BA04							
Scale	Format	Sheet	Drawing No:			Revision No.	
N.T.S	A3	36/40	BA04			B	



FABRICATION MATERIAL							
PART	QTY.	LENGTH (m)	DESCRIPTION	SIZE	MATERIAL	UNIT Wt. (kg)	
1		0.53	Pipe Seamless, BW	65A Sch40	STPG370	9.12	
2	1		Elbow SR, BW 90 deg	65A Sch40	PG 370	0.96	
3	2		Flange SOFF	65A JIS10K	SF 390A	2.60	
ERECTION MATERIAL							
PART	QTY.	DESCRIPTION		SIZE	MATERIAL	UNIT Wt. (kg)	
4	1	Dual Plate Check valve		65A		4.50	
CUT INFORMATION							
CUT NO.	DESCRIPTION			SIZE	MATERIAL	CUT LENGTH (mm)	
1	Pipe Seamless, BW			65A Sch40	STPG370	248	
2	Pipe Seamless, BW			65A Sch40	STPG370	280	
NOTES:							
1. ALL DIMENSIONS ARE IN MILLIMETERS							
2. CUT PIPE LENGTHS ARE CALCULATED FOR NOMINAL FITTING DIMENSIONS							
3. Y-CO-ORDINATE IS ' + ' ON PORT SIDE OF CENTER LINE, AND ' - ' ON STBD. SIDE.							
4. MATERIAL : CARBON STEEL HOT DIP GALVANIZED							
B	12/10/2024	ISSUED FOR CONSTRUCTION			SK	TT	GC
A	20/09/2024	ISSUED FOR CONSTRUCTION			SK	TT	GC
REV.	DATE	DESCRIPTION			DRAWN BY	CHKD BY	APPRD
<div><div></div><div><div>Goltens</div><div>Singapore Pte Ltd.</div></div></div>							
Client: EMAS OFFSHORE LIMITED				BWTS Maker Name: BIO-SEA			
Location: -				IMO No.: 9354947			
Project No: P1482				Project Name: JP 88 STORK			
Drawing title:							
SPOOL-DRAWING FOR PIPE BA04							
Scale	Format	Sheet	Drawing No:			Revision No.	
N.T.S	A3	37/40	BA04			B	



FABRICATION MATERIAL						
PART	QTY.	LENGTH (m)	DESCRIPTION	SIZE	MATERIAL	UNIT Wt. (kg)
1		0.15	Pipe Seamless, BW	50A Sch40	STPG370	5.44
2	1		Elbow SR, BW 90 deg	50A Sch40	PG 370	0.46
3	2		Flange SOFF	DN50 PN10	Carbon Steel	2.47

ERECTION MATERIAL					
PART	QTY.	DESCRIPTION	SIZE	MATERIAL	UNIT Wt. (kg)
4	1	Butterfly Valve Remote	DN50 PN10	-	1.20

CUT INFORMATION				
CUT NO.	DESCRIPTION	SIZE	MATERIAL	CUT LENGTH (mm)
1	Pipe Seamless, BW	50A Sch40	STPG370	72
2	Pipe Seamless, BW	50A Sch40	STPG370	79

NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETERS
2. CUT PIPE LENGTHS ARE CALCULATED FOR NOMINAL FITTING DIMENSIONS
3. Y-CO-ORDINATE IS ' + ' ON PORT SIDE OF CENTER LINE, AND ' - ' ON STBD. SIDE.
4. MATERIAL : CARBON STEEL HOT DIP GALVANIZED

B	12/10/2024	ISSUED FOR CONSTRUCTION	SK	TT	GC
A	20/09/2024	ISSUED FOR CONSTRUCTION	SK	TT	GC
REV.	DATE	DESCRIPTION	DRAWN BY	CHKD BY	APPRD







<div><div></div><div>Goltens</div><div>Singapore Pte Ltd.</div></div>					
Client: EMAS OFFSHORE LIMITED			BWTS Maker Name: BIO-SEA		
Location: -			IMO No.: 9354947		
Project No: P1482			Project Name: JP 88 STORK		

Drawing title: SPOOL-DRAWING FOR PIPE BA05					
Scale	Format	Sheet	Drawing No:		Revision No.
N.T.S	A3	38/40	BA05		B

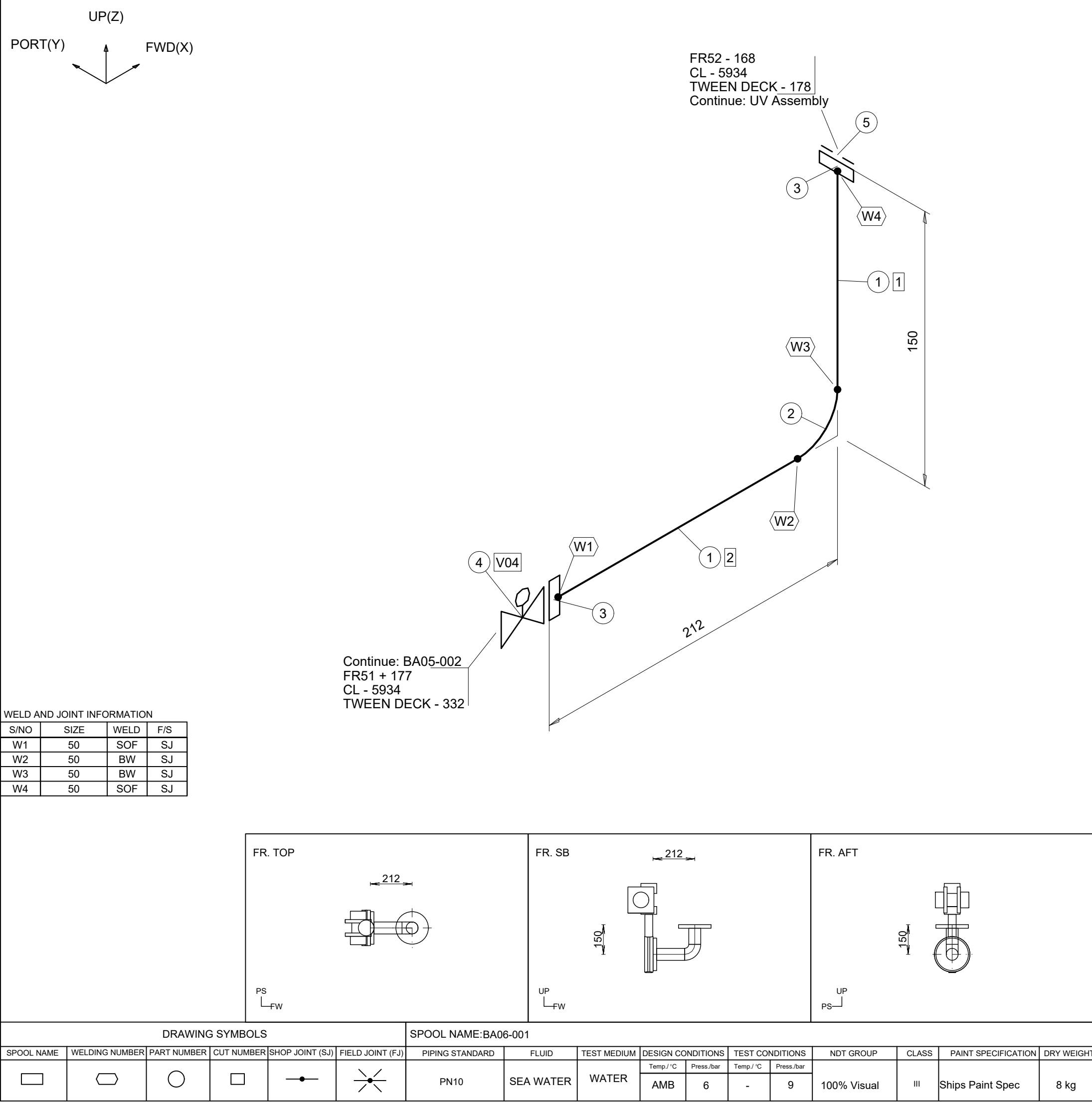
WELD AND JOINT INFORMATION

S/NO	SIZE	WELD	F/S
W1	50	SOF	SJ
W2	50	BW	SJ
W3	50	BW	SJ
W4	50	SOF	SJ

FR. TOP 		FR. SB 		FR. AFT 	
-------------	--	------------	--	-------------	--

DRAWING SYMBOLS						SPOOL NAME:BA05-001										
SPOOL NAME	WELDING NUMBER	PART NUMBER	CUT NUMBER	SHOP JOINT (SJ)	FIELD JOINT (FJ)	PIPING STANDARD	FLUID	TEST MEDIUM	DESIGN CONDITIONS		TEST CONDITIONS		NDT GROUP	CLASS	PAINT SPECIFICATION	DRY WEIGHT
						PN10	SEA WATER	WATER	Temp./ °C	Press./bar	Temp./ °C	Press./bar	100% Visual	III	Ships Paint Spec	8 kg
									AMB	6	-	9				

Drawing title:				
SPOOL-DRAWING FOR PIPE BA05				
Scale	Format	Sheet	Drawing No:	Revision No:
N.T.S	A3	39/40	BA05	B



REP	Ref_PMI	Spare_Part	Quantite	Description_(American-English)	Numero de Plan	Ref_Article	Ind.	Material_(USA)	Quality Control
1	PIP009911		1	Sampling_point_1P_DN25	S0789				
2	ACC008918		1	Ball_Valve_Manual_F/F_1"				Stainless steel 316L	
3	PIE603137		1		06_0325		A	--	

A00	DMD n°259 :Ajout plaque d'indication du sens du fluide	25/02/2021	Vitou_Patrick	PVitou
Ind.	Description	Date	Créé Par	Vérifié Par
N° de Plan / Drawing Number : S0788		Code PMI : ASM009912	C/C:	
Désignation : ASM SAMPLING PORT 1p		Désignation (GB/US) : SAMPLING PORT 1i ASSEMBLY		
Désignation (2):		Désignation (2) (GB/US) :		
Revision (Révis / Part): A	Revision (Plan/Drawing): A00	Matière :	Material :	
Echelle / Scale : 1:2	Date : 10/06/2014	Masse / Mass : 6.28	Créé Par / Creator : Vitou_Patrick	
850 avenue Louis Médard. 34400 Lunel. France Tél:04.99.133.911 / Fax:04.99.133.919		Format / Size : A2	Central Tolerances ISO 2768 - mK Tolérances générales ISO 2768 - mK	

Ce document contient des informations confidentielles de la société BIO-UV et ne peut être réutilisé sans l'autorisation écrite de la société BIO-UV. Toute réimpression ou utilisation non autorisée sans la permission écrite de la société BIO-UV est formellement interdite. This document contains proprietary information of BIO-UV corporation and is intended to be used in confidence. Any reproduction or use of this document without the written permission of BIO-UV corporation is strictly prohibited. This document is the property of BIO-UV corporation and is to be used in confidence. Any reproduction or use of this document without the written permission of BIO-UV corporation is strictly prohibited. Bio-uv produit et distribue des équipements de traitement de l'eau et de l'air. Les informations contenues dans ce document sont la propriété de BIO-UV et ne doivent pas être divulguées à des tiers sans la permission écrite de la société BIO-UV.

FABRICATION MATERIAL						
PART	QTY.	LENGTH (m)	DESCRIPTION	SIZE	MATERIAL	UNIT Wt. (kg)

ERECTION MATERIAL					
PART	QTY.	DESCRIPTION	SIZE	MATERIAL	UNIT Wt. (kg)

CUT INFORMATION				
CUT NO.	DESCRIPTION	SIZE	MATERIAL	CUT LENGTH (mm)

NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETERS

2. CUT PIPE LENGTHS ARE CALCULATED FOR NOMINAL FITTING DIMENSIONS

3. Y-CO-ORDINATE IS ' + ' ON PORT SIDE OF CENTER LINE, AND ' - ' ON STBD. SIDE.

4. MATERIAL : CARBON STEEL HOT DIP GALVANIZED

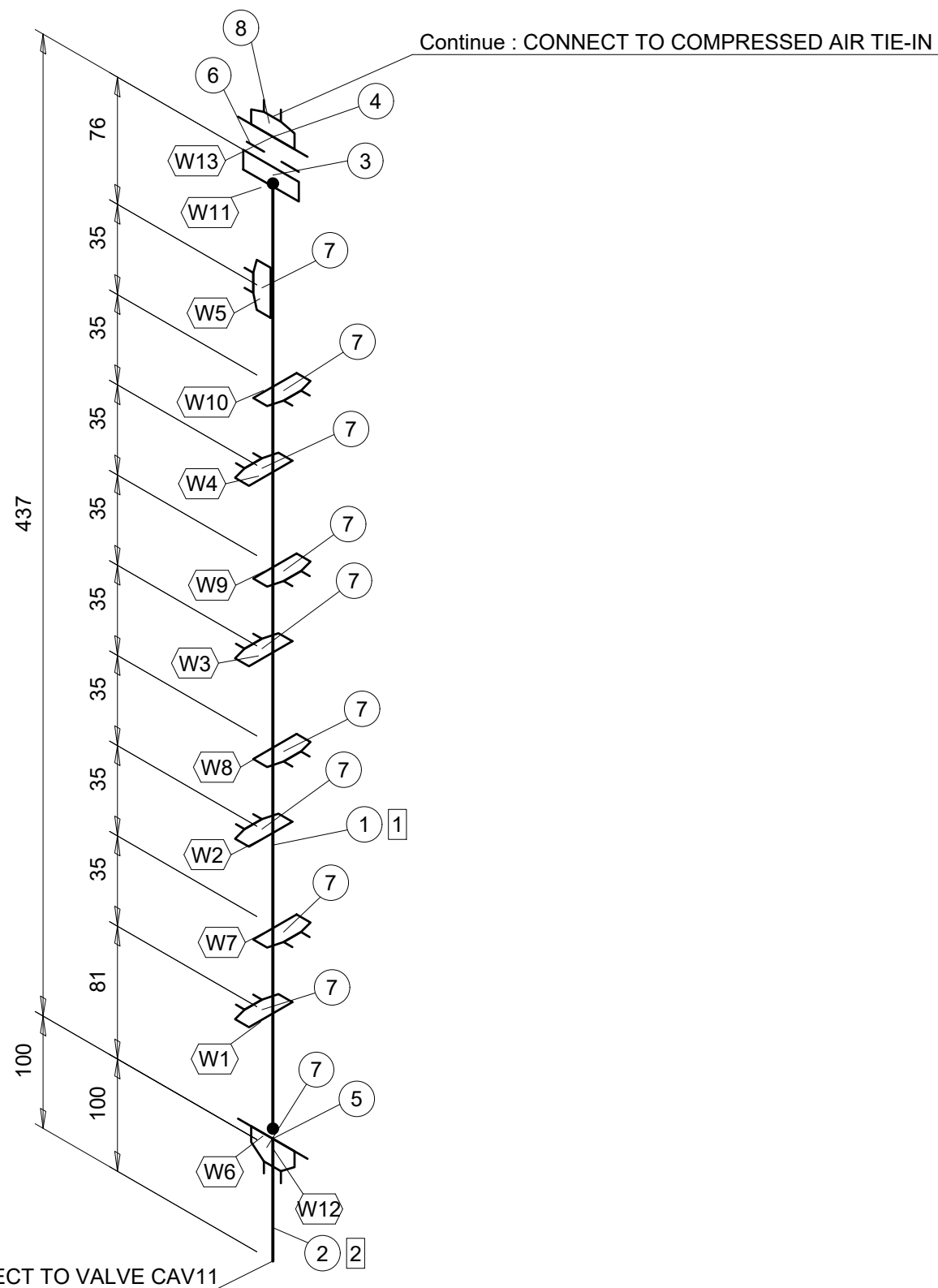
B	12/10/2024	ISSUED FOR CONSTRUCTION	SK	TT	GC
A	11/09/2024	ISSUED FOR CONSTRUCTION	SK	TT	GC
REV.	DATE	DESCRIPTION	DRAWN BY	CHKD BY	APPRD

Goltens
Singapore Pte Ltd.

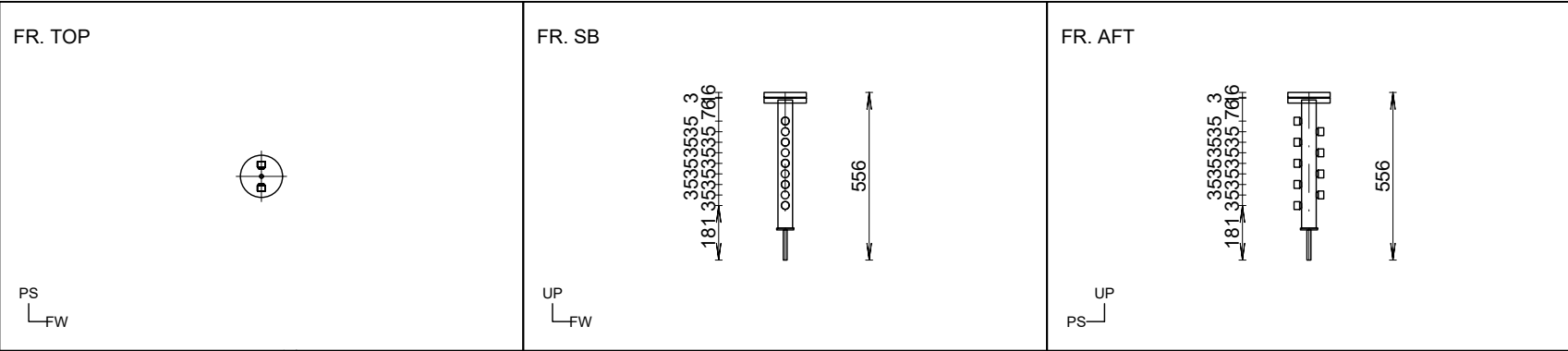
Client: EMAS OFFSHORE LIMITED		BWTS Maker Name: BIO-SEA			
Location: -		IMO No.: 9354947			
Project No: P1482		Project Name: JP 88 STORK			

Drawing title: SPOOL-DRAWING FOR PIPE SAMPLING PORT

Scale	Format	Sheet	Drawing No:		Revision No.
N.T.S	A3	40A/40	SAMPLING PORT		B



S/NO	SIZE	WELD	F/S
W1	10	FW	SJ
W2	10	FW	SJ
W3	10	FW	SJ
W4	10	FW	SJ
W5	10	FW	SJ
W6	40	FW	SJ
W7	10	FW	SJ
W8	10	FW	SJ
W9	10	FW	SJ
W10	10	FW	SJ
W11	40	SOF	SJ
W12	10	FW	SJ
W13	15	FW	SJ



FABRICATION MATERIAL						
PART	QTY.	LENGTH (m)	DESCRIPTION	SIZE	MATERIAL	UNIT Wt. (kg)
1		0.42	Pipe Seamless, BW	40A Sch40	STPG370	4.10
2		0.10	Pipe Seamless, BW	10A Sch40	STPG370	1.00
3	1		Flange SOFF	40A JIS10K	SF390A	1.56
4	1		Blind Flange,FF	40A JIS10K	SS 400	1.81
5	1		Blind plate	40A	SS 400	0.12
7	10		Threaded Boss	10 A	STEEL	0.10
8	1		Threaded Boss	15 A	STEEL	0.10


ERECTION MATERIAL					
PART	QTY.	DESCRIPTION	SIZE	MATERIAL	UNIT Wt. (kg)
6	1	Gasket, JIS10K, Thk 3mm	40A	CNAF	

CUT INFORMATION				
CUT NO.	DESCRIPTION	SIZE	MATERIAL	CUT LENGTH (mm)
1	Pipe Seamless, BW	40A Sch40	STPG370	425
2	Pipe Seamless, BW	10A Sch40	STPG370	100

NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETERS
2. CUT PIPE LENGTHS ARE CALCULATED FOR NOMINAL FITTING DIMENSIONS
3. Y-CO-ORDINATE IS '+' ON PORT SIDE OF CENTER LINE, AND '-' ON STBD. SIDE.
4. MATERIAL : CARBON STEEL HOT DIP GALVANIZED

B	12/10/2024	ISSUED FOR CONSTRUCTION	SK	TT	GC
REV.	DATE	DESCRIPTION	DRAWN BY	CHKD BY	APPRD

		<h1>Goltens</h1>	
<p>Singapore Pte Ltd.</p>			
<p>Client: EMAS OFFSHORE LIMITED</p>		<p>BWTS Maker Name: BIO-SEA</p>	
<p>Location: -</p>		<p>IMO No.: 9354947</p>	
<p>Project No: P1482</p>		<p>Project Name: JP 88 STORK</p>	
<p>Drawing title: SPOOL-DRAWING FOR PIPE CA01</p>			
Scale	Format	Sheet	<p>Drawing No: CA01</p>
N.T.S	A3	40B/40	<p>Revision No. B</p>